

Appendix 4.7-G

Comment/Response Tables

AJAX PROJECT

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



KGHM

INTERNATIONAL
AJAX PROJECT

**Public Comments and
Proponent Responses
on the Revised AIR/
EIS Guidelines for the
Proposed Ajax Project**

April 2015

INTRODUCTION

In November 2014, KGHM Ajax Mining Inc. (KAM) submitted to provincial and federal regulatory agencies a revised Application Information Requirements/ Environmental Impact Statement Guidelines (AIR/EISg) following extensive consultation with the Ajax Project Working Group.

The document was posted to the B.C. Environmental Assessment Office (BC EAO) Information Centre website on November 10, 2014. Both the BC EAO and the Canadian Environmental Assessment Agency (CEA Agency) published a notice informing that a Public Comment Period (PCP) would commence November 18, 2014, for the purpose of gathering input from Kamloops residents and the public about the proposed changes to the AIR/EISg. The public comment period ended December 22, 2014.

More than 695 thoughtful and compelling submissions were received from individuals comprising more than 959 comments across many aspects of the proposed Ajax Project.

Additionally, during the PCP, two open houses were held in Kamloops. Both events were well attended with approximately 800 people having participated. The open house sessions provided attendees information about the proposed changes to the AIR/EISg and the opportunity to speak with technical experts about specific aspects or components of the project. As well, officials with both the BC EAO and CEA Agency offered informational workshops about the environmental assessment process.

This document is a high-level summary of the submissions and comments, as well as KAM's responses. All of the submissions were thoroughly reviewed and considered by KAM. A full report extensively detailing submissions and responses has been submitted to the BC EAO and CEA Agency along with this summary.

KAM thanks all those who took the opportunity to provide meaningful input about the proposed changes to the Ajax Project AIR/EISg. This comment period offered much useful input and information to KAM as the company works to finalize its AIR/EISg for the Ajax Project. Public participation is a cornerstone of the environmental assessment process and KAM remains strongly committed to continued public engagement on the Ajax project throughout, and beyond, the environmental assessment process.

REVISIONS TO THE AIR/EIS GUIDELINES PRIOR TO PUBLIC COMMENT PERIOD

Consultation with the Ajax Project Working Group before the PCP led to the following changes to the AIR/EISg, which were presented to the public through the BC EAO Information Centre and at the PCP open houses:

- The Preface, Section 2, and Section 3 were updated to reflect the revised Project layout and proposed operations.

- A new Human Health Valued Component (VC) was added to Section 10.4 to better represent the comprehensive approach being undertaken for the human health risk assessment.
- Minor clarifications were made to Sections 6 through 10 to reflect the Project layout and ensure VC study area boundaries properly align with the location of Project facilities. References to legislation and guidance documents were updated where appropriate.
- Maps were updated to include revisions to the Project layout and to the preliminary Regional Study Area (RSA) and Local Study Area (LSA) for VCs.
- Section 17.6 was updated to better define analysis method requirements, particularly as they relate to the identification and analysis of potential risks associated with Tailings Storage Facility (TSF) failure.

OVERVIEW OF PUBLIC COMMENTS / KAM RESPONSES

Generally, comments from the public in the PCP submissions were sorted into one of three broad groups depending on the nature of the issue, concern or opinion expressed. There was a wide variety of comments in the PCP submissions touching on many aspects of the Ajax Project.

The first grouping comprised comments specifically related to the AIR/EISg, the second grouping included comments about KAM, the Ajax Project and the EA process, while the third encompassed comments that were relevant to specific Valued Components (VCs) in the AIR/EISg. (VCs are aspects of the environment considered important by the Proponent, the public, First Nations and government agencies involved in the EA process.)

The groupings are discussed below.

AIR/EISg RELATED COMMENTS — Sixty-eight public submissions from the PCP were identified that contained comments specific to the revised AIR/EISg. It was noted by KAM that these comments reinforced and supported the changes to AIR/EISg proposed by the Working Group. As a result of both the Working Group and public comments, the AIR/EIS Guidelines has been revised by KAM to ensure that all relevant concerns will be addressed in the Application/EIS.

Representative Comments	Summary of KAM Responses
Concerns raised that the residents of Knutsford were not given sufficient consideration with regard to the location of the Project. Specific concerns focused on the proximity of the East Mine Storage Facility (EMSF) and other facilities to Knutsford.	The location of the Project has been clarified relative to Kamloops, Aberdeen, and Knutsford (Preface, Section 2.2.2). The Application/EIS will detail efforts made by KAM to consult and inform the public and stakeholders, including Knutsford residents
Concerns raised about tailings ponds and potential for environmental spillage and downslope impacts.	These issues will be covered in the updated Accidents and Malfunctions Section 17.6

Request for clear definition of mitigation and to what extent adverse effects will be mitigated for. How will government regulate mitigation?	Mitigation measures will be implemented using a hierarchy of controls (e.g., avoidance, mitigation, restoration, compensation/offsets) (Section 5.1.4) Mitigation measures are often informed by management and operational plans, many of which are approved by government.
Concerns about lack of input to the Community Health and Well-being VC from the Interior Health Authority Public Health Officer or from the Kamloops Physicians for a Healthy Environment.	The list of stakeholder groups contributing to the rationale for VC identification has been updated to include the Aberdeen Heights Development Corp, Interior Health Authority, and SSN. Interior Health is represented on the Project Working Group.
Concerns about the loss of Goose Lake Road and its associated transport and recreation features.	Goose Lake Road will be included in the Environmental Assessment (Access and Site Roads - Section 3.16 and Potential Effects of the Project and Proposed Mitigation - Section 8.6.4)

PROJECT-RELATED COMMENTS — Another significant category of comments from the public in the PCP focussed on issues, concerns and opinions about the Ajax Project design, the proximity of proposed mine infrastructure to the City of Kamloops, KAM as a company or the EA process. While these comments did not bear specific relevance to the AIR/EISg or proposed revisions to the document, KAM remains interested in the public's perspective and have noted the following key comments and topics.

Representative Comments	Summary of KAM Responses
Concerns about the proximity of the proposed Ajax Project to the City of Kamloops, residences and neighbourhoods.	KAM's new GA made many substantial changes to the mine plan to move infrastructure farther away, including mine rock storage facilities, the processing plant, primary crusher and TSF
Concerns raised about reclamation, closure and long-term management of potential tailings ponds and potential for environmental spillage and downslope impacts.	The Application/EIS will include a Reclamation and Closure Plan. The Project will be designed with closure in mind. Progressive reclamation will continue throughout the life of the Project. Security/Reclamation bonds will be put in place in accordance with the Ministry of Energy and Mines requirements, and reclamation will continue until requirements are met. Reclamation, water quality and other relevant monitoring will continue until results meet regulatory requirements and further monitoring is no longer necessary

Comments regarding the applicability of the Mineral Tenures Act to current circumstances	KAM's process to evaluate the potential Ajax Project is informed by best practices. Aspects of the process are guided by established legislation and informed by policy and guidelines.
Concerns raised about Project component failures, including the TSF, and mine rock storage facilities and their potential to affect the City of Kamloops, Jacko Lake, mine workers and other infrastructure	KAM will include a dam break and inundation study in the Application/EIS. Monitoring and maintenance of the TSF and other Project facilities will meet or exceed Ministry of Energy and Mines requirements. In addition, security and reclamation bonds will be put in place in accordance with provincial requirements
Concerns about KAM's ability to prepare for and respond to accidents and malfunctions.	The Application/EIS will include an Accidents and Malfunctions Plan and an Emergency Response Plan that will describe preparation for and proposed responses to a range of potential events, including a TSF embankment failure.
Concerns about the adequacy of the federal and provincial EA processes	The federal and provincial environmental assessment processes are given authority by the federal and provincial legislature and the CEAA, 2012 and the BCEAA, 2002, respectively. While the adequacy of these processes is beyond the scope of the AIR/EIS Guidelines, KAM is required to comply with the federal and provincial environmental assessment processes.
Concerns about the complexity of the Application/EIS and the ability of the public to review and understand	KAM is committed to consultation and communication with First Nations and the general public to aid understanding, and will use a variety of consultation methods and communications tools to help people learn about the AIR/EIS.
Concerns about the objectivity and credibility of KAM's consultants	KAM has retained qualified, experienced, and accredited specialists to complete modelling, effects assessments, and other aspects of the Application/EIS. Many of these specialists are bound by commitments they have made to their professional affiliations to complete their roles in an unbiased and ethical manner.

COMMENTS RELATED TO SPECIFIC VCs — The majority of comments in the PCP submissions, while not specifically relevant to the proposed revisions to the AIR/

EISg, could be linked to specific VCs in the AIR/EISg. For the Ajax Project, VCs are considered in five Assessment Categories (also referred to as pillars by the BC EAO).

Environment	Economic	Social	Heritage	Health
- Green-house Gas Management	-Economic Growth	-Community Health and Well-being	-Heritage Objects	-Air Quality
-Geology, Landforms and Soils	Labour Force, Employment and Training	-Infrastructure, Public Facilities and Services	-Heritage Sites	Domestic Water Quality
-Surface water quality	-Income	-Dark Sky		-Country Foods
-Surface water quantity	-Business	-Visual Impact/ Aesthetic Features (including Shading)		-Human Health
-Groundwater quality	-Property Values	-Land and Resource Use		Noise and Vibration
-Groundwater quantity	-Economic Diversification	-Outdoor Recreation		-Healthy Living and Health Education
-Fish populations and fish habitat				
-Rare plants				
-Rare and Sensitive Ecological Communities				
-Grasslands				
-Terrestrial Invertebrates				
-Amphibians				
-Reptiles				
-Migratory Birds				
-Raptors				
-Non-migratory Gamebirds				
-Mammals				

Within the PCP's 695 submissions, six VCs received the majority of the 959 comments. KAM's responses to VC-related comments are summarized by Assessment Category in the subsections below.

VC	Assessment Category	Number of Comments
Air Quality	Health	225
Human Health	Health	60
Noise and Vibration	Health	54
Labour Force, Employment and Training	Economic	119
Economic Diversification	Economic	104

Community Health and Well-Being	Social	52
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HEALTH VCS / ASSESSMENT CATEGORY

Clearly, health issues are top-of-mind for Kamloops residents with many concerns expressed for potential impacts of the Ajax Project on people. The close proximity of the mine to the City of Kamloops is a shared concern and is not something KAM takes lightly. The public commented at length on the importance and need for good quality air, water, and foods. Many also expressed a desire to maintain their health and healthy lifestyles and to live in quiet settings.

There were concerns in the PCP comments about the mine negatively contributing to local air quality, while noting that Kamloops can have periods of bad air quality, with the pulp mill, mining and other industry contributing to the problems. The proposed proximity of the Ajax Project and the potential effects on air quality were raised repeatedly. Air quality concerns included dust, emissions, metals and other contaminants.

Comments were also made about the need for more comprehensive health studies and the need to consider health implications and potential costs. Some in the community have asked that a Health Impact Assessment (HIA) be completed, arguing an HIA is needed to assess all aspects of health concerns as they relate to the Ajax Project.

Others expressed worry that potential effects from the Ajax Project could lead to poorer health or even early mortality for vulnerable populations in the community, including the elderly, pregnant women, young children or people with asthma or other breathing difficulties. Those who commented about Noise and Vibration highlighted the need for proper monitoring, modelling, mitigation and management.

KAM responded to comments about health concerns in the following way:

- The Application/EIS will contain a Human Health Ecological Risk Assessment (HHERA), which will describe potentially adverse effects on human health. This assessment will include a Human Health Risk Assessment, which incorporates potential effects on air quality (including metals and particulates), water quality, and country foods. Sensitive receptors, which include groups considered particularly sensitive to environmental changes, will be considered in the analysis.
- The HHERA, in combination with other VCs, provides an extremely comprehensive analysis of all relevant factors related to human health and the potential effects of the Ajax Project.
- KAM's air quality modelling will consider atmospheric and baseline conditions, prevailing winds and physical proximity to the City of Kamloops.
- KAM has reconfigured the GA and will implement further measures to address dust-related soil contamination concerns.
- Dust will be minimized by designing a detailed blast plan and adaptive management plan to minimize blast size, paving the main access road, employing best-available dust suppressant technologies, including

watering and organic binding agents, vacuum collection systems, and covered structures.

- Emissions will be minimized by reducing haul distances and optimizing truck fleet composition as a result of condensed footprint.
- Project facilities are being moved farther away resulting in less expected noise and vibration.

ENVIRONMENTAL VCS / ASSESSMENT CATEGORY

KAM recognizes and appreciates that residents and tourists are concerned for the future of local grasslands, lakes, and rivers, particularly those in an around the proposed Ajax Project site.

Public comments show that many people value the scenery to be found in the local ranges, forests and grasslands and spend time there hunting, fishing and participating in other recreational activities. Jacko Lake figures prominently in relation to fishing and wildlife viewing. Peterson Creek and Peterson Creek Park also provide important recreational opportunities, including hiking and biking.

People commented in the PCP that they live in Kamloops or moved to Kamloops to have greater access to the outdoors and outdoor experiences. Comments often related to the potential for lost or compromised recreational opportunities, primarily those associated with Jacko Lake, Inks Lake, Goose Lake, and Goose Lake road.

The following generally indicates how KAM responded to PCP comments related to the Environmental Assessment Category and its component VCs:

- An assessment of potential effects on grasslands, lakes, rivers, mammals, birds and reptiles, fish and fish habitat and amphibians will be included in the Application/EIS. Many of these areas interrelate with other VCs. The interrelationships will also be discussed. Potential adverse effects on land and resource use and outdoor recreation activities associated with these issues will be assessed.
- Permanent destruction of grasslands will be avoided where possible. Re-establishment of grasslands during progressive reclamation may be proposed as mitigation.
- Security/reclamation bonds will be put in place in accordance with provincial requirements.

Should the Ajax Project be approved and proceed, a variety of management and mitigation plans will be implemented to avoid or minimize adverse effects on grasslands, including:

- Wildlife/Vegetation Monitoring Plan
- Air Quality Monitoring and Dust Control Plan
- Transportation/Access Management Plan
- Surface Water Management/Monitoring Plan.

As well, in regard to the impact of proposed mine activities on recreational pursuits, KAM indicated:

- Potential effects on outdoor recreation will be assessed and described in the Application/EIS.

- Access to Jacko Lake will be maintained during operation. However, use of Jacko Lake and surrounding land will be restricted during blasting for public safety. Public notification of proposed blasts will be provided.

ECONOMIC VCS / ASSESSMENT CATEGORY

Comments related to economic VCs touched on a spectrum of perspectives ranging from philosophical arguments for and against resource industries to the long history in the area of mining and how the sector has contributed to the economy. There were concerns voiced about the legacy of mining, as exemplified by problems encountered with historic mines in other jurisdictions.

This thematic area, however, also generated many comments from people who support mining and the Ajax Project specifically. The contribution of mining to the economy, tax base and employment and the need for good-paying long-term jobs in this community were raised by both retired people and those still working.

The following describes KAM's general responses to the PCP's economic themes and comments:

- Potential effects on economic diversification will be assessed and described in the Application/EIS, which will include a description of the relative contribution of notable sectors to the Kamloops area economy.
- Assessment will include estimates of contributions to GDP and government tax revenue (federal, provincial, and municipal).
- Economic effects of the Project will be assessed using realistic estimates of expenditures and taxes.

SOCIAL VCS / ASSESSMENT CATEGORY

Comments received in the PCP relevant to this category voiced concerns about a range of issues including the reputation of Kamloops and the cyclical nature of industries involved in commodity production.

KAM responded by noting that potential effects on community health and well-being would be addressed, and that a social effects monitoring program would be considered based on the outcomes of the social effects assessment.

Concerns were raised about the potential impacts to traffic and traffic movement, and potential infrastructure costs. KAM indicated it is undertaking a comprehensive traffic impact assessment as part of its Application/EIS submission. KAM will follow guidelines with respect to infrastructure built and operated to support the Project.

Lastly, a concern was raised about the lack of reference to effects on human rights in the AIR/EISg. Respectfully, KAM responded by outlining that assessing potential Project effects on human rights is not a part of the environmental assessment process.

HERITAGE VCS / ASSESSMENT CATEGORY

Heritage VC concerns raised in the PCP focussed on investigating, avoiding, or

mitigating adverse effects on the site of the historic St. Peter's Church site, which was located on Goose Lake Road in the early part of the 20th century.

KAM indicated that it has consulted with the Anglican Church of Canada, the Ministry of Forests, Lands and Natural Resource Operations, and the B.C. Heritage Branch with regards to the historic church. As well, the Application/EIS will include an Archaeological Sites Management Plan, including a Chance Find Procedure. KAM will implement measures that will address heritage-related concerns that address all phases of the project, from construction through closure.

CONCLUSION

Environmental assessments are processes that rely on input from varied sources, from Proponents to regulatory agencies to specialized experts with expertise in key areas. The public are key partners as well, bringing perspectives, concerns, issues and opinions to the forefront that cannot be replaced and must not be ignored.

This Public Commenting Period was not the first pertinent to the proposed Ajax Project, nor will it be the last. It proved uncommonly useful, however, in demonstrating that those in Kamloops with an interest in the Ajax Project are increasingly well informed, a fact demonstrated by the breadth and depth of comments.

The revisions suggested by many to the AIR/EISg will allow KAM to better prepare its application for review, while the issues highlighted and raised will help KAM better understand and address community concerns moving forward.

KAM is committed to meaningful consultation with the residents of Kamloops about the Ajax Project. Engagement, however, is often a two-way street, and meaningful partnerships cannot be built if only one party in a relationship expresses interest. The public's response to this PCP demonstrates that all parties in Kamloops are interested in this community's best interests, in both the short and long term.

Once again, KAM would like to thank those who participated in this Public Commenting Period.



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AJAX PROJECT

**Summary of Public Comments and
Proponent Responses on the Revised
AIR/EIS Guidelines for the Proposed
Ajax Project – April 2015**

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Acronyms

AIR	Application Information Requirements
ANSI	American National Standards Institute
Application	Application for an Environmental Assessment Certificate
BC	British Columbia
BCEAA	BC Environmental Assessment Act
BC EAO	BC Environmental Assessment Office
BC MOE	BC Ministry of Environment
BMP	Best Management Practice
CEAA	Canadian Environmental Assessment Act
CEA Agency	Canadian Environmental Assessment Agency
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
EMRSF	East Mine Rock Storage Facility
EIS	Environmental Impact Statement
EIS Guidelines	Environmental Impact Statement Guidelines
EMS	Environmental Management System
ePIC	BC EAO Electronic Project Information Centre
GA	General Arrangement
HHERA	Human Health and Ecological Risk Assessment
ISO	International Organization for Standardization
KAM; the Proponent	KGHM Ajax Mining Inc.
KPHE	Kamloops Physicians for a Healthy Environment
LSA	Local Study Area
NRC	Natural Resources Canada
NMRSF	North Mine Rock Storage Facility
the Project	Ajax Project
RSA	Regional Study Area
TNRD	Thompson Nicola Regional District
tpd	tonnes per day
TSF	Tailings Storage Facility
VCs	Valued Components
WHO	World Health Organization

1. Introduction

In British Columbia (BC), proposed major projects are required to obtain an Environmental Assessment (EA) Certificate in accordance with the BC *Environmental Assessment Act* (BCEAA, 2002). KGHM Ajax Mining Inc. (KAM; the Proponent) plans to submit an Application for an Environmental Assessment Certificate (Application) to the BC Environmental Assessment Office (BC EAO). The Application must comply with the information requirements set out in the Application Information Requirements (AIR) formally approved and issued by BC EAO.

The *Canadian Environmental Assessment Act, 2012* (CEAA, 2012) came into force on July 6, 2012. Since the Ajax Project (the Project) was already underway when the new legislation was implemented, it is subject to the transition provisions set out in *CEAA, 2012*. As the Project is a comprehensive study that commenced since July 2010, it will continue to be assessed under the former Canadian Environmental Assessment Act (former CEAA) as if the former CEAA had not been repealed. The Canadian Environmental Assessment Agency (CEA Agency) has determined the Project is subject to federal review as it is anticipated to require an authorization from Fisheries and Oceans Canada (DFO) and a license from Natural Resources Canada (NRCan). The Project is subject to a comprehensive study EA under the *Comprehensive Study List Regulations* of the former CEAA because:

- It is a proposed metal mine, other than a gold mine, with an ore production capacity of 3,000 tonnes per day (tpd) or more;
- It is a proposed gold mine that exceeds the ore production capacity threshold of 600 tpd; and
- It proposes construction of a metal mill that is anticipated to exceed the ore input capacity threshold of 4,000 tpd.

The original description of the information needed to complete the federal Environmental Impact Statement (EIS) was submitted to the CEA Agency for approval. The proposed federal studies are described in the EIS Guidelines. The provincial AIR and the federal EIS Guidelines were combined, consistent with a co-operative federal-provincial EA process, and are referred to as the AIR/EIS Guidelines.

KAM prepared two versions of the AIR/EIS Guidelines. The first version was subject to extensive federal and provincial regulator, Aboriginal groups, and public reviews from January 11 to March 12, 2012. Following this review, the CEA Agency and BC EAO issued the *original* AIR/EIS Guidelines to KAM on June 4, 2013.

Following approval of the AIR/EIS Guidelines, KAM continued to consult and receive comments from public and regulatory stakeholders. Through this process, KAM identified concerns regarding the Project, including its proximity to neighbourhoods and public infrastructure of the City of Kamloops, BC. Based on this input and review of options, KAM decided to investigate a new general arrangement (GA) that avoided, mitigated, or accommodated a number of the concerns raised.

On May 29, 2014, KAM announced it was changing the Project's GA. The new GA focuses on adjusting the Project site plan and moving the proposed facilities farther away from the City of Kamloops. These changes were driven by a number of factors, including public concerns about water quality, visual, noise and vibration, dust, human health, and air-quality-related effects. Addressing proximity-related issues may also reduce concerns about potential effects on Kamloops' image as the tournament capital and a healthy place to live. The new GA includes the following physical and operational changes:

- relocating the Tailings Storage Facility (TSF) over 5 kilometres (km) southeast away from key provincial transportation infrastructure and further from communities;
- relocating the TSF out of the Alkali Creek watershed (including Cherry Creek);
- re-designing the TSF from a dry stack (potential dust generation) to a conventional wet design storage facility that uses proven mining technology and allows the recapture and recirculation of water;

- relocating the North Mine Rock Storage Facility (NMRSF) and Temporary Ore Stockpiles, the two closest site structures to Kamloops, 3.5 km southeast from their previous locations to reduce potential visual disturbances and move potential sources of dust (including TSF) significantly further away from communities;
- re-designing the Project to avoid effects to Inks Lake, which was initially proposed to be converted into a TSF seepage pond. Given the area is used by waterfowl, other wildlife, and recreationalists, it will now be avoided; and
- developing a robust Environmental Management System (EMS). This will include planning and management approaches focused on the protection of aquatic and terrestrial Valued Components (VCs) and will ensure compliance with applicable regulatory requirements.

To reflect the new GA, KAM revised and proposed changes to the AIR/EIS Guidelines. These changes were reviewed by the BC EAO Working Group (which includes Federal Stakeholders and receives coordination and direction from CEAA) and were modified as a result of feedback from the Working Group.

In early November 2014, KAM submitted the revised AIR/EIS Guidelines to the CEA Agency and the BC EAO. The CEA Agency and the BC EAO issued notice for a 30-day public comment period for the revised AIR/EIS Guidelines starting on November 18, 2014. The original and revised AIR/EIS Guidelines documents are available electronically on the BC EAO Electronic Project Information Centre (ePIC) website (BC EAO, 2014). The original and revised EIS Guidelines, as well as a summary of the revisions to the EIS Guidelines are available on the CEA Agency website (CEA Agency, 2014).

Due to a technical issue with the BC EAO website, the comment period was extended from December 18, 2014, to December 22, 2014, as announced by the BC EAO on its website. Formal newspaper announcements were issued in Kamloops newspapers. A BC EAO Community Advisory Group meeting was held to discuss the revised AIR/EIS Guidelines.

During the public comment period BC EAO and CEA Agency hosted two public information sessions, which KAM participated in. The information sessions were held:

- to share information and receive feedback on the revisions to the AIR/EIS Guidelines;
- to share information and receive feedback on the proposed revisions to the Project; and
- to provide access to information outlining how Project studies were adapted, and often expanded, to ensure comprehensive assessment of the re-designed Project.

The public information sessions took place on November 25, 2014, and November 26, 2014, at the Coast Convention Centre in Kamloops. The CEA Agency and BC EAO also delivered six Environmental Assessment 101 information sessions in conjunction with these information sessions. These sessions provided the public an opportunity to learn about the federal and provincial regulatory processes through a presentation and conversations with the CEA Agency and BC EAO representatives.

This Summary provides an overview of the comments received from the public regarding the revised AIR/EIS Guidelines during the public comment period. These comments and how they have been responded to by KAM are discussed in four sections:

1. Working Group comments and revisions to the AIR/EIS Guidelines to address them;
2. Public comments and revisions to the AIR/EIS Guidelines to address them;
3. Public Comments not assigned to a Valued Component, but relevant to the Project Design, Proponent or Process and KAM's responses; and,
4. Public Comments related to a Valued Component and KAM's responses.

An Executive Summary, Public Comments and Proponent Responses on the Revised AIR/EIS Guidelines for the Proposed Ajax Project is also available.

2. Working Group revisions to the AIR/EIS Guidelines

Through ongoing meetings and interaction between KAM and the BC EAO Working Group, revisions were suggested to the AIR/EISg to reflect the Proponent's adjustments to the Ajax Project GA. Five main changes were made to the AIR/EIS Guidelines prior to the Public Commentary Period:

- The Preface, Section 2, and Section 3 were updated to reflect the revised Project layout and proposed operations.
- A new Human Health VC was added to Section 10.4 to better represent the approach to be taken for the Human Health and Ecological Risk Assessment (HHERA).
- Minor clarifications were made to Sections 6 through 10 to reflect the Project layout and ensure VC study area boundaries properly align with the location of Project facilities. References to legislation and guidance documents were updated where appropriate.
- Maps were updated to include revisions to the Project layout and to the preliminary Regional Study Areas (RSA) and Local Study Areas (LSA) for VCs.
- Section 17.6 was updated to better define analysis method requirements, particularly as they relate to the identification and analysis of potential risks associated with TSF failure.

3. Overview of Public Comments / KAM Responses specific to Revised AIR/EIS Guidelines

Sixty-eight submissions were received during the Public Comment Period that were deemed to be specific to the revised AIR/EIS Guidelines. KAM considered these comments as essential to be considered as the AIR/EIS Guidelines were finalized. The comments generally aligned with the following concerns, and supported revisions suggested by the Working Group:

- potential for residual and cumulative effects relating to air and water quality and quantity, and fish habitat;
- concerns about consideration of meteorological conditions in the effects assessments and the location of meteorological station;
- concerns about the adequacy of the vibration and overpressure study description;
- completeness or adequacy of the AIR/EIS Guidelines and study and modelling suggestions;
- concerns about the sufficiency of the AIR/EIS Guidelines review process;
- risks associated with accidents and malfunctions, and concerns about KAM and regulatory accountability, and responsibility;
- assessment process objectivity and transparency;
- reclamation objectives and adequacy;
- Project design;
- concerns about whether public consultation for the EA is adequate and representative; and
- whether VC-related topics such as the following have been adequately studied and assessed in the EA:
 - greenhouse gas emissions;
 - water quality;

- dark sky;
- socio-economic topics;
- terrestrial and aquatic invertebrates; and
- commercial and urban agriculture.

KAM reviewed each submission, identified comments, and provided a response. The submissions and responses were reviewed by the CEA Agency and BC EAO before this document was finalized.

Some AIR/EIS Guidelines-specific submissions included more than one comment. Some of the comments spoke to, for example, the adequacy of the regulatory process or the role or authority of the federal or provincial governments to make a decision about the Project. These comments are not specific to the Project nor to the revised AIR/EIS Guidelines and will be addressed by the regulators.

Based on the comments noted in the sixty-eight AIR/EIS-specific submissions received during the public comment period, the November 2014 Ajax Project AIR/EIS Guidelines were revised to ensure that relevant concerns are addressed in the Application/EIS.

Overall, the comments received have served to reiterate the concerns that KAM has heard from the public through engagement efforts to date. In particular concerns focussed on how the project may affect topics that are important to Kamloops residents, including such as air quality, agricultural practices, Jacko Lake, human health, in particular children and vulnerable populations, and risks and potential effects on the environment Kamloops residents and businesses from accidents and malfunctions. KAM appreciates these comments and seriously considers the comments and the sentiments they convey. While the KAM team is working to write and compile the Application/EIS these comments are taken into consideration.

With respect to the specific language of the AIR/EIS Guidelines, the wording has been thoroughly reviewed on previous occasions, and as such, relatively minor updates have been made to clarify/improve language or process. On the basis of comments received during the public comment period and on additional comments that were received from working group members, **Table 3-1** provides a list of public comments and KAM's responses specific to the AIR/EISg. KAM's response describes changes that were made to the AIR/EIS Guidelines.

Table 3-1: AIR/EIS Guidelines-specific Public Comments and KAM Responses

Representative Comments	Summary of KAM Responses
Concerns raised that the residents of Knutsford were not given sufficient consideration with regard to the location of the Project. Specific concerns focused on the proximity of the East Mine Rock Storage Facility (EMRSF) and other facilities to Knutsford.	The location of the Project has been clarified relative to Kamloops, Aberdeen, and Knutsford (Preface, Section 2.2.2). Section 4.4 of the Application/EIS will detail efforts made by KAM to consult and inform the public and stakeholders, including Knutsford residents.
Concerns raised about tailings ponds and potential for environmental spillage and downslope impacts.	These issues will be covered in the Application/EIS in Accidents and Malfunctions (Section 17.6) In addition to the TSF embankments, mine rock storage facilities will be placed downstream of the embankments to buttress and provide further reinforcement.
Request for clear definition of mitigation and to what extent adverse effects will be mitigated for. How will government regulate mitigation?	Mitigation measures will be implemented using a hierarchy of controls (e.g., avoidance, mitigation, restoration, compensation/offsets) (Section 5.1.4).

	<p>Mitigation measures are often informed by management and operational plans, many of which are approved by government.</p> <p>Based on environmental assessment outcomes, mitigation measures can become commitments that make up part of a potential future EA Certificate.</p>
Concerns about lack of input or consideration of input into the Community Health and Well-being VC by knowledgeable parties such as the Interior Health Authority, Public Health Officer or from the KPHE.	<p>The list of stakeholder groups contributing to the rationale for VC identification has been updated to include the Aberdeen Heights Development Corp, Interior Health Authority, and SSN.</p> <p>Interior Health is represented on the BC EAO Working Group. KPHE has been granted membership in the Community Advisory Group.</p>
Concerns about the loss of Goose Lake Road and its associated transport and recreation features.	Goose Lake Road will be included in the assessment (Section 3.16 and Section 8.6.4)

4. Public Comments / responses relevant to the Project Design, EA Process

There were comments that focussed on the Project design, the Proponent or the EA process itself. These are identified below with KAM's responses:

- **Proximity of the Project to the City of Kamloops**

The new GA describes changes made to the Project design. Many of these changes move Project components further away from the City of Kamloops. Changes to the GA and other changes that address proximity-related issues are described in **Section 1**. In addition to the changes to the GA described in **Section 1**, other steps have, or will be taken to address proximity-related concerns such as:

- changing main access from Lac La Jeune Road to the Coquihalla Highway;
- implementing changes to minimize potential adverse effects on air quality, and reduce emissions;
- implementing best management practices to minimize dust;
- implementing measures to minimize concerns related to light;
- implementing measures to minimize potential adverse effects from noise and vibration;
- designing infrastructure to minimize potential adverse effects on visual resources;
- designing the Project with closure in mind and implementing a progressive reclamation;
- meeting or exceeding Ministry of Energy and Mines and other regulatory requirements;
- modelling and monitoring, emissions, noise, dust, hydrometrics, surface and groundwater quality and quantity, traffic, dark sky (light); and
- implementing best management practices and adaptive management.

- **Reclamation, Closure and Long-Term Management of Potential Contaminants**

The Application/EIS will include a Reclamation and Closure Plan. The Project will be designed with closure in mind, progressive reclamation is underway and will continue throughout the life of the Project.

Security/Reclamation bonds will be put in place in accordance with the Ministry of Energy and Mines requirements, and reclamation will continue until requirements are met. Reclamation, water quality and other relevant monitoring will continue until results meet regulatory requirements and further monitoring is no longer necessary.

- **Applicability of the *Mineral Tenures Act* to Current Circumstances**

KAM's process to evaluate the potential AJAX mining project is informed by best practices. Aspects of the process are guided by established legislation and informed by policy and guidelines.

- **Project Component Failure; Accountability and Responsibility for Liabilities Associated with Failure of TSF, and Mine Rock Storage Facilities including Potential Effects on the City of Kamloops, Jacko Lake, and Mine Workers and Infrastructure**

KAM is planning to perform a dam break analysis for inclusion in the Application/EIS. The Application/EIS will include an assessment of potential impacts to relevant VCs, with an emphasis on measures to protect downstream communities. Project infrastructure will be designed and maintained in accordance with applicable engineering standards. To ensure Project infrastructure can safely be built on the selected sites, a geotechnical investigation, engineering and other testing will be completed. These tests will be completed prior to the Project components being constructed. In addition to the TSF embankments, mine rock storage facilities will be placed downstream of the embankments to buttress and provide further reinforcement. Monitoring and maintenance of the TSF and other Project facilities will meet or exceed Ministry of Energy and Mines requirements. In addition, security and reclamation bonds will be put in place in accordance with provincial requirements. Liability and other insurance will be in place, consistent with industry standard practices. Requirements for insurance and financial assurance are developed during the permitting stage of a project.

- **Preparation for and Ability to Respond to Accidents and Malfunctions**

An assessment of potential accidents and malfunctions will be completed and included in the Application/EIS. The Application/EIS will include an Accidents and Malfunctions Plan and an Emergency Response Plan that will describe preparation for and proposed responses to a range of potential events, including a TSF embankment failure. Emergency communications will be addressed in the Emergency Response Plan. Requirements for insurance and financial assurance are further developed during the permitting stage of a project.

- **Authority of the Federal and Provincial Governments and Adequacy of the Federal and Provincial Environmental Assessment Processes**

The federal and provincial environmental assessment processes are given authority by the federal and provincial legislatures, the former Canadian Environmental Assessment Act and the *BCEAA, 2002*, respectively. While the adequacy of these processes is beyond the scope of the AIR/EIS Guidelines, KAM is required to comply with the federal and provincial environmental assessment processes. It is anticipated that the Regulators will provide further response to this.

- **Complexity of the Application/EIS and Ability of the Public to Review and Understand It**

KAM appreciates the complexity of an Environmental Assessment process and the EA application and how this can be daunting to or confusing some members of First Nations and the general public. KAM is committed to supporting effective consultation and communication with First Nations and the general public and continues to use a variety of consultation methods and communications tools to facilitate effective communication and engagement.

- **Objectivity, Credibility, and Qualifications of KAM's Consultants**

KAM has retained appropriately qualified, experienced and accredited specialists to complete modelling, effects assessments, and other aspects of the Application/EIS. Many of these specialists are bound by commitments they have made to their professional affiliations to complete their roles in an unbiased and ethical manner.

5. Overview of Public comments / KAM Responses

In total, there were 695 submissions during the revised AIR/EIS Guidelines public comment period. Public submissions were reviewed and categorized as being related to the revised AIR/EIS Guidelines or to the Project in general. Of the 695 submissions received, 68 were categorized by KAM as related to the revised AIR/EIS Guidelines and 627 were categorized as Project-related. From all the submissions, 959 comments were identified, assigned to VCs and grouped into assessment categories.

Valued Components are aspects of the environment considered important by the Proponent (KAM and its consultants), the public, Aboriginal groups, and government agencies involved in the EA process. Importance may be determined on the basis of Aboriginal interests, scientific concern, regulatory concern, biodiversity concern, and sensitivity to Project effects. The VCS are considered in five assessment categories (also referred to as pillars by the BC EAO), as indicated below:

Environment VCs:

- 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

Economic VCs:

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

Social VCs:

- Community Health and Well-being
- Infrastructure, Public Facilities and Services
- Dark Sky

- Visual Impact/Aesthetic Features (including Shading)
- Land and Resource Use
- Outdoor Recreation

Heritage VCs:

- Heritage Objects
- Heritage Sites

Health VCs:

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

Within the 695 submissions, 959 comments were identified and linked to a VC and Assessment Category. Some VCs received no comments. Public comments were categorized as related to the revised AIR/EIS Guidelines or to the Project and proposed Project revisions. Of the Project-related comments, each was assigned to one of 33 VCs and one of five assessment categories.

There are six VCs in three Assessment Categories that received the majority of the comments. The VCs and Assessment Categories are as follows:

- 225 comments with an air quality VC focus falling within the Health Assessment Category
- 119 comments with a Labour force, Employment and Training VC focus, falling within the Economic Assessment Category
- 104 comments with an Economic Diversification VC focus, falling within the Economic Assessment Category
- 60 comments with a Human Health VC focus, falling within the Health Assessment Category
- 54 comments with a Noise and Vibration VC focus, falling within the Health Assessment Category
- 52 Community Health and Wellbeing, falling within the Social Assessment Category.

The remaining VCs received fewer, if any comments, than these six identified. Comments on the previous version of the AIR/EIS Guidelines also included a focus on air quality. However, comment emphasis from the previous AIR/EIS Guidelines has shifted away from noise and vibration and infrastructure and public facilities concerns. Comments still remain for mammals, non-migratory gamebirds, migratory birds, raptors, terrestrial invertebrates, and Jacko Lake.

5.1 Large Submission Summary

Of the 695 submissions, 23 were lengthy and included detailed commentary and questions. These 23 submissions referred to the following topics:

- Water and food security, including quality and quantities, pollination and, potential effects on pollinators and agriculture, including concerns about potential contamination of crops and agricultural soils;
- Comments about the adequacy of effects human health risk assessment and potential social, human health, air quality, and groundwater effects;
- Sufficiency of, and methodologies for the effects assessments and Application/EIS;
- Social and health effects monitoring and management;
- Neutrality of KAM consultants, inclusion of local government or independent health professionals in the EA process;
- Adequacy of the EA review process;

- Consequences, such as disruption of businesses, loss of life, and risk of TSF failure;
- Adequacy of emergency response resources should a TSF failure or other catastrophic event take place, and collaborative planning for such events;
- Recruitment and retention of physicians and other health professionals and in employment in general; and
- Potential effects on Kamloops' image as the tournament capital, as a healthy place to live and recreate, and retention of residents.

Detailed responses to these comments are found in this Summary Report in the appropriate sections.

5.2 Overview of Project-related Public Comments and KAM Responses

Within the 695 submissions, 959 comments were identified and linked to a VC and Assessment Category. Some VCs received no comments.

Figure 5-1 shows, by VC, the distribution of comments identified within the submissions.

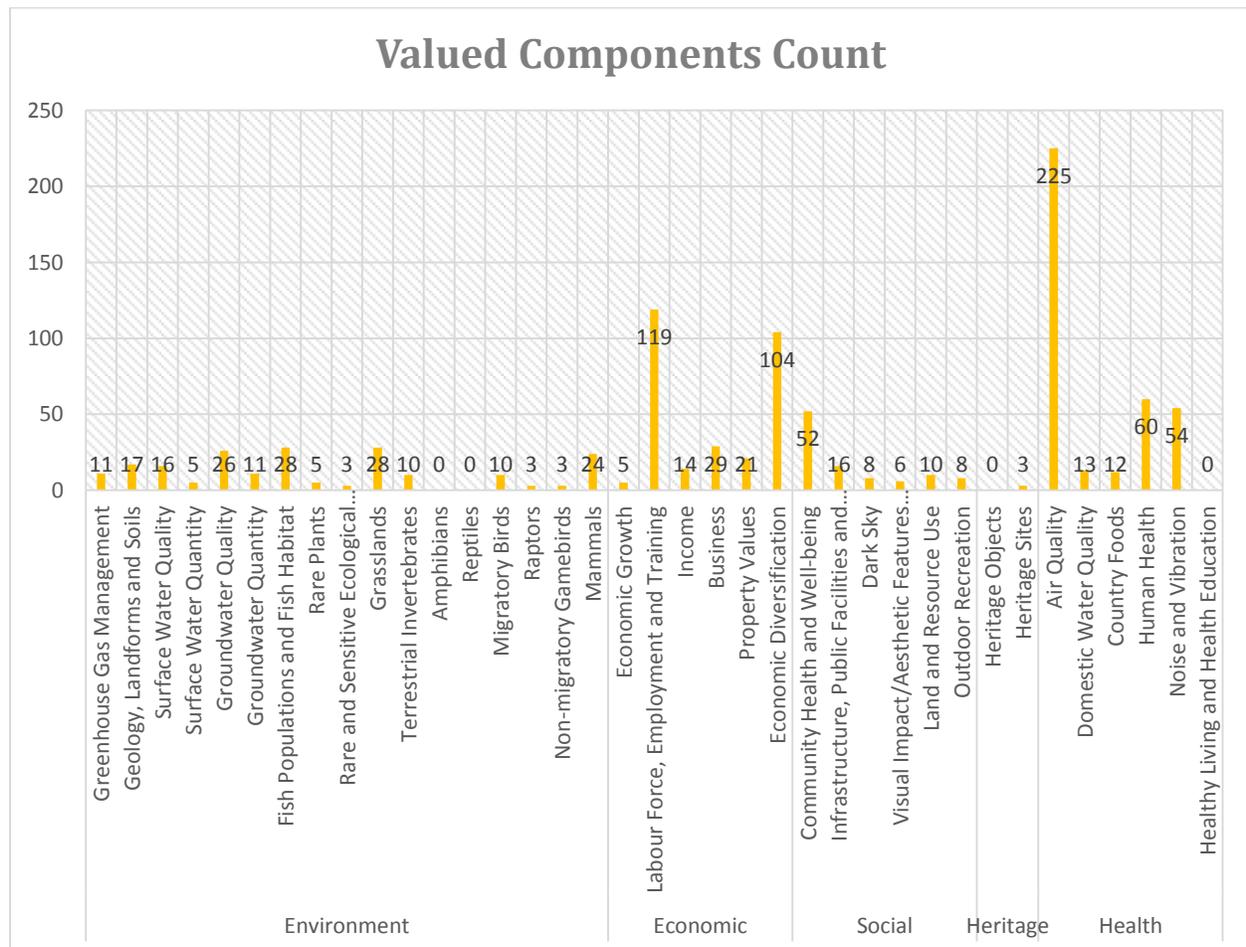


Figure 5-1: Distribution of Comments by VC

Section 5.2.1 provides a summary of the Project-related comments by Assessment Category and by VC. KAM's responses are also provided. As indicated in **Figure 5-1**, the five Assessment Categories are: Environment; Economic; Social; Heritage; and, Health. Within each Assessment Category there are a number of VCs.

There are six VCs in three Assessment Categories that receive the majority of the comments. The VCs and Assessment Categories are as follows:

- 225 comments with an air quality VC focus falling within the Health Assessment Category
- 119 comments with a Labour force, Employment and Training VC focus, falling within the Economic Assessment Category
- 104 comments with an Economic Diversification VC focus, falling within the Economic Assessment Category
- 60 comments with a Human Health VC focus, falling within the Health Assessment Category
- 54 comments with a Noise and Vibration VC focus, falling within the Health Assessment Category
- 52 Community Health and Wellbeing, falling within the Social Assessment Category.

The remaining VCs received fewer, if any comments, than these six identified.

5.2.1 Summary of Project-related Public Comments and KAM Responses

Public comments were categorized as related to the revised AIR/EIS Guidelines or to the Project and proposed Project revisions. Of the Project-related comments, each was assigned to one of 33 VCs and one of five assessment categories. Following are summaries of the comments that align with each assessment category and VC. KAM's responses are included.

A number of the comments simply expressed opposition to or support for the Project. Other comments spoke about the values associated with the Project area or discussed past or current uses. These comments did not clearly raise an issue or concern nor were they specific to the AIR/EIS Guidelines. Also, many comments were not specific to a Project component.

In many cases, part or all of the response to a comment would include regulatory process and/or mine operation-related topics. The following bullets describe some of these processes. To avoid redundancy, KAM's responses will not include the content of these bullets, unless the content is needed as a sole response, needed for context, or needed for other purposes.

1. KAM has retained qualified, experienced, and accredited specialists to complete the Application/EIS.
2. The Application/EIS will include detailed effects assessment for each VC.
3. KAM will develop and implement an Environmental Management System (EMS) for the Project. Environmental and operational monitoring and management plans will be developed as part of the EMS to ensure that measures and controls are in place to minimize the potential for environmental degradation during all phases of Project development. The components of the EMS, including monitoring and management plans, will be described in the Application/EIS. The EMS will outline:
 - a. reporting structure and responsibilities of personnel involved with environmental management;
 - b. preliminary procedures for reporting on environmental management and performance;
 - c. impact avoidance measures;
 - d. a preliminary list of anticipated compliance monitoring obligations associated with permits and licenses issued by local, provincial and federal governments;

- e. environmental awareness training programs that will be implemented for all personnel and contractors; and
 - f. training and professional development programs for Project employees and contractors.
4. The Application/EIS and the Project's EMS will include summaries of a range of environmental and operational management or monitoring plans that will clearly define actions and procedures designed to ensure that human and environmental health and safety are accounted for. These plans and procedures will be implemented should the Project receive regulatory approval and proceed. These plans include:
- a. Surface Water Quality Management and Monitoring Plan;
 - b. Groundwater Quality Management and Monitoring Plan;
 - c. Erosion and Sediment Control Plan;
 - d. Construction Waste Management Plan;
 - e. Acid Rock Drainage Management Plan;
 - f. Air Quality Monitoring and Dust Control Plan;
 - g. Water Management and Hydrometric Monitoring Plan;
 - h. Fisheries and Aquatic Life Monitoring Plan;
 - i. Contaminated Sites Management Plan;
 - j. Solid Waste Management Plan;
 - k. Hazardous Waste Management Plan (including liquid effluent disposal);
 - l. Explosives Management Plan;
 - m. Accidents and Malfunctions Plan (including potential effects on the Kinder Morgan Pipeline);
 - n. Natural Hazards Management Plan (e.g., landslides, floods);
 - o. Emergency Response Plan;
 - p. Fire Hazard Abatement Plan;
 - q. Spill Contingency Plan;
 - r. Landscape Design and Restoration Plan;
 - s. Soil Salvage and Handling Plan;
 - t. Wildlife/Vegetation Monitoring Plan (including invasive plant management and metal uptake by plants);
 - u. Archaeological Sites Management Plan;
 - v. Reclamation and Closure Plan;
 - w. Dark Sky Management and Monitoring Plan;
 - x. Transportation Management Plan;
 - y. Access Management Plan; and
 - z. Noise Management Plan.
5. Results of baseline studies will be included in the Application/EIS.
6. The Project will be designed and operated to meet applicable regulatory requirements.
7. KAM will meet or exceed monitoring and maintenance required by the Ministry of Energy and Mines, including the TSF.
8. Geotechnical investigations, engineering and other testing will be completed to ensure Project infrastructure can be safely built on sites selected.
9. Project infrastructure will be designed and maintained in accordance with applicable engineering standards.
10. Adaptive management will be employed and KAM will adjust its approach to management and monitoring as may be needed.

A fundamental component of an EMS is a company environmental policy. KAM has adopted a comprehensive Environmental, Health, and Safety Policy. KAM is committed to meeting or exceeding the requirements of the environmental and occupational health and safety legislation for each authority in which it operates.

KAM is committed to protecting the health and safety of the public, its employees, and the natural environment. Where Project activities may negatively affect people and/or the environment, KAM is committed to eliminating or mitigating the extent and magnitude of potential impacts. To achieve this, KAM is committed to:

- implementing, and continually improving upon, an effective health, safety, and environmental management system;
- identifying, assessing, and managing risks to employees, contractors, communities, and the environment in which it operates;
- providing and ensuring an understanding of the health, safety, and environmental risks through effective risk assessment and training to all its employees and contractors;
- reducing, re-using, and recycling waste in order to minimize waste and encourage the efficient use of resources;
- using appropriate technologies to prevent and reduce waste and pollution;
- ensuring financial preparations are made throughout the life of a project to ensure decommissioning is implemented appropriately;
- meeting, and where practical, exceeding legal requirements for health, safety, and the environment;
- maintaining transparent relationships and consultation with all stakeholders and Aboriginal groups;
- supporting the fundamental human rights of all people potentially affected by the Project, including employees, contractors, and communities;
- respecting the traditional rights of Aboriginal groups; and
- contributing to the long-term socio-economic and institutional development of employees and the communities within which projects occur.

5.2.2 Health Valued Components

The close proximity of the mine to the City of Kamloops was a concern. The public commented on the importance of fresh quality air, water, and foods. They also expressed a desire to maintain their health and healthy lifestyles and to live in quiet settings. Comments were raised about needing appropriate studies, modeling and information, and the need to consider health implications and costs.

Air Quality was the Valued Component with the most comments, and there were concerns about the mine negatively contributing to the air quality of the area. There was recognition that Kamloops can have periods of bad air quality, with the pulp mill, New Afton and other industry contributing to the air quality. There is also the geography of the valley and prevailing winds and blowing dust contributing to this. The close location of the mine and the potential effects on air quality was raised repeatedly. Air quality comments included dust, emissions, metals and other contaminants.

KAM is addressing these comments through the appropriate VC selection and through undertaking assessments as identified and required, and through incorporating avoidance and mitigation into mine design and operational planning. The new GA addresses a number of comments through reducing the potential footprint of the mine, and relocating facilities farther away from the City of Kamloops.

5.2.2.1 Air Quality

Air Quality VC comments oriented around:

- an understanding of rock constituents, carbon emissions, and dust that could contribute to poor air quality;
- objective measures and assessment of effects;
- sufficiency of studies, modelling, and monitoring stations;
- cumulative and meteorological effects on air quality;
- details of air quality management methods and monitoring;
- air quality linkages to other VCs;
- health care costs;
- working with institutions on air quality research; and
- post-closure air quality.

KAM adjusted the GA and will implement additional measures that will address air quality-related comments, including moving infrastructure further south and away from residences.

Dust will be minimized by:

- designing a detailed blast plan and adaptive management plan to minimize impacts associated with blasting;
- compacting Project;
- paving the main access road;
- employing best dust suppressant technology;
- reducing haul distances and the number of haul trucks;
- controlling dust associated with crushing and conveying ore; and
- covering ore storage piles.

Air quality-related comments were also considered and addressed in the Greenhouse Gas and Community Health and Well-Being VCs.

The Air Quality VC comments identified and additional KAM's responses to these comments are summarized in **Table 5-1**.

Table 5-1: Air Quality VC Comments and Responses

Representative Comments	Summary of KAM Response
Desire to have a proper understanding of possible constituents of rock that will be crushed and processed and will generate tailings (as a basis for health effects assessment).	<ul style="list-style-type: none"> • The emission rates of metals, which are based directly on the mineral composition of the ore, overburden, and tailings will be included in the Application/EIS.
What objective measures can be used to ensure that changes to air quality do not constitute a public health hazard?	<ul style="list-style-type: none"> • The Application/EIS will include an Air Quality Monitoring and Dust Control Plan. • KAM will be required to meet emission and other requirements related to air quality in the waste

Representative Comments	Summary of KAM Response
	<p>discharge permit issued by the BC Ministry of Environment (BC MOE).</p> <ul style="list-style-type: none"> The KPHE is a contributing member of the Community Advisory Group. Federal and provincial experts have and will continue to support BC EAO and the CEA Agency during the revised AIR/EIS Guidelines review, as well as during the review of the future Application/EIS. KAM will implement the air quality monitoring and reporting program required by the BC MOE in the waste discharge permit issued by the BC MOE.
<p>Concerns about dust and particulates containing toxins (such as uranium, manganese, chromium, other metals, and arsenic) contributing to reduced air quality, effects on electronic equipment, and frequency of housecleaning.</p> <p>Concerns that the air quality studies are sufficient and will include influence of winds and close proximity to the City of Kamloops.</p> <p>Concerns that air quality is highest priority.</p> <p>Consider cumulative effects in air quality effects assessment.</p> <p>Changes in wind velocity due to WRSFs and fog due to possible air quality changes.</p> <p>Will potential carbon emissions from the mine adversely affect air quality?</p>	<ul style="list-style-type: none"> The Application/EIS will include an assessment of potential effects on air quality. The assessment will take into account potential cumulative effects. Modelling will take into account varying atmospheric conditions, prevailing winds, and proximity to the City of Kamloops. Measures to minimize or avoid adverse effects on air quality will be included in the Application/EIS in an Air Quality Management and Monitoring Plan. The base case modelling considers existing land based transportation emissions sources and existing non-point sources within the Kamloops airshed. Industrial emissions, including those of existing mines, are considered in the dispersion modelling assessment. The air quality effects assessment will consider potential effects on proximate receptors such as schools, daycares and homes. The air quality study area is 30 kilometres by 30 kilometres.
<p>How to ensure that air quality issues related to the proposed Project will be managed (including description of dust collection systems) for the life-cycle of the Project, including reclamation and closure?</p>	<ul style="list-style-type: none"> The Application/EIS will include an Air Quality Monitoring and Dust Control Plan and a Reclamation and Closure Management Plan. These plans will be implemented should the Project be approved and proceed. KAM will be required to meet emission and other permit requirements related to air quality in the waste discharge permit issued by the BC MOE. Collection systems include apparatus such as baghouses that physically collect and accumulate material, while suppression systems are methods such as covered stockpiles and water application that reduce generation of dust. Both methods are proven and effective means of dust control.

Representative Comments	Summary of KAM Response
<p>Air quality and related potential effects on water quality, including Peterson Creek, and vegetation, livestock, and animals.</p> <p>Balancing economic benefits with potential effects on air quality.</p> <p>Combined effects of potential mine effects on air quality, dry and dusty conditions, and atmospheric inversions.</p> <p>Cost of health care related to potential reduced air quality.</p>	<ul style="list-style-type: none"> • The air quality effects assessment will consider linkages between effects related to one VC and potential for effects on other VCs (e.g. air quality effects on country foods or surface water). • Cumulative effects will be included in the effects assessment.
<p>Work with Thompson Rivers University to research technology to avoid effects on air quality, implement where appropriate.</p>	<ul style="list-style-type: none"> • KAM is committed to building strong and lasting partnerships in the community, including with educational institutions.
<p>How will dust from blasts be minimized or avoided?</p>	<ul style="list-style-type: none"> • A detailed blasting plan will be developed to ensure blasting meets regulatory requirements. • Monitoring results will be used to adjust blast procedures and timing to ensure compliance with regulatory requirements. • Adaptive management will be employed and KAM will adjust its approach as may be needed.
<p>How is sufficient, accurate, objective air quality testing, monitoring, and reporting ensured without using a third party?</p>	<ul style="list-style-type: none"> • KAM will implement the air quality monitoring and reporting program required by the BC MOE in the waste discharge permit issued by the BC MOE. Irrespective of who maintains the monitoring network, the BC MOE will ensure data quality through bi-annual instrument audits. All data will be polled and publicly reported in near-real time by the BC MOE air quality data management system.
<p>Will latest technologies be used for air quality monitoring and will sufficient monitoring sites be installed and maintained?</p> <p>During and after closure how will dust be controlled, particularly from the tailings beaches?</p> <p>How will the use of water to control dust be monitored to ensure it is effective?</p>	<ul style="list-style-type: none"> • KAM will be required to meet or exceed monitoring and maintenance requirements set by the Ministry of Energy and Mines. • The Application/EIS will include an air quality assessment and proposed mitigations for all phases of the Project, including closure and post-closure. • Adaptive management will be employed and KAM will adjust its approach as may be needed.
<p>Location of weather stations used for air quality modelling.</p>	<ul style="list-style-type: none"> • It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology using the CALPUFF modelling program. • A three-dimensional CALMET wind field will be used to drive the CALPUFF model. These CALMET data are based on surface measurements at four locations in the airshed, plus appropriate upper air data and prognostic meteorological data. The CALMET data was developed by the Ministry, and provided to KAM for use in this Project.

Representative Comments	Summary of KAM Response
	<ul style="list-style-type: none"> Project-specific meteorology stations have been established, and data collection is on-going. Results from these stations will be augmented with long-term regional data to derive appropriate estimates of extreme weather conditions.
Would potentially reduced air quality be exacerbated by atmospheric inversions?	<ul style="list-style-type: none"> Management and monitoring plans for varying atmospheric conditions, including inversions, will be developed and included in the Application/EIS. The best dust suppressant technology, including water and organic binding agents, will be used to suppress and minimize dust. KAM adjusted the GA in response to input from the public, including moving infrastructure further south. The Project will be designed and operated to meet applicable regulatory requirements. Monitoring and adaptive management will be employed to ensure compliance.
Air quality monitoring	<ul style="list-style-type: none"> If the Ajax Project receives regulatory approval, the number, placement, and specifications of the air quality monitoring program will be developed with the BC MOE as a condition of any discharge permits.

5.2.2.2 Domestic Water Quality

Domestic Water Quality VC concerns oriented around measures to ensure the ongoing quality of domestic water supplies. The Domestic Water Quality VC concerns identified and KAM's responses to these concerns are summarized in

Table 5-2.

Domestic water quality-related concerns were also considered and addressed in the Surface and Groundwater Quality and Human Health VCs.

Table 5-2: Domestic Water Quality VC Comments and Responses

Representative Comments	Summary of KAM Response
How will domestic water quality be ensured, particularly for those using water from Peterson Creek groundwater?	<ul style="list-style-type: none"> Potential adverse effects on groundwater will be assessed in the Application/EIS. A Groundwater Quality Management and Monitoring Plan will address specific water quality concerns and mitigation associated with Peterson Creek, should these be identified in the assessment.

5.2.2.3 Country Foods

Country Foods VC concerns oriented around assessment of effects on home or outdoor grown produce, forage, honey, livestock, and meat and dairy products. Food security and compliance with the Agricultural Land Reserve were also raised. KAM adjusted the GA and will implement additional measures that will address country foods-related concerns including moving infrastructure moved further south and away from residences.

Dust will be minimized by:

- designing a detailed blast plan and adaptive management plan to minimize impacts associated with blasting;
- compacting the Project;
- paving the main access road;
- employing best dust suppressant technology;
- reducing haul distances and the number of haul trucks;
- controlling dust associated with crushing and conveying ore; and
- covering ore storage piles.

Country foods-related concerns were also considered and addressed in the Geology, Landforms and Soils, Human Health; Surface, Groundwater and Domestic Water Quality; Community Well-Being; and Air Quality VCs.

The Country Foods VC concerns identified and KAM's responses to these concerns are summarized in **Table 5-3**.

Table 5-3: Country Foods VC Comments and Responses

Representative Comments	Summary of KAM Response
<p>Assessment of potential effects of increased soil contamination, heavy metal contamination, lowered water quality, air pollution, and particulate on home and outdoor-grown produce, fruit, wines, and agricultural products such as forage, livestock meat, and dairy products.</p> <p>Concern raised about potential long-term effects on soil quality related to agriculture in the Kamloops area.</p> <p>Assessment of potential effects on food security.</p> <p>Potential effects (such as from potential changes in air quality) on production and quality of honey.</p>	<ul style="list-style-type: none"> • Comprehensive air quality, surface and ground water studies are all being undertaken and address these specific VCs. These will inform the evaluation for any potential adverse effects on country foods which will be addressed in the Application/EIS. • The HHERA will incorporate metal uptake into backyard garden and community garden produce as part of the assessment of current and potential future exposures. It will not incorporate a market based survey of commercially grown or produced foods that come from a wide geographic area that will not be affected by project operations. • Metal accumulation in soil and vegetation as a result of dust deposition will be included in the HHERA. • Health Canada experts have and will continue to be involved in the environmental assessment process, including as members of the Working Group. These experts advise BC EAO and the CEA Agency on the adequacy of the AIR/EIS Guidelines, and in future the Application/EIS.

Representative Comments	Summary of KAM Response
Compliance with Agricultural Land Reserve.	<ul style="list-style-type: none"> KAM is in discussion with the Agricultural Land Commission to address the use of lands within the Agricultural Land Reserve.

5.2.2.4 Human Health

Human Health VC concerns oriented around desire for an a health impact assessment; an assessment of effects on human health, including short and long-term effects; effects on young children and other vulnerable groups; linkages between certain health conditions and potential contaminants from the mine; as well as mitigation. KAM adjusted the GA and will implement additional measures that will address human health-related concerns, including:

- moving infrastructure further south and away from residences;
- avoiding unnecessary lighting;
- shielding lighting where needed; and
- automating lighting to turn off when not needed.

Dust will be minimized by:

- designing a detailed blast plan and adaptive management plan to minimize impacts associated with blasting;
- compacting the Project;
- placing mine rock and stripped topsoil on TSF beaches during reclamation and ensuring a portion of TSF remains wet;
- paving the main access road;
- employing the best dust suppressant technology;
- reducing haul distances and the number of haul trucks;
- controlling dust associated with crushing and conveying ore; and
- covering ore storage piles.

Human health-related concerns were also considered and addressed in the Greenhouse Gas, Air, Surface and Groundwater Quality VCs, as well as the Community Health and Well-Being VC.

The Human Health VC concerns identified and additional KAM responses to these concerns are summarized in **Table 5-4**.

Table 5-4: Human Health VC Comments and Responses

Representative Comments	Summary of KAM Response
Open and objective assessment of potential long- and short-term human health effects, including those from potentially toxic metals, changes in light, changes in air and water quality, airborne particulate. Young children, chronically ill, and elderly should be included in the assessment, as should specific linkages to asthma, sinusitis, bronchitis, emphysema,	<ul style="list-style-type: none"> Potential adverse effects on human health will be assessed and described in the Application/EIS in a manner consistent with guidance from Health Canada. This assessment will include a HHERA, which incorporates potential effects on air quality (including metals and particulates), water quality, and country foods. Sensitive receptors, which include groups

Representative Comments	Summary of KAM Response
<p>chronic obstructive coronary disease, heart disease, cancer rates, reduced intelligence, and poor pregnancy outcomes.</p> <p>Request to complete an air quality Health Impact Assessment.</p>	<p>considered particularly sensitive to environmental changes, are considered in the analysis.</p> <ul style="list-style-type: none"> Health Canada experts have and will continue to be involved in the environmental assessment process, including a members of the Working Group advising BC EAO and the CEA Agency on the adequacy of the AIS/EIS Guidelines, and in future the Application/EIS. The Application/EIS will include a detailed description of the methodology used to complete the HHERA.
<p>Concerns raised about adverse effects and possible loss of human life due to TSF breach.</p>	<ul style="list-style-type: none"> Engineering and site-specific investigations will be completed to ensure Project infrastructure can safely be built on sites selected. Project infrastructure will be designed and maintained in accordance with applicable engineering standards. KAM will meet or exceed TSF monitoring and maintenance required by the Ministry of Energy and Mines. An accidents and malfunctions assessment will be completed, which will include an analysis of the potential modes of TSF embankment failure, and an assessment of the potential downstream effects for various failure scenarios.
<p>Is baseline data on the prevalence and incidence of lung disease, cardiovascular disease, neurological disease, maternal and neonatal complication rates etc. being collected? Are we going to be able to measure whether Ajax has an impact on morbidity and mortality rates for these populations in Kamloops and the surrounding area?</p>	<ul style="list-style-type: none"> No, this type of data is not being collected directly. A risk assessment approach is being undertaken to evaluate risks to health, including a more conservative assessment for sensitive groups of people. Collecting baseline data (and subsequent monitoring) on the prevalence of disease would not be especially useful, due to the number of other (non-Project related) factors that also contribute to an individual's risk. Mitigation and monitoring for potential effects to health will focus on areas where KGHM has direct control.
<p>Are studies being done specifically looking at the social and emotional effects of the mine proposal on the citizens of Kamloops. Is there a measurable negative or positive psychological impact in the process of developing this mine proposal?</p>	<ul style="list-style-type: none"> Citizen's perceptions related to the presence of a mine, and associated effects, are being heard/recorded through the engagement/consultation process. Data is also being collected through key-person interviews (e.g., with city officials, TNRD, other stakeholder groups). This information is influencing the company's approach to developing the Project, and informing the results of the effects assessments. However, it is important to note that social and emotional (and psychological) opinions are wide ranging across a population. The discussion in the effects assessment will largely be qualitative, rather than quantitative. The Application/EIS will include an assessment of the potential social effects of the Project, however, an analysis of potential emotional effects of developing a mine proposal are beyond the scope of the EA

Representative Comments	Summary of KAM Response
<p>Identification, development, and implementation of mitigation to avoid or reduce particulate matter (PM 2.5: fine particles in the air 2.5 micrometres or less in size) in the atmosphere.</p>	<p>process.</p> <ul style="list-style-type: none"> • The Application/EIS will include a range of plans to avoid or minimize generation of PM 2.5, including: Air Quality Monitoring and Dust Control, Erosion and Sediment Control, Landscape Design and Restoration, and Reclamation and Closure Plans. • Mitigation is developed firstly to avoid adverse effects. Where effects cannot be avoided, mitigation is then designed and provided to avoid or reduce to the extent possible residual effects. The significance of any residual effects will be discussed in the Application/EIS. • KAM will use the best dust suppressant technology to suppress and minimize dust.

5.2.2.5 Noise and Vibration

Many comments related to noise and vibration were of a general nature. Noise and Vibration VC concerns oriented around assessment of noise and vibration effects, mitigation for effects, objective measures, and sufficiency of monitoring stations. KAM adjusted the GA and will implement additional measures that will address air quality-related concerns, including moving infrastructure further south and away from residences.

- providing main access from Coquihalla Highway to avoid using Lac Le Jeune Road for main access, potentially reducing traffic noise and vibration;
- compacting the Project, and
- reducing haul distances, number of haul trucks, and subsequent potential for noise and vibration.

Noise and vibration-related concerns were also considered and addressed in the Geology, Landforms and Soils and in the Property Values VCs.

The Noise and Vibration VC concerns identified and KAM's responses to these concerns are summarized in **Table 5-5**.

Table 5-5: Noise and Vibration VC Comments and Responses

Representative Comments	Summary of KAM Response
<p>How will potential effects from noise and vibration be assessed in general, and specifically in the Aberdeen and Knutsford area, and for livestock, ranching, and pets? Will terrain, wind speed, and direction be considered in this assessment?</p> <p>How will adverse effects from noise and vibration be effectively mitigated, particularly in relation to nearby communities such as Knutsford and Aberdeen? What objective measures can be used to ensure that noise does not constitute a public health hazard?</p>	<ul style="list-style-type: none"> • The Application/EIS will include an assessment of potential noise and vibration-related effects. The assessment will be informed by and based on provincial and federal noise guidelines. These effects will be considered at dozens of locations in the area, including nearby schools and residences. • Modelling will take into account terrain, prevailing winds, and proximity to the City of Kamloops and other locations and receptors. • The Application/EIS will include a Noise

Representative Comments	Summary of KAM Response
	<p>Management Plan that will be implemented should the Project be approved and proceed.</p> <ul style="list-style-type: none"> Noise and vibration limits described in the following guidelines will be considered in the assessment of effects and noise level criteria:: <p>Noise</p> <ul style="list-style-type: none"> British Columbia Noise Control Best Practices Guideline (BC Oil and Gas Commission, 2009); Health Canada Useful Information for Environmental Assessments (2010); WHO (World Health Organization) Night Noise Guidelines for Europe (2009); and American National Standards Institute (ANSI) S12.9-2005. <p>Vibration</p> <ul style="list-style-type: none"> Ontario Ministry of Environment Model Municipal Noise Control By-Law, Noise Pollution Control, Section 119 (NPC-119) (1978); Environmental Code of Practice for Metal Mines. Environment Canada, 2009; Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters (<i>Fisheries Act</i>); and City of Toronto Construction Vibration Limit (ByLaw-514). <ul style="list-style-type: none"> KAM will be required to comply with noise limits set by the provincial and federal governments. Noise limits are designed to minimize public annoyance and sleep disturbance.
<p>Concern about sufficiency of noise and vibration monitoring stations in relation to the closest homes.</p>	<ul style="list-style-type: none"> KAM's monitoring program will be reviewed by federal and provincial regulators to ensure it addresses noise receptors sufficiently. KAM will be required to comply with regulatory requirements. KAM will respond to monitoring results and, through adaptive management, adjust practices to ensure permit requirements are met.

5.2.3 Environmental Valued Components

KAM recognizes and appreciates that residents and tourists of the Kamloops area value the grassland landscape, lakes, and rivers. Public comments show that residents and tourists appreciate viewing the scenery in the hills, forests, and grasslands and spend time there hunting, fishing, and participating in other recreational activities. Jacko Lake figures prominently in relation to fishing, hiking, and wildlife viewing. Peterson Creek and Peterson Creek Park also provide important recreational opportunities, including dog walking, hiking, and opportunities to relax. People commented that they have lived in the City of Kamloops for many years or they have moved to Kamloops to have

greater access to the outdoors and outdoor experiences. The diverse wildlife and the number and quality of fishing lakes and rivers are key elements of the outdoor experience. Members of the public noted they appreciate the area's arid climate, fresh air, and quality surface and groundwater resources. These resources are important to deer, moose, birds, fish, and other terrestrial and aquatic species. KAM and the public both wish to avoid adverse effects on environmental resources and to minimize effects where they cannot be avoided.

The following subsections address public comments relating to the Environmental Assessment Category and component VCs. We note that no comments were clearly linked to the Reptiles and Amphibians VCs.

5.2.3.1 Greenhouse Gas Management

Greenhouse Gas Management VC comments were largely oriented around how greenhouse gas emissions would be minimized. KAM has changed the GA and will implement further measures to address greenhouse gas concerns, including

- implementing best management practices; and
- applying adaptive management.

Additional KAM responses to public concerns are summarized in

Table 5-6. A number of greenhouse gas-related comments were linked to Health VCs, such as Human Health and Air Quality.

Table 5-6: Greenhouse Gas VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>Why is the assessment of greenhouse gases limited to those produced at the mine rather than the whole process, including transportation of concentrate to the port and to customers overseas and the emissions generated by those using the resources produced by the mine?</p>	<ul style="list-style-type: none"> • The greenhouse gas assessment will be completed in accordance with federal guidelines. All machinery, including any machinery and equipment used in the manufacture of explosives, on site will be included. • Projects have defined study areas to facilitate assessments. Tracking the emissions related to all those who ultimately process or use products from the Project is not only unrealistic but also unmanageable. • The AIR/EIS Guidelines do not require assessment of greenhouse gas emissions associated with transportation to port or to overseas customers or with those using the resources.
<p>Was ore concentrate transport by rail considered as it would appear to generate less greenhouse gas emissions?</p>	<ul style="list-style-type: none"> • During the feasibility study in 2012, both rail and trucking options were evaluated. The conclusion was that while rail is more cost-effective, trucking is more practical due to shorter transit time and less concentrate handling. In 2014, KGHM revisited the concentrate transportation question and again decided that trucking was the best option due to challenges associated with re-handling the concentrate multiple times for rail and to flexibility of trucking schedule vs. fixed and unpredictable rail schedule and costs.

5.2.3.2 Geology, Landforms and Soils

The Geology, Landforms and Soils VC encompasses soils contamination, stability related to proposed Project infrastructure, the Kinder Morgan Pipeline and nearby homes, and the composition of rock and soils.

Additional KAM responses to public concerns are summarized in **Table 5-7**. A number of comments related to geology, landforms, and soils were considered and addressed in the Groundwater Quantity and Property Values VCs.

Table 5-7: Geology, Landforms and Soils VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>Concern raised about soil contamination, including from TSF and heavy metals (dust, other sources).</p>	<p>Management and monitoring plans, including Air Quality Management and Dust Control, Contaminated Site, Accidents and Malfunctions, Emergency Response, Soil Salvage and Handling, and Solid Waste Management and Monitoring Plans will be implemented to avoid or minimize soil contamination.</p> <p>Haul distances reduce and optimizing the haul truck fleet. Dampening ore on conveyor and covering ore storage piles will also reduce dust potential.</p> <p>The best dust suppressant technology will be used to suppress and minimize dust.</p> <p>Management of dust/debris from the TSF is listed within Section 3.7 of the AIR/EIS Guidelines.</p> <p>Geochemical characterization of emissions is currently underway. The detailed results of the analysis will be included in the Application/EIS.</p> <p>Security/Reclamation bonds will be put in place in accordance with provincial requirements.</p>
<p>Concern raised about responsibility for potential soil contamination.</p>	<p>Security/Reclamation bonds will be put in place in accordance with provincial requirements.</p>
<p>Concerns raised about soil stability related to the TSF and the NWRSF, including due to groundwater flow.</p> <p>Concerns raised about effects of blasting, stability of TSF berms, and mine rock management facilities.</p>	<p>Engineering and other testing will be completed to ensure Project infrastructure can safely be built on sites selected.</p> <p>Project infrastructure will be designed and maintained in accordance with applicable engineering standards.</p> <p>TSF embankments will be buttressed and reinforced with mine rock storage facilities.</p> <p>A detailed blasting plan will be developed to ensure blasting meets regulatory requirements and minimizes noise and vibration concerns.</p> <p>Monitoring results will be used to adjust blast size and timing to ensure compliance with regulatory requirements and to minimize noise and vibration concerns.</p>
<p>Concern regarding weight of TSF and WRSF affecting groundwater pressure and soil stability.</p>	<p>Engineering and other testing will be completed to ensure Project infrastructure can safely be built on sites selected.</p> <p>Project infrastructure will be designed and maintained in accordance with applicable engineering standards.</p>
<p>Composition of rock, soil, etc.</p>	<p>The mineral composition of the ore and mine rock will be considered in the assessment of effects on relevant VCs, such as air and water quality and country foods.</p>
<p>What are the potential effects of blasting and mine operations on the Kinder Morgan Pipeline and the structural integrity of nearby homes?</p>	<p>To reduce potential for adverse effects, the Kinder Morgan Pipeline will be moved west from its current location.</p> <p>The results of the vibration effects assessment will be used to assess potential effects of the Project on the Kinder Morgan Pipeline.</p> <p>The Application/EIS will identify monitoring and mitigation measures required in the event that Project effects on the</p>

Representative Comments	Summary of KAM Responses
	<p>pipeline are predicted.</p> <p>A detailed blasting plan will be developed to ensure blasting meets regulatory requirements and minimizes noise and vibration concerns.</p> <p>Monitoring results will be used to adjust blast size and timing to ensure compliance with regulatory requirements and to minimize noise and vibration concerns.</p>

5.2.3.3 Surface Water Quality

Many comments did not specify whether they related to surface, groundwater, or domestic water quality. Consequently, all non-specific water quality comments and responses are summarized in **Table 5-8**. Groundwater and domestic water quality-related comments and responses are provided in **Table 5-9** and **Table 5-10**.

Comments on water quality generally focused on how to ensure water quality is protected during operations. Concerns noted were linked to human health, well-being, or quality of life and to the protection of water quality to sustain sockeye salmon and Jacko Lake trout.

Surface Water Quality VC concerns focused on partnering with Thompson Rivers University to conduct water quality research, assessing potential effects on water quality, and protecting water quality.

KAM has changed the GA and will implement further measures to address water quality concerns, including

- designing the Project to maintain a negative water balance (where water is needed for the mine to operate);
- designing a robust surface water collection and management system for the site;
- recycling water; and
- relocating the TSF out of the Alkali Creek watershed (including Cherry Creek).

Additional KAM responses to concerns are summarized in **Table 5-8**.

Table 5-8: Surface Water Quality VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>Work with Thompson Rivers University to research technology to avoid effects on water quality and implement where appropriate.</p>	<ul style="list-style-type: none"> • KAM is committed to building strong and lasting partnerships in the community, including with institutions. KAM is currently partnered with Thompson Rivers University to conduct TSF reclamation research.
<p>How will surface and groundwater quality in Peterson Creek watershed specifically, and groundwater quality in general, be protected from adverse effects?</p>	<ul style="list-style-type: none"> • A water quality effects assessment will be included in the Application/EIS. • A Surface Water Quality Management and Monitoring Plan will address specific water quality concerns and mitigation associated with Peterson Creek, should these be identified in the assessment. • Water quality predictions for volumes expected to infiltrate and drain from the various mine rock storage facilities (including the ore stockpile) will be evaluated for all phases of mining.

5.2.3.4 *Surface and Groundwater Water Quantity*

Comments did not always differentiate between surface or groundwater quantity. All comments on water quantity are included in this section. Comments generally focused on how to maintain current water quantities to ensure adequate supplies for fish in Jacko Lake, Peterson Creek and the Thompson River, and the City of Kamloops. Aquifer integrity; potential effects on groundwater quantities, flow direction, and pressure; and groundwater flow into and out of the pit were also raised.

KAM has changed the GA and will implement further measures to minimize potential surface and groundwater quantity concerns, including

- designing the Project to maintain a negative water balance;
- recycling water; and
- relocating the TSF out of the Alkali Creek watershed (including Cherry Creek).

Additional KAM responses to concerns are summarized in **Table 5-9**. A number of surface and groundwater-related concerns were considered and addressed in the Landforms, Geology and Soils, in the Fish Population and Fish Habitat, and in the Surface Water Quality VCs.

Table 5-9: Surface and Groundwater Quantity VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>How will KAM ensure that current surface and groundwater quantities are maintained and that sufficient surface water is available to support sockeye salmon in the Thompson River, trout in Jacko Lake, and in general to sustain Peterson Creek? Will the assessment consider potential effects from climate change?</p>	<ul style="list-style-type: none"> • Potential effects on surface and groundwater quantities will be assessed in the Application/EIS. • Mitigation will be developed to address potential adverse effects, should they be identified in the assessment. • Climate change effects are not anticipated to be significant during the operations period of 20 to 23 years. However, different intensity storm events and return periods as part of stochastic water balance work will be considered during operations. • The effects of surface infrastructure (including mine rock management and stockpile materials) on recharge will be considered in the project design. • Estimated rate and direction of groundwater flow will be included in the Application/EIS. • A site wide water balance and modelling will be developed, including for the decommissioning and closure and post-closure phases. Water balance and modelling will take into account precipitation, infiltration, evaporation, and runoff. • Water quantity predictions for volumes expected to infiltrate and drain from the various mine rock storage facilities (including the ore stockpile) will be evaluated for all phases of mining. • The limits of the regional study area for groundwater have been delineated to coincide with mapped watersheds, and the limits of the underlying regionally mapped aquifers. The local study area boundaries were informed by the results of preliminary numerical groundwater flow and particle tracking simulations and is defined as the area within which the project may be expected to cause changes to the groundwater flow system. • Available hydrogeologic, geologic and geotechnical information from the Aberdeen area will be reviewed as part of the EA to consider the potential for the project to cause changes in groundwater flows that might influence groundwater conditions. Hydraulic conductivity and water level data will be considered for discrete hydrostratigraphic units interpreted based on borehole data, mapped aquifers and lithologies. A pumping test is planned for the characterization of hydraulic properties and delineation of the Peterson Creek sand and gravel aquifer. Hydrogeologic investigations are also proposed for characterization of any mapped or interpreted fault zones that may be identified in the project area. The basis for defining individual

Representative Comments	Summary of KAM Responses
	<p>hydrostratigraphic units will be explained in the Application/EIS.</p> <ul style="list-style-type: none"> • Potential increases (and decreases) to groundwater recharge through the mine rock storage facilities will be simulated as a sensitivity study with the numerical groundwater flow model. Recharge and seepage will be assessed in the context of the project and down gradient receiving environment.
<p>Concerns raised about effects of blasting and TSF embankments and mine rock management facilities on groundwater flow rate and direction.</p>	<ul style="list-style-type: none"> • Potential effects on surface and groundwater quantities will be assessed in the Application/EIS. • Mitigation will be developed to address potential adverse effects should they be identified in the assessment.
<p>How will integrity of potentially affected aquifers, (including Aberdeen area) be ensured?</p>	<ul style="list-style-type: none"> • Potential effects on surface and groundwater quantities will be assessed in the Application/EIS and mitigation will be developed to address potential adverse effects (such as potential interaction with Aberdeen), should they be identified in the assessment. • Engineering and other testing will be completed to ensure Project infrastructure can safely be built on sites selected. Project infrastructure will be designed and maintained in accordance with applicable engineering standards. • The effects of surface infrastructure (including mine rock management and stockpile materials) on recharge will be considered in the project design. • Water quality and quantity predictions for volumes expected to infiltrate and drain from the various mine rock storage facilities (including the ore stockpile) will be evaluated for all phases of mining. • Estimated rate and direction of groundwater flow will be included in the Application/EIS. <p>Potential increases (and decreases) to groundwater recharge through the mine rock storage facilities will be simulated as a sensitivity study with the numerical groundwater flow model. Recharge and seepage will be assessed in the context of the project and down gradient receiving environment. If project induced changes to the groundwater flow system may potentially affect the Aberdeen Subdivision they will be assessed in the context of slope stability in Aberdeen.</p> <ul style="list-style-type: none"> • A detailed blasting plan will be developed to ensure blasting meets regulatory requirements and minimizes noise and vibration concerns. • Monitoring results will be used to adjust blast size and timing to ensure compliance with regulatory requirements and to minimize noise and vibration concerns.

Representative Comments	Summary of KAM Responses
Potential for groundwater to discharge into the open pit.	<ul style="list-style-type: none"> Precipitation, seepage from pitwalls, and horizontal drains will introduce water into the pit. During operation a pit drainage and dewatering system will maintain pit wall stability; drain water and prevent water pressures from building up behind the pit walls; and remove surface water that is collected in sumps. At closure, the pit will be allowed to fill with runoff from groundwater inflows and precipitation. The Application/EIS will include the Project water balance model and water management plan, which will discuss any changes in groundwater discharge.
Concern regarding weight of TSF and WRSF affecting groundwater pressure.	<ul style="list-style-type: none"> Engineering and other testing will be completed to ensure Project infrastructure can safely be built on sites selected. Project infrastructure will be designed, monitored, and maintained in accordance with applicable engineering standards. Estimated rate and direction of groundwater flow will be included in the Application/EIS.
Will water used by the mine adversely affect the quantity of water available to supply downstream water users and the City of Kamloops?	<ul style="list-style-type: none"> One of the factors in the design and management of the mine is to avoid or minimize potential downstream supply effects. Any potential effects will be presented and assessed in the Application/EIS. The effects of surface infrastructure (including mine rock management and stockpile materials) on recharge will be considered in the project design. A site wide water balance will be developed, including for the decommissioning and closure and post-closure phases. This water balance will take into account precipitation, infiltration, evaporation, and runoff.
Pit water seepage into surrounding areas affecting aquifers (change in groundwater direction).	<ul style="list-style-type: none"> During operation a pit drainage and dewatering system will maintain pit wall stability; drain water and prevent water pressures from building up behind pit walls; and remove surface water that is collected in sumps. At closure, the pit will be allowed to fill with runoff from groundwater inflows and precipitation. Estimated rate and direction of groundwater flow will be included in the Application/EIS. The Application/EIS will include a Project water balance model, and ground water modelling, which will discuss any changes in groundwater discharge.
Concerns raised about potential effects on groundwater seepage and potential costs for the City of Kamloops to address these issues.	<ul style="list-style-type: none"> Groundwater seepage and discharge is being studied and modelled to ensure that seepage is understood and managed effectively.

5.2.3.5 Groundwater Quality

Comments on groundwater quality generally focused on potential contamination of groundwater.

KAM has changed the GA and will implement further measures to minimize potential groundwater quality concerns, including

- designing the Project to maintain a negative water balance;
- recycling water; and
- relocating the TSF out of the Alkali Creek watershed (including Cherry Creek).

Additional KAM responses to concerns are summarized in **Table 5-10**. A number of groundwater quality-related concerns were considered and addressed in the Domestic Water Quality VC.

Table 5-10: Groundwater Quality VC Comments and Responses

Representative Comments	Summary of KAM Response
<p>Concerns raised about potential contamination of groundwater and possible effects on water users and rights.</p>	<ul style="list-style-type: none"> • Water quality predictions for volumes expected to infiltrate and drain from the various mine rock storage facilities (including the ore stockpile) will be evaluated for all phases of mining. • Project infrastructure will be designed to minimize seepage losses of contaminated surface or groundwater. • A Surface Water Quality and a Groundwater Management and Monitoring Plan will be implemented to further minimize risk. • A groundwater well inventory program has been initiated in the Project area. Baseline groundwater sampling has been conducted in wells situated around the Project site. The baseline program design, study area, methodology, assumptions, and results will be presented in the Application/EIS. • A site water balance will describe water movements within the Project area and downstream effects and in the vicinity of flows. Results from numerical water quality models will be compared with applicable provincial and federal guidelines or standards for the protection of aquatic life, drinking water, agriculture, and irrigation. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. • Follow-up programs are required under federal legislation to verify the accuracy of the EA of the Project and determine the effectiveness of any measures taken to mitigate the adverse environmental effects of the Project.

5.2.3.6 Fish Populations and Fish Habitat

Comments on fish populations and fish habitat generally focused on potential effects on fish and fish habitat related to blasting, Project infrastructure failure, light, contaminants, mechanical effects, Jacko Lake connectivity to the pit, Jacko Lake, Peterson Creek and Thompson River fish, cumulative effects, and loss of and compensation for fish habitat.

KAM has changed the GA and will implement further measures to minimize potential fish populations and fish habitat concerns, including

- designing the Project to maintain a negative water balance; and
- recycling water.

Additional KAM responses to concerns are summarized in

Table 5-11. A number of fish populations and fish habitat-related concerns were considered and addressed in the Noise and Vibration, Economic Diversification, Dark Sky, Outdoor Recreation, Land and Resource Use, and Surface and Groundwater Quality and Quantity VCs.

Table 5-11: Fish Populations and Fish Habitat VC Comments and Responses

Representative Comments	Summary of KAM Response
<p>Concerns raised about adverse effects and possible loss of Jacko Lake, Peterson Creek, and Thompson River fish (including salmon on Thompson) and related fish and fish habitat due to TSF breach.</p> <p>Concerns raised about possible adverse effects on Jacko Lake fish due to blasting, light, and airborne contaminants from proposed mine.</p>	<ul style="list-style-type: none"> • A site-wide water balance will describe water movements within the proposed Project area and potential effects on downstream flows. • A detailed blast plan and adaptive management plan will be designed to minimize impacts associated with blasting. • Operations will adhere to regulations and guidance set out under the <i>Explosives Act</i> (e.g. quantity/distance regulations) and federal fisheries guidelines (Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters, DFO, 1998) for blasting in and around water. • A fish habitat offsetting plan that describes compensation for potential harm to fish habitat will be developed and included in the Application/EIS. The plan will include, as necessary, reference to Jacko Lake and Peterson Creek. • Deposition of dust on Jacko Lake and Peterson Creek will be assessed within the water quality model.
<p>How will fish be protected during operations when water is proposed to be pumped around the Peterson Creek diversion?</p>	<ul style="list-style-type: none"> • The Peterson Creek diversion will be designed to avoid adverse effects on fish. Where necessary, fish will be excluded through barriers, screening, or other methods. • A fish habitat offsetting plan that describes compensation for potential harm to fish habitat will be developed and included in the Application/EIS.
<p>Concern raised about complete destruction of Jacko Lake (including by lake draining into pit) and potential compensation.</p> <p>Concerns raised about loss of and compensation for fish habitat in the northeast arm of Jacko Lake.</p>	<ul style="list-style-type: none"> • Hydrologic testing has been completed to identify potential hydraulic connectivity between Jacko Lake and the proposed pit. The results of the study will be included in the Application/EIS. • Southwest side of pit closest to Jacko Lake will be backfilled prior to closure. • A fish habitat offsetting plan that describes compensation for any identified potential harm to fish habitat will be developed and included in the Application/EIS.
<p>Cumulative effects of water withdrawal.</p>	<ul style="list-style-type: none"> • The effects assessment for this VC will include direct, indirect effects, as well as cumulative effects. • The results of the effects assessments and mitigation and monitoring strategies will be described in the Application/EIS.

5.2.3.7 Rare and Endangered Plants

Rare and Endangered Plants VC concerns oriented around assessment of effects on rare and endangered plants, mitigation and compensation for effects, and reclamation. KAM has changed the GA and will implement further measures to address rare and endangered plant concerns, including

- employing progressive reclamation; and
- considering and including native plants during reclamation.

Additional KAM responses to public concerns are summarized in

Table 5-12. A rare and endangered plants-related concern was considered and addressed in the Grasslands VC.

Table 5-12: Rare and Endangered Plants VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>How will potential adverse effects on plants be avoided or mitigated or compensated for? Is KAM committed to reclamation and how will native plant re-establishment be included?</p>	<ul style="list-style-type: none"> • An assessment of potential effects on rare and endangered plants will be included in the Application/EIS. Where potential effects are identified, avoidance, mitigation and compensation strategies will be identified and discussed. • A variety of management and mitigation plans will be implemented to avoid or minimize adverse effects, including <ul style="list-style-type: none"> – Wildlife/Vegetation Monitoring Plan; – Air Quality Monitoring and Dust Control Plan; – Transportation/Access Management Plan; and – Surface Water Management/Monitoring Plan. • KAM is committed to reclamation. • Security/Reclamation bonds will be put in place in accordance with provincial requirements. • Reclamation will, to the extent possible, include native plants.

5.2.3.8 Rare and Sensitive Ecological Communities

Rare and Sensitive Ecological Communities VC concerns oriented around reclamation and loss of wetlands. KAM has changed the GA and will implement further measures to address rare and sensitive ecological community-related concerns, including:

- Collecting and storing seed material from the Project site and using this genetic material when employing progressive reclamation.

Additional KAM responses to public concerns are summarized in

Table 5-13. Rare and sensitive ecological community-related concerns were also considered and addressed in the Grasslands VC.

Table 5-13: Rare and Sensitive Ecological Communities VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>Reclamation of soils and grasslands.</p>	<ul style="list-style-type: none"> • Biological soil crusts are sensitive to disturbances by humans, livestock, wildlife (ungulates), and vehicle traffic. KAM recognizes that it may be difficult and impractical to salvage soil crusts and that it may take several decades for them to re-establish. • During site preparation, topsoils will be removed and stored for reclamation purposes. Where possible, seeds or other plant materials suitable for future propagation and use in reclamation may be gathered. • Security/Reclamation bonds will be put in place in accordance with provincial requirements. • The baseline soil characterization study that will be completed as part of the Conceptual Reclamation and Closure Plan and included in the Application/EIS will identify and classify the volumes of available soil that are suitable for reclamation use. A Soil Handling Plan will be developed to guide the stripping, salvage, and stockpiling of soil materials for subsequent use in reclamation. The volume required will be calculated using the dimensions of the areas to be reclaimed (e.g., mine rock facilities, TSF, etc.). • All seed and plant types required to achieve the planned post-closure end land use objectives will be acquired. If applicable, the plan will identify protocols to “build”, amend, and/or acquire additional soil material for use in reclamation. • The number of years mandated post–mine closure to ensure successful reclamation, including consideration of new remedial information, will be addressed in the reclamation permitting conditions issued by the Ministry of Energy and Mines if the Project is approved. Annual reclamation reports would be required. • KAM will undertake monitoring and reporting of the reclamation plan effectiveness. • The Ministry would be responsible for routine site inspections to ensure the reclamation plan is implemented.
<p>Loss of wetlands</p>	<ul style="list-style-type: none"> • A water balance and water quality model will be used to assess the effects of the Project on surface water quality. Any wetlands and alkali ponds potentially impacted will be included. Wetlands will be assessed in relation to any wildlife species habitat associations. • Security/Reclamation bonds will be put in place in accordance with provincial requirements.

5.2.3.9 Grasslands

Grasslands VC concerns oriented around assessment of effects on grasslands and associated values, valuation of grasslands, and reclamation, mitigation, and justification for loss of grasslands. KAM has changed the GA and will implement further measures to address grassland-related concerns, including:

- employing progressive reclamation;
- considering and including native plants during reclamation; and
- Minimizing dust as previously detailed.

Additional KAM responses to public concerns are summarized in

Table 5-14. Grasslands-related concerns were also considered and addressed in the Rare and Sensitive Ecological Communities VC.

Table 5-14: Grasslands VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>How will potential effects of dust on grasslands and species that use grasslands (such as cattle) be assessed and mitigated?</p> <p>Effects assessment should consider loss of the grasslands, cultural values, forest, wetlands, transition and buffer (to Kamloops) zones, habitat, health benefits, and recreation areas grasslands provide?</p>	<p>An assessment of potential effects on grasslands will be included in the Application/EIS. Grasslands links to numerous other valued components, including most vegetation and wildlife species listed as value components. The interrelationships between grasslands and these valued components will be discussed. Potential adverse effects on land and resource use and outdoor recreation activities associated with grasslands will also be assessed.</p> <ul style="list-style-type: none"> • Should the Project be approved and proceed, a variety of management and mitigation plans will be implemented to avoid or minimize adverse effects on grasslands, including <ul style="list-style-type: none"> – Wildlife/Vegetation Monitoring Plan; – Air Quality Monitoring and Dust Control Plan; – Transportation/Access Management Plan; and – Surface Water Management/Monitoring Plan.
<p>Proper valuation of ongoing and long-term benefits of grasslands and justification for destruction of grasslands?</p>	<ul style="list-style-type: none"> • In addition to Terrestrial Habitat mapping which classifies the grassland communities, grasslands priority mapping from the Grasslands Conservation Council of BC will also be considered when determining effects to grasslands. Grassland priority mapping considers rare ecosystems, habitat for species at risk, and terrain types, as well as other benefits such as improving air, water, and human health. • While an economic analysis of grassland ecosystem values is not part of the environmental assessment, changes in land use due to the proposed Project will be considered in the assessment of effects on land use. • Permanent destruction of grasslands will be avoided

Representative Comments	Summary of KAM Responses
	<p>where possible.</p> <ul style="list-style-type: none"> • Re-establishment of grasslands during progressive reclamation may be proposed as mitigation.
How will adequate reclamation be ensured?	<ul style="list-style-type: none"> • The Application/EIS will include an outline of end land use objectives, taking into consideration the recommendation of Ministry of Energy, Mines and Natural Gas that the reclamation program be aimed at ecological restoration of naturally occurring grassland communities. A Conceptual Reclamation and Closure Plan will be described in the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life. • Security/Reclamation bonds will be put in place in accordance with provincial requirements.
Concerns expressed about protecting species at risk.	<ul style="list-style-type: none"> • Adverse effects on species at risk will be considered in relevant effects assessments and will be described in the Application/EIS. These VCs include Mammals, Rare and Endangered Plant, Grasslands, Raptors, Non-Migratory Gamebirds, Migratory Birds.

5.2.3.10 Terrestrial Invertebrates

Terrestrial Invertebrates VC concerns oriented around assessment of effects and protection of pollinators. KAM has changed the GA and will implement further dust and emission measures (previously addressed) to address dust and emissions-related invertebrate concerns.

Additional KAM responses to public concerns are summarized in

Table 5-15. A terrestrial invertebrate-related concern was considered and addressed in the Country Foods VC.

Table 5-15: Terrestrial Invertebrates VC Comments and Responses

Representative Comments	Summary of KAM Responses
How will potential adverse effects on terrestrial invertebrates (including pollinators, moths) be assessed, avoided, or mitigated?	<ul style="list-style-type: none"> • Potential adverse effects on terrestrial invertebrates will be assessed and described in the Application/EIS. • In the "AIR/EIS Guidelines, Revision F Community Advisory Group Comments" document (EAO website, dated May 22, 2013) EAO, in consultation with a Ministry of Agriculture representative and an expert from Simon Fraser University, considered the request to include pollinators in the AIR as a VC or focal species. Rationale for not including pollinators (e.g. bees) is provided in the AIR/EIS Guidelines. Butterflies are likely to be representative of potential effects to pollinators, and there is not enough baseline information available for bees to make them practical for effects assessment purposes.

	<ul style="list-style-type: none"> • A variety of management and mitigation plans will be implemented to avoid or minimize adverse effects, including <ul style="list-style-type: none"> – Wildlife /Vegetation Monitoring Plan; – Air Quality Monitoring and Dust Control Plan; – Transportation/Access Management Plan; and – Surface Water Management/Monitoring Plan.
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5.2.3.11 Migratory Birds

Migratory Birds VC concerns oriented around assessment of effects on migratory birds and avoidance and mitigation for those potential effects. KAM will implement measures that will address raptor-related concerns, including

- avoiding unnecessary lighting;
- shielding lighting where needed; and
- automating lighting to turn off when not needed.

Additional KAM responses to public concerns are summarized in

Table 5-16. Migratory bird-related concerns were also considered and addressed in the Mammals, Non-Migratory Gamebirds, Grasslands, and Dark Sky VCs.

Table 5-16: Migratory Birds VC Comments and Responses

Representative Comments	Summary of KAM Responses
How will potential adverse effects (including from mine operations) on migratory birds, such as ducks, geese, hummingbirds, and sandhill crane migration and habitat be avoided or mitigated?	<ul style="list-style-type: none"> • An assessment of potential effects (including habitat alteration and loss, disturbance and displacement and mortality) on migratory birds will be included in the Application/EIS. • Potential mitigation strategies could include minor adjustments of project footprints to avoid particular sensitive habitats, specification of vegetation clearing schedules, garbage management, noxious weed control, and dust management. The potential effectiveness of each strategy will be discussed. Mitigation strategies will include proven methods, Best Management Practices (BMPs), legislative requirements (provincial and federal Acts) and species-specific recovery strategies (draft or final, where available). In addition to mitigating potential impacts, opportunities for site restoration and enhancement will be explored to help offset potential losses and improve biodiversity. • A variety of management and mitigation plans will be implemented to avoid or minimize adverse effects, including <ul style="list-style-type: none"> – Wildlife /Vegetation Monitoring Plan;

	<ul style="list-style-type: none"> - Air Quality Monitoring and Dust Control Plan; - Transportation/Access Management Plan; and - Surface Water Management/Monitoring Plan.
What will be the response if birds access the TSF?	<ul style="list-style-type: none"> • Should migratory birds access the TSF, KAM will follow procedures described in the Wildlife/Vegetation Monitoring Plan, which is being developed for inclusion in the Application/EIS.

5.2.3.12 Raptors

Raptors VC concerns oriented around assessment of effects on raptors and avoidance and mitigation for those potential effects. Raptor-related concerns were also considered and addressed in the Mammals, Grasslands, and Dark Sky VCs. Raptors VC concerns identified and KAM's responses to these public concerns are summarized in **Table 5-17**.

Table 5-17: Raptors VC Comments and Responses

Representative Comments	Summary of KAM Responses
What are the potential adverse effects on raptors (including burrowing owl) and how will they be assessed, avoided, and mitigated?	<ul style="list-style-type: none"> • An assessment of potential effects (including habitat alteration and loss, disturbance and displacement and mortality) on raptors will be included in the Application/EIS. • Potential mitigation strategies could include minor adjustments of project footprints to avoid particular sensitive habitats, specification of vegetation clearing schedules, garbage management, noxious weed control, and dust management. The potential effectiveness of each strategy will be discussed. Mitigation strategies will include proven methods, BMPs, legislative requirements (provincial and federal Acts) and species-specific recovery strategies (draft or final, where available). In addition to mitigating potential impacts, opportunities for site restoration and enhancement will be explored to help offset potential losses and improve biodiversity • A variety of management and mitigation plans will be implemented to avoid or minimize adverse effects on raptors, including <ul style="list-style-type: none"> - Wildlife /Vegetation Monitoring Plan; - Air Quality Monitoring and Dust Control Plan; - Transportation/Access Management Plan; and - Surface Water Management/Monitoring Plan.

5.2.3.13 Non-Migratory Gamebirds

Non-Migratory Gamebird VC concerns oriented around assessment of effects on non-migratory gamebirds and on mitigation and compensation for effects and loss of habitat. KAM's responses to public concerns are summarized in **Table 5-18**.

Table 5-18: Non-Migratory Gamebirds VC Comments and Responses

Representative Comments	Summary of KAM Responses
How will potential adverse effects on non-migratory gamebirds (including sharp-tailed grouse) be assessed, avoided, mitigated, or compensated for?	<ul style="list-style-type: none"> • An assessment of potential effects on non-migratory gamebirds will be included in the Application/EIS. • Implementation of the Wildlife/Vegetation Monitoring Plan will avoid or minimize adverse effects on non-migratory gamebirds. • Progressive reclamation will be ongoing. • Security/Reclamation bonds will be put in place in accordance with provincial requirements.
What will be the response if birds access the TSF?	<ul style="list-style-type: none"> • Should non-migratory gamebirds access the TSF, KAM will follow procedures described in the Wildlife/Vegetation Monitoring Plan, to be included in the Application/EIS.

5.2.3.14 Mammals

Most mammal-related comments mentioned wildlife but not always mammals specifically. Mammals VC concerns oriented around assessment of effects on wildlife and wildlife habitat and on mitigation and compensation for loss of wildlife habitat. KAM has changed the GA and will implement further measures to address mammal-related concerns, including

- employing progressive reclamation;
- employing dust mitigation;
- considering and including native plants during reclamation;
- avoiding unnecessary lighting;
- shielding lighting where needed; and
- automating lighting to turn off when not needed.

Additional KAM responses to public concerns are summarized in

Table 5-19. Mammals-related concerns were also considered and addressed in the Rare and Sensitive Ecological Communities and Dark Sky VCs.

Table 5-19: Mammals VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>How will potential adverse effects on white-tail, mule deer, and bear migration to wintering habitat be avoided or mitigated?</p> <p>How will adverse effects on beaver in Peterson Creek and on endangered species such as badger be mitigated avoided, or compensated for?</p> <p>What are the adverse effects of mine water use, blasting, and other mine activities on wildlife?</p>	<ul style="list-style-type: none"> • An assessment of potential effects on mammals, as well as proposed mitigation measures for any identified effects, will be included in the Application/EIS. • Should the Project be approved and proceed, the Wildlife/Vegetation Monitoring Plan and other plans such as the Solid and Hazardous Waste and Transportation/Access Management Plans will be implemented to avoid or minimize adverse effects on

How will wildlife be discouraged from accessing the TSF and what will be the response if they do access?	mammals. <ul style="list-style-type: none"> • TSF-related effects on wildlife will be avoided or minimized by following the procedures described in the Wildlife/Vegetation Monitoring Plan.
How will noise and vibration effects on wildlife be assessed, particularly as they may affect mating and feeding?	<ul style="list-style-type: none"> • The Application/EIS will describe methodologies for assessing adverse effects on wildlife, including feeding and mating activities.

5.2.4 Economic Valued Components

Comments that addressed economic valued components represented a spectrum of perspectives that ranged from the philosophical argument for sustainable industries, to the long history in the area of mining and how the sector has contributed to the economy. The diversification of the Kamloops economy was raised, and while there was general appreciation about the importance of a diversified economy, there were various perspectives on the roles that economic sectors such as mining, forestry, tourism, etc., played in that diversification.

There were voiced concerns about the legacy of mining and these were countered by other comments that addressed the progression of mining technology, processes and regulations and that mining today was not comparable to that carried out earlier. The contributions of mining to the economy, tax base and employment were raised by both retired people and those still working. There were concerns regarding the perceived 'marginal grade' and mine viability, and the danger of commodity swings and boom and bust.

There were comments asking for a comprehensive socioeconomic study to be completed so that potential effects on tourism, property values, professional recruiting, staffing and training for locals, etc., could be evaluated. Concerns were raised about whether the local residents who sought employment would get trained, and the potential for people to move to Kamloops just to work on the mine and have no connection or commitment to the community. Such a study would need to include all the benefits as well as the costs such as health impacts, and potential impacts on the branding of the community as the Tournament Capital of Canada.

The following sections describe the economic concerns identified in submissions from the public. KAM responses to the themes/comments are included.

5.2.4.1 Economic Diversification and Economic Growth

Economic Diversification and Economic Growth VC concerns oriented around assessment of effects on economic diversification and growth, viability of the mine, Kamloops' area image, comparison of benefits and costs, including any subsidies, and consideration to health care, infrastructure, and remediation costs in the assessment.

The Economic Diversification and Economic Growth VC concerns identified and KAM's responses to these concerns are summarized in

Table 5-20. Economic diversification and economic growth-related concerns were also considered and addressed in the Community Health and Well-Being, Outdoor Recreation, Labour Force, Employment and Training, Income, and Business VCs.

Potential effects on commercial agriculture will be addressed through the assessments completed in the Economic, Social and Health Valued Components, including Land and Resource Use, and Country Foods.

Table 5-20: Economic Diversification VC Comments and Responses

Representative Comments	Summary of KAM Response
<p>Open, objective assessment of adverse effects on Kamloops image as tournament capital and desirable area for outdoor recreation such as skiing, fishing, hunting, golfing, cycling, etc.</p> <p>Open, objective assessment of the benefits of the mine and adverse effects on economic opportunities other than mining, such as health care, university, ranching, tourism, hospitality.</p>	<ul style="list-style-type: none"> • These topics will be discussed and/or referenced under the Community Health and Well-Being, Outdoor Recreation, and other VCs as appropriate. • Potential effects on economic diversification will be assessed and described in the Application/EIS. The assessment will include a description of the relative contribution of notable sectors to the Kamloops area economy. • Forage production/supply for livestock will be considered in the assessments.
<p>Will the environmental assessment include an analysis of benefits of tax and other benefits to the City of Kamloops and Province of BC compared with costs for health issues, infrastructure and environmental remediation?</p>	<ul style="list-style-type: none"> • Assessment will include estimates of contributions to GDP and government tax revenue (federal, provincial, and municipal). • The Application/EIS will provide a high-level cost estimate for reclamation of the site upon closure of the mine. More detailed cost estimates will be developed to support permitting and bonding requirements. • The Project design and management will incorporate approaches to avoid or mitigate health issues, effects on infrastructure and minimize environmental effects. • Characterization of potential costs associated with health issues, infrastructure that are beyond KAM's control (e.g., choices in provincial or municipal health care/infrastructure spending), and costs for environmental remediation of unplanned events fall outside of the scope of an environmental assessment.
<p>Viability of the mine and potential for shutdown due to commodity price variations, increased regulatory requirements, and other factors.</p>	<ul style="list-style-type: none"> • A mine plan has been developed based on a standard set of assumptions and estimates. Commodity price variations, increased regulatory requirements and other potential challenges to operating circumstances fall outside of the scope of the Application/EIS. Measures to ensure safe temporary closure, if it were required, will be discussed in the Application/EIS. • Boom-bust cycles will be discussed in Community Health and Well-Being and in Economic Diversification sections of the Application/EIS.
<p>Cost-benefit approach should be used and include tax breaks and government subsidies</p>	<ul style="list-style-type: none"> • A socio-economic impact approach will be used to assess potential Project effects on the Economic and Social VC's identified. A cost-benefit approach would not materially contribute to the process of

Representative Comments	Summary of KAM Response
	<p>discerning and describing pathways of effects resulting from the Project.</p> <ul style="list-style-type: none"> • Economic effects of the Project will be assessed using realistic estimates of expenditures and taxes.

5.2.4.2 Labour Force, Employment and Training

Labour Force, Employment and Training VC concerns oriented around assessment and identification of higher skilled jobs, local hiring, school enrollment, job security, comparison of different sectors, and trade-offs with health and environmental risks and costs.

The Labour Force, Employment and Training VC concerns identified and KAM's responses to these concerns are summarized in

Table 5-21. Labour force, employment, and training-related concerns were also considered and addressed in the Business, Income, and Economic Diversification VCs.

Table 5-21: Labour Force, Employment and Training VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>Objective, accurate assessment and identification of the number of higher skilled jobs and training for Kamloops residents and non-local residents.</p> <p>Potential to affect levels of enrollment in schools and universities.</p> <p>Security and continuity of jobs at the mine.</p>	<ul style="list-style-type: none"> • Potential effects will be assessed and described in the Application/EIS. The following aspects will be central to this VC discussion: <ul style="list-style-type: none"> – Project workforce requirements over the life of the Project and potential implications for local population changes; – Occupation-type; – Likelihood that position could be filled locally; – Presence of training opportunities locally; – Project-related hiring policy and practices; and – Other relevant information such as youth recruitment.
<p>Analysis of trade-offs between jobs and health and environmental risks and costs.</p>	<ul style="list-style-type: none"> • The Application/EIS will present the results of trade-off studies as they relate to alternative means of carrying out the Project. • KAM also regularly conducts risk analyses to ensure that all aspects of the Project are being designed to avoid, or reduce environmental and health risks (among others). While these are evaluated independently to ensure a sound project, it is beyond the scope of analysis for the purposes of environmental assessment to place values on the benefits and risks and compare these results. .
<p>Resource-based economy employment vs. “professional” employment (e.g., tourism, university).</p>	<ul style="list-style-type: none"> • The Application/EIS will include a description of the number and nature of jobs associated with the

Representative Comments	Summary of KAM Responses
	<p>Project and an estimate of income related to those jobs. It will also include a description of employment trends, including key sectors in the area. Discussion on the distribution of different types of occupations will be informed by the Economic Diversification and Economic Growth VC.</p>
<p>If the mine is approved will there be data available with regards to how many jobs are created for people in Kamloops versus jobs that will be recruited for from outside of our community and the positive economic impact to our community that these jobs and other investments will bring?</p> <p>Related to this, should the mine be approved, will there be a formal mechanism to track the potential loss of jobs and human resources from our community? Will we be able to track the potential negative economic and human resource impacts? Specifically, there are concerns that health care professionals and perhaps other sectors of our economy may find Kamloops a less attractive place to live. Can we track whether in fact this plays out should the Project be approved? If so, how will the company mitigate a potential loss?</p>	<ul style="list-style-type: none"> • The Application/EIS will describe the number of jobs that are expected to be filled locally and those from provincial, national or international locations. • The Application/EIS will describe the total number of positions expected to be required for the construction and operations phase of the Project. It will also include ranges for the estimated number of positions that are expected to be filled locally and from outside the community. The Application/EIS will also include information on the economic impact these expenditures are expected to produce on the regional, national and to the extent feasible, the local economy.
<p>Effects on professional recruitment and retention (doctors, surgeons, other health care professionals).</p>	<ul style="list-style-type: none"> • Potential effects of the Project on other infrastructure and services in the City of Kamloops will be considered, including health sector-related professions in Community Health and Well-Being. • Potential effects to health services will be addressed in the Infrastructure and Services and Community Health and Well-being VCs. The Application/EIS will consider the concerns raised to date on the perceived shortage of health professionals in the region. If pathways of effect from the Project can be confirmed and clarified, suitable mitigation/monitoring measures will be identified.

5.2.4.3 Economic Valued Component: Income

Income VC concerns oriented around comparison of wages, benefits from wages to local community, and security of income.

The Income VC concerns identified and KAM's responses to these concerns are summarized in

Table 5-22. Income-related concerns were also considered and addressed in the Labour Force, Employment and Training, and Economic Diversification and Economic Growth VCs.

Table 5-22: Income VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>Identification of wages to be paid by KAM for various positions, compared with other occupations in the City of Kamloops.</p> <p>Identification of potential benefits to City of Kamloops and local businesses from wages paid to Ajax employees.</p> <p>Identification of potential fluctuation and security of wages.</p>	<ul style="list-style-type: none"> Potential effects on socio-economic conditions will be assessed and described in the discussion of Income. The assessment will include ranges of potential wages for broad types of employment opportunities. To the extent feasible, this will include a range of estimates for local employees.

5.2.4.4 Business

Business VC concerns oriented around benefits to and adverse effects on the City of Kamloops and businesses, changes in number and types of businesses, and desirability for doing business in the City of Kamloops.

Business-related concerns were also considered and addressed in the Labour Force, Employment and Training, Economic Diversification and Economic Growth, Outdoor Recreation, and Income VCs.

The Business VC concerns identified and KAM's responses to these concerns are summarized in **Table 5-23**.

Table 5-23: Business VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>Identification of potential benefits to the Province, City of Kamloops, and local businesses from taxes.</p> <p>Identification of potential changes to number and types of businesses, revenues, and desirability of City of Kamloops as a place to do business.</p> <p>Identification of potential adverse effects on agricultural industry, organic farming, and natural resource-related businesses, such as local fish retailers.</p>	<ul style="list-style-type: none"> The Statistics Canada input-output model results will describe the overall economic benefits of Project expenditures on the Province and if feasible, the Kamloops area and will be described in the Project Benefits discussion. The discussion of Business will include capacity of local businesses to participate in Project opportunities in addition to potential competition created by the Project. Effects to Land and Resource Use will identify potential adverse effects to the agricultural industry in addition to other resource-related activities.
<p>Identification of potential adverse effects on businesses due to catastrophic failure of TSF.</p>	<ul style="list-style-type: none"> The Accidents and Malfunctions section of the Application/EIS will speak to potential issues of this kind.

5.2.4.5 Property Values

Property Value VC concerns oriented around assessment of effects on property values and responsibility and compensation for adverse effects on property values. KAM adjusted the GA and will implement additional measures that will address property value-related concerns, including

- moving infrastructure further south, away from residences;

- designing a detailed blast plan and adaptive management plan to minimize impacts associated with blasting, noise, vibration, and adverse effects on soil stability;
- moving the TSF south to avoid visual effects along Coquihalla Highway and from nearby residences;
- moving crusher further south to minimize noise;
- compacting Project, potentially reducing noise, emissions, and dust;
- avoiding unnecessary lighting;
- shielding lighting where needed;
- automating lighting to turn off when not needed; and
- dust mitigation strategies.

The Property Values VC concerns identified and KAM's responses to these concerns are summarized in **Table 5-24**. Property values–related concerns were also considered and addressed in the Business, Labour Force, Employment and Training, Income, and Economic Diversification and Economic Growth VCs.

Table 5-24: Property Values VC Comments and Responses

Representative Comments	Summary of KAM Responses
Open, objective assessment of effects on property values of City of Kamloops in general and of nearby homes from potential noise, blasting (including soil stability), dust, water contamination, TSF breach, and quality of life.	<ul style="list-style-type: none"> • This portion of the assessment will be informed by the range of factors that could potentially have a real or perceived effect on property value, including noise, blasting, dust, etc. • The revised GA includes the relocation of the former NWRSF to the south (i.e., to the SWRSF) and a significantly reduced EWRSF design, project development upslope from Aberdeen is reduced, and therefore the risk of increased recharge through the mine rock storage facilities potentially leading to slope instability has been significantly reduced. The Application/EIS will include an assessment of potential effects on slope stability.
Loss of residential land for future development.	<ul style="list-style-type: none"> • This topic will be discussed under the Land and Resources Use VC.

5.2.5 Social Valued Components

Concerns were raised about the potential effects of the mine on the nearby community. Concerns ranged from health and wellbeing of the residents to quality of life and the related concerns about noise, clean air and water. There were comments about the reputation of Kamloops and the cyclical nature of industries involved in commodity production.

Concerns were raised about the potential impacts to traffic and traffic movement, and potential infrastructure costs. Visual concerns were raised about light pollution and the aesthetics of the mine structures and landscape. Land and resource uses related to recreation and agriculture were raised as potentially being impacted by the mine. KAM is aware of these as potential concerns and has addressed these through the selection of the appropriate VCs, and

undertaking the assessment, incorporating avoidance or mitigation into mine design and operations planning, and will work up appropriate management and mitigation plans.

A concern was raised about the lack of reference to effects on human rights in the AIR/EIS Guidelines. Assessing potential Project effects on human rights is beyond the scope of the environmental assessment process.

5.2.5.1 *Community Health and Well-Being*

Given the complex array of factors that can affect community health and wellbeing, this VC has linkages to other VCs, including Air Quality, Water Quality, Country Foods, and Noise and Vibration. Aboriginal and non-Aboriginal community health and well-being, including perceived changes to community image, will be assessed where information is available.

The Community Health and Well-Being VC concerns identified and KAM's responses to these concerns are summarized in

Table 5-25.

Table 5-25: Community Health and Well-Being VC Comments and Responses

Representative Comments	Summary of KAM Response
Open, objective assessment of effects of the mine (including noise) on community health and well-being, including identification and an analysis of adverse health, social, and economic effects.	<ul style="list-style-type: none"> • Potential effects on community health and well-being will be assessed and described in the Application/EIS. The assessment will include an analysis of potential adverse health, social, and economic effects. • The need for a social effects monitoring program will be considered based on the outcomes of the social effects assessment.
City image/reputation as a mining/industrial town with related boom and bust cycles.	<ul style="list-style-type: none"> • The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project.
Health and well-being of current residents who live close to the Project. Quality of life (recreational opportunities, quiet, clean air, peace, worry about health issues).	<ul style="list-style-type: none"> • The Application/EIS will include a HHERA and an assessment of Community Health and Well-being. Where comparable conditions exist with respect to other operations, insights from these will be used to inform the current assessment.

5.2.5.2 *Infrastructure, Public Facilities and Services*

Potential effects within the local and regional study area associated with the Project, primarily on the City of Kamloops, include the presence/influx of Project workers. An increase in population can create additional pressures on municipal facilities, municipal infrastructure, and services such as health care, emergency services, public transportation, and recreation facilities. It can also cause changes to local traffic patterns.

The Infrastructure, Public Facilities and Services VC concerns oriented around traffic patterns, loss of and compensation for lost access, responsibility for infrastructure upgrades and maintenance, subsidies and proximity to infrastructure, and availability and use of services.

The Infrastructure, Public Facilities and Services VC concerns identified and KAM's responses to these concerns are summarized in

Table 5-26.

Table 5-26: Infrastructure, Public Facilities and Services VC Comments and Responses

Representative Comments	Summary of KAM Response
<p>Change in downtown traffic patterns. Concerns about potential increased traffic on Lac Le Jeune and other roads.</p>	<ul style="list-style-type: none"> • A Traffic Impact Assessment will be included in the Application/EIS. • KAM adjusted the GA to provide main access from the Coquihalla Highway, avoiding use of Lac La Jeune Road as main access during mine operation.
<p>Compensation for and loss of Goose Lake Road for access and transportation.</p>	<ul style="list-style-type: none"> • Goose Lake Road closure will be subject to permitting. Potential effects of the closure, and proposed mitigation, will be presented in the Application/EIS.
<p>Responsibility for costs linked to upgrades and maintenance of infrastructure. Responsibility for cost of possible increased maintenance on Coquihalla Highway.</p>	<ul style="list-style-type: none"> • KAM is reviewing with the Province of BC plans to connect the Project to public infrastructure. • The Province of BC is responsible for maintenance of the Coquihalla Highway. Consistent with provincial requirements KAM will contribute royalties to the Province of BC. The government will determine how those royalties are allocated.
<p>Increase in traffic in Vancouver harbour.</p>	<ul style="list-style-type: none"> • In accordance with the principles of environmental assessment, the assessment of potential effects of increased traffic is focused on the study area where the project could conceivably create a measurable effect. Potential traffic effects will be assessed for the access roads to the Project and within key intersections within the City of Kamloops.
<p>Potential subsidized power.</p>	<ul style="list-style-type: none"> • Electricity rates and tariffs will be consistent with published rates applied to all other Large General Service industrial customers in BC.
<p>Proximity of transmission line and substation to homes.</p>	<ul style="list-style-type: none"> • BC Hydro is responsible for determining transmission line and substation construction standards. BC Hydro transmission line rights-of-way will be constructed by KAM to provide sufficient distance to residences to abide by regulatory standards.
<p>Ability for services to respond to an emergency such as a tailings breach.</p>	<ul style="list-style-type: none"> • The Application/EIS and/or associated Project permits will include discussion and planning around emergencies of this kind.
<p>Use of municipal services (e.g. fire protection) for the Project.</p>	<ul style="list-style-type: none"> • The Application will include discussion of requirements for fire protection and other municipal emergency services.

5.2.5.3 Dark Sky

Justification for inclusion of Dark Sky as a VC comes from specific concerns expressed by the public, including residents of Kamloops and the Kamloops Astronomical Society. KAM adjusted the GA and will implement additional measures that will address dark sky-related concerns, including:

- moving infrastructure further south away from residences;
- avoiding unnecessary lighting;
- shielding lighting where needed; and
- automating lighting to turn off when not needed.

Dark sky-related concerns were also considered and addressed in the Human Health VC. The Dark Sky VC concerns identified and KAM's responses to these concerns are summarized in

Table 5-27.

Table 5-27: Dark Sky VC Comments and Responses

Representative Comments	Summary of KAM Responses
Concerns about light pollution (from traffic, mine operations) and associated effects (on wildlife, fish, humans).	<ul style="list-style-type: none">• Potential effects from Project light will be assessed, and mitigation will be described in the Application/EIS.• Studies of baseline conditions are ongoing and possible mitigation alternatives will be considered in the design phase of the mine development process. This process, including presentation of options, will be documented within the Application/EIS.

5.2.5.4 Visual Impact/Aesthetic Features (including Shading)

The visual impact of the Project was raised as a concern by the public and by local governments. Assessment will include consideration of changes to the viewshed and changes associated with shading for residents and local special interest groups. KAM adjusted the GA and will implement additional measures that will address visual impact/aesthetic features, including:

- moving infrastructure further south, away from residences;
- moving the TSF south to avoid visual effects along Coquihalla Highway and to nearby residences;
- avoiding unnecessary lighting;
- shielding lighting where needed; and
- automating lighting to turn off when not needed.

Dust will be minimized by:

- designing a detailed blast plan and adaptive management plan to minimize impacts associated with blasting;
- condensing the Project footprint;
- paving the main access road;

- employing best dust suppressant technology;
- reducing haul distances and the number of haul trucks;
- controlling dust associated with crushing and conveying ore; and
- covering ore storage piles.

The Visual Impact/Aesthetic Features VC concerns identified and KAM's responses to these concerns are summarized in **Table 5-28**.

Table 5-28: Visual Impact/Aesthetic Features (including Shading) VC Comments and Responses

Representative Comments	Summary of KAM Response
Visual concerns related to transmission line, pits, rock and reclamation storage facilities, potential dust, and Project infrastructure.	<ul style="list-style-type: none"> • Potential visual/aesthetic effects from the Project will be assessed and described in the Application/EIS. • Changes have been made to the GA to reduce adverse visual effects. • Mine rock storage and other Project infrastructure will be progressively reclaimed to minimize adverse visual effects.

5.2.5.5 Land and Resource Use

The Project could result in changes to the physical, terrestrial, and aquatic environments, thereby having implications for land and resource use, including Aboriginal use, cattle ranching, forestry, mining, and community land use.

The Land and Resource Use VC concerns identified and KAM's responses to these concerns are summarized in **Table 5-29**.

Table 5-29: Land and Resource Use VC Comments and Responses

Representative Comments	Summary of KAM Responses
Future capability for agriculture, garden crops, livestock from dust/mineral uptake and soil changes.	<ul style="list-style-type: none"> • The Application/EIS will include an assessment of effects on land use, including agriculture practices. The assessment of effects on country foods may also inform the assessment of effects on agriculture practices. • Where necessary, methods to avoid or mitigate adverse effects will be provided in the Application/EIS. • As per <i>Mines Act</i> requirements, pre-disturbance vegetation studies will be conducted to determine baseline productivity (biomass), diversity (species composition), and metals content. Similarly, baseline soils data (morphological and chemical) must be submitted as part of the conceptual Reclamation and Closure Plan. End land use will be identified in the Reclamation and Closure Plan. • Forage production/supply for livestock will be considered in the assessments.

- Metal accumulation in soil and vegetation as a result of dust deposition will be included in the HHERA.

5.2.5.6 Outdoor Recreation

Public concerns related largely to the potential for lost or compromised recreational opportunities, primarily those associated with Jacko Lake, Inks Lake, Goose Lake, and Goose Lake Road. Potential Project effects include access restrictions to currently used areas and perceived degradation of recreational experiences.

Jacko Lake was identified as an important outdoor recreation location. Activities include fishing from shore and boat and wildlife and bird watching. It is also a source of irrigation water and contributes to flows in Peterson Creek. Although not all references to Jacko Lake related to outdoor recreation, Jacko Lake was mentioned 58 times in the public comments.

The Outdoor Recreation VC concerns identified and KAM's responses to these concerns are summarized in **Table 5-30**.

Table 5-30: Outdoor Recreation VC Comments and Responses

Representative Comments	Summary of KAM Responses
<p>Reduction or loss of recreational experience or use of surrounding area (Jacko Lake, Inks Lake, Goose Lake, etc.)</p> <p>Concerns regarding adverse effects on the City of Kamloops' image as the tournament capital and a desirable area for outdoor recreation such as skiing, fishing, hunting, hiking, golfing dirt biking, ATV driving, cycling, etc.</p> <p>Adverse effects on Peterson Creek park activities (biking, walking, running, dog walking, etc.)</p>	<ul style="list-style-type: none"> • Potential effects on outdoor recreation will be assessed and described in the Application/EIS. • Access to Jacko Lake will be maintained during operation. However, use of Jacko Lake and surrounding land will be restricted during blasting for public safety. • Public notification of proposed blasts will be provided. • Peterson Creek flows will be maintained.
<p>Compensation for loss of recreational fishing in northeast arm of Jacko Lake, reduced fishing experience.</p>	<ul style="list-style-type: none"> • Mitigation and offsetting approaches for potential effects on fish habitat are being evaluated as part of the Application/EIS. The Outdoor Recreation VC will consider potential effects on recreational fishing and present potential mitigation measures.

5.2.6 Heritage Valued Components

5.2.6.1 Heritage Objects, Sites

Heritage VC concerns oriented around investigating, avoiding, or mitigating adverse effects on the old St. Peter's Church site. KAM has consulted with the Anglican Church of Canada, the Ministry of Forests, Lands and Natural Resource Operations, and the B.C. Heritage Branch. The Application/EIS will include an Archaeological Sites Management Plan, including a Chance Find Procedure. KAM will implement measures that will address heritage-related concerns that address all phases of the project, from construction through closure.

The Heritage VC concerns identified and KAM's responses to these concerns are summarized in **Table 5-31**.

Table 5-31: Heritage Sites VC Comments and Responses

Representative Comments	Summary of KAM Response
<p>Need for a respectful, transparent investigation of former St. Peter's Church site that complies with regulatory requirements.</p> <p>Mitigation to avoid adverse effects on St. Peter's Church site.</p>	<ul style="list-style-type: none"> • The Archaeological Impact Assessment includes the St. Peter's Church site. • The Anglican Church and the Ministry of Forests, Lands and Natural Resource Operations, Archaeology Branch, have been included in discussions about site disposition. • The Application/EIS will include an Archaeological Sites Management Plan.

6. Conclusion

Public consultation is a key element of the EA process and is integral to KAM's philosophy regarding its relationship with the communities in which it operates. KAM is committed to continue consulting the public throughout and beyond the environmental assessment.

Input received from the public has and will continue to inform planning, will and influence the design and development of the project as well as methods to avoid, minimize, or otherwise mitigate potential adverse effects.

KAM thanks all who took the time to participate in the EA process by attending open houses, commenting in the Public Comment Period or otherwise sharing thoughts, concerns and opinions with the Proponent and government agencies about the Ajax Project.

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22 July 2015

Scott Bailey
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Dear Mr. Bailey,

Subject Line: Response to Community Advisory Group comments on the Revised AIR/EIS Guidelines

Thank you for providing us with the Community Advisory Group (CAG) comments of December 17, 2014 regarding the revised version of the Application Information Requirements/Environmental Impact Statement Guidelines (AIR/EISg) submitted to the BC Environmental Assessment Office (BC EAO) and the Canadian Environmental Assessment Agency (the Agency) for the proposed KGHM Ajax Mining Inc. (KAM) Ajax Project (Project). We appreciate that the CAG took considerable care in developing their comments; this letter and associated attachments are intended to provide a direct response to the CAG.

As you are aware, the revised AIR/EISg was formally published on the BC EAO Project Information Centre website and a summary of the revised AIR/EISg document was posted on the Agency's website on November 10, 2014. The BC EAO and the Agency published a notice of a public comment period from November 18, 2014 to December 18, 2014, and extended the comment period to capture public comments up to December 22, 2014. The BC EAO and the Agency initiated an update of the AIR/EISg in response to an update to the Project as announced by KAM. The purpose of the comment period was to provide an opportunity for input

to be considered by BC EAO and the Agency in their finalization of the updated document. KAM is committed to open dialogue and understanding the community needs in our shared interest in protecting the environment. Consistent with this commitment, KAM met with the CAG on October 20, 2014 to provide an overview of the planned updates to the Project layout and to answer questions. KAM has reviewed the CAG’s comments and took careful consideration in providing the following responses.

KAM noted five cross-cutting themes raised by the CAG comments on the AIR/EISg which are responded to below. In addition, CAG’s section specific comment submission was transcribed into a Comment/Response table, attached, following the template guidance recommended by the BC EAO. These comments were grouped into topics for the purposes of providing KAM’s response to CAG comments in an easy to read format. Comments were assigned a unique identifier number per row in the table and responses were provided to explain how comments/concerns were considered. Figure 1 describes the table headings. These include: topic; summary of comment; nature of comment, the AIR/EISg section and response.

Figure 1: Comment/Response Tracking Table Heading

Column 1	2	3	4	5	6	7	8	9
Comment #	Topic	Summary of Comment	Nature of Comment	Comment is related to the AIR/EISg or Application/EIS	Related to AIR/EISg Section	Commenter Request to Change AIR/EISg	Proponent Response	Recommended Change Made to AIR/EISg in consideration of Comment

The comments provided by CAG were categorized as follows and described in Column 5, 6, and 7, respectively, in the Comment/Response table:

- Comments seeking clarification of changes to the AIR/EISg;
- Requests to make further changes to the AIR/EISg; or
- Issue/comment directed to BC EAO or the Agency for an appropriate response.

Where the comment requested to change the AIR/EISg, consideration was taken whether the existing AIR/EISg text already captured the requirement. If such was the case, the specific section of the AIR/EISg has been noted for reference to

indicate where the comment has already been addressed as a requirement. Where appropriate, KAM made changes to the AIR/EISg.

While all comments were taken into consideration, it is important to note that where the comment was requesting study level detail, KAM is of the opinion that no revisions are necessary for the AIR/EISg as this is a terms of reference document. KAM will fully consider the comment as valued input into the completion of the Application/EIS document submission.

For those issues/comments specifically related to the procedural aspects of the regulatory process, these are more appropriate for response by BC EAO or the Agency, and as such KAM has deferred to the BC EAO and the Agency for response.

The Comment/Response table indicated that 80 comment submissions (effectively 95 comments if counting sub-comments) were received from the CAG. Of those, 64 of 95 comments and sub-comments were requests to change the AIR/EISg text. KAM has responded to all comments with careful consideration. Fifty of 64 responses were of the nature that the existing AIR/EISg text already captured the commenter's request or the responses provided additional clarification to assist the commenter. Fourteen of 64 responses indicated that a change to the AIR/EISg text was recommended.

The following section expands on the responses provided in the table for what KAM has interpreted as overarching and thematic issues that CAG has raised.

Release of Information

CAG provided comments raising concern that data needed to inform the development of the AIR/EISg, including geological assay, meteorology, water quality, and streamflow data has not been released by KAM. A key area of interest by the CAG is to ensure that the assessment process does not overlook important issues and that the methodologies undertaken to conduct the environmental assessment are robust. CAG emphasized, for example, that detailed geological assay data for the materials that will be disturbed excavated, or exposed as a result of the Project is needed to inform the selection of parameters to be included in ARD/ML

assessment, air quality modeling (as an input into the Human Health and Ecological Risk Assessment (HHERA)) and water quality modeling.

KAM is committed to the transparent and timely disclosure of environmental studies relevant to the environmental assessment of the Project. The AIR/EISg requires that the Application/EIS include detailed environmental baseline data, including the QA/QC procedures used in its collection. While the AIR/EISg provides preliminary lists of parameters to be included in modeling efforts such as air quality, water quality, and the subsequent HHERA, the Application/EIS is required to provide the rationale for the inclusion and exclusion of all potential parameters of concern. KAM is of the opinion that the issue raised by the CAG is largely one of timing and that the requested information will be included in due course, as part of the Application/EIS. KAM is of the opinion that releasing studies in their entirety, in a complete Application/EIS will reflect the integrative nature of the environmental assessment, providing the full context, rather than releasing raw data in a form while still under assembly and without QA/QC or analysis.

Human Health Considerations

CAG provided comments raising concern around the proximity of the Project to Kamloops, and the potential impacts to human health. Key areas of interest included: desire for open access to assay data to inform the health assessment; need for collection of baseline health data from within the community; concerns regarding the adequacy of air quality analysis (as input to the health assessment; discussed further below); ensuring the assessment will consider a range of social groups; consideration of economic costs of health impacts; and potential loss of physicians due to the Project.

KAM has heard the community's concerns related to human health through various means of engagement related to the Project. To help address these concerns within the AIR/EISg, the updated document included a new Human Health Valued Component (VC) as described in Section 10.4. KAM will conduct a quantitative Human Health and Ecological Risk Assessment (HHERA) that meets or exceeds Health Canada standards, to consider and evaluate potential exposure pathways

including risks associated with changes in air quality, water quality, and country foods. The assessment of the Human Health VC will be complemented by the assessment of Noise and Vibration, as well as socio-economic considerations. As such, the assessment and management of potential health impacts will follow an integrated and inter-disciplinary approach to consider potential effects on the community and local residents, in addition to potential risks of exposure to contaminants.

As well, KAM has subsequently proposed to the BC EAO and the Agency to move the “Community Health and Well-being” VC from the social pillar (Section 8 of the AIR/EISg) to the health pillar (Section 10 of the AIR/EISg). While this is largely a structural change, KAM is of the opinion that this will more clearly link the discussion of the various biophysical and social determinants of health. KAM has prepared a short summary document that further outlines how health related aspects will be evaluated and assessed in the Application/EIS; please see attached.

Air Quality Considerations

The CAG provided comments raising concern around the potential impacts on air quality. Key areas of interest included: adequacy of baseline data used in the assessment; the specific pollutants included in the dispersion modelling, and size of the modelling domain.

Air quality assessment will be an integral requirement of the environmental assessment. KAM is of the opinion that the air quality section of the updated AIR/EISg (Section 10.1) adequately reflects the requirements for the Project.

Consistent with provincial requirements, a Detailed Modelling Plan for the air dispersion modelling was developed with stakeholder input, and submitted to the BC Ministry of Environment. This plan outlined the approach KAM proposes for modelling, including:

- the baseline information to be used in the model;
- the software to be used;
- the parameters of interest;
- the model domain and grid sizing;

- special receptors to be modelled; and
- the scenarios to be modelled:
 - the base case or pre-Project case (which includes current emissions from the Kamloops area, and is calibrated to observed data),
 - the Project-alone case, and
 - the Application case (which includes the base case or pre-Project case plus the Project-alone case).

Baseline conditions for air quality will be described in the Application/EIS and any uncertainties or limitations associated with the baseline data will be noted.

Parameters or contaminants to be included in the model are: SO₂, NO_x, CO, TSP, PM₁₀, PM_{2.5} and total dustfall. These are criteria air contaminants for which the government has provided guideline values. As outlined in the AIR/EISg Section 10.1.4, ultrafine particles (<1.0 µm in diameter) are a sub-set of PM_{2.5} and are thus captured in the current scope of the assessment. Unlike the parameters listed above, there are no established thresholds/guidelines for ultrafine particulates. However, the HHERA will be included in the Application/EIS and will include a discussion on ultrafine particles in relation to health risks. A preliminary list of metals to be considered in dustfall and TSP is also included in the AIR/EISg Section 10.1.4. The AIR/EISg will provide the rationale for the inclusion and exclusion of all potential parameters from the model. Substances of interest were selected because they were present in test results and because there is the potential for human exposure or uptake into plants from the mobile portion of the substances.

Dispersion modelling of air quality for the Project will be conducted following the Guidelines for Air Quality Dispersion Modelling in British Columbia (BC MOE 2008)¹. The CALPUFF model is the standard model used in environmental assessment in the province of BC.

Conservative assumptions will be used in developing the Project-alone case to ensure that the model over-estimates rather than under-estimates the concentrations of modelled parameters.

¹ BC MOE. 2008. *Guidelines for Air Quality Dispersion Modelling in British Columbia*. Prepared by the British Columbia Ministry of Environment: Victoria, BC.

The Detailed Modelling Plan has been reviewed and approved by the Ministry of Environment.

It is also important to note that an Air Quality Monitoring and Dust Management Plan will be developed as part of the Application/EIS (Section 11.2 of the AIR/EISg), which will describe Project-specific mitigation and monitoring requirements.

Recognizing the level of concern in relation to air quality, KAM's team has worked hard to engage with government agencies, stakeholder groups (including the CAG), and the general public to provide information related to the approach being taken. This has included: providing information to the public via the Project website; hosting numerous community sessions where technical experts have been available to discuss and answer questions; and meeting with key members of the technical working group to present plans and modelling information. KAM is committed to continued engagement in relation to air quality, both prior to submission of the Application/EIS, during the application review stage, and throughout the Project life.

Economic Considerations

CAG provided comments requesting the BC EAO and the Agency to scope in additional economic studies in the AIR/EISg. Key areas of interest raised included: request the inclusion of benefit-cost analysis that identifies the economic costs of environmental degradation, health or depletion of natural resources; disclosure of risks and proponent's insurance coverage; request assessment of the financial feasibility of the Project and whether the proponent is able to finance mitigation and closure; and request to include more specifics on the valuation/devaluation of property prices close to the mine and in Kamloops as a whole.

KAM intends to follow the consistent and established environmental assessment methodologies that are within the scope of environmental assessment requirements employed in BC to guide the development of the Application/EIS. The BC *Environmental Assessment Act* requires the assessment of whether the proposed Project is likely to have a significant adverse environmental, economic, social, heritage and health effects, including cumulative impacts with other projects and

activities, having regard to the mitigation measures proposed. KAM will assess the baseline conditions prior to project development to provide a fully-informed context and setting, conduct a rigorous environmental assessment and develop an Application/EIS that complies with all information requirements as set out in the AIR/EISg to allow for the evaluation of potential effects of the Project.

Property Value Considerations

The CAG provided comments raising concern around the potential impacts on property values near the Project site and in Kamloops as a whole.

KAM has listened to the community's concerns regarding property values as the topic was raised previously by the public, including residents, administrators from the City of Kamloops, real estate agents, developers and landowners in the vicinity of the Project. To address this concern, Property Values were included as a VC in the AIR/EISg to be analyzed in the Application/EIS. KAM is of the opinion that the AIR/EISg (Section 7.5.) adequately reflects the assessment requirements for the Project.

The Application/EIS will evaluate property values with respect to the Project considering:

- the identification of different types of property (i.e., residential, commercial, industrial, and agricultural land) in the local study area of the environmental assessment;
- the analysis of potential adverse effects resulting from the Project, including the impact to housing affordability and availability;
- the potential pathways of effect, including labour force/population (i.e., increased demand for housing), nuisance factors such as air quality, noise, vibration, and other general environmental risks (e.g., accidents/malfunctions); and
- the measures the Proponent will commit to undertaking to mitigate the potential adverse effects identified above.

In closing, the KAM team is committed to consulting the community and we appreciate the opportunity to respond to the CAG comments. Based on the final revised AIR/EISg to be issued by BC EAO and the Agency, KAM will carry out the required studies and present the findings in a joint Application for an Environmental

Assessment Certificate for provincial review and an Environmental Impact Statement for federal review.

Sincerely,



Nicola Banton

Environmental Assessment Permitting Manager

Ajax Project

Proposed KGHM Ajax Mining Inc. Ajax Project Application Information Requirements/Environmental Impact Statement Guidelines - KAM Responses to Comments received from the Community Advisory Group, March 2015

Comment #	Topic	Summary of Comment	Nature of Comment	Comment is related to the AIR/EISg or Application/EIS	Related to AIR/EISg Section	Commenter Request to Change AIR/EISg	Proponent Response	Recommended Change Made to AIR/EISg Due to Comment	Response Date
1	General	<p>1. KGHM AJAX COVERING LETTER</p> <p>Commenter does not agree with the AIR statement that there was extensive review by the Project Working Group. The following submission comments provide reasons that indicate why issues raised were prevented from an extensive public review.</p> <p>Commenter does not agree with the statement, "Application Information Requirements/Environmental Impact Statement Guidelines AIR/EIS document was developed and approved by the BC Environmental Assessment Office and Canadian Environmental Assessment Agency in June 2013 following extensive review by the Project Working Group (comprised of representatives from federal, provincial, and local governments, and Aboriginal groups), and the public."</p>	Does not agree with the AIR/EISg statement that the AIR/EISg document was developed with extensive review by the Project Working Group.	AIR/EISg	Cover letter	No	Comment regarding the cover letter noted. Comment does not require a change to the AIR/EISg text.	No	30-Mar-15
2a	General	<p>2. PROJECT DESCRIPTION P1 OF P7 AND P2 OF P7</p> <p>The following statement is not accurate and should be revised in the final AIR/EIS:</p> <p>"KGHM Ajax Mining Inc. proposes to develop the Ajax Project, an open pit copper-gold mine at the historic Afton Mining Camp, south-west of the City of Kamloops, British Columbia (BC)," and "The Project is located in the South-Central Interior of British Columbia, southeast of the junction of the Trans-Canada Highway No. 1 and the Coquihalla Highway (No. 5), within the Thompson Nicola Regional District. The coordinates for the centre of the Project area are approximately 50°36' N latitude and 120°24' W longitude."</p> <p>This statement is inaccurate because the southwest corner of the City of Kamloops lies in the immediate vicinity of the Inks Lake-Coquihalla Highway interchange. The entire Afton project is located to the east-southeast of this point. In fact, as the Project Description states: "Some ancillary facilities, including the exploration camp, administration building, and explosives storage, may be located just within the city boundaries." This places the Ajax project directly south of the City of Kamloops.</p>	Request text revision to the AIR/EISg, the Ajax project should be described as directly south of the City of Kamloops.	AIR/EISg	Preface, p.1 of 7	Yes	The AIR/ EISg will be updated to state: KGHM Ajax Mining Inc. proposes to develop the Ajax Project, an open pit copper-gold mine at the historic Afton Mining Camp, south of the City of Kamloops, British Columbia (BC),	Yes	30-Mar-15
2b	General	<p>2. PROJECT DESCRIPTION P1 OF P7 AND P2 OF P7</p> <p>Clarify meaning of statement, "...details of the design are subject to change as work continues." Will changes be implemented with or without the public consultation?</p> <p>Does the term "design are subject to change" imply such design parameters as location, size, dimension and/or volume?</p>	If details of the design are subject to change as work continues, will changes be implemented with public consultation? Clarify the parameters of the term "design are subject to change?"	AIR/EISg	Project Description	Yes	No change required to the AIR/EISg text. The Ajax Project will continue to evolve through the normal course of planning, including input received from the EA Process. The Application/EIS will be based on the Project as defined at time of filing and will be available for public review and comment after completion of the Screening process to be completed by EAO. Subject to change acknowledges that Projects undergoing EA are still in the planning stages.	No	30-Mar-15
3a	Project Description	<p>3. PROJECT DESCRIPTION P3 OF P7 WASTE ROCK</p> <p>The total amount of waste rock, including topsoil, is 1,197 Mt. It is stated that 5 waste rock storage facilities are planned. Storage amounts are stated for four facilities, totaling 848 Mt. The unstated amount is for the Tailings Embankments. What is the estimated amount of waste rock that will be used for the Tailings Embankments?</p> <p>Clarify what is the estimated amount of waste rock that will be used for the Tailings Embankments?</p>	Clarify what is the estimated amount of waste rock that will be used for the Tailings Embankments?	AIR/EISg	Project Description	Yes	The AIR/ EISg text will be updated on P3 of P7 to include the following clarifying sentence:... " <u>The Tailing Embankment will use approximately 230 Mt of waste rock material for construction.</u> "	Yes	30-Mar-15
3b	Waste rock	<p>3. PROJECT DESCRIPTION P3 OF P7 WASTE ROCK</p> <p>An earlier version of the AIR/ EIS stated that overburden and topsoil would be stored in stockpiles east of the open pit. This revision states that "Overburden and topsoil will be stored in stockpiles on the East Waste Rock Storage Facility." What is the rationale for this change of plan?</p>	Clarify the rationale for the change of plan of the overburden and topsoil will be stored in stockpiles on the East Waste Rock Storage Facility.	AIR/EISg	Project Description	No	The general arrangement for the Project was optimized to address concerns raised in earlier consultation processes, e.g., noise, vibration, and air quality (dust) in the nearest Kamloops neighbourhoods of Aberdeen and Pineview, and to reduce visual impacts.	No	30-Mar-15

Proposed KGHM Ajax Mining Inc. Ajax Project Application Information Requirements/Environmental Impact Statement Guidelines - KAM Responses to Comments received from the Community Advisory Group, March 2015

Comment #	Topic	Summary of Comment	Nature of Comment	Comment is related to the AIR/EISg or Application/EIS	Related to AIR/EISg Section	Commenter Request to Change AIR/EISg	Proponent Response	Recommended Change Made to AIR/EISg Due to Comment	Response Date
3c	Waste rock	3. PROJECT DESCRIPTION P3 OF P7 WASTE ROCK Clarify placement of waste rock Based on information obtained from the Ajax Information Meeting, November 25, 2014, KGHM personnel stated that the Ajax deposit is open and trending to the Northeast, which is in the direction of the EWRSF. It was also stated that KGHM Ajax may be placing all the waste rock destined for the EWRSF to the SWRSF. If the EWRSF is not going to be developed because of the possibility of pit development in the vicinity of the proposed EWRSF, the revised Project Description in the AIR/EIS should state this.	Clarify placement of waste rock in project description.	AIR/EISg	Project Description	Yes	No change required to the AIR/EISg. The Ajax Project will continue to evolve through the normal course of planning, including input received from the EA Process. The Application/EIS will be based on the Project as defined at time of filing and will describe plans for the placement of waste rock.	No	30-Mar-15
3d	Project Description	3. PROJECT DESCRIPTION P3 OF P7 WASTE ROCK Instead of a new Tailings Storage Facility (TSF), wouldn't it be more cost effective and environmentally beneficial to reuse the existing Afton TSF?	Instead of a new Tailings Storage Facility (TSF), wouldn't it be more cost effective and environmentally beneficial to reuse the existing Afton TSF?	AIR/EISg	Project Description	No	The Afton TSF capacity would be insufficient for the proposed Ajax Project, and therefore the proposed location of the TSF has been identified as the preferred option. Rationale for this preferred option, including a summary of technical, economical and environmental feasibility will be presented in the Alternatives Means of Carrying Out the Project section of the Application/EIS.	No	30-Mar-15
4	Project Description	4. PROJECT DESCRIPTION P3 OF P7 WATER MANAGEMENT FACILITIES Do the water management facilities include the seepage ponds in the mine closure phase? If not, why are these facilities not included in the assessment?	Do the water management facilities include the seepage ponds in the mine closure phase? If not, why are these facilities not included in the assessment?	AIR/EISg	Project Description	No	As indicated in Section 3.12 of the AIR/EISg, a site water balance will be developed for all phases of the Project. Continued use of seepage ponds as part of reclamation and closure of the mine are intended in some cases; in other cases, individual ponds may no longer be required. The Application/EIS will describe the Project's water management facilities during Closure, including seepage ponds/ water management ponds.	No	30-Mar-15
5	Project Description	5. PROJECT DESCRIPTION P6 OF P7 DEVELOPMENT OF THE AIR/EIS GUIDELINES The following statement is not accurate and should be revised in the AIR. Revise statement and clarify when the Ajax South General Arrangement was provided to the public. This statement suggests that the Figure 2.2-2 Ajax South General Arrangement in the revised AIR/EIS was released on May 29, 2014. This is not the case. This statement needs to be revised to state that details of the Ajax South GA were not released until November 10, 2014, when the revised AIR/EIS was posted on the EAO website.	Revise text in the AIR to indicate that the Ajax South General Arrangements were not released to the public until November 10, 2014, when the revised AIR/EIS was posted on the EAO website.	AIR/EISg	Project Description	Yes	KAM released information to the public related to the revised Project layout beginning May 29, 2014. The AIR/EISg will be updated, and the following sentence will be added at the end of the paragraph: <u>Following review of the draft revised AIR/EIS Guidelines by the Working Group, a second public comment period was initiated by the EAO and CEA Agency from November 18, 2014 to December 18, 2014. This included two public open houses held November 25 and 26 in Kamloops. All federal and provincial agency, Aboriginal group, and public comments on the draft revised AIR/EIS Guidelines are posted on the e-PIC website. Comments were considered by both the EAO and CEA Agency and relevant issues have been incorporated into the AIR/EIS Guidelines.</u>	Yes	30-Mar-15
6	Project Description	6. PREFACE TO THE AIR/EIS GUIDELINES: P 2 OF P7 What infrastructure will be located inside Kamloops? And how close is the "key infrastructure" set to be to Kamloops? Why has that information not been specified?	Clarify what infrastructure, and describe its proximity, will be located inside Kamloops.	AIR/EISg	Project Description	Yes	Under the proposed Project arrangement, the type of infrastructure that may be located within the City of Kamloops boundaries are administrative buildings, parking lots, etc. The Application/EIS will detail the project components and infrastructure, and will include figures showing the Project's key infrastructure relative to the city of Kamloops boundaries.	No	30-Mar-15
7	General	7. SECTION 2.1.1 PROPONENT Commenter does not agree with the statement. "It is incorrect that KGHM has been privatized. It was partly privatized, as the Polish Government still retains almost 32% ownership of the company."	Does not agree with the statement that KGHM has been privatized, as the Polish Government still retains almost 32% ownership of the company.	AIR/EISg	Section 2.1.1 Proponent	Yes	The AIR/EISg to be updated to state: <u>"KGHM Polska Miedz S.A. is a Polish copper mining and smelting company that formed in 1961 and is currently the ninth largest copper producer in the world. Since 1997 the Company has traded publicly on the Warsaw Stock Exchange under the symbol "KGHM".</u>	Yes	30-Mar-15

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8	Project Description	<p>8. SECTION 2.2.2 PROJECT LOCATION</p> <p>Revise the AIR with suggested new wording to describe the project location in area.</p> <p>The Proponent states that "The closest project facility to the neighbourhood of Aberdeen is the EMRSF at approximately 1.7 km." A clause should be added stating that the closest project facility to the City of Kamloops designated urban growth area in the Kamloops Official Community Plan is approximately one kilometre.</p> <p>Mine Access Present text: "During the initial construction phase, access to the project area from Kamloops will be via exit 366 off the Trans-Canada Highway (No.1), west along Frontage Road, and then south along Lac Le Jeune Road to the old Afton Mine Haul Road near the Inks Lake Junction (approximately 9 km by road). Midway through construction and during operations, access will be from Inks Lake Interchange off the Highway No. 5 to service roads connecting the interchange to the old Afton Mine Haul Road."</p> <p>Suggested new text: Access to the project area from Kamloops will be from Inks Lake Interchange off the Highway No. 5 service roads connecting the interchange to the old Afton Mine Haul Road. Rationale: The Lac Le Jeune Road is essentially a paved "country road" with hills and tight corners, and will not support heavy traffic and access limitations due to interchange construction over several years.</p> <p>Proximity to Future Development The CAG requests that a reference be added to this section with regard to the distance the mine location is away from "future development" as shown in the City of Kamloops Official Community Plan.</p>	Revise the AIR with suggested new wording to describe the project location in area.	AIR/EISg	Section 2.2.2 Project Location	Yes	<p>The AIR/EISg to be updated to state: "The closest Project facility is the EWRSF, which is approximately 850 m to the City of Kamloops' Urban Growth Boundary, approximately 1.4 km to the Knutsford community, and approximately 1.7 km to the neighbourhood of Aberdeen."</p> <p>No change is required to the AIR/EISg regarding construction phase access to the Project site. The Application/EIS will provide further details as to the plans for traffic management and alternatives that have been considered.</p>	Yes	30-Mar-15
9	Alternative assessment	<p>9. 2.5 ALTERNATIVE MEANS OF UNDERTAKING THE PROJECT</p> <p>Revise AIR (and requests for the Application). A discussion of alternative methods and locations of tailings and waste rock disposal needs to be added to the AIR. If the Proponent makes or proposes changes to size, geometry, volume, location or other to mining/processing infrastructure, then the public should have input into it, and be able to review changes.</p> <p>Commenter requests an assessment of potential environmental, City, and public health impacts of the three TSF scenarios: the TSF at the historic Afton site; the TSF west from the Ajax pit; and finally the TSF south-southwest from the pit.</p> <p>Commenter requests a detailed methodological comparison of the financial benefits and costs, environmental and health impacts, and risks of all three alternatives in the Application.</p>	Request revisions to the AIR to include a discussion of alternative tailings and waste rock locations. Request an assessment of the financial benefits and costs, environment and health impacts and risks of all three TSF alternatives in the Application/EIS.	AIR/EISg and Application/EIS	Section 2.5	Yes	As indicated in the AIR/EISg, Chapter 17 Alternative Means of Carrying Out the Project of the Application/EIS will include a discussion on the alternatives for the tailings management and the location of the tailings storage facility. This assessment will be conducted in accordance with the Canadian Environmental Assessment Agency (CEAA) Operational Policy Statement (OPS) Addressing "Need for", "Purpose of" "Alternatives to" and "Alternative Means" under the Canadian Environmental Assessment Act. The OPS identifies the following four steps for the assessment of environmental, technical, economic and socio-economic aspects of the alternative TSF: identification of technically and economically feasible alternative means, identification of their potential effects on valued components, identification of preferred means for carrying out the Project by comparing environmental effects, technical and economic feasibility, and assessing the environmental effects of the alternative means.	No	30-Mar-15
10	Economic - General	<p>10. 3.2 MINERAL RESOURCES</p> <p>Request, for financial analysis purposes, the CAG requests the Proponent use a range of price assumptions, including the two price assumptions used in the 2011 Feasibility Study. For sensitivity analysis, a low price assumption of US\$2.00/lb for copper and US\$850/oz. for gold also should be included in the financial analysis.</p>	Request the use of a range of commodity price assumptions to be included in the financial analysis.	Application/EIS	Section 3.2	No	The commodity price financial analysis is outside the scope of the AIR/EISg. The purpose of the EA process is to evaluate the potential adverse effects to valued components as a result of the Project. Amongst others, commodity price is one of the factors that will be used by KGHM in its internal decision making process to proceed with the Project. This financial analysis will not influence the conclusions of the effects assessment. No changes are required to the AIR/EISg.	No	30-Mar-15

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11	Disclosure of Assay Data	<p>11. 3.3 SITE GEOCHEMISTRY</p> <p>Request disclosure of all assay data for the Ajax project, including details on assay methods and confidence level of each assay method.</p> <p>Request information on the concentration of tremolite-actinolite minerals in the ore, waste rock, and tailings, and whether these minerals are found in fibrous form.</p> <p>In the case of the proposed Ajax mine, due to its close proximity to a major population centre, the required level of accuracy for the assay data should be as high as possible. Assay data of insufficient accuracy increases the risk that the health impacts will be insufficiently assessed, understood, or mitigated.</p>	Request disclosure of assay data, including details on assay methods and analysis.	AIR/EISg and Application/EIS	Section 3.3	No	No changes are required in the AIR/EISg text. As described in the AIR/EISg Sections 3.3, 6.3, and 10.1, the Application/EIS will present the necessary background information including geochemical characterization of materials that will be disturbed, excavated or exposed and will present a detailed discussion of mitigation measures to manage potential effects.	No	30-Mar-15
12	Geochemistry	<p>12. 3.3 SITE GEOCHEMISTRY Presence of Measurable Uranium</p> <p>Request for details on exact locations of the referenced drill holes, and at what point in the production schedule that the rock located in these drill holes will be blasted.</p> <p>Concern that the existing 28 element analysis used for the assessment report may not accurately measure the uranium levels in the Ajax deposit, describe what other assay methods the Proponent proposes to use to determine more accurate levels of uranium in the Ajax deposit.</p> <p>If there are significant levels of uranium in the Ajax deposit, how does KGHM Ajax propose to isolate and store the material that contains this uranium?</p>	Concern raised about the geochemistry studies may not accurately measure uranium levels in the Ajax deposit.	AIR/EISg and Application/EIS	Section 3.3	No	No changes are required in the AIR/EISg text. As described in Section 3.3 of the AIR, the Application/EIS will present the geochemical characterization of materials disturbed, excavated or exposed and will present a detailed discussion of mitigation measures to manage potential effects.	No	30-Mar-15
13	General	<p>13. 3.4.3 DRILLING AND BLASTING</p> <p>Request that the Application provide information on the maximum charge size per hole necessary to achieve the lowest particle size distribution target.</p> <p>Request CEAA and BC EAO to designate the following document, National Pollutant Inventory Emission estimation technique manual for Explosives detonation and firing ranges, Version 3.0, January 2012, Australian Government, Department of Sustainability, Environment, Water, Population and Communities for assessing potential fugitive emissions from blasting activities.</p>	<p>Request information on the maximum charge size per hole necessary to achieve the lowest particle size distribution target.</p> <p>Request CEAA and BC EAO to designate the requirement to follow an Australian Government document for assessing fugitive emissions from blasting activities.</p>	Application/EIS	Section 3.4.3	No	<p>No changes are required to the AIR/EISg text. The blasting program for the Project will be adaptive to minimize potential effects associate with particulate matter, as well as noise and vibration, while meeting requirements for mine production. In addition to charge size, there are a number of parameters that blasting technicians are able to control to optimize blasting. This information will be provided in the Application/EIS.</p> <p>Reference to the Australian document is appreciated. All blasting for the Project will be completed in accordance with the BC Code.</p>	No	30-Mar-15
14	Project Description	<p>14. 3.6.4 HPGR FEED</p> <p>Request Application describe details of dust collection system.</p> <p>There is mention of a "dust collection system". The Application should contain a detailed description of this system, including the percentage of dust reduction, its efficiency in reducing particulate emissions of various sizes, potential operational failures, and the consequences of such failures.</p>	Request additional information to describe the dust collection system.	Application/EIS	Section 3.6.4	No	The Application/EIS will provide a description of the dust collection system and discussion on its efficiency.	No	30-Mar-15
15	Project Description	<p>15. 3.6.6 GRINDING AND CLASSIFICATION</p> <p>Clarify how many grinding and ball mill circuits are planned to be install. Does an increase in the number of ball mill circuits represent an increase in the capacity of the mine?</p>	Clarify how many grinding and ball mill circuits are planned to be install. Does an increase in the number of ball mill circuits represent an increase in the capacity of the mine?	Application/EIS	Section 3.6.6	No	The Application/EIS will describe the mineral processing design, including the details on the crushing circuit.	No	30-Mar-15

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16	Project Description	16. 3.7 TAILINGS MANAGEMENT Clarify the adequacy of tailings facility storage capacity. Are there plans to alter the current design of the TSF to accommodate more tailings? If more ore is discovered and mined, where will the tailings from this ore be disposed?	Clarify the adequacy of tailings facility storage capacity. Are there plans to alter the current design of the TSF to accommodate more tailings? If more ore is discovered and mined, where will the tailings from this ore be disposed?	Application/EIS	Section 3.7	No	The TSF has adequate capacity to store the tailings generated under the mine plan. There are no plans to alter the tailings design to accommodate more tailings. If more ore is discovered, the capacity for the TSF to accommodate additional material would be evaluated at that time.	No	30-Mar-15
17	Project Description	17. 3.7 TAILINGS MANAGEMENT Will the Proponent be building a spillway to handle excess water in the tailings impoundment? If not, why not? If so, will the discharge water require an effluent discharge permit, and will the effluent be treated?	Will the Proponent build a spillway to handle excess water in the tailings impoundment? Will the discharge water require an effluent discharge permit, and will the effluent be treated?	Application/EIS	Section 3.7	No	The specifics of water management from the tailings impoundment at closure are still under investigation. The Application/EIS will describe KAM's plan, including any requirements for spillway, discharge, and associated permitting.	No	30-Mar-15
18a	Waste rock	18. 3.8.1. WASTE ROCK FACILITIES Failure scenarios need to include potential impacts on all inhabitants and properties downstream, especially downtown Kamloops. The reduced size of the East Waste Rock Storage Facility (74 Mt) to only 16% of that of the South Waste Rock Storage Facility (450 Mt) raises a question of why the EWR couldn't be added to the SWRSF. Are there geotechnical concerns here? A key issue is the stability of the proposed waste rock facilities.	Failure scenarios need to include potential impacts on all inhabitants and properties downstream, especially downtown Kamloops.	Application/EIS	Section 3.8.1	No	The size of the EWRSF was reduced, in part, in response to comments received from the public. Geotechnical investigation and stability analysis to support the designs are a requirement, as outlined in Section 3.8 of the AIR/EISg. The requirement for evaluation of failure scenarios is also addressed in the existing AIR/EISg text, Section 17.6 Accidents and Malfunctions.	No	30-Mar-15
18b	On-site meteorology station	18. 3.8.1. Request installation of a site (or near site) meteorological station. The establishment of meteorological stations at or near the mine site was recommended by Dr. Steyn in February 2012. Dr. Steyn's recommendations including placing a tower-mounted anemometer at or near the crest of either Sugarloaf Hill or Coal Hill to characterize valley scale wind speed and direction in the general location of the proposed tailings piles. In addition, Dr. Steyn recommended that meteorological measurements be taken at or near the location of the proposed tailings piles in order to understand dust suspension from tailings piles. Such data would also allow an assessment of frequency of occurrence and direction of strong winds over the tailings piles.	Request installation of a site meteorological station.	Application/EIS	Section 3.8.1	Yes	Site-specific meteorological data has been collected from two stations. The AJAXMET station was installed in August 2010; the AJAXAQ-1 station was installed in August 2014. Data from these stations will be presented in the Application/EIS.	No	30-Mar-15
19	Surface water quality	19. 3.12 SITE WATER MANAGEMENT Request to add wording. A water management plan...include as first bullet: • Preservation of both water quality and quantity, of both surface water and groundwater of the Jacko Lake/Jacko Creek system will be addressed. Final water balance...zero discharge during Operation.' Add: Control /disposition in perpetuity of runoff or seepage water from disturbed areas will be addressed in the A/EIS.	Request to add text revisions to the Site Water Management section in the AIR.	AIR/EISg	Section 3.12	Yes	No changes required to the AIR/EISg to address comment. The existing AIR wording in 3.12 Site Water Management captures the comment raised as a water management plan will be developed for the project: The "Preservation of water quantity and quality downstream of the Project". The AIR/EISg indicates that it is anticipated that the Project will operate as a zero surface discharge during Operations. Controlling runoff and seepage are included in the existing AIR wording in 3.18 Closure and Reclamation and will be presented in the Application/EIS.	No	30-Mar-15
20	Reclamation	20. 3.15 POWER SUPPLY Request to add wording. New entry below 'Construction methods' • Design and restoration plans will address visual impact, and potential weed invasion.	Request to add text revisions to the Power Supply section in the AIR.	AIR/EISg and Application/EIS	Section 3.15	Yes	In Section 3.15, the AIR/EISg will be updated to state: "Construction methods, including site clean-up and reclamation". Visual quality aspects are addressed in Section 8.4 of the AIR/EISg.	Yes	30-Mar-15

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21	Project Description	<p>21. 3.16 ACCESS AND SITE ROADS</p> <p>Request to add wording.</p> <p>Use of Goose Lake Road/Hwy 5A by project related traffic will not be permitted. Use of Lac Le Jeune road will be addressed.</p> <p>Access to and safe public use of Jacko Lake and Stake Lake/Lac Le Jeune area will be addressed.</p>	Request to add text revisions to limit traffic access on proposed access roads.	AIR/EISg and Application/EIS	Section 3.16	Yes	For additional clarity, the existing sentence in Section 3.16 Access and Site Road can be revised to indicate, "A thorough description of the proposed road use, including the use of Inks Lake Road and Lac Le Jeune Road, <u>and Goose Lake road</u> , will be included in the Application/EIS.	Yes	30-Mar-15
22	Project Description	<p>22. 3.18.1 TAILING STORAGE FACILITY CLOSURE</p> <p>Request to add wording.</p> <p>It is noted that this section states "The proposed closure cover will minimize wind and water erosion, and reduce infiltration into the TSF, eventually reducing seepage from the toe of the TSF. Seepage will continue to be collected and monitored at seepage collection ponds during closure/post closure."</p> <p>The words, and treated if necessary, should be added after the word monitored.</p>	Request to add text revisions "and treated if necessary" for the management of seepage.	AIR/EISg and Application/EIS	Section 3.18	Yes	No change to the AIR/EISg document in section 3.18.1 is required. For additional clarity to address the comment, as a requirement of the environmental assessment, KAM will present the closure and reclamation plan in the Application/EIS. Seepage will continue to be collected and monitored at seepage collection ponds, and managed as required, during the closure/ post-closure.	No	30-Mar-15
23	Reclamation	<p>23. 3.18.2 MINE ROCK MANAGEMENT FACILITIES CLOSURE</p> <p>Request to add wording.</p> <p>This section states that "Following closure, re-contouring of the slopes will be carried out to ensure the physical stability of the facilities..." The word ensure should be replaced by increase because ensure means a certainty or a guarantee that something will happen. Re-contouring cannot guarantee stability, only increase it. There will always be a risk of slope failure.</p> <p>Add: '...mulching' to successfully establish an acceptable plant cover as agreed with a government/NGO team.</p>	<p>Request to add text revisions using the word "increase" instead of ensure.</p> <p>Add: '...mulching' to successfully establish an acceptable plant cover as agreed with a government/NGO team.</p>	AIR/EISg and Application/EIS	Section 3.18	Yes	<p>The AIR/EISg was previously revised and addresses comment.</p> <p>Section 3.18.2 current states, "Following closure, re-contouring of the slopes will be carried out to <u>increase</u> the physical stability of the facilities, followed by placement of topsoil, seeding and mulching."</p> <p>The proposed addition of, mulching "to successfully establish an acceptable plant cover as agreed with a government/NGO team" is not required in the AIR/EISg. The description of measures to implement mine site reclamation plans are in the AIR/EISg requirement and will be presented in the Application/EIS.</p>	No	30-Mar-15
24	Reclamation	<p>24. 3.18.4 AND 3.18.5 PROCESSING PLANT AND ACCESS ROAD CLOSURE</p> <p>Clarification requested.</p> <p>"vegetated with appropriate plant species" and "re-vegetated". Which plants will be chosen and why? Will KAM try to restore the original plants species?</p>	Clarify which plants will be chosen for re-vegetation.	Application/EIS	Section 3.18	No	No changes required to the AIR/EISg document. Details on re-vegetation species, reclamation methods will be presented as part of the Application/EIS in accordance with 3.18 Closure and Reclamation.	No	30-Mar-15
25a	Disclosure of Assay Data	<p>25. 4.0 ASSESSMENT PROCESS</p> <p>Commenter states the environmental assessment for the Ajax project has not been as rigorous, comprehensive and transparent as it should be.</p> <p>1. Withholding of key information by KGHM</p> <p>Commenter is requesting disclosure by the Proponent of all assay data, geologic data, meteorological data, water quality and streamflow data.</p>	Request that EAO compel proponent to disclose all assay data.	Application/EIS	Section 4.0	No	KAM is committed to an open and consultative process in its approach to the environmental assessment and as described in the AIR/EISg Section 3.3, the Application/EIS will disclose and present the geochemical characterization of materials disturbed, excavated or exposed and will present a detailed discussion of mitigation measures to manage potential effects.	No	30-Mar-15

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25b	Disclosure of Assay Data	<p>25. 4.0 ASSESSMENT PROCESS</p> <p>Since the environmental assessment for the Ajax project began, the CAG believes that the assessment has not been as rigorous, comprehensive and transparent as it should be due to the following practices:</p> <p>2. EAO interpretation of the relevant legislation, regulation and policies</p> <p>Commenter is requesting disclosure of all assay data.</p> <p>Commenter states: "with respect, we believe the Project Assessment Lead has misread the legislation. Section 11(2)(c)(i) of the Environmental Assessment Act clearly supports a wide discretion for the Project Assessment Lead to require information. Even if section 8.6 did preclude the Project Assessment Lead from requiring assay information in the pre-application phase, which is not conceded, the EAO always retained the general discretion - under section 13 of the Environmental Assessment Act- to vary its section 11 order in a manner that would allow it to require the provision of such information."</p>	<p>Request disclosure of all assay data.</p> <p>Concern raised that the EAO Project Assessment Lead has misread the legislation, and able to varies its Section 11 order to allow it to require the provision of such information.</p>	Application/EIS	Section 4.0	No	KAM is committed to an open and consultative process in its approach to the environmental assessment and as described in the AIR/ EISg Section 3.3, the Application/EIS will disclose and present the geochemical characterization of materials disturbed, excavated or exposed and will present a detailed discussion of mitigation measures to manage potential effects.	No	30-Mar-15
25c	Health - general	<p>25. 4.0 ASSESSMENT PROCESS</p> <p>Since the environmental assessment for the Ajax project began, the CAG believes that the assessment has not been as rigorous, comprehensive and transparent as it should be due to the following practices:</p> <p>3. Failure of EAO to properly consider Health Agency concerns.</p> <p>Has the EAO properly considered Health Agency comments?</p> <p>Has EAO compared the contents of the two IHA letters to determine whether any important comments were not included in the AIR? Now that the AIR is currently being revised due to the new mine plan, this provides ample opportunity to consider the comments made in the June 21, 2012 letter.</p>	Has the EAO properly considered Health Agency comments?	Application/EIS	Section 4.0	No	KAM is in regular communication with EAO to discuss topics of key interest to the Project, including Health, and the engagement of regulatory agencies in the review of Project-related information. Recent updates to the AIR/ EISg have been proposed to help better describe how various biophysical and social determinants of health will be evaluated in the Application/ EIS.	No	30-Mar-15
25d	Disclosure of Assay Data	<p>25. 4.0 ASSESSMENT PROCESS</p> <p>Since the environmental assessment for the Ajax project began, the CAG believes that the assessment has not been as rigorous, comprehensive and transparent as it should be due to the following practices:</p> <p>4. Weaknesses of Public Meetings</p> <p>Commenter is requesting disclosure of all assay data.</p> <p>Commenter stated that during Open House meetings, Proponent's staff gave contradictory information and Open House set-up results in limited questions and does not provide an objective audio-visual recording of answers provided by the Proponent's staff.</p>	<p>Request disclosure of all assay data.</p> <p>Weakness of public meetings</p>	Application/EIS	Section 4.0	No	<p>KAM is committed to an open and consultative process in its approach to the environmental assessment. At all Open Houses (both those hosted by KAM, and when participating in those hosted by EAO/CEAA), KAM has ensured that technical experts are available to engage in discussion and to provide clear and accurate information.</p> <p>KAM has adopted a multi-tiered approach, recognizing that some means of communication and consultation are good at reaching large numbers of people while others provide better personal engagement. This "macro-micro" approach recognizes that consultation methods provide different kinds of experiences for the public and stakeholders; there is not one kind of method sufficient to provide for the needs of all. In addition to large community information sessions, KAM provides opportunities for engagement through small group meetings, one-on-one meetings, site tours, and many forms of media.</p>	No	30-Mar-15

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25e	EA process	<p>25. 4.0 ASSESSMENT PROCESS</p> <p>Since the environmental assessment for the Ajax project began, the CAG believes that the assessment has not been as rigorous, comprehensive and transparent as it should be due to the following practices:</p> <p>5. Failure of both federal and provincial governments to establish a panel review with public hearings</p> <p>Commenter stated federal and provincial governments failed to establish a panel review with public hearings.</p>	Failure of both federal and provincial governments to establish a panel review with public hearings has resulted in a less rigorous, less comprehensive process.	Application/EIS	Section 4.0	No	Proponent defers comment to the EAO as the appropriate responder.	No	30-Mar-15
26	Wildlife/Economic	<p>26. 5.0 EFFECTS ASSESSMENT</p> <p>Request to add wording for additional technical/ economic studies.</p> <p>add as bullets 8 and 9:</p> <ul style="list-style-type: none"> • Effects of a long north-south barrier to the east-west movement of wildlife and the movement of cattle will be addressed • The economic impact of the loss of potential usable forage production will be evaluated in terms of equivalent value of hay as fed when cattle are not on grass, in the time frame of active mining and restoration, and projected forward into perpetuity based on estimated residual, safely usable forage production. 	Request to add text revisions to require additional technical and economic studies on the barriers to wildlife and cattle movement, and to study the economic impact of the loss of potentially usable forage production.	AIR/EISg	Section 5.0	Yes	<p>No additional text is necessary in the AIR/EISg to address the issues raised.</p> <p>The existing wording in the AIR/EISg Section 6.12.4 relating to wildlife studies includes the potential effects associated with disturbance and disruption associated with disruption of daily or seasonal movement.</p> <p>Section 8.5 Land and Resource Use in the existing AIR/EISg already includes the assessment of agricultural land use, including ranching. The Application/EIS will present the identification and analysis of potential adverse effects resulting from the Project on ranching.</p>	No	30-Mar-15
27a	Soil/Wildlife/Air Quality	<p>27. 5.1.1 VALUED COMPONENTS</p> <p>Failure of BC EAO to Provide a Rationale for Rejected Value Components</p> <p>One of the issues the CAG raised was the absence of soil contamination studies in the AIR/EIS. According to Environment Canada's Code of Practice for Metals Mines: Mining activity may also contaminate terrestrial plants. Metals may be transported into terrestrial ecosystems adjacent to mine sites as a result of releases of airborne particulate matter and seepage of groundwater or surface water.</p> <p>In some cases, the uptake of contaminants from the soil in mining areas can lead to stressed vegetation. In such cases, the vegetation could be stunted or dwarfed.²⁷</p> <p>Despite this awareness of the issue of soil contamination from open pit mining, Section 6.2 of the Ajax AIR/EIS, Geology, Landforms and Soils, only mentions the "Potential effects of the project on slope stability including on the Aberdeen Hills area, soil erosion, and existing geohazards will be assessed." In the Summary of the Draft Human Health and Ecological Risk Assessment for the Ajax Mine Project, the issue of soil contamination is confined to 25 surface soil samples from the mine area and 10 from the residential area, and no soil samples for grasslands or crop land.²⁸</p>	<p>Request to include additional value components.</p> <p>Request to include a visual impacts of blast plumes and pollinators.</p>	AIR/EISg and Application/EIS	Section 5.1.1	Yes	<p>The potential for Project-related changes in soil quality will be determined as part of the HHERA. This will be used to evaluate the risk to human and ecological receptors through both direct (e.g., soil ingestion) or indirect (e.g., uptake of contaminants from soil into the food chain) pathways.</p> <p>The rationale for selection of wildlife VCs is described in the AIR/EISg. Representative species (i.e., focal species) for the Mammal VC are listed in Section 6.17.1 of the AIR. Focal species were selected considering the presence of suitable/capable habitat within the study area, the availability of species knowledge and the likelihood of interactions with the Project. As noted in the issues tracking table titled "AIR/EIS Guidelines, Revision F CAG Comments" (EAO website, dated May 22, 2013), mule deer is the only species that would meet the criteria for selection as a focal species. Mule deer is included in the list of focal species.</p>	No	30-Mar-15

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27b	Soil/Wildlife/Air Quality	<p>27. 5.1.1 VALUED COMPONENTS</p> <p>---continued</p> <p>The November 2012 CAG letter also asked that the following species be added to the Valued Components for study purposes, but all were excluded from the AIR/EIS: Castor Canadensis (beaver) Ondatra zibethicus (muskrat) Ursus americanus (black bear) Puma concolor (cougar)</p> <p>The exclusion of beaver is particularly mystifying given that beaver have created many of the ponds along the Peterson Creek water course, and these ponds play a major role in supporting other species in the area.</p> <p>The visual impacts of blast plumes is another issue raised in the November 2012 CAG letter that receives scant attention in the AIR/EIS. The only reference to the visual impacts of blast plumes is in Section 10.4.4.2 Assessment of Vibration and Noise from Daily Blasting Activities, where it is stated that "Visual and audio records of the blasts will be provided, as available."</p> <p>Conspicuously absent from the AIR/EIS are pollinators as a Valued Component. Butterflies make the list as a species to be studied, but the rationale for doing so is not for their role as pollinators. Soil contamination, air quality contamination from mine emissions, use of herbicides to control "weeds", and a reduction in vegetation diversification by mine development, will all contribute to negative impacts on pollinators.</p>	<p>Request to include additional value components.</p> <p>Request to include a visual impacts of blast plumes and pollinators.</p>	AIR/EISg and Application/EIS	Section 5.1.1	Yes	<p>...continued</p> <p>The potential visual impacts of blast plumes is included in Section 8.4.4 (first bullet point under "potential effects of the Project and proposed mitigation) of the AIR under the Visual Impact/Aesthetic Features section.</p> <p>In the "AIR/EIS Guidelines, Revision F CAG Comments" document (EAO website, dated May 22, 2013) EAO, in consultation with a Ministry of Agriculture representative and an expert from Simon Fraser University, considered the request to include pollinators in the AIR/EISg as a VC or focal species. Rationale is provided in this document for not including pollinators (e.g., bees) since butterflies are likely to be representative of potential effects to pollinators and there is not enough baseline information available for bees to make them practical for effects assessment.</p>	No	30-Mar-15
28	Cumulative effects assessment	<p>28. 5.1.6 CUMULATIVE EFFECTS ASSESSMENT</p> <p>Commenter stated , "because of the close proximity of these deposits to a large urban population, it is argued that governments need to err on the side of caution and carry out a rigorous cumulative assessment of all reasonably foreseeable mining projects in the Afton mining camp."</p>	Concern about the cumulative effects assessment analysis methodology	Application/EIS	Section 5.1.6	No	The cumulative effects assessment methodology will be detailed in the Application/EIS, and will focus on those issues with the greatest potential to affect the VCs. The cumulative effects assessment will consider all past, present, and reasonably foreseeable future projects and activities within the zone of influence of Project residual effects.	No	30-Mar-15
29	Cumulative effects assessment	<p>29. 5.1.6.1 POTENTIAL INTERACTION BETWEEN RESIDUAL PROJECT EFFECTS AND OTHER PROJECTS OR ACTIVITIES</p> <p>Request to add wording.</p> <p>The Proponent has provided the following bullet points defining 'reasonably foreseeable' projects that omit the 'growth-inducing potential' criterion established by the CEAA.</p> <p>A bullet point for growth-inducing potential, as defined by the CEAA cumulative effects guidelines, needs to be added to provide the rationale for assessing activities such as the likely development of adjacent ore deposits due to the growth-inducing potential of the Ajax project. The following CEA guidelines for defining "reasonably foreseeable" projects are provided to support this request.</p>	Concern about the cumulative effects assessment analysis methodology	AIR/EISg and Application/EIS	Section 5.1.6.1	Yes	The cumulative effects assessment methodology will follow the 2012 Canadian Environmental Assessment Act Technical Guidance for identifying future physical activities and projects considered certain to proceed, and those considered reasonably foreseeable, including existing and future exploration of deposits.	No	30-Mar-15
30	Cumulative effects assessment	<p>30. 5.1.6.1 POTENTIAL INTERACTION</p> <p>Is KAM aware that there is an ongoing federally-funded research project on lodgepole pine/dwarf mistletoe/pine beetle being conducted in the vicinity of the proposed footprint? Also, why isn't the Stake Lake hiking and cross-country skiing area mentioned explicitly? There is also a dog-walk trail in the vicinity as well. (Table 8.6-1 alludes to this, but is not clear). Goose Lake is also a well-used skating rink in the winter.</p>	Concern about the cumulative effects assessment analysis methodology	AIR/EISg	Section 5.1.6.1	Yes	No further changes are required to the AIR/EISg are required. The information is appreciated, and will be considered when developing the Application/EIS. Reference to Goose Lake and Goose Lake road were added to Section 8.6 of the revised AIR/EISg (November 7, 2014). The cumulative effects assessment methodology will be detailed in the Application/EIS/EIS, and will focus on those issues with the greatest potential to affect the VCs. The cumulative effects assessment will consider all past, present, and reasonably foreseeable future projects and activities within the zone of influence of Project effects, that could cumulatively contribute to additional impacts. Effects on the receptors (i.e., VCs) of potential Project impacts will be assessed in the relevant effects assessment section of the chapter. Effects on the dog walk trail and skating rink will be assessed in section 8, Assessment of potential social effects (e.g., community health and well being, outdoor recreation).	No	30-Mar-15

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31	On-site meteorology station	<p>31. 6.1.2 BACKGROUND</p> <p>The following statement is not accurate and should be revised in the AIR/EIS: The Proponent states that "Meteorological stations at Kamloops Airport and on the project site are illustrated on Figure 10.1-1..."</p> <p>This statement needs to be corrected because there are no stations in this Figure that are on the project site. The closest meteorological station to the project site in this Figure is a station operated by the Proponent that is located at a site northeast of Sugarloaf Hill. However, this site is located within the City of Kamloops. Since the Proponent has stated in Section 2.2.2 that the project is located with the Thompson Nicola Regional District, it is incorrect to state that there are meteorological stations on the project site.</p>	Request revision to the statement in the AIR as there are no meteorological stations on the project site.	AIR/EISg	Section 6.1.2	Yes	Site-specific meteorological data has been collected from two stations. The AJAXMET station was installed in August 2010; the AJAXAQ-1 station was installed in August 2014. Data from these stations will be presented in the Application/EIS.	Yes	30-Mar-15
32	Health - general	<p>32. 6.2.1 Geology, Landforms and Soils</p> <p>Commenter is requesting a comprehensive soil contamination study.</p> <p>In the HHERA, sampling of surface soil is listed, consisting of 25 samples in the mine area, and 10 in the residential area.</p> <p>There appears to be no systematic methodology for a comprehensive sampling of all soil types in the mine study area, and no mention of assessing the contamination by airborne mine emissions of soils used for rangeland and crops. The CAG believes that baseline information on the microbiota and the abiotic components of the soil sample areas is required, and that a geoaccumulation index for each sample site be calculated before and during mine operation.</p>	Request for a comprehensive soil contamination study.	AIR/EISg and Application/EIS	Section 6.2.1	Yes	<p>Standard approaches for assessment of geology, landforms, and soil will be followed in the Application/EIS. A comprehensive soil contamination program, as described by the commenter, is not a standard approach for environmental assessment.</p> <p>Soil characterization has been conducted as part of the baseline studies and this information will be provided in the Application/EIS (Section 6.2.2 of the AIR/EISg). A subset of this data will be incorporated into the HHERA and rationale for selection of data for the HHERA will be provided (Section 10.4.2).</p>	No	30-Mar-15
33	Surface water quality	<p>33. 6.3 SURFACE WATER QUALITY</p> <p>1. The AIR should fully address all potential impacts on (Sections 6.3, 6.4, 6.5, 6.6) water quality and quantity during all phases of the project, including in perpetuity after closure.</p> <p>2. The number and locations of [surface water] monitoring sights on Figure 6.3-1 does not seem to be adequate.</p>	<p>The AIR should fully address all potential impacts on water quality and quantity during all phases of the project, including closure.</p> <p>Concern raised about the adequacy of the number and location of [surface water] monitoring stations.</p>	AIR/EISg	Section 6.3	Yes	<p>No changes required to the AIR/EISg to address comment as all phases of the project will be examined in the Application/EIS. The existing wording in 6.3.3 of the AIR/EISg indicates that the Application/EIS will describe surface water quality across the temporal scope that includes construction, operation, decommissioning and closure and post-closure.</p> <p>No changes required to the AIR/EISg to address comment. The Application/EIS will provide details as to the number and locations of the monitoring stations and the rationale for selection.</p>	No	30-Mar-15
34	Groundwater quality/ quantity	<p>34. 6.5 GROUNDWATER QUALITY AND 6.6 GROUNDWATER QUANTITY</p> <p>To ensure that a real understanding of the impacts [potentially to groundwater quality and quantity], real and actual data must be collected and used in the modeling programs and that "Assumptions" are not used. Therefore more rigorous information gathering must be undertaken to determine the exact Hydrology of the area, both in and around the mine site as well as all lands north and downslope of the mine site.</p> <p>Requests that the Aberdeen Highlands Development Corp. be added/listed to Stakeholder Input in Tables 6.5-1 and 6.6-1.</p>	<p>Requests that the Aberdeen Highlands Development Corp. be added/listed to Stakeholder Input in Tables 6.5-1 and 6.6-1.</p>	AIR/EISg and Application/EIS	Section 6.5	Yes	<p>No changes required to the AIR/EISg to address comment as the AIR/EISg section 6.5 and 6.6 groundwater quality and quantity requires the Application/EIS to provide a rigorous assessment of this VC, including a characterization of the baseline groundwater quality and quantity in the study area, and details on the assessment approach.</p> <p>Aberdeen Highlands Development Corp. has been added to Tables 6.5-1 and 6.6-1.</p>	Yes	30-Mar-15

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35	Groundwater quality/quantity	35. 6.5.2 BACKGROUND The groundwater and surface water monitoring stations should be adequately selected to representatively illustrate quality evolution through all stages from design to post-closure. Use of groundwater tracing techniques is recommended to evaluate groundwater flows and potential contaminant flow direction and dispersion. The CAG recommends that any new proposed monitoring wells be drilled to penetrate through the maximum depth of the pit in its proximity.	Groundwater study methodology to include: recommend the use of groundwater tracing techniques to evaluate groundwater flows and potential contaminant flow direction and dispersion. recommends that any new proposed monitoring wells be drilled to penetrate through the maximum depth of the pit in its proximity.	Application/EIS	Section 6.5	No	KAM's team of consultants are developing a comprehensive groundwater and surface water monitoring program, and also predictive modelling studies. These will be presented in the Application/EIS, and will be used to inform the assessment of potential effects for many VCs. The wells that have been drilled cover a range of depths and monitoring intervals, and a range of different groundwater monitoring techniques have been employed to characterize the groundwater flow system. The monitoring wells/sites that have been established will also support future monitoring requirements through operation and closure.	No	30-Mar-15
36	Groundwater quality/quantity	36. 6.5.4 and 6.6.4 POTENTIAL EFFECTS OF THE PROJECT AND PROPOSED MITIGATION Request that : 1. Real recharge and discharge data needs to be obtained from the areas in and around the mine site and north thru to the existing Aberdeen residential neighbourhood to get an actual understanding of the Hydrology of this area to use as inputs into the groundwater flow models for both groundwater quality and quantity. 2. More groundwater monitoring wells need to be added in the areas north of the proposed pit and the existing Aberdeen neighborhood and monitored for a minimum of 1 full year 3. Capillary electrophoresis/laser-induced fluorescence tracing of dyes needs to be undertaken. 4. Spectrofluorimetry laser-induced fluorescence tracing of fluorescence dyes needs to be undertaken	Recommended groundwater study methodologies.	AIR/EISg and Application/EIS	Section 6.6.4	Yes	KAM's team of consultants are developing a comprehensive groundwater and surface water monitoring program, and also predictive modelling studies. These will be presented in the Application/EIS, and will be used to inform the assessment of potential effects for many VCs. The wells that have been drilled cover a range of depths and monitoring intervals, and a range of different groundwater monitoring techniques have been employed to characterize the groundwater flow system. However, tracer programs have not been undertaken to date, and are not currently planned.	No	30-Mar-15
37	Alternative assessment	37. 6.5.5 RESIDUAL EFFECTS AND THEIR SIGNIFICANCE The Proponent [should] investigate different scenarios of mine infrastructure locations and impacts within different watersheds prior to selection of the final proposed infrastructure outline. Most likely locating the mine infrastructure within the existing Afton mine watershed would have significantly lower environmental impacts, than moving the infrastructure to new areas and watersheds.	Alternative assessment should look at the different scenarios for mine infrastructure location and impacts within different watersheds.	Application/EIS	Section 6.5.5	No	The current layout of the mine infrastructure location was optimized to address concerns raised in earlier consultation processes, e.g., noise, visual impact, air quality. A number of locations have been investigated for tailings and waste rock. The current arrangement has all the infrastructure within one watershed under a smaller footprint than originally proposed. The Alternatives Means of Carrying Out the Project section of the Application, will include a description of the alternative means of carrying out the Project, the reasons for selecting the preferred option, an analysis of the alternative means of carrying out the Project that are technically and economically feasible, and the environmental effects of any such alternative means.	No	30-Mar-15
38	Economic - General	38. 6.5.7 and 6.6.7 CONCLUSION The CAG requests that financial compensation be added to both these sections in the event future development and or existing development is impacted due to an increase in groundwater discharge in the lower areas of Aberdeen or the quality of water becomes toxic and unusable due to leaching of metals from the mine.	Request that financial compensation be added to the AIR section in the event that future or existing development is impacted by the increased groundwater discharge.	AIR/EISg	Section 6.5.7 and 6.6.7	Yes	No change required to the AIR/EISg to address comment. Financial Compensation is one measure that can be proposed to mitigate potential effects of the Project. Section 6.5.4 and 6.6.4 already require the Proponent to describe mitigating measures that are proposed to address potential impacts.	No	30-Mar-15
39	General	39. 6.6.2 BACKGROUND Request wording revisions. Commenter does not agree with substituting 'incorporation' for 'characterization.' Characterization suggests a more detailed portrayal of groundwater. Incorporation suggests less detail and merely inclusion.	Request text revisions to the AIR, to use the word 'characterization' to describe a more detailed portrayal of groundwater.	AIR/EISg	Section 6.6.2	Yes	No change required to the AIR/EISg. "Incorporation" was used, as the regional geology information is sourced from provincial datasets, as opposed to from a project-specific characterization program.	No	30-Mar-15

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40	Fish and fish habitat	40. 6.7.2 FISH Why are fish from only Jacko Lake to be tested for metal accumulation (fish tissue metals)? Which metals are to be assayed?	Why are fish from only Jacko Lake to be tested for metal accumulation (fish tissue metals)? Which metals are to be assayed? Application/EIS should include analysis of metal accumulation (fish tissue metals).	AIR/EISg and Application/EIS	Section 6.7.2	No	Fish from Jacko Lake are in closest proximity to the Project, and therefore the most likely to be impacted. Use of this data in the HHERA will result in a highly conservative assessment of health risk. The specific metals that are analyzed from fish tissue samples will be presented in the Application/EIS.	No	30-Mar-15
41	Fish and fish habitat	41. 6.7.4 POTENTIAL EFFECTS OF THE PROJECT AND PROPOSED MITIGATION Add as 3rd, 4th, 5th and 6th bullets in 'This section of the A/EIS will: <ul style="list-style-type: none"> Quantify socially and economically the value of Jacko Lake as an early-late season sport fishery. Describe the methodology to document the state of annual health of the Jacko Lake fishery and report annually to the public. Describe how the water flow effect necessary to freshen the important fishery/fishing area in the bay leading up to the outlet of Jacko Lake will be maintained. Quantify proposed compensation to replace Jacko Lake with an equivalent fishery, should the long established fishery diminish. 	Request text revisions to the AIR, in the fish and fish habitat section, including value of sport fishery, health of fishery, proposed compensation measures to replace Jacko Lake with equivalent fishery.	Application/EIS	Section 6.7.2	Yes	Section 6.7 of the AIR/EISg focuses on fish and fish habitat, not the recreational fishery; that is addressed under the topics of Land and Resource Use (8.5), and Outdoor Recreation (8.6), which will take into account the results of the assessment of fish and fish habitat.	No	30-Mar-15
42	Rare plants	42. 6.8 RARE PLANTS Clarify rationale for selection of only threatened/ rare plants. Table 6.8-1 Rare plants Why weren't First Nations peoples addressed as stakeholders on Rare Plants?	Clarify rationale for selection of only threatened/ rare plants. Why weren't First Nations peoples addressed as stakeholders on Rare Plants?	AIR/EISg	Section 6.8	Yes	Rare plants are sensitive to disturbance, changes to the environment and represent rare, threatened, or an at-risk component of regional and/or global biodiversity. The existing AIR Section 6.8 states that justification for selecting Rare Plants as a VC and is summarized in Table 6.8-1. No change to the AIR/EISg to address this comment. To clarify, the Ashcroft Indian Band was added to Table 6.8-1 as a revision to the AIR/EISg. Should additional information be received through engagement with First Nations, this will be added to the Application.	No	30-Mar-15
43	Grasslands	43. 6.10.1 GRASSLANDS - RATIONALE Also, under Rationale (for choosing a VC for 6.10.1 p.82), the CAG believes that '...one or more of the following:' must be changed to 'all of the following,' and that this change should apply to many of the 18 VCs...	Request text revisions to the AIR in section 6.10.1 Grasslands and other VCs. Text in the rationale section for choosing VC should be changed to 'all of the following' instead of 'one or more'.	AIR/EISg	Section 6.10.1	Yes	No changes required to the AIR/EISg to address comment. The existing wording in the AIR/EISg "one or more of the following" is more inclusive. Justification for inclusion of a valued component (VC) will be based on one or more of the following: Aboriginal interest, public or other stakeholder input and relevant legislation or policy concern the VC.	No	30-Mar-15
44	Economic - General	44. 6.10.2 GRASSLANDS - BACKGROUND Request revisions to text wording relating to probable environmental, social and economic value of wildlife habitat and use. Field studies to determine.... Change 4th bullet to 'Present and potential plant species and communities'... , and 5th bullet from 'a select group of species' to 'all common species, and less species which are often represented in the Upper Grasslands.' Add bullet 6 as: Probable environmental and social value of free east-west movement of wildlife and cattle between the grasslands to the east and the forested rangelands to the west. Could go into 8.5 Land and Resource Use? Add bullet 7 as: Probable economic value to the overall ranching industry of the maximum level of sustainable forage production, quantified in tonnes of replaced fed hay. Add bullet 8 as: The probable value of wildlife habitat to be lost by the elimination of Peterson Creek from Jacko Lake to the east side of the proposed project.	Request text revisions to the AIR in section 6.10.2 Grasslands.	AIR/EISg	Section 6.10.2	Yes	The AIR/ EISg to be updated to state: Bullet 4: No revisions to the AIR/EISg text required. The existing text indicates "Plant species and communities present" which sufficiently captures the EA requirements. Bullet 5: To address comment, revise to: "Probable value for wildlife habitat for <u>species with grassland habitat preferences.</u> " Bullet 6: No revisions to the AIR/EISg text are required. The existing AIR/EISg in Section 8.5 Land Use, includes the requirement for the Application to include agriculture land use, including ranching. Bullet 7: No revisions to the AIR/EISg text required. The basis to assess the overall ranching industry maximum forage production is outside of the scope of the EA. The Application will be prepared, following standard EA methodology to require the inclusion of Land Use, including ranching. Bullet 8: No revisions to the AIR/EISg text required. Wildlife habitat will be considered as part of the Application.	Yes	30-Mar-15

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45	Wildlife	45. 6.14 MIGRATORY BIRDS There have likely been studies on the birds (and other organisms) that use Goose Lake. These studies need to be consulted to determine exactly what will be lost in the conversion of Goose Lake to a tailings storage facility. Change 'Waterfowl' to 'Waterfowl, including swans'. □	Request the use of previous studies conducted on wildlife that use Goose Lake.	AIR/EISg	Section 6.14	Yes	No changes required to the AIR/EISg to address comment. Swans are one species of waterfowl and are therefore captured by the AIR. Section 6.14.2 requires detailed baseline information to be provided and publically available studies that have been conducted on Goose Lake will be considered and referenced in the Application/EIS.	No	30-Mar-15
46	Wildlife	46. 6.15.1 RAPTORS - RATIONALE Include Snowy Owl in section on raptors	Request the addition of Snowy Owl in the AIR section on raptors	AIR/EISg	Section 6.15	Yes	No changes required to the AIR/EISg text. Snowy owls are not one of the indicator species in the raptor section. However, they share similar winter habitat to short-eared owls which is one of the indicator species.	No	30-Mar-15
47	Wildlife	47. 6.17 MAMMALS Commenter raised concern that common small mammals are not considered "focal species" in the AIR/EIS. However, these small mammals are incredibly important as food for raptors and other larger animals. Request mechanism for the monitoring of small mammals also be undertaken in order to predict effects on the predators. Add to list beaver, whitetail deer, coyote, and black bear. Top of page 107: 'Focal species were selected considering the presence of suitable and potentially suitable habitat'	Concern raised that common small mammals are not considered "focal species" in the AIR/EIS. However, these small mammals are incredibly important as food for raptors and other larger animals.	AIR/EISg	Section 6.17	Yes	No changes required to the AIR/EISg text. Focal or indicator species were identified and selected taking into consideration their habitat associations, and likely interaction with the project and based on their importance as Aboriginal interest, federal or provincial listing, regulatory or policy concern and/or scientific concern. Focal species are often umbrella species that share similar habitat to species lower in the food chain.	No	30-Mar-15
48	Economic-General	48. 7.0 ASSESSMENT OF POTENTIAL ECONOMIC EFFECTS Risk/Benefit Analysis, Mitigation, and Compensation Costs During the public comment periods, several submissions were made asking that the economic feasibility of the Ajax project be assessed. These requests were dismissed as being out of scope. The EAO now has the chance to rectify that dismissal, which the Community Advisory Group (CAG) regards as a reviewable error, for the reasons listed below. Request inclusion, in the scope, the assessment of the project economic feasibility and whether the proponent is able to finance mitigation and closure obligations. First, the issue of compensation is in scope, as compensation is a mitigation measure pursuant to the Canadian Environmental Assessment Act, 2012 S.C. 2012 c. 19, s. 52 at Section 2(1). Second, any reasonable and defensible justification analysis must include a consideration of whether or not the subject project is financially feasible, and whether the Proponent is able to finance mitigation and closure obligations. 29 If significant adverse effects are found, section 52(2) of CEAA 2012 will require that Cabinet consider whether such effects are justified. Section 17(3)(b) of the Environmental Assessment Act also provides ministers with the discretion to consider "any other matters that they consider relevant to the public interest in making their decision on the application." The EAO Code notes that the EAO will consider whether any significant adverse effects "may be justified in the circumstances, given the benefits and opportunities that the proposed project is expected to provide." 30 Third, it would not be reasonable for the EAO, the provincial Ministers, the federal decision-maker, nor the federal Cabinet to consider the detailed information regarding project benefits required by section 2.7 of the AIR/EIS (i.e. direct and indirect employment estimates, contractor supply services estimates and estimated annual government revenues) without any analysis of whether the Proponent is in fact financially capable of delivering those benefits.	Request the assessment of the project economic feasibility and whether the proponent is able to finance mitigation and closure obligations.	AIR/EISg	Section 7.0	Yes	The AIR/EISg is consistent with established EA methodologies employed in BC. The purpose of the EA process is to evaluate the potential adverse effects to valued components as a result of the Project. Economic feasibility, including considerations of Project financing, is one of the factors that will be used by KGHM in its internal decision making process to proceed with the Project. This financial analysis will not influence the conclusions of the effects assessment. No changes are required to the AIR/EISg.	No	30-Mar-15

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49	Economic General	<p>49. 7.1 ECONOMIC GROWTH [The original comment has been abbreviated for the purposes of this table]</p> <p>Commenter raised concern about the existing use of economic growth as a valued component that is limited in scope and does not identify any risks and economic costs of environmental degradation, health or depletion of natural resources.</p> <p>The CAG proposes the use of a benefit-cost economic analysis framework. This will evaluate projects and assess sustainable development using an input-output model that considers the possible negative impacts of the project on human capital, health, ecosystems, natural resource depletion and environmental degradation.</p>	Request the use of a benefit-cost economic analysis framework.	AIR/EISg	Section 7.1	Yes	No changes required to the AIR/EISg text. The AIR/EISg is consistent with established EA methodologies employed in BC.	No	30-Mar-15
50a	Economic General	<p>50. 7.1.4 POTENTIAL EFFECTS OF THE PROJECT AND PROPOSED MITIGATION [The original comment has been abbreviated for the purposes of this table]</p> <p>g. Failure to account for a possible impact on unemployment and poverty:</p> <p>Commenter noted that a US study has shown that the widely held belief that mining projects bring economic benefits and prosperity to communities is false. How will the Application take into consideration the risk of higher unemployment and a higher poverty level?</p> <p>h. Failure to account for the impact on labour market from boom and bust periods: What are the local spillover benefits from the Ajax mine?</p> <p>Commenter noted that the mining sector often reports an economic spillover multiplier effect, implying that for every direct [mining] job created more than one local sector job is generated. However, we should be aware that the multiplier operates in the opposite direction as well. During a bust, for every direct job lost more than one indirect local job is destroyed.</p> <p>What would happen in a town without the mine? The Application should consider and assess the negative spillover effect of the economic risk of a bust, so that it does not exaggerate the local spillover benefits during the boom.</p> <p>i. Failure to account for the proximity of a large open pit mine close to a large urban area. Information taken with Permission from Dr. Tsigaris.</p> <p>Commenter provided a study to indicate that it is unlikely to observe a large open pit mine in close proximity to a large urban city like Kamloops. The higher the population of the town/city, the more people are exposed to pollution. The CAG would like to know the baseline socio-economic studies which will be used and to include an assessment of the impacts of a large open pit to a large population center.</p>	Request for economic studies to assess higher unemployment and poverty, multiplier effect on lost jobs during a bust and the effects of a large open pit mine in close proximity to a large urban area.	AIR/EISg	Section 7.1.4	Yes	No changes required to the AIR/EISg text. The AIR/EISg is consistent with established EA methodologies employed in BC and will follow the environmental assessment requirements consistent with Section 7 socio-economic effects.	No	30-Mar-15

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50b	Economic - General	<p>50. 7.1.4 POTENTIAL EFFECTS OF THE PROJECT AND PROPOSED MITIGATION</p> <p>Comments relate to the proponent's ability to cover risks and insurance coverage:</p> <ol style="list-style-type: none"> 1. What types of insurance coverage will KGHM Ajax have for the construction and operational phases of the project? 2. What types of claims will be covered under the various policies KGHM Ajax is expected to have? 3. Will KGHM Ajax have insurance coverage for pollution legal liability? 4. If pollution legal liability is covered under the insurance policies KGHM Ajax will have in place, is it possible that the policy could potentially be exhausted by other types of claims in any given year? 5. In the Ajax Feasibility Study (page 21-13), it is noted that \$1.2 million US\$ has been budgeted under G&A expenses. Has KGHM Ajax determined its insurance coverage limits? 6. During the Northern Gateway Pipeline Hearing, an Enbridge representative agreed that it would be a good idea for his company to get a preliminary indication of insurance coverage. Has the insurance market been approached by KGHM Ajax for quotes for insurance coverage? Has KGHM Ajax obtained any information regarding insurance coverage so that it can do a preliminary analysis of matching its risks to its insurance needs? 7. Would such risk analysis be provided to potential lenders and investors for the project? 8. What are the risk characteristics (e.g., probability of incidence, cost of each incidence?) 9. Has KGHM Ajax done any cost estimates of possible risk events (e.g. blockage of Peterson Creek by slide activity; contamination of Peterson Creek due to a tailings line failure; structural damage from blasting, earthquake activity)? 10. What risks that KGHM Ajax faces are insurable, and what risks are not insurable? 11. If a property owner is claiming damage due to blasting, or excessive dust, would the claimant submit their claim to KGHM Ajax or the insurance company, or government? 12. What is the corporate structure of KGHM's holdings in Canada? 13. Will KGHM Polska Miedz serve as a guarantor if KGHM Ajax does not have adequate insurance coverage in the event of an incident that exceeds the costs of KGHM Ajax's insurance coverage? 14. The bonding requirements by the B.C. Government for mining developments appear to cover only reclamation costs. Is KGHM Ajax willing to enter into funding arrangements through the federal and provincial governments for other than reclamation costs arising from the operation of the Ajax mine? <p>□</p>	Concern raised about the proponent's ability to cover risks and insurance coverage.	AIR/EISg	Section 7.1.4	No	No changes required to the AIR/EISg text. This level of business information is outside of the scope of an EA. The Application/EIS will provide details as to KGHM's approach to the management of risk.	No	30-Mar-15
51	Economic - General	<p>51. 7.2. LABOUR FORCE, EMPLOYMENT AND TRAINING</p> <p>7.2.4 Potential Effects of the Project and Proposed Mitigation</p> <p>The Application should compare the net economic benefits of a local hire versus no local hire policy.</p> <p>Kamloops is home to many hundreds of skilled mine workers who travel out of town for employment. If Ajax employs these workers, and no workers from within or outside of Kamloops take the place of these workers, there may be no or possibly even a net economic loss to Kamloops, if these workers were to take a cut in pay. Importing workers to work in Ajax, on the other hand, will constitute a net increase in income for the study area.</p>	Request comparison of the net economic benefits of a local hire versus no local hire policy.	Application/EIS	Section 7.2	No	The Application/EIS will include an assessment of potential adverse impacts related to labour force and employment. The AIR/EISg (7.2.4) states that the Application/EIS/EIS will " identify and analyze benefits resulting from the Project relating to employment, including economic spinoffs and population growth projections (based on local labour availability, consequent in-migration to take up Project related and spin off jobs and the family characteristics of in-migrants).	No	30-Mar-15

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52	Economic - General	<p>52. 7.5.4 PROPERTY VALUES - POTENTIAL EFFECTS OF THE PROJECT AND PROPOSED MITIGATION</p> <p>Comment requests the addition of the term "compensation" to the title of this section in the AIR. The loss of property value should be compensated for.</p> <p>The definition of mitigate is to: alleviate; lessen; ease; allay; moderate; diminish; tone down; soften; relieve.</p> <p>The definition of compensate is to: reimburse; pay off; pay compensation; pay damages; pay costs; give back.</p> <p>The CAG believes that if the mine's impacts result in a loss of property value, and mitigation measures are not sufficient to prevent loss of property value, the owner should be compensated by the mine. Therefore, the term Compensation should be added to the title of this section.</p>	Request addition of the term 'compensation' in the AIR. The loss of property value should be compensated.	AIR/EISg	Section 7.5.4	Yes	No revisions required to the AIR/EISg. Under the BC EAO, mitigation measure means a tangible conservation action taken to avoid, minimize, restore on-site, or offset impact on environmental values and associated components resulting from a project or activity. Mitigation measures will be based on the BC EAO Environmental Mitigation Policy mitigation hierarchy (e.g., avoidance, minimization, restoration on-site, offset).	No	30-Mar-15
53	Noise and vibration	<p>53. 7.5.4 PROPERTY VALUES - POTENTIAL EFFECTS OF THE PROJECT AND PROPOSED MITIGATION AND COMPENSATION</p> <p>The Application should describe the potential impacts on property values from airblasts, noise and vibration. The Application should describe how noise and airblasts are propagated by wind, cloud cover and temperature inversions, and how often these conditions are expected to occur in a five kilometer radius of the mine.</p> <p>The Application should discuss noise characteristics such as noise level, tonality, duration and impulsiveness, and the times at which these various noise aspects will be experienced by those living within audible range of the mine.</p> <p>The Application should describe how it intends to monitor and mitigate impacts from noise, airblasts, and vibration with reference to the following best practice mine management procedures.</p> <p>The Proponent should include in its Application a description of the community engagement program it will establish to provide blast, noise, and vibration monitoring data to residents within a 5 km radius of mine operations, and to provide opportunities for public complaints or inquiries regarding mine operations.</p> <p>With regard to the potential impacts on properties from blasting, the Application should describe provisions for residents within 3 km of blasting for structural inspections of their property before blasting occurs, similar to the best practice blast management procedures implemented by BHP Billiton for its Mt. Arthur coal mine in Australia.</p>	The Application/EIS should describe noise, airblast and vibration, including discussion on management plans and the intended community engagement plan.	Application/EIS	Section 7.5.4	No	<p>The potential effects of the Project on the Property Values VC will be considered in the Application. As indicated in Section 7.5.1 of the AIR, discussion of this VC will be informed by the outcomes of the noise and vibration VCs.</p> <p>Noise and vibration modelling will be conducted as outlined in the AIR/EISg, Section 10.5.4.1, and 10.5.4.2 using conservative meteorological conditions that enhance sound propagation (e.g., downwind, temperature inversions). The potential effects of noise and vibration will be assessed and mitigation measures will be proposed to minimize the potential for adverse effects, as described in Section 10.5.4. of the AIR/EISg.</p> <p>A Noise Management Plan will be included in the Application/EIS, as required by Section 11.2 of the AIR/EISg. The types of mitigation measures to be considered (beyond those specified in the AIR) will depend on the outcome of the modelling and effects assessment and will be tailored to address any residual effects identified in the effects assessment.</p> <p>A Community Engagement Plan will also be included in the Application/EIS. Information provided will include blast, noise, and vibration monitoring data to the community in a readily accessible format, and will provide opportunities for public complaints or inquiries regarding mine operations.</p>	No	30-Mar-15
54	Economic - General	<p>54. 8.1 COMMUNITY HEALTH AND WELL-BEING</p> <p>Request to include more specifics on the valuation and devaluation of properties close to the mine and in Kamloops as whole.</p>	Request to include more specifics on the valuation and devaluation of properties close to the mine and in Kamloops as whole.	AIR/EISg	Section 8.1	Yes	No changes required to the AIR/EISg. The assessment of potential adverse impacts on property values are described in Section 7.5 (Property Values). As identified in Section 8.1 (Community Health and Well-Being), property values are also one of the factors that will be considered in the assessment of potential impacts on well-being. Details of the assessment of property values will be provided in the Application.	No	30-Mar-15
55	Social - general	<p>55. 8.2 INFRASTRUCTURE, PUBLIC FACILITIES, AND SERVICES</p> <p>Needs to quantify the actual impact on health care facilities and personnel, i.e. lack of physicians. Needs to quantify the loss of physicians and health personnel due to mine location.</p>	Concern about impact on health care facilities and loss of physicians and health personnel due to mine location.	AIR/EISg	Section 8.2	Yes	As indicated in the AIR/EISg (Section 8.2 Infrastructure, Public Facilities and Services), the Application/EIS will evaluate potential project effects on "services such as health care [and] emergency services". However, due to the complexity and range of influencing variables, potential impacts on the numbers of physicians and other health personnel are not quantifiable.	No	30-Mar-15

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56	Dark sky	56. 8.3.4 DARK SKY Add as 3rd bullet: 'Effect of 24 hour light on wildlife'.	Concerns about light pollution from mine operations and associated effects (wildlife)	AIR/EISg	Section 8.3.4	Yes	No change required to the AIR/EISg. Consideration of the potential effects to wildlife as a result of artificial lighting is included in relevant Section 6 subsections.	No	30-Mar-15
57	Visual impact	57. 8.4 VISUAL IMPACT/AESTHETIC FEATURES Visual Impact of Blast Plume Request the visual impact assessment and effects of blast plumes, including the possible effects of stress and anxiety from concerns about potential toxins in the blast plume. The CAG requests that the Applicant be required as a permit condition to install a web cam to record each blast it conducts and to post each recording on a public information website. The CAG requests that the Applicant provide a commitment to providing information to the public about blast plumes. An example of the types of information the Applicant should provide is the following information on mine blast plumes provided by the Government of New South Wales. Information provided by the Applicant should not be limited to what is contained in the NSW information bulletin. For example, the Applicant should describe under what meteorological conditions a blast plume from the Ajax mine may persist and affect people who are downwind of the blast site.	Request visual blast plume analysis.	AIR/EISg and Application/EIS	Section 8.4	Yes	No change required to the AIR/EISg text. The potential visual impacts of blast plumes is included in Section 8.4.4 (first bullet point under "potential effects of the Project and proposed mitigation) of the AIR/EISg under the Visual Impact/ Aesthetic Features section. A description of mitigation measures will also be included in the Application/EIS. The commenter's reference to the Australian document is appreciated, and will be taken into consideration in the Application/EIS. Potential effects on human health due to air quality will be considered in the HHERA. The HHERA or human health chapter of the Application/EIS will also describe the measures the Proponent will commit to undertaking to mitigate the potential effects on human health. With regards to providing information to the public, KAM commits to a Community Engagement Plan as part of the Application/EIS. Information provided will include blast, noise, and vibration monitoring data to the community in a readily accessible format, and will provide opportunities for public complaints or inquiries regarding mine operations.	No	30-Mar-15
58	Cumulative effects assessment	58. 8.5 LAND AND RESOURCE USE - 8.5.2 BACKGROUND Commenter is requesting broadening of the cumulative effects assessment. As discussed in Section 5.1.6 Cumulative Effects Assessment, the Project Definition needs to be broadened to include the cumulative effects of other reasonably foreseeable mineral extraction activities (e.g., Rainbow, Ajax Pit expansion, Ajax North, the DM/ Audra-Crescent deposits, Iron Mask) on land use within the City of Kamloops. An assessment should be required of the impacts to the City of Kamloops of restructuring community, transportation, and municipal service plans (e.g. water, storm and sanitary sewer) to accommodate the growth, envisioned in current community plans that will not occur due to mine development, elsewhere in and beyond city boundaries (e.g., Thompson Nicola Regional District).	Concern about the cumulative effects assessment analysis methodology	AIR/EISg	Section 5.1.6 and Section 8.5	Yes	No revisions required to the AIR/EISg. The cumulative effects assessment methodology will be detailed in the Application/EIS and the list of past, present, and reasonably foreseeable future projects and activities will be provided. The Application/EIS will follow the 2012 Canadian Environmental Assessment Act Technical Guidance, for identifying future physical activities and projects considered certain to proceed, and those considered reasonably foreseeable. The AIR/EISg in Section 8.5 also requires the Application/EIS to present the inclusion of relevant municipal and regional land use plans and processes and describe how the Project will be integrated into the overarching community plans.	No	30-Mar-15
59	Project Description	59. 8.6.4 OUTDOOR RECREATION This section... will: • Address the potential impact of the project on Roads and public road use. Prohibitions/restrictions on industrial traffic on Lac le Jeune Road, Hwy 5A , Long Lake Road, and Goose Lake road will be addressed in this section as well or in 3.17, with clarification of industrial routes that will be used, and at what times. Activities taking place elsewhere in the vicinity of the project will also be considered, including access to Hull Lake. Indirect effects of the Project on other VCs included in the environment and health disciplines will be considered in the assessment as appropriate (e.g., effects to Fish and Fish Habitat will be considered with respect to fishing). Negative impact of air quality right where people are exercising is [contradictory]	Concern about potential impacts of the project on access roads.	AIR/EISg	Section 8.6.4	Yes	The AIR/EISg will be updated to state in bullet 1 of Section 8.6.4: "Describe the potential effects of the Project on areas currently used for outdoor recreation, including potential effects on access to these areas and the mitigation measures proposed;"	Yes	30-Mar-15

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60	Surface water quality	<p>60. 8.7 SUPPORTING TOPIC – JACKO LAKE</p> <p>Commenter noted:</p> <p>This section of the Application/EIS will draw from other VCs and summarize:</p> <ul style="list-style-type: none"> • Potential effects specific to Jacko Lake as described in other parts of the Application; • Discussion on the perceived effects to the lake as identified in key person interviews (e.g., recreational users); • Effect of decreased inflow into Jacko Lake from the tailings area on existing downstream/upstream water use. • Effect of changing outflow pattern of Jacko Lake will be assessed in terms of impact on fisheries values in Jacko Lake • Effect of current overflow from Jacko Lake flows into Inks Lake on the Alkali/Cherry Creek watershed. • Suggested mitigation measures as described in other parts of the Application; and • If required, other mitigation measures to address overall effects to the lake that are not captured by other VCs. 	Comment noting potential effects on Jacko Lake	AIR/EISg	Section 8.7	Yes	<p>It is unclear from the comment, but assumed that the commenter is requesting additional bullets to be added to the AIR/EISg text.</p> <p>Currently a wide range of VCs associated with Jacko Lake will be assessed. The proposed approach in the AIR/EISg will describe Jacko Lake in the context of the other VCs and will allow the reader to refer to a single section for all issues related to Jacko Lake.</p> <p>No changes required to the AIR/EISg text. The proposed additions are captured by the requirement for a summary of "Potential effects specific to Jacko Lake as described in other parts of the Application/EIS". Section 6 captures the potential effects listed by the commenter.</p>	No	30-Mar-15
61a	Health - general	<p>61. 10.0 – ASSESSMENT OF POTENTIAL HEALTH EFFECTS</p> <p>The REVIHAAP (Review of Evidence on Health Aspects of Air Pollution) was developed in 2013 as a technical report for the WHO. This should be used as a reference document when discussing the health impacts of air pollution, until superseded by high quality research that is recognized by the WHO.</p> <p>If the Proponent's application for an open-pit mine on the upwind edge of Kamloops is approved, the emissions of PM2.5 from the site will be added to those from existing sources in and near the city. The Proponent's dispersion model cannot be initiated with PM2.5 data from 2003, as is proposed, since 2003 has been shown to be unrepresentative of the long-term record of PM2.5 in the city and because the measurements were made in 2003 with the older TEOM instrument and must be corrected upwards to agree with the current measurement technology (BAM instrument).</p> <p>The rationale for the choice of contaminants to be measured and included in dispersion models needs to be laid out – real data from core samples is required. The public needs access to more information than the list submitted in the draft AIR. Hexavalent Chromium, manganese, aluminum, iron, radon, silica, strontium and yttrium should be added to the list of metals to be studied.</p> <p>The applicant must provide Kamloops specific baseline population health data which has been collected from members of the population. This should include blood samples, hair samples for mineral/element levels and pulmonary function studies. These are needed for good baseline data. These levels and measurements should be monitored during the mine life so health impacts can be properly assessed. The BC Center of Disease Control should be consulted to draft the best design of this health maintenance study.</p>	<p>Concern regarding air dispersion model and recommendations for inclusion.</p> <p>Request baseline population health data to include the collection of blood samples, hair samples for mineral/element levels and pulmonary function studies.</p> <p>Include discussion of the impacts on human health of exposure to various airborne contaminants in the short term as well as over the longer term.</p>	AIR/EISg	Section 10.0	Yes	<p>No changes required to the AIR/EISg text.</p> <p>Dispersion modelling of air quality for the Project will be conducted as described in the AIR/EISg and in the final model plan, following the Guidelines for Air Quality Dispersion Modelling in British Columbia (BC MOE). Appropriate baseline data for use in dispersion modelling will be agreed upon with the BC MOE and baseline conditions for air quality will be described in the Application/EIS.</p> <p>Parameters or contaminants to be included in the model are described in Section 10.1.4 of the AIR/EISg. The rationale for inclusion of these parameters is described in the AIR/EISg in Section 10.1.4. As stated in this section of the AIR/EISg, for the HHERA "substances that have not been assessed...will be identified and a rationale as to why they were not assessed will be included" in the Application.</p> <p>Population health data (based on available statistical summaries) will be included in the Application/EIS under the Community Health and Well-Being VC, including health indicator data (see Section 8.1.2 of the AIR/EISg). Baseline data using human blood, hair, or other biological samples are not needed in order to establish an adequate baseline for the Project and this type of study has not been conducted for other proposed mining projects in the province of BC. The HHERA will identify any areas in which there is potential risk to human receptors due to the Project, and monitoring or mitigation measures to address these risks will be described in the Application/EIS.</p>	No	30-Mar-15

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61a	Health - general	<p>...continued</p> <p>The Proponent should be required to measure diesel and ultrafine particulates at the perimeter of the mine property and should be required to model the dispersion of ultrafine particulates throughout the full model domain. The rationale for diesel estimation and dispersion modeling would be improved by a study of a full operational mine site. We would like modelling of short term and long term health effects related to diesel exposure.</p> <p>The measurement of PM2.5 and ultrafine particulates needs to be done at the edge of the mine site in a perimeter fashion, as well as having multiple meters placed throughout the city, not just the one operational meter in downtown Kamloops.</p> <p>We would like the applicant to include discussion of the impacts on human health of exposure to various airborne contaminants in short term increments (1 hour, 24 hours, 1 week, 1 month) as well as over the longer term. This discussion should include all short term health related impacts as well as long term impacts. Specific reference should be made to COPD, asthma, MI, and stroke — all of which cause mortality. It should also specifically discuss the risks to a developing fetus that are represented by various exposure scenarios, and discussion of risks to the average citizen as well as those with pre-existing conditions.</p> <p>Please provide clear statements pertaining to measurement error and uncertainty in PM10 and PM2.5 dispersion calculations.</p>	<p>...continued</p> <p>Request measure of ultrafine particles</p>	AIR/EISg	Section 10.0	Yes	<p>...continued</p> <p>Ultrafine particles are not specifically included in the dispersion model. Ultrafine particles are a subset of PM2.5 and the HHERA will include a discussion on this subset of airborne particulates. As noted in the AIR, 'diesel particulate matter' (for which there are no applicable criteria) are represented in the dispersion model by benzo(a)pyrene equivalent (for which there is applicable criteria).</p>	No	30-Mar-15
61b	Health - general	<p>61. 10.0 – ASSESSMENT OF POTENTIAL HEALTH EFFECTS</p> <p>We would like to have the consultants include a study of a currently active mine, such as Highland Valley Copper, for comparison with the proposed project. This should include collection of real data at locations equal in distance from the mine to the nearest subdivisions that could be impacted in Kamloops. This should include more than dust collection - it should include specific measurement of PM2.5 and PM 10.</p> <p>If not being measured, then a clear statement (and discussion of the rationale) that ultrafine particles are not being measured should be included in the dAIR.</p> <p>Given a community garden in Vancouver BC was recently shut down due to contaminants (heavy metals) found in Kentucky Blue Grass grown in a country garden model, we require the Proponent to study plant contamination at various distances from the mine site throughout the life of the mine. We also require that the Proponent study plant contamination at an existing mine such as HVC to corroborate their modelling.</p> <p>The Proponent must characterize the soluble, insoluble and bioavailable components of the soil. This must be done from the mine perimeter to the Thompson River bottom. This should be done from the soil surface down to the depths of existing aquifers.</p> <p>Airborne particles from the mine will settle on all surfaces downwind of the mine. People, especially children and animals, will interact with these surfaces on a daily basis. The chemical composition of the dust partitioned by particle size and composition should be studied. This study cannot be done using simple dust cups. Supersensitive receptors (children) require special baseline studies and comprehensive longitudinal follow up.</p>	<p>Request a study of a currently active mine, such as Highland Valley Copper, for comparison with the proposed project. This should include collection of real data at locations equal in distance from the mine to the nearest subdivisions that could be impacted in Kamloops. This should include more than dust collection - it should include specific measurement of PM2.5 and PM 10.</p> <p>Request a study of plant contamination at various distances from the mine site throughout the life of the mine. We also require that the Proponent study plant contamination at an existing mine such as HVC to corroborate their modelling.</p> <p>Request characterization of the soluble, insoluble and bioavailable components of the soil.</p>	AIR/EISg	Section 10	Yes	<p>No changes required to the AIR/EISg text.</p> <p>Use of published analogue data from other similar mining/industrial projects will be considered when developing the assessment, and in fact are already built into many of the factors used in the air modelling. These types of inputs are well established. The logistics of KAM undertaking a specific study at another proponent's site (such as HVC) is not likely to be developed in a reasonable timeframe to support the Project.</p> <p>Results of studies conducted at other mine sites are not directly applicable to the Project and a study of an active mine site will not be detailed in the Application/EIS. This is because each mine site is unique, since air quality can be influenced by geography/topography, project activities and point or non-point sources of emissions, traffic, other activities in the area.</p> <p>An Air Quality Monitoring and Dust Management Plan will be developed as part of the Application (Section 11.2 of the AIR/EISg, which will describe Project-specific monitoring requirements. The AIR/EISg states that ultrafine particles are a sub-set of PM2.5 and are thus captured in the current scope of the assessment.</p> <p>The potential for uptake of contaminants through the food chain (including vegetation) will be considered as part of the HHERA (see Section 10.3, Country Foods, and Section 10.4, HHERA). Where solubility or bioavailability of contaminants in soil is taken into account data will be taken from risk assessment guidance documents or literature, using conservative assumptions. Depending on the results of the HHERA, monitoring programs or mitigation strategies to minimize the potential for adverse effects will be recommended as needed.</p> <p>The potential for dust deposition (i.e., contaminants associated with airborne particulates) to affect soil quality will be modelled and will be included in the HHERA. Sensitive receptors, including sites where children may be present, have been identified and will be included in the HHERA.</p>	No	30-Mar-15

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61c	Health - general	<p>61. 10.0 – ASSESSMENT OF POTENTIAL HEALTH EFFECTS</p> <p>An alarm system for the Kamloops community should be developed so that citizens and specifically schools could be made aware of poor air quality (e.g. so that children are not allowed to play outside if air quality is poor). This could be similar to the innovative system used in California. This needs to be done with real-time measurements and would require more air monitoring stations that the unreliable station in downtown Kamloops.</p> <p>The current BC government model for calculation of ventilation indexes could be expanded to provide the city with advance warning of potentially dangerous air pollution episodes. Like the BHP Billiton Mount Arthur coal mine, we support the adoption of meteorological criteria which when fulfilled, blasting would not occur.</p> <p>There needs to be advance notice public alarm systems for dam failure, spills, leaks, and decanting procedures.</p> <p>The emergency disaster plan for Interior Health/Kamloops should be revised to reflect the extreme risk of a catastrophic tailings pond breach, seepage pond breach or waste rock pile failure. If the community (and health authority) does not have the capacity to respond appropriately to the above situations, then the mine should not be built.</p> <p>The emergency action planning should include notification, evacuation, transportation, emergency housing, infrastructure plans, water supply and waste management.</p>	<p>Request for advanced notice public alarm systems for poor air quality, dam failure, spills, leaks.</p> <p>Request for revision to the emergency disaster plan for Interior Health/Kamloops</p>	AIR/EISg	Section 10	Yes	<p>No changes required to the AIR/EISg text.</p> <p>An Air Quality Monitoring and Dust Management Plan will be developed as part of the Application (Section 11.2 of the AIR/EISg, which will describe Project-specific monitoring requirements and mitigation measures.</p> <p>Blasting schedules and procedures will be outlined in the Application/EIS, as required by the AIR/EISg.</p> <p>Several other management plans will be developed including an Accidents and Malfunctions Plan and an Emergency Response Plan (Section 11.2 of the AIR/EISg. For the purposes of the Application, these plans will be preliminary and at a conceptual level. More detailed plans are required as part of the Mines Act permitting requirements.</p> <p>The Proponent defers the comment about emergency planning for Interior Health and the City of Kamloops to the EAO as the appropriate responder.</p>	No	30-Mar-15
61d	Health - general	<p>61. 10.0 – ASSESSMENT OF POTENTIAL HEALTH EFFECTS</p> <p>The CAG requests that this project be assessed in accordance with the April 2013 motion passed by the medical health officers resolution requiring all reviewable projects under the BC Environmental Assessment Act to have a health impact assessment.</p> <p>THEREFORE BE IT RESOLVED</p> <p>1. That it is the position of the Health Officer Council that a Health Impact Assessment must be considered for all reviewable projects under the BC Environmental Assessment Act, and if appropriate a complete HIA be performed and externally funded as part of the project review process.</p> <p>2. That the Health Officers Council offer to work with the Ministry of Environment, and the EAO to develop the necessary guidance documents to support the implementation of HIA in the assessment of reviewable projects.</p>	Request for a health impact assessment	AIR/EISg	Section 10	Yes	No changes required to the AIR/EISg. The AIR/EISg is consistent with established EA methodologies employed in BC.	No	30-Mar-15

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62	On-site meteorology station	<p>62. 10.1.1 METEOROLOGICAL DATA</p> <p>Sections 10.1.4 and 10.1.2</p> <p>Issue: The mine lacks relevant meteorological measurements.</p> <p>The Kamloops Airport is stated to be a main source of weather and climate data for the proposed mine. The Proponent must be required to provide a scientifically sound argument as to why meteorological measurements made at the valley bottom in Kamloops have any validity on a mountain plateau 600 m higher in elevation. In particular, why would the wind speed and direction data from the valley bottom have any relevance? Precipitation amounts will be different, as will precipitation types due to the longer cold season with temperatures below freezing. How are these measurements relevant to the project area? Humidity at the proposed mine site will be very different than at the valley bottom. In the colder half of the year, humidity in the project area will be higher than at the valley bottom and this has an impact on visibility, particulate matter/droplet size, particulate sedimentation rates, particulate interaction with vegetation, and other issues. Total solar radiation should also be monitored at the site and downwind in the City of Kamloops to look for changes in 'sunshine', which may result from fugitive dust and other mining activities.</p> <p>Measurements that have been made outside the new project area in the lee of Sugarloaf Mountain are compromised by the poor choice of location and cannot produce meteorological measurements that are representative of the new project area.</p>	Request an on-site meteorological station on the project site.	AIR/EISg	Section 10.1.1	Yes	No changes required to the AIR/EISg to address comment. The Application/EIS will provide details as to the baseline meteorological data and the adequacy of the monitoring locations for the effects assessment as required in Section 10 of the AIR/EISg.	No	30-Mar-15
63	On-site meteorology station	<p>63. 10.1.2 EXTREME WEATHER EVENTS</p> <p>Sections 10.1.6 and 5.1.6 and 10.2</p> <p>Issue: No data exist for extreme rain, snow and wind events at the mine site.</p> <p>It is stated in Section 10.1.6 that KAM will provide "Identification and description of existing or reasonably foreseeable projects or activities that have the potential to interact with the project" and "Identification and description of any potential cumulative effects" and An assessment of the significance of the cumulative effects, following methodology presented in Section 5.1.6".</p> <p>Without project site meteorological data in existence for the project site, much less a 30-year climatology of extreme weather events, how can the cumulative effects assessment take into consideration the impacts of extreme weather events?</p>	<p>Request an on-site meteorological station on the project site.</p> <p>Without project site meteorological data in existence for the project site, much less a 30-year climatology of extreme weather events, how can the cumulative effects assessment take into consideration the impacts of extreme weather events?</p>	Application/EIS	Section 10.1.6, Section 5.1.6 and Section 10.2	No	No changes required to the AIR/EISg text. It is standard practice for scientists/engineers to use data from long-term regional data sets and project estimates of climate statistics (e.g., rain, snow, temperature) to areas with no, or short data records. This is particularly necessary when estimating extreme events, for which there is often limited data. Standard methodologies are in place to make these types of calculations, and where uncertainty exists, conservative assumptions are employed. Information will be provided in the Application/EIS to describe the means used, and provide justification for any assumptions built into these values.	No	30-Mar-15
64	On-site meteorology station	<p>64. 10.1.3 TAILINGS STORAGE FACILITY</p> <p>Section 3.7</p> <p>Issue: The Probable Maximum Precipitation (PMP) event is unknown.</p> <p>With no meteorological data from the project site and no Climatological data from the project site, any estimate of the PMP event would have a large margin of error. The use of climatological data from the Kamloops airport or other lower elevation sites would seriously underestimate the rainfall at the higher elevation mine site. A design for the Tailings Storage Facility (TSF) based on an inadequate estimate of the PMP could compromise the safety of the TSF through the construction of tailings storage embankments that are too low to contain the added water from very high precipitation events.</p> <p>Similarly, water storage and seepage ditches around the embankments could fail if the PMP event is underestimated due to the lack of any historical meteorological and climatological data from the project site.</p>	<p>Request an on-site meteorological station on the project site.</p> <p>The design of the TSF based on an inaccurate Probable Maximum Precipitation (PMP) event would compromise safety.</p>	AIR/EISg	Section 3.7	Yes	No changes required to the AIR/EISg to address comment. The Application/EIS will provide details as to the baseline data and its adequacy for use in the planning of the Project and for the effects assessment. Information will be provided in the Application/EIS to provide justification for any assumptions used.	No	30-Mar-15

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65	On-site meteorology station	<p>65. 10.1.4 SITE WATER MANAGEMENT PLAN</p> <p>Section 3.12</p> <p>Issue: There are no meteorological or climatological data from the project site.</p> <p>With no meteorological data from the project site and no Climatological data from the project site, any site water management plan would have large uncertainties. Both rainfall and snowfall amounts, their distribution on the project site, and extreme values of these parameters, will have to be known for a credible site water management plan to be designed.</p>	<p>Request an on-site meteorological station on the project site.</p> <p>With no meteorological data from the project site the site water management plan would have large uncertainties.</p>	AIR/EISg	Section 10.1.4	Yes	No changes required to the AIR/EISg to address comment. The Application will provide details as to the baseline data and its adequacy for use in the planning of the Project and for the effects assessment.	No	30-Mar-15
66	On-site meteorology station	<p>66. 10.1.5 GREENHOUSE GAS MANAGEMENT</p> <p>Section 6.1.2</p> <p>Issue: There are no meteorological or climatological data from the project site.</p> <p>It is stated that data from regional and site meteorological stations will provide baseline data for calculations of greenhouse gas emissions from the project site. However, meteorological data from the Kamloops airport, a distant valley bottom site, are not applicable to the project site, and no on-going meteorological measurements are being made on the new project site to provide any baseline weather data. This lack of data compromises any calculation of the dispersion of greenhouse gases generated by the mine.</p> <p>It is stated that "Data will be compiled from the regional and site climate stations for..." Climate 'normals' are averages of measurements of meteorological parameters for a specified period of 30 years. There are no such climate data for the proposed project site and apparently no measurements being made at present on the proposed project site. It is, therefore, incorrect to say "site climate stations".</p>	<p>Request an on-site meteorological station on the project site.</p> <p>Lack of data compromises any calculation of the dispersion of greenhouse gases generated by the mine.</p>	AIR/EISg	Section 10.1.5	Yes	The AIR/EISg will be updated in Section 6.1.2 to read: Data will be compiled from the regional and site <u>meteorological</u> stations for:"	Yes	30-Mar-15
67	Air quality	<p>67. 10.1.2 BACKGROUND</p> <p>Issue: The mine lacks historical airborne particulate measurements in a relevant location.</p> <p>The Proponent states "long-term baseline information on Particulate matter (PM) is available for the project area from the National Air Pollution Surveillance Program (NAPS)...The NAPS Brocklehurst station is located approximately 7 km from the northern edge of the project footprint."</p> <p>The Proponent fails to mention that the PM2.5 measurements made at the Brocklehurst site are from a valley bottom site in the middle of the City of Kamloops. They have no relevance to what has happened, or is happening, on the mountain plateau 600 m higher in elevation. In addition, the data were obtained at Brocklehurst using the old TEOM instrument, which severely underestimated PM2.5 concentrations. The Proponent should be required to rigorously demonstrate that any data used from NAPS or NPRI databases are in fact relevant to the site of the proposed mine and be required to install modern well-calibrated instruments to measure PM2.5 both on the mine site and immediately downwind.</p>	<p>Concern about use of long-term baseline air quality data that is located 7 km away.</p>	Application/EIS	Section 10.1.2	No	<p>Baseline conditions for air quality will be described in the Application/EIS.</p> <p>Any uncertainties or limitations associated with the baseline data will be noted in the Application/EIS</p>	No	30-Mar-15

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68	Air quality	<p>68. 10.1.7 PROXIMITY</p> <p>Section 10.1.3 Issue: Airborne particulates from the proposed mine will move outside the 30 km x 30 km study area.</p> <p>The commenter requests that the proposed study area should be significantly expanded in size.</p> <p>Section 10.1.3 states the “preliminary study area boundary” will be 30 km x 30 km. The distance from the mine pit to Rayleigh is 22 km. Rayleigh is downwind of the mine site and about 600 meters (m) lower in elevation. This is an example of a point that would be outside the preliminary study area boundary, which is stated to be centered on the new project area. If the average wind speed is 2 meters per second (m s-1), the transit time from the pit area to Rayleigh is about three hours.</p> <p>The terminal velocity (settling speed in still air) of a 10 um (micrometer) diameter particle of density one (equivalent to water density) is 0.3 cm s-1. In three hours, such a particle would fall 32 m. Smaller particles (PM2.5) would fall a shorter distance in the same time period. Denser particles will settle somewhat faster. In the real world, the particles will move where the wind and air turbulence takes them. Descending air from the mine site will move particulates into the valley bottom and air movement along the South Thompson, North Thompson and Thompson River valleys can distribute the particles over distances of tens or even hundreds of kilometers.</p>	Concern about air quality modelling methodology.	AIR/EISg	Section 10.1.3	Yes	No changes required to the AIR/EISg text. Dispersion modelling of air quality for the Project will be conducted as described in the AIR and in the final model plan, following the Guidelines for Air Quality Dispersion Modelling in British Columbia (BC MOE). As described in the March 18, 2013 memo from Ralph Adams (BC MOE) to Scott Bailey (EAO), the model domain (which at that time was 25 km by 25 km) is considered to be appropriately sized and is consistent with BC MOE guidelines.	No	30-Mar-15
69	Air quality	<p>69. 10.1.8 MODEL DOMAIN</p> <p>Sections 10.1.3 and 10.1.4 Issue: The size of the area being modelled is too small.</p> <p>The stated (Section 10.1.3) new model domain area is 30 km x 30 km. If centered on the open pit, this domain would not cover areas as far north as Rayleigh or other areas up the various river valleys near Kamloops.</p> <p>Section 10.1.4 says “the effects assessment will consider a modelling domain 20 km x 20 km centered on the Project site”. This will not even include all of downtown Kamloops. Particles with aerodynamic diameters less than or equal to 10 um are called PM10. A subset of this are the fine particles, PM2.5, with aerodynamic diameters less than or equal to 2.5 um. These fine particles will travel farther in the wind than the larger particles in the coarse fraction between 10 and 2.5 um. A good example is the high concentration of PM2.5 hundreds and in some cases thousands of km downwind of forest fires. Mines are large producers of PM2.5.</p> <p>A larger domain would allow for consideration of air moving north up a valley and then back south into the city. This is the type of reversal of wind direction that occurs in the valleys in and around Kamloops.</p>	Concern about air quality modelling methodology.	AIR/EISg	Section 10.1.8	Yes	<p>No changes required to the AIR/EISg. Both Section 10.1.3 and 10.1.4 of the AIR/EISg indicate that the modelling domain will be 30 km by 30 km centered on the Project site.</p> <p>Dispersion modelling of air quality for the Project will be conducted as described in the AIR/EISg and in the final model plan, following the Guidelines for Air Quality Dispersion Modelling in British Columbia (BC MOE). As described in the March 18, 2013 memo from Ralph Adams (BC MOE) to Scott Bailey (EAO), the model domain (which at that time was 25 km by 25 km) is considered to be appropriately sized and is consistent with BC MOE guidelines.</p>	No	30-Mar-15

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70	Air quality	<p>70. 10.1.9 CALPUFF MODEL</p> <p>Section 10.1.4 Issue: The model will be run using "one year of prognostic meteorological data (2003)".</p> <p>There is no a priori reason to expect 2003 to have similar meteorological conditions to another year, whether it is 2014 or 2034. Therefore, the model output, as stated, would have little relevance in determining what the dispersion of pollutants would be in future years.</p> <p>Standard practice in defining weather conditions at a site is to use climatological data, which are averages of 30 years of meteorological data. This should be required to initiate the CALPUFF model. It is stated that the CALMET component of the CALPUFF model will use "surface meteorological observations from four stations"; however, there are no weather stations in the project area as presently defined. There are no wind measurements or other data measured on the newly defined project site. Even the station behind Sugarloaf Mountain in the City of Kamloops is so poorly located as to be severely compromised for model initiation.</p> <p>Four parameters are to be modelled: DF, TSP, PM2.5, PM10. To this should be added, ultrafine particulates.</p> <p>In addition, the model output should calculate the reduction in total solar radiation arriving at the receptor sites due to the increased particulate matter in the air. A reduction in total solar radiation is directly related to decreases in plant growth and crop yields.</p> <p>Both the model input data and the model output parameters need to be seriously and rigorously examined.</p>	Concern about air quality modelling methodology.	AIR/EISg	Section 10.1.4	Yes	<p>No changes required to the AIR/EISg text. Dispersion modelling of air quality for the Project will be conducted as described in the AIR and in the final model plan, following the Guidelines for Air Quality Dispersion Modelling in British Columbia (BC MOE). Appropriate baseline data for use in dispersion modelling will be agreed upon with the BC MOE and baseline conditions for air quality will be described in the Application/EIS.</p> <p>Parameters or contaminants to be included in the model is described in Section 10.1.4 of the AIR/EISg and include total dustfall, TSP, PM₁₀, PM_{2.5}, SO₂, NO_x and CO. The rationale for inclusion of these parameters is described in the AIR/EISg in Section 10.1.4. As stated in this section of the AIR, for the HHERA "substances that have not been assessed...will be identified and a rationale as to why they were not assessed will be included" in the Application/EIS.</p> <p>Ultrafine particles are a subset of PM2.5 and the HHERA will include a discussion on this subset of airborne particulates.</p> <p>The change in solar radiation arriving at receptor sites is not part of the model.</p>	No	30-Mar-15
71	Air quality	<p>71. 10.1.10 KATABATIC WINDS</p> <p>Section 10.1.4</p> <p>Issue: The model does not have adequate resolution to describe downslope drainage winds. The proposed mine is running a limited air quality model. The CALPUFF model used by the sub-contractor to KGHM/Ajax is capable of modelling the katabatic winds that drain cold air downslope at night in mountainous areas and the anabatic winds that flow upslope in the daytime. It is stated that "topographically generated winds" will be included in the data being put into the model. It is not stated that the Proponent will in fact model the flux of pollutants from the mine when katabatic winds flow from the upper plateau into the valley where the City of Kamloops is located. Nor is it evident that the model has sufficient resolution to deal with the detailed terrain features that channel these katabatic winds into the city.</p> <p>The model should be run with sufficient resolution to adequately show the drainage air from the proposed mine site into the City of Kamloops. The model outputs should show the estimated concentrations of DF, TSP, PM2.5, PM10 and ultrafine particulates in specific areas impacted by katabatic winds.</p>	Concern about air quality modelling methodology.	AIR/EISg	Section 10.1.4	Yes	<p>No changes required to the AIR/EISg text. Dispersion modelling of air quality for the Project will be conducted as described in the AIR and in the final model plan (as approved by BC MOE), following the Guidelines for Air Quality Dispersion Modelling in British Columbia (BC MOE). The CALPUFF model is the standard model used in environmental assessment by all mining proponents in the province of BC. Conservative assumptions will be used in developing the model to ensure that the model over-estimates rather than under-estimates the concentrations of modelled parameters.</p>	No	30-Mar-15

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72	Air quality	<p>72. 10.1.11 ULTRAFINE PARTICLES</p> <p>Section 10.1.1 and Section 10.1.4 Issue: The mine (p 146, Section 10.1.1) will not model deposition of ultrafine particulates. The document states (Section 10.1.1) that despite knowing that ultrafine particulates (aerodynamic diameter less than 1 um) are implicated in negative health impacts, they will not model them. The reason stated is that they are included in PM2.5.</p> <p>Trucks emit (direct emissions) some ultrafine particulates but more importantly, the gases emitted by diesel trucks produce ultrafine particulates a short distance from the tailpipes. It is necessary that the production of ultrafine particulates be considered separately in the air quality analysis and be included in the model calculations. This must include both direct emission and gas-to-particle conversion. Ultrafine particulates should be added to the list of Criteria Air Contaminants in Section 10.1.4 (p 152).</p> <p>Since ultrafine particles are generated by mining activities, such as the use of diesel trucks, and since the usage of diesel fuel by the mine will be similar in volume to that consumed by the entire City of Kamloops, a specific protocol needs to be developed before the mine opens for the measurement of background concentrations of ultrafine particulates and for measuring concentrations after the mine is in operation. This also leads to the requirement that the model being utilized by the mine include concentrations of ultrafine particulates as one of the model parameters.</p>	Concern about air quality modelling methodology.	AIR/EISg	Section 10.1.1 and Section 10.1.4	Yes	No changes required to the AIR/EISg text. Ultrafine particles are a subset of PM _{2.5} and the HHERA will include a discussion on this subset of airborne particulates.	No	30-Mar-15
73	Surface water quality	<p>73. 10.1.12 SURFACE WATER QUALITY</p> <p>Section 6.3.2 Issue: Precipitation Chemistry needs to be measured</p> <p>Table 6.3-2 is presented with an unacceptable lack of rigour and science. When presenting Method Detection Levels (MDL) for parameters to be analyzed for in the ground water, the units must be given for each statement of the MDL value, otherwise the table is meaningless.</p> <p>To properly understand surface water quality, a measurement of the precipitation (rain and snow) chemistry must also be made on an event by event basis at the project site. Precipitation is an important input of water to the site along with the water pumped in from Kamloops Lake. The chemistry of both these sources must be known. The precipitation chemistry should be compared to a site established upwind of the project area to establish whether the mine's production of fugitive dust is affecting the measured precipitation chemistry.</p>	Concern about precipitation chemistry used.	AIR/EISg	Section 6.3.2	Yes	<p>The AIR/ EISg will be updated to include the units of measurement for the Method Detection Limits (MDL) of water quality parameters listed in Table 6.3-2.</p> <p>Measurement of precipitation chemistry is not typically a part of a baseline monitoring program, and is not included in provincial or federal guidance documents for baseline studies. Direct measurement of dustfall and of stream/lake water quality will be more effective monitoring tools for baseline characterization, and on-going monitoring of potential effects.</p>	Yes	30-Mar-15
74	Surface water quality	<p>74. 10.1.13 SURFACE WATER QUANTITY</p> <p>Section 6.4.2 Issue: Precipitation Amount needs to be measured</p> <p>In addition to baseline Hydrology stations to be established in the project area, a measurement of the precipitation (rain and snow) amount must also be made on an event by event basis in the project area. Precipitation, in addition to seepage and discharge from mining operations, is a determining factor for the amount of surface water.</p>	Request measurement of precipitation in the project area.	AIR/EISg	Section 6.4.2	Yes	Site-specific meteorological data has been collected from two stations. The AJAXMET station was installed in August 2010; the AJAXAQ-1 station was installed in August 2014. Data from these stations will be presented in the Application/EIS.	No	30-Mar-15

Proposed KGHM Ajax Mining Inc. Ajax Project Application Information Requirements/Environmental Impact Statement Guidelines - KAM Responses to Comments received from the Community Advisory Group, March 2015

Comment #	Topic	Summary of Comment	Nature of Comment	Comment is related to the AIR/EISg or Application/EIS	Related to AIR/EISg Section	Commenter Request to Change AIR/EISg	Proponent Response	Recommended Change Made to AIR/EISg Due to Comment	Response Date
75	Surface water quality	<p>75. 10.1.14 SITE WATER BALANCE</p> <p>Section 6.4.4 Issue: Evaporation of water from the site will not be calculated</p> <p>This section describes the factors to be included in a site water balance. Evaporation from: the tailings pond; spraying of water into the air; ore processing activities; wetting roads; vehicle exhaust; and so on, is an important component of any rigorous site water balance. Evaporation must be included. Similarly, fog formed over the project area in the cold season will move downwind and represents a flux of water out of the site that should be included in the calculated site water balance.</p>	Request measurement of evaporation.	AIR/EISg	Section 6.4.4	Yes	"Evaporation rates" was removed from the bulleted list in Section 6.4.4, because the list outlines "Project activities that could affect the hydrological regime". Evaporation, while it is an important component that will be included in the water balance, is not a "Project activity".	No	30-Mar-15
76	Noise and vibration	<p>76. 10.5.4 NOISE AND VIBRATION – POTENTIAL EFFECTS OF THE PROJECT AND PROPOSED MITIGATION</p> <p>The Application should contain a description of the program the Proponent proposes for monitoring noise, vibrations, and air blasts. The monitoring program should include the following procedures:</p> <ul style="list-style-type: none"> • Routine monitoring of noise levels at selected sites to verify the output of the noise model in relation to actual noise levels. Selected sites should include Pacific Way Elementary, Aberdeen Elementary, McGowan Park, Knutsford Hall, and a location in the designated residential area of the Aberdeen Community Plan due north of the proposed East Waste Rock Facility; • Use of a mobile real-time noise monitor for continuously monitoring noise levels arising from various mining operations; • Air blast overpressure recorded for every blast at the aforementioned selected sites; • Vibration testing at residences on request; • Real time posting of monitoring data on an internet web site; • Provision for recording noise related complaints, and a monthly report on an internet web site of the number of noise complaints and compliance with regulatory requirements. 	Application/EIS should contain a description of the program the Proponent proposes for monitoring noise, vibrations, and air blasts.	Application/EIS	Section 10.5.4	No	Measures to be used to mitigate the potential effects of noise and vibration will be described in the Application/EIS, as indicated in Section 10.5.4 of the AIR/EISg. A Noise Management Plan will be included in the Application/EIS (Section 11.2 of the AIR/EISg, which will include a description of the proposed monitoring program.	No	30-Mar-15
77	Plants	<p>77. 11.2 MONITORING</p> <p>There is a parasitic forest pathogen, Dwarf Mistletoe, which resides in the vicinity. This parasite, which grows on lodgepole pine, spreads its tiny seeds by explosive discharge, and seeds do stick to almost any surface they become in contact with. It is possible that seed could land on trucks headed to the lower mainland, and from there, it might be possible for the seeds to reach other areas of pines not yet infected by the parasite, thus spreading the disease.</p>	Concern regarding Dwarf Mistletoe, a parasitic forest pathogen that could be transported by vehicles to other areas of the province.	Application/EIS	Section 11.2	No	Commenter is not requesting a change in the AIR/EISg text. For additional clarity, Section 11.2 of the existing AIR/EISg includes a requirement for the Application/EIS to develop a Wildlife/Vegetation Monitoring Plan (including invasive plant management and metal uptake by plants).	No	30-Mar-15
78	EA process	<p>78. 17.6 ACCIDENTS OR MALFUNCTIONS</p> <p>Failure of dams and impoundments for seepage collection and runoff ponds should be added to the accidents or malfunctions that will be discussed in the AIR/EIS.</p>	Request inclusion of Failure of dams and impoundments for seepage collection and runoff ponds to the accidents or malfunctions in the AIR/EIS.	AIR/EISg	Section 17.6	Yes	The AIR/EISg will be updated to state in bullet 4: "Failure of Tailings Storage Facility or the <u>seepage collection and runoff ponds</u> ".	Yes	30-Mar-15

Proposed KGHM Ajax Mining Inc. Ajax Project Application Information Requirements/Environmental Impact Statement Guidelines - KAM Responses to Comments received from the Community Advisory Group, March 2015

Comment #	Topic	Summary of Comment	Nature of Comment	Comment is related to the AIR/EISg or Application/EIS	Related to AIR/EISg Section	Commenter Request to Change AIR/EISg	Proponent Response	Recommended Change Made to AIR/EISg Due to Comment	Response Date
79	Follow-up	<p>79. 17.12 FOLLOW-UP PROGRAMS</p> <p>With regard to monitoring the effectiveness of the Dam Safety Program for the proposed tailings facility and other impoundments for the Ajax mine, the Proponent should commit to implementing the international best standards of practice consisting of at least the following actions:</p> <ul style="list-style-type: none"> • An annual report by the Engineer of Record on what was done at the dam by way of design, construction, deposition, and instrumentation during the preceding year. • A report by an independent and different engineering firm of the status of the dam. In South Africa as a result of the Bafokeng and Merrispruit failures, this is done every three months. • Annual or more frequent meetings by an independent panel of three senior peer reviewers. All the oil sands tailings impoundments have peer review boards 	Requested follow-up program measures	Application/EIS	Section 17.12	No	The information is appreciated, and will be considered when developing the Application/EIS and subsequent permitting. The proposed Project will follow, at a minimum, the Canadian Dam Association Dam Safety Guidelines and Towards Sustainable Mining (TSM) for Mining Association of Canada (MAC) members. Dam safety monitoring will be addressed in the Environmental Management Plans (e.g., Emergency Response and Mine Waste and ML/ARD Management Plan).	No	30-Mar-15
80	General	<p>80. FIGURES</p> <p>Every map in the Revised AIR Rev 1.B dated November 7, 2014 is inadequate as there is no labeling of the local neighbourhoods and or local communities in and around the proposed mine site. For example "Knutsford" is not shown on even one map. This exclusion is not acceptable. All local communities, whether they are a neighbourhood or a community, need to be shown.</p> <p>The CAG requests that the Proponent provide a separate map showing all non-mine owned private property and Crown lease land located within 5 km of the project area.</p> <p>The CAG requests that the Proponent provide a map showing the Regional Geology of the Project Area, as depicted in Figure 3.1-1, with an overlay of the areas designated for residential/urban development in the Aberdeen Community Plan.</p>	<p>Revise figures in the AIR to adequately label local neighbourhoods, local communities around the mine site.</p> <p>Request a separate map showing all non-mine owned private property and Crown lease land located within 5 km of the project area.</p> <p>Request a map showing the Regional Geology of the Project Area, as depicted in Figure 3.1-1, with an overlay of the areas designated for residential/urban development in the Aberdeen Community Plan.</p>	AIR/EISg	Figures	Yes	No changes required to the AIR/EISg text. The Application/EIS will provide the level of detail requested by the commenter.	No	30-Mar-15

ASSESSMENT AND MANAGEMENT OF POTENTIAL HEALTH EFFECTS RELATED TO THE PROPOSED AJAX PROJECT

This document is intended to address public concerns about the potential impacts to the health of people and communities from the proposed Ajax Project – namely, the need for the impact assessment process to properly identify, assess, and manage potential health impacts.

Part I of this document describes some of the key components and considerations for health impact assessment, based on Canadian and international guidance. Part II explains how these elements will be addressed through the Environmental Assessment (EA) process for the Ajax Project.

What We Have Heard...

“We are concerned that the current environmental assessment process is inadequate, and most notably, does not contain a Health Impact Assessment...”

“Quite simply, we have no more room for additional PM 2.5 in our air.”

“...the proposed KGHM/Ajax mine poses a major health concern for the residents of the city of Kamloops, and this is not adequately addressed by the existing assessment process...”

“...an HIA [Health Impact Assessment] would include rigorous baseline health studies which are completely missing from the present environmental assessment.”

“We are also calling for full health impact assessment of any new industries, such as the proposed KGHM Ajax mine which would add even more particulate matter into our air and into the lungs of our citizens. We should be reducing our air pollution not adding to it. We don’t want to lose our reputation as a great place to live, raise our kids, and enjoy our great outdoors.”

“A comprehensive Health Impact Assessment (HIA) is missing from the current Environmental Assessment process.”

“[A Baseline Health Profile should include] stratified population sampling...from all affected regions and sub-populations including ‘sensitive, displaced and vulnerable’ groups.”

“...the proponent has ‘retained a consultant to do an HIA [Health Impact Assessment]’ – however that is not an independent assessment.”

PART I: HEALTH IMPACT ASSESSMENT

What is health impact assessment?

Health impact assessment (HIA) is a systematic process used to identify how a project (or policy or program) could influence the health of a population, predict the type and scope of change that is expected, and develop strategies to manage the expected impacts.

Some of the important qualities of an HIA are that it is:

- **Unbiased:** the assessment should be independent and objective
- **Project Specific:** the approach, content, and methods should be tailored to the nature of a project, the risks to communities, and the requirements of the regulatory and permitting processes.
- **Transparent:** the data should be clearly presented, and the rationale for the conclusions should be clearly stated and supported by applicable studies.
- **Reviewed:** the outcomes of the assessment should be reviewed by competent government experts, and made public for review by independent experts, the public, Aboriginal Groups, and other interested parties.

HIA is:
“A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population”
(WHO, 1999)

Will health impacts be assessed for the Ajax Project?

Yes—health impacts will be assessed for the Ajax Project. Although a standalone HIA report will not be prepared, the principles and key components of an HIA will be integrated into the broader environmental assessment. This is recognized as good practice both in Canada and internationally. The specific aspects of the Ajax HIA are described in Part II.

WHAT’S IN A NAME?

Use of the term “health impact assessment” or “HIA” does not, in itself, determine the scope or form of an assessment. In general, HIA refers to the basic approach to identifying and managing health-related impacts. This may be done as a “standalone HIA”, but is often undertaken as part of an integrated environmental assessment process that incorporates environmental, social, health, and other considerations. The integrated approach better accommodates the inter-disciplinary nature of many impacts. This improves the robustness of the discussion, streamlines data collection and mitigation, and makes it easier for government and other stakeholders to review.

Over the past decade, health and social assessments have been increasingly integrated into the broader environmental assessment process, both in Canada and internationally. These integrated assessments are often known as ESHIAs (environmental, social, and health impact assessments)—sometimes additional letters are added to account for economic, cultural heritage, human rights, or other factors. However, in BC, the term “environmental assessment” (EA) is defined to include environmental, social, economic, health, and heritage components.

The value of integrating the “health” assessment into the broader environmental assessment process is well-documented in guidance materials, including *Good Practice Guidance on Health Impact Assessment* (ICMM 2010) and the *Canadian Handbook on Health Impact Assessment* (Health Canada 2004).

What does “Health” include?

Both Canadian and international guidance agree that health comprises more than just physical wellness or the absence of disease. Instead the **determinants of health** encompass environmental, social, economic, and community factors. Health Canada (2004) identifies nine core determinants of health, including employment, education, health services, income, child development, and social support networks. The influences of biology (e.g. genetics), the environment, and personal health practices are also included.

This holistic interpretation of health is the foundation of the HIA approach. The integrated environmental assessment supports this holistic approach by aligning the study of health effects with the comparable environmental, social, economic, and community studies. Health risks related to exposure to chemicals or other hazards are an important component and are examined through a health risk assessment, but this is complemented by consideration of effects on health services, healthy lifestyles, income, quality of life, and other factors.

Who is responsible for the assessment?

As for other aspects of environmental assessment, health impacts are assessed by **independent consultants** with specialized expertise in health, and in impact assessment processes. These consultants typically have backgrounds in public health, human health, environmental toxicology, ecological risk assessment, and other subjects.

Government regulators also play an important role. Regulators are involved in early stages to ensure the scope of the assessment is suitable for the project. They are also responsible for reviewing the assessment documents to ensure that the studies are scientifically sound. If needed, they will request further information, or raise concerns about the content or conclusions of the assessment. Ultimately, it is the government authorities who will determine if health concerns have been adequately addressed, and make the final decision on whether or not the project will proceed. They will also stipulate the conditions for permits and approvals, and work with proponents to monitor performance, and ensure (and enforce) compliance with these conditions.

BUT IF THE PROPONENT PAYS FOR THE STUDIES, HOW CAN THEY BE “INDEPENDENT”?

A common question is whether consultants can truly be independent since their studies are financed by the project proponent. However, this is not only the usual practice, but the most practical approach. Environmental assessments are *expensive* and typically require years of study and input from a large number of experts. Despite significant investments in these studies, many projects never proceed due to changing market conditions, or because it's not practically or financially feasible to address the anticipated impacts. Some people believe that the government should fund the EA studies in order to ensure independence, but this would be an overwhelming burden on the government's time and financial resources.

The consultants who conduct the impact assessments are experts in their field, and rely on their professional integrity to continue working in this area. There is a professional relationship between consultants and the proponent, wherein consultants provide advice and recommendations to improve the development of the project; they are not influenced by the proponent's opinions or wishes with regard to the assessment or supporting studies. The consultants have to stand behind their work while it is under review by the government, public and Aboriginal groups, and often answer difficult questions. They are also genuinely interested protecting the environment and safeguarding the interests of communities and land users.

What baseline studies are needed?

A baseline health profile supports the HIA process. The baseline provides the necessary background so that effects can be assessed. It also provides a basis against which future changes can be compared. Baseline studies may include desk-based research (e.g. existing statistics and reports), combined with discussions with local health officials and service providers. Stakeholder engagement is also important as it informs the assessment team about the issues of concern to local residents.

The ICMM's guidance for HIA identifies the following **standard baseline topics**:

- Demographic information
- Infectious and chronic diseases
- Existing health problems
- Health knowledge, practices, and attitudes
- Water and sanitation
- Existing levels of pollution
- Housing conditions
- Social challenges
- Health and social services
- Education and literacy
- Employment/unemployment rates
- Key economic industries
- Community concerns and aspirations

← *The baseline studies for the Ajax Project will cover all these topics.*

Environmental baseline data are also used in the health assessment, including information related to noise, air quality, water quality, and toxicology. Further information about the baseline studies that were done for the Ajax Project is provided in Part II.

How are impacts and risks predicted?

Project-related changes to air quality, water quality, and other potential pathways of contamination can be predicted using computer-generated scientific models. For example, air quality can be modelled to determine how far dust, particulate matter, and other emissions are expected to disperse, and in what directions. These models consider atmospheric patterns, topography, and other factors. Changes in water quality can also be modelled, and models can be used to predict how contaminants may find their way into the food chain through plant and animal tissues.

This information can then be used to assess health risks. For example, a **human health and ecological risk assessment (HHERA)** considers both the baseline exposure levels, and predicted changes as a result of a project, and the pathways by which animals or people could be exposed to contaminants. In the end, the HHERA evaluates the project-related risks to human health. Predicted changes are then compared against “allowable exposure limits” for specific contaminants. These limits are designed to protect human health, and are set by health authorities including Health Canada and the BC Ministry of Environment.

Further information about the predictive studies and HHERA that will be used for the Ajax Project is provided in Part II.

Where can I learn more?

The following sources provide information about HIA approaches and methods:

- **World Health Organization (WHO).** *Health Impact Assessment (HIA) homepage.* Available from: www.who.int/hia/en
- **International Council on Mining & Metals (ICMM).** *Good Practice Guidance on Health Impact Assessment.* 2010. London, UK. Available from: www.icmm.com/document/792
- **Health Canada.** *Canadian Handbook on health Impact Assessment (Volumes 1 to 4).* Updated 2004.
- **National Collaborating Centre for Healthy Public Policy.** *HIA homepage.* Available from: www.ncchpp.ca/54/Health_Impact_Assessment.ccnpps
- **Pan American Health Organization.** *Health Impact Assessment: Concepts and Guidelines for the Americas.* 2013. Washington, DC. Available from: www.paho.org.

THE CANADIAN HANDBOOK ON HEALTH IMPACT ASSESSMENT

In Canada, the standard for health impact assessment was established by the Canadian Handbook on Health Impact Assessment, which was first published by Health Canada in 1998 and most recently updated in 2004. The Handbook aimed to “incorporate the assessment of human health effects in the EA [environmental assessment] process...”, and was developed at a time when social and health considerations were not well represented in the environmental assessment process in most parts of Canada. Today, social and health effects are a required part of the environmental assessment process in BC and many other jurisdictions, so the approach advocated in the Handbook is now main-stream. However, the Handbook continues to provide useful guidance and background on the basics of HIA.

For more information about human health risk assessment:

- **Health Canada.** *Federal Contaminated Site Risk Assessment in Canada (Parts I and II).* Updated 2012. Available from: www.hc-sc.gc.ca/ewh-semt/contamsite/docs/index-eng.php
- **Canadian Council of Ministers of the Environment (CCME).** *A Framework for Ecological Risk Assessment: General Guidance.* 1996.
- **US Environmental Protection Agency (EPA).** *Human Health Risk Assessment.* Available from: <http://epa.gov/riskassessment/health-risk.htm>

For more information about the Environmental Assessment process in BC:

- **BC EAO.** *Environmental Assessment Office: User Guide.* Updated 2011. Available from: www.eao.gov.bc.ca/pdf/ea_process.html
- **BC EAO.** *Guideline for the Selection of Valued Components and Assessment of Potential Effects.* 2013. Available from: www.eao.gov.bc.ca/pdf/EAO_Valued_Components_Guideline_2013_09_09.pdf
- **BC Major Projects Office.** *The Development of Major Projects Within the Natural Resources Sector: An Overview of British Columbia’s Regulatory Processes.* 2015. Available from: [www.eao.gov.bc.ca/pdf/BCsRegulatoryProcessForDevelopmentOfMajorProjects\[1\].pdf](http://www.eao.gov.bc.ca/pdf/BCsRegulatoryProcessForDevelopmentOfMajorProjects[1].pdf)

PART II: ASSESSING HEALTH EFFECTS OF THE AJAX PROJECT

Potential health effects related to the proposed Ajax Project (the Project) will be identified and evaluated through the environmental assessment (EA) process, which will use a comprehensive and integrated approach to evaluate the potential effects of the Project on human health and well-being. This approach is in line with the guidance of Health Canada and international HIA resources, and gives due consideration to the potential social, economic and biophysical pathways between the Project and potential changes to the health and well-being of local residents and land users.

The assessment is supported by an understanding of health as more than a biological condition, and baseline studies examine both environmental (e.g. air, water) and socio-economic determinants of health. The Human Health and Ecological Risk Assessment (HHERA) evaluates health risks associated with exposure to hazardous substances (e.g. metals), while a more qualitative approach is used to assess potential changes in community health and related concerns.

JURISDICTION

The Ajax Project is subject to **provincial review** under the BC Environmental Assessment Act. As such, an Application for an Environmental Assessment Certificate (the Application) will be prepared and submitted to the BC Environmental Assessment Office (BC EAO). The BC EAO will coordinate inputs from other provincial government agencies in relation to the Application.

The Project is also subject to **federal review** and requires a comprehensive study under the Canadian Environmental Assessment Act. As such, an Environmental Impact Statement (EIS) will be prepared and submitted to the Canadian Environmental Assessment Agency (CEA Agency).

One set of documents will be prepared, addressing the requirements of both the Application and the EIS. The review processes will be coordinated. The decisions about whether the Project is approved, and under what conditions, will ultimately be made by the provincial Minister of Environment and the Minister of Energy and Mines, as well as the federal Minister of Environment, with input from other government agencies and specialists. Comments from the public and Aboriginal groups will be considered throughout the review.

Building Blocks of the Environmental Assessment

The environmental assessment process in BC is based on five “pillars”, representing broad categories of effects: environmental, economic, social, health, and heritage. For each pillar, a number of Valued Components (VCs) are identified. These form the basic foundation for the assessment. The determination of VCs varies between projects depending on the nature of the project, the surrounding environment, and particular issues of concern. **Figure 1** summarises the VCs for the Project’s environmental assessment.

For each VC, the assessment report will summarise the scoping process (how VCs and effects were identified); provide a baseline profile (describing existing conditions); assess impacts; describe the mitigation measures that will be applied to minimize adverse effects and enhance benefits; and provide conclusions about the significance of the effect. Input from the public, Aboriginal groups, government and other stakeholders will also be highlighted.

Standard impact assessment descriptors will be used to describe each effect, including the magnitude, geographical extent, duration, frequency, and reversibility of an effect. The sensitivity of the affected environment or population is also considered, as well as the probability that the effect will occur.

Figure 1 Assessment Pillars and Valued Components for the Ajax Project

Environmental	Economic	Social	Health	Heritage
Seventeen (17) VCs including:	Six (6) VCs including:	Five (5) VCs including:	Seven (7) VCs including:	Two (2) VCs including:
<ul style="list-style-type: none"> • Greenhouse Gases • Geology • Surface water and groundwater • Fish • Plants • Reptiles • Birds • Mammals 	<ul style="list-style-type: none"> • Economic Growth • Labour Force, Employment and Training • Income • Business • Property Values • Economic Diversification 	<ul style="list-style-type: none"> • Infrastructure, Public Facilities and Services • Dark Sky • Visual Impact • Land and Resource Use • Outdoor Recreation 	<ul style="list-style-type: none"> • Air Quality • Water Quality (domestic water) • Country Foods • Human Health • Noise and Vibration • Healthy Living and Health Education • Community Health and Well-being 	<ul style="list-style-type: none"> • Archaeological Sites • Heritage Sites

Potential health effects are assessed under the Health Pillar.

Building Blocks of the Health Assessment

For the Ajax Project, the assessment of health effects is based on seven core Valued Components (VCs), which interlink and build upon each other as illustrated in **Figure 2**. The health VCs are also linked to the assessment of environmental, economic and social effects. A Human Health and Ecological Risk Assessment (HHERA) will be used to determine the nature and scope of effects on the Human Health VC, considering potential effects on air quality, water quality, and country foods. The assessment of all health VCs will be based on a comprehensive understanding of the existing (baseline) health profile, as defined below.

BASELINE HEALTH PROFILE

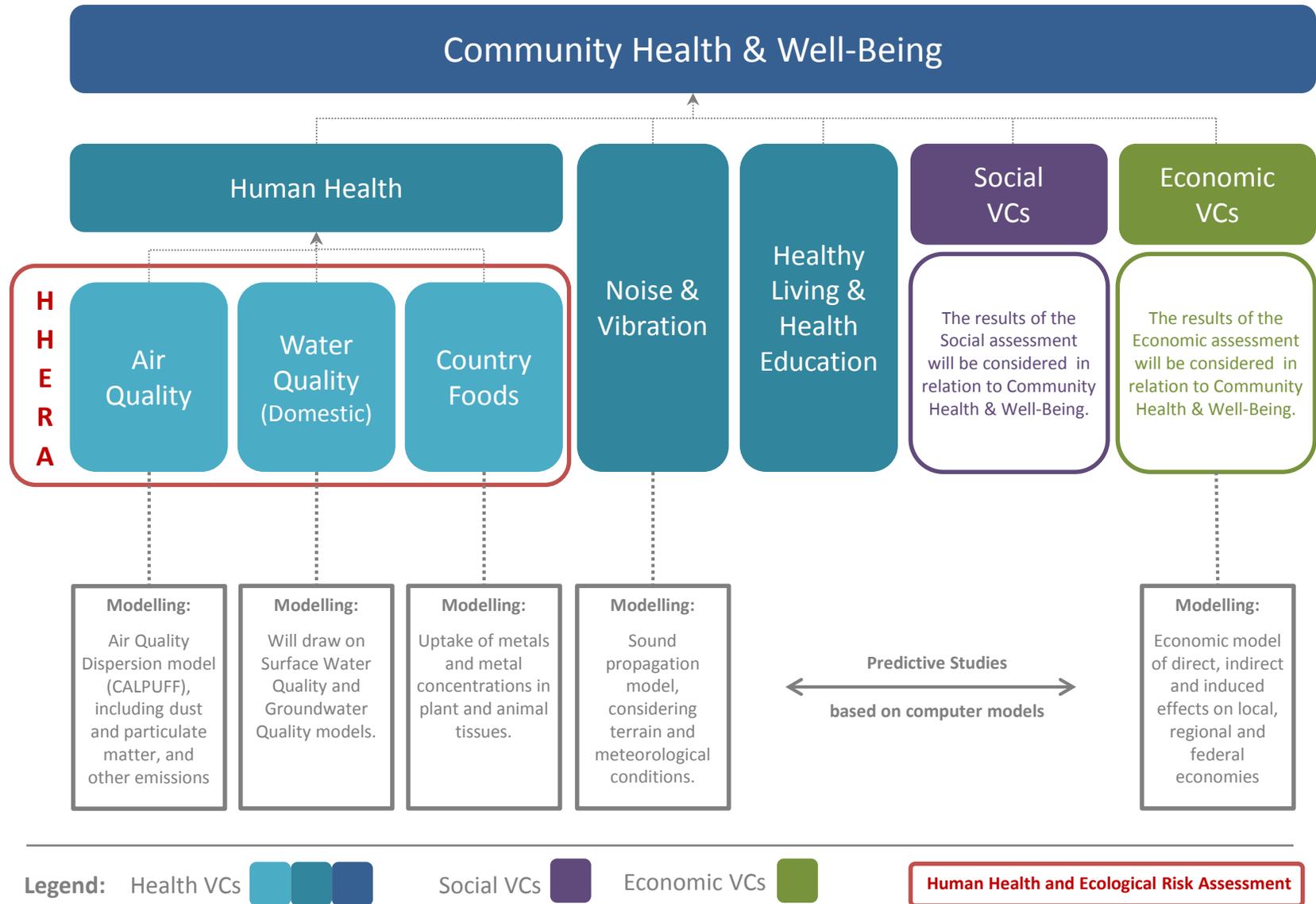
All aspects of the health assessment for the Ajax Project will be founded upon a comprehensive baseline study. Because of the inter-disciplinary nature of health studies, the relevant baseline information is presented in various reports, depending on the specific subject matter:

- **Air Quality Baseline:** existing levels of dust, fine particulate matter (PM₁₀, PM_{2.5}), nitrous oxides (NO_x), sulphur dioxide (SO₂), carbon monoxide, and poly-aromatic hydrocarbons.
- **Water Quality Baseline:** existing concentrations of metals* in water used for drinking or irrigation.
- **Country Foods Baseline:** existing concentrations of metals* in wild fish/game/vegetation and backyard produce.
- **Socio-Economic Baseline:** baseline health indicators (including disease, mental health, asthma, respiratory disease); health and social facilities and services; service delivery; community well-being index; healthy living; health education; community image; aboriginal health; and other socio-economic determinants of health.

Although not a baseline report, the HHERA will result in a **HHERA Technical Data Report**. The results presented in this report will be used in the assessment of human health effects. Results will also be used to assess ecological risks pertaining to water quality, vegetation, insects, fish, birds, and mammals.

** Including: Aluminum (Al), Antimony (Sb), Arsenic (As), Chromium (Cr), Cobalt (Co), Copper (Cu), Lead (Pb), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Thallium (Tl) and Uranium (U).*

Figure 2 Integrated Approach to the Assessment of Health Effects for the Ajax Project



While the baseline will provide an overview of the current status of the health environment in a broad sense, the scope of the effects assessment will focus on the potential effects (direct and indirect) that are reasonably anticipated to occur as a result of the Ajax Project; in other words, where there is a clear pathway between the Project and the potential effect. Just because a topic is included in the baseline does not mean it will be affected by the Project, but the detail in the baseline helps us understand the bigger picture so that impacts are more accurately predicted.

A holistic interpretation of health and well-being results in many interlinkages between biological, socio-economic and environmental factors. Some of these factors are beyond the scope of the Project's influence, but may affect how people react or adjust to other Project-related effects. Others may be subject to a wide range of external influences, so that a specific Project effect cannot be discerned. However, the Community Health & Wellbeing VC aims to tie together the various environmental, health, social and economic factors that influence the various determinants of health, to present an overall assessment of the Project's effects on health and well-being at the community level.

Considering all the VCs and supporting studies and models (as shown in Figure 2), the process of assessing potential Project effects on overall Community Health & Well-Being can be simply broken down into three core steps incorporating both physical and socio-economic determinants of health:

*“Effects or Impacts”?
They mean the same thing in practice. In BC, the convention is to talk about “effects”, but other jurisdictions may be more likely to use “impacts”.*

Computer models will be used to predicted changes to **Air Quality** and **Water Quality** as a result of the Project. Models will predict changes in contaminant concentrations in air and water.



The HHERA builds on the modelling results to assess potential changes in health risks for people and animals. The HHERA will identify the contaminants of concern, the people and animals that may be exposed, and the pathways by which exposure may occur as a result of Project activities.

The HHERA predicts the risks associated with the consumption of **Country Foods** (i.e. metal concentrations in wild foods and backyard produce).

The HHERA results are summarized in the EA as part of the assessment of potential effects on **Human Health**. This assessment will look at potential human exposure to contaminants by way of inhalation (air) and ingestion (water, country foods).



The outcome of the Human Health assessment, in turn, will be considered alongside the assessments of **Noise & Vibration** and **Healthy Living & Health Education**, in order to predict broader changes to **Community Health & Well-being**.

The results of the Social and Economic assessments will be also be incorporated, as factors such as health services, income, recreation, and quality of life are also important to Community Health & Wellbeing.

Human Health and Ecological Risk Assessment (HHERA)

A HHERA will be conducted to support the assessment of potential health risks. The HHERA will incorporate modelling of air quality, water quality, and country foods (metal uptake into plants and animals) to evaluate how exposure to metals that may change as a result of Project activities. Exposures will be evaluated for both human and ecological receptors. The predicted human and ecological exposures for current and Project conditions will be compared to allowable exposure limits established by Health Canada and other government authorities. These exposure limits are designed to protect the health of people and the environment.

The HHERA will consider potential risks associated with exposure to contaminants through inhalation, consumption of drinking water, and/or consumption of country foods (including produce from household gardens, as well as wild game, fish, vegetation, and medicinal plants). Potential contaminants include metals and other chemicals that may be associated with the construction, operation, or closure of the Project. The primary pathways of exposure for the Ajax Project include changes in water quality, and dust deposition to surface soils.

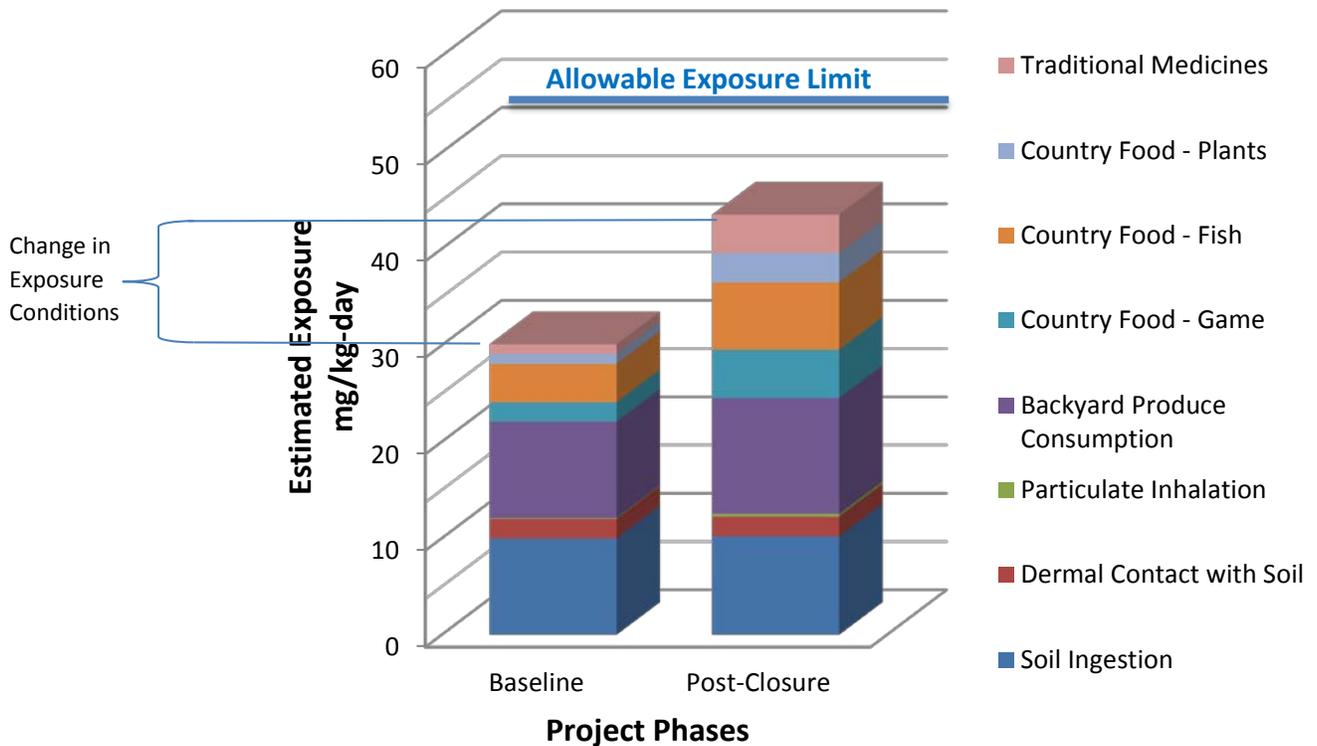
The basic HHERA process is described below, resulting in the identification and characterisation of potential change in risks to human health as a result of the Project. Exposures are predicted based on the Post Closure Phase in order to capture the full extent of potential risks over the life of the Project. Comparing the baseline to the predicted Post Closure scenario captures the “worst-case” scenario with the highest degree of change.

BASIC HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT (HHERA) PROCESS			
<u>Step 1:</u> <u>Identify parameters</u>	<u>Step 2:</u> <u>Estimate Exposures</u>	<u>Step 3:</u> <u>Compare to Limits</u>	<u>Step 4:</u> <u>Evaluate the Risk</u>
<ul style="list-style-type: none"> • Chemicals of Concern (e.g. metals) • Potential receptors (i.e. people and animals that could be exposed) • Exposure pathways (i.e. how people and animals could be exposed) • Allowable exposure limits (based on standards set by Health Canada and other authorities) 	<ul style="list-style-type: none"> • Considers exposure through inhalation, ingestion and dermal contact • Scientific modelling is used to predict: <ul style="list-style-type: none"> – Existing (baseline) exposure levels – Future exposure levels if the Project is developed. 	<ul style="list-style-type: none"> • Compare predicted baseline and future exposures against allowable limits 	<ul style="list-style-type: none"> • Compare baseline (pre-Project) exposures to projected exposures as a result of the Project • Evaluate and determine significance of change • Incorporate results into EA assessment of potential health effects

How much is “too much”?

The HHERA will examine the predicted exposures for both the “baseline case” (i.e. without the Project) and the “Project case” (i.e. if the Project is developed). When the baseline case and the Project case exposures are combined, and still below the allowable limits, the Project does not represent a human health risk; this situation is shown in Figure 3.

Figure 3 Example Levels of Exposure (Baseline + Project)



If the HHERA concludes that the Project could result in an unacceptable level of exposure (i.e. above the allowable limit for one or more substances), then additional measures are needed to avoid or reduce the effect. In this case, the health consultants will work with KAM to identify ways to better manage impacts and reduce exposure. Then the HHERA is done again to re-evaluate the results; this process is repeated until either (a) both the predicted baseline and future exposures are below the regulatory exposure limit, or (b) in situations where baseline exposures are already above the exposure limits, until there is no measurable difference between the predicted baseline and future exposures.

In cases where baseline exposure levels are already above the regulatory exposure limit, Health Canada suggests that exposures derived from the Project alone should not exceed 20% of the regulatory exposure limit.

Social and Economic Determinants of Health

As illustrated in Figure 2, the assessment of potential effects on Community Health & Well-being will also consider social and economic influences. The incorporation of social and economic effects will specifically consider where there is a likely pathway from the Project to Community Health and Well-being. For example, these pathways may relate to potential effects on:

- Employment, training and income;
- Outdoor recreation activities and associated health benefits;
- The availability and quality of healthcare and other community services; and
- Perceptions of community image and quality of life.

These pathways and effects will be considered and assessed in the assessment of Community Health & Well-being as part of the integrated environmental assessment of potential health effects.

Mitigation Measures

One of the most important steps of the effects assessment process is the identification of mitigation and management measures to address the anticipated effects. KAM is in the process of developing and evaluating the mitigation and management measures; these will be described in the Application/EIS in relation to the identified effects. KAM is committed to implementing these measures as part of the EA and Project development process, and will be required to do so if the EA Certificate is approved. KAM is also committed to working with the relevant health authorities and other stakeholders to ensure that the appropriate mitigation measures are properly implemented.

Ongoing Monitoring, Management and Follow-Up

KAM is committed to ensuring that the environmental, social, economic, health, and heritage effects of the Project are properly identified and proactively managed over the life of the mine, from construction through to closure and post-closure. This includes the management of environmental effects so that they do not pose risks to human health. The specific mitigation measures identified in the environmental assessment submission will be subject to ongoing monitoring and evaluation to ensure they are effective, appropriate, and in line with the best proven technologies and the needs of the community.

KAM is committed to implementing a transparent and accessible monitoring program, including monitoring of air and water quality. Annual reports of monitoring results will be publicly disclosed. In addition, an official feedback process will be established to provide local residents and other members of the public with a direct communication channel by which to express concerns, complaints, or questions and receive a response from KAM. The company will also ensure that corrective actions are identified and undertaken in a timely manner, and in consultation with the relevant stakeholders.



**SUMMARY OF PUBLIC COMMENTS AND
PROPONENT RESPONSES
ON THE
DRAFT APPLICATION INFORMATION
REQUIREMENTS / ENVIRONMENTAL IMPACT
STATEMENT GUIDELINES
FOR THE PROPOSED
KGHM AJAX MINING INC.
AJAX PROJECT**

May 22, 2013



Dear Interested Public,

The Ajax Project, a proposed copper and gold mine located on the southwest side of Kamloops, B.C. is progressing through the preliminary steps of the Environmental Assessment process. The mine, a component of the Ajax Project, is proposed to be constructed, operated, decommissioned, and closed as part of the overall Project, which includes the regulatory review processes and permitting. The Project is subject to review by both the provincial Environmental Assessment Office (EAO) and the federal Canadian Environmental Assessment Agency (CEA Agency) and is being carried out through a cooperative process.

As part of the Environmental Assessment process, a terms of reference document was developed to specify requirements for the eventual studies and analyses to be submitted for evaluation. The terms of reference document follows a template supplied by the EAO, and is called the Application Information Requirements (AIR) in the provincial process, and the Environmental Impact Statement (EIS) Guidelines in the federal process. As both levels of government have coordinated their review of the Ajax Project, one single document is developed to satisfy both processes. The document is typically referred to as the AIR/EIS Guidelines.

The draft AIR/EIS Guidelines (Revision D) was published on the EAO Project Information Centre and CEA Agency websites on January 11, 2012; a summary of the draft AIR/EIS Guidelines was also published on the CEA Agency website. The public was invited to submit written comments on the document to the EAO and CEA Agency during the 75 day public comment period that occurred between January 11 and March 27, 2012. The purpose of the public comment period was to capture public concerns and ensure that the final AIR/EIS Guidelines is a comprehensive document that dictates the issues that will be addressed in the environmental assessment and the information that must be included in the final application, such as baseline study results or the approach to assessing cumulative effects. In total, 345 public comments were received during the 75 day public comment period and tracked in a public comments tracking table.

In the attached Public Comments Summary document, we provide an overview of the key issues noted in the 345 public comments received on the draft AIR/EIS Guidelines. Following revision of the draft in consideration of comments received and at the direction of the EAO and CEA Agency, the AIR/EIS Guidelines are now finalized and approved. We will now proceed with completing the studies outlined, to be included in an Environmental Assessment report, submitted as both an Application for an Environmental Assessment Certificate for provincial review and an Environmental Impact Statement for federal review. There will be an additional public comment opportunity during review of the completed Application/EIS.

Sincerely,
KGHM Ajax Mining Inc.

Mr. Dan Ferriter
Vice President, Environment
KGHM Ajax Mining Inc.



**KGHM AJAX MINING INC.
AJAX PROJECT**

**DRAFT APPLICATION INFORMATION REQUIREMENTS / ENVIRONMENTAL IMPACT STATEMENT
GUIDELINES
SUMMARY OF PUBLIC COMMENTS**

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List of Abbreviations and Acronyms

Ajax Project	the Project
Application for an Environmental Assessment Certificate	Application
Application Information Requirements	AIR
British Columbia	BC
British Columbia Environmental Assessment Act	BCEAA
Canadian Environmental Assessment Act	CEAA
Canadian Environmental Assessment Agency	CEA Agency
Environmental Assessment	EA
Environmental Assessment Certificate	Certificate
Environmental Assessment Office	EAO
Environmental Impact Statement	EIS
Environmental Impact Statement Guidelines	EIS Guidelines
Human Health and Ecological Risk Assessment	HHERA
KGHM Ajax Mining Inc.	KAM
Life of Mine	LOM
Ministry of Environment	MOE
Oil and Gas Commission	OGC
Project Information Centre website	e-PIC
Not applicable	n/a
Quality Assurance/Quality Control	QA/QC
Tailings Storage Facility	TSF
Technical Working Group	TWG
Thompson Nicola Regional District	TNRD

SECTION 1.0 - INTRODUCTION

1.1 BACKGROUND

The Ajax Project (the Project) is comprised of the regulatory process and permitting activity in support of a proposed open-pit copper-gold mine at the historic Afton Mining Camp, adjacent to and partially within the City of Kamloops, British Columbia (BC). The Proponent is KGHM Ajax Mining Inc. (KAM).

In BC, proposed major projects are required to obtain an Environmental Assessment Certificate (Certificate) in accordance with the BC *Environmental Assessment Act* (BCEAA). An Application for an Environmental Assessment Certificate (Application) must be made to the Environmental Assessment Office (EAO); the Application must comply with the terms of reference set out in an Application Information Requirements (AIR) document. Similarly, federal approval is required under the *Canadian Environmental Assessment Act* (CEAA), managed by the Canadian Environmental Assessment Agency (CEA Agency). Proposed federal studies are outlined in an Environmental Impact Statement Guidelines (EIS Guidelines) document; information needed to complete the federal Environmental Assessment (EA) process is submitted to the CEA Agency for approval in an Environmental Impact Statement (EIS). The federal-provincial coordination process allows submission of a single document to meet the needs of the AIR and EIS Guidelines. As part of the consultation process, a draft AIR/EIS Guidelines is reviewed by the EAO, CEA Agency, and Technical Working Group (TWG), comprised of members of municipal, provincial, and federal government agencies and First Nations groups, prior to being released for public review and comment. The public is invited to provide input focussing on issues that should be included in the assessment, and the information required to address those issues. Public input ensures that public concerns relevant to the assessment are identified so they may be examined and addressed where required (Environmental Assessment Office, 2011).

The Ajax Project AIR/EIS Guidelines (Revision D) document is available electronically on the EAO Project Information Centre website (e-PIC, [Environmental Assessment Office Home](#)). The AIR/EIS Guidelines and a summary of the document are available on the Canadian Environmental Assessment Registry website ([Canadian Environmental Assessment Registry](#)). The public comment period for the Ajax Project draft AIR/EIS Guidelines ran from January 11, 2012 to March 27, 2012, a period of 75 days. During this period, the EAO and CEA Agency held information sessions in Kamloops, B.C. on February 6 and 7, 2012. Environmental assessment representatives from the EAO and CEA Agency and technical experts from KAM were available at these information sessions to answer questions about the federal and provincial review process and discuss proposed information that would be included in the future Application/EIS.

All public submissions received by the EAO and CEA Agency on the Ajax Project draft AIR/EIS Guidelines during the public comment period were tracked by the Proponent in a Microsoft Excel spreadsheet (the “tracking table”) and addressed by the Proponent. In total, 345 submissions were received during the 75 day public comment period. After initial review by the EAO and CEA Agency, the draft tracking table was circulated to members of the TWG for comment on the adequacy and acceptability of Proponent responses. The Proponent then had an opportunity to revise any responses flagged by the TWG, EAO, and CEA Agency. The Final Public Comments Tracking Table (in Adobe

Acrobat portable document format) is posted on e-PIC after a detailed review by the EAO and CEA Agency.

1.2 PURPOSE

The purpose of this Public Comments Summary document is to provide an overview of the public comments received on the Ajax Project draft AIR/EIS Guidelines (Revision D); the major issues identified; and the Proponent responses to concerns. The focus of this document is on key issues; these key issues were selected primarily based on a large number of public comments received or at the direction of the EAO or CEA Agency. In some instances, due to the complexity of the issue, the tracking table format limited the Proponent’s ability to address the issue; in these cases a brief response is provided in the table and the reader is referred to this Public Comments Summary document for a more comprehensive explanation.

1.3 FINDING INDIVIDUAL COMMENTS IN THE TRACKING TABLE

All public comments received by the EAO and CEA Agency during the formal public comment period were posted by the EAO to e-PIC by chronological order. Submissions can be found on e-PIC in the Public Comments/Submissions file of the Pre-Application folder.

The Proponent transcribed the submissions into a Microsoft Excel spreadsheet following a template recommended by the EAO and CEA Agency (Figure 1), and each submission was assigned a unique number (Submission #). Where a submission exceeded the maximum character limits of an individual spreadsheet cell, or where more than one issue was raised in a submission, the submission was separated into multiple rows by issue. Each row was then assigned a unique identifier (Issue #).

Issue #	Submission #	Date Posted	Name	Location	Comment	AIR Section	Proponent Response	Discussed in Summary Document

Figure 1 Tracking Table Template

If you submitted a comment to the EAO or CEA Agency and would like to see the Proponent response in the tracking table, you can search the tracking table file by your name. If you submitted your comment anonymously, or requested that the EAO or CEA Agency not publish your name, you can search for your comment by date, since submission numbers were assigned in chronological order. Anonymous comments were entered as “Personal Information Withheld” in the tracking table.

1.4 EAO AND CEA AGENCY REVIEW PROCESS

Development of the AIR/EIS Guidelines is one step in what is considered the “Pre-Application” phase of the EA process. After the EAO and CEA Agency approve and issue the AIR/EIS Guidelines, the

Proponent proceeds with developing the approach to the effects methodology, collecting the baseline information, compiling the study results, and assessing the residual and cumulative effects. The results of the studies are included in an EA report, submitted as both an Application for provincial review and an EIS for federal review. The Proponent submits one document, known as the Application/EIS, which meets both the provincial and federal requirements. Figure 2, which was displayed at the Ajax Project information sessions in February 2012, illustrates the steps involved in the coordinated federal and provincial review process and the integration of the AIR/EIS Guidelines.

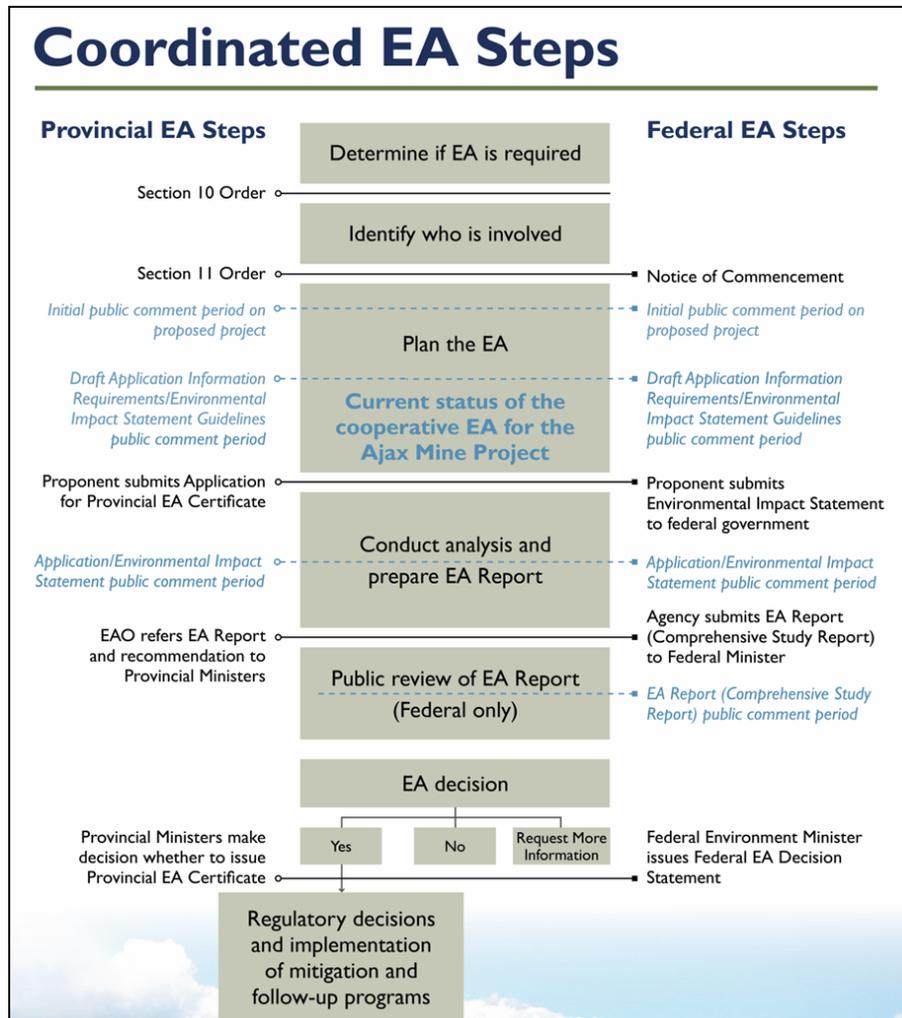


Figure 2 Coordinated Federal and Provincial Review Steps

Detailed information about the provincial environmental assessment process can be found on the EAO website ([Environmental Assessment Office Home](#)). The federal process is explained on the CEA Agency website ([Agence canadienne d'évaluation environnementale - Canadian Environmental Assessment Agency](#)).

SECTION 2.0 - SUMMARY OF PUBLIC COMMENTS TRACKING AND RESULTS

2.1 PUBLIC COMMENT TRACKING METHODOLOGY FOR AJAX PROJECT DRAFT AIR/ EIS GUIDELINES

In total, 345 unique public submissions were received during the 75 day comment period and tracked in the public comments tracking table for the proposed Ajax Project draft AIR/EIS Guidelines. As previously noted, each submission was assigned a submission number. In cases where submissions exceeded the maximum character limits of an individual Microsoft Excel spreadsheet cell, or where more than one point was raised in a comment, the submission was separated into more than one row, with each row being assigned a unique issue number, in order to track the key themes expressed regarding the draft AIR/EIS Guidelines.

Each issue was assigned a Comment Type based on the criteria presented in Table 1.

Table 1 Comment Type Designations

Comment Type	Criteria
EAO/CEA Agency/ Process Comment	<ul style="list-style-type: none"> • Comment directed to EAO/CEA Agency • Comment on environmental assessment process in general
Project Comment	<ul style="list-style-type: none"> • Referred to the potential effects of the Project but did not refer to the draft AIR/EIS Guidelines • Non-specific concern relating to the Project but did not refer to the draft AIR/EIS Guidelines (e.g., statement of support or statement of opposition). • Contextual statement
dAIR Comment	<ul style="list-style-type: none"> • Referred to a section of the draft AIR/EIS Guidelines • Requested additional information on a study proposed in the draft AIR/EIS Guidelines • Suggested a new issue for consideration in the dAIR

All issues were also classified based on project components and the preliminary Valued Components (VCs) presented in the draft AIR/EIS Guidelines, where possible. Valued Components are aspects of the environment considered important by the Proponent (KAM and its consultants), the public, Aboriginal groups, and government agencies involved in the EA process, and are discussed under five provincial Assessment Categories (Environment, Economic, Social, Heritage, Human Health). If one or more VCs presented in the draft AIR/EIS Guidelines were specifically noted in the comment, or if they could be inferred from the statement, they were listed, along with the relevant section or sub-section of the draft AIR/EIS Guidelines. If the concern expressed in the issue did not identify a specific VC but could be inferred to relate to one of the Assessment Categories, they were identified as Environment – General, Economic – General, etc. In cases where the issue did not specify a VC and one could not be easily inferred, the VC was categorized as not applicable (n/a). The preliminary list of VCs for the Ajax Project Application presented in the draft AIR/EIS Guidelines is provided in Table 2.

Table 2 Draft AIR/EIS Guidelines (Revision D) VCs for the Proposed Ajax Project

Assessment Category	Valued Component
Environment	Climate
	Geology, Landforms and Soils
	Surface water quality
	Surface water quantity
	Groundwater quality
	Groundwater quantity
	Fish populations and fish habitat
	Rare plant VCs
	Rare and Sensitive Ecological Communities
	Terrestrial Invertebrate VCs
	Amphibian VCs
	Reptile VCs
	Migratory Bird VCs
	Raptor VCs
	Non-migratory Gamebird VCs
	Bat VCs
Mammal VCs	
Economic	Labour force
	Education and training
	Income
	Employment
	Business
	Cost of living
	Housing
	Infrastructure
	Economic Diversification
Social	Culture
	Community health and well-being
	Public facilities and services, including transportation
	Dark sky / Shading
	Land and Resource Use
	Jacko Lake
	Visual Impact / Aesthetic Features
	Aboriginal community interests
Heritage	Heritage objects
	Heritage sites
Health	Air quality (Dustfall, PM10 and PM2.5)
	Water quality
	Noise and vibration
	Health education
	Healthy living

2.2 OVERVIEW OF PUBLIC COMMENTS

The 345 public submissions were parsed into 1,441 separate issues in order to track key concerns and ensure that any concerns relevant to the assessment were identified so they may be examined and discussed in the Application/EIS (Environmental Assessment Office, 2011). Figure 3 summarizes the proportion of issues by Comment Type.

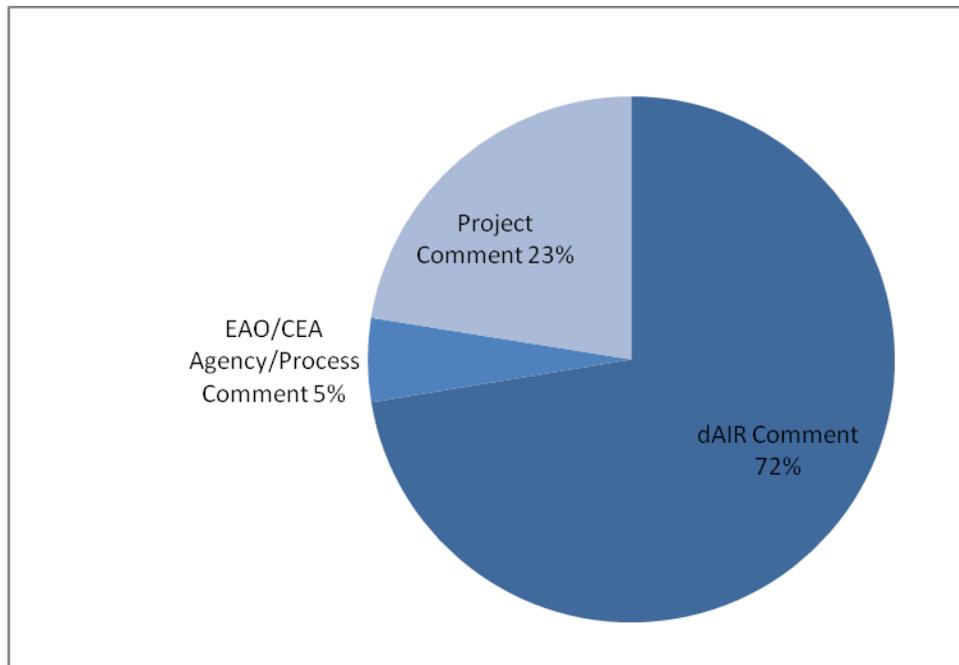


Figure 3 Proportion of Issues by Comment Type

Issues were tabulated by Assessment Category (Environment, Economic, Social, Heritage, and Health), by project component, and by VC. Environmental concerns were predominant, followed by human health concerns. The percentage of issues associated with a VC or general Assessment Category are shown on Figure 4. Any interaction between environmental VCs and human health VCs will be part of the impact assessment (e.g., the assessment on human health VCs will consider both direct effects of the Project as well as indirect effects from environmental VCs where an interaction between the two VCs could reasonably be expected to occur).

The majority of issues (1,125) did not identify a specific project component or activity. Blasting, the waste rock management facilities, and the Tailings Storage Facility (TSF) were the components or activities mentioned most often (Figure 5); many of the issues noted the proximity of the proposed project to local residents, especially those in the Aberdeen and Pineview Valley subdivisions, and the unusual circumstance of a mining project being within city limits.

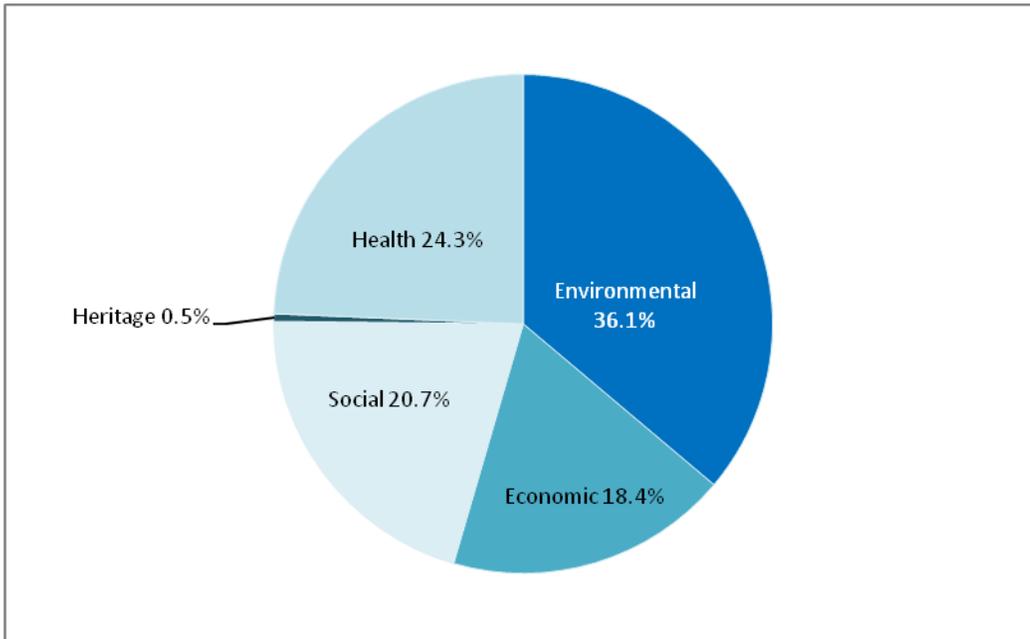


Figure 4 Summary of Issues by Assessment Category

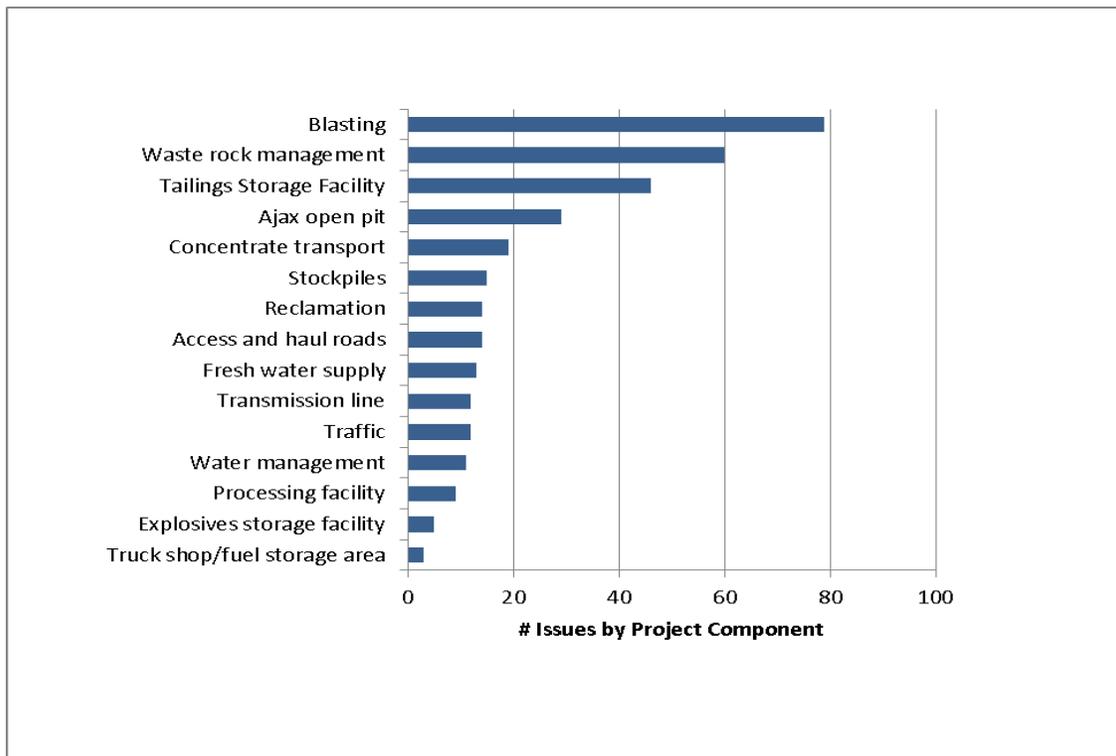


Figure 5 Summary of Issues by Project Component or Activity

2.3 OVERVIEW OF PROPONENT RESPONSES

All public comments were addressed by the Proponent in the tracking table. For studies presently included in the draft AIR/EIS Guidelines, the Proponent response indicates that the results of the assessment(s) will be presented in the Application/EIS. An example of this sort of comment or question and Proponent response is as follows:

Issue	Recreation - The location of the proposed mining operation has been a favorite recreational area for many local residents. What will be the effect on those recreational pursuits if this operation goes ahead? Access as well as the ability of this area to continue to offer the same quality of recreational opportunities are both concerns.
Proponent response	The impact of the project on recreational opportunities will be assessed in the Application/EIS.

Where the issue suggests inclusion of an additional VC or feasible additional indicators or metrics for one or more of the VCs currently presented in the draft AIR/EIS Guidelines, the Proponent response provides supplementary information as to how the suggestion will be considered in the final AIR/EIS Guidelines. For example:

Issue	Have there been any economic studies undertaken, to determine a loss of jobs in the agricultural, construction, tourism or professional sectors in the event that the mine limits population growth during the course of its lifetime? Have there been any economic studies undertaken, to determine the extent of mine related reduction in Tournament Capital Activities in the event that the Mine is approved?
Proponent response	Effects of project operation and decommissioning on the economy will be examined, including those relating to city image. Potential effects of the Project on local employment in the sectors identified, as well as Tournament Capital activities, will be examined.

For issues that were not considered in the dAIR/EIS Guidelines and are relevant to the EA, the Proponent response commits to including the information in the Application/EIS. An example of this follows:

Issue	6.14 Raptors Will bald eagles be added as a Valued Component?
Proponent response	Bald Eagles will be added under the 'Raptor' Valued Component. Potential effects on the eagle nest on Jacko Lake will be assessed.

Statements of opposition or statements of support were deemed out of scope of the review of the AIR/EIS Guidelines by EAO and CEA Agency. Where the public comment or question referred to regulatory process or was directed specifically to the EAO or CEA Agency (or both) the Proponent response is "Comment has been referred to the EAO and CEA Agency."

SECTION 3.0 - KEY PUBLIC ISSUES

3.1 EAO / CEA AGENCY / PROCESS COMMENTS

In total, 74 of the 1,441 issues were categorized by the Proponent as EAO/CEA Agency Process comments, and were deferred to the EAO and CEA Agency representatives for response. Many of the issues were directed to the EAO or CEA Agency or questioned the role and/or responsibility of the federal and provincial governments.

The approved Proponent Response to these issues in the tracking table is “Comment has been referred to the EAO and CEA Agency.”

The EA and CEA Agency have developed a “Response to Public Comments Received for the Proposed Ajax Mine Project” document, the purpose of which is to respond to many of the process-related comments received during the 2012 public comment period. Topics discussed in the document include:

- Purpose of environmental assessment;
- Projects requiring an environmental assessment;
- Coordinated federal-provincial review;
- Information requirements;
- Comments suggesting the rejection of the proposed project and cancellation of the EA;
- Comments requesting a referral of the proposed project to a joint federal/ provincial review panel;
- Comments regarding possible abandonment or expansion of the mine;
- Assessment methodology;
- EA statistics;
- Monitoring and enforcement;
- Public consultation in EA;
- Cumulative impacts; and,
- Next steps in the EA process.

This document is not intended to respond to all questions that have been directed to EAO or CEA Agency through public comments, but to provide a response to key questions and issues raised.

3.2 PROJECT COMMENTS

As previously noted, “project comments” were categorized as such because they either referred to the potential effects of the proposed Project or stated a non-specific concern related to the project, but did not make reference to the draft AIR/EIS Guidelines. “Project comments” accounted for 323 of the 1,441 issues. Project comments included statements of opposition or support; the approved Proponent response to these was “Statement of opposition/support - out of scope of the AIR/EIS Guidelines”.

Contextual statements included those that provided information on the background or history of the commenter or were introductory or closing remarks to a submission. Introductory and closing remarks to submissions were included in the table to allow members of the public to find their submission in the tracking table, especially for comments that were entered as “Personal Information Withheld”. Contextual

statements were noted as such in the approved Proponent responses; in some cases the Proponent response was expanded to refer the commenter to the section of the AIR/EIS Guidelines for information on the expressed general concern.

The approved Proponent response to statements of support or opposition in the tracking table is “Out of scope of the AIR/EIS Guidelines”. These comments were referred to the EAO and CEA Agency for consideration.

3.3 VALUED COMPONENTS COMMENTS

This section presents a summary of the key issues and responses related to VCs presented in Revision D of the draft AIR/EIS Guidelines. The concerns most frequently raised related to the Air Quality; Noise and Vibration; and Geology, Landforms, and Soils VCs (Figure 6). In some cases the responses provided in the tracking table are expanded on in this document; however, results of baseline studies or background information are not provided, as requested in some of the issues; this information will be provided in the Application/EIS. The purpose of the AIR/EIS Guidelines is to lay out both the issues that will be addressed in the EA and the information to address these issues, such as baseline study results or the approach to assessing cumulative impacts (Environmental Assessment Office, 2011). This Summary Document does not contain any commitments for studies or baseline information not currently included in the AIR/EIS Guidelines or tracking table.

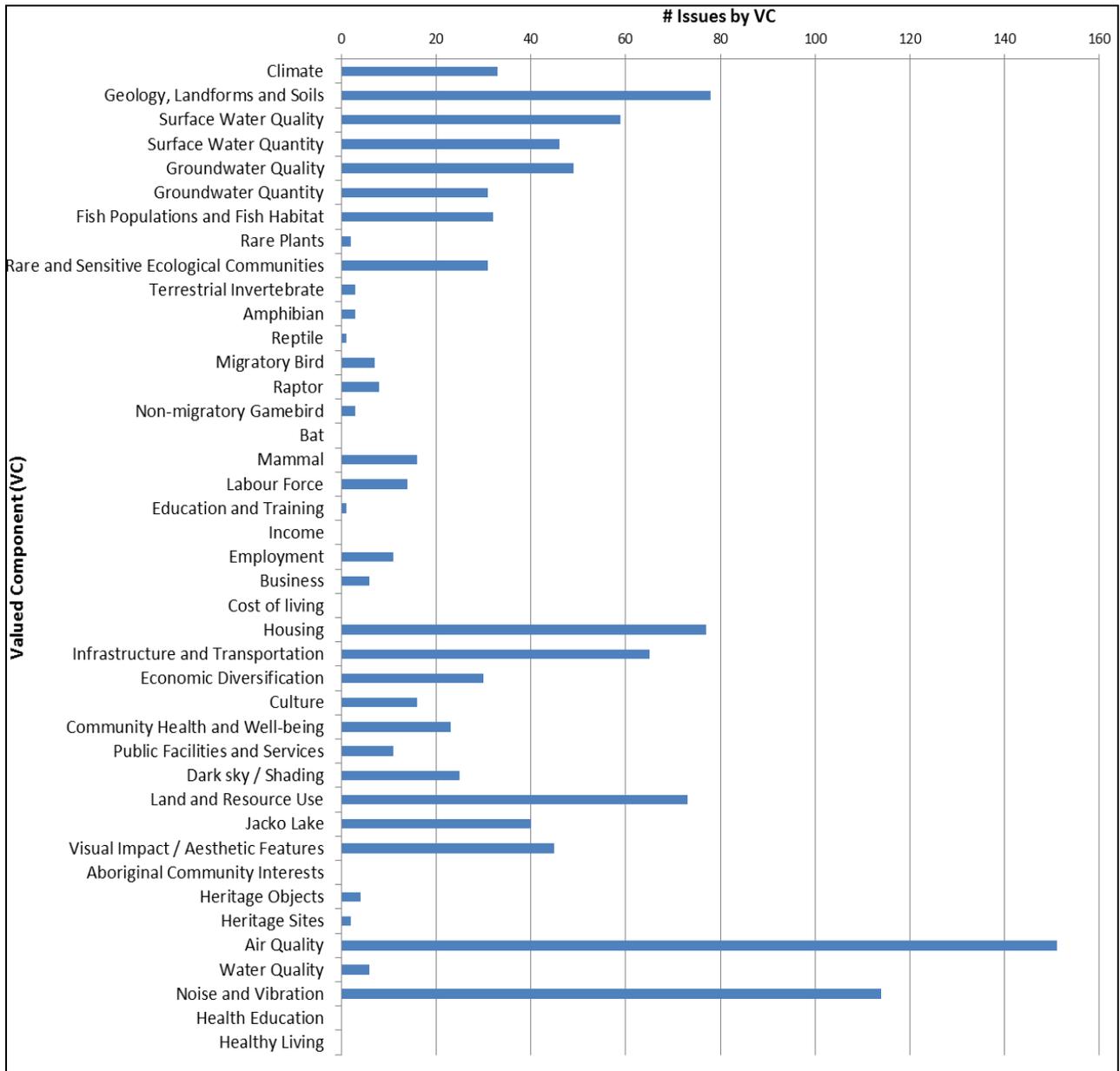
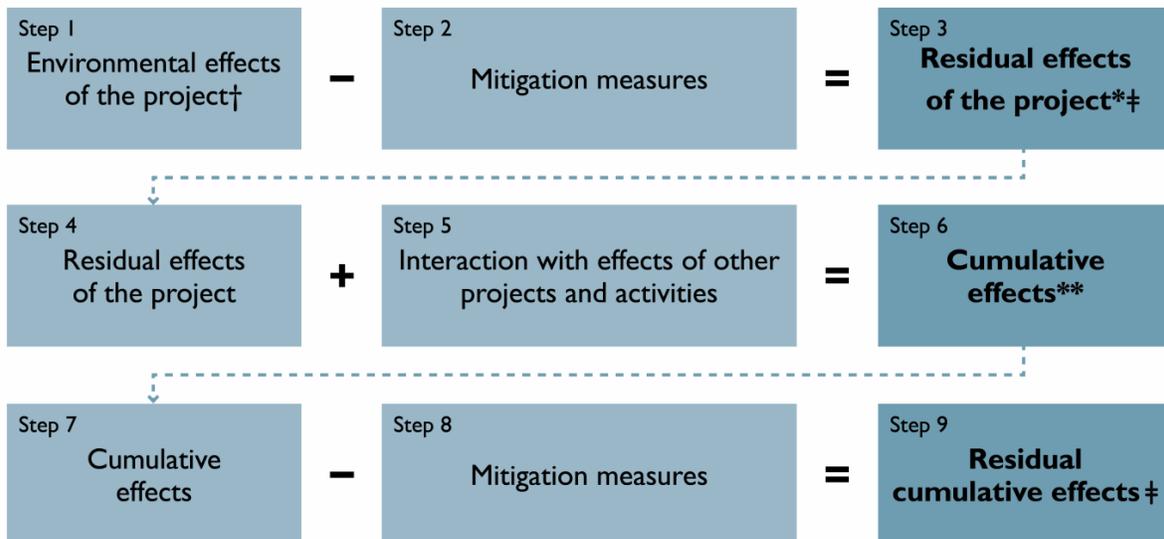


Figure 6 Number of Issues by Preliminary VC

The effects assessment for each VC will follow the same steps, as outlined in the AIR/EIS Guidelines (Figure 7).

EAO and CEA Agency Environmental Assessment Framework For Determining and Assessing Project Effects



† Including direct and indirect effects

‡ A final determination of significance is made by the EAO and CEA Agency by applying the Six Factors for Evaluating the Significance of Adverse Effects

* If there are no residual effects, no further steps are needed

** If there are no cumulative effects, no further steps are needed

Figure 7 Project Effects Assessment Methodology

The assessment of effects on any VC will consider the direct effects of any project components or activities on that VC, as well as any indirect effects on other VCs that may be linked to or interact with the VC of interest. Linkages can be across Assessment Categories and can be related to one or more project activities or components. A conceptual pathway of effects diagram is shown in Figure 8, illustrating how linkages will be made between VCs and assessed in the Application.

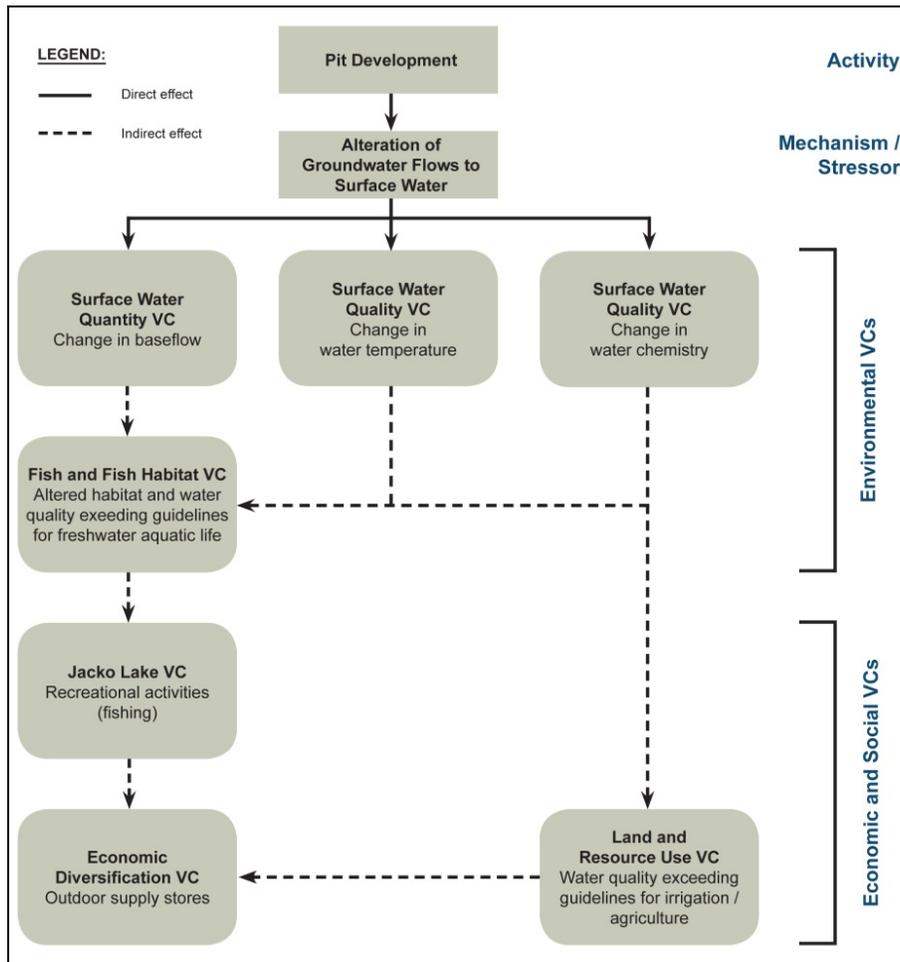


Figure 8 Conceptual Pathway of Effects for Project VC Interactions

3.3.1 Environmental Assessment Category

In total, the greatest number of issues were categorized as Environmental VCs. Of these, few issues were raised regarding rare plants, terrestrial invertebrates, or amphibians and reptiles; therefore, they are not discussed in this Summary Document. Individual responses to such issues can be found in the tracking table.

3.3.1.1 Climate

The concerns frequently identified in relation to the Climate VC and Proponent responses are summarised in Table 3. Meteorological data will be presented in the Application/EIS for assessment of potential climate change impacts and for input into the air quality, noise, and water quantity modelling. Descriptions of these models are presented in subsequent sections.

Table 3 Climate VC Key Concerns

Key Issues	Summary of Proponent Responses
Evaporation, fog / humidity, haze, reduced solar insolation affecting vegetation; local road use economic; local road use safety implications; Chemical composition of fog, rain and snow	The normal evaporative process on site from wetted surfaces is not expected to result in a substantial increase in the incidence of fog compared to what is presently experienced, since there is not a large source of moisture such as a cooling tower on site. However, potential interactions between the project and atmospheric indicators will be identified and assessed in the Application/EIS.
Number and location of meteorological stations inadequate and not representative of Project site	The present location of the Ajax meteorological station was chosen to satisfy basic information needs respecting the site-wide water balance. A three-dimensional CALMET wind field model will be used to drive the CALPUFF air quality dispersion model. The CALMET data are based on surface measurements at four locations in the airshed and upper air data from resolution detailed meteorological model. The CALMET data set captures all possible hourly meteorological conditions over the period 2003-2005.
Climate change/increased greenhouse gas emissions	Discussion of Greenhouse Gas (GHG) emissions to be presented in the Application will follow guidance documents recommended by regulatory bodies. Best management practices will be followed to minimize Project-related GHG emissions.
Changing wind patterns - Safety implications due to blowing snow affecting visibility (Coquihalla Hwy, Lac Le Jeune Rd.)	Any change in snow drift patterns will be accommodated in the course of normal highway maintenance activities. Changing wind patterns will not be assessed as a VC in the Application/EIS.

The Climate VC has been renamed Greenhouse Gas Management in the final AIR/EIS Guidelines.

3.3.1.2 Geology, Landforms and Soils

The concerns frequently identified in relation to the Geology, Landforms and Soils VC and Proponent responses are summarised in Table 4.

Table 4 Geology, Landforms, and Soils VCs Key Concerns

Key Issues	Summary of Proponent Responses
Weight of TSF, Waste Rock Management Facilities, Stockpiles affecting groundwater pressure; slope stability; structural damage to	The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage

Key Issues	Summary of Proponent Responses
residential properties in Aberdeen sub-division and Knutsford; municipal infrastructure (existing and proposed Coal Hill Reservoir)	to existing residential properties and municipal infrastructure in the vicinity of the project. The assessment will include discussion of the known issues and existing stability risks as documented in the City of Kamloops Risk Management Plan.
Soil erosion from altered watercourses and drainage patterns	Construction water management for site access and ancillary mine infrastructure (e.g. truck shop, plant site, TTP) will be focused on storm water control using best management practices (BMPs) (e.g. silt fences, hay bales, sedimentation basins). A site wide water management plan will be included in the Application/EIS.
Pit water seepage into surrounding areas affecting aquifers (change in groundwater direction)	Precipitation, seepage from pitwalls, and horizontal drains will introduce water into the pit. During operation a pit drainage and dewatering system will maintain pit wall stability; drain water and prevent water pressures from building up behind the pit walls; and remove surface water that is collected in sumps. At closure the pit will be allowed to fill with runoff from groundwater inflows and precipitation. The Application/EIS will include the project water balance model and water management plan, which will discuss any changes in groundwater discharge.
Vibration effects from blasting resulting in potential damage to public infrastructure, including question of who covers costs of updates as required	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to known thresholds for acceptable vibration levels on building foundations. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.
Composition of rock, soil, etc.	The mineral composition of the ore and waste rock will be presented in the Application/EIS.
Compensation for damage to property	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.
Effect of blasting on Kinder Morgan pipeline	Results of the vibration assessment will be used to predict potential effects of the Project on the Kinder Morgan pipeline. The Application will identify monitoring and mitigation measures required in the event that project effects on the pipeline are predicted.

3.3.1.3 Surface Water Quality

The concerns frequently identified in relation to the Surface Water Quality VC and Proponent responses are summarised in Table 5. Results of the surface water quality model will be used in the assessment of impacts on other VCs such as Fish and Fish Habitat. All potential linkages between VCs will be discussed in the Application/EIS.

Table 5 Surface Water Quality VC Key Concerns

Key Issues	Summary of Proponent Responses
Water quality impacts on fish, wildlife, livestock, human health	<p>The potential effects of construction, operation and closure on water quality will be assessed in the Application/EIS. Results from a numerical mass balance water quality model will be compared to applicable provincial and federal guidelines or standards for the protection of aquatic life, drinking water, agriculture, and irrigation. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.</p> <p>Monitoring programs to be developed and implemented as part of the project Environmental Management System will ensure that measures and controls are in place to minimize the potential for environmental degradation. The following plans described in the AIR/EIS Guidelines relevant to this concern include:</p> <ul style="list-style-type: none"> • Surface Water Quality Management and Monitoring Plan • Groundwater Quality Management and Monitoring Plan • Erosion and Sediment Control Plan • Acid Rock Drainage Management Plan • Water Management and Hydrometric Monitoring Plan • Fisheries And Aquatic Life Monitoring Plan <p>Follow up programs are also required under federal legislation. As described in the AIR/EIS Guidelines, the purpose of follow up programs is to verify the accuracy of the environmental assessment of the project and determine the effectiveness of any measures taken to mitigate the adverse environmental effects of the project.</p>
Metal Leaching and Acid rock Drainage (ML/ARD)	<p>Assessment and prediction of ML/ARD potential will be conducted according to applicable policy and guidelines documents, including:</p> <ul style="list-style-type: none"> • Policy for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, Ministry of Energy and Mines and Ministry of Environment, Lands and Parks, July 1998. • Guidelines for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, Price and Errington, August 1998. <p>The ML/ARD prediction program will include:</p> <ul style="list-style-type: none"> • Identifying and describing all geological materials excavated, exposed or otherwise disturbed. • Predicting the ML/ARD potential, and • Developing a mitigation and monitoring program based on the ML/ARD potential.

Key Issues	Summary of Proponent Responses
Definition of 'zero discharge' facility and how it will be achieved Pit water quality at closure	<p>The goal of the project is to have zero surface water discharge to the environment during operation. Water management mechanisms and procedures will be described in detail in the Application/EIS. Water management mechanisms will include ditches for collection of seepage and runoff for contact water. All water collected, recycled, or used on the project will require containment or storage in existing ponds or in man-made structures.</p> <p>At closure, water will be stored in the pit and discharged if necessary and if it meets government guidelines or site-specific water quality objectives. If site-specific water quality objectives need to be established for the project area (Water quality objectives are concentrations necessary to protect the most sensitive designated use of water at a specified site) the provincial guidance report "Water Quality Methods for Deriving Site-Specific Water Quality Objectives in British Columbia and Yukon" (Ministry of Environment, Environmental Protection Division) will be followed.</p> <p>The Environmental Management Act permit required to operate the mine will set criteria for any water discharged from the mine; no provincial or federal permits are granted until a project receives federal and/or provincial EA approval. Monitoring requirements will be specified in the permit.</p>
Rationale for selection of water quality models that will be used, expected accuracy	<p>Water quality models are used as predictive tool; models vary in complexity, and the choice of a model depends primarily on study objectives. A mass balance numerical model will be used for predicting any changes in water chemistry resulting from the activities and infrastructure associated with the proposed project. A numerical (mathematical) model uses a series of equations to relate input parameters and variables to quantified outputs. As noted in the AIR/EIS Guidelines, the Application/EIS will include a discussion of the assumptions that underlie any model used, the quality of the data, and the degree of certainty of the modelled results.</p>
Airborne contaminants from blasting (nitrates, particulates)	<p>The results of air dispersion modelling for several parameters of interest will be incorporated into the water quality model to assess the potential effects of dust deposition on soil and water quality. A description of how air dispersion modelling will be included in surface water modelling will be included in dAIR, including naming the parameters of interest that will be identified following the air quality assessment.</p>

3.3.1.4 Surface Water Quantity

The concerns frequently identified in relation to the Surface Water Quantity VC and Proponent responses are summarised in Table 6.

Table 6 Surface Water Quantity VC Key Concerns

Key Issues	Summary of Proponent Responses
Effects on existing water licences (Peterson Creek, Jacko Lake, Kamloops Lake)	The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing licenced water users.
Processing water volume	The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies, including conservation measures, to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows).
Global warming impacts	The potential impacts of climate change on the hydrologic cycle will be discussed in the Application.
Effects of Peterson Creek diversion on downstream flows	The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area and effects on downstream flows. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users.

3.3.1.5 Groundwater Quality

The concerns frequently identified in relation to the Groundwater Quality VC and Proponent responses are summarised in Table 7.

Table 7 Groundwater Quality VC Key Concerns

Key Issues	Summary of Proponent Responses
<p>Potability of water from seepage of contact water into groundwater and aquifers; need to line/seal TSF ponds.</p>	<p>Baseline groundwater sampling has been conducted in wells situated around the project site. The baseline program design, study area, methodology, assumptions, and results will be presented in the Application/EIS.</p> <p>A site wide water balance will describe water movements within the proposed Project area and effects on downstream and in the vicinity of flows. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users. Results from numerical water quality models will be compared to applicable provincial and federal guidelines or standards for the protection of aquatic life, drinking water, agriculture, and irrigation. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.</p> <p>Monitoring programs to be developed and implemented as part of the project Environmental Management System will ensure that measures and controls are in place to minimise the potential for environmental degradation. The following plans described in the AIR/EIS Guidelines relevant to this concern include:</p> <ul style="list-style-type: none"> • Surface Water Quality Management and Monitoring Plan • Groundwater Quality Management and Monitoring Plan • Erosion and Sediment Control Plan • Acid Rock Drainage Management Plan • Water Management and Hydrometric Monitoring Plan • Fisheries And Aquatic Life Monitoring Plan <p>Follow Up programs are also required under federal legislation. As described in the AIR/EIS Guidelines, the purpose of follow up programs is to verify the accuracy of the environmental assessment of the project and determine the effectiveness of any measures taken to mitigate the adverse environmental effects of the project.</p>
<p>Metal Leaching and Acid rock Drainage (ML/ARD)</p>	<p>Assessment and prediction of ML/ARD potential will be conducted according to applicable policy and guidelines documents, including:</p> <ul style="list-style-type: none"> • Policy for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, Ministry of Energy and Mines and Ministry of Environment, Lands and Parks, July 1998. • Guidelines for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, Price and Errington, August 1998. <p>The ML/ARD prediction program will include:</p> <ul style="list-style-type: none"> • Identifying and describing all geological materials excavated, exposed or otherwise disturbed.

Key Issues	Summary of Proponent Responses
	<ul style="list-style-type: none"> • Predicting the ML/ARD potential, and • Developing a mitigation and monitoring program based on the ML/ARD potential.
Requests for groundwater well inventory and monitoring	KAM has initiated a groundwater well inventory program in the Project area. Baseline groundwater sampling has been conducted in wells situated around the Project site. The baseline program design, study area, methodology, assumptions, and results will be presented in the Application.

3.3.1.6 Groundwater Quantity

The concerns frequently identified in relation to the Groundwater Quality VC and Proponent responses are summarised in Table 8.

Table 8 Groundwater Quantity VC Key Concerns

Key Issues	Summary of Proponent Responses
Potential for groundwater to discharge into the open pit	Precipitation, seepage from pitwalls, and horizontal drains will introduce water into the pit. During operation a pit drainage and dewatering system will maintain pit wall stability; drain water and prevent water pressures from building up behind the pit walls; and remove surface water that is collected in sumps. At closure the pit will be allowed to fill with runoff from groundwater inflows and precipitation. The Application/EIS will include the project water balance model and water management plan, which will discuss any changes in groundwater discharge.
Financial compensation for infrastructure and residential damage in Aberdeen, Knutsford.	The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure in the vicinity of from the project.
Effect of blasting on groundwater levels	The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure in the vicinity of from the project.

3.3.1.7 Fish Populations and Fish Habitat

The concerns frequently identified in relation to the Fish and Fish Habitat VC and Proponent responses are summarised in Table 9.

Table 9 Fish and Fish Habitat VC Key Concerns

Key Issues	Summary of Proponent Responses
Kamloops Lake water withdrawal effects on salmon stocks (potential decreased water levels, increased temperature, decreased oxygen)	Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake fish stocks will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). Mitigation measures will be explored and identified within the Application. The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC (including water temperature).
Cumulative effects of water withdrawal	The VC will be assessed for both direct and indirect effects as well as cumulative effects. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.
Effects of blasting on Jacko Lake	Operations will adhere to regulations and guidance set out under the Explosives Act (e.g. quantity/distance regulations) and federal fisheries guidelines (Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters, Fisheries and Oceans Canada, 1998) for blasting in and around water. Effects on surface water quality (blasting restudies, contaminants) will be assessed as part of the surface water quality VC; the significance of any alterations will be assessed with respect to water quality guidelines for the protection of aquatic life.
Benthic invertebrate productivity	Aquatic invertebrates will be assessed in the Application/EIS as they relate to fish populations and fish habitat (e.g., primary and secondary productivity indicators).

3.3.1.8 Rare and Sensitive Ecological Communities VCs

The concerns frequently identified in relation to the Rare and Sensitive Ecological Communities VC and Proponent responses are summarised in Table 10.

Table 10 Rare and Sensitive Ecological Communities VCs Key Concerns

Key Issues	Summary of Proponent Responses
Loss of grasslands	Mitigation measures to address the loss of grasslands will be included in the Application/EIS. The primary concern revolved around the difficulty of re-establishing native occurring grassland communities. The Application/EIS will include an outline of end land use objectives, taking into consideration the recommendation of Ministry of Energy, Mines and Natural Gas that the reclamation program be aimed at ecological restoration of naturally occurring grassland communities. A Conceptual Reclamation and Closure Plan will be

Key Issues	Summary of Proponent Responses
	described in the Application/. The plan will identify baseline studies and on-going reclamation research that will be conducted throughout mine life.
Reclamation	<p>Biological soil crusts are very fragile and sensitive to disturbances by humans, livestock, wildlife (ungulates) and vehicle traffic. The Proponent recognizes that it may be difficult and impractical to salvage soil crusts and that it may take several decades for them to re-establish.</p> <p>The baseline soil characterization study that will be completed as part of the Conceptual Reclamation and Closure Plan, and included in the Application/EIS, will identify and classify the volumes of available soil that are suitable for reclamation use. A Soil Handling Plan will be developed to guide the stripping, salvage and stockpiling of soil materials for subsequent use in reclamation. The volume required will be calculated using the dimensions of the areas to be reclaimed (e.g. waste rock facilities, TSF, etc.).</p> <p>All seed and plant types required to achieve the planned post-closure end land use objectives will be acquired. If applicable, the plan will identify protocols to “build”, amend and/or acquire additional soil material for use in reclamation.</p> <p>The number of years mandated post mine closure to ensure successful reclamation, including consideration of new remedial information, will be addressed in the reclamation permitting conditions issued by the Ministry of Energy, Mines and Natural Gas if the project is approved. Annual reclamation reports would be required and the Ministry would be responsible for routine site inspections to ensure the reclamation plan is implemented.</p>
Loss of wetlands	A site wide water balance and water quality model will be used to assess the effects of the proposed project on surface water quality. Any wetlands and alkali ponds potentially impacted will also be included in the water quality assessment. Wetlands will be assessed in relation to any wildlife species habitat associations.
Noxious weed management plan	Mitigation and monitoring measures for invasive plant species during project operation will be included in the Wildlife/Vegetation Monitoring Plan. Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan. These will both be included in the Application/EIS.

Because of the interest expressed in grasslands by the public and the regulatory agencies, Grasslands will be assessed as a stand-alone VC in the Application/EIS. The final AIR/EIS Guidelines is revised to reflect the new naming convention. Where relevant, the assessment of other VCs will reference the results of the Grasslands assessment, including but not limited to Mammals and Raptors in the environmental VCs, and Land and Resource Use (including ranching) in the Social VCs.

3.3.1.9 Bird VCs

The issues relating to the migratory birds, non-migratory gamebirds, and raptor VCs expressed an interest in seeing the following species added to the list of species to be studied:

- Swans;
- Red Winged Blackbird;
- Yellow Winged Blackbird;
- Yellow headed Blackbird;
- Ducks;
- Blue Bird;
- Barn Swallow;
- Clay-Coloured Sparrow (Locally Rare);
- Horned Lark;
- Lark Sparrow;
- Dusky Grouse;
- Bald Eagle;
- Burrowing Owl;
- Great Gray Owl; and
- Upland game birds.

Bald Eagles and Burrowing Owls have been added as Raptor VCs to be assessed in the Application/EIS (including potential effects on the eagle nest on Jacko Lake). Point-count bird surveys and waterfowl surveys have been done across the Project area to record use by all bird species; however, species chosen as VCs are generally at-risk species or those that are managed on the landscape. Species such as the Great Gray Owl are not federally or provincially at risk, therefore will not be included in the assessment. The use of VCs in environmental assessments is standard practice, helping to focus resources on meaningful measures of environmental change. Common, widespread species are generally not selected as VCs, due to the absence of any measureable endpoint for the assessment.

3.3.1.10 Mammal VCs

The concerns frequently identified in relation to the mammal VC and Proponent responses are summarised in Table 11.

Table 11 Mammal VC Key Concerns

Key Issues	Summary of Proponent Responses
Displacement of wildlife onto private lands as a result of project infrastructure and activities (bear, deer, moose, coyote)	<p>The potential effects of the Project on mammals, including potential displacement, will be described in the Project Application. A program to prevent and deal with problem wildlife on the Project property will be developed as part of the Wildlife/Vegetation Monitoring Plan to be included as part of the Environmental Management System. The Proponent does not have authority to apply a problem wildlife program outside of its own property.</p> <p>Problem coyotes and bears in residential areas generally result from issues regarding improper storage and management of garbage, fruit tree and pet food</p>

Key Issues	Summary of Proponent Responses
	<p>attractants in those areas.</p> <p>Losses of natural habitat result from many human activities including urbanization, road-building, industrial development and conversion to agricultural fields and golf courses, all of which are occurring within Kamloops.</p> <p>The BC Ministry of Agriculture's Agriculture Wildlife Program provides assistance to forage, grain and livestock producers in the province of British Columbia for verified crop and livestock losses due to wildlife.</p>
Altered migration patterns and loss of habitat for moose	<p>The potential effects of the Project on ungulates and their habitat will be discussed in the Application/EIS. The effects of the project on ungulate winter range will be quantified.</p> <p>The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.</p>
Fugitive dust impacts on habitat suitability	<p>A Human Health and Ecological Risk Assessment (HHERA) will be conducted to assess the effects of potential air and water quality contamination on wildlife. Results will be presented in the Application/EIS.</p>
Wildlife mortality	<p>The potential effects of the Project on mammals will be described in the Project Application, as well as mitigation measures and residual effects.</p>
White tailed deer as a VC	<p>White-tailed deer numbers are low in the area as they have colonized it relatively recently. The Ministry of Environment has indicated, in discussion with project biologists, that the needs of white-tailed deer in this area are covered adequately in management for mule deer, so white-tailed deer were not included as a separate VC.</p>

Bats were a stand-alone VC in the draft AIR/EIS Guidelines; they are included in the Mammal VCs in the final AIR/EIS Guidelines.

3.3.2 Economic Assessment Category

The VCs proposed for study in the Economic Assessment Category in Revision D of the AIR/EIS guidelines were the following:

- Labour force;
- Education and training;
- Income;
- Employment;
- Business;
- Cost of living;
- Housing;
- Infrastructure; and
- Economic Diversification.

No issues were identified as being associated with the Income or Cost of Living VCs, and the Education and Training VC was only referenced once, therefore these VCs are not discussed in this Summary Document. There was considerable overlap in concerns associated with certain VCs, such as Labour Force and Employment. Based partially on review of the public issues and through engagement with the EAO and CEA Agency, the definitions and parameters of the economic VCs have evolved and been refined to provide a better framework for the effects assessment of the proposed project; as such, some VCs have been renamed and others have been combined with or integrated into other VCs. In addition, a new VC, Economic Growth, was proposed through engagement with the EAO, since it was seen as a logical place to insert insights and information flowing from a proposed input-output model for the Project and provide a basis for the discussion of the other Economic VCs.

This section of the Summary Document presents the key concerns and Proponent responses to the Economic VCs presented in Revision D of the draft AIR/EIS Guidelines.

3.3.2.1 Labour Force VC

The concerns frequently identified in relation to the Labour Force VC and Proponent responses are summarised in Table 12.

Table 12 Labour Force VC Key Concerns

Key Issues	Summary of Proponent Responses
Local population does not have the skills required to fill the jobs, requiring company to bring in employees from elsewhere.	A breakdown of anticipated employment opportunities (including numbers and durations of jobs, income) and anticipated employee sources (local or otherwise) will be provided in the Application/EIS. Details regarding hiring preferences will be included.
Use of remote control haul trucks resulting in fewer jobs	The Application/EIS will include a breakdown of anticipated employment opportunities to be taken up by Kamloops residents and others.
Indirect employment numbers	If suitable data exists, estimates will be provided for indirect/spin-off employment; estimates of the number of hires coming out of Kamloops will be provided. Details regarding hiring preferences will be communicated and incorporated into the assessment

The topics of labour force, employment, education and training are closely linked. As such, they are best served by dealing with them collectively as a VC entitled Labour Force, Employment and Training in the final AIR. While the term 'education' has been removed, the assessment will include any form of training, 'educational' or otherwise, that could relate to the Project.

3.3.2.2 Employment and Business VCs

The concerns identified in relation to the Employment VC and Business VC showed considerable overlap and revolved primarily around the anticipated inability of the city of Kamloops to attract professionals and businesses in other sectors of the economy due to the presence of the mine (Table 13).

Table 13 Employment and Business VCs Key Concerns

Key Issues	Summary of Proponent Responses
Resource-based economy employment vs. “professional” employment (e.g., tourism, university)	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well.
Loss of jobs in other sectors due to reduced population growth because of the mine.	The Application/EIS will consider indirect economic benefits (expenditures and employment as feasible), economic diversification, population demographics, community health and well-being and perceptions regarding the City.
Compensation for doctors that will be needed.	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well.

The topics of labour force, employment, education and training are closely linked. As such, they are best served by dealing with them collectively as a new VC entitled Labour Force, Employment and Training. .

3.3.2.3 Housing VC

The concerns frequently identified in relation to the Housing VC and Proponent responses are summarised in Table 14.

Table 14 Housing VC Key Concerns

Key Issues	Summary of Proponent Responses
Property values of nearby homes from noise and dust	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. Dispersion modelling will be used to predict the composition and quantity of particulate matter in various parts of the City. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.

Key Issues	Summary of Proponent Responses
Loss of residential land for future development	Property values and city expansion, as per city of Kamloops land use and development planning, will be included in the assessment presented in the Application/EIS.
Property value of residential, commercial, industrial properties; property assessments and compensation for homeowners	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). The assessment of economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources. Individual property assessments will not be included in the analysis.
Compensation for structural damage caused by blasting	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.
Quantitative study (hedonic modelling) vs. qualitative study	The assessment of economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources.
Structural stability of homes	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations

A wide range of concerns came out of the public consultation process related to potential effects of the Project on property values in the area, particularly around the Aberdeen and Pineview Valley subdivisions. While this might otherwise be captured under a ‘Housing’ VC, it was deemed preferable to assess Property Value as a standalone VC. As per the EAO/CEA Agency direction, in addition to residential property value, the assessment will also include consideration of commercial, institutional, and industrial property value.

Other housing considerations (e.g., general housing characteristics, temporary accommodations) will be captured under an amalgamated Infrastructure, Public Facilities and Services VC to be included as a Social VC.

3.3.2.4 Infrastructure and Transportation VC

The concerns frequently identified in relation to the Infrastructure and Transportation VC and Proponent responses are summarised in Table 15.

Table 15 Infrastructure and Transportation VC Key Concerns

Key Issues	Summary of Proponent Responses
Safety concerns and economic impacts of increased traffic on Lac Le Jeune Road, Goose Lake Road,	<p>A traffic impact study developed in consultation with relevant public stakeholder agencies, including the City of Kamloops and the Ministry of Transportation and Infrastructure, will be included in the Application/EIS. The following roads surrounding the mine are included within this scope of work:</p> <ul style="list-style-type: none"> • Highway 5 (Coquihalla Highway); • Lac Le Jeune Road; • Sugarloaf Road; • Frontage Road (Versatile Drive); • Copperhead Drive; • Goose Lake Road; • Inks Lake Road; and • Haul Road.
Taxpayer dollars spent on infrastructure to accommodate future City growth	A description of the city of Kamloops Official Community Plan as it relates to the Project will be included in the Application/EIS; this will include the Aberdeen Area Plan.
Use of municipal services (e.g. fire protection) for the project	The Application will include discussion of requirements for fire protection and other municipal emergency services.
Cost of and responsibility for upgrades to Lac Le Jeune Road to accommodate mine traffic	<p>The route for concentrate transport to Vancouver will be discussed in the Application/EIS and will include:</p> <ul style="list-style-type: none"> • A description of the alternative means of carrying out the Project; • The reasons for selecting the preferred option; • An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and • The environmental effects of any such alternative means. <p>The Proponent is not responsible for maintenance or upgrades to provincial infrastructure.</p>
Altered weather patterns, fugitive dust deposition on road safety and maintenance	Fugitive dust dispersion modelling will be completed for the Application/EIS. Mitigation measures will be implemented to address potential impacts of entrained dust
Costs for maintenance of publicly funded infrastructure	The project will contribute to government revenues through municipal, regional, provincial and federal taxes.
Cost of transmission line and power supply	The Proponent will pay for the transmission line to the project site. The Application/EIS will include details regarding government incentives/subsidies.

The proposed new Infrastructure, Public Facilities and Services VC will be included as Social VC, and will include issues related to transportation.

3.3.2.5 Economic Diversification VC

The concerns frequently identified in relation to the Economic Diversification VC and Proponent responses are summarised in Table 16. Overlap was found between issues expressed relating to the Economic Diversification VC with the Employment and Business VCs.

Table 16 Economic Diversification VC Key Concerns

Key Issues	Summary of Proponent Responses
Cost-benefit approach should be used and include tax breaks and government subsidies	A socio-economic impact assessment approach will be used rather than a cost benefit analysis, reflecting current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources. To the extent practical, the specific issues identified will be considered.
Premature mine closure, drop in metal prices effects on economic benefit	The projected 23 year life of mine (LOM) is based on commodity prices, among other things. The Application will include a discussion of factors which may influence the LOM, such as metallurgical recoveries, geotechnical characteristics of the rock mass, capital and operating cost estimates, etc.
Inability to attract businesses and professionals from other sectors because of the perception of the city as a mining town.	Effects of project operation and decommissioning on the economy will be examined, including those related to city image and the campaign to brand Kamloops as the Tournament Capital of BC.
Economic benefits of direct and indirect revenues from sporting events	The Application/EIS will include assessment of indirect economic benefits (expenditures and employment as feasible), perceptions regarding the City (e.g., from a tourism context). The EA will also include an examination of City of Kamloops vision, planning and related documents and processes.
Processing of natural resources in Canada instead of shipping overseas (smelting)	The Application/EIS will discuss the copper concentrate market; a smelter is not included in the project design.
Compensation of land developers for loss of investment and planning costs of the purchase of lands adjacent to the	A description of the land ownership and land use regime including tenures, licenses, permits or other authorizations that would be potentially affected by the proposed Project; and the status of consultations with holders of such tenures and permits, and private land owners including resolution of land tenure issues will be included in the Application/EIS. The Application/EIS will discuss estimated annual government revenues from the construction and operation phases of the

Key Issues	Summary of Proponent Responses
proposed project area.	proposed Project, including local/municipal property taxes and regional district taxes. The EA will include examination of City of Kamloops vision and planning documents and processes in the context of the Project.
Methodology – should use key person interviews	Insights are expected to come from key person interviews, including professionals in the medical, university and other fields. Other case study projects will be used where feasible and comparable.

3.3.3 Social Assessment Category

The VCs proposed for study in the Social Assessment Category in Revision D of the AIR/EIS guidelines were the following:

- Culture;
- Community health and well-being;
- Public facilities and services, including transportation;
- Dark sky / Shading;
- Land and Resource Use;
- Jacko Lake;
- Visual Impact / Aesthetic Features; and
- Aboriginal Community Interests.

No issues were received relating to Aboriginal Community Interests therefore it will not be discussed in this Summary Document. Based on direction from the EAO/CEA Agency, Aboriginal Community Interests was removed as a discrete VC. All issues associated with Aboriginal community interest will be addressed in the Aboriginal Interests section of the Application/EIS.

Similar to the Economic VCs, the preliminary Social VCs have evolved and been refined to provide a better framework for the effects assessment of the Project. This section of the Summary Document presents the key concerns and Proponent responses to the Social VCs presented in Revision D of the AIR/EIS Guidelines. Where relevant, any revised or renamed VCs are discussed in the following sections and will be carried forward into the final AIR/EIS Guidelines and subsequent Application/EIS.

3.3.3.1 Culture VC

The concerns identified in relation to the Culture VC and Proponent responses are summarised in Table 17.

Table 17 Culture VC Key Concerns

Key Issues	Summary of Proponent Responses
Quality of life (rural lifestyle)	Quality of life will be considered within the context of the Application/EIS. Topics to be covered under the biophysical disciplines noted are expected to inform socio-economic VCs.

Key Issues	Summary of Proponent Responses
City image/reputation as a mining town, industrial town	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project. The Application/EIS will consider potential effects related to the City of Kamloops being perceived as a 'mining town' as well as issues related to 'boom and bust'.

Based on direction from the EAO/ CEA Agency, Culture was removed as a discrete VC. The issues identified with the Culture VC will be assessed as part of the Community Health and Well-Being VC in the final AIR/EIS Guidelines and Application/EIS.

3.3.3.2 Community Health and Well-Being VC

The concerns frequently identified in relation to the Community Health and Well-Being VC and Proponent responses are summarised in Table 18.

Table 18 Community Health and Well-being VC Key Concerns

Key Issues	Summary of Proponent Responses
Health and wellbeing of current residents who live close to the proposed project	The Application/EIS will provide commentary regarding community health and well-being. Where comparable conditions exist with respect to other operations, insights from these will be used to inform the current assessment.
Quality of life (silence, clean air, peace, worry about health issues)	A Human Health and Ecological Risk Assessment will be included in the Application/EIS to address concerns relating to potential adverse environmental impacts.
Transparency of study methodology (key person interview selection)	The assessment of social and economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources.
Health issues of power line	A World Health Organization (WHO, 2012) review of the scientific literature examining the potential links between exposure to Electromagnetic Fields (EMF) and health effects in humans concluded that: Although some members of the public have attributed a broad range of symptoms to exposures to EMFs, to date, scientific evidence does not support a link between these symptoms and EMF exposure. No studies are proposed for inclusion in the Application/EIS
Lifestyle, balance (recreation, outdoor activities) and community need to define itself	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project. The assessment will include a consideration of City of Kamloops planning and development (current and anticipated), and also consider the potential effects of the Project on way of life and other economic activities.

3.3.3.3 Public Facilities and Services VC

The concerns frequently identified in relation to the Public Facilities and Services VC and Proponent responses are summarised in Table 19.

Table 19 Public Facilities and Services VC Key Concerns

Key Issues	Summary of Proponent Responses
Subsidized hydroelectric power for the proposed project	The Application/EIS will include details regarding government incentives/subsidies.
Impact on professional recruitment and retention	Potential effects of the project on other infrastructure and services in the City will also be considered, including health sector-related professions.

This VC will be rolled into the new Infrastructure, Public Facilities and Services VC as the topics are closely linked and will benefit from consideration together.

3.3.3.4 Dark Sky/Shading VC

The effect of light pollution on human health and the use of the Kamloops Astronomical Society observatory at Stake Lake were the major themes expressed in the issues relating to the Dark Sky VC. The effects of project lighting on the darkness of the night sky in areas adjacent to the mine as well as at the Stake Lake Observatory will be assessed, with results presented in the Application/EIS.

The potential effect of the proposed mine infrastructure on the amount of sunlight on neighbouring properties was noted as a concern; this will be assessed in the Application/EIS as part of the Shading VC.

Based on discussion with the EAO/CEA Agency, issues associated with Shading will be addressed as part of the Visual Impact/Aesthetics VC, as the study methodologies are similar. Dark Sky is a stand-alone VC in the final AIR/EIS Guidelines and in the Application/EIS

3.3.3.5 Land and Resource Use VC

The concerns frequently identified in relation to the Land and Resource Use VC and Proponent responses are summarised in Table 20.

Table 20 Land and Resource Use VC Key Concerns

Key Issues	Summary of Proponent Responses
Compliance with Kamloops Official Community Plan (OCP)	The Application/EIS will include a description of any management and monitoring programs or regional studies, including the City of Kamloops Official Community Plan and Sustainable Kamloops Plan, as well as the Thompson Nicola Regional District (TNRD) Official Community Plans, guidelines, and bylaws as they relate to the Project.

Key Issues	Summary of Proponent Responses
Compliance with Agricultural Land Reserve	The Proponent is in discussion with the Agricultural Land Commission to address the use of lands within the Agricultural Land Reserve.
Recreational use of surrounding area (Jacko Lake, Inks Lake, etc.)	<p>The impact of the project on recreational opportunities will be assessed in the Application/EIS.</p> <p>Access to Jacko Lake will be preserved during operation; however, recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS.</p> <p>Recreational opportunities in and around Inks Lake will be interrupted for the life of mine for public safety reasons, since it is proposed that Inks Lake be used as a seepage collection and process water pond. The significance of effects on recreation will be assessed in the Application/EIS.</p>
Private land in surrounding areas	A description of the land ownership and land use regime including tenures, licenses, permits or other authorizations that would be potentially affected by the proposed Project; and the status of consultations with holders of such tenures and permits, and private land owners including resolution of land tenure issues will be included in the Application/EIS.
Future capability for agriculture. garden crops, livestock from the dust/mineral uptake and soil changes	<p>As per Mines Act requirements, pre-disturbance vegetation studies will be conducted to determine baseline productivity (biomass), diversity (species composition) and metals content. Similarly, baseline soils data (morphological and chemical) must be submitted as part of the Conceptual Reclamation and Closure Plan. End land use will be identified in the reclamation and closure plan.</p> <p>A Human Health and Ecological Risk Assessment will be included in the Application/EIS. Country Foods will be added as a VC to specifically address concerns related to dust deposition on surrounding terrain.</p>

None of the issues received identified the Kinder Morgan pipeline as a Land and Resource Use VC concern; however, the EAO/CEA Agency have directed the Proponent to include the existing pipeline in the effects assessment. As well, the EAO and CEA Agency have stressed the need to incorporate considerations related to local land and resource planning documents/processes (Kamloops Official Community Plan, Thompson Nicola Regional District plans, etc.) in this section of the Application/EIS as well as in Section 2 of the Application/EIS (Project Land Use)

Concerns relating to recreational use of the surrounding area will be assessed under a new VC entitled Outdoor Recreation, as it was identified through engagement with the EAO and CEA Agency that the topic is of sufficient concern to warrant a separate presentation.

3.3.3.6 Jacko Lake VC

The EAO/CEA Agency originally directed the Proponent to assess Jacko Lake as a VC, based on input from the Technical Working Group. Treatment as a stand-alone social VC, however, is problematic given the challenge of assessing the significance of an intangible issue – that being the perception of the effect

of the proposed mine on Jacko Lake. Currently the effects of the proposed mine on Jacko Lake will be assessed in terms of several Environmental (Surface Water Quality and Quantity; Groundwater Quantity; Fish and Fish Habitat), Social and Economic (Economic Growth; Economic Diversification; Community Health and Well-Being; Visual Impact/Aesthetic Features), and Human Health (Country Foods) VCs. The Proponent therefore proposed that Jacko Lake be discussed as a “supporting topic” within the Application/EIS. Jacko Lake as a supporting topic will serve as a summary discussion of the lake in the context of the other VCs and allow the reader to refer to a single section for all issues related to Jacko Lake. An overview of the importance of the lake based on key person interviews will also be included, with a discussion on the perceived effects to the lake.

3.3.3.7 Visual Impact/Aesthetic Features

The concerns frequently identified in relation to the Visual Impact/Aesthetic Features VC and Proponent responses are summarised in Table 21.

Table 21 Visual Impact / Aesthetic Features VC Key Concerns

Key Issues	Summary of Proponent Responses
Lack of physical 3D model to conduct a visual quality assessment	The visual impact assessment will rely upon computer modelling from viewpoints selected in consultation with the City of Kamloops and the TNRD, and conceptual drawings. KGHM Ajax has had a 3D model of the project site constructed; the model is available in the KGHM Ajax office in downtown Kamloops.
Impact on city image	The assessment will include a consideration of potential impacts of the Project on Kamloops tourism and recreation, perceptions of the City, and community development and planning, a component of which would be a visual impact study. The assessment will consider visual aesthetics, noise and vibrations in the context of community health and well-being using standard methodologies.

Assessment of the potential visual impact of the proposed project will include consideration of changes to the view-shed and consideration of potential changes associated with shading resulting from proposed mine features. Assessment of the Visual Impact/Aesthetic Features VC will incorporate discussion from other VCs such as Outdoor Recreation, Economic Diversification (e.g., tourism) and others as appropriate.

3.3.4 Health Assessment Category

No issues were received relating to the Health Education and Healthy Living VCs; therefore it will not be discussed in this Summary Document. The two VCs will be amalgamated into a single VC called Healthy Living and Health Education in the Application/EIS. A new VC entitled Country Foods was added to the final AIR/EIS Guidelines in the human Health Assessment Category in response to public and TWG concerns related to potential effects dust deposition on the surrounding terrain, including backyard gardens.

3.3.4.1 Air Quality

Public Concerns

The public identified several key issues related to air quality. These key issues and Proponent responses are summarised in Table 22. Due to the size limitations of the Microsoft Excel spreadsheet cells and the complexity of the explanation of how the Proponent will assess the potential effects of the proposed mine on air quality in the Application/EIS, supplementary information on the modelling plan and the parameters that will be modelled is provided following Table 22 in this Summary Document.

Table 22 Air Quality VC Key Concerns

Key Issues	Summary of Proponent Responses
Dust deposition on property values	Results of air quality dispersion modelling will be used in the effects assessment for the Property Values VC.
Location of weather stations used for air quality modelling	It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology using the CALPUFF modelling program. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. These CALMET data are based on surface measurements at four locations in the airshed and upper air data and were supplied by the BC Ministry of Environment.
Alternative project design to mitigate dust on private property	Project design alternatives will be presented in Section 17.4 of the Application/EIS. Mitigation measures will be included in Section 3 (Project Description) for each of the project components and activities. The technically and economically feasible ways that the proposed Project could be implemented will be provided. The rationale for siting the waste rock management facilities as proposed will be discussed.
Chemical composition of fugitive dust arising from the site	<p>The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment.</p> <p>Potential effects of the mine on the safety of food from backyard gardens, in particular the effects of fugitive dust, was identified as a concern in the public issues. A HHERA will evaluate potential metal uptake from dustfall into locally grown produce and forage and from forage into locally raised livestock. Assessment of metal concentrations in locally grown produce is intended as part of the baseline study, and could, if necessary be continued during operations if the HHERA identifies potential concerns related to produce consumption.</p> <p>The composition of the particulates will be determined based upon a list of substances detected in test results provided by KGHM Ajax Mining Inc. A sub-set of parameters, selected by the project toxicology based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants will be modelled.</p>

Key Issues	Summary of Proponent Responses
Respiratory illness in humans	<p>A HHERA will assess potential health effects based on the predicted incremental change in overall air quality (not on total air quality). The HHERA will evaluate exposure to particulate matter that may be released as a result of mining operations and assess the potential health effects that could be associated with these exposures in the context of local pre-existing air quality. Where necessary, attention will be given to potential interactions between specific particulates and biological systems. The HHERA will determine the likelihood that the levels of mine-related particulates represent potential concerns for sensitive members of the population.</p> <p>The list of metals and other chemicals of potential concern associated with the mining operations will be listed in the HHERA documents. The toxicological benchmarks used to evaluate potential human health effects associated with exposures to materials associated with mine activities, will be taken from Health Canada.</p>
Magnesium and chloride	<p>Design details regarding dust suppression for various activities and mine components will be provided in the Project Description section of the Application/EIS.</p>
Air quality monitoring	<p>If the Ajax Project receives regulatory approval, the number, placement, and specifications of the air quality monitoring program will be developed with the BC Ministry of Environment as a condition of any discharge permits.</p>
Strong winds	<p>Dispersion modelling will be used to predict the composition and quantity of particulate matter in various parts of the City. These levels will be evaluated against provincial or federal standards and guidelines to ensure that exposures do not result in deleterious effects. The application of mitigation measures will ensure that these effects are not meaningful in terms of the human, ecological, and health outcomes.</p>

Air Quality Dispersion Modelling

The EA for the proposed project requires that the Proponent conduct an air quality assessment consistent with the “Guidelines for Air Quality Dispersion Modelling in British Columbia” (BC Ministry of Environment, 2008). The guidelines call for development of a Detailed Model Plan and Air Quality Technical Data Report. The model plan sets out the steps to follow in completing the assessment, including delineating the size of the modelling area and the parameters that will be modelled. The plan is submitted for approval to the regional Ministry of Environment (MOE) Air Quality Meteorologist prior to initiation of the study.

The guidelines describe air quality dispersion models as “mathematical descriptions of the behaviour of air contaminants in the atmosphere” (BC MOE, 2008). Dispersion models have been developed for a wide range of terrain and land surface conditions which result in “complex flow” and dispersion patterns; CALPUFF is one of the core refined models recommended for use in BC (BC MOE, 2008). The following explanation of the program can be found in the guidelines:

“CALPUFF is a modelling system comprised of three component submodels: CALMET (meteorological model), CALPUFF (calculates output), CALPOST (analysis and display of output). The meteorological

fields used by CALPUFF are produced by CALMET — a meteorological model that includes a diagnostic wind field model. This model contains treatments of slope flows, valley flows, terrain blocking effects, kinematic terrain effects (i.e., speed up over hills), lake and sea breeze circulations, and a procedure to insure mass is conserved in the domain. CALMET inputs include surface and upper-air meteorological data as well as the option to use the gridded meteorological fields produced by mesoscale meteorological models.”

The following explanation of CALMET, a diagnostic three-dimensional meteorological model, can be found in the guidelines (BC MOE, 2008):

“The meteorological fields used by CALPUFF are produced by CALMET — a meteorological model that includes a diagnostic wind field model. This model contains meteorological model that includes a diagnostic wind field model. This model contains treatments of slope flows, valley flows, terrain blocking effects, kinematic terrain effects (i.e., speed up over hills), lake and sea breeze circulations, and a procedure to insure mass is conserved in the domain. CALMET inputs include surface and upper-air meteorological data as well as the option to use the gridded meteorological fields produced by mesoscale meteorological models.”

Levelton Consultants Ltd. was retained in 2008 by BC MOE to conduct the CALMET modelling work: their report provides detailed modelling setup and results analysis at selected locations within the CALMET domain. To better understand the model performance, quality assurance/quality control (QA/QC) was performed for the full three year CALMET dataset.

In accordance with the guideline, the CALPUFF Version 6.112, and CALMET Version 5.8, will be used. The guidelines dictate that a Level 3 assessment is appropriate for the proposed mine, since multiple sources will be evaluated.

Not all project components result in substantial emissions to the atmosphere, or emit substances that are meaningful from a human or ecological health perspective. Therefore, the planned dispersion assessment considers only those sources and substances of interest for which effects are reasonably contemplated, including:

- Diesel exhaust from haul trucks and other heavy equipment;
- Fugitive dust from access and haul roads;
- Dust mechanically induced by traffic;
- Fugitive dust from conveyances and transfer points;
- Fugitive dust from land areas such as the Ajax open pit, the TSF, and the waste rock management facilities; and
- Dust and other emissions from blasting.

Project emissions will be calculated using published emission factors and facility engineering design estimates. Where filterable and condensable particulate fractions are present and included in the published emission factors they will be considered in the modelling exercise.

The CALPUFF modelling domain (the domain where air quality impacts will be assessed) is shown in the AIR. Justification for the chosen domain area will be included in the Application/EIS. The substances of interest (Criteria Air Contaminants) emitted from Project emission sources that will be included in dispersion modelling for all “gridded receptors” (locations identified in the model plan based on input from the TWG) in the modelling domain are:

- Total Dustfall;
- Total Suspended Particulate Matter;
- Inhalable Particulate Matter;
- Respirable Particulate Matter;
- Sulphur Dioxide;
- Total Oxides of Nitrogen; and
- Carbon Monoxide.

These substances of interest were selected based upon the estimated quantities of the substances that could be emitted from the proposed mine, and previous experience with similar projects. “Background” values will be derived from ambient air quality measurements and added to modelled concentrations to approximate the additive effects of the modelled source and sources not included in the modelling (e.g., other industries, traffic emissions, natural sources). Cumulative levels will be provided (background plus the predicted increment from the modelled emission).

The substances of interest emitted from Project emission sources that will be included in dispersion modelling only at discrete “special receptors” include:

- Metals in Dustfall and Total Suspended Particulate Matter:
 - Antimony;
 - Arsenic;
 - Cadmium;
 - Cobalt;
 - Copper;
 - Lead;
 - Mercury;
 - Molybdenum;
 - Nickel; and
 - Selenium.
- Polynuclear Aromatic Hydrocarbon species expressed as Benzo (a) Pyrene (B(a)P) equivalent.

These substances were selected because they were present in test results and because there is the potential for human exposure or uptake into plants from the mobile portion of the substances. These substances will be modelled to produce output suitable for the Country Food VC analysis. The locations

of the special receptors were identified by the toxicologists performing the Country Foods assessment and include:

- Sensitive ecosystems (e.g. a lake);
- Nearby homes; and
- Places frequented by sensitive sub-populations of the community (e.g., children, the elderly, and those under medical care, such as schools, medical treatment facilities, daycare facilities, and retirement homes).

The BC MOE has stated that any Ozone and Secondary PM_{2.5} formation will occur far outside the modelling domain, by which time they will be sufficiently dispersed and of no concern. Therefore, Ozone and Secondary PM_{2.5} will not be modelled in this assessment.

The Air Quality Technical Data Report results will be included in the Application/EIS and, in addition to supporting the Country Foods VC assessment will inform other Environmental, Social, Economic and Heritage VCs as required.

3.3.4.2 Noise and Vibration

Public Concerns

The public identified several human health issues related to noise and vibration. These key issues and Proponent responses are summarised in Table 23. Due to the size limitations of the Microsoft Excel spreadsheet, and the complexity of the explanation of how the Proponent will assess the potential effects of the proposed mine on noise and vibration levels, supplementary information on the modelling plan and the parameters that will be modelled is provided following Table 23 of this Summary Document.

Table 23 Noise/Vibration VC Key Concerns

Key Issues	Summary of Proponent Responses
Property values in surrounding areas	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement will be assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified with project components or activities. Monitoring strategies will be proposed where residual effects are predicted.
Quality of life in surrounding areas	Effects pathways will be included in the Application. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects. The Proponent cannot guarantee that no noise will be heard at nearby residences. The Application will discuss the effectiveness of noise mitigation measures from all project activities. A noise complaint response and resolution policy will be established and implemented as part of the environmental management system.

Key Issues	Summary of Proponent Responses
Noise study methodology	<p>A Detailed Noise Modelling Plan has been developed to guide the noise impact assessment for the proposed project. In regard to assessing the effects of noise, the EAO typically references Health Canada Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise (2011) and occasionally BC Oil & Gas Commission Noise Control Best Practices Guideline (2009). The noise assessment will cover a broad area with a wide array of residential receptors ranging from urban and suburban to rural and quiet rural locations.</p> <p>Effects pathways will be included in the Application. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects. The results for blasting noise and vibration assessment will include: airblast overpressure (noise) and peak particle velocity (ground vibration) predictions for the nearest and most critical residential receptors. The noise assessment will include mobile equipment off the mine site, including the impact of trucks traveling on Lac Le Jeune Road and subsequent impacts on area residents and livestock.</p>
Vibration effects on human health	<p>The AIR will include a more detailed explanation of the methodology for the assessment of potential vibration effects, including the guidance documents or standards used in development of the methodology. The vibration effects assessment will include discussion of the radius in which vibration will be measureable.</p> <p>Effects pathways will be included in the Application. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects. The results for blasting noise and vibration assessment will include: airblast overpressure (noise) and peak particle velocity (ground vibration) predictions for the nearest and most critical residential receptors.</p>
Test blast size	<p>It is not feasible to conduct a "full size operational blast" prior to operation. Modelling is sufficient to predict blasting peak particle velocity and air overpressure. Vibration characteristics can be accurately related to the charge weight and distance - such a relationship is site specific and can be used to model blast vibrations from a production blast at the same site. From the recorded waveforms, the ground resonant frequency and the range of vibration frequencies that the ground supports can be estimated.</p>
Blasting schedule	<p>It is currently anticipated that blasting will occur once per day, at around noon, coinciding with shift change. The Application will include discussion of mitigation measures the Proponent is prepared to take to avoid or minimize significant adverse effects. Alternate blasting schedules will be discussed in the Application/EIS.</p>
Vibration effects on Kinder Morgan pipeline, Jacko Lake	<p>Vibration effects from blasting on existing infrastructure, including the Kinder Morgan pipeline and the outlet dam on Jacko Lake will be assessed under the Geology, Landforms and Soils VC.</p> <p>The following plans presented in Section 11 of the dAIR will be included in corresponding sections of the Application/EIS to reduce and manage the risks of</p>

Key Issues	Summary of Proponent Responses
	impacts on existing infrastructure: <ul style="list-style-type: none"> • Hazardous Waste Management Plan • Accidents and Malfunctions Plan • Natural Hazards Management Plan • Emergency Response Plan • Fire Hazard and Abatement Plan

Noise and Vibration Assessment Methodology for Human Health

The noise assessment described in this document will cover a broad area with a wide array of residential receptors ranging from urban and suburban to quiet rural locations. A Detailed Noise Modelling Plan has been developed to guide the noise impact assessment for the proposed mine. Health Canada originally provided the “Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise” (Health Canada, 2011) and recommended it as the primary guidance document for acceptable methodologies and evaluation of human health effects due to noise (including blasting). The BC Oil & Gas Commission (OGC) Noise Control Best Practices Guideline (BC Oil and Gas Commission, 2009) is also used for similar projects. The two guidelines differ fundamentally in approach. The Health Canada guidance represents an annoyance based criteria where an incremental increase in noise levels is said to incrementally increase the percentage of the population that is “highly annoyed” (%HA). The project is deemed acceptable if such an increase in %HA is less than 6.5% at all receptors. Health Canada, however, advises that using this measure alone may not be predictive of possible human health effects, i.e., the change in %HA may not exceed 6.5% but the receptors may experience sleep disturbance. The BC OGC Guideline represents the threshold based criteria where maximum cumulative noise levels at the receptors are prescribed; the assessments in accordance with the guideline may be more predictive of possible human health effects. Both documents address the issue of low frequency noise. The noise effects study will be performed in accordance with the recommendations and requirements of both Health Canada and BC OGC guidelines to ensure a comprehensive assessment.

The major activities associated with the noise assessment include:

- Review mine/site plans, equipment lists, information from major equipment vendors, and topographical data for the area around the mine.
- Identify all noise sensitive receptors around the mine including the urban and suburban residential locations in the City of Kamloops and the rural residences to the east, south and west of the site.
- Establish noise assessment criteria and targets for all residential receptors.
- Identify modelling scenarios (operation and construction) that will reflect the worst case scenario in terms of noise emissions.
- Identify all substantial noise sources associated with the proposed mine for the modelling scenarios and establish corresponding sound power levels.
- Measure existing ambient sound levels at selected receptors and develop a map for ambient sound levels.
- Develop an acoustic model for the mine and surrounding area for each modelling scenario.
- Assess the effects of the proposed mine on the acoustic environment and assess noise emissions for compliance with noise limits.

- Provide noise mitigation and noise management recommendations, where effects are predicted.
- Assess the effects of blasting activities on the acoustic environment.

The model will assess the effects of blasting on the acoustic environment at the proposed mine site. The blasting assessment will be performed for the worst case as identified in consultation with KAM. The blast assessment will focus on airborne effects (air-blast overpressure, (noise)) and ground-borne effects (peak particle velocity (vibration)). The blast model will assess these effects on the area residences for possible disturbance. Recently collected field data from the test blasts will be used to validate the model.

The baseline sound level measurements associated with the project will be consistent with ISO 1996-2:2007. Acoustics – Description, measurement and assessment of environmental noise –Part 2: Determination of environmental noise levels. The blasting noise and vibration assessment will be performed in accordance with the Ontario Ministry of Environment Model Municipal Noise Control By-Law, Noise Pollution Control, Section 119 (NPC-119) (1978). The assessment will compare the predicted levels to the Ontario Ministry of Environment guidelines as outlined in NPC-119. Depending on the modelling results, periodic blast monitoring may be performed.

Under the BC OGC Guideline ambient sound levels are calculated on the basis of dwelling density and proximity to transportation, since ambient sound levels are largely a function of dwelling density and proximity to busy roadways, which can be reasonably estimated. Health Canada Guidance advises that measured or valid estimates of baseline (ambient) sound levels for both daytime and nighttime hours at receptor locations be assessed and reported. For the proposed mine, establishment of baseline sound levels will be done through a combination of longer-term continuous monitoring (24 to 48 hours in duration) at two representative locations; shorter duration spot measurements (10 to 15 minutes in duration) at numerous locations; and estimated default levels in accordance with the BC OGC Guideline.

Predictive noise modelling will be carried out using the CadnaA computer software by Datakustik GmbH, which is designed to predict outdoor noise in accordance with International Organization for Standardization (ISO) 9613 Parts 1 and 2: Attenuation of Sound During Propagation Outdoors (ISO 9613), as well as several international and European acoustic standards. On a broad-band basis, the ISO 9613 calculation standard is accurate to within ± 3 dBA for propagation distances of up to 1 km and source heights of up to 30 m. The ISO 9613 standard is common among noise practitioners and has been subjected to years of scrutiny. Noise sensitive receptors will be established at locations shown in the AIR. If the effects of blasting are predicted to cause some disturbances, mitigating measures will be proposed.

SECTION 4.0 - AIR/EIS GUIDELINES REVISION

Based on the concerns noted in the 345 submissions received during the 75 day public comment period, and engagement with the EAO, CEA Agency, and members of the TWG the Ajax Project AIR/EIS Guidelines has been revised to ensure that key concerns are addressed in the Application/EIS. Table 24 lists both the VCs that were included in the draft AIR/EIS Guidelines and those that are included in the final AIR/EIS Guidelines.

The Proponent will proceed with completing the studies outlined in the final and approved AIR/EIS Guidelines, and present the results in an Environmental Assessment report. The Environmental Assessment will be submitted as both an Application for an Environmental Assessment Certificate for provincial review and an Environmental Impact Statement for federal review.

Table 24 Preliminary and Final VCs for the Ajax Project

Assessment Category	Valued Component AIR Rev D	Valued Component Final AIR
Environment	Climate	Greenhouse Gas Management ²
	Geology, Landforms and Soils	Geology, Landforms and Soils
	Surface water quality	Surface water quality
	Surface water quantity	Surface water quantity
	Groundwater quality	Groundwater quality
	Groundwater quantity	Groundwater quantity
	Fish populations and fish habitat	Fish populations and fish habitat
	Rare plant VCs	Rare plants
	Rare and Sensitive Ecological Communities	Rare and Sensitive Ecological Communities
	Terrestrial Invertebrate VCs	Grasslands ³
	Amphibian VCs	Terrestrial Invertebrates
	Reptile VCs	Amphibians
	Migratory Bird VCs	Reptiles
	Raptor VCs	Migratory Birds
	Non-migratory Gamebird VCs	Raptors
	Bat VCs ¹	Non-migratory Gamebirds
	Mammal VCs	Mammals
Economic	Labour force ⁴	Economic Growth
	Education and training ⁴	Labour force, Employment and Training
	Income	Income
	Employment ⁴	Business
	Business	Property Values ³
	Cost of living ⁵	Economic Diversification
	Housing	
	Infrastructure ⁶	
Social	Economic Diversification	
	Culture ³	Community Health and Well-Being
	Community health and well-being	Infrastructure, Public Facilities and Services
	Public facilities and services, including transportation ⁶	Dark Sky
	Dark sky/Shading ⁷	Visual Impact/Aesthetic Features (including Shading)
	Land and Resource Use	Land and Resource Use
		Outdoor Recreation ³
Heritage	Visual Impact/Aesthetic Features	
	Jacko Lake	
	Aboriginal community interests ⁸	
	Heritage objects	Heritage Objects
Health	Heritage sites	Heritage Sites
	Air quality (Dustfall, PM ₁₀ and PM _{2.5})	Air Quality
	Water quality	Domestic Water Quality ²
	Noise and vibration	Country Foods ³
	Health education ⁹	Noise and Vibration
Healthy living ⁹	Health Education and Healthy Living	

1	Combined with Mammals	6	Combined into Infrastructure, Public Facilities and Services
2	Renamed	7	Shading assessed as part of Visual Impact/Aesthetic Features
3	New VC	8	No longer a VC but assessed in alternate section of EA
4	Combined into Labour force, Employment and Training	9	Combined into Health Education and Healthy Living
5	Combined with Income		

SECTION 5.0 - REFERENCES

- Environmental Assessment Office. 2011. British Columbia Government Website:
Available at: http://www.eao.gov.bc.ca/ea_process.html.
- Health Canada. 2011. Guidance for Evaluating Human Health Impacts in Environmental Assessment:
NOISE. April 2011.
- BC Oil & Gas Commission. 2009. British Columbia Noise Control Best Practices Guideline. March 2009.
- ISO 1996-2:2007. Acoustics – Description, measurement and assessment of environmental noise – Part
2: Determination of environmental noise levels.
- Ministry of Environment. 1997. Methods for Deriving Site-Specific Water Quality Objectives in British
Columbia and Yukon. Environmental Protection Division.
- Ministry of Environment. 2008. Guidelines for Air Quality Dispersion Modelling in British Columbia.
Environmental Protection Division.
- Ontario MOE. 978). Model Municipal Noise Control By-Law, Noise Pollution Control, Section 119 (NPC-
119).
- World Health Organization. 2012. Electromagnetic fields (EMF).
Available at: <http://www.who.int/peh-emf/en/>.

AJAX PROJECT

AIR/EIS Guidelines Agency Comments - Revisions C and D

Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C1	Fisheries and Oceans Canada (DFO)	General	Jeff Guerin		As a general comment, all sampling programs should be completed, at a minimum, to provincial Resources Information Standards Committee (RISC) standards	RISC guidelines will be adopted.		
C2	TNRD	General	Dan Wallace		We wish to underscore the need for the proponent to work towards compliance with the City and Regional District's long-range planning objectives for these areas. We continue to believe that with some additional forethought and discussion that those critical components of the project that will have the greatest impacts can be creatively redesigned or relocated to minimize or avoid some impacts noted in this application.	The proponent will continue to work with the City and the Regional District in order to meet long range planning objectives and minimize negative impacts wherever possible.	The dAIR is intended to specify the proponent's requirements for the eventual studies and analyses to be included in the Application. The Application will include a thorough effects assessment of the potential impacts of mining activities on surface (Sections 6.3 and 6.4) and sub-surface (Sections 6.5 and 6.6) water sources, including both Jacko and Inks Lake.	Please see Section 2.6 of the dAIR which currently states "KAM commits to providing the following information in the Application" ... "A description of any Thompson Nicola Regional District (TNRD) Official Community Plans, guidelines, and bylaws as they relate to the Project."
C3	Forests, Lands and Natural Resource Operations (FLNRO)	General	Phil Belliveau		5. Regional FLNRO biologists were not contacted by the proponent nor consultants prior to the agency meeting April 27, 2011, and there has been very little discussion since. It is very likely that earlier contact would have influenced the baseline studies and may have addressed some of our concerns with the dAIR. I trust that there will be more dialogue in the future.	The proponent's wildlife consultant has communicated with biologists Doug Jury and Francis Iredale, beginning in 2008, in regards to amphibians, grouse, Lewis' Woodpecker and general wildlife values within the study area. Regional Ecologist Mike Ryan has also been helpful regarding ecosystems of the study area. We look forward to continuing discussions with Ministry biologists. Contact will be directed through the Ecosystems Section Head Phil Belliveau.		
C4	Canadian Environmental Assessment Agency (CEAA)	Document Heading	Lyle Thompson		Please continue to refer to both dAIR/EIS Guidelines throughout the document.	Text will be revised to include reference to the EIS Guidelines in association with the dAIR		
C5	Forests, Lands and Natural Resource Operations (FLNRO)	Table of Contents	Phil Belliveau		The numbering of the sections in the table of contents is inconsistent with the AIR template. Is there a logical reason for this? As well, changes like this may lead to confusion when subsequent iterations of the dAIR are released.	The preliminary dAIR was submitted to the EAO and CEAA agency for discussion prior to being referred to the Working Group members. Several changes were requested to make the document flow better - EAO agreed to the proposed changes pending further review. The layout of the Application/EIS will follow that of the final AIR/EIS Guidelines to prevent confusion.		
C6	Natural Resources Canada (NRCAN)	Preface	Minerals and Metals Sector		p. I: Missing reference to likely requirement for a licence under the Explosives Act as a trigger under Section 5 of the CEAA.	The likely requirement for a licence under the Explosives Act as a trigger under Section 5 of the CEAA will be included in this section of the revised dAIR/EIS Guidelines.		
C7	Environment Canada (EC)	Preface	Stephen Sheehan		Page 1 of Preface, 1st paragraph, Purpose: mentions BCEA process and federal EA process, then gives detail on BC process but does not give detail on federal process. A sentence clarifying how the federal mandate requirements are addressed in the AIR would be useful.	Clarification regarding the federal mandate and process will be added to the preface of the dAIR / EIS Guidelines		
C8	Environment Canada (EC)	Preface	Stephen Sheehan		Page 1, 3rd paragraph in Project Description should start "The proponent proposes that ore and waste . . . ". In general, care should be taken not to imply that the project description is what will be accepted or is the option that will occur.	The proponent will take care to present the Ajax Project as a proposal for consideration throughout the dAIR.		
C9	Natural Resources Canada (NRCAN)		Minerals and Metals Sector		pg. II: Explosives components to be confirmed through further discussion between Proponent and NRCAN-Explosives Regulatory Division.	Noted. Discussion is ongoing between the proponent and NRCAN-Explosives Regulatory Division.		
C10	Fisheries and Oceans Canada (DFO)	Preface to the AIR - page III of III	Jeff Guerin		I have not seen the spelling used by the proponent (NiAkapxm) for the Niaka'pamux Nation. I am not sure if the Ashcroft Band is currently associated with the NNTC. In the past, they have been members of the NNTC and they have also been independent of the Niaka'pamux tribal associations. It is my understanding that the Ashcroft Band is currently in the midst of once again withdrawing from the NNTC. While the Lower Nicola Indian Band are an Niaka'pamux people, it is my understanding that this band used to be a member of the Nicola Tribal Association (not the NNTC) but is now also independent of both tribal groups. The current status of each Band should be confirmed directly with the Bands.	Thank you for the comment - the current status of each Band will be confirmed. The spelling used was from the Ashcroft Band website. The proponent will follow up directly with the Ashcroft Band to ensure proper spelling.		
C11	City of Kamloops	Preface to the AIR	Jen Fretz		1. Page III of V a) Third paragraph under "Development of the AIR" - the project location should be measured directly from the nearest house and neighbourhood (measured as a straight line distance) as well as from the urban growth boundary (again, measured as a straight line distance).	The Application/EIS will include maps showing the project infrastructure relative to community and planning boundaries.		
C12	Environment Canada (EC)	Preface	Stephen Sheehan		Page 3, 4th paragraph in Development of the AIR The Ashcroft Indian Band, near Ashcroft and Cache Creek, and the Lower Nicola Indian Band, near Merritt, are both part of the NiAkapxm Nation Tribal Council.	This information was included in Rev C of the dAIR and will be expanded on in the following revision of the dAIR/EIS Guidelines and Application/EIS.		
C13	Environment Canada (EC)	Preface	Stephen Sheehan		Page 3, list of government agencies and community groups should include: Lower Nicola Indian Band Ashcroft Indian Band	This information was included in Rev C of the dAIR and will be expanded on in the following revision of the dAIR/EIS Guidelines and Application/EIS.		
C14	City of Kamloops	Preface to the AIR	Jen Fretz		2. Page IV of V a) No mention of the City of Kamloops in the list of government/community agencies who were consulted during the development of the AIR. b) Second paragraph regarding public open houses - will there be more information coming or discussion around the format, location and number of future public open houses?	a) The City of Kamloops will be included in the list of government/community agencies consulted during the development of the AIR. (b) The EAO and CEAA processes dictate the number and format of open houses. The results of public input will be discussed in the Application/EIS, but planning information regarding the logistics, etc. of those public input opportunities fall outside of the Application/EIS, and therefore will not be detailed in the dAIR/Draft EIS Guidelines. The proponent will defer to the EAO and CEAA Agency to direct communications regarding public input opportunities.	Section 4.4.1 of the Application will outline consultation activities with the public, key stakeholders, and local government and document any issues and concerns expressed during the pre-application period. The Community Consultation Plan will be included as an appendix to the Application. Section 4.4.2 of the Application will describe the public, stakeholder, and government agency consultation programs proposed for the Application review stage. The section will also document the proposed methods and process to resolve outstanding issues.	
C15	Canadian Environmental Assessment Agency (CEAA)	Preface to the AIR	Lyle Thompson		Provide clarification about the terminology around dAIR vs. EIS Guidelines and Application vs. EIS and carry terminology throughout the document.	Clarification about the terminology around dAIR vs. EIS Guidelines and Application vs. EIS will be provided in the revised dAIR and the terminology will be carried throughout the document.		
C16	Canadian Environmental Assessment Agency (CEAA)	Development of the AIR	Lyle Thompson		As with the description of the Tk'emlups and Skeetchestn, should note why the Ashcroft and Lower Nicola bands are being consulted.	This information will be provided in the revised dAIR/EIS Guidelines.		
C17	Canadian Environmental Assessment Agency (CEAA)	Development of the AIR	Lyle Thompson		When referring to consultation, interests, etc., the term "First Nation" should be replaced with "Aboriginal group". Aboriginal group includes Metis, whereas First Nation does not. The only time that "First Nation" should be used is when the document is exclusively referring to First Nations (e.g. only First Nations, not Métis). Please update throughout the document.	The proponent will accommodate this request in the document.		
C18	Transport Canada (TC)	Development of the AIR	Suzanne L'Heureux		The CEAA Agency has confirmed there are no aboriginal groups identified that have existing treaty rights within the study area. To reduce the potential for misinterpretation, it is suggested that all references to "treaty" and "treaties" be removed from the dAIR	The proponent will accommodate this request in the document.		
C19	Environment Canada (EC)	List of Figures	Stephen Sheehan		A list of maps that will be included in the application should be listed within the list of figures.	It is currently the format of the dAIR that supporting graphics (Charts, drawings, maps) are considered Figures and are therefore listed already. Photo plates and tables are listed separately. The proponent remains open to discussing this formatting option with Environment Canada to ensure it is appropriate.		
C20	Environment Canada (EC)	List of Acronyms	Stephen Sheehan		The Metal Mining Effluent Regulations (MMER) should be included within the list of acronyms. In general, the application should demonstrate the proponent's knowledge of the MMER and discuss how the project will comply. Also, the application should discuss whether the proposed tailings impoundment affects fish habitat and whether the proponent will request a MMER Schedule 2 amendment.	MMER will be included in the list of acronyms. The Application/ EIS will incorporate MMER requirements, and will note that an MMER Schedule 2 amendment will not be requested for the tailings facility, as it will be located away from fish-bearing waters.		
C21	Transport Canada (TC)	Executive Summary	Suzanne L'Heureux		The residual effects should be summarized before the potential cumulative impacts.	The proponent will accommodate this request in the document.		
C22	Natural Resources Canada (NRCAN)	Part A	Minerals and Metals Sector		p.1: Missing reference to likely requirement for a licence under the Explosives Act as a trigger under Section 5 of the CEAA.	The likely requirement for a licence under the Explosives Act as a trigger under Section 5 of the CEAA will be included in this section of the revised dAIR/EIS Guidelines.		
C23	Canadian Environmental Assessment Agency (CEAA)	1.0 - Purpose of the Application Information Requirements	Lyle Thompson		Describe the federal process similar to the provincial process described in the PURPOSE OF THE APPLICATION INFORMATION REQUIREMENTS section.	This information will be provided in the revised dAIR/EIS Guidelines.		The AIR document has been updated in accordance with the Issues and Direction document dated 12/19/2012.

AJAX PROJECT
AIR/EIS Guidelines Agency Comments - Revisions C and D

Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C24	City of Kamloops	2.0 - Project Overview, Section 2.2	Jen Fretz		1. Page 3 (Section 2.2) a) Location of proposed project should include distance to nearest home and urban growth boundary (both measured as a straight line distance). b) Description of on-site and off-site infrastructure should include power line details (location, voltage, etc.). Please reference our July 11, 2011 letter (Section G1 of that letter) regarding the details of the power line we would like addressed.	a) The Application/EIS will include maps showing the project infrastructure relative to community and planning boundaries. (b) Description of on-site and off-site infrastructure will include power line details (location, voltage, etc.) in the revised dAIR/EIS Guidelines.	(i) Communication between the Ajax site substation and the BC Hydro substation will be via ADSL single fiber optic cable. The dAIR has been revised to include communication in the list of power supply details to be presented in the Application. (ii) The transmission line is included in the study area for all terrestrial wildlife components (Sections 6.7 to 6.17). All aspects of the proposed Project will be included in the effects assessment for each of the VCs. (iii) Details of the electrical design and mitigation measures will be provided in the Application. (iv) Aesthetic impacts of the transmission line will be assessed (section 8.7)	
C24 continued							(v) Electric and magnetic fields are invisible forces that exist close to the lines where electric current flows, including power lines and cables, and electrical appliances. Fields are strongest close to the source (e.g. power line) and decrease in strength rapidly with distance (Health Canada, 2010). Electric and magnetic fields produced by transmission lines fall under the category of extremely low frequency (frequency below 300 Hz). A significant amount of information is available in peer-reviewed literature documenting health risks associated with exposure to ELF EMF. According to research conducted by the International Agency for Cancer (IARC, 2001), evidence of increased cancer in humans and leukaemia risk in children is very weak. According to Health Canada (2010), no conclusive evidence exists indicating that there are any negative human health effects caused by exposures to electric and magnetic fields at levels found in Canadian homes and schools, including those located just outside power line corridors. Because no conclusive scientific evidence exists, Health Canada does not consider guidelines for the Canadian public necessary. The approximately 9 km of 230 kV transmission line of the Ajax project is proposed to follow the property boundaries of rural lots. No residences will be in direct proximity of the transmission line and associated right of way. Taking all this into consideration, the Proponent does not believe an assessment of the impacts of the proposed transmission line and its associated electric and magnetic fields is necessary for the Project. References: Health Canada. (2010). Electric and Magnetic Fields at Extremely Low Frequencies. Retrieved August 21, 2012: http://www.hc-sc.gc.ca/hl-vs/lyh-vsv/environ/magnet/	
C24 continued							(vi) The effect of the transmission line on property values will be assessed in the Application (vii) Details of the construction method of the transmission line and substation including the grounding scheme will be provided in Section 3.15. Construction activities will be included in the effects assessment for all VCs. The project general arrangement with a scale will be included in the Application; a description of the distance of project facilities to nearby homes can be provided. The LSA in Figure 6.8-1 will be revised to include the power line alignment with a buffer of 500 metres.	The power line will be included in the effects assessment for relevant social and economic VCs (e.g., housing/property value, infrastructure, land and resource use).
C25	City of Kamloops	Section 2.5	Jen Fretz		2. Page 4 (Section 2.5) a) We anticipate that alternate means of undertaking the proposed project will include discussion around whether or not the waste rock facilities can be relocated further south than their proposed location (i.e. on the south side of Peterson Creek).	The dAIR/EIS Guidelines will include location of the waste rock facilities in the discussion of alternate means of undertaking the proposed project		
C26	City of Kamloops	Section 2.7, Section 2.8	Jen Fretz		3. Page 5 (Section 2.7) a) Employment estimates should definitely include a breakdown of the number of people hired locally, provincially, nationally or internationally. Right now, the section indicates "if applicable". b) (Section 2.8) – Applicable permits should include local government requirements.	(a) The phrase "if applicable" will be removed from the text. (b) The requirement for local government permits will be noted.		
C27	Forests, Lands and Natural Resource Operations (FLNRO)	(2.0 Project Description) 2.2 - Proposed Project Description	Phil Belliveau		The dAIR template requires that the dAIR include the detailed information describing the project. The proponent has deviated from this and is instead, including this information in the Application. My concern with this is two-fold: 1. The more information that can be reviewed and commented on at the AIR stage, the less onerous the Application review will be. 2. The proponent may already have this information and can readily include this in the dAIR. If so, please include in the AIR. Section 2.2 should also include maps with the following spatial layers: parks and protected areas, legislated habitat areas (Land Act, Forest and range Act, Wildlife Act - such as old growth management areas, wildlife conservancies, wildlife habitat areas), grasslands, and critical habitats such as wetlands and riparian areas.	The dAIR/EIS guidelines will be revised to include a project description; we propose that this is provided in Section 3 as the document is currently organized.		
C28	Forests, Lands and Natural Resource Operations (FLNRO)	Table of Contents, Sections 2.2, 2.3, 2.4	Phil Belliveau		3. Deviation from the AIR template protocol (Table of Contents, Sections 2.2, 2.3, 2.4). It is our understanding that deviations from the template require project manager approval. It would be useful to the document reviewers if any such approved deviations were communicated to them prior to spending significant time on the review. As well, if there are instances of unapproved deviations, I expect the EAO to address them and communicate the outcome to the working group.	The preliminary dAIR was submitted to the EAO and CEAA agency for discussion prior to being referred to the Working Group members. Several changes were requested to make the document flow better - EAO agreed to the proposed changes pending further review. The layout of the Application/EIS will follow that of the final AIR/EIS Guidelines to prevent confusion. Note that the format of the document as provided to the Working Group was approved by the EAO/CEAA.		
C29	Forests, Lands and Natural Resource Operations (FLNRO)	Sections 2.2, 2.3, 2.4	Phil Belliveau		4. In some sections, the proponent is postponing requirements to the Application stage (Sections 2.2, 2.3, 2.4), contrary to the template format. It would be better to see these requirements addressed in the AIR.	The proponent will revise the dAIR/Draft EIS Guidelines to include information previously deferred to the Application/EIS in Sections 2.2, 2.3, and 2.4.		
C30	Forests, Lands and Natural Resource Operations (FLNRO)	Section 2.2	Phil Belliveau		It is especially important that the proponent provide a summary of the environmental management systems such as the construction environmental plan and the role of independent environmental monitors in the AIR document. Access management routes and transmission lines should also be included in the AIR.	The revised dAIR/EIS Guidelines will provide a commitment for discussion of the Environmental Management Systems and the role of the independent environmental monitors in the Application/EIS. Section 3.0 of the Application/EIS will detail access routes and transmission line corridors.		
C31	Fisheries and Oceans Canada (DFO)	2.5 - Alternative Means of Undertaking the Proposed Project	Jeff Guerin		It would be useful to have the pit area, size, location, etc. included in the alternative means section (related to potential stream and lake impacts)	The Application/EIS will include pit area, size, location, etc. in the discussion of alternative means of undertaking the proposed project.		
C32	MOE	2.5 - Alternative Means of Undertaking the Proposed Project	Dennis Einerson & Gabi Matscha		Pg. 4, 2nd last bullet: The bullet indicates "AN analysis of the alternative means of carrying out the proposed Project". I assume that the capital "AN" was a typo and did not mean Ammonium Nitrate.	This was a typographical error and will be corrected.		
C33	Natural Resources Canada (NRCAN)	2.5 - Alternative Means of Undertaking the Proposed Project	Minerals and Metals Sector		Please include in the list of components: explosives factory (if required) and magazine locations. Section should also include closure implication of each option as part of the alternatives assessment	Explosives factory and magazine locations will be added to the list of project components to be addressed in this section of the Application/EIS. Options for closure of each of the components will also be in the Application/EIS		
C34	Natural Resources Canada (NRCAN)	2.6 - Project Land Use	Minerals and Metals Sector		Identification of future developments should be as defined in the cumulative effects assessment.	As per the AIR template, future developments will be defined using the cumulative impact scoping methodology.		
C35	TNRD	2.6 - Project Land Use	Dan Wallace		Planning Services requests that Section 2.6 include a description of the TNRD Plans, guidelines and bylaws that relate to the project area. A great deal of time and public money was spent developing our land use plans for the betterment of the area's communities regardless of political boundaries.	The TNRD Plans, guidelines and bylaws that relate to the project area will be included in the list of plans and described in the Application/EIS.		Please see Section 2.6 of the dAIR which currently states: "KAM commits to providing the following information in the Application" ... "A description of any Thompson Nicola Regional District (TNRD) Official Community Plans, guidelines, and bylaws as they relate to the Project."
C36	Forests, Lands and Natural Resource Operations (FLNRO)	2.6 - Project Land Use	Phil Belliveau		The AIR should highlight any activities that conflict with the Kamloops Land and Resource Management Plan (LRMP) or with other plans for this area the area including both the City of Kamloops and Thompson Nicola Regional District Official Community Plans.	This information will be provided in the Application/EIS upon completion of the assessment.		

AJAX PROJECT
AIR/EIS Guidelines Agency Comments - Revisions C and D

Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C37	Forests, Lands and Natural Resource Operations (FLNRO)	2.6 - Project Land Use	Phil Belliveau		This section of the dAIR references monitoring programs and regional studies. There are two additional projects that should be included here: 1. an annual sharp-tailed grouse population monitoring program conducted by regional Forests, Lands and Natural Resources Operations (FLNRO) biologists, and 2. burrowing owl re-introduction program. Both of these programs occur on private land within the proposed mine footprint. The proponent should contact regional FLNRO wildlife biologist for details.	The proponent's wildlife consultant has been in communication with biologist Doug Jury for several years regarding Sharp-tailed Grouse surveys, and he has provided us with survey data. Sharp-tailed Grouse monitoring will be included in this section. It is our understanding that no Burrowing Owl reintroduction has occurred within Project footprint areas and the closest reintroduction area on the south side of the river is in Beresford. This program will be referenced as a regional program pertinent to regional grassland management. Ongoing communication with FLNRO will continue to ensure that these programs are appropriately discussed in the Application/EIS.		
C38	Natural Resources Canada (NRCAN)	2.7 - Project Benefits	Minerals and Metals Sector		Within the section of project benefits – for costs, should also include the cost determination process and respective calculation methods. For employment: include employment estimates for supplies of goods and services used – including the assumptions related to industry specific multipliers and other multipliers used.	This information will be provided in the Application/EIS.		
C39	City of Kamloops	3.0 - Detailed Project Description	Jen Fretz		1. Page 7 (Section 3.3) a) Location of emergency concentrate storage should be indicated in the event that material cannot be shipped directly (inclement weather, etc.). b) (Section 3.4) - Height of tailings storage facility should be included.	(a) The location of emergency concentrate storage will be included in this section of the Application/EIS. (b) the height of the tailings storage facility will be included in this section of the AIR/EIS Guidelines and the Application/EIS.	The concentrate storage facility has a capacity of 4,000 tonnes of concentrate, an approximately 7 day stockpile. This is considered sufficient for potential transport disruptions (either natural, such as severe weather, or those resulting from human error) - no emergency concentrate storage facility will be required for the proposed Project.	Feasibility level engineering studies have concluded that the current project design does not include an emergency storage facility, for the reasons previously stated. The AIR will commit to discussing concentrate handling procedures the event of an unanticipated shipping interruptions in the Application/EIS.
C40	City of Kamloops	Section 3.5	Jen Fretz		2. Page 8 (Section 3.5) a) Water management and erosion control measures need to be related to the Aberdeen neighbourhood and the associated stability issues. b) Height of waste rock storage facilities needs to be included as well as dust suppression, safety standards, impact on groundwater and noise from equipment. c) (Section 3.6) – What is the end use of the top soil and overburden piles? d) (Section 3.7) – Details of mining equipment should include noise, hours of use, fuel storage and parking location. e) (Section 3.8) – As per our July 11, 2011 letter, we would like detailed information on the following: - What level of noise will be heard by the neighbouring residents during mine operation? How will that level increase or decrease when future residential areas are constructed? How will the level(s) of noise differ during different operations (i.e. blasting versus crushing versus backup-beepers on trucks or equipment on the waste rock piles)? What measures will the proponent take to reduce the impact of noise? - How often will blasting occur (i.e. what are the minimum and maximum number of times blasting will occur each day)? How far away will vibrations be felt? Will proposed subdivisions within the Aberdeen and Pineview Valley neighbourhoods feel vibrations from the blasting? Will blasting be restricted to certain times of the day? - What impact will the blasting have on the proposed Coal Hill water reservoir?	(a) noted (b) this information will be included in the AIR/EIS Guidelines and the Application. (c) top soil and overburden are used for reclamation - details will be provided in Section 3.14 of the Application/EIS. (d) this information will be included in the AIR/EIS Guidelines and the Application. (e) this information will be included in the AIR/EIS Guidelines and the Application/EIS.	The Application will include an assessment of vibration and its potential effects, including the effects of vibration on the activities listed in Section 10.4.4. The dAIR will be revised to reflect this. (c) Figure 2.2-1 will be updated to show the proposed location of the east overburden stockpile in the next version of the dAIR.	Completed for Rev D
C41	City of Kamloops	Section 3.9	Jen Fretz		3. Page 9 (Section 3.9) a) Water management plan is not mentioned here but is mentioned in Section 6.2.4 (page 24). Should mention of that plan also be referenced in Section 3.9? b) (Section 3.10) - Information on parking (for mine equipment and employee vehicles) should be included in the ancillary list. c) (Section 3.10) - We ask that you reference our July 11, 2011 letter regarding fire protection and solid waste disposal information requirements (Sections C2 and C4 of City letter respectively).	(a) the water management plan will be described in detail in Section 6.2.4 and may be referenced in this section of the Application/EIS. (b) parking facilities will be added to the list of ancillary facilities in Section 3.10 of the AIR/EIS Guidelines (c) information requested will be provided in the Application/EIS.		
C42	City of Kamloops	Section 3.13	Jen Fretz		4. Page 10 (Section 3.13) a) As the project's proposed transportation corridors will have a significant impact on the City's TravelSmart plan, we need information regarding the additional traffic generated on roadways in the southwest sector. A Traffic Impact Assessment should be completed as part of the Application. As mentioned in the City's July 11, 2011 letter, we, along with the Ministry of Transportation Infrastructure, would like to meet with the proponent prior to initiating this study in order to determine terms of reference.	The proponent will continue to work with the City and the Ministry of Transportation to determine the specifications for a traffic impact assessment.	The Aberdeen Community Plan and the City's TravelSmart plan will be added to the list of management plans to be discussed in the Application (Section 2.6). The dAIR will be revised to indicate that the City of Kamloops was consulted in determining access management strategies for the proposed Project (Section 3.16 Access and Site Roads). Details of the proposed access and hauling routes and potential impacts of mine traffic will be provided in the Application (e.g., route that the proponent plans to use for hauling the concentrate to Vancouver, the impact of mine traffic on Lac Le Jeune Road and the impact of mine traffic on the Copperhead Interchange at the Trans Canada Highway). Potential impacts on the Aberdeen, Pineview and Dufferin neighbourhoods will be assessed in the Application (Section 7.7 Housing).	
C43	Forests, Lands and Natural Resource Operations (FLNRO)	3.0 - Detailed Project Description	Phil Belliveau		Both this section (3.0) and Section 2.2 describe the project. Shouldn't these sections be combined to make the review less confusing?	The proponent proposes that the Project Description be presented within Section 3.0 rather than as a sub-section of Section 2.2, as the project description to be presented in the Application/EIS will be extremely detailed and will require several sub-component sections. This is a deviation from the EAO AIR Template, and will require agreement from the EAO, the CEA Agency, and Working Group.		
C44	Ministry of Energy and Mines (MEM)	3.0 - Detailed Project Description	Tania Demchuk		1(a) This section would benefit from the addition of a subsection summarizing the regional and project geology. This will provide a geological context for the project. A comprehensive discussion of the deposit geology and its relationship to the mine development plans and potential for ML/ARD would be appropriate.	Note that the preliminary dAIR submitted to the EAO contained a section on geology, mineral resources and site geochemistry. EAO asked that this information be provided in the discussion of impacts (e.g., treated as a VC, rather than as part of the project description)		Completed for Rev D

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C45	Ministry of Energy and Mines (MEM)	3.0 - Detailed Project Description	Tania Demchuk		1(b) A subsection addressing the ML/ARD geochemistry characterization should be included in Section 3.0. It is expected that the application will include the following details <ul style="list-style-type: none"> A listing of all the materials being characterized (include in this low grade ore, tailings, pit walls and borrow materials); Confirmation that the results of geochemical characterization will be incorporated into mine planning and used in the assessment of potential impacts to surface and ground water quality, as well as in waste management planning Demonstration that sufficient materials are present to meet construction requirements; and, Support for the development of source terms for the assessment of effects to water quality and prediction of longer term chemistry at the site. 	Note that the preliminary dAIR submitted to the EAO contained a section on geology, mineral resources and site geochemistry. EAO asked that this information be provided in the discussion of impacts (e.g., treated as a VC, rather than as part of the project description)		Completed for Rev D
C46	Fisheries and Oceans Canada (DFO)	3.4 - Tailings Storage Facility	Jeff Guerin		It may be useful to have ARD potential described here (if it is considered relevant/appropriate by EC and/or MoE EP).	Note that the preliminary dAIR submitted to the EAO contained a section on geology, mineral resources and site geochemistry. EAO asked that this information be provided in the discussion of impacts (e.g., treated as a VC, rather than as part of the project description).	The following will be included in Section 3.3 (Site Geochemistry) of the Application as outlined in the dAIR: <ul style="list-style-type: none"> Assessment and prediction of Metal Leaching and Acid Rock Drainage (ML/ARD) potential, according to the following policy and guidelines documents: <ul style="list-style-type: none"> Policy for Metal Leaching and Acid Rock Drainage at Mine sites in British Columbia, Ministry of Energy and Mines and Ministry of Environment, Lands and Parks, July 1998. Guidelines for Metal Leaching and Acid Rock Drainage at Mine sites in British Columbia, Price and Errington, August 1998. The potential impacts of ML/ARD on surface water quality will be assessed in Section 6.3.4 of the Application. The TSF is included in the list of project components or activities to be considered in the effects assessment. As indicated in detail in the dAIR, the following will be included in the Application: <ul style="list-style-type: none"> A discussion of geological and environmental aspects that could contribute to ML/ARD and conditions in disturbed areas. Information with respect to potential effects of ML/ARD on surface water quality A detailed discussion of mitigation requirements for ML/ARD effects 	
C47	Ministry of Energy and Mines (MEM)	3.4 - Tailings Storage Facility	Tania Demchuk		2) The conceptual tailings impoundment designed should be developed with reference to the Canadian Dam Association Dam Safety Guidelines. Please ensure that this document is referred to and adequately referenced.	The Canadian Dam Association Dam Safety Guidelines will be referenced as relevant - note that the proposed Tailings Storage Facility is not an impoundment, but rather a thickened tailings placement facility.		
C48	Environment Canada (EC)	3.4 - Tailings Storage Facility	Stephen Sheehan		Detailed project description of the tailings storage facility, "description of tailing water seepage" is listed as the 7th main bullet. It is suggested that this be amended to read "description of tailings water seepage and surface drainage". It is also suggested that the description include potential flows, quality, prevention and the planned management strategies.	The proponent will accommodate this request in the document.		
C49	Natural Resources Canada (NRCAN)	3.5 - Waste Rock Storage and Ore Stockpiles	Metal Leaching and Acid Rock Drainage Sector		Waste rock management should address issues of segregation for possible PAG and non-PAG material.	This information will be provided in the Application/EIS.		
C50	Natural Resources Canada (NRCAN)	3.5 - Waste Rock Storage and Ore Stockpiles	Metal Leaching and Acid Rock Drainage Sector		Neutral metal leaching may be a concern, and prevention and mitigation strategies need to be considered.	This information will be provided in the Application/EIS.		
C51	Ministry of Energy and Mines (MEM)	3.5 - Waste Rock Storage and Ore Stockpiles	Tania Demchuk		3) Discussion of waste rock, ore stockpile and low-grade ore stockpile management must incorporate geochemical characterizations. The discussion of low-grade ore stockpiles requires thorough assessment.	Geochemical characterizations will be presented in the discussion of waste rock, ore stockpile and low-grade ore stockpile management.		
C52	MOE	3.5 - Waste Rock Storage and Ore Stockpiles	Dennis Einerson & Gabi Matscha		Pg. 8: The bullets under this header are comprehensive; however, we would like to see a bullet added regarding waste rock characteristic (incl. geology, results of static and kinetic leach tests, metal leaching potential)	Suggested text will be included in the AIR/EIS Guidelines.		
C53	MEM	Section 3.6 - Overburden and Topsoil Stockpiles	Anne Moody		Consideration should be given to methods for stockpiling and storing surficial soils that ensure the preservation of native seedbanks to enhance ongoing and progressive reclamation practices.	The proponent will accommodate this request in the document.		
C54	Natural Resources Canada (NRCAN)	3.8 - Blasting	Minerals and Metals Sector		Include information on maximum quantities specified locations, distances, and descriptions of infrastructures. A sample of the information required in the application for the environmental assessment of explosives factories and storage/magazine facilities is provided below:	This information will be provided in the Application/EIS.		
C55	Natural Resources Canada (NRCAN)	3.8 - Blasting	Minerals and Metals Sector		The Application will include a description of the explosives manufacturing facility and explosives magazines. The specified location of the various components of the facilities, with distances to vulnerable features including but not limited to dwellings, roads, camps, railways, and bodies of water, will be identified. It will be demonstrated that safety distances required by the Explosives Regulatory Division of Natural Resources Canada (NRCAN) have been considered and met. Infrastructures for manufacturing or storing explosives will be identified, including but not limited to: explosives and magazines; fuel storage; ammonium nitrate storage; maintenance / wash area; process vehicles and their parking area; offices; warehouses; and buildings. Additional information provided will include: <ul style="list-style-type: none"> Explosives to be manufactured (typically ammonium nitrate fuel oil (ANFO) and / or emulsion / water gel); Maximum quantity of explosives at each facility; Fuel and ammonium nitrate storage plans. Storage of ammonium nitrate is to be in conformance with Explosives Regulatory Division guidelines; Liquid effluent disposal plans; Evaluation of worst case scenario (i.e., accidental explosion); Spill contingency plans; and Details on any temporary explosive facilities to be used during the proposed Project start-up will be provided, giving the same information requirements above. 	Suggested text will be included in the dAIR/EIS Guidelines.		
C56	MOE	3.9 - Mine Water Management	Dennis Einerson & Gabi Matscha		Pg. 9: The section indicates that hydrology/water quality (including extreme events) will be provided under this section among other information. Since hydrology is important in calculating water quality impact predictions (incl. for worst case scenarios), we ask that the extreme events include low and high flow scenarios. For the low flow scenario, we are looking for a 7Q10 and 7Q10 summer.	Extreme events will be addressed in the hydrological analysis presented in the Application/EIS. The dAIR/EIS guidelines will indicate this.		Completed for Rev D
C57	Ministry of Energy and Mines (MEM)	3.9 - Mine Water Management	Tania Demchuk		4) Contingencies for excess or additional water should be presented in this section (or Section 3.11 - Water Supply).	The dAIR / EIS Guidelines will indicate that the Application/EIS will include contingencies for excess or additional water will be presented in this section as suggested.		
C58	Fisheries and Oceans Canada (DFO)	3.11 - Water Supply	Jeff Guerin		A full description of all water sources and particularly proposed extraction/use volumes (for all development phases) should be included in the water supply section. The verbiage "from an area on the river known as Kamloops Lake" is somewhat of a mystery to me. As far as I am aware, the gazetted name of the water body is Kamloops Lake.	A full description of all water sources and particularly proposed extraction/use volumes (for all development phases) will be addressed in this section of the Application/EIS. The dAIR/EIS guidelines will indicate this. The gazetted name of the reach of the Thompson River adjacent to the City of Kamloops is Kamloops Lake- the proponent has received queries previously from individuals less familiar with the area who were confused by the nomenclature, which led to the clarification in the dAIR/Draft EIS Guidelines.		
C59	Fisheries and Oceans Canada (DFO)	3.12 - Power Supply	Jeff Guerin		Any temporal or permanent impacts to riparian vegetation should be described here.	Riparian disturbance (if any) will be included in this section of the Application/EIS.		
C60	Transport Canada (TC)	3.12 - Power Supply	Suzanne L'Heureux		Should there be a change in transmission line corridor alignment, TC would require that the proponent assess any watercourse crossings against the 'Minor Works Order' and the 'Minor Waters Order'	The proponent will note in the dAIR/EIS Guidelines that watercourse crossings will be assessed by the recommended Orders.		
C61	MEM	Section 3.14 - Closure and Reclamation	Anne Moody		It is recommended that the reclamation program be aimed at ecological restoration of naturally occurring grassland communities. We recommend consideration of an approach including the collection and possibly cultivation of native grass seed for reclamation purposes. In addition, we wish to stress that reclamation must be considered an ongoing and progressive activity throughout the life of the mine and must be designed with the intention of stabilizing surface materials with a vegetation cover as quickly as possible.	The proponent will include the recommendations of MEM in the reclamation program, and will consider reclamation as an ongoing and progressive activity during project operation in order to stabilize surficial materials with vegetation cover as quickly as possible.		
C62	Environment Canada (EC)	4.2 - Federal Review	Stephen Sheehan		It is recommended that a list of relevant Federal Acts (e.g., Fisheries Act) and regulations (e.g., MMR) be included in this section.	The proponent is open to including a list of relevant federal acts in this section in addition to the list provided in Section 2.8		
C63	Natural Resources Canada (NRCAN)	4.3 - First Nations Information Distribution and Consultation	Minerals and Metals Sector		Recommend removing qualifier "as identified in the Section 11 order" in order to ensure that both federal and provincial requirements are met	The sentence will be amended as per Transport Canada's suggested wording.		
C64	Transport Canada (TC)	4.3 - First Nations Information Distribution and Consultation	Suzanne L'Heureux		First bullet should be revised to read: "A summary of consultation activities undertaken with the identified First Nations potentially affected by the Project, as identified in the Section 11 order or by the federal government"	This suggestion will be adopted.		

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C65	Forests, Lands and Natural Resource Operations (FLNRO)	5.0 - General Comments	Phil Belliveau		1. As per my email of August 8, 2011, it is imperative that the proponent develop a comprehensive list of Valued Environmental Components (VECs). The list proposed within this dAIR is incomplete.	As per EAO guidelines (Application Information Template), draft VC selection was based on 'Species at Risk (plants and wildlife including federal and provincial listings), and Species of Management Concern as identified in the provincial Conservation Framework database'. The VC list for terrestrial wildlife in the Application will include a rationale for each VC chosen, as well as each taxon's federal, provincial and Conservation Framework status. VCs were chosen based upon status, range, and likelihood of being present in the project area based on habitat. Vesper Sparrow, Northern Harrier and Western Meadowlark are not classified as At Risk either federally or provincially, although all 3 are given a high ranking (2) under the BC Conservation Framework (BCCF) under the goal of 'preventing species from becoming at risk'. Some grassland-breeding taxa may be effectively assessed under a single category (e.g. 'grasslands') rather than as individual taxa. Sandhill Crane is not considered At Risk nor is it highly ranked under the BCCF. A habitat suitability model was prepared for Sharp-tailed Grouse to rate winter and growing season habitat, and that model has been reviewed by MOE biologist Doug Jury. Long-billed Curlew is listed in the AIR under the 'Migratory Birds' VC. The proponent will continue consultation with FLNRO to ensure that the list of VC for flora and fauna is appropriate.		
C66	City of Kamloops	5.0 Effects Assessment Section 5.1.1)	Jen Fretz		1. Page 15 (Section 5.1.1) a) Consideration should be given to including "visual impacts" as a Valued Component. The City has requested various forms of "visuals" to illustrate the size and location of the mine to residents of Kamloops. Discussions with the proponent have indicated that some of these will be provided but they are not listed within the dAIR. In order to understand the aesthetic impacts, the City requests a three-dimensional model, the creation of "snap shots" at nine different locations (listed in the July 11, 2011 letter) and a live electronic model in a Google Earth type of format.	Visual impacts will be added as a VC	A visual impact assessment will be conducted as part of Section 8.7 (Visual Impact) in the Application. This section will describe the current viewshed where the proposed Project is situated and the perceived effects on the viewshed. The analysis will examine various sight lines from different locations, including residential, recreational (including Jacko Lake), transportation routes (including the Coquihalla Highway, Lac le Jeune Rd, Highway 5, etc.) and commercial, and assess effects based on the perceived aesthetic values associated with those uses, derived from key person interviews.	
C67	City of Kamloops	5.0 Effects Assessment Section 5.1.2	Jen Fretz		2. Page 16 (Section 5.1.2) a) Second paragraph – Will the Working Group be involved in determining whether there is "reasonable potential for immediate impacts"?	As noted in Section 5.1.2 of the dAIR/EIS guidelines, study areas will be developed based on review of existing information, potential effects, and feedback received during consultation activities, including discourse with the Working Group.		
C68	City of Kamloops	5.0 Effects Assessment Section 5.1.4	Jen Fretz		3. Page 17 (Section 5.1.4) a) Fifth bullet – In reference to Frequency – we suggest that the actual number of events be given rather than simply stating frequent or infrequent.	Note that this terminology is from the AIR Template which indicates that regular text is generally suitable for all AIRs and need not be tailored on a project by project basis. The proponent is open to customizing the text for this project in consultation with the EAO.		
C69	TNRD	5.0 Effects Assessment	Dan Wallace		Under Section 5, the neutral term "effect" is used, presumably as a softer term than "impact". In this case, the potential negative impacts will far outweigh the positive impacts; however, the potential positive effects of impact mitigation will far outweigh the negative effects. Despite the change in terminology, we believe consideration should include wildfire and greenhouse gas management as valued environment components. Hydrogeology should include pre and post development monitoring to ensure potential sub-surface fracturing does not rob groundwater from existing users or divert groundwater to problem areas. Given the cross-jurisdictional nature of this project, political valued components may also be considered.	Please note that the terminology used follows that of Section 5 of the AIR Template "Assessment of Potential Environmental Effects". Greenhouse gas will be considered under the proposed Climate Valued Component (VC). Wildfire will be considered in the Fire Hazard And Abatement Plan noted in Section 10.2 and in 16.5 (EFFECTS OF THE ENVIRONMENT ON THE PROJECT). Discussion as to the rationale for including "wildfire" and "political components" as VC is suggested as part of the Working Group meeting. The dAIR states that the Application will provide a description of the measures that will be considered to mitigate proposed Project effects on groundwater quantity (Section 6.5.4); these measures will include on-going monitoring of existing groundwater wells.	As described in Section 2.2.5 of the dAIR, the Proponent will develop a process or processes to monitor and record how well it is doing with respect to the environmental plan and regulatory obligations. The EMS (as described in Section 11.1 of the dAIR) will outline the monitoring frequency, recording and correction procedures, and revision tracking processes. Section 11.2 of the dAIR describes that an Environmental Management Plan (EMP) will provide clearly defined actions and procedures to ensure that human and environmental health and safety is accounted for through all phases of the Project (construction, operations, closure and post-closure). The monitoring and management plans that will be developed for the Project are outlined in the dAIR. The Application will include a general description of each of the plans for all phases of the Project, as applicable. The reclamation plans will outline effective and scientifically defensible long-term monitoring programs. Contingency plans for remedial action will be provided where there are significant uncertainties associated with reclamation success. Results from the monitoring programs will be submitted to the relevant permitting agencies (e.g., Ministry of Environment for conditions outlined in the Environmental Management Act permit). KGHM Ajax Mining Inc. will provide reports on the Project website. The proponent cannot comment on any process for filing complaints at the provincial level - this issue is best addressed by the EAO.	
C70	Forests, Lands and Natural Resource Operations (FLNRO)	5.0 - Effects Assessment	Phil Belliveau		The document states "the environmental and social baseline will be characterized to a suitable level of detail". Please have the proponent explain what is meant by "characterized to a suitable level".	The level of detail presented for each VC will be sufficient to delineate the pathway of effects (e.g., project activities, type of cause-effect relationships, mechanisms by which stressors lead to effects)		The level of detail presented for each VC will be sufficient to delineate the pathway of effects (e.g., project activities, type of cause-effect relationships, mechanisms by which stressors lead to effects). This in turn will inform the effects assessment which will allow a determination of significance of residual effects based on magnitude, geographical extent, duration, frequency, reversibility, context, and probability.
C71	MOE	(5.0 - Effects Assessment) 5.1.2 - Spatial Boundaries	Dennis Einarson & Gabi Matscha		Pg. 16, fourth bullet: The bullet indicates that the Local study area includes project footprint and surrounding within which there is a reasonable potential for immediate impacts to occur. I assume that includes stream sections of the potentially affected creeks downstream of the mine footprint (e.g. Peterson Creek at the Park).	Stream sections of potentially affected creeks downstream of the mine footprint (e.g. Peterson Creek at the Park) will be included in the RSA and in the cumulative effects assessment.		
C72	Natural Resources Canada (NRCAN)	Part B - Table 5	Minerals and Metals Sector		Recommend including economic diversification in the economic VC's. Recommend moving land and resource use to section on social VC's and including Aboriginal community interests (Also pertains to Part A, Section 7.9). For health VC's, recommend adding recreation and tourism or aesthetic features.	Proponent will revise the list of VC's to minimize redundancy and to ensure NRCAN's recommended VC's are incorporated.		
C73	Natural Resources Canada (NRCAN)	Table 5.1-1 - Preliminary VC for the Ajax Project	K.Mcpherson		Information should be provided related to the topic of ML/ARD (Track Changes in Document) - Geology, Landforms and Soils - Groundwater quantity	It is the opinion of the proponent that ML/ARD itself is not a candidate to become a Valued Component - rather the effects of any ML/ARD are the concern, and they would be captured in other proposed VC, such as surface or groundwater quality. The proponent will work with NRCAN to better understand the recommendation that ML/ARD become a VC. At the recommendation of NRCAN, "Geology, Landforms, and Soils" will be added as a VC. "Groundwater Quantity" is proposed to be included in the existing VC "Hydrogeology".		
C74	Environment Canada (EC)	Table 5.1-1	Stephen Sheehan		It is suggested that: • "Terrain" be added as a VC under Environment VCs since the potential exists for ground slumping within the proposed mine site to occur due to the addition of new mining works to existing mine works from previous operations. • "Land Use" be evaluated as a VC under Social VCs as Jacko Lake is used by local fishermen and there are hiking and dirt biking trails around Inks Lake that are used by both locals and tourists. • "Dark Sky" be evaluated as a VC under Social VCs	• "Terrain" will be included in new Environment VC entitled "Geology, Landforms, and Soils" • "Land Use" is currently considered as an Economic VC; the proponent will discuss with the working group to ensure that this VC is appropriately captured. • "Dark Sky" will be evaluated as a Social VC.		
C75	Fisheries and Oceans Canada (DFO)	(5.1 - Assessment Methodology) 5.1.4 - Significance Assessment	Jeff Guerin		The definitions of both magnitude (low or high) and duration (short or long term) would be more accurately stated as ranges (e.g. low to high and short to long).	Note that this terminology is from the AIR Template. The proponent is open to altering these definitions in consultation with the EAO.		
C76	Forests, Lands and Natural Resource Operations (FLNRO)	5.1.4 - Significance Assessment	Phil Belliveau		The proponent states "the Application will determine significance of any effect through the interpretation of baseline information for each VC." It is preferable to see the actual baseline information included in the Application so that reviewers may draw their own conclusions rather than rely on the proponent's interpretation.	Baseline data will be included in the Application/EIS.		
C77	Forests, Lands and Natural Resource Operations (FLNRO)	5.0 Effects Assessment	Phil Belliveau		2. While mitigation measures will be identified and residual impacts will receive some discussion, there is a Provincial expectation that residual impacts to valued environmental components will be offset by the proponent.	Residual impacts are those that remain following implementation of mitigation measures. The proponent will endeavour to avoid negative residual impacts through proper design and management of the Project. Where feasible, the proponent will consider options to provide offsets for any residual impacts identified in the assessment.		
C78	Forests, Lands and Natural Resource Operations (FLNRO)	5.1.1 - Valued Components	Phil Belliveau		Valued Components. Contrary to the statement in the document, the proponent did not consult with this office to ensure that "all appropriate valued components are identified for presentation in the final AIR."	The proponent's wildlife consultant has communicated with biologists Doug Jury and Francis Iredale, beginning in 2008, in regards to amphibians, grouse, Lewis' Woodpecker and general wildlife values within the study area. Regional Ecologist Mike Ryan has also been helpful regarding ecosystems of the study area. We look forward to continuing discussions with Ministry biologists. Contact will be directed through the Ecosystems Section Head Phil Belliveau.		

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C79	Forests, Lands and Natural Resource Operations (FLNRO)	5.1.1 - Valued Components	Phil Belliveau		As mentioned in the work plan response from this office August 8, 2011, the list of Valued Environmental Components (VECs) is incomplete. It is unclear what tools the proponent utilized to develop the list of vegetation and wildlife "valued components". The rationale seems to focus on red or blue listed SARA species though there are numerous other information sources that should be used to develop a comprehensive list of (VECs). In order to fully address the wide range of potential values associated with this proposal, please refer to the following: Data Centre (CDC): http://www.env.gov.bc.ca/odc/ Conservation Framework (CF): http://www.env.gov.bc.ca/conservationframework/ Species Inventory Database (SPID): http://www.env.gov.bc.ca/wildlife/wsi/siwe.htm Hectares BC: http://www.hectaresbc.org/app/habc/HaBC.html Species At Risk Act (SARA): http://www.sararegistry.gc.ca/default_e.cfm In addition to the above links, the following Provincial tools can assist the proponent identify values and develop work plans: Fish Wizard (an interactive mapping tool to identify additional fish species present in lakes and streams within the proposed work area): http://www.fishwizard.com Best Management Practices: http://www.env.gov.bc.ca/wid/BMP/bmpintro.html Wildlife Habitat Areas (WHAs), Ungulate Winter Ranges (UWRs), Wildlife Habitat Features (WHFs), Fisheries Sensitive Watersheds (FSWs), Community Watersheds and Temperature Sensitive Streams are areas established by the Ministry of Forests, Lands and Natural Resource Operations, under the authority of the Forest and Range Practices Act (FRPA): www.env.gov.bc.ca/wid/frpa Resource Information Standards Committee: http://www.irmb.gov.bc.ca/risc/	The Application/EIS will include a rationale describing how the VC list was selected. The resources identified were consulted during the preparation of the VC list.		The rationale and background will be expanded, as relevant, to provide further definition to each VC in the AIR.
C80	Forests, Lands and Natural Resource Operations (FLNRO)	5.1.1 - Valued Components	Phil Belliveau		Please ensure the AIR outlines a much more comprehensive and relevant process for selecting the VECs prior to the Application stage.	As per the Application Information Requirements Template of the BCEAO, the AIR will include a commitment for a rationale for VC selection within in the Application. The proponent with work with FLNRO to review any additional specific Valued Components proposed by that ministry.		
C81	Environment Canada (EC)	5.1.2 - Spatial Boundaries	Stephen Sheehan		Text is generic. Proponent should understand that EC is interested in water quality changes to the extent where these disappear into background variability. For example, the proponent should identify the local study area in terms of the water quality assessment, as the area on Peterson Creek where effects from the project can no longer be predicted to occur.	The water quality spatial study boundaries include for the entire Peterson and Cherry Creek watersheds.		
C82	Canadian Environmental Assessment Agency (CEAA)	5.2 Cumulative Effects Assessment	Lyle Thompson		See CEA, section 4.0, drafted for McLymont Creek project dAIR.	The CEA will follow the methodology as presented in the McLymont Creek project dAIR, which was based on the Environmental Assessment Office file "Cumulative Effects and the BC EA Process"		completed in Rev D
C83	Canadian Environmental Assessment Agency (CEAA)	5.2.2 CEA Methodology	Lyle Thompson		See CEA, section 4.0, drafted for McLymont Creek project dAIR.	The CEA will follow the methodology as presented in the McLymont Creek project dAIR, which was based on the Environmental Assessment Office file "Cumulative Effects and the BC EA Process"		completed in Rev D
C84	Natural Resources Canada (NRCan)	6.0 - General Comments	Metal Leaching and Acid Rock Drainage Sector		The dAIR is a bit sparse in information on issues related to assessment of ML/ARD and mine waste management. The application needs to provide additional information on the regional/property geology and mineralogy.	The Application/EIS will provide additional information on the regional / property geology and mineralogy.		
C85	Natural Resources Canada (NRCan)	6.0 - General Comments	Metal Leaching and Acid Rock Drainage Sector		Information on mineralogical and static and kinetic geochemical testing (ML/ARD assessment) of the geologic components of the deposit which will be disturbed or mined could be expanded. In addition to the documents referenced, the proponent should refer to the MEND Report 1.20.1 Prediction Manual for Drainage Chemistry from Sulphidic Geologic Material (2009).	The dAIR/Draft EIS Guidelines will be expanded to include additional text regarding ML/ARD and mine waste management as suggested by NRCan. The MEND Report 1.20.1 Prediction Manual for Drainage Chemistry from Sulphidic Geologic Material (2009) will be added to the list of documents to be referenced.		
C86	Natural Resources Canada (NRCan)	6.0 - Assessment of Potential Environmental Effects	Minerals and Metals Sector		Missing section on geology, landforms and soils.	At the suggestion of NRCan, a new VC entitled "Geology, Landforms, and Soils" will be added to Section 5.1.1, which will require a new sub-section to be added under Section 6.0 dAIR/Draft EIS Guidelines.		
C87	City of Kamloops	6.0 - Assessment of Potential Environmental Effects	Jen Fretz		1. Page 26 (Section 6.3.4) a) We assume that this section will address the hydrologic issue of a large open pit being located adjacent to Jacko Lake?	As noted in the list of project activities that could affect the hydrological regime, pit development will be included.	Please see the Section 3.4 of the dAIR, where reference is made to hydraulic connectivity between the proposed pit and Jacko Lake. The information presented in this section will also be included in the Application, as well as detailed and updated information on the following: • Pit designs including slopes, haul road widths, design standards and geotechnical and hydrogeological considerations (e.g., pit wall management)	
C88	City of Kamloops	6.0 - Assessment of Potential Environmental Effects	Jen Fretz		2. Page 28 (Section 6.4.2) a) Private groundwater supply wells (not just monitoring wells and piezometers) should be included in the assessment. The assessment should include identification, installation/completion details, water level measurements, yields, etc.	Available data from existing water wells and monitoring wells in the LSA and RSA will be used to assess spatial variations in groundwater quality and influence of geology on groundwater quality, if of sufficient quality. The proponent will work with the City of Kamloops and other agencies to identify the location and owner of private wells in the area.		
C89	City of Kamloops	6.0 - Assessment of Potential Environmental Effects	Jen Fretz		3. Page 30 (Section 6.4.6) a) An assessment of the significance of the cumulative effects on groundwater wells in the area used for drinking water should be included. b) (Section 6.5.1) – Stability issues in the adjacent Aberdeen neighbourhood and active dewatering for ground stabilization in the Aberdeen neighbourhood should both form part of the justification for inclusion. c) (Section 6.5.1) – Hydrogeological characteristics of the waste rock piles should be included to allow the City's numerical groundwater flow model to be run for post development scenarios. d) (Section 6.5.2) – Baseline information should include the characterization of groundwater piezometric levels pre-construction with particular reference to the changes resulting from the waste rock piles. City of Kamloops well data, drill logs, etc. should also be part of the baseline information. e) (Section 6.5.2 – Figure 6.4-1) – The regional study area should be expanded to include the Aberdeen neighbourhood.	(a) authorized withdrawals for drinking water will be included in the CEA (b) noted (c) the Proponent will be happy to work with the City in providing hydrogeological data resulting from project studies for inclusion in the City's numerical groundwater flow model (d) the Proponent will include groundwater data provided by the City for assessment of potential project effects (e) the RSA will be expanded to include the entire Aberdeen neighbourhood, rather than that section only within the Peterson Creek drainage.	(b) Section 6.5.4 (Groundwater Quality) of the dAIR includes that "Water quality predictions will be conducted for key flow conditions and relevant time-steps in the mine life (e.g., temporal boundaries will include operations, closure, post-closure, workings flooded and discharging, etc.). (c) Long-term post closure monitoring plans will include groundwater quality and hydrometric monitoring, as appropriate (as per Section 11.2 of the dAIR). (d) The proponent will install vibrating wire piezometers under the waste rock management facilities and the TSF. The wells will be included in the monitoring program throughout the life of the mine. (e) Watershed boundaries as defined by provincial mapping were chosen to represent the RSA for surface water. The RSA includes the whole of the Peterson Creek and Cherry Creek watersheds; the Aberdeen neighbourhood falls partially within the Peterson Creek watershed. Although the Aberdeen area outside the height of land will not be within the zone of influence of any surface water drainage from the proposed Project, the RSA will be expanded to include the entire Aberdeen neighbourhood. The hydrogeological RSA will be expanded to include the Aberdeen neighbourhood.	
C90	City of Kamloops	6.0 - Assessment of Potential Environmental Effects	Jen Fretz		4. Page 31 (Section 6.5.4) a) Third paragraph – the "site-wide" water balance model should be expanded to include the Aberdeen neighbourhood. b) Characterization of groundwater/piezometric levels during and post-construction with particular reference to the changes resulting from the waste rock piles needs to be included. c) We want to ensure that the potential effects on the groundwater regime in the Aberdeen area will be evaluated even after long-term closure to ensure there is no detrimental effect on groundwater levels.	(a) where long-term surface and groundwater data are available for the Aberdeen neighbourhood, they will be utilized in the water balance model (b) the waste rock management facilities are in the list of project components to be considered in the effects analysis for hydrogeology during construction, operation and closure (c) potential effects on the groundwater regime will be assessed during construction, operation and closure	(b) ore/overburden stockpiles are currently included in the list of components considered in 6.5.4 Potential Effects on Groundwater Quality, concentrate stockpiling is currently included in the list of components considered in 6.5.4 Potential Effects on Groundwater Quantity – ore/overburden stockpiles will be added to the dAIR. (c) The dAIR will be revised to indicate that effects will be modelled during the post-closure period (e.g., to the point when the pit is filled with water)	
C91	City of Kamloops	6.0 - Assessment of Potential Environmental Effects	Jen Fretz		5. Page 32 (Section 6.5.6) a) Impacts on groundwater wells in the area (especially those used for drinking water) need to be evaluated as part of the cumulative effects.	The effects to identified groundwater wells in the area will be assessed as an extrapolation from the groundwater quality model.		

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C92	Skeetchestn Indian Band	6.0 - Assessment of Potential Environmental Effects or 9.0 - Assessment of Potential Heritage Effects	Mike Anderson		In reviewing the application information requirements for Ajax Project I found what appears to be a glaring omission under the potential environmental effects section. Although there appears to be a consideration of "heritage objects" this appears more to be around archaeological resources which are a mere subset of the much broader category of Cultural Heritage Resources.	The Proponent acknowledges the comments provided by the Skeetchestn Indian Band regarding the cultural heritage. The proponent will work with Aboriginal groups including the Skeetchestn Indian Band along with the BC EAO and the CEA Agency to ensure that reasonable consideration of their request to consider an expanded definition and scope of Cultural Heritage is accommodated in the application.		The proponent will include an assessment of cultural heritage values in accordance with the EAO/CEA Agency Joint Direction on assessment of potential heritage effects and in collaboration with the First Nations as set out in the SSN-KAM Study Agreement signed in December 2012. Section 3.1 of the dAIR describes the scope and assessment methods for site-specific and non site-specific traditional use values that would potentially be adversely impacted by the project. Any information acquired through the Cultural Heritage Study that is relevant to the environmental assessment and not subject to confidentiality provisions will be integrated into the Application where this information is shared in a timely manner.
C93	Forests, Lands and Natural Resource Operations (FLNRO)	6.0 - Assessment of Potential Environmental Effects	Phil Belliveau		The proponent states the Application will describe measures to mitigate the potential adverse effects of the mine development on each Valued Environmental Component. With a mine development of this size and magnitude it is likely that residual impacts to VECs will occur, even with aggressive mitigation. Please ensure the proponent includes a statement in the Application committing them to offsetting residual impacts to VECs.	Residual impacts are those that remain following implementation of mitigation measures. The proponent will endeavour to avoid negative residual impacts through proper design and management of the Project. Where feasible the proponent will consider options to provide offsets for any residual impacts identified in the assessment.		
C94	MEM	Section 6.0 - Assessment of Potential Environmental Effects	Anne Moody		This section would benefit from a discussion of reclamation practices that can assist in maintaining water quality and other environmental values.	Mitigation measures proposed in the Application/ EIS will include any reclamation practices feasible for the identified potential effect.		
C95	MOE	(6.1 - Climate) 6.1.2 - Background	Dennis Einarson & Gabi Matscha		Pg. 20: This chapter should include baseline collection methods (sample sites, sample frequency, etc.).	The dAIR/EIS guidelines will be revised to indicate that baseline collection methods will be included in this section of the Application/EIS.		
C96	Interior Health (IH)	(6.1 - Climate) 6.1.3 - Spatial and Temporal Boundaries	Misty Palm		1) The proponent should clearly define how the LSA was determined and the criteria used with respect to climate and air quality monitoring. 2) Will the meteorological station, with its location adjacent to Sugarloaf Mountain, provide true representation of meteorological conditions with respect to predicting air quality impacts for the LSA?	1) The dAIR/EIS guidelines will be revised to define how the LSA was determined and the criteria used with respect to climate and air quality monitoring. 2) The Application/EIS will provide discussion regarding meteorological station location		
C97	Natural Resources Canada (NRCan)	6.2 - Surface Water Quality	Minerals and Metals Sector		Include assessment of potential effects on drinking water, if applicable. Inclusion of sediments?	Please refer to Section 10.2 of the dAIR		
C98	Fisheries and Oceans Canada (DFO)	(6.2 - Surface Water Quality) 6.2.2 - Background	Jeff Guerin		With respect to the third and fourth bullets, it seems to me that determining water quality objectives and determining allowable discharges and seepage rates should be an agency function (vs. the proponent). Within the surface water quality section, it would seem appropriate to include metals within the water chemistry sampling program.	This will be revised as suggested by MOE as follows: "Establish water quality objectives or safe targets to be met in the receiving water during construction, operation and decommissioning". Total and dissolved metals will be assessed within the water chemistry sampling program.		
C99	MOE	6.2 - (Surface Water Quality) 6.2.2 - Background	Dennis Einarson & Gabi Matscha		Pg. 22, 2nd bullet of section: "Determine water quality objectives during construction, operation and decommissioning ...". This should read: "Establish water quality objectives or safe targets to be met in the receiving water during construction, operation and decommissioning ..." - Water Quality Objectives are a site specific safe threshold (often based on the water quality guidelines) to protect water users in the receiving water. This safe threshold does not change by mine phase.	Text will be revised as suggested.		
C100	MOE	6.2 - (Surface Water Quality) 6.2.2 - Background	Dennis Einarson & Gabi Matscha		Pg. 22, 3rd bullet: "Determine allow wastewater discharge and seepage rates." This one should read: "Determine safe wastewater discharge limits." - The loading into a specific receiving water is of importance, this would include flow and concentrations of discharges/seepages.	Text will be revised as suggested.		
C101	MOE	6.2 - (Surface Water Quality) 6.2.2 - Background	Dennis Einarson & Gabi Matscha		Pg. 22, 7th bullet of section: It is good to see that all provincial and federal standards and guidelines are being listed. Please note, that the BC Government will use BC water quality guidelines to determine for most parameters, except for human health related guidelines and those for which no BC Guidelines exist (BC Government uses federal guidelines for the latter two, if available).	Noted.		
C102	MOE	6.2 - (Surface Water Quality) 6.2.2 - Background	Dennis Einarson & Gabi Matscha		Pg. 22, 9th bullet of section: QA/QC information should also include acceptable data quality objectives for the QC samples and indicate how data are treated that were collected and/or analysed on the same date as a QC sample that did not meet data quality objectives.	Text will be revised to indicate that the Application/EIS will present acceptable data quality objectives for the QC samples and indicate how data collected and/or analysed on the same date as a QC sample that do not meet data quality objectives will be treated in the assessment.		
C103	MOE	6.2 - (Surface Water Quality) 6.2.2 - Background	Dennis Einarson & Gabi Matscha		Pg. 23, 1st bullet on page, 10th bullet in section: This bullet indicates that results will be presented in tables or graphs. In any case, we want the proponent to submit raw, quality ensured data in the appendix.	Text will be revised to indicate that raw data will be included in an appendix.		
C104	MOE	6.2 - (Surface Water Quality) 6.2.2 - Background	Dennis Einarson & Gabi Matscha		Pg. 23, 2nd paragraph on page: This paragraph indicates that "seasonal sampling events will be presented for the following sites ...". Please ensure that the baseline sampling frequency provides sufficient high sampling frequency by flow season (freshet, summer low, fall flows, winter low) to determine typical seasonal flows for the receiving water bodies.	Sampling frequency will be sufficient to determine typical seasonal flows for the receiving water bodies		
C105	MOE	6.2 - (Surface Water Quality) 6.2.2 - Background	Dennis Einarson & Gabi Matscha		Pg. 23, 9th bullet on the page: A far field site may have to be established in the effected creeks in the long run, depending and based on measured effects and trends at the near field sites.	The proponent will evaluate the need for a far-field site upon review of trends at near-field sites.		
C106	Environment Canada (EC)	6.2.2 - Background	Stephen Sheehan		Surface Water Quality Background: sites mentioned may need to be changed if the project description is revised.	Noted.		
C107	Fisheries and Oceans Canada (DFO)	6.2.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Jeff Guerin		The tailings storage facility should be included in the project aspects that will be considered in the effects assessment.	The dAIR/ Draft EIS Guidelines will be revised to include the tailings storage facility in the project aspects that will be considered in the effects assessment.		
C108	MOE	6.2.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Dennis Einarson & Gabi Matscha		Pg. 24, 7th bullet on the page: The application will identify potential effects on "surface water quality on unnamed ephemeral streams tributary to the named streams". Will a baseline be available for these tributaries? How will effects be determined without baseline in these particular streams?	This bullet will be removed from the dAIR/EIS guidelines - no tributaries have been found	Noted.	
C109	MOE	6.2.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Dennis Einarson & Gabi Matscha		Pg. 24, 2nd set of bullets: The effects assessment should also consider seepage from the tailings storage facility and relocation of Peterson Creek into the old waste rock dumps	Seepage from the tailings storage facility and relocation of Peterson Creek into the old waste rock dumps will be added to the list of project aspects or activities to be considered in the effects assessment.		
C110	Environment Canada (EC)	6.2.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Stephen Sheehan		Sites mentioned may need to be expanded if the project description is revised.	Noted.		
C111	Environment Canada (EC)	6.2.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Stephen Sheehan		The Tailings Storage Facility (TSF) should be listed under the Project aspects or activities that will be considered in the effects assessment.	The dAIR/ Draft EIS Guidelines will be revised to include the tailings storage facility in the project aspects that will be considered in the effects assessment.		
C112	Ministry of Energy and Mines (MEM)	6.2 Surface Water Quality & 6.4 Ground Water Quality	Tania Demchuk		5) These sections require enhancements to include further information on how effects assessment of surface and ground water quality will be approached with respect to ML/ARD. The following should be added: a) Delineate geochemical source terms and methods utilized in geochemical predictive modeling (including the use of any relevant geochemical analogues). Information will be presented in a clear and transparent manner. b) The application will integrate the results of the ML/ARD prediction work, water quality, hydrology, and water balance information to develop water quality predictions that will be used as a basis for impact assessment, to determine materials handling procedures and to assess and develop ML/ARD mitigation/management requirements for the project. Geochemical modeling will be presented in a clear and transparent manner and the methods, assumptions and rationale used to estimate water quality will be thoroughly explained. c) A prediction of water quality will be made for major mine components (molybdenum concentrate, low grade ore stockpile, waste rock, topsoil and till, and tailings), site surface water discharges, groundwater seepages and relevant receiving environment locations. Water quality predictions will be conducted for key flow conditions and relevant time-steps in the mine life (i.e. temporal boundaries will include operations, closure, post-closure, workings flooded and discharging, etc.). d) Water quality predictions and effects assessment will include pH, alkalinity, sulphate, cations, major and trace metal/metalloids, nitrogen species etc. and include comparison to all relevant water quality guidelines and objectives. e) The lag time to ML/ARD onset will be assessed for all potentially ARD generating materials and this information will be utilized in the development of management plans.	The suggested text will be added with the exception of reference to molybdenum concentrate which does not apply to the Ajax Project. Copper / gold concentrate will be assessed instead.		

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C113	Ministry of Energy and Mines (MEM)	6.2 Surface Water Quality & 6.4 Ground Water Quality	Tania Demchuk		<p>) These sections also require enhancements to include further details on the information that will be supplied for mitigation of ML/ARD effects to surface or ground water quality. Since it is unclear what mitigation/management strategies will be used for the project, it is requested that the information requirements for the most common ML/ARD strategies be incorporated into the draft AIR as follows:</p> <p>a) If waste rock is segregation is proposed, the Application will demonstrate the feasibility to successfully segregate PAG and non-PAG mine waste materials during operations, propose geochemical segregation criteria and identify operational methods to achieve geochemical characterization and segregation during operations (i.e. geochemical surrogates, on site lab, procedures needed etc.). The application will include a sensitivity analysis to assess the effects of imperfect segregation of waste rock.</p> <p>b) If a water cover is proposed for ML/ARD management, information will be provided to identify the types, volumes and geochemistry of mine waste to be flooded, the disposal methods and location, the time until full flooding will occur, information to demonstrate that mine wastes will remain flooded during extreme climatic events, measures to mitigate soluble contaminants that could affect water quality, an assessment of geochemical stability under flooded conditions, and monitoring and maintenance requirements to ensure geochemical and physical security of flooded mine wastes (refer also to ML/ARD guidelines).</p> <p>c) If engineered cover systems are proposed as a ML/ARD mitigation plans for the project, a conceptual design will be provided including the design objectives and principles, the characteristics and volumes of cover materials required, construction methods, assessment of expected performance and long-term effectiveness under the expected range of climatic conditions, monitoring and maintenance requirements, contingency plans, cost of constructing and long-term monitoring and maintenance (refer also to ML/ARD guidelines).</p> <p>d) If blending of PAG and non-PAG materials to produce a benign composite is proposed as a ML/ARD mitigation strategy, information will be presented on the geochemistry of individual wastes and mixed wastes including metal release characteristics, site specific management criteria for blending, detailed waste handling and placement plans, demonstration of adequate proportions of PAG and non-PAG wastes throughout mine life, an assessment of anticipated waste dump hydrology, proposed operational monitoring plans and contingency plans for seepage water quality management (refer also to ML/ARD guidelines).</p> <p>e) If drainage collection and treatment is proposed as a mitigation strategy for the project, a conceptual design will be provided including location, characterization of influent and effluent chemistry and flow, demonstration of the effectiveness of the drainage collection and holding system, conceptual design information on the treatment process, predicted reagent use, assessed performance under the expected range of flow and climatic conditions, sludge disposal plan, the operating, monitoring and maintenance requirements to ensure successful treatment is sufficient to achieve long-term environmental protection requirements, and anticipated capital and operating costs (refer also to ML/ARD guidelines).</p> <p>f) ML/ARD prevention and management strategies are required for temporary closure or early-permanent closure scenarios.</p> <p>g) Contingency plans will be provided where there are significant uncertainties or risks associated with the predicted water quality.</p> <p>h) Concepts for operational and post-closure monitoring and maintenance plans will be provided.</p>	<p>The suggested text will be added, with the inclusion of the following underlined text:</p> <p>a) If waste rock is segregation is proposed, the Application/EIS will demonstrate the feasibility to</p> <p>b) If a water cover is proposed for ML/ARD management, information will be provided in the Application/EIS to identify the types</p> <p>d) If blending of PAG and non-PAG materials to produce a benign composite is proposed as a ML/ARD mitigation strategy, information will be presented in the Application/EIS on the geochemistry</p> <p>e) If drainage collection and treatment is proposed as a mitigation strategy for the project, a conceptual design will be provided in the Application/EIS</p>		
C114	Forests, Lands and Natural Resource Operations (FLNRO)	6.2 - Surface Water Quality	Phil Belliveau		Please ensure wetland water quality is included within this category. Wetlands are critical habitat to a number of species at risk, and some of these species are highly sensitive to changes in water quality.	Wetland water quality will be assessed in the Application/EIS, where present.		
C115	Natural Resources Canada (NRCAN)	(Track Changes in Document) 6.2 Geology, Landforms And Soils Surface Water Quality	F. Schelle		<p>[Track Changes in Document] 6.2.1 Rationale KAM will provide the rationale for choosing and assessing climate as a VC in the Application. Justification for inclusion will be based on one or more of the following:</p> <ul style="list-style-type: none"> • Federal or provincial listing or regulation; • First Nation interest; • Public or other stakeholder input; • Scientific/professional knowledge; and • Relevant legislation or policy concerning the VC. 	The suggested text will be added.		
C116	Natural Resources Canada (NRCAN)	(Track Changes in Document) 6.2 Geology, Landforms And Soils Surface Water Quality	F. Schelle		<p>[Track Changes in Document] 6.2.2 Background This section of the Application will present an introduction to the baseline information collection program for geology, landforms and soils in the Project area and will summarize the appropriate characteristics in the area. A more detailed report may be provided in the Application appendices.</p> <p>Data will be compiled on the regional and site geology e.g.:</p> <ul style="list-style-type: none"> • Stratigraphy • Rock properties • Faults and fractures • Mineral deposits • Geohazard baseline (seismic activity, karst etc.) <p>Data will be compiled on the regional and site landforms e.g.:</p> <ul style="list-style-type: none"> • Topography • Surficial geology • Signs of terrain instability (mass movements) <p>Data will be compiled on the regional and site soils e.g.:</p> <ul style="list-style-type: none"> • Soil types • Erosion (vulnerability) <p>Geologic, landform and soils information will be illustrated by maps and cross sections at appropriately detailed scales.</p>	The suggested text will be added.		
C117	Natural Resources Canada (NRCAN)	(Track Changes in Document) 6.2 Geology, Landforms And Soils Surface Water Quality	F. Schelle		<p>[Track Changes in Document] 6.2.3 Spatial and Temporal Boundaries The Application will include the following:</p> <ul style="list-style-type: none"> • A description of the local and regional spatial extent of the assessment relative to the VC, • Maps outlining the spatial extent of the regional and local study areas of the EA, and • Description of the period of time to be examined in the VC assessment. <p>The preliminary local and regional study boundary is shown on Figure 6.1-x.</p>	The suggested text will be added.		
C118	Natural Resources Canada (NRCAN)	(Track Changes in Document) 6.2 Geology, Landforms And Soils Surface Water Quality	F. Schelle		<p>[Track Changes in Document] 6.2.4 Potential Effects of the Proposed Project and Proposed Mitigation This section of the Application will identify:</p> <ul style="list-style-type: none"> • Project components that will be considered in the effects analysis • Project activities leading to effects for each component • Mitigation measures that will be utilized to minimize project effects, and • Residual effects. <p>The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards, remedial actions that will be implemented as necessary, and monitoring or management procedures to confirm the accuracy of the predictions and to reflect effectiveness of remedial measures.</p>	The suggested text will be added.		
C119	Natural Resources Canada (NRCAN)	(Track Changes in Document) 6.2 Geology, Landforms And Soils Surface Water Quality	F. Schelle		<p>[Track Changes in Document] 6.2.5 Residual Effects and their Significance The residual effects and significance of GHG emissions remaining after implementation of Management Plans, and any monitoring, follow-up, and adaptive management programs will be assessed</p>	The suggested text will be added.		
C120	Natural Resources Canada (NRCAN)	(Track Changes in Document) 6.2 Geology, Landforms And Soils Surface Water Quality	F. Schelle		<p>[Track Changes in Document] 6.2.6 Cumulative Effects Assessment KAM will provide the following in the Application:</p> <ul style="list-style-type: none"> • Identification and description of existing or reasonably foreseeable projects or activities that have the potential to interact with the proposed Project; • Identification and description of any potential cumulative effects; • An assessment of the significance of the cumulative effects, considering: <ul style="list-style-type: none"> o Magnitude o Geographic extent o Duration o Frequency o Reversibility o Context o Probability 	The suggested text will be added.		
C121	Natural Resources Canada (NRCAN)	(Track Changes in Document) 6.2 Geology, Landforms And Soils Surface Water Quality	F. Schelle		<p>[Track Changes in Document] 6.2.7 Conclusion KAM commits to provide the following in the Application:</p> <ul style="list-style-type: none"> • A summary of potential residual effects; • A summary of potential cumulative effects; and • Discussion of significance of the residual and cumulative effects. 	The suggested text will be added.		
C122	MOE	6.3 - Surface Water Quantity, 6.3.6	Dennis Einarson & Gabi Matscha		Pg. 25: Surface water quality impact predictions will partly be based on flows. Please ensure extreme flows, such as 7Q10 and 7Q10-Summer will be considered.	Extreme events will be addressed in the hydrological analysis presented in the Application/EIS. The dAIR/EIS guidelines will be updated to indicate this.		Completed in Rev D.
C123	Forests, Lands and Natural Resource Operations (FLNRO)	6.4 - Groundwater Quality	Kevin Bennett		The application should provide the rationale for the groundwater monitoring well locations illustrated on Figure 6.4-1.	The Application/EIS will provide the rationale for the groundwater monitoring well locations		
C124	Forests, Lands and Natural Resource Operations (FLNRO)	6.4 - Groundwater Quality	Kevin Bennett		GW quality – unclear to me what “community knowledge” relating to groundwater VC will be. Will proponent be searching for and using available data from existing water wells and monitoring wells in the LSA and RSA to assess spatial variations in groundwater quality and the influence of geology on groundwater quality, or will this be based just on the monitoring wells installed by the proponent?	Note that this terminology is from the AIR Template provided by the BC EAO. Available data from existing water wells and monitoring wells in the LSA and RSA will be used to assess spatial variations in groundwater quality and influence of geology on groundwater quality, if of sufficient quality. Additionally, the proponent will install monitoring wells for assessment and monitoring purposes.		
C125	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.2 - Groundwater Quality Background	Kevin Bennett		<ul style="list-style-type: none"> • It is unclear what “community knowledge” relating to the groundwater VC will be. Will the proponent be searching for and using available data from existing water wells, monitoring wells and dewatering wells in the local study area (LSA) and regional study area (RSA) to assess spatial variations in groundwater quality and the influence of geology on groundwater quality, or will this be based just on the monitoring wells installed by the proponent? The AIR should list what is considered to be available community knowledge for groundwater. • The application should provide the rationale for the locations of the groundwater monitoring well locations illustrated on Figure 6.4-1 and summarize the geological unit(s) represented at the eight monitoring well locations. 	Note that this terminology is from the AIR Template provided by the BC EAO. Available data from existing water wells and monitoring wells in the LSA and RSA will be used to assess spatial variations in groundwater quality and influence of geology on groundwater quality, if of sufficient quality. Additionally, the proponent will install monitoring wells for assessment and monitoring purposes.		
C126	Forests, Lands and Natural Resource Operations (FLNRO)	6.4 - Groundwater Quality	Kevin Bennett		Similar comment - Don't see a review/assessment of existing groundwater use in LSA or RSA. What is proposed on identifying and assessing impacts to existing groundwater users? MOE's water well database is a voluntary database and should not be relied on complete indicator of all water wells in the LSA or RSA.	The proponent will work with the City of Kamloops and FLNRO to identify existing groundwater wells and their owners in the area. Available data from existing water wells and monitoring wells in the LSA and RSA will be used to assess spatial variations in groundwater quality and influence of geology on groundwater quality, if of sufficient quality. The dAIR/Draft EIS Guidelines will be updated to reflect this.		

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C127	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett		6.4.4 Process mill, concentrate stockpiling should be included in the list of activities considered in effects analysis for groundwater quality.	These activities will be added to the list of activities considered in effects analysis for groundwater quality.		
C128	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett		For example, don't have any baseline hydrogeological information downslope (south) of the east waste rock dump proximate to Peterson Creek. Surficial geology mapping for this area illustrates complex outwash materials in comparison to glacial till at the monitoring well sites. Not obtaining hydrogeological information from this area would be a data gap in constructing conceptual model and useful predictive numerical flow model.	The proponent is carrying out investigations in the area of the east waste rock dump including a proposed monitoring well southeast of the dump near Peterson Creek. Data collected during this investigation and other available information such as surficial geology mapping and geotechnical drilling will be used to aid with better constraining the groundwater conceptual model.		
C129	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett		Acknowledgement of MOE baseline guidelines???????	Draft guidelines were available at the time of writing the dAIR but the proponent was advised that it was not to be referenced until the final guideline was released. The proponent will continue consultation with MOE in order to best incorporate the draft guidelines prior to their finalization.		Agreed
C130	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett		The AIR also needs to clarify what results & predictions will be provided in the application and the format(s) they will be provided in.	The dAIR/EIS Guidelines will be revised to clarify the output of the assessment.		
C131	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett		The geology section of the AIR states that geological cross-sections will be included in the application. Hydrogeological cross-sections should also be provided.	Hydrogeological cross-sections will be provided.		
C132	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett		If computer modeling is used to predict environmental impact then the proponent should be prepared to provide the modeling input and output files including all files that were used to develop, calibrate and apply the model. All relevant base map files and calibration data sets should also be provided.	Modeling input and output files and relevant base map files and calibration data sets will be provided in the appendices of the Application/EIS.		
C133	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett		The application should include a discussion of the uncertainties that are inherent to the characterization of the groundwater system and to provide, at a minimum, a qualitative evaluation of their potential significance in the assessment of project impacts.	The dAIR/EIS Guidelines will be revised to include the suggested text of MEM as follows "Geochemical modeling will be presented in a clear and transparent manner and the methods, assumptions and rationale used to estimate water quality will be thoroughly explained."		
C134	Forests, Lands and Natural Resource Operations (FLNRO)	6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett		The process mill, ore and concentrate stockpiling should be included in the list of activities considered in effects analysis for groundwater quality.	These activities will be added to the list of activities considered in effects analysis for groundwater quality.		
C135	Environment Canada (EC)	6.4 to 6.5	Stephen Sheehan		The explicit identification and mapping of the groundwater LSA (Local Study Area) and RSA (Regional Study Area) in Figure 6.4-1 is welcome. However, the LSA and RSA definitions provided here appear to assume a 1:1 correspondence between groundwater and surface water drainages (for the groundwater RSA; and on the north and south boundaries of the groundwater LSA) under both pre- and post-development conditions and to all depths potentially affected by proposed project activities. Site-specific evidence for such a relationship would appear necessary before designing a groundwater monitoring network and assessment areas which effectively assume no possibility of potential groundwater impacts or effects outside the surface water drainage divide. Unless such site-specific, data-based evidence currently exists, it might be prudent to expand the LSA and RSA for groundwater beyond the surface water drainage divide. <ul style="list-style-type: none"> Figure 6.4-1 provides locations of existing groundwater monitoring wells. The number and placement of these wells is a good start but does not appear sufficient for adequate baseline characterization of hydrogeology, groundwater flow patterns, and groundwater quality over the spatial extent of the LSA, and does not appear to provide any groundwater information within the RSA outside the LSA. It is unclear from the dAIR whether additional groundwater monitoring wells are planned. A key science question here, relevant to a variety of potential effects/VCS, is characterization of the connection between groundwater and surface water. To the proponent's credit, this question is explicitly identified in the dAIR under section 6.5.2. However, the particular study steps (data acquisition, modelling, etc.) that would be required to specifically address it do not appear to be documented. The discussion provided in the dAIR of planned modelling activities appears to be great start, but it is not entirely clear that the EA will provide a detailed and validated 2D or 3D numerical (finite difference or finite element) model of groundwater flow and contaminant fate and transport, at a minimum over the full extent of the LSA, including connections to surface water bodies. Specific study steps that will be undertaken around the questions of deeper groundwater flow conditions and patterns, to at least a depth corresponding to the lowest elevation of the planned pit, as well as the role of bedrock structural features including faults and fractures, as relevant to potential contaminant fate and transport, do not appear to have been identified in the dAIR. The dAIR does not appear to provide information regarding the planned depth, water quality sampling parameters, and sampling frequencies for the groundwater monitoring program. While it seems to be implied, it is not entirely clear from the dAIR that an assessment of groundwater users in the area (e.g., existing local well owners), and the potential groundwater quantity and quality impacts of the proposed project upon them, will be conducted. Similarly, the generation of information which would permit assessment of the potential impacts of the proposed project upon slope stability issues in the roughly adjacent Aberdeen area of Kamloops has not been explicitly identified as a goal in the dAIR. 	The surface water catchments were selected as a first approximation of the LSA and RSA. The rationale was that these areas were larger than required for the groundwater study. The study areas have been reconsidered, given the likely local and regional groundwater boundaries that are of interest in this study. Further consideration will evolve as the information gained from the current network is included in the conceptual framework. Figure 6.4-1: The groundwater monitoring wells were established to characterize water quality in the LSA. They include wells upstream and downstream of the proposed facilities. Characterization of the local flow regime will include these wells, piezometers and wells installed adjacent to the pit, historical performance from past mining activities and development of a watershed model that includes surface water and groundwater components. Additional monitoring wells will be installed as required to adequately address potential impacts from facilities as the mine plan is advanced. Groundwater/surface water interaction: This is an element that will be considered when looking at the potential downstream effects of the proposed project. The primary tool for this study will be the watershed model. The watershed model will be developed based on the following data: <ul style="list-style-type: none"> Groundwater levels at measured well sites, in streams, wetlands, springs and ponds; Stream flow measurements to identify gaining and losing stream reaches as well as base flow contributions; and Meteorological data to address net precipitation available for groundwater recharge and runoff. The effect of the proposed project will be addressed locally with numerical or analytical models (e.g., groundwater drawdown, seepage, rock dump water balance) and the results will be input to the water shed model to assess the effects on downstream flow and water quality. Planned modeling activities: Modeling procedures (2D or 3D) will be used consistent with the available information and required output. The output from these models will be synthesized within the watershed model to assess the downstream effects. Where required to spatially constrain groundwater directions, groundwater particle tracks will be generated from the proposed facilities. Deep groundwater pathways: Groundwater characterization has been under way in the vicinity of the open pit as part of the open pit.		
C136	Natural Resources Canada (NRCan)	6.5 Hydrogeology	F. Schelle		(Track Changes in Document) 6.5 HYDROGEOLOGY Groundwater Quantity	Changes will be incorporated as suggested.		
C137	Forests, Lands and Natural Resource Operations (FLNRO)	6.5 Hydrogeology	Kevin Bennett		<ul style="list-style-type: none"> The AIR does not include a review of existing groundwater use in the LSA or RSA as an assessment activity. What is proposed on identifying and assessing impacts to existing groundwater users? MOE's water well database is a voluntary database and should not be relied on as a complete indicator of all water wells in the LSA or RSA. The AIR lists what hydrogeological information will be presented but not how it will be presented such as in a conceptual hydrogeological model of the LSA and RSA. The AIR should indicate how that data will be interpreted and presented in the application including maps and hydrogeological cross-sections. The application should include a discussion of the uncertainties inherent to the characterization of the groundwater system and provide a qualitative evaluation of their potential significance in the assessment of project impacts. The AIR should comment on the proposed spatial area to be numerically modeled in the assessment of mine effects on groundwater and whether the existing density and period of data is sufficient to construct and calibrate a numerical groundwater flow model. a. As an example, the proponent does not yet have a monitoring well(s)/baseline hydrogeological information downslope (south) of the east waste rock dump proximate to Peterson Creek. Surficial geology mapping for this area illustrates complex outwash materials. Not obtaining hydrogeological information from this area may be a data gap in constructing a conceptual model and useful predictive numerical flow model and assessing groundwater - surface water interaction and impacts along this reach of Peterson Creek. b. As another example, the pit will become a local groundwater sink influencing groundwater flow in all directions. It is unclear from the AIR if the proponent has gathered sufficient hydrogeological data to model and assess groundwater inflow (and impacts) to the pit from the south. The application should indicate how the modeling results will be incorporated into the mine design and impact monitoring. The proponent should be prepared to provide the modeling input and output files to the Environmental Assessment Office including all files that were used to develop, calibrate and apply the numerical model(s) as well as relevant base map files and calibration data sets The City of Kamloops is actively dewatering an area of Aberdeen to stabilize an ancient landslide. I expect the effect of the mine on groundwater conditions and slope stability in Aberdeen will be an important issue to Aberdeen residents and the City of Kamloops. It is unclear from the AIR and accompanying figures if the Aberdeen area is within the LSA or RSA. The hydrogeological assessment of mine effects will need to include the effects of the mine on groundwater conditions in Aberdeen. 	A review of the existing groundwater use in the study area will be carried out and include information such as: <ul style="list-style-type: none"> Published geology and hydrogeology reports and aerial photographs. Soils and geologic maps and aquifer classification mapping. Previous drilling/test pitting and hydraulic testing. Inventory of neighbouring well users and regional groundwater use (including First Nations users) and surface water use (water licences). The inventory of groundwater users will include some level of ground-truthing such as verifying with local personnel about their knowledge of the area, site visit and inspection of recent air photos. On site photographs. Climate data. Historical mine operations and site studies (e.g., Aberdeen area studies). A primary tool for this study will be a watershed model that incorporates baseline conditions as well as the components and phases of the mine development under a range of climatic conditions. The effect of the proposed project will be addressed locally with numerical or analytical models (e.g., groundwater drawdown, seepage, rock dump water balance) and the results will be input to the watershed model to assess the effects on downstream flow and water quality. Modeling procedures (2D or 3D) will be used consistent with the available information and required output. The output from these models will be synthesized within the watershed model to assess the downstream effects. Where required to spatially constrain groundwater directions, groundwater particle tracks will be generated from the proposed facilities. A conceptual groundwater model will be developed at the outset of the study and refined throughout the course of the investigations to strengthen and clarify the site understanding. The conceptual model will be developed using key hydrogeologic features and properties such as: <ul style="list-style-type: none"> Hydrogeological cross sections and mapping showing the interpreted geological setting including the known or inferred extent and continuity of stratigraphic units, aquifers and aquitards, and groundwater levels. Standard plots showing the relationship between hydraulic conductivity estimates and depth, rock type and spatial area. Standard time series plots of water levels to evaluate seasonal fluctuations as well as piezometric contoured surfaces for low and high flow periods to assess flow paths. 	The hydrogeological LSA and RSA will be expanded to include the Aberdeen neighbourhood.	Completed in Rev E.
C138	Fisheries and Oceans Canada (DFO)	6.6 - Fish Populations and Fish Habitat	Jeff Guerin		Further to the recommendation contained in the e-mail (May 19, 2011), related to fish sampling in Peterson Creek, I have recently become aware of another potential fisheries related data gap that will need to be addressed by the proponent. I recently received an inquiry from Environment Canada staff regarding the fish bearing status of Inks Lake. As there are no records contained in the agency fish inventory databases for Inks Lake, I sought the input of provincial fisheries staff related to this subject. I have been advised that there is the potential that at very high lake levels, water from Jacko Lake may provide a back water connection to Inks Lake and therefore there is the potential that fish from Jacko Lake (i.e. rainbow trout) may end up residing in Inks Lake. The provincial opinion also identified that the water quality parameters for Inks Lake may preclude the persistence of fish residing in that water body. However, the fish bearing status of Inks Lake should be confirmed as early as possible in the assessment process to avoid any unexpected or untimely issues arising related to this potential data gap	Fisheries studies in Inks Lake include two years of sampling using a variety of methods - no fish have been caught or observed. In addition, water sampling does indicate that several chemical and physical parameters are outside the optimum range for any fish species - as an example, sulphate levels are orders of magnitude higher than BC water quality guidelines for freshwater aquatic life. A non-fish bearing status report will be included in the Application/EIS, which will detail fishing effort and water chemistry values. The proponent has been in communication with the local MOE office to obtain physical evidence of the connectivity between Inks Lake and Jacko Lake at very high lake levels.	The area of Peterson Creek near Goose Lake Road has been included in the aquatic assessment.	
C139	Forests, Lands and Natural Resource Operations (FLNRO)	6.6 - Fish Populations and Fish Habitat	Phil Belliveau		The list of fish species using or passing through Kamloops Lake should include Coho salmon (<i>Oncorhynchus kisutch</i>), Chinook salmon (<i>Oncorhynchus tshawytscha</i>), pink salmon (<i>Oncorhynchus gorbuscha</i>), white sturgeon (<i>Acipenser transmontanus</i>) and possibly, Lake whitefish (<i>Coregonus clupeaformis</i>). While the risk is small, please be aware that pumping water from Kamloops Lake could impact fish, and this activity will have to be mitigated.	These species will be added to the list of species within Kamloops Lake. The mitigation requirement is noted.		
C140	MOE	(6.6 - Fish Populations and Fish Habitat) 6.6.2 - Background	Dennis Einerson & Gabi Matscha		Pg. 33+34, bullets on aquatic resources information: These bullets indicate that sediment quality, periphyton, phytoplankton, zooplankton and benthic macro-invertebrates are species that are present in Kamloops Lake. Sediment and benthic invertebrate information should be collected for baseline in creeks, and phyto- and zooplankton information should be collected for baseline in lakes (incl. Jacko Lake).	The list will be clarified to more clearly indicate that these parameters (sediment, benthic invertebrates, etc.) will be assessed for all proposed lake and stream sample sites (not only for Kamloops Lake).		
C141	MOE	(6.6 - Fish Populations and Fish Habitat) 6.6.2 - Background	Dennis Einerson & Gabi Matscha		Pg. 34, Last sentence of Section: Do the sample sites for the aquatic resource information correspond with the water quality sample sites?	Text will be revised to indicate that the sample sites for the aquatic resource information correspond with the water quality sample sites.		
C142	Fisheries and Oceans Canada (DFO)	(6.6 - Fish Populations and Fish Habitat) 6.6.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Jeff Guerin		Harmful alteration, destruction or disruption of fish habitat is not defined under section 35 of the Fisheries Act. Section 35(1) of the Act simply indicates that no person can cause a HADD of fish habitat	Text will be corrected to remove reference of the definition of HADD in Section 35 of the Fisheries Act.		
C143	MOE	6.6.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Dennis Einerson & Gabi Matscha		Pg. 35: The assessment on impacts to Jacko Lake need to include assessment of the likely hood for water level changes in or draining of Jacko Lake due to the nearby, much deeper pit and its water pumped from it.	The potential for water level changes or draining of Jacko Lake will be added to the list of potential effects to be assessed.		
C144	Environment Canada (EC)	6.7 Rare Plants 6.7.1 Rationale	Stephen Sheehan		Under Federal or provincial listing or regulation, Information on SARA-listed taxa provided by the Government of Canada (2007), and those listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).	These specific lists will be consulted and discussed in the Application/EIS.		

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C145	Environment Canada (EC)	6.7 Rare Plants 6.7.4 Potential Effects of the Proposed Project and Proposed Mitigation	Stephen Sheehan		2nd paragraph "and species-specific recovery strategies (where available)" should include draft recovery strategies, where available	Draft Recovery Strategies will be consulted and the wording in the dAIR/Draft EIS Guidelines will be updated to reflect this.		
C146	Environment Canada (EC)	6.8 Rare and Sensitive Ecological Communities 6.8.1 Rationale	Stephen Sheehan		Federal or provincial listing or regulation should include SARA Schedule 1,2 and 3 and COSEWIC listings; and BC Conservation Data Centre (BCCDC) listings (red and blue-listed species) Relevant legislation or policy concerning the VC should include sensitive plant communities such as riparian, old growth, and other habitats. Federal or provincial listing or regulation selection should include BC's Conservation Framework. Lists of Red and Blue-listed ecological communities should include wetland communities. Taxa of regional concern: There may be more information from other non-government sources (such as the GCC).	Text will be revised as suggested.		
C147	Environment Canada (EC)	6.8 Rare and Sensitive Ecological Communities 6.8.2 Background	Stephen Sheehan		Describe: (1) TEM mapping procedures and methodologies (including map product scale, etc.); site list of standards to be used; describe ground-truthing ecosystem surveys in support of TEM work. (2) Describe ecosystems and plant communities in the project area. (3) Describe any rare communities/plants in the project area. Include grasslands not in pristine condition, including those being actively grazed, as these habitats are important biologically and ecologically as well. For the proponents information, nearly all the grasslands in this region are grazed but remain sensitive ecosystems and support large numbers of species at risk as well as species not federally listed.	This information will be discussed in the Application/EIS; the dAIR/EIS Guidelines will be revised to reflect this.		
C148	Environment Canada (EC)	6.8 Rare and Sensitive Ecological Communities 6.8.3 Spatial and Temporal Boundaries	Stephen Sheehan		A description of the local and regional spatial extent of the assessment relative to the VC should include a 1 km buffer for the LSA. RSA should be VEC specific. The description of the period of time to be examined in the VC assessment should list temporal scales such as Construction, Operations, and Decommissioning. The 1 km Local Study Area should include roads/power lines and any other linear features.	The dAIR notes that the LSA will be determined using a combination of existing map sources and ecosystem mapping, an assessment of the expected area of disturbance associated with the pit, processing plant, TSF, and waste rock management facilities, buffered by a minimum 500 m. The proponent acknowledges that this buffer could extend to 1 km or more. The proponent agrees that the RSA should be VC-specific; Figure 6.7.1 delineates the South Kamloops Landscape Unit and a portion of the Campbell Landscape Unit, including areas south of the Thompson River and west of Highway 97, which is expected to be included in the RSA for the Rare and Sensitive Ecological Communities VC. The LSA will be augmented to include new roads and powerlines.		
C149	Environment Canada (EC)	6.8 Rare and Sensitive Ecological Communities 6.8.4 Potential Effects of the Proposed Project and Proposed Mitigation	Stephen Sheehan		Should include (1) Permanent and temporary losses of ecosystem/plant communities; (2) Disturbance impacts (zones of disturbance effects) The paragraph that starts where project activities/disturbances associated with construction and operations are likely to cause a negative impact on a VC should list mitigation hierarchy: avoidance, mitigation, then compensation. Mitigation strategies for wetlands should reference the Federal Policy on Wetland Conservation, and indicate that a Wetland Compensation Plan (WCP) would be developed consistent with the Policy where impacts cannot be avoided. Rationales would need to be provided explaining why wetland impacts cannot be avoided. Any WCP would need to incorporate riparian values. The word minor should be deleted.	Text will be revised as suggested.		
C150	Environment Canada (EC)	6.9 Terrestrial Invertebrates 6.9.1 Rationale	Stephen Sheehan		For the bullet taxa of regional concern, sightings and observations made by naturalists, etc., that have not been entered into the CDC, should be assessed.	The proponent will make all efforts to identify species present or likely present in the LSA and RSA based on all extant knowledge. Where species of concern are identified they will be listed as a VC for assessment.		
C151	Forests, Lands and Natural Resource Operations (FLNRO)	6.10 - Amphibians	Phil Belliveau		The VC list is restricted to Great basin spadefoot (Spea intermontana) and Western toad (Anaxyrus boreas). I recommend that the list be expanded to include Pacific tree frog (Hyla regilla) and any other amphibians that occur within the footprint area.	Pacific chorus frog (Pseudacris regilla) and Columbia spotted frog (Rana luteiventris) have both been detected on the study area. As they breed in similar habitats in the Project area and are subject to similar impacts from construction and operation, these two species may be grouped with western toad for assessment, but in any case will be included as VC.		
C152	Environment Canada (EC)	6.10 - Amphibians 6.10.1 - Rationale	Stephen Sheehan		Federal or provincial listing or regulation should include SARA Schedule 1, 2 and 3 listings; COSWIC listings; and BC CDC listings	These specific lists will be consulted and discussed in the Application/EIS.		
C153	Environment Canada (EC)	6.11 - Reptiles 6.11.1 - Rationale	Stephen Sheehan		Federal or provincial listing or regulation should include SARA Schedule 1,2 and 3 listings; COSWIC listings; and BCCDC listings	These specific lists will be consulted and discussed in the Application/EIS.		
C154	Environment Canada (EC)	6.11 - Reptiles 6.11.3 - Spatial and Temporal Boundaries	Stephen Sheehan		An assessment of the expected area of disturbance associated with the pit, processing plant, TSF, and waste rock management facilities, buffered by a minimum 1 km, is proposed as the Local Study Area (Figure 6.7-1). The LSA should include roads, power lines, and any other proposed linear developments.	The LSA will be determined using a combination of existing map sources and ecosystem mapping, an assessment of the expected area of disturbance associated with the pit, processing plant, TSF, and waste rock management facilities, buffered by a minimum 500 m. The proponent acknowledges that this buffer could extend to 1 km or more. The LSA will include all roads, power lines, and any other proposed linear developments.		
C155	Forests, Lands and Natural Resource Operations (FLNRO)	6.12 - Migratory Birds	Phil Belliveau		Sandhill cranes (Grus Canadensis) commonly stage in the grassland of the proposed East Waste Rock Management area. Please ensure this species is included in the proponents VEC list. As well, there are numerous waterfowl that nest or stage in the proposed mine foot print. The AIR should reference these species, some of which may be could be candidates for VECs.	Sandhill Cranes have been observed during field surveys. They will be added to the 'Migratory Birds' VC in n the AIR.		
C156	Environment Canada (EC)	6.12 - Migratory Birds 6.12.1 - Rationale	Stephen Sheehan		The Application will describe the rationale for selecting and assessing the following bird species as VC, as defined under the federal Migratory Bird Convention Act. The dAIR needs to give consideration to birds in migration (staging birds), wintering birds, and breeding bird assemblages. In other words, to bird and bird groups that rely on the habitats and related functions of the area, and/or contribute to important functions to habitats of the area. Federal or provincial listing or regulation should include the SARA Schedule 1,2 and 3 listings; COSWIC listings; and, BC CDC listings Information on SARA-listed taxa provided by the Government of Canada (2007) and COSEWIC-listed species.	The Application/EIS will include assessment of all life stages and habitats of the bird species listed in this section of the dAIR/EIS Guidelines. These specific lists will be consulted and discussed in the Application/EIS, and reference will be made to their inclusion in the AIR/ EIS Guidelines.		
C157	Environment Canada (EC)	6.12 - Migratory Birds 6.12.3 - Spatial and Temporal Boundaries	Stephen Sheehan		The recommended buffer should be 1km instead of a minimum 500 m.	The LSA will be determined using a combination of existing map sources and ecosystem mapping, an assessment of the expected area of disturbance associated with the pit, processing plant, TSF, and waste rock management facilities, buffered by a minimum 500 m. The proponent acknowledges that this buffer could extend to 1 km or more. The LSA will include all roads, power lines, and any other proposed linear developments.		
C158	Environment Canada (EC)	6.12 - Migratory Birds 6.12.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Stephen Sheehan		Where project activities/disturbances associated with construction and operations are likely to cause a negative impact on a VC an assessment should include direct effects (habitat loss), reduced habitat effectiveness (zones of influence effects), and mortality risk. Mitigation strategies should include any draft RS where they are available. In addition to mitigating potential impacts, opportunities for site restoration (and reclamation) and enhancement will be explored to help offset potential losses and improve biodiversity. Further, requirements for monitoring and mitigation management should be described and detailed.	This information will be included in the Application/EIS.	The proponent and consultants will continue to work with CWS to develop plans to assess the potential risks of the Project on migratory birds frequenting Inks Lake.	
C159	Forests, Lands and Natural Resource Operations (FLNRO)	6.13 - Raptors	Phil Belliveau		The grassland proposed as the East Waste Rock management area is an important staging area for Northern Harrier (Circus cyaneus), which is absent from the raptor VEC list. As well, these grasslands have been integral to the reintroduction of burrowing owls (Althene cucularia) in the Kamloops region. Numerous other raptors including Great Horned owl (Bubo virginianus), Great gray owl (Strix nebulosa), Red-tailed hawk (Buteo jamaicensis), American kestrel (Falco sparverius) and merlin (Falco columbarius) have been observed in the area.	More than 130 bird species have been detected on Project field surveys. The results of the surveys will be included and assessed in the Project's Application. Please see the comment above regarding Burrowing Owl.		
C160	Forests, Lands and Natural Resource Operations (FLNRO)	6.14 - Gamebirds	Phil Belliveau		The VEC for gamebirds is sharp-tailed grouse (Tympuchus phasianellus). There are three known sharp-tailed grouse lek sites within grassland of the proposed East Waste Rock management area. A population census is conducted on these leks every April and this is rolled up into a total population of the region. These three Knutsford sub-populations are regionally significant, and contribute between 10-15% of the total regional population. Please ensure this significance is referenced in the AIR for inclusion in the Application.	Sharp-tailed grouse are included as VC in this section. The Application/EIS will note that the species is considered regionally significant in the rationale for inclusion as a VC.		
C161	Forests, Lands and Natural Resource Operations (FLNRO)	6.14 - Gamebirds	Phil Belliveau		The other non-migratory gamebirds occurring in the area are Blue grouse (Dendragapus obscuris) and ruffed grouse (Bonasa umbellus), both regionally important species.	Ruffed Grouse have been detected during the Project bird surveys, and will appear on the species list.		
C162	Forests, Lands and Natural Resource Operations (FLNRO)	6.16 - Mammals	Phil Belliveau		Moose (Alces alces) commonly overwinter in the area and should be considered for inclusion on the list of VECs for mammals.	Moose will be added to the list of VECs.		
C163	Environment Canada (EC)	6.16 - Mammals 6.16.3 - Spatial and Temporal Boundaries	Stephen Sheehan		An assessment of the expected area of disturbance associated with the pit, processing plant, TSF, and waste rock management facilities, buffered by a minimum 1 km, is proposed as the Local Study Area (Figure 6.7-1) which should include the roads, power lines, and other proposed linear corridors. This is particularly important for species with large home ranges that are susceptible to road collisions and habitat fragmentation.	The LSA will be determined using a combination of existing map sources and ecosystem mapping, an assessment of the expected area of disturbance associated with the pit, processing plant, TSF, and waste rock management facilities, buffered by a minimum 500 m. The proponent acknowledges that this buffer could extend to 1 km or more. The LSA will include all roads, power lines, and any other proposed linear developments.		
C164	TNRD	7.0 - Assessment of Potential Economic Effects	Dan Wallace		Under Section 7, we believe that the assessment should also include agriculture and grassland conservation as part of the Land and Resource Use objectives.	The text will be corrected to include agriculture and grassland conservation as an example of land and resource use that will be considered in the assessment.		
C165	City of Kamloops	7.0 - Assessment of Potential Economic Effects	Jen Fretz		1. Page 63 (Section 7.1.3) a) Could not evaluate Figure 7.1-1 as it was not included in the submission package.	Figure 7.1-1 will be made available to the City and all WG members prior to finalization of the AIR/EIS Guidelines.		

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C166	City of Kamloops	7.0 - Assessment of Potential Economic Effects 7.4.6.	Jen Fretz		2. Page 69 (Section 7.4.6) a) As per the City's July 11, 2011 letter, we would like information regarding the economic spin offs from the proposed mine and a translation of the employment generation into population growth projections. Section E2 of the City's July 11, 2011 letter has further details.	This information will be included in the Application/EIS in Section 7.5.2 Business as stated in the dAIR: "The construction, operation and decommissioning of the Project provides an economic pathway of effects through the creation of employment, training opportunities, and business expenditures. The ability of people to benefit from these effects is linked to their level of education and training, as well as their ability to access the opportunities"	Out-migration will be included in the Application; Section 7.4.4 will be revised to reflect this.	
C167	Interior Health (IH)	7.7 - Housing	Misty Palm		l) The proponent should clearly define the impact to housing stock including affordability and availability.	The socio-economic baseline will include a description of the existing housing stock. The effects assessment will attempt to characterize the impact of the mine on real estate prices and availability. This will be done through a review of similar studies/projects as well as a consideration of the different types of factors that can impact on real estate prices and availability (e.g., forecast employment and business opportunities, housing market in general).	The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role.	Completed in Rev E.
C168	Transport Canada (TC)	7.9.2 Background	Suzanne L'Heureux		1st bullet, 3rd sub-bullet: Should be revised to read: "Domestic hunting, fishing, trapping and harvesting by Aboriginal groups"	The text will be revised as suggested.		
C169	City of Kamloops	8.0 - Assessment of Potential Social Effects	Jen Fretz		1. Page 84 (Section 8.4.2) a) We agree that dark sky should be included as a valued component, but it should not be focused solely on the impacts at Stake Lake. As per the City's July 11, 2011 letter, we request the following information: i) What will be the impact of 24-hour operations on the surrounding neighbourhoods (existing and proposed) with respect to mine lighting? What level of light during the non-daylight hours can residents expect and what mitigation measures will be used? ii) Our understanding is that the waste rock and tailings piles will extend above the height of the current hills in the area. If this is correct, we anticipate there will be lost sunlight during the winter months to those residents in the Upper Sahali and Knutsford areas. We request that a Sun Shadow Impact Assessment be completed to determine the impacts over the life of the mine (i.e. as the waste rock and tailings facilities increase in height). iii) What will be the impact of the shadowing from the tailing and waste rock piles? We ask that the proponent conduct a shadow impact study of these facilities.	The dAIR/EIS Guidelines will be revised to include effects assessment of mine lighting on surrounding neighbourhoods and shading resulting from development of the waste rock management facilities. The requested information will be included in the Application/EIS.	The preliminary LSA and RSA have been revised based on review of existing information, potential effects, and feedback received during consultation activities - Figure 8.4.1 will be updated to reflect this. The proponent can confirm that the assessment of "shading effects" means daytime impacts from shadows cast due to obstruction of the sun by objects related to the Project. Ore/overburden stockpiles will be added to the list of components to be considered for shading effects in Section 8.4.4 of the dAIR.	
C170	MEM	8.0 - Assessment of Potential Social Effects	Anne Moody		At no point in the draft AIR is there any reference to the visual/aesthetic impacts of the project. This is of particular importance as the project lies partially within city limits and the visual setting and outdoor activities are integral to this community. This section would benefit from a discussion of how reclamation practices would be utilized to maintain the visual/aesthetic values of the local area.	Aesthetics will be added as a Social VC; reclamation practices will be discussed in potential effects and mitigation measures of the Application/EIS.		Confirmed
C171	Interior Health (IH)	(8.2 - Community Health and Well Being) 8.2.3 - Spatial and Temporal Boundaries	Misty Palm		l) The proponent should clearly define the background information and criteria used to determine its boundaries and assessment of the potential effects to community health and well being.	The proponent will work with Interior Health to ensure appropriate delineation of the boundaries and assessment of the potential effects to community health and well-being.	The preliminary LSA/RSA for the Community Health and Well-Being VCs shown in the dAIR for discussion purposes was intended to encompass neighbouring communities. The boundaries will be revised for the Application based on review of existing information, potential effects, and feedback received during consultation activities. Section 8.2.3 of the Application will include the criteria used to determine the extent of the LSA and RSA.	
C172	Health Canada (HC)	General	Carl Alleyne		The draft dAIR appears to incorporate an assessment of human health impacts in Section 8.2 Community Health and Well-being. However, this section is very vague and lacking in any specificity on the scope of the assessment and the methodology that will be used. Furthermore, it will be difficult to interpret the significance of adverse impacts on human organisms because components of the human health impact assessments will be scattered within multiple sections of the Application.	Elements of the assessment of Human Health may be redundant or related to Section 8.2 and to various components within Section 10. In order to preserve clarity, these sections will be cross-referenced with their respective differences and overlap explained.	Ensure Community Health and Well-being VC is clearly defined and explained in AIR, to keep a clear distinction between the Community Well-being and Human Health VCs. Our concern is not only to avoid the type of confusion expressed in this comment by Health Canada, but also to keep the Community Well-being section focused on issues such as community capacity, sustainability, resilience, cohesion, social interaction and governance.	
C173	Health Canada (HC)	General	Carl Alleyne		Health Canada strongly recommends that the Assessment of Potential Environmental Effects includes a separate section dedicated to human health effects that summarizes how changes in the biophysical environment are likely to affect human health, including a consideration of the following: • drinking water (surface or ground) quality, • air quality, • country foods and, • noise Each one of these areas should be discussed in a separate sub-section in the human health effects section. We advise the proponent to refer to our guidance document "Useful Information for Environmental Assessments" on Health Canada's requirements for more detailed information that ought to be included in the dAIR and the Application.	Please note that the requested information will be provided as described in Section 10 of the dAIR/EIS Guidelines, corresponding to the AIR Template Section 9 "Assessment of Potential Health Effects".		
C174	Skeetchestn Indian Band	9.0 - Assessment of Potential Heritage Effects	Mike Anderson		Under the Forest and Range Practices legislation the Province of British Columbia recognizes a much broader definition of Cultural Heritage Resources rather than just archaeology.	The proponent acknowledges the comments provided by the Skeetchestn Indian Band regarding cultural heritage. The proponent will work with Aboriginal groups including the Skeetchestn Indian Band, as well as the BC EAO and the CEA Agency to ensure that reasonable consideration of their request to consider an expanded definition and scope of Cultural Heritage is accommodated in the application.	The Proponent is in discussion with the Stk'emlups division to finalize an agreement regarding the Cultural Heritage Assessment. Any information acquired by the proposed Cultural Heritage Assessment that is relevant to the environmental assessment will be integrated into the Application where this information is shared in a timely manner.	See C92
C174	Skeetchestn Indian Band				I have included some wording from the Province around their interpretation of these resources: <i>"The Forest Act defines a cultural heritage resource as "an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people."</i>			See C92
C174	Skeetchestn Indian Band				Section 10 of the Forest Planning and Practices Regulation (FPPR) further refines the definition of a cultural heritage resource under the Forest and Range Practices Act (FRPA). The FPPR states the following objective set by government: "to conserve, or, if necessary, protect cultural heritage resources that are: 1. the focus of a traditional use, by an aboriginal people, and that are of continuing importance to that people; and 2. not regulated under the Heritage Conservation Act."			See C92
C174	Skeetchestn Indian Band				In other words, the FRPA does not consider archaeological resources as cultural heritage resources being managed by the Ministry of Forests, Mines and Lands. Management of impacts to and the protection of archaeological sites are regulated by the Heritage Conservation Act. FREP does recognize, however, that many First Nations may see cultural heritage resources and archaeological sites as different dimensions of one type of information - information that contributes to the broader understanding of how First Nations people lived, and continue to live, on the land."			See C92
C174	Skeetchestn Indian Band				If the above inserted statements truly reflect the direction the Province is going in this regard then it is essential to include potential damage to cultural heritage resources as defined by the Province and further defined by the affected First Nations in this process. To this end we have developed a comprehensive assessment process that truly looks at First Nations cultural resources, values and interests. Within this process many resources important to First Nations are considered including to name a few, culturally important plants, animals, habitats, riparian function, special features and places as well as spiritual and ceremonial values. Consideration of these resources also speaks directly to both the social and health portions of the document in that respect for and use of many of these resources contributes greatly to both the well being of the First Nations community and the health of its members. I don't see any consideration for these resources and this aspect within the document even though this represents some of the main interests of the underlying title holders of the lands and waters that are to be irreparably impacted.			See C92

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AIR/EIS Guidelines Agency Comments - Revisions C and D

Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C175	City of Kamloops	10.0 Assessment of Potential Health Effects	Jen Fretz		1. Page 91 (Section 10.1) a) General comment – Air quality impacts in addition to dustfall and PM should be identified in this section. These should include, but not be limited to, chemicals used and/or by-products that are formed during mining operations.	Criteria Air Contaminants (CAC) have been identified as VC in the dAIR.		
C176	City of Kamloops	10.0 Assessment of Potential Health Effects	Jen Fretz		2. Page 92 (Section 10.1.4) a) Second paragraph – We want to confirm that estimates of actual levels of dustfall will be included for neighbouring communities. b) Second paragraph, second bullet – The impact of additional vehicular traffic (haul trucks, employees, etc.) should be included in the impacts of "site and access roads". c) Since another large open pit mine (Highland Valley Copper) is located relatively close by, is there the possibility of setting up dust fall monitoring sites down wind of that site to measure potential impacts? These stations could be located the same distance away from the operations as homes in Aberdeen, Pineview Valley and Knutsford (those closest to the proposed mine).	(a) dustfall sample sites have been monitored around the project area for collection of baseline information. These will be maintained through operations and post closure, as will be discussed in the Application/EIS. (b) Project components and activities that will be considered in the effects analysis for air quality and human health include the use of site and access roads, as currently described in this section of the dAIR/EIS Guidelines (c) The proponent is cognizant of air quality control mechanisms utilized at the Highland Valley Copper Mine, and where suitable, lessons learned at that site will be applied to the Ajax Project. However, due to the size, topography, mining methods, and other parameters, that mine would not serve as a good analogue for an air quality study of the Ajax Project.		
C177	City of Kamloops	10.0 Assessment of Potential Health Effects	Jen Fretz		3. Page 96 (Section 10.3) – general comment. a) Further to our July 12, 2011 meeting with KGHM-Ajax and Orica, we want to understand whether or not residents will hear and feel the mining operations.	As noted in this section of the dAIR/EIS Guidelines, the Application will identify and evaluate potential effects of the Project on noise and vibration levels	The Application will include an assessment of vibration and its potential effects, including the effects of vibration on the activities listed in Section 10.4.4. The dAIR will be revised to reflect this more clearly.	
C178	City of Kamloops	10.0 Assessment of Potential Health Effects	Jen Fretz		4. Page 97 (Section 10.3.4) a) The construction/installation of a buffer between the mine and current/future Aberdeen and Knutsford neighbourhoods should be considered as a mitigative measure in this section. b) Last paragraph – It is indicated that the noise associated with the construction and closure phases of the mine will not be modelled – we request that this position be reconsidered and those phases be modelled. c) (Sections 10.3.5 and 10.3.6) – Initial work completed by KGHM indicates that air blast impacts may extend beyond the study area indicated in Figure 10.3-1. We request that the air blast study area be expanded to include consideration of air blast impacts on all parts of the City of Kamloops and that the scope of work include detailed consideration of impact of air blast effects in residential areas under adverse weather conditions. d) (Sections 10.3.5 and 10.3.6) – Information provided by KGHM suggests that vibrations from blasting will be low in existing developed areas. Due to the presence of stability sensitive areas in Aberdeen, analysis should be completed to show that ground vibrations in these sensitive areas are in fact low.	(a) As noted in this section of the dAIR/EIS Guidelines, the Application will identify and evaluate potential effects of the Project on noise and vibration levels and propose mitigation measures for all phases of the Project to minimize the identified effects. (b) Noise associated with the construction and closure phases of the mine will be included in the assessment as a result of this request. (c) The proponent will work with the City to determine the most appropriate LSA and RSA for the analyses. (d) The Application/EIS will assess the effects of vibration on Aberdeen.	The Application will include an assessment of vibration and its potential effects, including the effects of vibration on the activities listed in Section 10.4.4. The study will include modelled full scale production blast scenarios to predict vibration and air overpressure values at identified points of interest. The dAIR will be revised to reflect this more clearly.	
C179	Health Canada (HC)	10.0 - Assessment of Potential Health Effects	Carl Alleyne		Notably missing from the dAIR is an assessment of potential human health effects due to consumption of country foods (fish, game, berries, plants, traditional medicines) that may become contaminated as a result of project activities. Aspects covered under this sub-section of the human health effects section should include hunting, fishing, traplines, and non-commercial farming or food production (e.g. country gardens). We recommend that a tiered risk assessment methodology be applied, incorporating site-specific local and First Nations traditional knowledge, data on contaminant levels in appropriate country foods and dietary consumption levels, to the extent possible.	The proponent will work with Health Canada and Aboriginal groups to outline an appropriate assessment of human health effects from the consumption of "country foods".		
C180	Health Canada (HC)	10.1 - Air Quality	Carl Alleyne		This section does not make any reference to volatile organic chemicals (VOCs) (incl. airborne emissions from diesel equipment and vehicles) or other atmospheric contaminants, such as SOx and NOx. In addition to assessing the effects of these substances on the atmospheric environment, human health effects should also be discussed, preferably in a human health effects section rather than in Section 10.1. The units reported for CCME Air Quality Guidelines for PM10 and PM2.5 in Section 10.1.5 are incorrect and should be µg/m ³ .	Criteria Air Contaminants (CAC) have been identified as VC in the dAIR. CAC as defined by Environment Canada, refer to a group of pollutants that include: • Sulphur Oxides (SOx); • Nitrogen Oxides (NOx); • Particulate Matter (PM); • Volatile Organic Compounds (VOC); • Carbon Monoxide (CO); and, • Ammonia (NH ₃) • Ground-level Ozone (O ₃); and • Secondary Particulate Matter (PM) Text will be revised in the dAIR/EIS Guidelines to include the correct units of measurement.		
C181	MOE	10.1 - Air Quality (Dustfall, PM10 and PM2.5)	Dennis Einerson & Gabi Matscha		Pg. 91: The Ministry's Air Quality Meteorologist, Ralph Adams, should be contacted to determine if data will be sufficient.	The proponent has been in discussion with Ralph Adams to determine data sufficiency and modelling requirements.		
C182	Interior Health (IH)	10.1.4 - Air Quality (Dustfall, PM10 and PM2.5) 10.1.1 - Rationale & 10.1.2 - Background	Misty Palm		1) The inventory of air quality parameters should be expanded to include all potential air contaminants and their sources, including, but not limited to: a) Trace metals, air pollutants from the list of toxic substance is Schedule 1 of the Canadian Environmental Protection Act, criteria air contaminants, radiological parameters, physical characteristics (e.g. ... crystalline silica dust). 2) The dust inventory should include total particulate matter and the inhalable (PM ₁₀) and respirable (PM _{2.5}) fractions. The particulate fractions should be described in terms of toxicological properties for parameters such as trace metals, for example. The PM _{2.5} fraction should also be described in terms of primary and precursor pollutants. 3) The BC Provincial Guidance on Application of Provincial Air Quality Criteria for PM _{2.5} and the CCME Guideline for r Continuous Improvements for Keep Areas Clean should be included as the guiding principles in the development of the particulate assessment program. 4) It has been documented that no safe thresholds have been identified for respirable particulates. Therefore, the applicant must strive to not degrade the air quality further, and work to achieve or exceed the Provincial Air Quality Criteria for PM _{2.5} of: • 25µg/m ³ daily (24hr average) • 6µg/m ³ annual air quality objective 5) Under Section 10.1.2, the AIR refers to the Regional Brocklehurst sampling station as a location for PM _{2.5} data collection. It should be noted that this station is separated by a distance of approximately 5km, and varies in elevation and topographical features from the LSA. All efforts must be made to validate the Brocklehurst station data as being representative of the LSA. 6) Under Section 10.1.2, the AIR refers to consumption of country foods potentially exposed to contaminated soil or dust fall as a valued component. This should be reflected in the project assessment through fruit and vegetable production in residential gardens. The status of data collection from the perspective of background levels and ongoing monitoring programs in this area of study is unknown. The topic of bioaccumulation of trace metals in human receptors is not noted in project assessment plans reviewed to date.	(1) Criteria Air Contaminants (CAC) have been identified as VC in the dAIR. CAC as defined by Environment Canada, refer to a group of pollutants that include: • Sulphur Oxides (SOx); • Nitrogen Oxides (NOx); • Particulate Matter (PM); • Volatile Organic Compounds (VOC); • Carbon Monoxide (CO); and, • Ammonia (NH ₃) • Ground-level Ozone (O ₃); and • Secondary Particulate Matter (PM) Text will be revised in the dAIR/EIS Guidelines to include the correct units of measurement. (2) baseline dust samples are being analyzed for total particulates and total metals (3) Mitigation and management measures will be outlined in the Application/EIS; the 2007 Guidance Document on Continuous Improvement (CI) And Keeping-Clean-Areas-Clean (KCAC) and the provincial Guidance on Application of Provincial Air Quality Criteria for PM _{2.5} (Ministry of Healthy Living and Sport, June 2009) will be referenced in Section 10.1.5 (4) Noted (5) Noted (6) For the purposes of the Ajax Project effects assessment, "Country Foods" will include residential garden production. Baseline data collection is ongoing and will be discussed in detail in the Application/EIS. The Proponent will work with Interior Health to describe the program and ensure that it is appropriate. Upon realization of the effects assessment, trace metal bioaccumulation in humans will be noted should a residual effect of trace metal dispersion be forecast.	The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role.	Noted
C183	Interior Health (IH)	10.1.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm		1) The proponent should clearly define the LSA and the criteria used to determine its boundaries and assessing potential human health effects. 2) The LSA description should identify potential receptors (residential, commercial and industrial land uses) and sensitive subpopulations and the distance from each to project construction and operational components. As examples, this should include identification of schools, child and adult care facilities, parks and playgrounds and retirement type developments where elderly populations may be concentrated. 3) Monitoring sites within the LSA should be broadened to include potential receptor sites and potential emission sites (such as rock waste storage, tailings ponds, etc.) 4) The assessment should clearly describe the ambient air in the LSA and the projected emissions from the project (construction, operation, decommissioning, closure AND post closure) for the aforementioned parameters. The standards or benchmarks used towards the assessment of the human health significance of the described ambient and emission inventories should be clearly presented. The quality of data collected should be sufficient for initiation of human health risk assessments should residual effects of concern be identified. 5) The proponent should clearly outline the methodology used to identify and analyze potential adverse health effects. Does this include bio monitoring of potential receptors? 6) The assessment for potential adverse effects should be expanded to include post closure. 7) Broaden mitigation measures for potential adverse health effects to include post closure. 8) The proponent should provide a clearly defined complaint response and resolution policy as part of the mitigation of adverse effects relating to air quality. 9) It is noted from a memorandum between Knight Piesold and the Ministry of Environment (May 5, 2011) that "MoE is not expecting air quality dispersion modeling for particulate matter or dust since these models have limited utility". Clear justification for all methods of data collection which could be used for the purpose of human health assessment within the LSA should be provided.	1&2) The proponent will work with Interior Health to ensure that the proposed LSA and RSA boundaries are appropriately described in the dAIR/EIS Guidelines. 3) The proponent will work with Interior Health to ensure that monitoring sites are appropriate. 4&5) The proponent will work with Interior Health to set appropriate analysis requirements and data benchmarking. 6,7&8) The effects assessment and mitigation discussion will include the post closure phase of the Project. 9) A complaint response and resolution procedure will be considered as part of the mitigation of adverse effects relating to air quality.	Figure 6.1-1 shows a preliminary LSA/RSA for the Health Effects VC - Water Quality. The boundaries will be revised for the Application based on review of existing information, potential effects, and feedback received during consultation activities. The setting of these boundaries is linked to potential contaminant emissions and effects assessment in terrestrial and aquatic systems of the study area. Because the Health Effects assessment of Air Quality is not yet complete, it is premature to provide the final LSA and RSA boundaries for the VC in the dAIR. Section 10.1.3 of the Application will include the criteria used to determine the extent of the LSA and RSA.	
C184	MEM	Section 10.1.4 (Air quality)	Anne Moody		An ongoing and progressive reclamation plan should be addressed as an effective measure for controlling dust generation from disturbed substrates.	The dAIR/EIS Guidelines will be revised to include reference to an ongoing and progressive reclamation plan should be addressed as an effective measure for controlling dust generation from disturbed substrates.		
C185	MEM	Section 10.1.5 (Residual Effects and Significance)	Anne Moody		Monitoring programs must be reported on annually. Mitigation measures will be designed to account for poor performance.	The dAIR/EIS Guidelines will be revised to indicate that monitoring programs will be reported on annually and that additional mitigation measures will be considered and applied where monitoring results indicate that any applied mitigation measures are not functioning effectively.		
C186	Health Canada (HC)	10.2 - Water Quality	Carl Alleyne		The dAIR should include references to assessing effects on the project on intake drinking water sources within the project area and on potentially affected end users. Consistent with our other recommendations, potential adverse effects of the project on human health should be discussed in the human health effects section, and relevant information discussed in this section should be cross-referenced there. The "Action Plan for Safe Drinking Water in British Columbia" should be reviewed as part of the assessment.	Project effects on drinking water quality will be assessed, as noted in Section 10.2.5 of the dAIR/Draft EIS Guidelines. Section 10.0 is the Assessment of Potential Health Effects. The suggested reference will be reviewed as part of the assessment		
C187	Interior Health (IH)	10.2 - Water Quality	Misty Palm		1) The proponent should include detailed information with respect to potable water supply for the mine, specifically: a) What is proposed for the source of potable water? b) What is proposed for the treatment of source water/raw water to provide water that is considered potable and compliant with the Drinking Water Protection Act?	The requested information will be supplied in the Application/EIS, in Section 3.0. Language in the dAIR/Draft EIS Guidelines will be updated to reflect this.		
C188	Interior Health (IH)	10.2.1 - Rationale	Misty Palm		1) Ensure water quality is compared against the Guidelines for Canadian Drinking Water Quality.	Please see Section 10.2.5 of the dAIR/Draft EIS Guidelines, where it is indicated that the results will be compared against the Canadian Guidelines for Drinking Water Quality		

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AIR/EIS Guidelines Agency Comments - Revisions C and D

Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C189	Interior Health (IH)	10.2.3 - Spatial and Temporal Boundaries	Misty Palm		<p>1) The proponent should clearly define how the LSA and RSA were determined with respect to assessing potential human health effects and water quality.</p> <p>2) With respect to the surface and ground water monitoring sites/wells within the LSA and RSA, the proponent should identify how these sites were chosen with respect to monitoring for potential adverse health effects.</p> <p>3) Are there any drinking water intakes or drinking water supplies located within the RSA or LSA that may be impacted?</p> <p>4) How were the surface and ground water monitoring sites/wells chosen?</p>	The proponent will work with Interior Health to ensure that the proposed LSA and RSA boundaries are appropriately described in the dAIR/EIS Guidelines. Sample locations will also be discussed with Interior Health, and further explained in the Application/EIS.	Figure 7.1-1 shows a preliminary LSA/RSA for the VC - Community Health and Well-Being for discussion. The boundaries will be revised for the Application based on review of existing information, potential effects, and feedback received during consultation activities. The spatial boundaries for the health assessment will be based on the boundaries defined for and inclusive of both the air quality and the water quality assessments. The setting of these boundaries is linked to potential contaminant emissions and effects assessment in terrestrial and aquatic systems of the study area. Section 8.2.3 of the Application will include the criteria used to determine the extent of the LSA and RSA.	
C190	Interior Health (IH)	10.2.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm		<p>1) The proponent should clearly outline the methodology used to identify and analyze potential adverse health effects. Does this include bio monitoring of potential receptors?</p> <p>2) The above mentioned analysis should be expanded to include post closure.</p> <p>3) With respect to potential adverse health effects relating to water quality, the proponent should assess water quality results against the Canadian Guidelines for Drinking Water Quality.</p> <p>4) The proponent should clearly outline the proposed mitigation measures with respect to any exceedances of the Guidelines for Canadian Drinking Water Quality and other applicable guidelines and legislation.</p> <p>5) Proposed mitigation measures should also include post closure.</p> <p>6) The proponent should provide a clearly defined complaint response and resolution policy as part of the mitigation of adverse effects relating to water quality.</p>	<p>1) The methodology used to identify and analyze potential adverse health effects will be provided in Section 10.3.2 of the Application/EIS. The proponent will work with Interior Health to identify the most appropriate methods and parameters.</p> <p>2) The analysis will be expanded to include post closure.</p> <p>3) Please see Section 10.2.5 of the dAIR/Draft EIS Guidelines, where it is indicated that the results will be compared against the Canadian Guidelines for Drinking Water Quality.</p> <p>4) This information will be included within the Application/EIS, as indicated in Section 10.2.4 of the dAIR/Draft EIS Guidelines</p> <p>5) Mitigation and management measures, including post closure as required, will be discussed in the Application/EIS, as indicated in Section 10.2.4 of the dAIR/Draft EIS Guidelines</p> <p>6) A complaint response and resolution procedure will be considered as part of the mitigation of adverse effects relating to water quality.</p>	The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role.	Noted
C191	MOE	10.2 - Water Quality 10.2.5 - Residual Effects and their Significance	Dennis Einerson & Gabi Matscha		Pg. 95.2nd set of bullets: This set of bullets indicates in relation to what the significance will be assessed. Under which of these bullets would the impact to livestock be assessed? A new bullet may be needed if none of the existing bullets cover it and livestock watering occurs in affected surface water downstream or in groundwater wells that are used to water livestock.	The dAIR indicates that significance will be assessed in relation to Canadian Environmental Quality Guidelines - Water Quality Guidelines for the Protection of Agriculture. Note that both irrigation and livestock are included in these guidelines.	The proponent will use the Provincial guidelines where available and Canadian guidelines if Provincial guidelines do not exist.	
C192	Health Canada (HC)	10.3 - Noise and Vibration	Carl Alleyne		It may be appropriate to incorporate this section into the human health effects section. At the very least, discussions of the health impacts of noise and vibration on human receptors should be discussed in the human health effects section.	Section 10.0 is the Assessment of Potential Health Effects.		
C193	Health Canada (HC)	10.3 - Noise and Vibration	Carl Alleyne		The dAIR provides few clues on the scope of the noise impact assessment and the approach that will be taken, apart from a reference to a noise dispersion model to predict anticipated noise impacts. For an assessment of the impacts of the project due to increased noise, a comparison with existing background noise levels will be necessary. The dAIR should indicate whether existing noise will be determined by ambient noise measurements or any other means. We also advise that the noise assessment includes impacts from project-related vehicular traffic (e.g., concentrate trucks) at locations where human exposure to this noise source may occur.	Working with Health Canada, the dAIR/EIS guidelines will be revised to include baseline assessment methodology for incorporation to the effects assessment.		
C194	Health Canada (HC)	10.3 - Noise and Vibration	Carl Alleyne		We recommend that the Health Canada document, Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise. DRAFT, January 2011 (attachment to the covering email) is used as a primary guidance for acceptable methodologies and the evaluation of human health effects due to noise (including blasting).	The suggested draft document will be consulted as guidance for noise effects regarding human health.		
C195	Health Canada (HC)	10.3 - Noise and Vibration	Carl Alleyne		We advise that additional sources for assessing compliance with accepted noise guidelines are: <ul style="list-style-type: none"> • World Health Organization's Guidelines for Community Noise (1999) and • The City of Kamloops Noise Control By-law 24-42. In addition, noise effects due to blasting should be referenced in the dAIR. In this regard, CAN/CSA-ISO 1996-1:05 and US EPA Report no. 550/9-74-004 (Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare With an Adequate Margin of Safety) would offer suitable guidelines for blasting noise. Health Canada does not offer any recommendations on appropriate standards or guidelines for assessing the impacts of vibration.	The suggested documents will be added to the list of standards and guidelines presented in Section 10.3.5 of the dAIR/EIS Guidelines for determination of significance. Section 10.3.4 of the dAIR/EIS Guidelines identifies blasting as one of the project activities that will be evaluated for potential effects.		
C196	Health Canada (HC)	10.3 - Noise and Vibration	Carl Alleyne		Health Canada advises the proponent to include a Noise Management Plan for the project since the project includes transportation of equipment, supplies and concentrate in the proximity of urban and rural communities.	A Noise Management Plan will be added to the list of management plans indicated in Section 11 of the dAIR/EIS Guidelines.		
C197	Interior Health (IH)	(10.3 - Noise and Vibration) 10.3.3 - Spatial and Temporal Boundaries	Misty Palm		<p>1) The proponent should clearly define how the LSA and RSA were determined with respect to noise and vibration effects. A description of the LSA in terms of receptor populations should be provided and include sensitive sub population identification. No rationale or criteria have been provided for the proposed local and regional spatial extent map. The noise impact assessment should define how the permissible noise levels are applied within the context of the spatial and temporal study boundaries.</p> <p>2) The proponent should conduct seasonal/year round assessment for the purpose of developing a complete background profile.</p>	The proponent will work with Interior Health to ensure that the proposed LSA and RSA boundaries are appropriately described in the dAIR/EIS Guidelines, and that sufficient baseline data are collected.	Figure 10.4-1 shows a preliminary LSA/RSA for the VC - Noise and Vibration for discussion. The boundaries will be revised for the Application based on review of existing information, potential effects, and feedback received during consultation activities. Because the assessment of Noise and Vibration is not yet complete, it is premature to provide the rationale for determining final LSA and RSA boundaries for the VC in the dAIR. Section 8.2.3 of the Application will include the criteria used to determine the extent of the LSA and RSA.	
C198	Interior Health (IH)	10.3.4 - Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm		<p>1) The proponent should clearly outline the methodology used to identify and analyze potential adverse health effects. Does this include bio monitoring of potential receptors?</p> <p>2) Proposed mitigation measures should also include post closure.</p> <p>3) The proponent should provide a clearly defined complaint response and resolution policy as part of the mitigation of adverse effects relating noise and vibration.</p>	<p>1) The methodology used to identify and analyze potential adverse health effects will be provided in Section 10.3.2 of the Application/EIS. The proponent will work with Interior Health to identify the most appropriate methods and parameters.</p> <p>2) The analysis will be expanded to include post closure.</p> <p>3) A complaint response and resolution procedure will be considered as part of the mitigation of adverse effects relating to noise and vibration.</p>	The assessment of the Noise and Vibration is not yet complete, therefore it is premature to include all methodology/ rationale for potential adverse effects assessment in the dAIR. This information will be provided in the Application. The Proponent defers the second part of this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role.	Noted

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AIR/EIS Guidelines Agency Comments - Revisions C and D

Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C199	Interior Health (IH)	10.3.5 - Residual Effects and Their Significance	Misty Palm		1) Transportation should be included as a noise generating parameter that may have potential adverse effects. 2) "Noise associated with the construction and closure phases of the mine will not be modelled as the time frame will be relatively short-term". How will noise levels/possible adverse effects from construction and closure be assessed in the absence of modelling? The proponent should include construction and closure noise in the overall impact assessment and proposed mitigation measures. 3) In addition to the reference guidelines listed in the report the proponent should also consider in the development of a noise impact assessment program: a) Health Canada - Guidelines for Evaluating Human Health Impacts in Environmental Assessment: NOISE draft, January 20 11. b) Municipal Noise Bylaws such as those found in Kamloops, Vancouver, Richmond, North Vancouver and Delta BC.	1) Transportation will be added to the list of project activities to be assessed in Section 10.3.4 of the dAIR/EIS Guidelines. 2) The analysis will be expanded to include construction and closure noise. 3) The following will be added to the list of reference guidelines (a) The Health Canada Guidelines for Evaluating Human Health Impacts in Environmental Assessment: NOISE (draft, January 2011). b) City of Kamloops Noise Control By-law 24-42	Reference to the Health Canada Noise document will be removed from the dAIR, as recently advised by Health Canada.	
C200	City of Kamloops	11.0 - Summary of Proposed Environmental and Operational Management Plans	Jen Fretz		1. Page 103 (Section 11.2) a) We would like the following plans added to the list of environmental management and monitoring plans: i) Management and Measurement of Changes to Surface Water Regime (i.e. document impacts on surface water flow). ii) Dark Sky Management and Monitoring Plan iii) Visual Impacts Management and Monitoring Plan iv) Groundwater Pressure Management and Monitoring Plan	i) The management and measurement of changes to surface water regime will be included in the Water Management And Hydrometric Monitoring Plan ii) Dark Sky Management and Monitoring Plan will be added to the list iii) Visual Impacts Management and Monitoring Plan will be discussed with the City to understand the most appropriate objectives and methods. iv) The management and measurement of changes to groundwater will be included in the Water Management And Hydrometric Monitoring Plan		The Proponent is committed to continuing discussions with the City of Kamloops.
C201	Forests, Lands and Natural Resource Operations (FLNRO)	11.0 - Summary of Proposed Environmental and Operational Management Plans 11.2 - Environmental Management and Monitoring Plans	Phil Belliveau		The list of monitoring and management plans seems incomplete. Please ensure the Application includes the following plans: • Weed management plan. With the amount of disturbance proposed through this development, a weed management plan will be a critical environmental management component. • Access management plan. Much of the proposed mine site is currently highly used by recreationists. For example, Inks Lake skaters, Coal Hill-south mountain bikers, Jacko Lake fishermen. How will access to these recreational values be managed? • VEC mitigation/offset plans. It is necessary that the proponent monitor the success of mitigation measures employed to reduce or eliminate development impacts on VECs. The same principle applies to measures employed to offset residual impacts to VECs.	The Wildlife/Vegetation Monitoring Plan will include invasive species monitoring and management. An Access Management Plan will be included in the revised dAIR/EIS Guidelines. The success of mitigation and compensation measures will be monitored as part of the Fisheries And Aquatic Life Monitoring Plan and Wildlife/Vegetation Monitoring Plan included in the list.		
C202	MOE	11.1 - Environmental Management System	Dennis Einarson & Gabi Matscha		Pg. 103,1st set of bullets: EMS should also outline impact avoidance measures (e.g. in erosion and sediment control plans) and emergency response.	Impact avoidance will be an integral part of the management plans listed in Section 11.2.		
C203	Environment Canada (EC)	11.1 - Environmental Management System	Stephen Sheehan		In this section quite a few plans are to be written. Environment Canada Emergencies Section would like to be able to review the following plans: • Solid Waste Management Plan • Hazardous Waste Management Plan • Accidents And Malfunctions Plan • Emergency Response Plan	Noted.		
C204	TNRD	11.2 - Environmental Management and Monitoring Plans	Dan Wallace		Under Section 11.2, we note the list of plans to be developed. We ask that the Groundwater Quality Management and Monitoring Plan move beyond quality to also include quantity and availability. Security, including cattle fencing and guards, should also be considered in the planning process. A recreational amenity/park plan should be considered if the proponent plans include the elimination of Inks Lake, access impacts on Jacko Lake and peripheral trail networks (as noted on page 101).	The management and measurement of changes to groundwater will be included in the Water Management And Hydrometric Monitoring Plan. Security will be addressed within an Access Management Plan (to be added to the list). Recreational amenities will be discussed with the TNRD in order to identify appropriate opportunities.		
C205	Ministry of Energy and Mines (MEM)	11.2 - Environmental Management and Monitoring Plans	Tania Demchuk		7a) The water management plans should include plans for construction, operations, closure and post-closure, and water management mitigations and contingencies. b) Either as a separate plan or as part of the vegetation management plan, an invasive plant management plan is required.	Text in the dAIR/EIS Guidelines will indicate that water management plans will include plans for construction, operations, closure and post-closure, and water management mitigations and contingencies; invasive plant management plan will be within the Wildlife/Vegetation Monitoring Plan		
C206	MOE	11.2 - Environmental Management and Monitoring Plans	Dennis Einarson & Gabi Matscha		Pg. 103, 2nd set of bullet: Surface water diversion, where, how, why, should be addressed in one of the plans;	A Fish Habitat Compensation Plan noted in Section 6.6.4 of the dAIR/EIS Guidelines will include this information. This plan will be separate from the EMS described in Section 11.2.		
C207	MOE	11.2 - Environmental Management and Monitoring Plans	Dennis Einarson & Gabi Matscha		Pg. 103, 2nd set of bullet: A plan for explosion management should also be included.	Management and operation of the explosives storage facility will be included in one or more of the listed plans (e.g., Surface Water Quality Management And Monitoring Plan, Contaminated Sites Management Plan, Solid Waste Management Plan; Hazardous Waste Management Plan; Accidents And Malfunctions Plan).		
C208	Natural Resources Canada (NRCan)	11.2 - Environmental Management and Monitoring Plans	Minerals and Metals Sector		Recommend including ML/ARD prediction and planning, liquid effluent disposal plans, spill contingency plans, and evaluation of worst case scenario (e.g. accidental explosion).	These topics will be included in one or more of the listed plans (e.g., Surface Water Quality Management And Monitoring Plan, Contaminated Sites Management Plan, Solid Waste Management Plan; Hazardous Waste Management Plan; Accidents And Malfunctions Plan).		
C209	Environment Canada (EC)	11.2 - Environmental Management and Monitoring Plans	Stephen Sheehan		A Seepage and Surface Drainage Management Plan should be included to address seepage and surface drainage from mine wastes	Seepage and surface drainage management will be included in the Water Management And Hydrometric Monitoring Plan listed in this section.		
C210	MEM	11.2 - Environmental Management and Monitoring Plans	Anne Moody		a. Concepts for operational and post-closure monitoring and maintenance plans will be provided. The reclamation plans should include effective and scientifically defensible long-term monitoring programs. Contingency plans for remedial action will be provided where there are significant uncertainties associated with reclamation success. b. The monitoring programs will include assessment of metal uptake by plants. c. Either as a separate plan or as part of the vegetation management plan, an invasive plant management plan is required.	a. Operational and post-closure project phases will be included in the conceptual plans presented in the Application/EIS. The reclamation plans will include effective and scientifically defensible long-term monitoring programs, and contingency plans for remedial action will be provided where there are significant uncertainties associated with reclamation success. b. Metal uptake by plants be monitored as part of the Wildlife/Vegetation Monitoring Plan. c. Invasive plant management requirements will be included in the Wildlife/Vegetation Monitoring Plan.		
C211	MOE	11.3 - Compliance Monitoring	Dennis Einarson & Gabi Matscha		Pg. 104: Reporting requirements to provincial agencies will be finalized and made enforceable in the permitting process.	Noted		
C212	Canadian Environmental Assessment Agency (CEAA)	Part C - Aboriginal Groups Information Requirements	Lyle Thompson		Update throughout this section as per the comment in IV above	Text will be revised as suggested.		
C213	Transport Canada (TC)	Part C - Aboriginal Groups Information Requirements	Suzanne L'Heureux		Please collect the following information from First Nations: • Description of First Nation navigational use of Jacko Lake, and any other navigable waterbody affected by the project that may be identified during the course of the review. • Potential to impact their traditional uses of Jacko Lake including navigation use. These questions must be explicitly put to First Nations, because the navigational use of waterbodies is not a topic that naturally arises in the context of environmental assessment discussions. Transport Canada may require this information in order to issue approvals under the Navigable Waters Protection Act.	The proponent will work with First Nations, Transport Canada and the CEA Agency to ensure that information regarding navigability of Jacko Lake is captured to the extent possible for inclusion in the Application/EIS.		
C214	Canadian Environmental Assessment Agency (CEAA)	12.0 - Background Information	Lyle Thompson		There are no Treaty Nations involved in this project	Text will be revised as suggested.		Completed in Rev D.
C215	Canadian Environmental Assessment Agency (CEAA)	12.0 - Background Information	Lyle Thompson		(Track Changes in Document) "Identify past, present and anticipated futures uses of the proposed Project are by aboriginal groups" to "Identify past, present and anticipated futures uses by aboriginal groups of the area impacted by the project"	Text will be revised as suggested.		The preamble in Part C of Rev D of the AIR includes the following text: "The Application will include an assessment of the potential effects of the proposed Project on Aboriginal rights (including title) as indicated by information from First Nations or other sources regarding current interests and use of the Project area .."
C216	Canadian Environmental Assessment Agency (CEAA)	13.0 Aboriginal Rights and Treaty Rights	Lyle Thompson		Describe mitigation measures to avoid or reduce such impacts." And accommodation?	Text will be revised to read "Describe mitigation measures to avoid or reduce such impacts. Where impacts are determined to be unavoidable, accommodation of First Nation concerns will be discussed to the extent that the accommodation practices can be shared publically."		Section 16 of the AIR (Rev E) has been revised to include text regarding mitigation measures, and commitments including accommodation
C217	Natural Resources Canada (NRCan)	15.0 - Aboriginal Consultation	Minerals and Metals Sector		Application should describe key Aboriginal issues raised during the consultations (replace "relevance to the EA" with "raised during these consultations"). Additionally, responses to issues should also include description of changes to proposed project design due to comments from Aboriginal groups.	Text will be revised as suggested.		
C218	Transport Canada (TC)	15.0 - Aboriginal Consultation	Suzanne L'Heureux		Last bullet Should be revised to read: "Describe key aboriginal issues of relevance to the EA and responses to these issues."	The text will be revised as suggested by NRCan, as noted above.		
C219	Canadian Environmental Assessment Agency (CEAA)	Part D - Federal Information Requirements	Lyle Thompson		Where applicable, review comments listed below should also be incorporated in the relevant sections above.	Noted		Noted

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C220	City of Kamloops	17.0 - Federal Environmental Assessment Requirements	Jen Fretz		1. Page 108 (Section 17.4) a) Second paragraph – Does the "Description of the alternative means of carrying out the project" speak to locating the waste rock piles further south of the City? b) (Section 17.6) – Does the "extreme weather events" section discuss the alternative transport route and storage locations during inclement weather?	(a) Alternative means of carrying out the project will include assessment of the waste rock management facilities. (b) effects of the environment on the project will include all project components.		The concentrate storage facility has a capacity of 4,000 tonnes of concentrate, an approximately 7 day stockpile. This is considered sufficient for potential transport disruptions (either natural, such as severe weather, or those resulting from human error) - no emergency concentrate storage facility will be required.
C221	MOE	17.0 - Federal EA Requirements 17.6 - Effects of the Environment on the Project	Dennis Einerson & Gabi Matscha		Pg. 108: Under the effects of the environment on the project, it should be considered that this area is located in a semi-desert. Drought events may occur.	Drought will be included under "extreme weather events".		
C222	Canadian Environmental Assessment Agency (CEAA)	17.1 - Purpose of the Project	Lyle Thompson		Duplicated in section 17.4 below	For discussion - text inserted following Section 17.3 deviates from BCEAO AIR Template. The proponent is willing to accommodate this request.		Completed in Rev D.
C223	Canadian Environmental Assessment Agency (CEAA)	17.2 - Environmental Effects	Lyle Thompson		(Track Changes in Document): Environmental effects means, in respect of the project: • Any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individual of that species, as those terms are defined in subsection 2(1) of the Species at Risk Act. • Any effect of any change in the environment caused by the project on o Health and socio-economic conditions o Physical and cultural heritage o The current use of land and resources for traditional purposes by aboriginal persons, or o Any structure, site or thing that is of historical, archaeological, paleontological or architectural significant, or • Any change to the project that may be caused by the environment, as described in section 17.6 below.	Text will be revised as suggested.		
C224	Natural Resources Canada (NRCan)	17.3 - Environmental Changes	Minerals and Metals Sector		Components for water should include freshwater quality, hydrology and hydrogeology.	Surface water and groundwater quality and quantity are included in the list of components to be considered in the federal scope, and as such are considered.		
C225	Canadian Environmental Assessment Agency (CEAA)	17.3 ENVIRONMENTAL EFFECTS CHANGES	Lyle Thompson		deleted text "The factors to be considered will be defined by the RAs upon review of the project proposal."	For discussion - inserted text in sub-section heading deviates from BCEAO AIR Template. The proponent is willing to accommodate this request.		Completed in Rev D.
C226	Canadian Environmental Assessment Agency (CEAA)	17.4 Alternative Means of Carrying Out the Project	Lyle Thompson		(Track Changes in Document) Consider splitting "Alternative Means" into two separate sections in the Application/EIS	For discussion - inserted text in sub-section heading deviates from BCEAO AIR Template. The proponent is willing to accommodate this request.		Completed in Rev D.
C227	Environment Canada (EC)	17.4 Alternative Means of Carrying Out the Project	Stephen Sheehan		Reference should be made to the most recent publication of the Guidelines for the Assessment of Alternatives for Mine Waste Disposal	The dAIREIS Guidelines will reference the most recent guideline.		
C228	Canadian Environmental Assessment Agency (CEAA)	INSERTED [17.4 NEED FOR, PURPOSE OF, AND ALTERNATIVES TO THE PROJECT]	Lyle Thompson		(Track Changes in Document): The "need for" the project is defined as the problem or opportunity that the proposed project is intending to solve or satisfy and establishes the fundamental justification or rationale for the project. The "purpose of" the project is defined as what is to be achieved by carrying out the project. The "alternatives to" the project are the functionally different ways to meet the project need and achieve the project purpose. The "alternatives to" assessment will: • Identify the alternatives to the project that were considered • Develop criteria to identify the major environmental, economic and technical costs and benefits of the alternatives; and • Identify the preferred alternatives to the project based on the relative consideration of the environmental, economic and technical costs and benefits. This section of the Application should be developed in accordance with: • Addressing "Need for", "Purpose of" "Alternatives to" and "Alternative Means" under the Canadian Environmental Assessment Act (CEA Agency, 2007).	For discussion - inserted text in sub-section heading deviates from BCEAO AIR Template. The proponent is willing to accommodate this request.		Completed in Rev D.
C229	Canadian Environmental Assessment Agency (CEAA)	17.4 - Alternative Means of Carrying Out the Project			The Agency recommends the following procedural steps for addressing alternative means; (Track Changes in Document) Procedural steps for addressing alternative means will include: • Identify the alternative means to carry out the project. • Develop criteria to determine the technical and economic feasibility of the alternative means; • Describe each alternative means in sufficient detail; and • Identify those alternative means that are technically and economically feasible. • Identify the environmental effects of each alternative means. • Identify those elements of each alternative means that could produce environmental effects. • Identify the preferred means. • Identify the preferred means based on the relative consideration of environmental effects; and of technical and economic feasibility; • Determine and apply criteria that identify alternative means as unacceptable on the basis of significant adverse environmental effects; and • Determine criteria to examine the environmental effects of each remaining alternative means to identify a preferred alternative. Any potentially adverse impacts of the technically and economically feasible alternatives on potential or established Aboriginal rights should also be identified.	Text will be revised as suggested.		
C230	Canadian Environmental Assessment Agency (CEAA)	17.5 - Species at Risk			Captured in sect. 17.2 above	For discussion - refers to text inserted by CEAA as follows "Any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individual of that species, as those terms are defined in subsection 2(1) of the Species at Risk Act." Deletion of this sub-section heading will deviate from BCEAO AIR Template. The proponent is willing to accommodate this request.		Completed in Rev D.
C231	Canadian Environmental Assessment Agency (CEAA)	17.6 Effects of the Environment on the Project	Lyle Thompson		(Track Changes in Document) "(freezing temperatures, ice jams etc.)"; • Identify the likelihood and severity of the changes or effects based on different probability patterns • Identify mitigation measures, including design and construction strategies, planned to avoid or minimize the likelihood and severity of the changes or effects and • Longer-term effects of climate change will be discussed up to the projected post-closure phase of the project and will include a description of climate data used. • The sensitivity of the project to long-term climate variability and effects will be identified and discussed	Text will be revised as suggested.		
C232	MOE	17.7 - Accidents or Malfunctions	Dennis Einerson & Gabi Matscha		Pg. 109, 2nd set of bullet in section: Spill of processing chemicals + other hazardous material should also be included in the list of accidents and malfunctions.	Spills of hazardous substances stored on site (reagents, fuels, contained liquid waste) is included in the accidents or malfunctions that will be discussed.		
C233	Natural Resources Canada (NRCan)	17.7 - Accidents or Malfunctions	Minerals and Metals Sector		Please include in list of accidents and malfunctions "Accidental explosion, including those caused by explosives. Include evaluation of worst case scenario.	Accidental explosion, including those caused by explosives, will be added to the list of incidents to be included in discussion of accidents or malfunctions.		
C234	Canadian Environmental Assessment Agency (CEAA)	17.8 - Mitigation Measures	Lyle Thompson		The CEA Agency recommends including the following components when describing the approach to implement mitigation measures (Track Changes in Document) • As a first step, an approach based on reduction of the effects at the source will be considered and described • Describe the standard mitigation practices, policies and commitments that constitute mitigation measures that will be applied • describe the environmental protection plans and environmental management systems, through which the plan will be delivered • provide an overall perspective on how potentially adverse effects will be minimized and managed over time • discuss the mechanisms that will be used to require contractors and sub-contractors to comply with these commitments and policies and with auditing and enforcement programs • specify the actions, works, minimal disturbance footprint techniques, best available technology, corrective measures or additions planned during the project's various construction and operation phases to eliminate or reduce the significance of adverse effects • An impact statement will present an assessment of the effectiveness of the proposed mitigation measures. The reasons for determining if the mitigation measure reduces the significance of an adverse effect shall be made explicit • indicate what other technically and economically feasible mitigation measures were considered, including the various components of mitigation, and explain why they were rejected • identify the extent to which technology innovations will help mitigate environmental effects	Text will be revised as suggested.		
C235	Canadian Environmental Assessment Agency (CEAA)	17.9 Residual Environmental Effects	Lyle Thompson		(Track Changes in Document) • The residual effects, even if very small or deemed insignificant will be described. • The Application/EIS shall include a summary of the project's residual effects to clearly describe the consequences of the project, the degree to which effects can be mitigated and which effects cannot be mitigated or compensated.	Text will be revised as suggested.		
C236	Environment Canada (EC)	17.7 - Accidents or Malfunctions 17.8 - Mitigation Measures 17.9 Residual Environmental Effects	Stephen Sheehan		In these sections the four pillar approach to spill response is addressed. Prevention, preparedness and response are covered in the plans while recovery is in the mitigation measures and residual environmental effects monitoring sections. In the development of the Emergency Response Plan it is important to consider the following: • The contingency plans should be in place prior to commencement of the construction phase as well as the draft plan for the operations prior to commencement of any mining work. (Both plans should be developed using the CSA-Z731-03 Standard for Emergency Preparedness and Response (the most current version at the time of development). Important components to both contingency plans are up to date records for spill response training as well as annual site specific exercises (both tabletop and hands on) to ensure that the plan is current, comprehensive and effective. • Include detailed hazmat inventories for both the construction phase and the operational phase included with the inventories are the legislated spill reporting quantity requirements for inventoried products There is a distinct possibility (based on the inclusion of other similar mining activities) that this operation could be subject to the Environmental Emergencies Regulation under the federal Canadian Environmental Protection Act, 1999. This can be clarified prior to commencing operations.	The suggested information will be included in the Emergency Response Plan presented in the Application/EIS. The proponent will work with Environment Canada prior to commencing operations to determine if the project will be subject to the Environmental Emergencies Regulation under the federal Canadian Environmental Protection Act, 1999.		
C237	Canadian Environmental Assessment Agency (CEAA)	17.10 Significance Assessment/Analysis	Lyle Thompson		(Track Changes in Document) The significance assessment will follow the guidelines outlined in the reference guide for the Canadian Environmental Assessment Act titled "Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects" prepared by the Federal Environmental Assessment Review Office (November 1994). http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=D213D286-1&offset=&toc=hide	Text will be revised as suggested.		

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
C238	Canadian Environmental Assessment Agency (CEAA)	17.11 - Cumulative Environmental Effects	Lyle Thompson		See CEA, section 4.0, drafted for McLymont Creek project dAIR.	Text will be revised as suggested.		
C239	Natural Resources Canada (NRCAN)	17.11 - Cumulative Environmental Effects	Minerals and Metals Sector		Error in acronym? Should CEA be CEE (cumulative effects assessment).	Text will be revised to include the correct acronym. The current understanding of the proponent is that the acronym for Cumulative Effects Assessment is CEA.		
C240	Canadian Environmental Assessment Agency (CEAA)	17.12 - ABORIGINAL ENGAGEMENT AND CONSULTATION	Lyle Thompson		(Track Changes in Document) "This section of the Application will list all Aboriginal groups which the Crown has federal-RAAs have-identified as requiring consultation or engagement." : The objective will be to identify any changes that the Project may cause in the environment and the resulting effects of any such changes on the current use of lands and resources for traditional purposes by Aboriginal persons • This section will include a summary of discussions, the issues or concerns raised, and describe any asserted or established Aboriginal rights, Aboriginal title and treaty rights. It will document the potential impact of the project on asserted or established Aboriginal rights, Aboriginal title and treaty rights, and the measures to prevent, mitigate, compensate or accommodate those potential effects.	Text will be revised as suggested.		Section 16 of the AIR (Rev E) has been revised - please see preamble and section 12.1.
C241	Canadian Environmental Assessment Agency (CEAA)	17.13- Follow-Up Programs	Lyle Thompson		(Track Changes in Document) The Application will provide information regarding follow-up program(s) as required based on section 38(1) of CEAA. the direction from the RAAs - As per Section 2 of the CEAA. - A detailed description of the planned follow-up program; the type, frequency, duration and location of follow-up monitoring; and the planned approach to data management, analysis and reporting; - Identifying who will be responsible for implementing the various components of the follow-up program and the mitigation measures; and - A description of how the results of the follow-up program will be used to inform an adaptive management approach, if applicable. • a discussion on the need for and requirements of a follow-up program and its objectives; • a description of the main components of the program and each monitoring activity under that component; • a discussion of the objectives the monitoring activity is fulfilling (i.e. confirmation of mitigation, confirmation of assumptions; verification of predicted effects); • the structure of the program; • a schedule for the finalization and implementation of the follow-up program; • a description of the roles and responsibilities for the program and its review process, by both peers, Aboriginal groups, and the public • possible involvement of independent researchers; • the sources of funding for the program; and • information management and reporting.	Text will be revised as suggested.		
C242	Canadian Environmental Assessment Agency (CEAA)	17.14 Capacity Of Renewable Resources	Lyle Thompson		(Track Changes in Document) The EIS will identify those resources likely to be significantly affected by the project, and describe how the project could affect their sustainable use. The EIS will also identify and describe any criteria used in considering sustainable use, based on ecological considerations such as integrity, productivity, and carrying capacity.	Text will be revised as suggested.		
C243	Canadian Environmental Assessment Agency (CEAA)	INSERTED [17.16 Benefits To Canadians (Optional)]			(Track Changes in Document) While not a requirement of the federal EA process, the proponent is encouraged to provide in the Application/Environmental Impact Statement a summary of any project modifications resulting from the environmental assessment process, that are designed to enhance environmental outcomes or yield other indirect social, public health or economic benefits. The purpose is to highlight in one section of the report the type of incremental changes and specific benefits that may accrue from the coordinated technical review of the project during the EA. Benefits can be either quantitative or qualitative measures, and may include the following. Prevention or reduction of environmental effects Project redesign, relocation and the identification of mitigation measures (e.g. fish or wildlife habitat compensation strategies) that can prevent negative impacts on the environment (e.g. cumulative effects and indirect effects on health and socio-economic conditions, and physical or cultural heritage) or reduce a project's overall environmental footprint. Maximized environmental benefits Modifications to the project that can increase ecosystem health (i.e. productivity, resiliency and adaptability), maintain biodiversity, reduce habitat fragmentation (e.g. establishment of parks and/or protected areas), and ensure the long-term viability and/or recovery of species (including Species At Risk). Technological innovations Innovations in technology applied to address impacts identified in the EA that can lead to reduced environmental impacts and improvements to other projects using the same technologies. (comment curtailed in order to conserve space in the table)	For discussion with EAO to ensure harmonization with goals of the province. Working with the EAO and CEAA Agency, the proponent is open to the inclusion of a summary of the positive influence of the assessment process on the Project.		Completed.
C244	Forests, Lands and Natural Resource Operations (FLNRO)	21 References	Kevin Bennett		• The Ministry of Environment has established a draft guideline for baseline monitoring titled "DRAFT Water and Air Resource Protection Guidelines for Mine Proponents and Operators Baseline Monitoring". The proponent has previously been made aware of this guideline however it is not listed as a reference in the preparation of the AIR and application.	Draft guidelines were available at the time of writing the dAIR but the proponent was advised that it was not to be referenced until the final guideline was released. The proponent will continue consultation with MOE in order to best incorporate the draft guidelines prior to their finalization.		
D1	Interior Health	General	Misty Palm	1-Mar-12	The screening and identification of all contaminants of potential concern (COPs), for all sampled media (air, water, soil, vegetation, etc.) should be sufficient enough for all human exposure pathways (ingestion, inhalation, absorption) to determine whether further studies/risk assessments on human health effects are warranted.	Agreed.		
D2	Interior Health	6.3 Surface Water Quality, 6.3.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Does "Water Management" as an activity that will be considered in the effects assessment include dust control? If not, include "Dust Control" as an activity that will be considered in the effects assessment for surface water quality	Water management in the context of a mine refers to instrumentation and monitoring and control measures that separate mine affected ("contact water") and non-mine affected drainages and seepages. Dust control will be added to the list of project aspects or activities considered in the effects assessment.		
D3	Interior Health	6.3 Surface Water Quality, 6.3.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Does "Explosive Use" include storage of explosives as an activity that will be considered in the effects assessment for surface water quality? If not, the storage of explosives should be considered in the effects assessment for surface water quality.	"Explosive Use" will be revised to read "Explosive Storage and Use" in the list of project aspects or activities considered in the effects assessment.		
D4	Interior Health	6.4 Surface Water Quality, 6.4.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Include "Dust Control" and "Explosive Use" under project activities that could affect the hydrological regime.	"Dust Control" and "Explosive Use" will be considered within the "water management" project activity, as noted in Section 6.4.4 "water withdrawal requirements, and reuse and reclaim water requirements for mine processes".		
D5	Interior Health	6.5 Groundwater Quality, 6.5.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Does "Water Management" as an activity that will be considered in the effects analysis include dust control? If not, ensure that "Dust Control" is considered in effects analysis for groundwater quality.	Dust control will be added to the list of project aspects or activities considered in the effects assessment.		
D6	Interior Health	6.5 Groundwater Quality, 6.5.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Include "Explosive Use" as an activity that will be considered in the effects analysis for groundwater quality	"Explosive Storage and Use" will be added to the list of project aspects or activities considered in the effects assessment.		
D7	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5). With respect to the above title, air quality assessment/ Valued Component (VC) not limited to particulates - Section 10.1 should instead read: AIR QUALITY	Misty Palm	1-Mar-12	The section heading will be revised to read "Air Quality"			
D8	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.1 Rationale	Misty Palm	1-Mar-12	As above, Air Quality as a VC is not limited to particulates and substances that may be associated with the various particulate fractions (i.e. trace metals, diesel particulate, silica quartz, NORMS etc.) for air quality assessment. The application should list out or provide in an appendix all contaminants of potential concern (air quality) that will be assessed in the application	The Application will list and/or provide in an appendix all contaminants of potential concern (air quality) that will be assessed.	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The proponent cannot comment on the necessity for IH to seek expert external advice. 2. Rationale with respect to how contaminants of potential concern were screened in or out of the assessment will be provided in the Application.	

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D9	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.1 Rationale	Misty Palm	1-Mar-12	With respect to paragraph 3.10.1.1, recommend providing a distinction between inhalation and ingestion exposure pathways when discussing why air quality is considered a VC	Ingestion as a potential exposure pathway will be considered under the "Country Foods" VC that has been requested by HC.	All potential ingestion routes and rationalization for inclusion/exclusion as a pathway of significance will be included in the HHERA.	
D10	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.1 Rationale	Misty Palm	1-Mar-12	Country Foods should be listed as a VC independent of Air Quality as a VC. It is expected that an assessment of country foods as a VC must also include food crops from commercial to non commercial scale production in the local study area (i.e. fruit and vegetable production in residential gardens). In addition to listing and identifying country foods in the LSA/RSA, identification and exposure screening all COPs for country foods should be undertaken in sufficient detail to determine whether or not further studies are warranted.	"Country Foods" will be added as a VC. As per the definition of "Country Foods" provided in HC guidance documents, commercial production will not be included in the assessment. "Country foods, also known as traditional foods, include those foods trapped, fished, hunted, harvested or grown for subsistence or medicinal purposes, or obtained from recreational activities such as sport fishing and/or game hunting. Country foods do not include foods produced in commercial operations (large farms, greenhouses, etc.)."	All potential ingestion routes and rationalization for inclusion/exclusion as a pathway of significance will be included in the HHERA.	
D11	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.2 Background	Misty Palm	1-Mar-12	A commitment from the proponent has been noted through the Health sub-working group meeting to provide a report detailing the air quality sampling/modelling methodologies proposed for the project. Until such a report has been reviewed, comments from Interior Health for the dAIR will remain for the most part general in nature, except where information on specific methodology is provided by the proponent.	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group. The methodology outlined in this report will be followed in the assessment.	The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The proponent cannot comment on the necessity for IH to seek expert external advice.	
D12	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.2 Background	Misty Palm	1-Mar-12	Baseline Information: Interior Health does not consider the National Air Pollution Surveillance Program (NAPS) data from the Brocklehurst station to be adequately representative of baseline ambient air quality in the local study area. A minimum of 1 year of monitoring data collected from the local study area is expected to fulfill this requirement. Such data collection must be representative of the residential and sensitive receptor sites immediately adjacent to the proposed mining operations. Establishing accurate baseline levels for all previously identified contaminants of concern is necessary in the predictive modelling of ambient air impacts and future monitoring to assess whether degradation of air quality at the local level has occurred. It bears noting that no safe thresholds have been identified for respirable particulates, therefore having the highest confidence level in establishing baseline levels is critical.	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group. The methodology outlined in this approved modelling plan will be followed in the assessment.	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. The Thompson and Okanagan Regions Air Quality Meteorologist has stated that the plan meets all the standards of the Ministry of Environment's guidelines and that the information that will be provided by this modelling will be a satisfactory basis for assessment of potential adverse effects on ambient air quality. (email to EAO May 25, 2012).	Noted
D13	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.2 Background	Misty Palm	1-Mar-12	The methodology proposed to speciate particulate fractions to form the baseline data and to input into predictive models is not clearly defined. It is expected that such analytical work would be carried out on field collected samples from the residential/sensitive receptor zones rather than estimated from other data sources.	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group. The methodology outlined in this approved modelling plan will be followed in the assessment. Predicted concentrations of all substances of interest will be developed using the CALPUFF modelling system.	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. The Thompson and Okanagan Regions Air Quality Meteorologist has stated that the plan meets all the standards of the Ministry of Environment's guidelines and that the information that will be provided by this modelling will be a satisfactory basis for assessment of potential adverse effects on ambient air quality. (email to EAO May 25, 2012).	Noted
D14	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Fugitive Dust: Management of fugitive dust to prevent any degradation of adjacent residential/sensitive receptor area air quality is of primary concern. The proposed discussion of mitigation measures should include aspects of both efficiencies and limitations for all potential particulate sources. Comment on dust mitigation measures will be reserved until details of such programs are provided for review.	Mitigation measures will be provided in the Application.		

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D15	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Mitigation Measures: Assurances should be provided that the CALMET model adequately estimates worst case SW wind conditions over the Aberdeen plateau given the previously identified concern over meteorological station siting in the area.	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group. The methodology outlined in this approved modelling plan will be followed in the assessment. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment.	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. The Thompson and Okanagan Regions Air Quality Meteorologist has stated that the plan meets all the standards of the Ministry of Environment's guidelines and that the information that will be provided by this modelling will be a satisfactory basis for assessment of potential adverse effects on ambient air quality. (email to EAO May 25, 2012).	Noted
D16	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	A complaint response and resolution policy is noted as being "considered" in mitigation measures. A firm commitment to establish such procedures should be made for stakeholders to review such policies during the EA process.	KGHM Ajax Mining Inc. commits to establishing a complaint response and resolution policy; the AIR will be revised to reflect this.		
D17	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Effects Assessment: For the noted "special receptor" Calpuff runs, provide a complete list or Appendix of specific contaminants of concern and special receptor sites to be run. These "runs" should be carried out on all particulate fractions (dustfall, TSP, PM10, PM2.5).	This information will be provided in the Application.	1. 1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. Rationale with respect to how contaminants of potential concern were screened in or out of the assessment will be provided in the Application.	Noted
D18	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.5 Residual Effects and their Significance	Misty Palm	1-Mar-12	Health based rationale for the use of the referenced Texas Screening Levels and Washington State Acceptable Source Impact Levels (ASILS) should be provided	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group. The methodology outlined in this approved modelling plan will be followed in the assessment.	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. The Thompson and Okanagan Regions Air Quality Meteorologist has stated that the plan meets all the standards of the Ministry of Environment's guidelines and that the information that will be provided by this modelling will be a satisfactory basis for assessment of potential adverse effects on ambient air quality. (email to EAO May 25, 2012).	Noted
D19	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.5 Residual Effects and their Significance	Misty Palm	1-Mar-12	An error was noted with respect to the CCME current guidelines reference. The dAIR erroneously reports the current PM _{2.5} guideline as 15 µg/m ³ ; 15µg/m ³ is no longer the current guideline for PM _{2.5} . The Canada Wide Standard for PM _{2.5} is 30 µg/m ³ 24 hour averaging and the dAIR should be updated to reflect this.	The CCME Canadian Environmental Quality Guidelines Summary Table - Air Quality for the Protection of Human Health and the Environment lists 15 µg/m ³ per 24 hours as an objective (http://st-ts.ccm.ca/?lang=en&factsheet=158) Interior Health is asked to provide a reference for the Canada Wide Standard for PM _{2.5} of 30 µg/m ³ for 24 hour averaging. [Note that the Canada-Wide Standards for Particulate Matter (PM) and Ozone Endorsed by CCME Council of Ministers, June 5-6, 2000, Quebec City indicates "A CWS for PM _{2.5} of 30 µg/m ³ , 24 hour averaging time, by year 2010"]		
D20	Interior Health	10.1 Air Quality (Dust fall, PM10 and PM2.5), 10.1.5 Residual Effects and their Significance	Misty Palm	1-Mar-12	The referenced documents: Guidance Document on Continuous Improvement and Keeping Clean-Areas-Clean are predicated on not permitting increases of air contaminants up to a target level. Discussion of incremental health effects due to any identified ambient increases, including ambient level increases that are still below guideline or standards levels (for PM _{2.5} in particular) are expected.	Acknowledged.		
D21	Interior Health	10.2 Water Quality, 10.2.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	The effects assessments as provided in Section 6 above should include discussion on any potential adverse health effects and mitigation.	Section 10 of the dAIR outlines the proposed assessment of incremental health risks related to water quality.	The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. It is outside the scope of the EA pre-application process for the proponent to comment on the necessity for IH to seek expert external advice in reviewing this document.	
D22	Interior Health	10.2 Water Quality, 10.2.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	The proponent should provide comment on dust control/ suppression activities throughout the mine site and the possible effects on surface and/or ground water quality and quantity. This should include discussion on what agents other than water may be used to suppress dust, and whether or not these are expected to affect surface or groundwater quality throughout the life of the mine/post closure. Discussion on proposed mitigation should also be included.	This information will be provided in the Application.		
D23	Interior Health	10.2 Water Quality, 10.2.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	The proponent should provide comment on what agent(s) will be used in processing, thickening, etc. and any possible effects on surface and/or groundwater quality that these agents may have throughout the life of the mine/post closure. Discussion on proposed mitigation should also be included.	This information will be provided in the Application.		
D24	Interior Health	10.2 Water Quality, 10.2.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	The proponent should provide comment with respect to the use and storage of explosives and whether or not this is expected to affect surface and/or groundwater quality throughout the life of the mine/post closure. Discussion on proposed mitigation should also be included.	Explosives use and civil structures have been identified as project aspects or activities that will be considered in the effects assessment (see Section 6.3.4).		
D25	Interior Health	10.2 Water Quality, 10.2.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Water quality studies should include comment on airborne contaminants of potential concern and the potential effects of these on surface and/or ground water quality throughout the life of the mine/post closure. Discussion on proposed mitigation should also be included.	This information will be provided in the Application; the dAIR will be revised to reflect this.		
D26	Interior Health	10.2 Water Quality, 10.2.3 Spatial and Temporal Boundaries	Misty Palm	1-Mar-12	Spatial and Temporal Boundaries: There are several small water systems (surface water and well water) located within the study areas for the Ajax Mine proposal. These systems should be included in any inventory taken of local water users. Interior Health can provide some baseline water quality data for these water systems.	KGHM Ajax Mining Inc. commits to establishing a surface licence and water well inventory in the study area.	The proponent has initiated a surface licence and water well inventory program. Preliminary information is being sought from local water users regarding current water quality and quantity assessments; the program will be expanded to include water sampling where existing baseline information is not sufficient to inform the effects assessment.	Sampling of private wells or licensed surface water diversions for quantity or quality is not contemplated to provide input to watershed or water quality models used for the effects assessment. The reason for this is that factors such as well construction methods, pipe installation, age of system, etc. affect data quality and hence confound the assessment. The proponent has committed to establish an inventory of available data obtained from individual property owners.

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D27	Interior Health	10.2 Water Quality, 10.2.3 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	As discussed above, there are several small water systems located in the Cherry Creek and Knutsford areas that utilize both surface water and ground water as their sources of potable water. Studies undertaken with respect to potential effects and proposed mitigation for surface and groundwater should include discussion on these drinking water systems.	Section 10.2.5 of the dAIR notes that significance will be assessed in relation to federal and provincial water quality guidelines for drinking water quality (i.e., potable water).	The proponent has initiated a surface licence and water well inventory program. Preliminary information is being sought from local water users regarding current water quality and quantity assessments, the program will be expanded to include water sampling where existing baseline information is not sufficient to inform the effects assessment.	Sampling of private wells or licensed surface water diversions for quantity or quality is not contemplated to provide input to watershed or water quality models used for the effects assessment. The reason for this is that factors such as well construction methods, pipe installation, age of system, etc. affect data quality and hence confound the assessment. The proponent has committed to establish an inventory of available data obtained from individual property owners.
D28	Interior Health	10.3 Noise and Vibration, General	Misty Palm	1-Mar-12	Through the Health Sub-Working Group, the proponent has committed to prepare a detailed Noise Impact Assessment methodology for review. This methodology should include high and low frequency noise and vibration. Until the assessment methods can be reviewed, Interior Health comments on the dAIR remain general in nature, except again, where information on specific methodology is provided by the proponent.	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group. The methodology outlined in this approved modelling plan will be followed in the assessment.	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. The Thompson and Okanagan Regions Air Quality Meteorologist has stated that the plan meets all the standards of the Ministry of Environment's guidelines and that the information that will be provided by this modelling will be a satisfactory basis for assessment of potential adverse effects on ambient air quality. (email to EAO May 25, 2012).	Noted
D29	Interior Health	10.3 Noise and Vibration, 10.3.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Without reference mapping being provided it is unclear at this time exactly what areas are encompassed in the proposed 3 km x 3 km modelling domain. Why was a domain of 3km x 3km chosen? It is also unclear what is intended by the reference to the Kamloops Noise Control Bylaw. It is our understanding that the Bylaw is limited to complaint driven, disturbance of the peace responses for noise originating from within City limits only.	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group. Reference to the Kamloops Noise Control Bylaw was added in Rev D of the AIR based on the advice of Health Canada following review of Rev C of the AIR (Carl Alleyne, Health Canada, September 28, 2011).	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. The Thompson and Okanagan Regions Air Quality Meteorologist has stated that the plan meets all the standards of the Ministry of Environment's guidelines and that the information that will be provided by this modelling will be a satisfactory basis for assessment of potential adverse effects on ambient air quality. (email to EAO May 25, 2012). 3. As previously noted, Health Canada requested that the bylaw be included as a reference document in the dAIR. The City of Kamloops Noise Control Bylaw will be used to determine the significance of effects, if applicable.	Noted
D30	Interior Health	10.3 Noise and Vibration, 10.3.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Noise: General: Interior Health recommends the use Health Canada's Guidelines for Evaluating Human Health Impacts in Environmental Assessment: NOISE April 2011 as the lead guidance document to ensure public health concerns are of primary consideration in design of the assessment methods for noise (including low frequency noise and vibration).	KGHM Ajax Mining Inc. was advised by the HC representative in the Health sub-committee Technical Working Group Meeting of May 10, 2012 that this document had been recalled and was not to be referenced.	As outlined in Section 10.4.5 of the dAIR, the following guidance documents will be used as part of the effects assessment: • The British Columbia Noise Control Best Practices Guideline. BC Oil and Gas Commission. 2009. • Alberta Energy and Utilities Board. Noise Control. Directive 38. Energy Resources Conservation Board. 2007. • Environmental Code of Practice for Metal Mines. Environment Canada. 2009. • Guidelines for Community Noise. World Health Organization. 1999. • City of Kamloops Noise Control By-law 24-42. • Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. US EPA Report No. 550/9-74-004. 1974. • Acoustics - Description, Measurement and Assessment of Environmental Noise - Part 1: Basic Quantities and Assessment Procedures. International Standards Organization. 2003.	Completed in Rev D.
D31	Interior Health	10.3 Noise and Vibration, 10.3.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Noise: General: Further to the above, and as discussed in the Sub Working Group Meeting, methodology should include discussion on % Highly Annoyed with respect to Noise. The baseline noise environment should be established through residential/sensitive receptor field monitoring. Spatial and temporal variation should be incorporated into the study design. Seasonal and meteorological variations taking into account worst case conditions should be evaluated. Mild temperature inversion conditions may not constitute worse case scenarios.	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group. The methodology will include discussion on % Highly Annoyed with respect to Noise.	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. The Thompson and Okanagan Regions Air Quality Meteorologist has stated that the plan meets all the standards of the Ministry of Environment's guidelines and that the information that will be provided by this modelling will be a satisfactory basis for assessment of potential adverse effects on ambient air quality. (email to EAO May 25, 2012).	Noted
D32	Interior Health	10.3 Noise and Vibration, 10.3.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Noise: General: In the absence of existing regulatory criteria it is premature to suggest what the most appropriate permitted noise levels may be for comparison to predicted effects. Review of the aforementioned assessment methodology is necessary to ensure the most appropriate criteria for the receptor area is chosen.	The Stantec document entitled "A Detailed Dispersion Modelling Plan for the Ajax Mine Project" (Draft, April 29, 2012) has been provided to the Technical Working Group.	1. The detailed dispersion modelling plan was developed following provincial guidelines and with input from the regional air quality meteorologist. The Proponent defers this comment to the EAO and CEA Agency, as it is up to them to jointly appoint the technical working group subject matter experts from federal, provincial and local governments, or third party consultants where these governments do not have the capacity to fill the role. 2. The Thompson and Okanagan Regions Air Quality Meteorologist has stated that the plan meets all the standards of the Ministry of Environment's guidelines and that the information that will be provided by this modelling will be a satisfactory basis for assessment of potential adverse effects on ambient air quality. (email to EAO May 25, 2012).	Noted
D33	Interior Health	10.3 Noise and Vibration, 10.3.4 Potential Effects of the Proposed Project and Proposed Mitigation	Misty Palm	1-Mar-12	Noise: General: A firm commitment to establishing a noise complaint response and mitigation policy should be subject to stakeholder review.	KGHM Ajax Mining Inc. commits to establishing an approved noise complaint and mitigation policy; this will be reflected in the dAIR.		

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D34	Interior Health	10.3 Noise and Vibration, 10.3.5 Residual Effects and their Significance	Misty Palm	1-Mar-12	Guidance documents for assessing noise and vibration: Health Canada - Guidelines for Evaluating Human Health Impacts in Environmental Assessment: NOISE April 2011 is notably absent from the list of guideline documents and as previously noted, this should be the lead reference source	KGHM Ajax Mining Inc. was advised by the HC representative in the Health sub-committee Technical Working Group Meeting of May 10, 2012 that this document had been recalled and was not to be referenced.	As outlined in Section 10.4.5 of the dAIR, the following guidance documents will be used as part of the effects assessment: <ul style="list-style-type: none"> The British Columbia Noise Control Best Practices Guideline. BC Oil and Gas Commission. 2009. Alberta Energy and Utilities Board. Noise Control. Directive 38. Energy Resources Conservation Board, 2007. Environmental Code of Practice for Metal Mines. Environment Canada. 2009. Guidelines for Community Noise. World Health Organization. 1999. City of Kamloops Noise Control By-law 24-42. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. US EPA Report No. 550/9-74-004. 1974. Acoustics - Description, Measurement and Assessment of Environmental Noise - Part 1: Basic Quantities and Assessment Procedures. International Standards Organization. 2003. 	
D35	Forests, Lands, Natural Resource	3.7 Tailings Management, 3.7.1 Tailings Storage Facility	Kevin Bennett	6-Mar-12	Will include characterizing the overburden materials beneath the TSF footprint including composition, distribution, thickness and hydraulic conductivity properties. Will identify areas of bedrock outcrop beneath the TSF footprint. Assessment will be made of areas where bedrock outcrop may require grouting and/or placement of low permeable soil cover. Indication of whether the TSF features design will be to maintain a minimum soil thickness as a TSF base. Will identify areas where existing overburden thicknesses needs to be increased	This information will be provided in the Application; the dAIR will be revised to reflect this.	The following information regarding the TSF will be provided in Section 3.7.1 of the Application: <ul style="list-style-type: none"> Characterization of the overburden material beneath the TSF footprint including composition, distribution, thickness and hydraulic conductivity properties; Identification of areas of bedrock outcrop beneath the TSF footprint; Assessment of areas where bedrock outcrop may require grouting and/or placement of low permeable soil cover; Indication whether the TSF design will be to maintain a minimum soil thickness as a TSF base; Identification of areas where existing overburden thickness needs to be increased; 	
D36	Forests, Lands, Natural Resource	6.6 Groundwater Quantity, 6.6.2 Background	Kevin Bennett	6-Mar-12	Will assess the occurrence of groundwater beneath the TSF features and expected direction of groundwater flow. Will estimate the pre-development rate of groundwater recharge by precipitations beneath the TSF features	This information will be provided in the Application; the dAIR will be revised to reflect this.		
D37	Forests, Lands, Natural Resource	6.6 Groundwater Quantity, 6.6.4 Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett	6-Mar-12	Will predict the rate of tailing pore water leakage through the base of the TSF features becoming groundwater recharge. Will be predicting the resulting groundwater quality due to this leakage	This information will be provided in the Application; the dAIR will be revised to reflect this.		
D38	Forests, Lands, Natural Resource	6.5 Groundwater Quality, 6.5.4 Potential Effects of the Proposed Project and Proposed Mitigation	Kevin Bennett	6-Mar-12	The chemical composition of the "binder" proposed to be applied in layers across the TSF and its impact on seepage water quality will be provided. The hydrogeological investigation will include characterizing the hydraulic conductivity of bedrock formations in the modeled area including bedrock contact zones and faults. Faulting through the pit should be identified in the application. A major concern w.r.t. hydrogeology is groundwater seepage to the pit originating from Jocko Lake and impacts to the lake by this seepage, and/or the pit capturing groundwater normally providing lake recharge. The conceptual hydrogeological model must demonstrate a competent understanding of groundwater - surface water interaction with Jocko Lake. If a porous media numerical flow model is used to predict lake seepage into the pit, the application will adequately demonstrate why a porous media model is appropriate to predict this leakage when the leakage will primarily be occurring as fractured flow	This information will be provided in the Application; the dAIR will be revised to reflect this.		
D39	Ministry of Environment	2.7 Project Benefits	Frank Rhebergen	1-Mar-12	"Estimated annual government revenues.... provincial (income taxes, license and tenure, royalties, other)", included in "other" the proponent should outline forecasted provincial revenues from BC Hydro electrical energy sales. Specifically, the Application Report should provide the estimated annual average electrical energy consumption for the AJAX project in MWh or equivalent units, and confirm the quoted price for electrical energy (I believe 3.5 cents per kWh was specified in the AJAX feasibility study). This information would be an important part of the socio-economic assessment.	The Application will provide the estimated annual average electrical energy consumption for the AJAX project in MWh or equivalent units and confirm the quoted price for electrical energy.		
D40	Ministry of Environment	3.7 Tailings Management, 3.7.1 Tailings Storage Facility	Frank Rhebergen	1-Mar-12	The dAIR is not very specific about the level of detail that will be provided concerning the site characteristics, design, construction and operation of the TSF. We will need a full and complete description concerning all aspects of the TSF. Consider the following as examples: <ul style="list-style-type: none"> Hydrogeologic Assessment of the area around the base of the TSF... groundwater discharge areas? recharge areas? Groundwater flow direction/velocities? Depth to groundwater table? Hydraulic conductivity? Depth to bedrock? Description of bedrock characteristics in terms of faults, fractures, weathering? Overburden depth and characteristics? TSF Construction... base preparation (cut and fill required to promote drainage and prevent ponding of tailings seepage? Will blasting be required to remove bedrock that could otherwise inhibit free drainage of seepage? Will faults/fractures require sealing? Will placement of low permeability soil be required to prevent seepage infiltration into groundwater system? Liner system? etc.) ...construction of TSF containment berm (how the waste rock berm will be constructed... slope of outer face? Placement of soil cover for progressive closure? Vegetative cover type? Will there be any attempt to shape the TSF to resemble natural contours of the surrounding landscape?) Seepage and Run-off Collection... how will tailings seepage drainage collection system be constructed? Blanket drainage system? Finger drain system? Slopes and spacing of drain lines? Perimeter ditch and ponds system. Will ditches/ponds be lined? Expected losses to ground? Seepage characteristics: metals, residual mill reagents, binders and other conditioners? Im assuming that the increasing weight of the rising tailings pile will result in a steady year around flow of seepage from the TSF; how will glaciation problems (ice build up and overflow) in the open ditches be prevented during winter? I have seen other mine sites in BC where this was a real problem for ARD collection. Or will water quality be sufficiently good, and hydrogeologic and climatic conditions be such that some overflow from open ditches due to glaciation will have no significant consequences? How quickly would any residual mill reagents and other chemical additives in the tailings seepage break down in the environment (above and below ground) and what are the by-products and their characteristics? Fugitive Dust Emissions... how will fugitive dust emissions be prevented, particularly with the freeze-dry winter conditions when sprinkler type dust suppression systems are not likely to be practical? Examples of Similar TSFs in operation at other mine sites under similar climatic conditions. 	This information will be provided in the Application; the dAIR will be revised to reflect this. Please note that some of the requested information will be found in sections of the Application relating to water management (seepage and runoff collection) and surface and groundwater quality.		
D41	Ministry of Environment	3.7 Tailings Management, 3.7.2 Thickened Tailings Plant	Frank Rhebergen	1-Mar-12	Very little is said in the dAIR about the thickened tailings emergency storage pond. Following are some questions that will need to be addressed: <ul style="list-style-type: none"> Under what types of operational circumstances would the emergency storage pond be put to use? Power failures, pump failures, routine maintenance work at the thickened tailings plant and/or TSF...? How frequently would the emergency storage pond be accepting tailings discharges? What quantity of tailings per year could be anticipated? Would tailings and/or supernatant be recovered from the emergency storage pond or is the plan to leave them there? If recovered, how? All the same questions as for the TSF (above) pertaining to base preparation, hydrogeologic assessment, design, construction, operation, fugitive dust prevention, etc., as applicable. 	This information will be provided in the Application; the dAIR will be revised to reflect this.		
D42	Ministry of Environment	10.1 Air Quality, 8.5.4 Land and Resource Use - Potential Effects of the Proposed Project and Proposed Mitigation Country Foods - Potential Effects of the Proposed Project and Proposed Mitigation	Frank Rhebergen	1-Mar-12	Air quality impacts appear to be discussed in the dAIR only in the context of potential health effects. Nuisance effects of fugitive dust emissions should also be considered, including things like dust deposition on the hay crop of adjacent rangeland and dust deposition on the vehicles, decks, lawn furniture, vegetable gardens, etc. of nearby homeowners.	This information will be provided in the Application under the Country Foods VC and under the Land and Resource Use VC.		
D43	Ministry of Transportation and Infrastructure	3.16 Access and Site Roads	Tracy LeClair	13-Mar-12	The Ministry will require the following items to be addressed: <ul style="list-style-type: none"> The proposed mine layout does not clearly identify the access management strategy to the mine site. Is the mine to be accessed via the Coquihalla Highway #5, the Trans Canada Highway #1 by way of Afton Mine Site or Lac Le Jeune Road? The Ministry will require a detailed site plan and proposal addressing access management strategies to the mine site and a Traffic Impact Study to determine the impact the mine/employee traffic will have on the existing infrastructure. Prior to the proponent conducting the Traffic Impact Study, they are to co-ordinate a Term of Reference with the Ministry. 	This information will be provided in the Application. The proponent will co-ordinate a Terms of Reference with the Ministry of Transportation and Infrastructure relating to the Traffic Impact Study.		
D44	Ministry of Transportation and Infrastructure	3.16 Access and Site Roads	Tracy LeClair	13-Mar-12	If the proponent is proposing an access via Lac Le Jeune Road, which is to serve local traffic only; the Ministry will require an access permit application be submitted for review. The permit application is to include engineered design drawings based on the Ministry of Transportation and Infrastructure BC Supplement to TAC Geometric Design Manual. Note: The access to Lac Le Jeune is to be determined after the access management strategies are submitted and approved by the Ministry.	Site access will be planned and implemented in accordance with Ministry of Transportation and Infrastructure permitting requirements. Engineered design drawings will be provided during the operational permitting stage following Application review.		
D45	Ministry of Transportation and Infrastructure	3.16 Access and Site Roads	Tracy LeClair	13-Mar-12	All mine traffic is to utilize the existing multi-plate tunnel over Lac Le Jeune Road.	Site access will be planned and implemented in accordance with Ministry of Transportation and Infrastructure permitting requirements.		
D46	Ministry of Transportation and Infrastructure	3.16 Access and Site Roads	Tracy LeClair	13-Mar-12	During the late winter - spring (February - May), every year, Lac Le Jeune Road is at 70% legal axle load restrictions. If the Ministry supports the use of Lac Le Jeune Road for hauling/access the road will be required to be upgraded to 100% Legal Axle Load, at the cost to the proponent.	Site access will be planned and implemented in accordance with Ministry of Transportation and Infrastructure permitting requirements.		
D47	Ministry of Transportation and Infrastructure	3.7 Tailings Management	Tracy LeClair	13-Mar-12	The Tailing Storage Facility (TSF): <ul style="list-style-type: none"> The TSF is located adjacent to the Coquihalla Highway #5. How is the proponent addressing the prevention of seepage of tailing contaminants? The Ministry will require a management plan addressing the control of dust, debris and/or other material which may affect the visibility of the travelling public on the Coquihalla Highway #5 and Lac Le Jeune Road. The Ministry will require a detailed site plan of the TSF, specifically addressing the elevation and conceptual design of the tailings pond at year 15 and full build out. The site plan is to identify the elevation of TSF in comparison to the Coquihalla Highway #5 and Lac Le Jeune Road. The Ministry will require a comprehensive drainage design around the TSF and the internal roads as they may impact the existing drainage courses of the Coquihalla Highway #5 and Lac Le Jeune Road. 	This information will be provided in the Application.		
D48	Ministry of Transportation and Infrastructure	3.8 Waste Rock Storage and Ore Stockpiles	Tracy LeClair	13-Mar-12	The North Waste Rock Management Facility: <ul style="list-style-type: none"> How far is the facility from Lac Le Jeune Road? How is the proponent addressing potential rock fall outside of the facility? How is the seepage of contaminants being addressed? 	This information will be provided in the Application.		
D49	Natural Resources Canada	Preface	Shelley Ball	27-Mar-12	On P3: Please correct component related to explosives. Based on Proponent's completed explosives questionnaire from September 2011, should revise explosives component to include garage and wash bay facilities. On P4: Please correct the reference to Explosives Act to reference paragraph (a) - sentence should read " as well as a licence from Natural Resources Canada (NRCAN) under Section 7(1)(a) of the Explosives Act."	The dAIR will be corrected as suggested.		
D50	Natural Resources Canada	Part A	Shelley Ball	27-Mar-12	On Page 3 (part A): please correct Explosives Act reference to read Section 7(1)(a).	The dAIR will be corrected as suggested.		
D51	Natural Resources Canada	Preface	Shelley Ball	27-Mar-12	On preface to dAIR, page 1: please correct Explosives Act reference to read Section 7(1)(a).	The dAIR will be corrected as suggested.		
D52	Natural Resources Canada	2.5 Alternative Means of Undertaking the Proposed Project	Shelley Ball	27-Mar-12	Should be consistent with listed components (e.g. explosives storage facility v. explosives factory)	The Application and dAIR will use consistent terminology.		

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D53	Lower Nicola Indian	General	Marc d'Entremont	27-Mar-12	The Ajax Mine project is within the Nlaka'pamux traditional territory of the LNIB (see attached map). Current and historic traditional use activities within this territory include hunting, fishing, gathering and camping. The LNIB is engaged in land and resource management activities to ensure the sustainability of important wildlife and sensitive ecosystems within its traditional territory and that development decisions reflect the needs, wants and values of its members. Land management planning is important to ensure that the social, cultural and nutritional importance of traditional use activities are recognized and that band members can engage in these activities in the future.	Acknowledged. The issue will be discussed in Section 13 of the Application (Aboriginal Rights).		A description of the proponent's understanding of each Aboriginal groups rights will be provided as appears in section 13 of the AIR (Rev E). The proponent has acknowledged receipt of the Lower Nicola Indian Band's assertion of Aboriginal rights to the project area, and has requested the LNIB provide information to support its request for deep consultation. The proponent does not have authority to assess or recognize Aboriginal rights, but rather is required to comply with Crown direction on appropriate consultation with each Aboriginal group.
D54	Lower Nicola Indian	5.1 Project Effects Assessment Methodology, 5.1.1 Valued Components, 5.1.4 Potential Effects of the Proposed Project and Proposed Mitigation	Marc d'Entremont	27-Mar-12	The LNIB is concerned that industrial development activities such as the proposed Ajax Mine have the potential to impact important band initiatives including: <ul style="list-style-type: none"> • Sustainable Forest Management Strategy • Invasive Plant Management Strategy • Species at Risk Projects • Environmental Management Systems and monitoring of contaminated sites • Land Use Planning We encourage the proponent to include the consideration of these initiatives and the traditional use activities of our members in its environmental assessment. In this regard, we recommend that additional information be presented in Section 5.1 of the dAIR (Project Effects Assessment Methodology) to demonstrate the linkages between the baseline information and the assessment of effects to the various valued components where First Nations' interests are potentially affected.	Aboriginal Community Interests will be included in the in the Application. Section 5.1.1 of the dAIR notes that VC are aspects of the environment considered important by the Proponent (KAM and its consultants), the public, Aboriginal groups, and government agencies involved in the EA process. Section 5.1.4 of the dAIR outlines the proposed approach to demonstrating linkages between the project and any VC.		Where relevant, information elaborated for the discussion of other VCs will be cross referenced to the assessment of land and resource use and rare and sensitive ecological communities.
D55	Lower Nicola Indian	Sections 6, 7, 8, 9, 10 Assessment of Potential Environmental, Economic, Social, Heritage, and Health Effects, X.X.6 Cumulative Effects Assessment	Marc d'Entremont	27-Mar-12	Potential downstream effects, especially to water quality and fish habitat, are of particular importance to the LNIB; therefore, residual effects to valued components and their significance should not be assessed in isolation of each other. We recommend that effects pathway analyses be displayed in the draft Application Information Requirements that identify the interactions of related components that are assessed in Section 6, 7, 8, 9 and 10. From a First Nations perspective, the culmination of this information can be highlighted in Section 8.8 Aboriginal Community Interests.	Effects pathway analyses will be included in the Application.		Please see Section 5.1.4 of the dAIR (Rev D): "The Application will describe the approach to identification and analysis of potential project effects. Assessment of effects on VC will include consideration of direct effects from project components or activities, and effects arising from direct effects on other VC (indirect effects) on the selected VC for each project phase."
D56	Lower Nicola Indian	10.1 Air Quality, 10.1.4 Potential Effects of the Proposed Project and Proposed Mitigation	Marc d'Entremont	27-Mar-12	The potential impacts to air quality (Section 10.1) is also of concern to the LNIB. Pipeseul IR#3 is the closest reserve to the project so we recommend that it be included as a receptor for any air quality modelling that is completed.	Pipseul IR#3 is outside of the 20 km x 20 km CALPUFF and CALMET modelling domain. The special receptor closest to Pipeseul IR#3 will be used as a surrogate for air quality at Pipeseul IR#3.	For the assessment, a CALPUFF modelling domain will be created to encompass the Project. The CALPUFF domain will be 25 km long x 25 km wide, centered on the open-pit mine site. The CALPUFF domain is sized to capture all values of interest as per the Guidelines (BC MOE, 2008; Sub-Section 6.1) - all predicted concentrations greater than 10% of the applicable ambient air quality objective will fall within the domain. The special receptor within the modelling domain closest to Pipeseul IR#3 is located at the Stake Lake trailhead, approximately 24 km northeast from Pipeseul IR#3 and approximately 9 km south of the mine boundary (near the proposed TSF). The "worst case" scenario at this location will be characterized and modelled, in accordance with good modelling practice, to obtain the most conservative results.	
D57	Skeetchestn Indian Band	13.0 Aboriginal Rights, 17.11 Aboriginal Engagement and Consultation	Mike Anderson	28-May-12	Assuming that a comprehensive strength of claim analysis has been conducted there further needs to be a recognition of underlying Aboriginal Title and the interests/ benefits conferred to the First Nation through that Title.	Recognition of underlying Aboriginal Title and the interests/ benefits conferred to the First Nation through that Title will be included in the Application.		The proponent will describe its understanding of Aboriginal rights (including title) as described in section 13 of the AIR (Rev E). The proponent will take direction from the Crown regarding strength of claim and related requirements of the proponent for completing the environmental assessment.
D58	Skeetchestn Indian Band	General, 8.0 Assessment of Potential Social Effects, 9.0 Assessment of Potential Heritage Effects, Part C Aboriginal Groups Information	Mike Anderson	28-May-12	First Nations cultural values need to be looked at as a value all on their own separate from other cultural values. As the holders of underlying Aboriginal Title to the area the First Nations need to be recognized as a third level of Government responsible for this area and dealt with in an appropriate manner as that third level of Government not just as another stake holder. There needs to be a comprehensive inventory and assessment of present cultural resources remaining on the area as well as a discussion around pre-historical, historical and future use of those resources. This will require both in field and in community research. This also needs to include a discussion around Stk'emlups access to and unfettered use of these resources both in the near future during construction and operation as well as in the distant future for a minimum of at least 7 generations of Stk'emlups people. In order for a comprehensive inventory and assessment of these resources to happen it has to be recognized that for the past 8-10,000 years prior to contact 100% of the local First Nation economy came directly off the land base and waters that we are now in the process of compromising. That being the case a comprehensive assessment of First Nations cultural values including among other things plants, animals, animal habitats, food sources, water resources, medicine, technological values, ceremonial values, spiritual values etc. is required independent of any other "scientific" studies of plants, mammals etc. that is also being done.	The proponent is in discussion with the SSN to arrange terms for a traditional use assessment.	The proponent will continue to work with the SSN to meaningfully incorporate the available information on culturally significant resources held by community members into the social, economic, and environmental effects assessment of the proposed project, where this information is shared in a timely manner.	The proponent will include culturally significant resources that are relevant to the environmental assessment and not subject to confidentiality requirements of First Nations. A description of the cultural heritage information to be included in the Application also has been defined in the Study Agreement signed by the SSN and the proponent.
D59	Skeetchestn Indian Band	8.2 Community Health and Well-Being, 8.2.4 Potential Effects of the Proposed Project and Proposed Mitigation	Mike Anderson	28-May-12	Any discussion of community health and well being has to include the original Aboriginal owners of the land and potential effects on their health and well being. This will encompass any impacts to any of the traditional food resources they fished, hunted and gathered as well as any detrimental affects to the extensive variety of traditional medicines that have been used in the past and many of which are still in use today.	Aboriginal communities will be included in the assessment of community health and well-being; the dAIR will be revised to reflect this.	A Human Health and Ecological Risk Assessment (HHERA) will be conducted; the baseline HHERA is designed to assess current conditions based on identification of chemicals of concern and human and terrestrial receptor exposures to chemicals of concern in environmental media (soil, air, surface water). Available information derived from the heritage assessment on culturally significant resources (e.g., animals and their habitats, plants for food and medicine) will be integrated into the modelling presented in the Application.	
D60	Skeetchestn Indian Band	9.2 Heritage Sites, 9.2.1 Rationale	Mike Anderson	28-May-12	States that "the proponent will work with First Nations to identify any additional heritage resources that are not captured within the environmental, economic, social or health assessment categories." In this regard Stk'emlups has proposed a separate Cultural Heritage Assessment study be conducted by their people to accomplish this end. Does this mean that we can assume that this study will be resourced and will take place? In regards to the archaeological resources found to date there also has to be a discussion around both mitigation of damage to as well as outright avoidance of the site of the hunting blind previously pointed out to the proponent as this is one of the foremost archaeological finds within Stk'emlups territory to date.	The proponent is in discussion with the SSN to arrange terms for a traditional use assessment.	Discussion of mitigative management for potential impacts to heritage resources will be included in Section 9 of the Application.	The proponent will include culturally significant resources that are relevant to the environmental assessment and not subject to confidentiality requirements of First Nations. A description of the cultural heritage information to be included in the Application also has been defined in the Study Agreement signed by the SSN and the proponent. the proponent will work cooperatively with the SSN First Nations on mitigation and other appropriate measures for potential impacts on the rock cairns (hunting blinds

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D61	Skeetchestn Indian Band	6.1 Climate, 6.1.4 Potential Effects of the Proposed Project and Proposed Mitigation	Mike Anderson	28-May-12	There should be a discussion around the amount of water being brought on site and its final disposition especially in regards to evaporation and atmospheric water loading and the potential to affect local climate.	This information will be included in the Application under the Climate VC (Section 6.1 of the dAIR).	A site wide water balance/watershed model, during construction, operations, closure/decommissioning and post closure will be included in Section 3.12 Site Water Management or as an Appendix of the Application. The site wide water balance/watershed model will be applied to assess the potential effects on hydrology and hydrogeology assessments from the Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The site-wide water balance (watershed) model incorporates baseline conditions as well as the components and phases of the mine development under a range of climatic conditions. All parameters (e.g. precipitation, temperature, evapotranspiration, groundwater flows, and stream-flows) that are reported will include the source of information (empirical or estimated). The results of the water balance calculations will be reported as well as references to selected methodologies and assumptions used in the water balance.	
D62	Ministry of Environment	3.8 (previously 3.5) Waste Rock Storage and Ore Stockpiles, 3.8.1 Waste Rock Storage Facilities	Jennifer L. Puhallo	26-Mar-12	Pg. 8: The bullets under this header are comprehensive; however, we would like to see a bullet added regarding waste rock characteristic (incl. geology, results of static and kinetic leach tests, metal leaching potential). The proponent agreed that this information should be added, but I could not find reference to it in this section (which is Section 3.8 in Version D). Otherwise, everything else that needed to be reflected in the dAIR appears to have been addressed.	This information will be provided in the Application; the dAIR will be revised to reflect this.		Completed in Rev D.
D63	Ashcroft Indian Band	Preface	Chief Greg Blain	26-Apr-12	(P2 of P6) Since 2009 the Ashcroft Indian Band has operated independently, within the Nlaka'pamux Nation. The proposed area lies within its Nlaka'pamux Area of Interest.	Acknowledged.		Assertion acknowledged.
D64	Ashcroft Indian Band	4.3 Aboriginal Information Distribution and Consultation	Chief Greg Blain	26-Apr-12	(P 34 of 159) ... documentation of the proposed methods and process to resolve outstanding issues, including effective efforts to build an adequate framework or method to link traditional ecological knowledge and social components to the larger impacted environment, of which Ashcroft and other FN's have a stewardship role. I.e. baseline cultural species research, including migration research, temporal research, social research	Acknowledged.		
D65	Ashcroft Indian Band	6.0 - 8 & 10 Assessment of Potential Environmental, Economic, Social, and Health Effects, X.X.1 Rationale	Chief Greg Blain	26-Apr-12	(P 45 of 159) Aboriginal interests are identified within each section and within a site specific context, which is very limited and ineffective to addressing the broader scope of our aboriginal interests. I.e. Red/Blue listed species within a Traditional Territory would be quite different from provincial and federal listings. We would like to address research supported to address Cultural Species at Risk. In Addition, species that are not red/blue listed but are ecological indicators in cultural fabric and stories need to be addressed.	These concerns will be addressed in Section 8.8 of the Application (Aboriginal Community Interests) and in Section 14 (Other Aboriginal Interests).		The proponent plans to gather and incorporate available information on potential site-specific and non site-specific impacts on Aboriginal traditional land and resource use values in the environmental assessment. This is outlined in Section 14 of the AIR (Rev E).
D66	Ashcroft Indian Band	6.3 Surface Water Quality, 6.3.6 Cumulative Effects Assessment	Chief Greg Blain	26-Apr-12	(P 56-58 of 159) Conduct research into historical /recent Kamloops Lake volumes during salmon spawning periods and during periods of drought & wildfire. Forecast this into future water outtake volumes at the lake to assess threshold levels and impact on traditional fish stocks (volumes must be accounted for in combination with New Gold volumes due to partnering of water systems). Conduct research into plant health (including traditional medicines) in the footprint, and in the impacted watersheds. Conduct research into water sources quality for mammal, birds and terrestrial invertebrates drinking supplies and ecosystems.	This will be included in the Application.		The effects assessment to salmon will be included in the VC Fish and Fish Habitat, which will incorporate the impacts of changes to water quantity in Kamloops Lake. The HHERA will consider plant health (including traditional medicines). The effects assessment on water quality will be addressed in the various wildlife VCs included in Section 6 of the Application/EIS.
D67	Ashcroft Indian Band	9 Assessment of Potential Heritage Effects, 9.2 Heritage Sites	Chief Greg Blain	26-Apr-12	(P124-159) More than what is defined in the Heritage Conservation Act. Skeetchestn representative; Mike Anderson, has articulated this aspect in previous comments to the dAIR.	Comments from Mike Anderson were incorporated into Rev D of the dAIR pertaining to the definition of a cultural heritage resource under the Forest Planning and Practices Regulation of the Forest and Range Practices Act.		
D68	Ashcroft Indian Band	17 Federal Environmental Assessment Requirements, 17.11 Aboriginal Engagement and Consultation	Chief Greg Blain	26-Apr-12	(P149 of 159) The determination of Ashcroft Indian Band's participation in the EA process by the Federal representatives does not match the provincial determination. Engagement to date regarding this decision with Chief and Council has been lacking.	Question has been deferred to the EAO and CEA Agency.		Noted
D69	Ashcroft Indian Band	17 Federal Environmental Assessment Requirements, 17.14 Benefits to Canadians	Chief Greg Blain	26-Apr-12	(P150 of 159) Many aspects of this dAIR have not addressed operational efforts and initiatives by the proponent with the existing New Gold Mine.	This statement is unclear. The reviewer is asked to clarify the concern.		The proponent will seek clarification from the WG member regarding the comment.
D70	City of Kamloops	3.0 - Detailed Project Description, 3.9 - Overburden and Topsoil Stockpiles - page 26	Jen Fretz	3-Aug-12	The location of the East overburden stockpile is not included in Figure 2.2 1.	Figure 2.2-1 will be updated to show the proposed location of the east overburden stockpile in the next version of the dAIR.		The final mine footprint will be included in the Application.
D71	City of Kamloops	6.4 - Surface Water Quantity, 6.4.4 - Potential Effects of the Proposed Project and Proposed Mitigation - page 55	Jen Fretz	3-Aug-12	Require confirmation that "water management" as listed under project activities that could affect the hydrological regime includes the extraction of water from Kamloops Lake.	Water management includes water withdrawal from Kamloops Lake.		
D72	City of Kamloops	7.4 - Employment and 8.2 - Community Health and Well-Being.	Jen Fretz	3-Aug-12	Outside of direct employment opportunities and the potential for bringing newcomers to the community, how will KGHM invest in the community to support the improvement of people's quality of life?	Project Benefits will be discussed in Section 2.7 of the Application, as outlined in the dAIR, including: o List of the major types of businesses/contractors (local, provincial, and national level) that will benefit from the overall proposed Project o Value of supply of service contracts expected for both the construction and operation phases of the proposed Project, and o Information about a local purchasing strategy. o Estimated annual government revenues from the construction and operation phases of the proposed Project		The proponent has ongoing engagement with the City.
D73	City of Kamloops	7.6 - Cost of Living and 7.7 - Housing.	Jen Fretz	3-Aug-12	The vacancy rate in the City of Kamloops has been quite low for a number of years and is just starting to increase. The current vacancy rate is 4.2%. The Application needs to consider the impacts that the mine would have on the vacancy rate and cost/availability of low income housing. Additionally, how will KGHM support the maintenance of a healthy vacancy rate for our lower income and homeless population?	The effect of the Project on house affordability and availability will be included in the Application as described in Housing Section 7.7.4 of the dAIR. The effect of the Project on the cost and availability of low income housing will be included in Section 7.6 Cost of Living; the dAIR will be revised to reflect this.		The dAIR has been revised as per the Joint Issues and Directons document from the EAO and CEAA Agency.
D74	City of Kamloops	8.5 - Land and Resource Use, 8.5.2 - Background - page 115	Jen Fretz	3-Aug-12	Require clarification that impacts to Inks Lake (from a land use and recreational perspective) will be addressed in this section.	The potential effect of the Project on Inks Lake will be included in Section 8.5 from a recreational perspective; the dAIR will be revised to reflect this.		
D75	City of Kamloops	2.0 - Project Overview, 2.6 - Project Land Use - Page 1	Jen Fretz	3-Aug-12	Existing and proposed management and monitoring programs need to include reference to the City of Kamloops TravelSmart and Aberdeen Neighbourhood Plans.	Sections 2.6 Project Land Use will include details about the Aberdeen Community Plan and the City's TravelSmart plan as they relate to the Project.		
D76	City of Kamloops	10.1 - Air Quality, 10.1.6 - Cumulative Effects Assessment - Page 2	Jen Fretz	3-Aug-12	Although the New Gold site is included in the dAIR as one of the existing activities, it is not included in the proposed changes. Please confirm that it will be included.	The New Gold mine is included in a preliminary list of other projects that have been identified for consideration in the cumulative effects assessment. The existing activities and proposed changes of the New Gold will be considered where information is available.		
D77	City of Kamloops	10.3 - County Foods, 10.3.1 - Rationale - Page 3	Jen Fretz	3-Aug-12	The assessment should consider City community gardens as well as the already mentioned backyard garden produce and locally grown market garden produce.	According to the definition of Country Foods as outlined in Health Canada guidance documents, the assessment of potential effects on Country Foods will include City community gardens and backyard gardens, but not locally grown market garden produce; the dAIR will be revised to reflect this.		
D78	City of Kamloops	10.3 - County Foods, Section 10.3.7 - Conclusion - Page 5	Jen Fretz	3-Aug-12	The level of confidence in the results should be presented.	The level of confidence in the results will be presented in Section 10.3.7.		
D79	City of Kamloops	3.0 - Detailed Project Description, Section 3.7.1 - Tailings Storage Facility - page 7	Jen Fretz	3-Aug-12	The list of information regarding the TSF needs to include evaporation (quality and quantity) and the chemical composition of binding agents.	Evaporation rates will be discussed in the hydrometeorology studies included as part of the surface and ground water quantity program, as well as being included in the site wide water balance required for water management. Chemical binding agents will be provided in the Application as part of the surface and groundwater quality modelling and air quality modelling.		

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3	
D80	City of Kamloops	3.0 – Detailed Project Description , 3.16 – Detailed Project Description – Access and Site Roads – page 8	Jen Fretz	3-Aug-12	The access management strategy and Traffic Impact Study need to be developed in conjunction with the City of Kamloops.	The Traffic Impact Study was completed in conjunction with the City of Kamloops; the study Terms of Reference was approved by City engineers and their feedback was incorporated into the analysis.			
D81	City of Kamloops	6.6 –Groundwater Quantity , 6.6.2 – Background – page 10	Jen Fretz	3-Aug-12	The installation details of groundwater monitoring wells need to be completed beneath and in the vicinity of the waste rock facilities and TSF.	There are currently 30 monitoring wells installed at 17 locations. In addition to these monitoring wells there are 27 piezometers (water levels only) installed across the site. The monitoring well and piezometer locations will be reviewed to evaluate the spatial coverage and additional installations will be established as required.			
D82	City of Kamloops	6.6 – Groundwater Quantity , 6.6.4 – Potential Effects of the Proposed Project and Proposed Mitigation – page 10	Jen Fretz	3-Aug-12	Monitoring needs to play a part in the determination of pore water leakage and groundwater recharge.	Agreed - monitoring is discussed in Section 6.6 of the dAIR.			
D83	MEM	3.0 – Detailed Project Description , 3.4 Ajax Pit Development	George Warnock	18-Jul-12	1. It is understood that portions of the crest of the East wall of the Ajax Pit will be located within 50m of Jacko Lake. The AIR should include a discussion of the implications of the Lake on pit wall stability and on dewatering efforts, and should include conceptual mitigation plans.	The dAIR will be updated to include the following in Section 3.4.2 Pit Development: • Detailed information regarding the implications of Jacko Lake on pit wall stability and on dewatering efforts; and • Conceptual mitigation plans.			
D84	MEM	3.0 – Detailed Project Description , 3.7 Tailings Management	George Warnock	18-Jul-12	2. In Comment #47 of the "pre-March 2012" version of the tracking table, Tania Demchuk of MEM requested a conceptual tailings storage facility design with reference to the CDA Dam Safety Guidelines. In the proponent response, it was unclear if a commitment had been made to meet this requirement. The thickened tailings placed in this facility may be subject to liquefaction, and I recommend that the scope of the application be expanded to include a requirement for a feasibility level geotechnical investigation and stability assessment of the TSF embankments. This facility will need to meet all criteria in the Dam Safety Guidelines.	Results from the feasibility level geotechnical investigation and stability assessment will be considered in the design of the TSF. The TSF will meet the criteria in the Dam Safety Guidelines; the dAIR will be revised to reflect this.			
D85	MEM	3.0 – Detailed Project Description , 3.8.1 Waste Rock Storage Facilities	George Warnock	18-Jul-12	3. About 80% of the North Waste Dump will be constructed using a conveyor stacking system, with the remainder of the North Dump and all of the East Waste Dump built in a bottom-up manner using haul trucks. While this type of construction is considered to be favourable from a stability perspective, foundation conditions generally control dump stability. I recommend that the scope of the application be expanded to include a requirement for a feasibility level geotechnical investigation and stability assessment of the waste rock dumps. Reference should be made to the BC Mine Waste Rock Pile Research Committee Interim Guidelines.	Results from the feasibility level geotechnical and stability assessment will be considered in the design of the Waste Rock Storage Facilities . The BC Mine Waste Rock Pile Research Committee Interim Guidelines will be referenced.			
D86	MEM	3.0 – Detailed Project Description , 3.8.2 Ore Stockpiles	George Warnock	18-Jul-12	4. Three of the four ore stockpiles (medium grade, low grade, and strategic) exceed 1 million cubic meters, and are classified as "major dumps" in the Health, Safety and Reclamation Code for Mines in BC. Although these stockpiles are not permanent, they will be in place for many years, and require a level of design similar to that required for major waste rock dumps. At the EA stage, a conceptual level geotechnical study will be sufficient provided that stability of these structures can be confirmed.	Noted.			
D87	MEM	3.0 – Detailed Project Description , 3.9 Overburden and Topsoil Stockpiles	George Warnock	18-Jul-12	5. The overburden and topsoil stockpiles total 7.6 million tonnes, and these structures will be in place for many years. Conceptual designs including an assessment of geotechnical stability are required. Design information to include, slope angles, slope heights, and surface drainage considerations.	The dAIR will be updated to include the following in Section 3.9 Overburden and Topsoil Stockpiles: Conceptual designs including assessment of geotechnical stability will be completed. The following design information will be included: • Slope angles; • Slope heights, and • Surface drainage considerations. Stockpiles will be designed following the same principles / level of design required for waste rock dumps.			
D88	MEM	17.6 Accidents or Malfunctions,	George Warnock	18-Jul-12	6. The bullet list on page 147 should be expanded to include failure of the waste rock dumps.	Failure of the waste rock dumps will be added to the list of accidents and malfunctions in Section 17.6 of the dAIR.			
D89	MFLNRO - hydrogeology	6.5 Groundwater Quality, 6.5.2 Background	Skye Thomson	8-Aug-12	1. Ground Water Protection Regulation - The proponent should ensure that all wells are constructed, maintained or closed in accordance with the Ground Water Protection Regulation. For instance, any monitoring or production wells no longer in use should be closed in accordance with the Ground Water Protection Regulation. The proponent should ensure that qualified and provincially registered well drillers and pump installers are hired to do work on any of the project's groundwater monitoring and production wells. - Any wells that are no longer in use should be closed by backfilling and sealing the well in accordance with the Ground Water Protection Regulation. Any test holes no longer required will need to be closed in accordance with the Ground Water Protection Regulation. If this has not already taken place.	All wells will be constructed, maintained or closed in accordance with the Ground Water Protection Regulation. Qualified and provincially registered well drillers and pump installers will be hired to do work on any of the project's groundwater monitoring and production wells. Any wells that are no longer in use will be closed by backfilling and sealing the well in accordance with the Ground Water Protection Regulation. Any test holes no longer required will be closed in accordance with the Ground Water Protection Regulation. - the dAIR will be updated to reflect this			
D90	MFLNRO - hydrogeology	6.5 Groundwater Quality, 6.5.2 Background	Skye Thomson	8-Aug-12	2. Monitoring Wells on the Mine Site - It is recommended that the proponent upload all the well construction information to the provincial WELLS database through the use of the provincial water well record data entry application found at https://a100.gov.bc.ca/ext/ewells/ . This includes information on all the existing/future monitoring wells and production wells. - Background (upgradient) monitoring wells should be established and sampled as part of a regular seasonal water quality monitoring program and compared to sampling results at downgradient wells. - Long-term water level dataloggers should be installed in all wells to establish temporal and seasonal groundwater fluctuations and assist in the ongoing calibration of a numerical model. - Please note that the project's qualified professional should be responsible for designing all pumping tests and that a qualified pump installer, registered with the province, conducts the pumping tests. - Ongoing monthly flow monitoring should be conducted on any groundwater springs (especially important during the wet and dry seasons). - In addition, it is recommended that the groundwater monitoring sites be established in the provincial EMS (Environmental Monitoring System) database to enable electronic capture of this data by the province. This will assist provincial staff in accessing and assessing groundwater quality data related to the mine and the mine's activities.	The Proponent will discuss uploading well construction information to the provincial WELLS database at the time of Application review. Background (upgradient) monitoring wells have been established and sampled as part of a regular seasonal water quality monitoring program and compared to sampling results at downgradient wells. Transducers are installed in 18 of the 30 monitoring wells. At the remaining wells, water levels are collected on a quarterly basis. Manual water levels are collected on a monthly basis at 27 standpipe piezometers. Vibrating wire transducer data in the deposit area is also available. The need to install additional transducers to characterize spatial and temporal variations and also support the development of a numerical model will be reviewed and completed as required. A qualified professional was responsible for designing all pumping tests and a qualified pump installer, registered with the province, conducted the pumping tests. Groundwater springs will be characterized in the project area as per the Water and Air Baseline Monitoring Guideline Document for Mine Proponents and Operators document dated August 2011. The Proponent will discuss establishing groundwater monitoring sites in the provincial EMS database with MFLNRO at the time of Application review.	The Proponent will upload all well construction information to the provincial WELLS database at the time of Application review. Background (upgradient) monitoring wells have been established and sampled as part of a regular seasonal water quality monitoring program and compared to sampling results at downgradient wells. Dataloggers (Transducers) are installed in 18 of the 30 monitoring wells to establish temporal and seasonal groundwater fluctuations and assist in the ongoing calibration of a numerical model. At the remaining wells, water levels are collected on a quarterly basis. Manual water levels are collected on a monthly basis at 27 standpipe piezometers. Vibrating wire transducer data in the deposit area is also available. The need to install additional transducers to characterize spatial and temporal variations and also support the development of a numerical model will be reviewed and completed as required. A qualified professional was responsible for designing all pumping tests and a qualified pump installer, registered with the province, conducted the pumping tests. To date, no groundwater springs have been noted in the		
D91	MFLNRO - hydrogeology	6.5 Groundwater Quality, 6.5.2 Background	Skye Thomson	8-Aug-12	3. Groundwater characterization at the mine site - Although the surficial overburden materials were discussed generally in the text, there was a lack of a map outlining the distribution of surficial Quaternary sediments in the study area. The literature review of hydrogeologic studies in the area document overburden thicknesses of up to 20 m in depth in some locations. A more detailed and comprehensive discussion on the geomorphology and surficial sediments of the study area needs to be incorporated including an overview map of their distributions. - The groundwater flow system, boundary conditions, hydraulic parameters, water budget and surface water/groundwater interactions in the project area should be determined through detailed hydrogeologic testing (i.e. pump tests, slug tests and packer tests etc.). - There are relatively few observation wells for such a large mine site. It is recommended that additional long-term groundwater monitoring sites be established in all stratigraphic units (i.e. upland bedrock aquifer, shallow unconfined aquifer, etc.) for complete spatial coverage. This information would be required to determine potential aquifer responses under variable recharge conditions. The additional monitoring sites would also provide information on the seasonality and inter-annual variability, and uncertainty in recharge rates important to evaluating the proposed design and risks associated with management of mine wastewater. - During operations, closure and post-closure, both groundwater levels and groundwater quality should be monitored to ensure there are no adverse impacts to surface water bodies and the aquatic environment. If groundwater monitoring indicates an adverse impact is occurring, an adaptive management plan should be implemented to minimize or avoid identified impacts. - Please note a qualified professional with expertise in hydrogeology must be responsible for the design and implementation of the characterization program as well as the installation of monitoring wells. - The proponent should be prepared to include a discussion of the uncertainties inherent to the characterization of the groundwater system and provide a qualitative evaluation of their potential significance in the assessment of project impacts. - The field data collected should inform the conceptual and numerical models developed for the project.	re: bullet 1 - A detailed discussion on the geomorphology and surficial sediments of the study area will be incorporated and provided in the Application, including an overview map re: bullet 2 - Detailed hydrogeologic testing will be completed to determine the groundwater flow system, boundary conditions, hydraulic parameters, water budget and surface water/groundwater interactions in the project area. (See dAIR sections 6.3.4, 6.4.4, 6.5.4, 6.6.2) re: bullet 3 - There are currently 30 monitoring wells installed at 17 locations. In addition to these monitoring wells there are 27 piezometers (water levels only) installed across the site. The monitoring well and piezometer locations will be reviewed to evaluate the spatial coverage and additional installations will be established as required. re: bullet 4 - Groundwater quality and quantity will be monitored in operations through to post-closure and an adaptive management plan will be developed for the Project as part of the environmental management and monitoring plans Section 11 of the dAIR) re: bullet 5: Noted. re: bullet 6 - This information will be included in the Application (as noted in Section 5.1.1 of the dAIR) re: bullet 7 - The collected field data will inform the conceptual and numerical models developed for the Project.	The proponent looks forward to continuing dialogue with FLNRO regarding the groundwater quality and quantity assessment.		
D92	MFLNRO - hydrogeology	6.6 Groundwater Quantity	Skye Thomson	8-Aug-12	4. Changes to Baseflow - It would be important to assess the contribution of groundwater baseflow to local streams. For example, seepage into, and hydraulic gradients (including vertical gradients) in proximity to, representative and key surface water sources should help in this assessment. If surface water and groundwater chemistry are different, use of water chemistry to assess relative contribution of groundwater to surface water should also be considered. - An evaluation of the worst-case scenario should be provided (i.e. a significant proportion of the baseflow does not reach local streams during low flow periods, or significant seepage from Jacko Lake to the pit occurs). An adaptive management plan should be implemented to minimize or avoid any identified impacts.	A site-wide water balance model and a groundwater model will evaluate contribution of groundwater baseflow to local streams; this will include a worst-case scenario to assess the impact of mining on Peterson Creek and Jacko Lake	A site-wide water balance model, groundwater model, and numerical mass balance model will be used to evaluate contribution of groundwater baseflow to local streams, as stated in the AIR. An evaluation of the worst-case scenario of project impacts on Jacko Lake will be included in the effects assessment.		

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
D93	MFLNRO - hydrogeology	6.6 Groundwater Quantity, 6.6.4 Potential Effects of the Project and Proposed Mitigation	Skye Thomson	8-Aug-12	5. Numerical Groundwater Model - It is recommended that the proponent reference and follow the BC Ministry of Environment "Guidelines for Groundwater Modelling to Assess Impacts of Proposed Natural Resource Development Activities", April 2012. This document is available online. - It is recommended that the proponent reference and follow the BC Ministry of Environment "DRAFT Water and Air Resource Protection Guidelines for Mine Proponents and Operators Baseline Monitoring". - The proponent should include a discussion of model uncertainties and data limitations (i.e. calibration data limitations and model uncertainties) and how this may contribute to model uncertainty. - The proponent should include sensitivity analyses as part of the modeling that quantifies effects of varying conductivity, anisotropy, recharge, constant head boundary conditions, and possibly streambed conductance. - The proponent should provide the modeling input and output files to the EAO including all electronic files used to develop, calibrate and apply the numerical model(s) as well as relevant base map files and calibration data sets.	The BC Ministry of Environment "Guidelines for Groundwater Modelling to Assess Impacts of Proposed Natural Resource Development Activities" and "DRAFT Water and Air Resource Protection Guidelines for Mine Proponents and Operators Baseline Monitoring" will be referenced and followed in the Application as required. A discussion of model uncertainties and data limitations and will be included. A sensitivity analyses will be included as part of the modeling that quantifies effects of varying conductivity, anisotropy, recharge, constant head boundary conditions, and possibly streambed conductance. The modeling input and output files will be provided to the EAO including all electronic files used to develop, calibrate and apply the numerical model(s) as well as relevant base map files and calibration data sets.		1st & 2nd bullet: The BC Ministry of Environment "Guidelines for Groundwater Modelling to Assess Impacts of Proposed Natural Resource Development Activities" and "DRAFT Water and Air Resource Protection Guidelines for Mine Proponents and Operators Baseline Monitoring" will be referenced and followed in the Application as required. 3rd bullet: A discussion of model uncertainties and data limitations and will be included in the Application. 4th bullet: A sensitivity analyses will be included as part of the modeling in the Application that quantifies effects of varying conductivity, anisotropy, recharge, constant head boundary conditions, and possibly streambed conductance. 5th bullet: The modeling input and output files will be provided to the EAO including all electronic files used to develop, calibrate and apply the numerical model(s) as well as relevant base map files and calibration data sets following submission of the Application.
D94	MFLNRO - Visual Quality	8.7 Visual Impact, 8.7.2 Background	Jacques Marc	19-Jul-12	The current modelling does not consider the impacts of the mine from viewpoints on the Coquihalla Hwy and Lac le Jeune Hwys to the west or from Hwy 5a to the east and no analysis has been completed from Jacko Lake. This work has yet to be completed.	The Visual Impact Assessment will include four viewpoints from the Coquihalla Highway, two viewpoints from Lac le Jeune Road, two viewpoints from Jacko Lake, and one viewpoint from Highway 5A. An additional 22 viewpoints from in and around Kamloops will also be evaluated. The results of the Visual Impact Assessment will be included in the Application; the dAIR will be revised to reflect this.		Rev D of the AIR included Visual Impact as a VC, therefore the proponent has committed to including a full assessment. Please see the AIR where it is stated: This section of the Application will contain: • An explanation of visual impacts using results from KAM visual modelling, including an analysis of lines of site; • Site design, including visual buffers in the feasibility study; and • Public and stakeholder input from key person interviews.
D95	MFLNRO - Visual Quality	8.7 Visual Impact, 8.7.4 Potential Effects of the Project and Proposed Mitigation	Jacques Marc	19-Jul-12	To reduce the visual impact of the western tailings pile, it would have to be reduced in size and height and not extend beyond the Afton Access road. Recognized design techniques will be required to have it better conform with the natural features. A possible alternative to eliminate visual impact of the Western Tailings facility would be to dispose of the tailings waste in the old Afton pit.	A discussion of mitigation to reduce the visual impact of the western tailings pile will be included in the Application. Disposal of the tailings waste in the old Afton pit is not a possible alternative due to the fact that it will be expanded and become part of the Ajax pit.		
D96	MFLNRO - Visual Quality	8.7 Visual Impact, 8.7.2 Background	Jacques Marc	19-Jul-12	Will the hydro line create an impact? This should be modelled in the visual impact assessment.	The visual impact of the power line will be evaluated from nine viewpoints. The results of the Visual Impact Assessment will be included in the Application; the dAIR will be revised to reflect this.		Rev D of the AIR included Visual Impact as a VC, therefore the proponent has committed to including a full assessment. Please see the AIR where it is stated: This section of the Application will contain: • An explanation of visual impacts using results from KAM visual modelling, including an analysis of lines of site; • Site design, including visual buffers in the feasibility study; and • Public and stakeholder input from key person interviews.
D97	MFLNRO - Visual Quality	8.7 Visual Impact, 8.7.2 Background	Jacques Marc	19-Jul-12	• VQOs reflect societies desired level of visual quality on the landscape. Use them to guide the size, shape and scale of development.	The proponent will take this into consideration; the methodology of the visual impact assessment will be included in the Application.		
D98	MFLNRO - Visual Quality	8.7 Visual Impact, 8.7.4 Potential Effects of the Project and Proposed Mitigation	Jacques Marc	19-Jul-12	• Create forms that fit the landscape. Respond to lines of force; avoid straight lines and keep height in scale with natural features.	Thank-you for the guidance. A discussion of mitigation to reduce the visual impact of the Project will be included in the Application.		
D99	MFLNRO - Visual Quality	8.7 Visual Impact, 8.7.4 Potential Effects of the Project and Proposed Mitigation	Jacques Marc	19-Jul-12	• Facilities should be contoured to fit with natural features and should vary in height.	Thank-you for the guidance. A discussion of mitigation to reduce the visual impact of the Project will be included in the Application.		
D100	MFLNRO - Visual Quality	8.7 Visual Impact, 8.7.4 Potential Effects of the Project and Proposed Mitigation	Jacques Marc	19-Jul-12	• Employ progressive rehabilitation. I.e. Landscape and re-vegetate dumps as mine progresses, not at end.	Thank-you for the guidance. A discussion of mitigation to reduce the visual impact of the Project will be included in the Application.		
D101	TNRD	10.3 Noise and Vibration, 10.3.2 Background	Dan Wallace	3-Aug-12	5. The public comments reflected concerns related to site blasting, including noise vibration and dust. Perhaps the applicant could conduct a test blast at some point in the future in order for residents to draw conclusions.	The proponent conducted a blast test in February, 2011. A blast report was completed and is available on the EAO e-PIC website at the following link: http://ia100.gov.bc.ca/appsdata/epic/documents/p362/1327436347913_73c300a5a997c2e09b311c20e96bd8c5b67e4e37e2b4c11900806fa7453d08.pdf . At present, there are no plans to complete additional blast tests.		Noted.
D102	City of Kamloops	n/a	Jen Fretz	26-Mar-12	* http://www.eso.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (32 of 37) [2012-03-29 4:02:53 PM]* RE: Review of draft Application Information Requirements for proposed Ajax Mine Further to our September 30, 2011 detailed response to the draft Application Information Requirements (AIR) document, we have a number of additional comments, questions and concerns. We expect that the concerns outlined in this letter will be included in the AIR	General statement.		Noted - please see comments D103 - D128.
D103	City of Kamloops	n/a	Jen Fretz	26-Mar-12	A. 3-D Model In working with the proponent, the BC Environmental Assessment Office (BC EAO) and the Canadian Environmental Assessment Agency (CEAA), it was made clear that the City expected a model (physical, electronic or other) would be available during this most recent public comment period. The expectation was echoed by BC EAO and CEAA both verbally and in emails. We expressed to all parties the importance of the model in helping the residents of Kamloops and surrounding areas understand the scale of the proposal. It is very difficult for the average person to understand the true scope of the project and how it would fit in with the surrounding landscape based solely on the two dimensional drawing made available thus far. Even after the extension of the public comment period, no model has been forthcoming. The lack of a model has seriously diminished the effectiveness of the public comment period in capturing all of the questions the public may have. We believe this model should be made immediately available for public scrutiny	Out of scope.		Since the comment was received, a 3-D model has been manufactured and made publically available for viewing.
D104	City of Kamloops	10	Jen Fretz	26-Mar-12	B. Power Line Location Further to our July 11, 2011 letter, we have concerns about the proposed eastern power line location as it may have impacts on the City's future growth in the area as highlighted in the Official Community Plan. The Application must speak to: 1. Are there any health impacts from having high voltage power lines in such close vicinity to residences?	Out of scope.		The Application/EIS will include maps showing the project infrastructure relative to community and planning boundaries. (b) Description of on-site and off-site infrastructure will include power line details (location, voltage, etc.) in the revised dAIR/EIS Guidelines. There is little evidence that electric fields at the intensities associated with power lines directly impact human health therefore no studies are proposed for inclusion in the Application/EIS.
D105	City of Kamloops	8.7	Jen Fretz	26-Mar-12	2. What are the aesthetic impacts on surrounding properties from the finalized power line location? The 3-D model mentioned above should include the aesthetic impacts of the power line.	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The power line will be included in the visual representation.		
D106	City of Kamloops	7.7	Jen Fretz	26-Mar-12	3. Is there the possibility of reduced property values with a power line located very close (or even on) certain properties?	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).		Proponent response indicates that effects of the power line on property values will be assessed in the Application (Property Values has been defined as a VC in Rev E of the AIR).
D107	City of Kamloops	n/a	Jen Fretz	26-Mar-12	In addition to requesting this information through your (BC EAO) office, the Mayor of the City of Kamloops will be sending a letter to the Minister of the Environment asking for assurance that this issue (along with those outlined in Sections C and D of this letter) be included in the EA and that questions be answered to the satisfaction of the City of Kamloops.	Out of scope.		Assume that the City of Kamloops is referring to all information requests outlined in this submission (see subsequent rows).
D108	City of Kamloops	6.2	Jen Fretz	26-Mar-12	C. Direct Impact on Aberdeen Neighbourhood 1. We have been working directly with the proponent to determine the impacts of the proposed mine on the adjacent Aberdeen neighbourhood. As indicated to the BC EAO and CEAA in past letters and meetings, the Aberdeen neighbourhood has historical issues with groundwater and slope stability and must be certain that mine activities will not exacerbate the situation. It is imperative to quantify both the negative and positive effects that the mine will have on groundwater in the Aberdeen Neighbourhood through all phases of the mine, including closure and post-closure. We will continue to work closely with the proponent on this particular issue and want to be assured that any and all comments, questions, etc. raised by the City to the BC EAO and CEAA will be considered at any time, regardless of public comment period dates.	Acknowledged.		
D109	City of Kamloops	n/a	Jen Fretz	26-Mar-12	2. Based on the technical information provided to us by the proponent, we do have additional questions but will be asking those directly of the proponent. As information related to the impact on the Aberdeen neighbourhood will form part of the Application, the City will continue to keep the BC EAO and CEAA up-to-date.	Out of scope.		

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D110	City of Kamloops	7.8	Jen Fretz	26-Mar-12	D. Transportation We continue to have a number of questions about the transportation routes proposed by the proponent. This is a unique situation because the existing road network most impacted by the proposed mine is owned and maintained by the City of Kamloops as opposed to the provincial government. We require that the transportation plan form part of the Application and that it be closely scrutinized through the Environmental Assessment process by the provincial Ministry of Transportation as if the network were their own. The plan should address not only large ore transport trucks but all other vehicles accessing the site, which include but are not limited to employee vehicles, contractor vehicles, supply trucks and emergency vehicles	A traffic impact study will be undertaken for the Lac Le Jeune Road.		Opus International Consultants (Canada) Limited (Opus) was retained by KGHM Ajax Mining Inc. and Abacus Mining & Exploration Corp. to conduct a traffic impact study of the proposed Ajax Mine Project. The traffic impact study services provided were conducted in consultation with the client and relevant public stakeholder agencies. These agencies include the City of Kamloops and the Ministry of Transportation and Infrastructure (MoTI). The boundaries of the assessment include Lac Le Jeune Road, Coquihalla Highway, and Highway 1. The plan will address large ore transport trucks, employee vehicles, contractor vehicles, supply trucks and emergency vehicles.
D111	City of Kamloops	8.1	Jen Fretz	26-Mar-12	E. Socio-economic Impacts 1. Kamloops is a thriving community, which is based on a number of factors including (but not limited to) retirees relocating here, the Tournament Capital Centre, the Royal Inland Hospital and tourism related to our Canada's Tournament Capital status. If the mine was to be approved, what positive and negative impacts would that have on the above? 2. The socio-economic impacts need to include answer to the questions: a) How will the mine be integrated with the existing community? b) How will it impact the character and perception of the community? c) How will the Aberdeen, Pineview Valley and Knutsford neighbourhoods (those closest to the mine) interact with the mine?	The Application/EIS will consider a range of potential effects on the City of Kamloops as well as the Tournament Capital campaign (and tourism in general) and contributions related to health services and other infrastructure. Potential positive and negative effects of the Project on these and other aspects will be considered. Potential effects related to community perception/character will be considered.		
D112	City of Kamloops	7.4	Jen Fretz	26-Mar-12	3. Employment There is no doubt that a number of jobs will be created by the mine. To better understand the jobs and their impacts, the following questions must be answered: a) How many (and what type) of jobs will the mine provide? How do those vary from the current jobs (both type and number) in Kamloops? b) What is the total estimated payroll of the mine? What percentage is that of the current payroll within the City? c) What current jobs are potentially at risk if the mine is approved?	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well.		
D113	City of Kamloops	10.3	Jen Fretz	26-Mar-12	F. Noise and Blasting 1. It appears that the dAIR includes impacts of noise related to blasting and crushing, but is limited on the impacts of noise related to equipment. This should be included in the assessment. Additionally, the level of noise at given distances away from the property should be indicated. These levels should also be given in comparison to noises which the average person can understand.	This information will be included in the Application/EIS.		
D114	City of Kamloops	10.3	Jen Fretz	26-Mar-12	2. Noises from blasting should be measured at various distances away from the property and presented in a manner which can be understood by the average person. For example, the blasting noise will be ___?___ decibels at 1.5 km from the pit which is comparable to ___?___ (for example the noise from the trains being shunted 1.5 km away, a strike of lightning 3 km away, etc.).	This information will be included in the Application/EIS.		
D115	City of Kamloops	10.3	Jen Fretz	26-Mar-12	3. Studies must be conducted to understand the effects of noise on human health. The results of the noise studies should reference the Health Impacts of Noise Guidance published by Health Canada (specifically the "Percent Highly Annoyed" criteria which speaks to adverse health effects as a function of project-related long-term changes in noise).	This information will be included in the Application/EIS.		
D116	City of Kamloops	10.3	Jen Fretz	26-Mar-12	4. The testing of air blast impacts was conducted during clear sky conditions. As air blast has the potential to cause property damage (broken windows, etc.), additional tests should be conducted during adverse weather conditions (overcast, inversion, wind, etc.). Additionally, a reduction in air blast impacts as distance from the site increases must be demonstrated in the Application.	This information will be included in the Application/EIS.		
D117	City of Kamloops	10.3	Jen Fretz	26-Mar-12	5. The AIR must speak to the requirement for a Noise Management Plan which deals with compounding effects of noise, mitigation measures to reduce noise impacts and plans for dealing with noise complaints (should they arise).	Section 11 of the dAIR indicates that a Noise Management Plan will be included in the Application/EIS. A complaint response and resolution policy will be included as a mitigation measure.		
D118	City of Kamloops	8.3	Jen Fretz	26-Mar-12	G. Health The AIR should speak to impacts (both positive and negative) on Royal Inland Hospital. This should include information on the impact (again, both positive and negative) on access to health care services within Kamloops.	The Application/EIS will consider healthcare capacity and potential effects related to the Project.		
D119	City of Kamloops	6.1	Jen Fretz	26-Mar-12	H. Air Quality and Dust 1. Our understanding of the meteorological information provided to-date is that there is only one weather station located within the mine site. As the site is very large (2500 hectares), we are concerned that the complex weather patterns in the area have not been captured. This concern is magnified when considering the implications of using that data in the model.	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. This information will be presented in the Application/EIS.		
D120	City of Kamloops	8.5 10.1	Jen Fretz	26-Mar-12	2. Due to the proximity of the proposed mine to residential areas, impacts of dustfall on local/residential gardens needs to be taken into consideration. The Application should answer questions about whether or not there will be an increase to the metals content of the food grown by residents in the area? And, whether or not residents should be concerned about other potential impacts to their backyard or community gardens.	A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors, including local gardens. Results will be presented in the Application/EIS.		
D121	City of Kamloops	8.6	Jen Fretz	26-Mar-12	I. Hydrogeology Upon reviewing the technical background work completed by the proponent, our consultants have identified a potential risk to Jacko Lake. The pit dewatering calculations have not made an allowance for the bulging/fracturing of the section between Jacko Lake and the pit. This lack of evaluation of "relaxation" of the pit wall is commented on by the proponent's consultants and identified as a risk in one of the technical reports. This should be further studied and listed specifically in the AIR.	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Results will be presented in the Application/EIS.		
D122	City of Kamloops	3.0	Jen Fretz	26-Mar-12	J. Mapping All mapping from this point forward should include the City's growth management boundary. In addition, the AIR should include the creation of cross sections in conjunction with the mapping. The cross sections should show how the pit, the waste rock piles, the tailings pond and the tailings pile fit in with the City boundary, the urban growth boundary and existing development.	This information will be included in the Application/EIS.		
D123	City of Kamloops	8.7	Jen Fretz	26-Mar-12	K. Mitigative Measures We want to highlight the importance of mitigative measure in the AIR and subsequently the Application. The proposed mine location is extremely close to existing residences and therefore, the sensitivities of the public are heightened. The Application must fully investigate all possible mitigative measures with respect to (but not limited to) the following: 1. Aesthetic impacts of the mines waste rock and tailings facilities both during and after operation (i.e. sloping, seeding, planting, etc.).	Conceptual drawings and mitigation measures will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.		
D124	City of Kamloops	3.18	Jen Fretz	26-Mar-12	2. Progressive closure plans for the tailings pile.	This information will be included in the Application/EIS.		
D125	City of Kamloops	8.7	Jen Fretz	26-Mar-12	3. Locating the waste rock dumps further south of Kamloops and east of the Coquihalla Highway. 4. Exploring alternate options for locations of the waste/tailings piles. 5. Constructing a buffer between the mine and current/future Aberdeen and Knutsford neighbourhoods. 6. Backfilling the pit to reduce the height of the waste rock piles.	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The rationale for the selection of project components will be presented in the Application/EIS, along with an analysis of technically and economically feasible alternatives.		
D126	City of Kamloops	n/a	Jen Fretz	26-Mar-12	L. Other 1. It has been indicated that Kinder Morgan will be expanding their pipeline network which will include twinning in some areas. The proponent should indicate whether or not the twinning/expansion will be conducted within the areas of the mine and (if so), an impact assessment should be included in the AIR.	Out of scope.		Potential effects of the Project on the existing Kinder Morgan pipeline and any publicly available expansion plans will be included under relevant VCs.
D127	City of Kamloops	11.0	Jen Fretz	26-Mar-12	2. A compliance monitoring plan should be included in the Application. The plan should outline what parameters will be monitored, who those results will be sent to and which agency or level of government will be responsible. Options for including the community should be identified, such as the creation of a public monitoring committee.	This information will be included in the Application/EIS.		
D128	City of Kamloops	n/a	Jen Fretz	26-Mar-12	M. Conclusion Thank you for taking the time to review our comments and including them in the AIR. We look forward to continuing our involvement on the Environmental Working Group.	General statement.		
D130	TNRD		Dan Wallace	3-Aug-12	4. The recent public showings of private and proponent developed site models provided some tangible insight on how the mining operation is going to look in the future. We hope the Provincial and Federal technical staff have an opportunity to look at both models. While the models did provide some physical context, we hope to see similar efforts put into more realistic electronic modeling in order to better determine viewscape impacts. The electronic visual modeling provided by the applicant earlier this year did not necessarily represent all critical view corridors within the city. We have heard of amateur attempts to use off-the-shelf modeling software to create visualization; however, we are unaware of any scaled depictions using empirical data. Perhaps the Provincial or Federal government could develop a public model using data provided to date. We must bear in mind that the proposed waste rock locations are located on the most visually sensitive land and air corridors in this region. We believe more creative thought is required in order to reduce the impact of the waste rock facilities. 6. As we pointed out in our teleconference, we noticed that many of the proponent's responses to public concerns were somewhat vague and noncommittal. Many valid comments/concerns were deflected or deferred to the future Application/EIS. We look forward to this technical information being submitted in order to provide these much needed answers.	The proponent has developed a physical 3D model available for public viewing. A visual impact assessment will be included in the Application/EIS.		
D134	MOE	3.12 6.4	Scott Jackson	28-Nov-12	• Ensure that an analysis of potential impacts to flow quantity and timing in Peterson Creek is included for various mine life stages (i.e., construction, operations, closure, etc.). • Include possible mitigation measures should the predictions show significant impacts on downstream water licenses, and the ecosystem	This information will be included in the analysis presented in the Application.		
D135	MOE	3.12 6.4	Scott Jackson	28-Nov-12	• Define the degree of connectivity between the groundwater and surface water, and identify stream reaches that are gaining/losing. Focus on periods where baseflow dominates.	The analysis to date has considered reaches that are gaining/losing from a groundwater perspective. However, the groundwater or surface models do not consider the interplay between groundwater and surface flows. An analysis will be done, but is complex and will have considerable uncertainty due to data constraints and water use in the area, including water extraction from Peterson Creek by downstream water users and the lack of an enforced release schedule.		
D136	MOE	3.12 6.4	Scott Jackson	28-Nov-12	• Include an analysis of the effects of process water withdrawal on the Thompson River/Kamloops Lake during extreme low flow periods. • This should include not only during a 7Q10 (annual and June-Sept.), but also during the lowest flows recorded in the last 50 years. • A trend analysis should be done for low flows as well – are winter and summer low flows increasing over time, or decreasing? • Note that the design pump rate for process water from Kamloops Lake is 2000 m3/hr, this rate should be run as a scenario as well as the 1688 m3/hr stated in the dAIR (3.14.1). • As dust will be an issue, please include an upper bound estimate of water required for dust control, and identify the source of this water, along with any changes to the expected impacts on freshwater ecosystems resulting from higher than anticipated freshwater withdrawals.	This information will be included in the analysis presented in the Application.		
D137	MOE	3.12 6.4	Scott Jackson	28-Nov-12	• An analysis of the potential impact of mine water management (diversion, storage, pumping, etc.) on groundwater recharge, and resulting changes to the flow regime of the local creeks (Peterson and Cherry in particular) and lakes.	This information will be included in the analysis presented in the Application.		

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Comment #	Agency	dAIR Section	Reviewer	Date	Agency Comment	Proponent Response	Proponent Response #2	Proponent Response #3
D138	MOE	3.12 6.4	Scott Jackson	28-Nov-12	<ul style="list-style-type: none"> • Given the arid climate and sensitivity of the water resources, a sensitivity analysis should be run using the watershed model to define an expected range of water balance outcomes (wet and dry years). • Include site specific estimates of evaporation and sublimation, as these will form an important component of the site water balance. 	This information will be included in the analysis presented in the Application.		
D139	MOE	3.12 6.4	Scott Jackson	28-Nov-12	<ul style="list-style-type: none"> • The proponent may want to consider including Peterson Creek in the LSA, and should certainly ensure that this watershed is included in its entirety in the watershed model. 	Peterson Creek within the proposed footprint is within the LSA. The Peterson Creek watershed is included in the LSA.		
D140	MOE	3.12 6.4	Scott Jackson	28-Nov-12	<ul style="list-style-type: none"> • I strongly encourage the proponent to ensure that the hydrometric network is capable of providing baseline data for areas downstream of the proposed project, and monitoring for changes in the flow regime resulting from mine operations. 	The proponent commits to working with the MOE to identify a suitable location for an additional station downstream of the project area prior to construction if it will enhance interpretation of the site data. Assessing project-related flow changes during operations would be confounded by water extraction from Jacko Lake, since there is currently no enforced release schedule (extraction is controlled by downstream water users).		
D141	MOE	3.12 6.4	Scott Jackson	28-Nov-12	<ul style="list-style-type: none"> • Include flood frequency and storm event (i.e., 1:200, 24 hour rainfall) analyses in the EA application, along with sources/confidence intervals for the estimates. 	This information will be included in the analysis presented in the Application.		

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City of Kamloops	A. 1.0 – PURPOSE OF THE APPLICATION	1	The last two bullets in the list of what the Application will state mention referring the Application back to the federal authorities. Should the corresponding provincial authorities not be included in this also?	Text has been revised as suggested		
City of Kamloops	2.2.2 (Project Location)	4	There is no mention of straight line distance measurements relative to the closest home and the City's growth boundary. This is of great importance for those who are not familiar with the City and region as it gives some perspective relative to proximity to the population. Please ensure that this is added into the application.	Figures and maps will be provided in the Application/EIS with appropriate scale factors, as previously committed. The Application/EIS will include text indicating the approximate distance of the Project in closest proximity to the City of Kamloops boundary.		
City of Kamloops	2.2_1	4	a) The location of the east overburden stockpile needs to be added (will satisfy tracking table commitment).	The current Project General Arrangement does not contain an east overburden stockpile. The Application/EIS will contain a refined General Arrangement showing all project components, including any required overburden stockpiles.		
City of Kamloops	2.2_1	4	b) The Aberdeen Plan Boundary (also known as the Urban Growth Boundary) is not accurate. The City previously sent the digital information to the proponent, but can certainly re-send if needed.	Both the City of Kamloops boundary and the Aberdeen Plan boundary are revised as necessary.		
City of Kamloops	2.2_1	4	c) Labelling of major roadways would be helpful. Roadways to include are Copperhead Drive, Pacific Way and Hugh Allan Drive.	Figures will be revised with the requested labels.		
City of Kamloops	2.2_1	4	d) Labelling of the Pineview and Knutsford neighbourhoods is required.	Figures will be revised with the requested labels.		
City of Kamloops	2.2_1	4	e) Key geographic features should be labelled including (but not limited to) Sugarloaf Mountain and Guerin Creek.	Figures will be revised with the requested labels.		
City of Kamloops	2.2_1	4	f) The ortho photo layer needs to be updated to the 2012 Kamloops photos	Maps and figures will be updated with the latest available orthophotos in the Application/EIS.		
City of Kamloops	2.2.4 (Project Schedule)	6	The length of monitoring required should be tied to groundwater and pit water level stabilization. Monitoring should only be deemed complete after three consecutive years of data prove that hydrologic stabilization has occurred.	Text has been revised as suggested		
City of Kamloops	2.5 (Alternative Means of Undertaking the Project)	8	The list of alternative means assessed should include a comprehensive evaluation of a block caving operation.	Alternative means of developing the Open Pit is included in the list; an explanation of block caving methods (which pertain to underground mines) will be provided in the Application.		
City of Kamloops	2.6 (Project Land Use)	8	a) Need to include "Description of the Kamloops Airshed Management Plan – 2012 as it relates to the Project" as one of the existing management programs that will be included.	Text has been revised as suggested.		
City of Kamloops	2.6 (Project Land Use)	8	b) The boundaries of the proposed encroachment into City limits, including setbacks as reasonably required for the protection of the public, needs to be added to the list of information included in the Application.	The boundaries of the proposed encroachment into City limits, including setbacks as reasonably required for the protection of the public, will be discussed in the Application/EIS; the AIR/EIS Guidelines has been revised to reflect this.		
City of Kamloops	3.4.2 (Pit Development)	16	The impact of pit wall stability and pit dewatering on the short_ and long_ term viability of Jacko Lake needs to be included in the information included regarding the pit.	Text has been revised as suggested.		
City of Kamloops	3.7.1 (Tailings Storage Facility)	26	a) Description of tailings water seepage needs to include evaporation quality and quantity.	The site wide water balance includes evaporation rates. The water quality model will include potential impacts of seepage from the TSF. This will be addressed in section 6 of the Application/EIS.		
City of Kamloops	3.7.1 (Tailings Storage Facility)	26	b) Description of mitigation measures needs to relate to aesthetic impacts in addition to the fugitive dust emissions that are already stated.	Aesthetic effects and mitigation measures to address any potential impacts will be discussed in Section 8.4.		
City of Kamloops	3.7.1 (Tailings Storage Facility)	26	c) Proposed development stages needs to include closure information and describe progressive closure intentions.	This information will be presented in Section 3.18		
City of Kamloops	3.7.1 (Tailings Storage Facility)	26	d) List of information regarding the Tailings Storage Facility (TSF) needs to include the chemical composition of binding agents	Text has been revised as suggested but included as a component of the Thickened Tailings Plant (Section 3.7.2) rather than as a component of the TSF.		

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City of Kamloops	3.8.1 (Waste Rock Storage Facilities)	28	a) The information listed in the Application needs to include mitigation measures to reduce the aesthetic impact during operation, closure and post closure.	Aesthetic effects and mitigation measures to address any potential impacts will be discussed in Section 8.4.		
City of Kamloops		28	b) It is unclear where the proponent provides reasons/basis for not having emergency concentrate storage (or where such will be discussed). It is a commitment made in the tracking table.	The concentrate storage facility has a capacity of 4,000 tonnes of concentrate, an approximately 7 day stockpile. This is considered sufficient for potential transport disruptions (either natural, such as severe weather, or those resulting from human error) - no emergency concentrate storage facility will be required for the Project. The Application/EIS will discuss concentrate handling procedures in the event of unanticipated shipping interruptions.		
City of Kamloops	3.9 (Overburden and Topsoil Stockpiles)	29	The location of the East Overburden Stockpile is not included in Figure 2.2_1.	The current Project General Arrangement does not contain an east overburden stockpile. The Application/EIS will contain a refined General Arrangement showing all project components, including any required overburden stockpiles.		
City of Kamloops	3.12 (Site Water Management)–	31	a) Site wide water balance/watershed model needs to include evaporation (quality and quantity).	The site wide water balance includes evaporation rates.		
City of Kamloops	3.12 (Site Water Management)–	31	b) The list of what will be provided in the Application needs to include consideration of recharge to the Waste Rock Storage Facilities (WRSFs), increase in recharge to groundwater and additional seepage generated from the WRSFs.	A recharge assessment will be conducted using an areal boundary condition. Recharge will be varied within appropriate ranges to simulate potential effect of the WRSFs on groundwater flow.		
City of Kamloops	3.15 (Power Supply)	33	Impact of the power line on future City growth areas needs to be addressed in the Application.	Potential effects of the Project on future City growth areas will be discussed in Section 8.5 (Land and Resource Use).		
City of Kamloops	3.18 (Closure and Reclamation)	35	a) Reference is made to a temporary closure plan. The Application should include details regarding what conditions would cause the need for temporary closure.	Text has been revised as suggested		
City of Kamloops	3.18 (Closure and Reclamation)	35	b) Reference is made to three years of monitoring. The length of monitoring required should be tied to groundwater and pit water level stabilization. Monitoring should only be deemed complete after three consecutive years of data prove that stabilization has occurred.	Text has been revised as suggested		
City of Kamloops	5.1.3 (Temporal Boundaries)	43	Temporal boundaries need to be described for the pre_construction phase as well (as indicated in version D of the dAIR).	Surveying and clearing were identified as the pre-construction activities to be assessed in Rev D of the AIR – these activities will be assessed as part of the construction activities.		
City of Kamloops	5.1.6.1 (Potential Interaction between Residual Project Effects and Other Projects or Activities)	46	The Kinder Morgan pipeline is listed as one of the projects for “consideration”. The impacts of the pipeline (both existing and proposed) on the Project must be discussed in the Application, not just considered.	The word "consideration" in this sentence means that the projects and activities in the list will be included in the Cumulative Effects Assessment if they have the potential to interact with the residual effects of the Project on a given VC.		
City of Kamloops	6.3.2 (Background–Surface Water Quality)	54	a) Quantification of the baseline water quality conditions needs to include Jacko, Makaoo and Lockie Lakes (not just the proposed mine footprint) as indicated.	Jacko Lake is an active water quality sample site within the immediate project footprint. Preliminary modelling has indicated that Makaoo Lake will not receive runoff or seepage from any of the proposed mine facilities, and as a result the lake is not included in the baseline program. Mine water seepage pathways are predicted to be intercepted at Lockie Lake, but there are no surficial drainage channels associated with this water body. The water quality characteristics for Lockie Lake are assumed similar to those of Inks Lake and Wallender Lake, and as such has not been included as an additional monitoring location.		
City of Kamloops	6.3.2 (Background–Surface Water Quality)	54	b) A numerical mass balance does not adequately predict impacts of chemical reactions, changes in pH, redox state, etc. that will affect how chemicals move through the surface water system. As a minimum, the proponent should conduct aqueous geochemical modelling using pH Redox Equilibrium Calculations (PHREEQC).	A mass balance model will be used as the basis for predicting downstream water quality; additional equilibrium modeling will be conducted if the source term data suggest that pH within the system will be altered through acid generation. The understanding of the chemical equilibrium processes for the baseline environment in the area will be applied to the model in order to predict solubility controls, and additional aqueous geochemical modeling may be conducted to substantiate these predictions.		

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City of Kamloops	6.3.2 (Background-Surface Water Quality)	54	c) It is assumed that Makaoo and Lockie Lakes are included in the Peterson Creek Watershed characterization. They should be explicitly stated in the dAIR.	Makaoo Lake and Guerin Creek are not within the Peterson Creek Watershed and are not included in its characterization. Preliminary modelling has indicated that Makaoo Lake will not receive runoff or seepage from any of the proposed mine facilities, and as a result the lake is not included in the baseline program. Lockie Lake will be addressed in the water quality model.		
City of Kamloops	6.3.4 (Potential Effects of the Project and Proposed Mitigation – Surface Water Quality)	57	Impacts of dust from the site falling into surrounding lakes and waterbodies needs to be considered in the model.	Impacts of dust from the site falling into surrounding lakes and waterbodies will be considered in the water quality model.		
City of Kamloops	6.4.4 (Potential Effects of the Project and Proposed Mitigation – Surface Water Quality)	61	a) The tracking table commits to studying evaporation rates as part of the hydrometeorology rates. This should be specifically included in the dAIR.	The site wide water balance includes evaporation rates.		
City of Kamloops	6.4.4 (Potential Effects of the Project and Proposed Mitigation – Surface Water Quality)	61	b) The tracking table commits to including chemical binding agents in the assessment of surface water quality. This should be explicitly included in the dAIR.	Ore and tailings processing including chemical additives is currently included in the list of Project aspects or activities that will be considered in the effects assessment on surface water quality.		
City of Kamloops	6.4.5 (Residual Effects and their Significance – Surface Water Quality)	61	The Application needs to specifically address seepage from the WRSF (acid generation, seepage water quality, etc.). Seepage from the very large piles needs to be clearly understood.	Potential seepage from the WRSF will be discussed in Section 6.4.4. All residual effects are characterized and significance assessed in 6.4.5.		
City of Kamloops	6.5.4 (Potential Effects of the Project and Proposed Mitigation – Groundwater Quality)	64	Seepage from the WRSFs (acid generation, seepage, water quality) needs to be added to the list of project components and activities addressed.	WRSF and geochemical predictions for metal leaching and acid rock drainage are included in the list of components to be assessed		
City of Kamloops	6.6.4 (Potential Effects of the Project and Proposed Mitigation – Groundwater Quality)	68	a) The tracking table commits to including evaporation rates and chemical binding agents in the effects analysis. Commitment to do so needs to be clearly included in the dAIR.		Proponent asked to remove reference to "use of chemical binding agents" from AIR/ EISG as this will be discussed as part of the groundwater quality assessment (See section 6.3.4 reference to "ore and tailings processing"). City confirmed during May 14, 2013 phone call with EAO that it was in agreement with above-noted proposal.	Ore and tailings processing including chemical additives is currently included in the list of Project aspects or activities that will be considered in the effects assessment on groundwater quality.
City of Kamloops	6.6.4 (Potential Effects of the Project and Proposed Mitigation – Groundwater Quality)	68	b) In addition to what has been stated regarding predicting rates of water leakage around the TSF and WRSFs, the Application needs to evaluate the increased groundwater recharge resulting from the WRSF and the increased seepage from the WRSF to surface water courses. The Application should also specifically address ground failure and resulting slumping run_out of the WRSFs.	The site wide water balance will assess groundwater-surface water interactions Section 17.6 will address potential accidents, malfunctions or unplanned events, including failure of the waste rock storage facilities, and the environmental effects that may result from such events.		

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City of Kamloops	6.6.4 (Potential Effects of the Project and Proposed Mitigation – Groundwater Quantity)	68	c) The tracking table committed to evaluating post_closure effects until the pit reaches equilibrium. This needs to be clearly stated in the dAIR.	The AIR indicates that the Application/EIS will include a description of the period of time to be examined.		
City of Kamloops	6.6.4 (Potential Effects of the Project and Proposed Mitigation – Groundwater Quantity)	68	d) Reference is made to "a site_wide water balance (watershed) model". It is assumed that this will include the Aberdeen area at a minimum.	A site wide water balance will describe water movements within the Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. Aberdeen is not included in the site wide water balance model but will be included in the groundwater quantity effects assessment.		
City of Kamloops	6.7.4 (Potential Effects of the Project and Proposed Mitigation – Fish Populations and Fish Habitat)	73	Potential effects to be assessed must include the impact of mining dust and vibrations on the fish of Jacko Lake.	Direct mortality or sub-lethal effects to fish as a result of altered water quality (increased metals loading, increased temperatures, decreased dissolved oxygen concentration, etc.) or blasting activities resulting during Project construction, operation and decommissioning is included in the list of potential effects to be assessed.		
City of Kamloops	6.13.1 (Rationale–Migratory Bird VCs)	89	Other migratory birds including Snowy Owl and Great Horned Owl should be added.	Great Horned Owl is relatively common and Snowy Owl is a transient visitor; neither will be assessed as a VC.		
City of Kamloops	6.14.1 (Rationale–Raptor VCs)	92	Barn Owl, Great Horned Owl and Snowy Owl need to be added to the list of impacted raptor species.	Great Horned Owl is relatively common and Snowy Owl is a transient visitor; neither will be assessed as a VC.		
City of Kamloops	6.17.1 (Rationale–Mammal VCs)	101	Coyote, black bear and cougar need to be added to the list of impacted mammal species.	These species will not be included as VCs.		
City of Kamloops	7.1.3 (Spatial and Temporal Boundaries–Economic Growth)	106	In Figure 7.1_1, the Local Study Area (LSA) boundaries need to be expanded to the south and east a minimum of 20 km. If there are potential impacts in Logan Lake and Savona then the areas to the south/east must be included as they are much closer. It should be noted that a progress print was included in the Working Group's last review of the dAIR. This is the first time we have been able to comment on the LSA/RSA in this Figure.	<p>The LSA was determined primarily by placing geographic boundaries around the area most likely to experience Project-related effects. For example, the City of Kamloops, Savona and Knutsford are the closest communities and are therefore most likely to experience business-related impacts. It is also anticipated that a substantial proportion of the workforce would reside within this area. In addition, potential project effects associated with infrastructure, services and transportation (e.g., roads, landfill), land and resource use (e.g., ranching) and outdoor recreation are expected to be captured within the LSA. Data collection requirements are also important in study area definition. In this case, shaping of the LSA was aided by the existence of corresponding Statistics Canada Census geographic units, including Kamloops 1 IRI, Skeetchestn IRI, Kamloops City (which includes Knutsford) and Thompson Nicola Regional District J, which includes Lac le Jeune, Savona and Tobiano. Logan Lake is not included in the LSA - the figure is corrected.</p> <p>Please note that "progress print" has the same meaning as "draft" - the LSA and RSA will be finalized in the Application/EIS, with a rationale provided for the selected area</p>		

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City of Kamloops	7.2.4 (Potential Effects of the Project and Proposed Mitigation – Labour Force, Employment and Training)	108	Potential adverse effects resulting from the project relating to employment needs to consider jobs potentially at risk.		EAO sought input from its socio-economic consultant and determined that this level of specificity is not required for the AIR/EISG; however, proponent must respond to comment.	Any jobs that will be indirectly affected by the Project will be discussed in the Application/EIS.
City of Kamloops	7.3.2 (Background–Income)	110	Background information should include historical data on employment when the New Gold Mine was starting up. Comparisons should be made where applicable.	The Application/EIS will assess the potential effects of the Ajax Project on current local and regional income; historical employment information is not pertinent to the Project assessment.		
City of Kamloops	7.4.4 (Rationale–Business)	112	Venture Kamloops needs to be added to the list of professional knowledge information sources.	Text has been revised as suggested.		
City of Kamloops	7.5.1 (Rationale–Property Values)	113	a) Knutsford neighbourhood needs to be included in specific areas of concern.	Text has been revised as suggested.		
City of Kamloops	7.5.1 (Rationale–Property Values)	113	b) This Valued Component (VC) also needs to be informed by the power line information.	The power line will be included as a component of the Project; effects on the VC will be assessed for all aspects of the Project that have a potential linkage pathway.		
City of Kamloops	7.5.1 (Rationale–Property Values)	113	c) Table 7.5_1 needs to include power line(s) in temporal scope.	This section of the table summarizes the project phases to be assessed in relation to the VC, not the Project components.		
City of Kamloops	7.5.1 (Rationale–Property Values)	113	d) Impact on the desirability of the adjacent neighbourhoods (Aberdeen, Pineview and Knutsford) needs to be examined in this section. Alternately, desirability could be addressed in the re_established "Quality of Life" VC.	Property values in adjacent neighbourhoods will be assessed.		
City of Kamloops	7.5.4 (Potential Effects of the Project and Proposed Mitigation – Property Values)	115	It is assumed that the impacts of the power line will be included in this section.	The power line will be included as a component of the Project; effects on the VC will be assessed for all aspects of the Project that have a potential linkage pathway.		
City of Kamloops	Section 8.0 – ASSESSMENT OF POTENTIAL SOCIAL EFFECTS		1. The Quality of Life VC that appeared in the previous version of the dAIR has been removed with no explanation. The former VC spoke to a number of the City's social concerns. The Quality of Life VC needs to be re_established and added to the dAIR.	"Quality of Life" was removed as a VC in consultation with the EAO and CEA Agency.		
City of Kamloops	8.1.4 (Potential Effects of the Project and Proposed Mitigation – Community Health and Well_Being)	120	List of potential effects needs to include: a) Potential of losing highly skilled medical professionals; b) Retirees who choose not to move to Kamloops; c) Jobs that are at risk.	Economic growth in the Application/EIS will include discussion regarding the estimated economic impact of the project on the region including direct impacts (e.g., contract expenditures by the proponent), indirect impacts (expenditures by industries supplying goods and services to the project) and induced impacts (e.g., additional spending in the community by project workers). Discussion of tax revenues (e.g., corporate, income) will also be included. It is not possible to quantify the number of people opting not to retire to Kamloops.	b) Retirees who choose not to move to Kamloops; EAO sought input from its socio-economic consultant and determined that this level of specificity is not required for the AIR/EISG; however, proponent must respond to comment.	It is not practicable to quantify the number of people opting to retire or not to Kamloops.
City of Kamloops	8.2.1 (Rationale–Infrastructure, Public Facilities and Services)	121	Municipal infrastructure must be included in the list of things that will be under pressure with an increase in population.	Text has been revised as suggested		

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City of Kamloops	8.2.2 (Background _ Infrastructure, Public Facilities and Services)	122	Health care and emergency services including (but not limited to) Royal Inland Hospital, medical clinics and access to a family doctor need to be added to the list of topics in the local study area.	Health care and emergency services will be included in the assessment.		
City of Kamloops	8.3.2 (Background–Dark Sky)	124	The Sahali and Knutsford neighbourhoods need to be added to the subdivisions in which existing light levels will be summarized.	McGowan Park in Sahali, the intersection of Long Lake Rd and Goose Lake Rd in Knutsford, and the intersection of Edith Lake Rd and Long Lake Rd are included in the assessment.		
City of Kamloops	8.3.3 (Spatial and Temporal Boundaries–Dark Sky)	124	The RSA in Figure 8.3_1 needs to be expanded to the east to include areas which will be impacted by line of sight and therefore daytime shading and nighttime light. There do not appear to have been any changes to this figure since the commitment was made in the tracking table.	The RSA is expanded to the east to include sites in Knutsford and along Long Lake Rd.		
City of Kamloops	8.4.1 (Rationale–Visual Impact/Aesthetic Features)	125	a) The sentence making up the second paragraph is an incomplete sentence. It appears that words are missing after the word“local”.....	Sentence has been revised.		
City of Kamloops	8.4.1 (Rationale–Visual Impact/Aesthetic Features)	125	b) The Regional Study Area (RSA) in Figure 8.3_1 needs to be expanded to the east to include areas which will be impacted by line of sight and therefore daytime shading and nighttime light.	The visual impact/aesthetic assessment will consider site lines from upper Rose Hill Rd, Lower Rose Hill Rd, Simms Rd, and Beresford Rd. These sites exist beyond the previous RSA in Figure 8.3-1. The RSA will be expanded to include these assessed view points.		
City of Kamloops	8.4.2 (Background _ Visual Impact/Aesthetic Features)	126	“Neighbouring properties”must include those to the north and east of the proposed site.	The neighbourhoods of Knutsford, Sahali, Aberdeen, and Pine View are north and east of the proposed site and were included in the Visual Impact/Aesthetic Features baseline report and effects assessment.		
City of Kamloops	8.4.3 (Spatial and Temporal Boundaries _ Visual Impact/Aesthetic Features)	126	The socio_economic LSA reference needs to be adjusted to include areas to the east.	The LSA was determined primarily by placing geographic boundaries around the area most likely to experience Project-related effects. For example, the City of Kamloops, Savona and Knutsford are the closest communities and are therefore most likely to experience business-related impacts. It is also anticipated that a substantial proportion of the workforce would reside within this area. In addition, potential project effects associated with infrastructure, services and transportation (e.g., roads, landfill), land and resource use (e.g., ranching) and outdoor recreation are expected to be captured within the LSA. Data collection requirements are also important in study area definition. In this case, shaping of the LSA was aided by the existence of corresponding Statistics Canada Census geographic units, including Kamloops 1 IRI, Skeetchestn IRI, Kamloops City (which includes Knutsford) and Thompson Nicola Regional District J, which includes Lac le Jeune, Savona and Tobiano. Logan Lake is not included in the LSA - the figure is corrected. The neighbourhoods of Knutsford, Sahali, Aberdeen, and Pine View are north and east of the proposed site and were included in the Visual Impact/Aesthetic Features baseline report and effects assessment.		
City of Kamloops	8.4.4 (Potential Effects of the Project and Proposed Mitigation _ Visual Impact/Aesthetic Features)	127	Project components which may contribute to visual/aesthetic changes must include the power line as committed to in the tracking table.	The power line will be included in the visual impact / aesthetic features effects assessment.		
City of Kamloops	10.0 (Assessment of Potential Health Effects)	140	This VC needs to be expanded to include the potential health impacts of the new power line.	There is little evidence that electric fields at the intensities associated with power lines directly impact human health, therefore no studies are proposed for inclusion in the Application/EIS.		

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City of Kamloops	10.1.1 (Rationale– Air Quality)	140	The City of Kamloops Airshed Management Plan (2012) needs to be referenced in this section. Impacts of the mine on the Plan needs to be addressed.	The City of Kamloops Airshed Management Plan (2012) will be referenced; potential effects of the Project in relation to the objectives of the Plan will be discussed.		
City of Kamloops	10.1.6 (cumulative Effects Assessment–Air Quality)	145	The cumulative effects assessment needs to consider Domtar and LaFarge (both in Kamloops) in the list of existing industry.	These projects will be included in the CEA for air quality.		
City of Kamloops	10.3.3 (Spatial and Temporal Boundaries–Country Foods)	149	In Figure 6.3_1, the LSA needs to be expanded to include all of the Aberdeen neighbourhood. The RSA needs to be expanded to the north to include the Kamloops South Shore.	A figure specific to Human Health is added (10.3-1) is added which includes the revised LSA with all of the Aberdeen neighbourhood and the RSA which includes South Kamloops.		
City of Kamloops	10.3.7 (Conclusion–Country Foods)	150	The tracking table committed to showing the confidence in modelled results. This needs to be explicitly included in the dAIR.	Text has been revised as suggested.		
City of Kamloops	10.4.1 (Rationale–Noise and Vibration)	150	The rationale for selecting Noise and Vibration as a VC needs to also include the impact of vibration and air blast on City of Kamloops infrastructure (existing and future). These impacts need to be addressed throughout this VC.	Vibration will be assessed in this Section of the Application under the EAO Human Health "pillar". The assessment will address vibration (ground acceleration) and noise (overpressure) from daily blasting and other mine activities. Through comparison to established criteria the effects of vibration and noise on city infrastructure (both existing and future, such as Aberdeen well locations, roads, underground utilities, existing water reservoir/booster locations, future Coal Hill Reservoir location, etc.) can be inferred.	Update Agency Tracking Table to include comment provided by City of Kamloops and proponent's response	Text is inserted into the AIR/EIS Guidelines as directed.
City of Kamloops	10.4.3 (Spatial and Temporal Boundaries–Noise and Vibration)	152	The compilation of sound levels needs to include noise from full loaded trucks going uphill as well as those using their engine brakes going downhill.	Text has been revised as suggested.		
City of Kamloops	10.4.4.1 (Noise Assessment)	152	a) The tracking table committed to including the specifics of blasting (schedule, number of holes, etc.). This needs to be specifically mentioned in the dAIR.	The blasting schedule and design will be developed during the permitting stage; a general description of the activity will be provided in Section 3 (Project Description).		
City of Kamloops	10.4.4.1 (Noise Assessment)	152	b) The noise from loading and unloading of trucks which are working the waste rock piles needs to be included in the noise assessment.	Text has been revised as suggested.		
City of Kamloops	10.4.4.1 (Noise Assessment)	152	c) Results of the noise assessment need to be presented in a manner which is understood by the average person. For example, blasting will be ____ db at 1.5 km from the pit, which is comparable to ____.	A summary of the noise assessment methodology and results will be included using language that can be understood by the average person.		
City of Kamloops	10.4.4.2 (Blasting Vibration Assessment)	153	a) The blasting vibration assessment must also address air blast. This is not indicated in the dAIR. Vibration and air blast impacts need to be addressed on the surrounding areas (most specifically the Aberdeen neighbourhood).	Vibration will be assessed in this Section of the Application under the EAO Human Health "pillar". The assessment will address vibration (ground acceleration) and noise (overpressure) from daily blasting and other mine activities. Overpressure can be defined as transient air pressure greater than the surrounding atmospheric pressure; overpressure consists of sound waves which are inaudible to the human ear. Through comparison to established criteria the effects of vibration and overpressure on city infrastructure (both existing and future, such as Aberdeen well locations, roads, underground utilities, existing water reservoir/booster locations, future Coal Hill Reservoir location, etc.) can be inferred. This will be discussed as part of the Property Values VC.		
City of Kamloops	10.4.4.2 (Blasting Vibration Assessment)	153	b) It is assumed that "other areas of interest" includes the City's future Coal Hill Reservoir which will be located adjacent to the ore stockpiles	Vibration will be assessed in this Section of the Application under the EAO Human Health "pillar". The assessment will address vibration (ground acceleration) and noise (overpressure) from daily blasting and other mine activities. Through comparison to established criteria the effects of vibration and noise on city infrastructure (both existing and future, such as Aberdeen well locations, roads, underground utilities, existing water reservoir/booster locations, future Coal Hill Reservoir location, etc.) can be inferred.		

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City of Kamloops	Figure 2.2-1 Rev 2 Project Location		location of east overburden stockpile (not included as per tracking table commitment)	The current Project General Arrangement does not contain an east overburden stockpile. The Application/EIS will contain a refined General Arrangement showing all project components, including any required overburden stockpiles.		
City of Kamloops	Figure 2.2-1 Rev 2 Project Location		need to add growth management boundary (urban growth boundary) - current one is wrong.	The City of Kamloops boundary and Aberdeen Plan boundary are confirmed to be consistent with the publically available files (sourced from the City of Kamloops website, May 2013). Urban Growth Boundary is added.		
City of Kamloops	Figure 2.2-1 Rev 2 Project Location		need to label Pineview, Sugarloaf, Guerin Creek, Copperhead Drive, Pacific Way, Hugh Allen	Figure is be updated as noted.		
City of Kamloops	Figure 2.2-1 Rev 2 Project Location		need to update to 2012 orthophotos	Maps and figures will be updated with the latest orthophotos in the Application/EIS.		
City of Kamloops	Figure 6.3-1 Rev 2 Surface water quality effects study area		if this is to be used for country foods assessment then need to include Aberdeen in LSA (backyard gardens, soil at daycare, etc.) and Sahali in RSA	A figure specific to the country foods assessment is included in the final AIR/EIS Guidelines.		
City of Kamloops	Figure 7.1-1 Rev 2 Economic and social effects study area		extend to southeast - major impacts along 5A this is the first time we have been able to comment on this figure (only progress print provided previously)	<p>The LSA was determined primarily by placing geographic boundaries around the area most likely to experience Project-related effects. For example, the City of Kamloops, Savona and Knutsford are the closest communities and are therefore most likely to experience business-related impacts. It is also anticipated that a substantial proportion of the workforce would reside within this area. In addition, potential project effects associated with infrastructure, services and transportation (e.g., roads, landfill), land and resource use (e.g., ranching) and outdoor recreation are expected to be captured within the LSA. Data collection requirements are also important in study area definition. In this case, shaping of the LSA was aided by the existence of corresponding Statistics Canada Census geographic units, including Kamloops 1 IRI, Skeetchestn IRI, Kamloops City (which includes Knutsford) and Thompson Nicola Regional District J, which includes Lac le Jeune, Savona and Tobiano. Logan Lake is not included in the LSA - the figure is corrected.</p> <p>Please note that "progress print" has the same meaning as "draft" - the LSA and RSA will be finalized in the Application/EIS, with a rationale provided for the selected area</p>		
City of Kamloops	Figure 8.3-1 Rev 2 Quality of darkness and shading effects study area		need to change out line to include those areas which will be shaded have to include homes within city limits which are most impacted by lines of sight does not appear to have changed from previous revisions as per tracking table commitment	The visual impact/aesthetic features assessment will consider site lines from upper Rose Hill Rd, Lower Rose Hill Rd, Simms Rd, and Beresford Rd. These sites exist beyond the previous RSA in Figure 8.3-1. The RSA will be expanded to include these assessed view points.		
SSN	2		<p>1. Cumulative effects</p> <p>a. Proponent to acknowledge future potential development of currently owned mineral claims and tie to cumulative effects assessment (foreseeable development);</p> <p>b. Include specific references to Iron Mask Batholith in Section 2.0.</p>	<p>a. Mineral rights in the surrounding area will be included in the list of activities for the CEA. A figure showing all claims held by the Proponent in the Project area will be included in the Application/EIS.</p> <p>b. Reference to the Iron Mask batholith has been inserted as suggested.</p>		
SSN	10		2. Health/Air quality – a. Include specific reference to uranium in list of substances included in assessment.	Text has been revised as: Substances that have not been assessed owing to their not meeting a de minimus for inclusion in the HHERA will be identified and a rationale as to why they were not assessed will be included (such as Uranium).		
SSN	10		2. Health/Air quality – b. CN and CP Rail Yards and lines/traffic to be included in Air Quality analysis.	These projects will be included in the CEA for air quality.		

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SSN	7		3. Economic – request for more detail regarding model used to determine the cost associated with development of the mine and projection of anticipated revenue; additional request that taxes be built into the model.	Project benefits will be described in the Application/EIS as currently outlined in the AIR/EIS Guidelines.		
SSN	7		3. Economic – request for more detail regarding model used to determine the cost associated with development of the mine and projection of anticipated revenue; additional request that taxes be built into the model.	Response provided by KGHM as included in EAO's direction.		
SSN	7			Aspects of these questions are outside the scope of an environmental assessment and the comments are taken under advisement.		
SSN	5		4. Methodology – methodology for each VC section not clearly articulated in AIR, specifically with regards to EAO's six-factor significance analysis description (assessment of residual effects and significance).	Text has been revised as suggested.		
SSN	6.1		5. Climate – commitment from proponent to use best known information and models about future climate change scenarios. (SSN also of the view that currently proposed site climate locations are insufficient – should include zonal information from various sites to properly study ecosystem changes in all biogeoclimatic zones affected).	Text has been revised as suggested.		
SSN	6.7		6. Fish – commitment from the proponent to consult with the "Thompson Fraser Sub-Basin Fisheries Commission" with respect to mortality and sub-lethal effects on fish.	Acknowledged.		

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SSN	8.4		1. Visual – request for more viewpoints to be added to assessment.	The Application/EIS will include all viewpoints requested during the pre-Application phase, and justify the inclusion or exclusion of points used in the assessment.		
SSN	Part C		8. Aboriginal interests – Request that Aboriginal culture be reinstated as a separate VC and hunting blind be added as a stand-alone VC.	EAO's direction has been included in the AIR/EIS Guidelines. Aboriginal culture will be assessed in Part C of the Application/EIS. The hunting blind will be assessed as part of the Heritage Sites and Heritage Objects VCs.		
SSN	10.3		9. Country foods – definition of country foods different from SSN perspective (should also include medicine, and other?).	Medicinal foods will be considered in the assessment of country foods. As stated in the AIR/ EISG: "the definition of Country Foods will be in accordance with the Health Canada guidance documents as follows: "Country foods, also known as traditional foods, include those foods trapped, fished, hunted, harvested or grown for subsistence or medicinal purposes, or obtained from recreational activities such as sport fishing and/or game hunting. Country foods do not include foods produced in commercial operations (large farms, greenhouses, etc.)."		
SSN	6.11 - 6.17		10. Wildlife – add reference to impacts from project to wildlife in relation to water.	A Human and Ecological Risk Assessment (HHERA) will be conducted to determine if estimated exposures from the Project represent concerns for human and/ or ecological health. The HHERA will consider direct exposures to chemicals of concern in air, dust, soil, surface water, as well as indirect exposures to chemicals of concern in backyard garden produce, locally grown market garden produce, and country foods (fish and game; vegetation and traditional medicines).		
SSN	13		11. Cooperation between FN and Proponent and Aboriginal Interests – Proponent to describe what is meant by "available information" (noted that results from cultural heritage study should inform assessment and must be completed prior to Application submission); SSN wants to work cooperatively with Proponent to collect and assess information.	Cooperative engagement with Aboriginal groups will be a key aspect in the discussion of Aboriginal Interests.		

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EC	10.1 Air Quality		<p>Refining the Study Area</p> <p>The proponent proposes a regional study area (Figure 6.1-1) of dimensions 20 km by 20 km centered at the open pit site. The primary air impacts from the mine are expected to occur within the first few kilometres from the mine site. However important cumulative impacts may occur in conjunction with Kamloops airport and the rail line just north of the current study area. In addition, the meteorological data from the Kamloops airport would provide valuable, additional input data for the dispersion modelling. Finally the dramatic elevation change north of the airport is a key orographic feature steering wind flows in the Kamloops area. As such, Environment Canada suggests that the northern limit of the study area should be extended 3 km north to encompass the Kamloops airport, the rail line, the sharp elevation change northwest of Kamloops and the sensitive receptors within this extended limit. Environment Canada suggests that a 25 X 25 km study area be employed for the air quality assessment.</p>	The revised domain is 25 km x 25 km.		
EC	10.1 Air Quality		<p>Enhancing the Meteorological Dataset available to support Air Quality modelling</p> <p>Figure 6.1-1 shows a single climate station northwest of the mine site; this location appears to correspond to that of the proponent's station in the lee of Sugarloaf Hill. Having only a single meteorological station within the modelling domain reduces the reliability of the CALPUFF modelled output. Environment Canada suggests that the modelling domain be extended northward 3 km to include data from Kamloops airport.</p> <p>BC Environment has proposed that the CALMET model be run on a dataset it developed in 2008 based on weather data from 2003 to 2005. It is understood that this data set has been tested in previous dispersion modelling runs in the Kamloops area.</p> <p>Using only one or two meteorological stations, CALMET might not adequately capture the complex features of the highly localized wind flow patterns in the project area. To assist in producing more accurate and spatially realistic meteorological fields using CALPUFF, the meteorological input fields could also be developed using a meteorological model run at a fairly high resolution. It is suggested that the modeling effort would be enhanced by the incorporation of high resolution meteorological fields such as those from Environment Canada's 2.5km resolution Global Environmental Multiscale Limited Area Model (GEM LAM) or from the Weather Research and Forecasting Model (WRF).</p>	As suggested by BC MOE, the 2003-2005 CALMET data set is being employed. It incorporates four surface stations, upper air data, and prognostic meteorological data. Following discussions with KAM and the BC MOE, Stantec undertook a rework of the Levelton (2008) CALMET data set to address these points. The spatial grid resolution in the Levelton (2008) CALMET data set is 500 m. Stantec increased the spatial resolution from 500 m to 250 m resolution by re-compiling CALMET from the original MM5 observations, after discussions with the MOE.		
EC	10.1 Air Quality		<p>Detailed Editorial Observations</p> <ul style="list-style-type: none"> In the project location discussion (section 2.2.2, p.4), the stated latitude/longitude coordinates for the centre of the project appear to be about 3 km NW of the actual site. The access directions should read WEST along Frontage Road from exit 366 of the Trans Canada Highway. 	The latitude/longitude coordinates have been revised.		

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Ministry of Agriculture	2.6 Project Land Use		<p>The provincially mandated Agricultural Land Reserve (ALR) and regulations pertaining to it's use have not been mentioned in the dAIR. While I did not see a specific mine footprint mentioned, the proponent claims to own 97 Km² (9,700 ha.), which amounts to 1.69% of the ALR within the boundaries of the Thompson Nicola Regional District – an amount which is 230% of the area of land excluded from the ALR within the TNRD since 1974 and therefore a very significant potential impact. As the administrator of the ALR, the Agricultural Land Commission (ALC) has some policies around use of the ALR land base and reclamation standards that may affect how the project proceeds. Schedule A and B for Oil & Gas uses on ALR Land http://www.alc.gov.bc.ca/Commission/oil-gas_ALR.htm provide a good information framework and process to follow (with some modifications to better fit the project) when dealing with the soils and site reclamation.</p> <p>It is expected that the proponent will include a summary of their responsibilities and commitments with respect to the ALR in their application and delineate how their plans will meet the ALC's requirements. Given the potential residual and cumulative impacts of the project on agriculture it may be advisable to explore some innovative solutions like developing some of the waste rock storage areas into irrigated hayfields.</p>	<p>The baseline soil characterization study and soil management plan for the Ajax project have been conducted in accordance with the Canadian System of Soil Classification, the requirements of the Mines Act permitting process and the Health, Safety and Reclamation Code for Mines in BC, which meet or exceed the requirements of Schedule A and B of the referred ALC documents.</p> <p>KAM is in discussion with the ALC and have initiated preparation of an Application for Temporary Non Farm Use in the ALR. The commitments required of KAM to the ALC will be defined in the decision of the ALC regarding the Temporary Non Farm Use application. However, information about ALC application requirements will not be available for the Application/EIS, since the Commission will not issue any decision on the ALC application until EA approval has been provided.</p> <p>The conceptual reclamation plan identifies agriculture as the principle end land use. A number of strategies will be proposed for enhancing the agricultural productivity of the site, including irrigation</p>		
Ministry of Agriculture	3.18 Closure and Reclamation		<p>As mentioned in the comments in 2.6, there are requirements for reclamation of ALR land. The reclamation should not be considered complete until a site reclamation report stating that it successfully meets the standards has been signed off by qualified professionals. This may take longer than the stated timelines in the expected reclamation and monitoring phase.</p> <p>Under the Weed Control Act the land occupier has a duty to control noxious weeds on site. The seeds from invasive plants can lay dormant and viable in the soil for many decades and be a serious problem long after the original infestation. Simple things like preventing the transportation of seeds onto the site by ensuring all equipment is thoroughly cleaned before entering and leaving the site can save thousands of dollars of control costs annually.</p> <p>It is expected that the application will feature an Invasive Plant (Noxious Weed) Prevention and Control plan for all phases of this project. It should include an inventory of, and control plan for, existing infestations as well as prevention activities and contingency plans for potential introductions. It is expected that the proponent will, in consultation with agricultural producers, maintain the access needed to facilitate agricultural usage (grazing and/or forage production) of the site after decommissioning (e.g. do not plan to reclaim all roads and access routes).</p>	<p>The timeline for "final" reclamation sign-off cannot be predicted at this time due to the large number of variables that may influence the project - it will ultimately be determined by the approval conditions placed on the project by Energy & Mines and the ALC, and will likely occur many years following mine closure. I believe it is the ALC's prerogative to state the criteria or standards they will use to determine reclamation success, which as I've stated, will influence the timing of the final site reclamation report.</p> <p>Professional regulatory reviews of site reclamation will occur throughout the permitting, construction, operational and post-closure phases of the mine. The conceptual reclamation plan submitted as part of the EA and Mines Act permitting processes will be vetted and approved by a number of qualified professionals, including BC Ministry of Agriculture and ALC representatives. During mine operations, an annual reclamation report will be submitted to Ministry of Energy & Mines officials. Following the post-closure monitoring phase, the Ministry of Energy & Mines will presumably conduct routine inspections to assess reclamation and other site requirements.</p> <p>The reclamation plan will include an invasive plant prevention and control plan that includes an inventory of, and control plan for, existing infestations as well as prevention activities and contingency plans for potential introductions.</p> <p>As part of the conceptual reclamation plan KAM is proposing to maintain access</p>		
Ministry of Agriculture	6.2 Geology, Landforms and Soils		<p>Maintaining the long term productivity of agricultural soils which have taken tens of thousands of years to develop is of concern to the Ministry. It is expected that the application will include baseline soils information and outline the plans for stripping and stockpiling of the appropriate soil horizons for use in reclamation and restoration of the long term agricultural productivity of the site after the mine is decommissioned.</p>	<p>Acknowledged.</p>		

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Ministry of Agriculture	6.3 Surface Water Quality 6.4 Surface Water Quantity 6.5 Groundwater Quality 6.6 Groundwater Quantity		Water of sufficient quality and quantity is essential for agricultural production. It is expected that the application will outline the activities and commitments to maintaining and augmenting the water resources onsite and to the neighbouring areas. Innovative solutions like pumping raw water in excess of the mine's requirements to provide for long term agricultural irrigation (and perhaps for a satellite water treatment plant to service the SW corner of the City of Kamloops which could then provide potable water to the mine site) may help address some residual and cumulative agricultural impacts of the proposal.	The Application/EIS will outline the activities and commitments to maintaining the water resources. The Application/EIS will discuss mitigation measures to be implemented to avoid or minimize potential impacts on downstream users.	"It is also expected that the proponent will commit to exploring opportunities for augmenting water resources onsite and to the neighbouring areas as part of their mitigation strategies. Innovative solutions like pumping raw water in excess of the mine's requirements to provide for long term agricultural irrigation (and perhaps for a satellite water treatment plant to service the SW corner of the City of Kamloops which could then provide potable water to the mine site) may help address some residual and cumulative agricultural impacts of the proposal. ...[it is] up to the proponent to decide what level of augmentation they need to do, but if required I could provide them with a laundry list of what the Ministry would see as the minimum of acceptable expectations considering the scale of the overall impacts on agriculture and the agricultural land base There are many water related things the proponent has to consider. It is well known that the Knutsford area has existing problems with amount and quality of water both on the surface (quantity) and groundwater (quantity & quality). Many residents are hauling their drinking water from Kamloops. Some productive lands are under-utilized as there is not enough water flowing down Peterson Creek to irrigate those additional acres. The mine works that will go on at the end of Jacko Lake are likely to alter the present flows in Peterson Creek and exacerbate the irrigation issues, and there are	the proponent will commit to exploring opportunities for augmenting water resources onsite and to the neighbouring areas as part of their mitigation strategies the Proponent is proposing to divert Peterson Creek at the outlet of Jacko Lake through a pipeline to reduce the amount of flow lost to evaporation and seepage into groundwater The Proponent will present in the Hydrogeology VC the baseline conditions (including seasonal fluctuations) of the groundwater regime. This information will come from a series of groundwater monitoring wells established around the Project facilities. the reclamation plan will consider ranching and agriculture as an end land use.
Ministry of Agriculture	6.9 Rare and Sensitive Ecological Communities		Grasslands are provincially significant rare and sensitive ecological communities. They are also a very important resource for the grazing livestock industries of BC, being integral to their history, development and on-going operations particularly of the BC Beef Industry. Impacts to the grasslands affect both the livestock and natural inhabitants (some rare & endangered) which rely on them for sustenance and habitat. It is expected that the application will outline (with supporting studies) how the proposal was configured to minimize the amount of grassland impacted, how the various facilities will be reclaimed to restore the land to functioning grasslands if possible (and/or to an appropriate balance of agricultural production as noted above). This could include topographical relief and features such as wetland/watering holes, rock outcroppings, etc. to mimic and blend in with nearby grassland landforms in order to provide forage and adequate water for optimal grazing management as well appropriate wildlife habitat functions.	The Application/EIS will outline (with supporting studies) how the proposal was configured to minimize the amount of grassland impacted, how the various facilities will be reclaimed to restore the land to functioning grasslands if possible (and/or to an appropriate balance of agricultural production).	"The Ministry's mandate covers the breadth of agriculture so the discussion cannot be restricted to just the impacts on the grasslands and ranching sector; one of the ministry's concerns is for the existing agri-businesses that may be directly impacted regardless of which agricultural sector they are in. The bulk of the primary impacts will certainly be to the grasslands and livestock & ranching sectors and the proponent's primary emphasis should be to minimize and effectively mitigate those impacts; however, there are other agricultural operations with primary impacts that need to be addressed, such as the poultry operation in the area whose birds may be disrupted by the blasting, increased heavy traffic and/or potential electrical supply disruptions which could cause their production to fall dramatically and economically devastate the agri-business. As well, local forage producers, who own no livestock and may not be considered "ranchers", may have their hay yields and quality/safety impacted by the dust from the mine similar to the neighboring ranchers so they also need to be included in the impact assessment. Furthermore, the secondary impacts on other agricultural businesses, regardless of sector, that would logically be impacted by the proposed mine are also of concern to the Ministry; hence the mention of it under section 7.4. A written commitment from the proponents in their application to monitor for secondary impacts on	The Application/EIS will discuss all sectors of agriculture that have the potential to be affected by the Project.
Ministry of Agriculture	7.4 Business		While the text currently anticipates the potential opportunities, there will also be impacts on current agricultural businesses displaced by the project which may cause them to diminish or cease their activities. This will cause indirect impacts on the agricultural service & supply businesses and infrastructure. At the very least there are opportunity costs for these agricultural businesses of not being able to expand their operations during the profitable years of the cattle cycle (the expected mine life will span 2 to 3 iterations of cattle cycle and affect the ability of those affected business to adjust their production/inventory accordingly). It is expected that the application will delineate the potential impacts on agricultural businesses and mitigation activities in addition to the opportunities for the other businesses that were anticipated.	The application will delineate the potential impacts on agricultural businesses and mitigation activities in addition to the opportunities for the other businesses that were anticipated.		

AJAX PROJECT
AIR/EIS Guidelines Agency Comments - Revision F

Agency	Section	Page	WG Comment (provided April 26)	Proponent Response to April 26 WG Comment and EAO Direction	Working Group Comment / EAO Direction May 17	Proponent Response to May 17 WG Comment and EAO Direction
Ministry of Agriculture	7.5 Property Values		The effects of the AJAX project on property values will vary with respect to location and the perspectives of individuals. What may seem like a positive from a pro-development perspective is an overall negative from an agriculture perspective. In general this project has the likelihood of lowering property values in the immediate vicinity of the project while it may increase prices on residential properties elsewhere in the area. From an agricultural perspective the impacts are twofold. Firstly, the affected agricultural operations may have lowered capital valuations which can affect their ability to obtain financing and operating loans – in a cash poor industry like agriculture that can cripple the operation. Secondly, an increased demand for residential property for mine workers increases house prices which will spill over into demand for acreages increasing agricultural land prices and pressure for subdivision of the ALR. Over time this can effectively remove land from agricultural production and increase land costs and property taxes for agricultural producers. <u>It is expected that the application will acknowledge these impacts and propose mitigation measures.</u>	Property values in adjacent neighbourhoods will be assessed. Mitigation measures will be proposed in the Application/EIS.		
Ministry of Agriculture	8.5 Land and Resource Use		The principle of continued integrated resource management and use is of concern to the Ministry of Agriculture. <u>It is expected that the application will highlight methods to minimize, mitigate and compensate for the project's impacts on agricultural resources, productivity, and businesses as appropriate.</u>	The Application/EIS will recommend methods to minimize, mitigate or compensate for potential impacts on agricultural resources, productivity, and businesses.		
Interior Health	Development of the AIR	Preface P5 of P6	Interior Health is not included in the list of consulted agencies.	Interior Health has been added to the list of agencies consulted.		
Interior Health	6.3 Surface Water Quality		The Drinking Water Protection Act and Public Health Act are not included in Table 6.3.1 - Federal or Provincial Listing or Regulation/Guidelines.	The referenced Act and Regulation have been added to the list.		
Interior Health	10.2 Water Quality		The Drinking Water Protection Act and Public Health Act are not included in Table 10.2.1 - Federal or Provincial Listing or Regulation/Guidelines.	The referenced Act and Regulation have been added to the list.		
MFLNRO			In accordance with contract GS13932-010, Watterson Geoscience Inc. (WGI) has completed a review of Draft Application Information Request (dAIR) Version "F" for the proposed Ajax Mine. In general, the document adequately presents the key issues and objectives needed to complete groundwater VEC quantity and quality assessments for the proposed project. However, my review identified several topics where I believe additional information and clarification should be included in the Application. These topics are discussed in this document. BC Ministry of Environment BaselineWater Quality and Groundwater Modeling Guidance (3 pages)	The AIR contains a commitment to reference and utilize guidance in the 2012 Water and Air Baseline Monitoring Document for Mine Proponents that is paraphrased in the MFLNRO Technical Memo. The additional information and clarification requested will be provided in the Application where applicable.		
MFLNRO			original comment provided by EAO in Rev F of AIR		EAO is seeking commitment from proponent to review and discuss relevant aspects of the draft Environmental Mitigation Policy, in conjunction with relevant agencies (FLNRO; MoE), during the development of mitigation measures.	The Proponent commits to reviewing and discussing relevant aspects of the draft Environmental Mitigation Policy, in conjunction with relevant agencies (FLNRO; MoE) during the development of mitigation measures.

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AIR/EIS Guidelines Public Comment Tracking Table

Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
1262	312	4-Apr-12	Donovan Cavers, City Councillor	Kamloops, BC	• Who collected the data upon which your current assessment is based?	Project comment	General	n/a	2.1	This information will be provided in the Application/EIS.	
1329	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6. Three independent landscape architects and three grassland rehabilitation specialists (all credentialed) should review and endorse the overall project design to ensure that the aesthetic impact has been minimized and the disturbance is in fact capable of rehabilitation. As proposed, the tailing mound and the south facing maximum angle coarse materials slopes will be wastelands, and a great seed source from which noxious weeds, as well as dust, can be spread.	Project comment	General	n/a	2.1	Section 2 of the Application/EIS will outline the qualifications of the technical leads retained by KGHM Ajax Inc. to conduct the baseline studies and impact assessments. All background information, methodology, assumptions, and results will be presented in the Application/EIS for review by the regulatory agencies, stakeholders, and general public during the project review phase. The closure and reclamation plan will be completed following baseline studies and impact assessments conducted by the technical leads.	
10	5	20-Jan-12	Personal Information Withheld	Kamloops, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (1 of 2) [2012-01-25 9:16:43 AM] Since the Ajax Mine IS partly within the City of Kamloops boundaries and TNRD areas before any more information is released by KGHM/Abacus we would like Mr. Chris Hamilton, the Provincial Environment Minister Mr. Terry Lake, the Federal Government, the Working Groups, the City of Kamloops and the TNRD to review firstly ALL of the circulated location descriptions and maps. Asking the following pertinent question of KGHM/Abacus mining group and requesting the Company Executives to immediately promise to the residents of Kamloops and outlying areas a written and released truthful answer: Why in all of their literature over the past many months NOT ONCE has KGHM/Ajax Mines disclosed an accurate and complete written location description or a FEATURED map of where the outer layout boundaries of the total mine footprint will be positioned? Even the last three releases the "Project Booklet", "Fact Sheet" or "Corporate Presentation" on the Abacus website the location description is still not precise or complete. In various releases East/West are confused, "close to the City of Kamloops", "partly within the boundary of the city of Kamloops" and "10km from the City of Kamloops" at this stage is NOT acceptable or should be allowed to be printed and released to the general public. The detailed written location and map has to include and show the South border of the East Waste Rock dump will be the Goose Lake Road and blasting storage facilities further South on the Southside of Pederson Creek. The tailings pond will be between Lac Le Jeune Road and will be next to and be seen from the Coquihalla Hwy. The North Waste Rock dump will be approximately as close as 2 Km from (a generous distance to be fair) from residential houses in Aberdeen, a little further the neighborhood of Pineview Valley, the new firehall, at least one school and even closer to the newly permitted 'Dave Taylor' development. The mining company is not misleading the people who know the mine location with these descriptions only those that have not paid attention or come from outside of the Kamloops area not knowing intimately the exact and complete mine footprint or possibly the ones who have to eventually make decisions. The information booklet GHM/Abacus is reportedly sending to Kamloops and area residents should be by mail so everyone receives the information has to include an up to date 2012 very detailed and accurate City and TNRD (at least Goose Lake Rd.) road map with the CITY boundary and Kamplan areas very visual and defined. This question has been asked before with no apparent description changes and will be brought forward again however ...continued ... if the location is never accurate how can we believe anything this mining company says or will do! Please insist feet(in brackets) be included for the heights of waste rock dumps, berms and the tailing pond enclosure and miles (in brackets) for distances.	EAO/CEA Agency Process Comment	General	n/a	2.2	The Application/EIS will provide mapping of the general arrangement overlain on the most current basemap available. The city boundary will be shown on in relation to the mine components and infrastructure. The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs.	
1438	339	4-Apr-12	Personal Information Withheld		27/03/2012. P. 4 of 159 Sec. 2.2.2 Project Location Figure 2-2-1 referred to here, shows a red short dash line from the north, crossing Hwy 5 at apparently exit #366 to Lac La Jeune road and continuing south between the North WRMF and the Strategic Stockpile and past the truck shop and fuel storage area. There is no description on the legend as to what the line represents. No reply was received when I posed my question as to what this line represents by e-mail to KGHM. What does this line represent?	dAIR comment	General	n/a	2.2	The red dashed line running in a north-south direction is the existing Kinder Morgan Pipeline. While this is included in the figure legend, it is not overly clear. This will be rectified in the next revision.	
1185	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Page 50-56 Section 9.1 describes the baseline studies are completed (October 2011). Is the baseline studies completed as described? If they are not completed as described, why? If they are completed have they been made available to provincial government and federal government bodies that are reviewing this project? If not by when will the study be completed and will the approval process state pending their provisional analysis? Knight Piesold projected approval by the provincial government by March 2012. As the application has not been delivered as of yet what when is the completion approval expected to be as of now?	Project comment	General	Heritage objects	2.2.4 9.1	This information will be provided in the Application/EIS.	

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Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
71	28	7-Feb-12	Gordon Lloyd	Kamloops, BC	What consideration has been or will be given to developing this mine using traditional underground techniques as opposed to open pit exploitation with the accompanying negative effects on grassland, esthetics, dust pollution etc.?	dAIR comment	Ajax open pit	n/a	2.5	Alternatives assessment will be completed as part of the Application/EIS. In general, the type of deposit found at the Ajax property does not lend itself to underground mining.	
98	38	Public comment form from the Feb 6&7 Information Session	Peter Ayles	Kamloops, BC	If approved, why not used the water from the dewatering pumps in Aberdeen to be used as process water. The city would benefit from Ajax paying for the pumping to use the water.	Project comment	General	n/a	2.5 17.2	This is an interesting alternative that should be studied once the mine is operating to reduce the make up water requirements from Kamloops Lake. Column "dAIR Rev E Section#" includes reference to the relevant AIR sections.	
306	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	What pre planning work was done prior to present plan as proposed?	Project comment	General	n/a	2.5 3	This information will be included in the Application/EIS.	
376	124	26-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (46 of 57) [2012-03-02 9:25:43 AM]^ The company needs to include more thought and consideration as to the economic opportunities after or during the mine life. By considering the opportunities, the design, construction, and management of the mine can ensure the opportunities are not inadvertently lost. For example, does the proposed waste rock site and/or road construction/access consider the possibility of establishing an industrial park in the waste rock area nearest to the city boundary. Does servicing the site for hydro, water, etc. consider longer term opportunities. Can the open pit be used as a future landfill site - cause Kamloops will be looking for one down the road. If the waste rock was built up into a hill, could we have an ski hill closer to town - which links to the tournament capital theme for the city. My point is that thought needs to be given to other economic benefits on the mine site that could be realized as one of the outcomes of this project. The study needs to consider the tourism potential - many mine sites provide tours of their operations - think coal strip mining in southern Sask in which small tour vans are used to give folks a close up view of the operation. This would be another economic spin-off to small businesses in the area.	Project comment	General	n/a	2.5 17.2	The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR.	
756	212	22-Mar-12	Kevin Buxton	Kamloops, BC	• Bullet 6 - the proponent must describe any and all alternative mitigation measures (economically viable or otherwise) that may be able to completely eliminate a potential effect that cannot be eliminated with currently proposed measures.	Project comment	General	n/a	2.5 3	Technically and economically feasible alternative measures will be assessed in the Application/EIS.	

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1021	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	7. Why cannot the waste and tailings piles be placed in to the test pit and the total area regarded to blend with the surrounding hills?	dAIR comment	waste rock management facilities TSF Ajax open pit	Visual Impact/Aesthetic Features	2.5 8.4	The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR.	
1062	275	27-Mar-12	Frances Vyse	Kamloops, BC	2.7 Project Benefits "Indication of the potential for use of local facilities and an indication of whether they are currently under utilized": Why is the former Teck property at the old Afton site that was part of the KGHM purchase not to be used for some of the ancillary activities, including waste piles, since the zoning is in place (TNRD 2010 Submission)? With some creative planning and a commitment to respect the present community, rock piles, roads and "mess" could be creatively hidden on this site. I would appreciate seeing a detailed rationale for how this site could be used and clear reasons why it is not mentioned in the dAIR. I understand that a large part of it has recently been sold to New Gold; but there must be opportunity over there to lessen the potential impact on Pineview-Aberdeen residents and adjacent ranchers.	Project comment	General	n/a	2.5	An alternatives assessment will be included in the Application/EIS.	
1136	289	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (48 of 77) [2012-03-29 3:57:49 PM]^ I have previously co-signed off on a submission re the Ajax AIR on behalf of the Kamloops and District Fish and Game Association, the Kamloops Naturalists Club and the Grasslands Conservation Council of BC. However, upon further review of the dAIR, I have noted a potential concern regarding Section 3.18 (particularly Sections 3.18.2 and 3.18.3) that I don't think was previously noted. The procedures described in those subsections are for the waste dumps to remain in situ after the mine's closure whence they will be re-contoured, have topsoil placed on them and then they will be seeded in an attempt to re-vegetate them. The mine pit will simply be left and allowed to fill with water, eventually resulting in a "lake" 500+ metres deep adjacent to the existing Jacko Lake (if it is still there). Would it not be more environmentally acceptable to backfill all of the waste (presumably inert) rock into the mined out pit at the end of the mine's life? Also, it would seem that the re-establishment of grasslands would likely be more successful if it were done at the former natural grade than on artificial hills constructed from waste rock. I would like a statement from the proponent as to why the process I have suggested is not part of the environmental justification for the project.	Project comment	waste rock management facilities	n/a	2.5	An alternatives assessment will be included in the Application/EIS. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1233	306	4-Jan-12	Personal Information Withheld		3. I would like to suggest that this waste dump be moved and incorporated in your north waste rock dump site and/or you own all the lands south of Jocko Lake for approximately 2 miles and it appears there is an area in that vicinity that could be used as a waste dump site.	Project comment	waste rock management facilities	n/a	2.5	An alternatives assessment will be provided in the Application/EIS.	
1322	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		17.4 Alternative Means of Carrying Out the Project Returning the tailings to the pit should be assessed. Going underground like New Gold has done should be assessed.	Project comment	General	n/a	2.5 17.2	This information will be provided in the Application/EIS.	

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1327	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	4. At the application stage, it is critical that the proponent provide alternative options to consider for both 1) combining the east waste rock dump into an expanded north waste rock dump (section 2.5) and 2) housing the explosive material storage somewhere in the waste rock disposal area, not south of Peterson Creek.	Project comment	waste rock management facilities	n/a	2.5 17.2	Alternative site configurations will be discussed in the Application/EIS.	
1335	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	2.5 Alternative Means of Undertaking the Proposed Project It is clear to us that alternative site configurations could significantly reduce the environmental impact of the project and we would like to understand why they have not been seriously considered. Given the complexity of undertaking these decisions regarding the project design and factors that may have come into play beyond our knowledge (such as safety regulations), it is important to us to gain an understanding of why certain decisions were made, as some of the most harmful effects may be avoided if a different site plan is used. We would very much appreciate a three dimension model created and housed at the proponent's Kamloops office (as well as brought forward at all future public consultations) to show the current iteration of the project, as well as other proposed site plans to ensure that the public can fully grasp the scale, size and siting of the proposed mine's operations and the rationale behind the current design decisions.	Project comment	General	n/a	2.5 17.2	Alternative site configurations will be discussed in the Application/EIS. The issue of providing a three dimensional model is outside the scope of the EA.	
89	34	Public comment form from the Feb 6&7 Information Session	Doug Haughton	Knutsford, BC	Neighbourly issues: The first and utmost priority of this mine should be coming to terms with all the neighbouring ranchers and landholders to satisfy their needs as the mine will drastically change their 100 year old operations.	dAIR comment	General	Land and Resource Use	2.6 8.5	As presented in Section 2.6 of the dAIR, a description of the land ownership and land use regime including tenures, licenses, permits or other authorizations that would be potentially affected by the proposed Project; and the status of consultations with holders of such tenures and permits, and private land owners including resolution of land tenure issues will be included in the Application/EIS.	
1057	275	27-Mar-12	Frances Vyse	Kamloops, BC	2.6 Project Land Use 1. Why have locally produced documents not been included in this section? Studies that should be included: a. Kamloops Naturalists Club: Land for Nature in the Kamloops Area, 1992. Includes important articles about local ecology from talks given at the symposium by provincial experts. The area of the proposed mine covers an area identified as critical grasslands, including provincially rare saline ponds (Wallender and Inks). b. Ponderosa pine studies in the sugarloaf hill area (part of a much larger study of local ponderosa forests)- has bird lists and abundance, nesting data. Check with MOF Kamloops office Research Section. c. Grasslands Conservation Council studies and grasslands information pages have lots of information on their website	Project comment	General	n/a	2.6	All relevant and available peer-reviewed and grey literature (informally published written material such as government reports) will be included as background information in the Application/EIS. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	

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Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
1094	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (57 of 77) [2012-03-29 3:57:49 PM]^ 2.6 Project Land Use: Existing and proposed management and monitoring programs should also include fisheries stocking program. Other developments should include Lac Le Jeune road use and Kinder Morgan Pipeline	dAIR comment	General	n/a	2.6	The Ministry fisheries stocking program will be added to the list if programs to be assessed under Project Land Use. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
63	24	7-Feb-12	Brian Hayashi	Kamloops, BC	5. What are the possible advantages of having a mine so close to a city? Challenges sometimes become opportunities... Is it easier to monitor the operation because its so close?	Project comment	General	n/a	2.7	Project benefits will be discussed in the Application, as discussed in the AIR.	
271	88	10-Feb-12	Personal Information Withheld		10. What are the benefits	dAIR comment	General	n/a	2.7	This information will be included in the Application/EIS.	
584	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• 2.7 Project Benefits: Why is there no consideration for processing of the ore in Canada for the benefit of Canadians	dAIR comment	General	n/a	2.7	This information will be included in the Application/EIS.	
614	165	11-Mar-12	Claude Martin	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (49 of 69) [2012-03-14 4:29:55 PM]^ I have heard and read a lot about all of the very legitimate environmental concerns. I many of the same concerns, and look forward to understanding how KGHM, and the provincial and federal environmental agencies plan to address these concerns, and ensure 100% that this does not turn into an environmental disaster for our community. 1. What are the real economic benefits for the residents of Kamloops? We have heard about jobs? How many jobs, how long will they last, what are the pay scales of these jobs? What types of jobs? How many will be professional positions filled by people from outside of Kamloops? 2. What will KGHM have to pay in taxes and royalties? Which government body will these be paid to? How much of this will be reinvested in Kamloops? 3. If KGMH experiences financial problems at a corporate/international level and can no longer operate the mine, what happens? Kamloops will pay the environmental price for Ajax, but will we receive the financial gains, or will it be gobbled up by the Federal and Provincial coffers?	dAIR comment	General	Labour force, Employment and Training Economic Diversification	2.7 7.2 7.6	1. Economic benefits to the city of Kamloops and information on labour requirements (including numbers and durations of jobs, income, anticipated employee sources local or otherwise) will be provided in the Application/EIS. 2. Section 2.7 of the dAIR indicates that the Application/EIS will include estimated annual government revenues from the construction and operation phases of the proposed Project for local, regional, provincial, and federal governments. 3. Section 2.7 of the dAIR indicates that the Application/EIS will include costs for decommissioning/closure/abandonment/reclamation.	

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1395	336	4-Apr-12	Personal Information Withheld		27/03/2012. Following are my questions concerning the proposed Ajax Mine development near Kamloops BC 1. If mining activity produces unhealthy conditions for the people living in the area, what will happen to stop the unhealthy activity?	Project comment	General	n/a	2.8	The mine will operate in accordance with all licences, authorizations, and approvals issued following completion of the EA.	
1407	336	4-Apr-12	Personal Information Withheld		13. Will the mine use ANFO? If so, how will the mine deal with the recommendations from the Institute of Makers of Explosives recommendation that this mixture should not be used near bodies of waters, i.e. Jacko?	Project comment	blasting	n/a	2.8	The mine will use ANFO as stated in Section 3.4.3. The mine will operate in accordance with all licences, authorizations, and approvals issued following completion of the EA.	
615	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (39 of 69) [2012-03-14 4:29:55 PM] [^] AIR 3.8.1, 3.10, 3.11, 3.16 1. What distance is required of an explosives storage facility from a public road also from the local residence housing and property? 2. What type of storage facility construction is required for the ANFO and where would the "watergel" (Tovex? sodium nitrate, aluminium nitrate), a water pollutant, be stored that is documented as being used to increase the demolition power? 3. Where would the assembling and blending of Ammonium Nitrate and Fuel Oil as well as "watergel" additive take place? Where, on site or off, will the Waste products be deposited?	dAIR comment	Explosives storage facility	n/a	3.1	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
699	195	17-Mar-12	Personal Information Withheld	Kamloops, BC	• Is Ajax going use electric based mining machinery?	dAIR comment	General	n/a	3.1	This information will be provided in the Application/EIS. Please see column "dAIR Rev E Section#."	
912	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	3.11 Explosives Manufacturing and Storage 3. What distance is required of an explosives storage facility from a public road? 4. What type of storage facility construction is required for the ANFO and where would the "watergel" (Tovex? sodium nitrate, aluminium nitrate), a water pollutant, be stored that is documented as being used to increase the demolition power? 5. Where would the assembling and blending of Ammonium Nitrate and Fuel Oil as well as "watergel" additive take place? Waste deposited?	dAIR comment	explosives storage facility	n/a	3.1	This information will be included in the Application/EIS. The AIR notes that the project will require a licence from Natural Resources Canada (NRCAN) under Section 7(1)(a) of the Explosives Act, and would therefore have to operate in accordance with all regulations and guidance relating to quantity, distance regulations, etc.	
1208	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Power Supply 1. Where is the tap in point for the power to be placed? 2. Will KGHM pay for the transmission line?	Project comment	transmission line	n/a	3.1	This information will be provided in the Application/EIS.	
297	94	12-Feb-12	Personal Information Withheld	Kamloops, BC	Reclamation- what is the plan once the mine is finished?	dAIR comment	General	n/a	3.2	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
318	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	If the mine goes through what will be done with the left over open pit?	dAIR comment	Ajax open pit	n/a	3.2	This information will be included in the Application/EIS.	
373	123	24-Feb-12	Sean McGuiness	Kamloops, BC	long term closure plan: will the planned remediation be enough?	dAIR comment	General	n/a	3.2	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	

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473	136	1-Mar-12	Personal Information Withheld	Kamloops, BC	Where will the power for the mine come from and where will the lines run? What will the impact be on the area around the power lines including tree removal and grassland disturbance? Will the electricity be carried via high voltage lines and how close will they be to populated areas?	dAIR comment	transmission line	n/a	3.2	This information will be included in the Application/EIS.	
500	145	3-Mar-12	Personal Information Withheld	Kamloops, BC	4. The entire site needs to be rehabilitated when the mine ore body is depleted and the mine company needs to put up sufficient funds in a bond to do this. This should include either filling the ore pits in or making them into a fish bearing landscaped lake.	Project comment	General	n/a	3.2	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
1020	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	6. What is the thickness of the topsoil to be placed over the mine's waste piles when the mine closes?	dAIR comment	waste rock management facilities	n/a	3.2	The Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS will include this information.	
1054	275	27-Mar-12	Frances Vyse	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (70 of 77) [2012-03-29 3:57:49 PM]^</p> <p>I fully support the joint submission by the Grasslands Conservation Council, Kamloops Naturalists Club and Kamloops Fish and Game Club and the submission by local biologist Rick Howie, RPBio. I am submitting my personal comments largely on areas either not covered by those submissions or for which I would like to ask further questions.</p> <p>General Comments</p> <p>The dAIR further emphasizes the inadequacies of KGHM Ajax Mining Inc. in terms of their understanding of, and appreciation for, the impact this project will have on the adjacent Kamloops community. The document has 23 pages of detail about the proposed mine, but none describing the area that the mine will be destroying. KGHM Ajax has on a number of occasions demonstrated a singular lack of understanding, or appreciation of, the area their proposed mine will destroy, whether in their documents, in presentations or in conversation. No effort has been made in their plans in consideration of the fact that it would be developed within the boundaries of a flourishing small city. Surely there are ways they could make this project "disappear", to reduce the impact on the surrounding community? Instead we are told that "this is the way it's going to be" – a "business as usual". Something suited to an isolation part of province, not beside residential areas of a city. There is little or no discussion in this document about restoration or reclamation of the mine site. This is an essential part of any project of this size and scale and is a legal requirement. Unfortunately this huge gap in commitment adds to the real concern about the company's understanding of, or even concern about, the significance of fragile, scarce grasslands in a province dominated by forests. Restoration and reclamation plans should be front and centre and spelled out in specific detail before a shovel of any sort is put into the ground so potential options are not destroyed by the mining activities.</p>	Project comment	General	n/a	3.2	The Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS will include this information. Rationale will be included in the Application as to the species that are included in the VC assessment. The Application will also address how the impacts on grasslands will be managed over the life of the mine and in the reclamation phase. Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	
1066	275	27-Mar-12	Frances Vyse	Kamloops, BC	<p>3.18 Closure and Reclamation</p> <p>How would the proponent prepare for the reclamation needed to return the total disturbed area back into some semblance of its present natural state? There is so little mention of reclamation in the dAIR that one wonders if they plan to walk away once they've exhausted the economic deposits. The impact of the mine would be felt on natural grassland communities far from the mine site itself. Weed seeds would spread far beyond the boundaries of the mine into surrounding grasslands. It would be imperative to minimize the footprint of the mine area and to ensure disturbed areas are reclaimed as the mine progresses. Pre-planning for the eventual reclamation of the proposed mine property should be written into the plans for developing this mine. Comprehensive baseline surveys of existing natural communities need to be compiled so some estimate can be made of the amount of material needed for reclamation. Restoration plans should include greenhouses for growth of native grasses, flowering plants, shrubs, etc. The greenhouses should be placed on already disturbed areas, probably away from the mine site. Numerous university students and others could be employed in the development of these facilities and plant materials. Kamloops developed a small project a few years ago that successfully rehabilitated a small trail in Kenna Cartwright Park. ...Present parks staff should be able to find information on how the project was set up and make contact with the former staff person. It is possible to do, there just needs to be a demonstrated commitment to take on this task at the outset of the proposal. Rehabilitation of the tailings pile and ancillary buildings that would impose a visual horror on the main southern entrance to the city should be a priority in any reclamation/rehabilitation plan. That this facility would even be accepted as part of this mine proposal is beyond belief - but if the mine is given the ok then this is where reclamation planning must start. No amount of topsoil would provide enough of a permanent cover to this proposed monstrosity sitting across the prevailing winds. ...continued ... Trees grown to a large size in big pots might have a chance if they were watered on a regular basis, but even then it's hard to imagine them surviving once their roots hit the tailings themselves. Why are we considering such a horrific monument as this proposed tailings facility on the main entrance to our great city?</p>	Project comment	General	n/a	3.2	The Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS will include this information. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	

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1089	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	There was further questions in regards to the reclamation process. The life of the mine is approximately 22 years, but reclamation has only two years allocated. Who is responsible for the reclamation and is it ongoing or only completed at the termination of mining? A number of questions are posed in this letter, and our members would like to have answers to these, methods to arrive at answers or when answers to these can be expected. The Kamloops Stockmen's Association hopes this clarifies and expands on areas of concern for our members and await your response.	Project comment	waste rock management facilities	n/a	3.2	This information will be included in the Application/EIS.	
1112	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	Decommissioning of Mine Site: The document does not include any specific details on the decommissioning of the mine open pit or waste rock piles or the tailings structure. I would have expected details on the following in the project report: • Mitigation strategies to lessen the impact of the open pit • What is to happen with the water that is going to seep and accumulate in the pit over time? • Will the pit eventually be allowed to fill to capacity? • What will be the effect of the residual minerals in the open rock surfaces have on the water composition? • Mitigation strategies for the rock waste piles and tailings storage • What efforts are being made to vegetate the rock waste piles? • How are these waste rock piles being contoured to lessen the impact visually and to provide habitat?	Project comment	Ajax open pit TSF waste rock management facilities	n/a	3.2	This information will be included in the Application/EIS.	
1227	305	4-Apr-12	Kenneth Graf	Kamloops (Aberdeen), BC	4) The proposed tailings storage is an area of concern, aesthetically it will appear as a large flat top sand dune, at a milling rate of 60,000 tons per day the volume of material will build up layer by layer very quickly, it will be deposited as a wet sand, once it dries out there is a risk of windblown dust being generated. Over the mine life the tailings storage area will cover 1.6 kilometers by 3 kilometers by 170 meters high. This is an area where an ongoing reclamation project could be started early in the mine life reclaiming the slope on lower levels with organic (top soil) and plant vegetation to control the dust. It will also improve the stability and aesthetics of the tailings. Is this being considered by Ajax?	dAIR comment	TSF	n/a	3.2	A conceptual Reclamation and Closure Plan will be included in the Application/EIS.	
255	87	10-Feb-12	Personal Information Withheld		2. Waste rock area acid runoff into streams, lakes, wetlands, groundwater; grease, oil, lubricants, aerial toxins, compaction of soil substrate alter groundwater; tailings area - acid runoff effect on groundwater, wetlands, chemical residues used in flotation cells, compaction of soil; blasting agents – carbon release, ANFO, dust and particulates, potential for spills, mercury, asbestos, uranium, thorium, aluminized blasting agent, storage of detonators, carbon footprint; vehicles – diesel burning, rubber particulates from tires, electricity used;	dAIR comment	waste rock management facilities	Surface Water Quality	3.3 6.3	The Application/EIS will include an analysis of potential adverse effects of ML/ARD, process chemicals, and blasting materials and residues on surface water and groundwater quality. As noted in the AIR, the Application will include a description of sampling and analytical approach used in characterizing geology and geochemistry, and a delineation of geochemical source terms and methods utilized in geochemical predictive modelling (including the use of any relevant geochemical analogues). Information will be presented in a clear and transparent manner. A numerical mass balance model will be used for predicting any changes in water chemistry resulting from the activities and infrastructure associated with the proposed project. A numerical (mathematical) model uses a series of equations to relate input parameters and variables to quantified outputs. As noted in the AIR/EIS Guidelines, the Application/EIS will include a discussion of the assumptions that underlie any model used, the quality of the data, and the degree of certainty of the modelled results.	
910	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	2. Is there the potential for acid rain? Is there potential for leaching?	dAIR comment	General	Surface Water Quality	3.3 6.3	KGHM Ajax Mining Inc. (KAM) does not plan to study precipitation chemistry as emissions of appreciable quantities of acidifying emissions (oxides of sulphur and/or nitrogen) are not expected to occur. Potential interactions between the project and atmospheric indicators will be identified. All indicators that are shown to be affected by the project will be assessed in the Application. Site geochemistry and studies assessing the potential for neutral or acid rock leaching are described in the AIR; results will be presented in corresponding sections of the Application.	
908	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	3.6.7 Flotation and Re grind Circuits This section states: "The rougher concentrate will constitute approximately 7.2% mass of 9 the plant feed." 1. How many tonnes per day constitute 'plant feed'? 2. What is the percentage distribution of the size of the tailings from the rougher re grind and cleaner re grind circuits? 3. How many tonnes per day of tailings each will be produced by the rougher re grind and cleaner re grind circuits?	dAIR comment	processing facility	n/a	3.6	This information will be included in the Application/EIS.	

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1198	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	12. The assay results should be made public immediately for the public to comment on them because of the health implications in regards to fugitive dust from the mine and if not why not? 13. Could a map of drill sites and depths be provided to the public and if not why not? 14. HO are the drill cores being preserved and will they be made available to the environmental assessment office? 15. Can interested parties take samplings and assay testing? 16. If not why not?	dAIR comment	General	n/a	3.6.12	Information pertaining to the chemical constituents of the core samples will be provided in the Application/EIS as part of the effects assessment. Interested members of the public will not have access to the cores drilled for the project.	
1200	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	19. What are the results of the assay tests (ME-OG62; 4A, ICP-AES; 5%; MEICP81; Na2O2 fusion; 7.5%; As-AA65; ore-grade As; 3.5%) for arsenic? 20. If these tests have not been done why not? 21. What are the test results for cobalt, chromium, manganese and lead and what type of tests were done to determine these results and when was this done? 22. What are the results for the assay tests for mercury and what type of tests were done to test that and when was this done? 23. If not when will these tests be done and if they won't be done why not? 24. What core locations did they come from and how deep? 25. What are the test results for uranium and thorium and what are the tests used to test that and when was this done? 26. If not when will these tests be done and if they won't be done why not? 27. What core locations did they come from and how deep? 28. What are the test results for strontium and what are the tests used to test that and when was this done? 29. If not when will these tests be done and if they won't be done why not? 30. What core locations did they come from and how deep?	Project comment	General	n/a	3.6.12	Information pertaining to the chemical constituents of the core samples will be provided in the Application/EIS as part of the effects assessment.	
1179	301	27-Mar-12	Personal Information Withheld	Kamloops, BC	^a http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html [2012-03-27] (31 of 77) Tailings Storage Facility-- If this project should be approved & it is found at some time in the future the tailings storage facility is not adequate after reaching its planned height of 500 feet-- Will tailings be piled even higher? --or will a new tailings area be established? --If a new area is required where would it be located?	dAIR comment	TSF	n/a	3.7 17	The alternatives assessment will discuss the project design and alternatives that have been considered. Please see column "dAIR Rev E Section#" for the reference to the AIR section.	
336	106	15-Feb-12	Personal Information Withheld	Kamloops, BC	I also have concerns regarding the lack of information in any of the maps of the proposed project regarding the location of an ore storage pile. There are indications of two sites for waste rock, but there must have to be a place where ore is stored as well. Where will it go? What will its dimensions be?	dAIR comment	Waste rock management facilities	n/a	3.8	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
1342	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	3.8.1 Waste Rock Storage Facilities Proponent must explain whether the proposed waste rock footprint has been calculated before or after the rock pile faces are reduced to the required slope after the initial deposit.	dAIR comment	waste rock management facilities	n/a	3.8	This information will be provided in the Application/EIS.	

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1459	341	4-Apr-12	Personal Information Withheld		19/03/2012. We are writing an additional letter today as further review of the draft AIR noted a change of the project layout from the original layout provided by the proponent which does not appear to be included for assessment. As shown on figure 2.2.1 of the draft AIR it is noted that 4 (four) new ore stockpiles have been added to the project layout. Limited reference on these stockpiles is noted in section 3.8.2 on page 26 of the draft AIR. Considering there is limited information and they appear to be significant in size and location to residential communities, additional information needs to be available to access any negative effects they may create. We suggest the same information that will be made available for the waste rock storage facilities as shown in paragraph 3.8.1 on page 25 be made available for the ore stockpiles plus information on height, width, and type and makeup of the material which will be stored in these locations. We would also expect these stockpiles be shown in the 3D model for visual impact analysis. We trust you find the above in order. Should you have any questions or require any clarification of the above please feel free to contact us at 250-828-1676.	Project comment	General	n/a	3.8	This information will be provided in the Application/EIS. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
644	171	12-Mar-12	Diane James	Kamloops, BC	f) What is enough money and will that amount be spent on all projects (including preservation of all species listed as grassland inhabitants) leading to a new proper functioning grassland? g) How many years are mandated post mine closure to ensure successful reclamation, including consideration of new remedial information? An example of the need to project further into the future when considering releasing a proponent of responsibility is the Forest Industry's new plantation failures related to the "Free To Grow" time frame. h) Do the proponent and government environment agencies believe that a sustainable and successful new grassland can be created? i) Why is a dollar value not given to all components that comprise a grassland? Difficult to do but the value would give a measurable indication as to how much the proponent and government agencies value the grasslands. In conclusion, I do not advocate for further loss of grasslands and believe it is almost impossible to make a new healthy functioning grassland, even with the proper finances, respect for and value of grasslands. However, if this mine goes through, I would hope that the highest level of reclamation is reached. My disappointment is that while the B.C. Government recognizes the importance of conserving grasslands, there is a sense of questionable commitment.	dAIR comment	General	Grasslands	3.18 6.10	Reclamation measures and monitoring will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. Bonding requirements will be determined by the Ministry of Energy and Mines. Please see the AIR for an outline of the information that will be included in the Application pertaining to reclamation.	
713	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	9. How will the mining proponent guarantee that twenty-three years from now Kamloops won't be left with an industrial, environmental wasteland? What will the mining proponent do for reclamation of the environment? Will the proponent post a bond to be used for future land reclamation?	dAIR comment	reclamation	Environmental	3.18 6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS. Reclamation measures and monitoring will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. Bonding requirements will be determined by the Ministry of Energy and Mines.	
1344	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	5.0 Effects Assessment A detailed plan, with associated timeline and a list of groups to be consulted, on how the proponent plans to gather community knowledge would be much appreciated in the final application. The proponent has been unable and/or unwilling to share information for review with community groups to date, which has resulted in an inability for groups to fully participate and engage in the initial site planning for the mine's operations. Without a written commitment that outlines how and when community groups can access, critique or add to information gathered by the proponent, there is little to guarantee that "community knowledge" will play a significant role in the building, operating and mitigation of the mine. Table 5.1.1 The "valued components" must include typical grassland ecosystems on the sites and not just the rarest communities—these grasslands are listed as provincially significant as they make up less than one percent of BC's landscape but contribute exponentially more in terms of their ecological values. As well, the proponent should include common species as VCs in their study to ensure that the overall biodiversity function of the area can be assessed. The inclusion of grassland ecosystems and common species will help the proponent to understand the impact of the project at a landscape level. 5.1.6 Cumulative Effects Assessment In order to fully understand the ecological footprint of the project, it is necessary to include all resources used in the operations of the project in the cumulative effects assessment, including fuel for vehicles, construction materials and so forth.	dAIR comment	General	Project Effects Assessment Methodology	4.4 5.1	A summary of community consultation activities will be included in the Application/EIS. The Application/EIS will explain the rationale for not including all species as VC in the assessment. The cumulative effects assessment will include all relevant project components.	

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1288	320	4-Apr-12	Fred Marshall	Midway, BC	<p>01/03/2012. On CBC daybreak this AM wherein a Thompson Rivers University Economics professor when asked by Mark Forsyth how one evaluates the pluses and minuses of such a project as the Ajax mine she responded that--they did a Cost-Benefit analysis without emotional aspects or feelings included--and used only the hard, cold facts! (statement paraphrased but the meaning clear). Wow; since when did people's thoughts and feelings as expressed by their emotions stop counting? People feel passionately, and legitimately so, about clean air, clean water, healthy ecosystems especially those at imminent risk of extirpation such as the Kamloops grasslands.</p> <p>Ecosystem services including abundant wildlife, quiet, calm 'backyards', dark, quiet nights where one can hear the owls hoot and see the stars shine and all the other benefits provided--virtually free of charge by the area proposed for development do have value---inestimable value even though much of it may be - personal and 'emotional'. People have very strong feelings (emotions) and would like to see the ecosystem services provided by the proposed mine area to continue unimpeded and not compromised as they will be by the background noise of blasting, loading, hauling and processing 60,000 tonnes of ore per day 24/7 for the next 23 years with associated increased traffic congestion and flood-lit nights all supported by huge increases in energy consumption, etc.</p> <p>Instead of a strict Cost-Benefit analysis which, by its very nature excludes most aspects of the benefits provided, virtually free, by the package of ecosystem services inherently present in the area being developed (raped is a more realistic term) a full Multiple Accounts analysis should be employed that fully considers all costs and benefits, including emotional values, associated with the project.</p> <p>Feelings do count; they affect everything people do. Full consideration of them is essential for a honest evaluation of any such project.</p>	Project comment	General	Project Effects Assessment Methodology	5.1	The assessment will be undertaken using standard methodologies involving a combination of qualitative and quantitative methods.	
57	21	7-Feb-12	Hugh Jordan		<p>7. Our airport is vulnerable to fog during temperature inversions, especially in winter. Uncontrolled dust would seed fog indirectly jeopardizing the Sun Peaks economy with airport closures.</p>	dAIR comment	General	Greenhouse Gas Management	6.1	Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS.	
330	101	13-Feb-12	C.B. Villeneuve	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(3 of 77) [2012-02-24 3:07:19 PM]</p> <p>One of my concerns is the dust coming from that operation. I was told at the open house that information about the wind patterns could be obtained from the Ministry of Environment who has projections of the wind patterns around the valley. In my view, that is very inadequate. Computer projections are useless unless you can input the proper data, and the data is presently missing. The wind in the valley is no indication of what is happening at Jacko Lake, Knutsford or Aberdeen. For instance, a few days ago I was at the Knutsford Airstrip where the windsocks were indicating a wind coming from 130 degrees; at Knutsford Corner a few minutes later the flag at the Hall was pointing to 10 degrees. At the same time, I was in my car listening to the airport frequency, and they were advising an incoming aircraft that the wind was at 250 degrees! Only a network of wind monitoring stations between Jacko Lake and Aberdeen-Knutsford- Sahali(that should have been installed a long time ago...) would give the real picture. Also, as an ultralight pilot with hundred of flying hours in that area I can state that it is where I find the most turbulence on almost any day, and from my five years working at HVC I know that the dust can go a long way.</p>	dAIR comment	General	Greenhouse Gas Management Air Quality	6.1 10.1	<p>Dust dispersion will be modelled using CALPUFF. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology.</p> <p>The Application will include an explanation of provincial air quality modelling methodology, and the rationale for selection of the CALPUFF model.</p>	Air Quality - 3.3.4.1

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395	127	27-Feb-12	Personal Information Withheld	Aberdeen, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (44 of 57) [2012-03-02 9:25:43 AM]*</p> <p>We're concerned about the computerized models being done to take baseline measurements for various factors as a result of the mine operation (light and dust, ground water)? Are there plans to have 'live' instruments in neighborhoods, rather than the one we were told is at the airport? We don't feel readings from the airport is as accurate as it could be if baseline measurements were taken in Aberdeen, Knutsford, Pineview, downtown and various other areas.</p>	dAIR comment	General	Greenhouse Gas Management	6.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology.</p> <p>The Application will include an explanation of provincial air quality modelling methodology, and the rationale for selection of the CALPUFF model.</p>	
402	129	27-Feb-12	Kamloops Area Preservation Association	Kamloops, BC	<p>Atmospheric Modeling Methodology: We recommend the following:</p> <ol style="list-style-type: none"> 1. minimum 250m resolution because of complex terrain 2. extend minimum of 20km away from proposed site in all directions. 3. capture examples of days with poor ventilation associated with light winds and temperature inversions (using case studies from summer and winter). accurate temperature data is needed for realistic simulations. It must be demonstrated that the modeling exhibits a fair amount of skill reproducing hourly observed meteorological conditions. CALMET uses meteorological observations to determine produce wind fields, which can be difficult in complex terrain areas with low station density. One possibility is to evaluate models against existing air quality data in the Kamloops Valley using a known source and pollutant as test. Detailed CALMET output over these events should be presented. <p>Dispersion Modeling Methodology: to understand suspension of mine tailing dust from piles and estimated additional PM and other pollution in surrounding communities, dispersion modeling will require:</p> <ol style="list-style-type: none"> 1. to provide baseline PM pollution in the valley a set of pollution roses should be prepared 2. modeling should demonstrate it realistically captures dispersion conditions in Kamloops. One possibility is to evaluate the model against existing air quality data using a known source and pollutant as a test bed. 3. modeling will also have to capture high wind days when PM10 suspension is likely a concern. Again, specific case studies is called for (summer/winter/spring). 4. use of dust suppression measures can greatly affect fugitive dust emission rates. Dispersion results should be presented with/without controls. 	dAIR comment	General	Greenhouse Gas Management	6.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. The quantity of particulate matter from all sources will be calculated using published emission factors and facility engineering design estimates. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. The CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory. The CALMET data set will have a 250m grid resolution throughout the modelling domain and 10 vertical levels. The CALPUFF domain is sized to capture all values of interest (e.g. predicted concentrations greater than 10% of the applicable ambient air quality objective). The CALMET data set captures all possible hourly meteorological conditions over the period 2003-2005. The dispersion modelling results presented will be representative of maximum emission rates following application of mitigation. It is not generally accepted practice to present dispersion modelling results for uncontrolled emissions.</p>	
429	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>6.1 CLIMATE</p> <p>KGHM refers to meteorological (met) stations, but in fact has only ONE met station on the mine site. That station is located on the north side of Sugarloaf Mountain, probably the most inappropriate place on the entire mine site. Daily observations by Knutsford area residents and ranchers all show that the prevailing wind comes from the southwest (i.e. blowing from the mine site toward Kamloops). The information obtained from the KGHM met station simply cannot give an accurate indication of wind direction. Similarly, the wind readings from the Kamloops Airport met station do not reflect the prevailing wind direction on the plateau above Kamloops. The Thompson River Valley creates a "funneling", east/ west or west/east effect.</p> <ol style="list-style-type: none"> 1. Why has the proponent not taken any steps to establish met stations elsewhere on the mine site? They have had years to do so. 2. Why is the proponent relying on meteorological information from areas well away from the mine site which have no relevance to the closeness of the proposed mine to the city? 3. Will the establishment of a met station on the top of Coal Hill or Sugarloaf Mountain be required, and data obtained from that station be analyzed before the application process is allowed to proceed? 4. What climate station data will be used for the air quality modeling? 	dAIR comment	General	Greenhouse Gas Management	6.1	<p>It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. Additional meteorological stations are not required to complete the assessment.</p> <p>The Application will include an explanation of provincial air quality modelling methodology, and the rationale for selection of the CALPUFF model.</p>	

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569	156	7-Mar-12	Anne Grube	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (62 of 69)[2012-03-14 4:29:55 PM]^</p> <p>Please reply by email to answer my numbered questions. A general comment: This document is extremely lengthy and repetitive (whole sections containing exactly the same parameters) which makes it rather intimidating for the average citizen to read. And yet some of the abbreviations e.g., DF, TSP, are not listed on the acronym page. I noted that in regard to each VC (had to look that one up to discover that it meant Valued Component--had always thought it meant Victoria Cross, but perhaps my age is showing...) justification for inclusion in the assessment will be based on one or more of 5 criteria.</p> <ol style="list-style-type: none"> Does this mean that if KAM, the EAO or CEA does not hear from the public, or if it is not legislated that it be assessed, some of the VCs will be omitted from the assessment? My specific comments on what is missing and/or where more specific detail is needed: Climate -- I am particularly concerned about the carbon emissions that would be created if this mine project should proceed. It is essential that all GHG considerations listed on p. 46 be included. The next step is listed as "Verify GHG emissions forecasts." How will this verification be accomplished for the Temporal Boundaries as listed on p. 40--pre-construction, construction, operations, decommissioning and closure, post closure? Is transportation of ore to the coast included in "operations"? How will the emissions be measured? Who will do this, and how often will the results be reported to the public? 6.1.5 "The residual effects and significance of GHG emissions remaining after implementation of Management Plans, and any monitoring, follow-up and adaptive management programs will be assessed. 6. How and by whom? Again, will this information be made available to the public?" 1.7 "Conclusion KAM commits to provide the following in the Application: What does "commits" mean? Is this commitment legally binding in any way? "A summary of potential cumulative effects; and discussion of significance of the residual and cumulative effects" Do these cumulative effects include those GHGs produced by the items manufactured from the ore? I ask this as I question whether we should continue to allow mines simply for the purpose of generating more "stuff" and in this case where any manufacturing (i.e., jobs) will not even occur in Canada. 	dAIR comment	General	Greenhouse Gas Management	6.1 19	VCs listed in the dAIR will be not omitted from the assessment. Climate has been identified as a VC. Transportation of ore to the coast is included as a project component. The Application/EIS will include assessment of emissions. Methodology, assumptions, and results will be presented. A Table of Commitments will be included in the Application/EIS. The cumulative effects assessment will not include those GHGs produced by the items manufactured from the ore.	
571	156	7-Mar-12	Anne Grube	Kamloops, BC	<p>Air Quality -- Assessment of dustfall seems to be only in relation to human health.</p> <ol style="list-style-type: none"> What studies will be done to determine the effects of trace elements in dust on non-humans? I do not think I came across any reference to insects in the Draft Document. How will the effects on insects, and most specifically, pollinating insects such as bees, be assessed? From my reading to date, there seems to be insufficient baseline information (not enough monitoring stations to cover all wind direction situations). Will the EIA include data from sites suggested by an independent expert? I note on p. 129 that "For a series of 10 to 20 special receptors... specciated DF and PM2.5 results (specific metals like copper, arsenic, molybdenum) will be presented... results...can be compared against Texas screening levels or Washington State acceptable source impact levels." Please list the specific metals that will be assessed. Are the Texas and Washington State levels the most or least stringent? I look forward to a reply answering my questions. 	dAIR comment	General	Greenhouse Gas Management	6.1	A HHERA will be included in the Application/EIS to evaluate potential risks to human and ecological (i.e., wildlife, fish, vegetation) health posed by project chemical emissions, including criteria air contaminants (CACs) and particulates (dust) and deposition of contaminants (e.g. metals) from dust to surface soils.	
730	206	20-Mar-12	Elaine Sedgman	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 23) [2012-03-26 3:53:56 PM]^</p> <p>6.10 Terrestrial invertebrate Valued Component -- Native Bees The KAM rationale listed assessment for only two invertebrates, butterflies and dragonflies. It also stated that candidate VC would be selected only from provincial lists. I believe that this rationale is far too narrow. Main concerns: Habitat and forage needs, and nesting and egg-laying resources for wild pollinators.</p> <p>6.14.6 Cumulative Effects Assessments 1. It has been noted that fragmentation and habitat loss affects negatively on native bees. Not only would the Ajax mine destroy a large swathe of habitat, abandoned mines also affect the biodiversity of the area. Heavy metal contamination suppressed bacterial growth, bacterivorous nematodes as well as the density of earthworms thus affecting the soil food web. 2. A very recent study finds that there is negative relationship between heavy metal pollution and population of wild bees. Researchers found that pollen contamination is as detrimental to wild bees as habitat loss. The EAO requires the best scientific information available to make an informed decision. Therefore, the Ajax mine needs to provide assays, (representative samples throughout the site) of heavy metals such as cadmium/zinc, lead, arsenic and copper. The EAO also requires a full wind analysis for direction and amount of dust fall. A weather collection station on Coal Hill would provide suitable data. These tests can then be analyzed for any likelihood of pollen contamination by the accumulation of heavy metals.</p>	dAIR comment	General	Greenhouse Gas Management	6.1	A HHERA will be included in the Application/EIS to evaluate potential risks to human and ecological (i.e., wildlife, fish, vegetation) health posed by project chemical emissions, including criteria air contaminants (CACs) and particulates (dust) and deposition of contaminants (e.g. metals) from dust to surface soils.	
780	221	23-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (27 of 61)[2012-03-29 4:08:06 PM]^</p> <p>I am writing to express my concern about the possible impacts of the Ajax mine on the weather in our area. My questions are:</p> <ol style="list-style-type: none"> Will the Ajax mine have any impact on the presence of humidity/fog in Aberdeen or Sahali? If so, will this impact direct sunlight for any citizens? If increased fog is expected, will the fog contain any contaminants from the mining processes? Will the presence of increased humidity have any impact on the Coquihalla highway? Would the impact have any economic or safety implications? Will the increase in humidity have any impact on the forest/trees/gardens etc. surrounding the site? Could the increase in humidity increase low cloud cover over the valley? Would the increase in humidity and particles have any potential impact on haze in Kamloops and the surrounding area? Are there any other possible impacts with regards to weather? What impact will the waste rock and tailings piles have on blowing and drifting snow? 	dAIR comment	General	Greenhouse Gas Management	6.1	Baseline information (wind direction wind speed, precipitation, including fog, dew, snow both blowing and drifting, temperature and insolation) will be presented in the Application/EIS and will include description of the data collection program. For the purposes of the Air Quality Assessment the Ministry of Environment provided a three year CALMET data set that adequately characterizes the local and regional dispersion meteorology. Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS.	

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794	226	24-Mar-12	Kamloops Food Policy Council (KFPC)	Kamloops, BC	Can the mine also guarantee that there will be no changes to weather patterns over Aberdeen ad Sahali that could possibly affect gardeners' ability to grow their own food in the manner that they currently do? The EAO also requires a full wind analysis for direction and amount of dust fall. A more precise measurement of weather collection needs to be used in order to provide suitable data. These tests can then be analyzed for any likelihood of accumulation of heavy metals as well as possible changes to weather patterns.	dAIR comment	General	Greenhouse Gas Management	6.1	Baseline information (wind direction wind speed, precipitation, including fog, dew, snow both blowing and drifting, temperature and insolation) will be presented in the Application/EIS and will include description of the data collection program. For the purposes of the Air Quality Assessment the Ministry of Environment provided a three year CALMET data set that adequately characterizes the local and regional dispersion meteorology. Potential interactions between the project and atmospheric indicators will be identified. All indicators that are shown to be affected by the project will be assessed in the Application.	
806	231	25-Mar-12	Upton Family	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (7 of 61)[2012-03-29 4:08:06 PM]^ Our family is not in favor of the Ajax Mine. It is far to close to the city. We are deeply concerned about the wind blowing the dust particles onto the city. We have not seen any wind testing reports. Can you please send us your wind testing reports. We are also very concerned about the noise and light from the mine. Can you please send us the known facts regarding the noise level and amount of light produced...as well as the distance these will travel day and night. We are also concerned about the use of our road for the big trucks. In all the literature we read our road is called the Lac Le Jeune Highway. WE have lived up in Lac Le Jeune for almost 20 years. The road has NEVER been referred to as a highway. It is not a highway. The road is very busy with traffic from the residents as well as outdoor enthusiasts and can NOT support more traffic. The school bus runs on the road twice a day through the school term and we are worried for the safety of the bus. The mining industry is obviously a necessity but this mine is not well placed. We will move from Kamloops if it goes through.	Project comment	General	Greenhouse Gas Management Visual Impact/Aesthetic Features Health Education and Healthy Living	6.1 8.4 10.5	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	
809	234	25-Mar-12	Carole Hebden for Kamloops 350.org	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (4 of 61)[2012-03-29 4:08:06 PM]^ The members of the Kamloops Chapter of 350.org are extremely concerned about the carbon emissions that would be created if the AJAX Mine Proposal should proceed. 350.org is a worldwide organization that brings attention to the need to reduce CO2 in the earth's atmosphere to 350 ppm in order to mitigate the most severe effects of climate change worldwide. 350.org works to unite existing organizations and to provide a common platform to achieve this 350 ppm target. Kamloops Chapter members have studied the AJAX Draft AIR/EIS Guidelines and wish to have the following comments noted. 1. We recommend that all the GHG considerations that are listed in Section 6.1.4 of the Draft be included in the final Guidelines. 2. In Section 6.1.4, there is a step listed: "Verify GHG emissions forecasts." The methods by which the forecasts will be verified for the Temporal Boundaries that are described in Section 5.1.3, i.e., pre-construction, construction, operations, decommissioning and closure, and post closure should also be included. 3. The emissions created during transportation of ore to coastal ports should be included (either in "operations" or somewhere else). 4. The frequency and method of monitoring actual emissions should be given, as well as who will be responsible for this monitoring. 5. The results of this monitoring should be released to the public. 6. Section 6.1.5 states "The residual effects and significance of GHG emissions remaining after implementation of Management Plans, and any monitoring, followup and adaptive management programs will be assessed." Again, the methodology for this should be explained and also include who will be responsible. As well, the results should be made available to the public. Thank you.	dAIR comment	General	Greenhouse Gas Management	6.1	As noted in Section 6.1 of the dAIR, discussion of GHG emissions to be presented in the Application/EIS will follow guidance documents recommended by regulatory agencies following preliminary review of the dAIR. Best management practices will be followed to minimize project-related greenhouse gas emissions. The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS. Actual emissions will not be monitored.	

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865	252	26-Mar-12	Paula Pick	Knutsford, BC	<p>6.1 Climate</p> <ul style="list-style-type: none"> • Why is only one climate station being used to measure wind, etc.? it is located in the lee of a mountain (see fig 6.1.1) and will give incorrect data. The note, "Meteorological stations are illustrated on Figure 6.1.1" is incorrect if indeed only one station is to be used. Or were more intended to be added. • Will the proponent be required to establish more climate stations in more rational locations before the application process is allowed to continue? • What studies will be done to examine effects of inversions in winter and summer? These are not mentioned in the draft AIR. Why not? • Will the mine create more fog than the city now experiences? Fog is not mentioned at all in the draft AIR. Why not? 	dAIR comment	General	Greenhouse Gas Management	6.1	<p>It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology.</p> <p>Potential interactions between the project and atmospheric indicators will be identified. All indicators that are shown to be affected by the project will be assessed in the Application. The Application will include a detailed explanation of the standard methodology used in atmospheric assessments in support of air quality modelling. The methodology will be in accordance with existing provincial guidelines and will be approved by the regional air quality meteorologist, with input from the EAO, CEA Agency and TWG.</p>	
867	252	26-Mar-12	Paula Pick	Knutsford, BC	<p>6.1.4</p> <ul style="list-style-type: none"> • Mining is a significant emitter of greenhouse gases. How will the mine calculate the total GHG emissions associated with the mining operation and transport? • How does the methodology "incorporating Climate Change Considerations..." compare with the one that Environmental Investment Organization (EIO) used that ranked KGHM, 300th out of 300 companies for carbon pollution? • Are there "Best Management Practices" for greenhouse gas emissions that the mine can be required to follow? 	dAIR comment	General	Greenhouse Gas Management	6.1	<p>As noted in Section 6.1 of the dAIR, discussion of GHG emissions to be presented in the Application/EIS will follow guidance documents recommended by regulatory agencies following preliminary review of the dAIR. Best management practices will be followed to minimize project-related greenhouse gas emissions.</p>	
917	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>6.1 Weather and Climate</p> <p>The shape of the terrain on the mine site and to the north will strongly influence the path of the surface winds. Prevailing winds from the west, southwest and south will have a tendency to flow northwards through lower elevation locations such as where Lac Le Jeune Road and Highway 5A enter the urban areas of Kamloops. In the specific cases when inversions are present, the dust and gases generated at the site will be trapped and not mix into higher parts of the boundary layer. These contaminants will be pushed preferentially through the natural openings in the terrain.</p> <p>As is discussed elsewhere (Section 3.12) there will be a massive influx of water to the proposed mine site and this will likely lead to an increase in fog (Section 8.3) at and around the site. This flux of water vapour from the site combined with the dust generated from the site will also likely contribute to increased haze and cloudiness downwind of the site. With winds from the west, south and around to the east the low cloud would directly impact residential and commercial areas of Kamloops. With winds from the west, to north and around to the east, the impacts would be experienced in rural parts of the region. Both haze, resulting from dry and wetted aerosol particles, and low cloud will reduce the solar insolation to Kamloops. This reduction in solar radiation will occur over a range of wavelengths and be most likely in areas close to the site such as upper Aberdeen.</p> <ol style="list-style-type: none"> 1. Will KGHM establish meteorological stations to measure and record, on at least 5 minute intervals, primary parameters including wind speed and direction at sites near Lac Le Jeune Road and Highway 5A? 2. Will KGHM establish a monitoring site with remote sensing capability to determine the frequency and duration of atmospheric inversions at the site? 8. What will the effects of this reduction in insolation be on living conditions in Kamloops, e.g. normal melting of snow and ice on roads; growth of trees and plants; operation of solar panels; and the general enjoyment of the climate in the city by the residents? 9. Where is the Golder Meteorology Station located, cited in page 20-4 of the Ajax Feasibility Study? 	dAIR comment	General	Greenhouse Gas Management	6.1	<p>Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. The Application will include a detailed explanation of the standard methodology used in atmospheric assessments in support of air quality modelling. The methodology will be in accordance with existing provincial guidelines and will be approved by the regional air quality meteorologist, with input from the EAO, CEA Agency and TWG.</p>	

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976	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will air flows at the windiest times of the year (spring, fall) be accounted for?	dAIR comment	General	Greenhouse Gas Management	6.1	A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed (Kamloops Airport, Kamloops Brocklehurst, Afton, Walloper) and upper air data from a detailed meteorological inventory. Modelling results will be presented in the Application/EIS. Observed hourly averaged meteorological data are used in the modelling program. Effects of the project on climate will be assessed using regional stations with long-term data sets.	
1023	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	9. Why has there not been appropriate weather stations established on the site and collecting meaningful data for 3-5 years before the Application was submitted as is normal?	dAIR comment	General	Greenhouse Gas Management	6.1	It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. This information will be presented in the Application/EIS. Effects of the project on climate will be assessed using regional stations with long-term data sets.	
1067	275	27-Mar-12	Frances Vyse	Kamloops, BC	6.1 Climate What does the proponent plan to do to establish correct climate and especially wind data? The climate station on the north side of Sugarloaf Hill is not within the mine area and had a known fault in its data system that has given a false reading for wind direction (which is generally accepted as prevailing from the southwest).	dAIR comment	General	Greenhouse Gas Management	6.1	It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. This information will be presented in the Application/EIS. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	

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1070	276	27-Mar-12	Robert Schemenauer	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (66 of 77) [2012-03-29 3:57:49 PM]*</p> <p>To date, comments on the KGHM Ajax Mine have had a focus on such issues as health effects and destruction of the landscape. I would like to address an issue that has been largely neglected, namely weather and climate changes and the detrimental effects that can result.</p> <p>KGHM states that they will bring 1688 m³/h of water into the site throughout the year. This is a total of approximately 15 million m³ of water annually. The natural input from precipitation is about 200 mm on 25 km², which is about 5 million m³ of water annually. The water input into the footprint of the mine will, therefore, be four times higher, 20 versus 5 million m³ of water annually. The mine states that it will be a "zero discharge" operation but this is impossible to achieve. Along with water that will seep underground a very large proportion will evaporate into the air. This will come from activities that spray water into the air (dust suppression) and from stored water in surface ponds and lakes. There will be additional water vapour generated from emissions from vehicles and from mine buildings and other activities.</p> <p>Haze and Fog Downwind: A significant effect of the increase in water vapour and aerosol emissions from the KGHM Ajax Mine site can be expected downwind of the mine. Aerosols generated by the proposed mine will be produced from soil dust released in blasting, excavating, movement and storage of ore and waste, from particulate and gaseous emissions from trucks at the mine, from the breakdown of tires and other materials at the site, from the destruction of vegetative mater, from release of pollen resident in the soils and on the plants, from the spraying of chemicals to reduce dust, etc. The mine will act as a large area source for water vapour and aerosols. It is located partly within the southern part of the city of Kamloops and partly bordering the southern limits of the city. Therefore, winds from the west, southwest, south and southeast will have a particular impact. This includes the prevailing wind directions. There will be a large and virtually constant plume of material moving from the mine site over the city. The wind will carry the aerosols and water vapour preferentially through the lower breaks in the terrain but the impact will be expected to be present over all of upper Aberdeen, Sahali and out into the main valley where the city is located. There will be increased haze due to dry aerosols and wetted aerosols as well as increased fog in the upper elevations and a potential for more low cloud especially over Aberdeen and Sahali.</p> <p>The increased haze and fog or low cloud will reduce solar insolation. This in turn can affect melting of snow and ice on roads, growth of plants, temperatures, and quality of life. In order to quantitatively address this subject, a suitable network of meteorological stations has to be installed and an assessment made by a qualified and arms-length organization. Both Environment Canada and university groups could participate in such a study.</p>	dAIR comment	General	Greenhouse Gas Management	6.1	<p>General statement.</p> <p>Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS.</p>	
1071	276	27-Mar-12	Robert Schemenauer	Kamloops, BC	<p>Blowing and Drifting Snow: The construction of massive hills of tailings and waste rock, up to 150 m high, will affect the wind flow on the mine site and for a considerable distance around the site. Because some of these artificial hills are proposed to be situated within a hundred meters or so of the main roads, such as the Coquihalla Highway, there is reason to expect an impact on road conditions. For example, a south wind approaching the west tailings storage facility will be deflected around it producing cross winds on the Coquihalla Highway from the east and on the Lac Le Jeune Road from the west. In the winter this can reduce visibility due to blowing and drifting snow. During the rest of the year, blowing dust could affect visibility. There is also the real possibility of snow blowing off the 150 m high tailings hill onto the Coquihalla Highway. In these situations both visibility and traction on the road surfaces will be affected. These and related issues need to be carefully assessed and the impacts on safety and costs to the city and individuals calculated. Impact on Highways and Roads: One result of the increased water vapour supply, accompanied by an increase in aerosols from mining activities, will be an increase in fog frequency and resultant reduction in visibility at the site and on the adjacent highways and roads, e.g. the Coquihalla Highway, Highway 5A, and Lac Le Jeune Road. Fog is a common occurrence in the area during the months from October through March and an increase in fog will result in more accidents and slowdowns or stoppages of traffic on these roads and highways. The British Columbia Ministry of Transportation and Infrastructure should be required to do a comprehensive study to assess how the addition of massive amounts of water vapour and aerosols from the mine will affect safety and traffic on the highways and roads. This should include an assessment of economic costs related to hospitals, policing and roads in Kamloops.</p>	dAIR comment	waste rock management facilities	Greenhouse Gas Management	6.1	<p>A Traffic Impact Study is being developed for inclusion in the Application/EIS.</p> <p>Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS.</p>	
1108	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	<p>Figure 6.1-1 Climate Effects Study Area The climate station which is located at the Trap Shoot facility does not represent the conditions that are to be found near the actual mine site. This climate station is dominated by valley winds that do not represent the potential conditions that are to be found at the active areas of the mine. The weather station needs to be relocated to within the footprint of the mine development. This map also illustrates the preliminary study area boundary for air quality. The area of interest should be greatly expanded as particulate matter can rapidly move beyond the boundaries shown, with the high winds that can be encountered at this site.</p>	dAIR comment	General	Greenhouse Gas Management	6.1	<p>It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. This information will be presented in the Application/EIS.</p> <p>Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.</p>	

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1126	285	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html [2012-03-27] (53 of 77)</p> <p>In regards to wind modelling for both dust and noise, has the alteration of the terrain by adding the waste rock piles and other mine facilities been taken into account? I would like to see the modeling done at a minimum to represent each year as the waste rock piles would substantially change the geography, and thus the winds behaviour. If the model would not be affected by such large changes in landscape I would be concerned that it would not be accurate.</p>	dAIR comment	waste rock management facilities	Greenhouse Gas Management Air Quality Noise and Vibration	6.1 10.1 10.4	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. Dispersion modelling will be completed for key years. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
1133	286	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>- What studies has the Proponent undertaken to determine the affect on local weather patterns, in particular fog levels on nearby Coquihalla and Lac Le Jeune Highways due to increased moisture levels, water temperatures due to processing, and air temperatures at the proposed mine site?</p> <p>- What actions is the proponent prepared to do to reduce fog levels on nearby highways to ensure traffic safety?</p>	dAIR comment	General	Greenhouse Gas Management	6.1	<p>The proponent will pay for the proposed power line.</p> <p>Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.</p>	
1143	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>8. how much more humidity will there be in our Kamloops air; with the added squirt footage surface that the tailing ponds and waste facilities will be adding?</p> <p>9. how will the extra humidity affect the amount of snowfall in the area?</p> <p>10. how will the extra humidity affect the amount of snowfall on the highways?</p> <p>11. how will the extra humidity affect the snow and costs of government snow removal?</p> <p>12. how will the extra humidity affect the spring?</p> <p>13. how will the extra humidity affect the fall?</p> <p>14. how will the extra humidity affect the summer?</p> <p>15. how will the wind patterns be changed and will it be windier in Kamloops?</p> <p>24. how will our sun be affected?</p> <p>25. Kamloops is known as the 'sunniest' place in all of British Columbia (most sunny days in a year). how will this be affected?</p> <p>44. will Kamloops have acid rain?</p>	dAIR comment	General	Greenhouse Gas Management	6.1	Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	

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1157	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>6.1.1 Rationale 3rd bullet: public or other stakeholder input; will property owners and residents be included as "stakeholders"?</p> <p>6.1.2 Baseline Information collection program for climate in the project area a. how was the information collected for each weather component: wind direction wind speed, precipitation, including fog, dew, snow both blowing and drifting, temperature and insolation (solar radiation arriving at the earth surface)? b. at what elevations were these data collected? c. were projections done as to the differences in all of the above, but most particularly, wind direction, as the height of the WRF increase over time? Will these calculations be required in the AIR? d. Figure 6-1-1 shows only one meteorological station (noted that the text refers to "stations") and that appears to be in the lea of Sugarloaf Mountain and north of the TSF. Why was this particular site chosen, and why were no others installed in this huge area with complicated wind inversions? Will the AIR require meteorological stations on the perimeter of the site, being two each on the west, east and south; an additional one on the north, and another located between the TSF and the North WRMF. Data required in the AIR should include, but not be limited to: those weather components listed in Sec.6.2.1 in addition to those noted above in a). Projections as to changes in this data will be required, as the height of the TSF and North WRMF increases over time, ideally every three years. Will air monitoring stations also be required throughout the city and surrounding area? Will these be located in consultation with the city and TNRD? e. No mention has been made of the chemical composition of fog, dew, snow and rain. Will the AIR required inclusion of the chemical composition of these weather components, as well as that of the haze that the particulate matter will create?</p>	dAIR comment	General	Greenhouse Gas Management	6.1	<p>The present location of the Ajax meteorological station was chosen to satisfy basic information needs respecting the site water balance. Additional meteorological measurement sites are not contemplated. For the purposes of the Air Quality Assessment the Ministry of Environment provided a three-year CALMET data set that adequately characterizes the local and regional dispersion meteorology.</p> <p>Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.</p>	
1167	294	27-Mar-12	Personal Information Withheld		<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (37 of 77) [2012-03-29 3:57:49 PM]^</p> <p>6.1 Weather and Climate 2) What will be the effect of the large increase in water vapour content of the atmosphere since fog is present in the Aberdeen and Pineview Valley areas for 25% to 45% of the days between early November and the end of February. Won't the vapour droplets in the fog carry material from all of the mining area, and increase both the frequency of fog occurring and carry unwanted small particles with metal content down into the valley? 3) Won't the large amount of water vapour from the site combined with the dust generated from the mine site cause increased haze and cloudiness downwind of the site and since the prevailing winds are from the west and southwest and east as they enter the Thompson River valley haze, resulting from dry and wet aerosol particles, and low cloud will reduce the amount of sunshine. Isn't it likely that much of Kamloops will have a significant reduction in their number of hours of sunshine each year? What studies have been performed, documenting the strength of the winds coming into Kamloops from the large area of the proposed mine site and for how long and how many different areas. If this type of study of the weather and its impacts have not been attended to, why not? 4) What programs to measure the chemistry of rain, snow and fog before and after the mine is in place have been done. At what locations were they done and how long have they been in place? How long after the mine is in operation will they be continued? What are the results of these studies?</p>	dAIR comment	General	Greenhouse Gas Management Surface Water Quantity	6.1 6.4	<p>Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.</p>	
1170	295	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (36 of 77) [2012-03-29 3:57:49 PM]^</p> <p>Weather patterns, As a 30+ year resident on Lac Le Jeune Road, I have noticed considerable change in the climate through the years. I live on the hillside where it was often windy, but over the past few years as the population of Kamloops increased, along with more motor vehicles and a change in climate in general, what I find most striking, particularly in the past five years is not only the amount of wind but the type and severity of winds. The winds are much stronger, more severe. I have witnessed numerous times where it will be raining and the rain will go sideways and sometimes even upward. Another change has been in the difference in temperatures. Fluctuations from hot to cold and cold to hot are more frequent and much more severe. I'm sure this would show, at least to some degree with temperature records of the Kamloops Airport area which is the baseline for local weather reports with Environment Canada and other weather providers. In light of these changes, if monitors were to be set up, as suggested, samplings over a 1-2 year period wouldn't be accurate enough to predict future weather patterns. Dust control will be a major factor in health risks. As it is, I am forced to empty my vacuum cleaner when it is barely ¼ full because it gets so jammed with fine particulate it strains its high power motor. Although it was considered a mild winter – with less snow than normal and [probably] higher mean temperatures, there has been far more wind than normal. Mini-twisters are becoming the norm. I stood above the Highland Valley pit on a very calm day and watched the dust circle up and out of the pit. IMPO, there is no feasible way the dust from this project can or will be controlled. I have no idea what percentage of the population in Kamloops had respiratory problems but we can count on that percentage going up if this mine is allowed to continue.</p>	Project comment	General	Greenhouse Gas Management Air Quality	6.1 10.1	<p>Statement of opposition - Out of Scope of the AIR/EIS Guidelines.</p>	Air Quality - 3.3.4.1
1215	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>Will air flows at the windiest times of the year (spring, fall) be accounted for?</p>	dAIR comment	General	Greenhouse Gas Management	6.1	<p>A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory</p>	

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1265	312	4-Apr-12	Donovan Cavers, City Councillor	Kamloops, BC	• How much weather data has been collected in the area of the proposed mine site? Over what period of time? From how many collection stations? Dispersed over what distance?	dAIR comment	General	Greenhouse Gas Management	6.1	A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory	
1403	336	4-Apr-12	Personal Information withheld		9. Why has there not been appropriate weather stations established on the site and collecting meaningful data for 3-5 years before the Application was submitted as is normal ?	dAIR comment	General	Greenhouse Gas Management	6.1	A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory	
1421	338	4-Apr-12	Personal Information Withheld	Kamloops	27/03/2012 Dust: <ul style="list-style-type: none"> • Are there weather monitoring stations located in proper locations to get an accurate picture of prevailing winds and current dust levels? (I heard that there was only one station, located on the lee side of Sugarloaf Mountain and was therefore not likely to produce representative data. Is this true? And if so, who chose this location? Their methods, their loyalties, and the resulting data should be questioned!!!) • How much more dust will be falling on the playground at Pacific Way, and in yards in Upper Aberdeen? How much more dust would there have to be before it was considered significant? • Are there any Canadian or BC standards for an amount of dust fall that is acceptable? If so, is it for regular topsoil dust, as from construction and farming, or does it consider the potentially more harmful dust content from this type of mine? • What are the long term effects of breathing this type of dust? (I am very concerned for my children, and everyone else in Kamloops!) • How effective is dust binding with magnesium chloride and calcium chloride? Does it dry up or crumble and then become dusty itself? 	dAIR comment	General	Greenhouse Gas Management Air Quality	6.1 10.1	It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory. The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate incremental change in air quality and the potential changes in human health. Mitigation measure effectiveness for project operations will be presented as part of the Project Description in the Application/EIS. Design details regarding dust suppression for various activities and mine components will be provided in the Project Description section of the Application/EIS.	Air Quality - 3.3.4.1

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1439	339	4-Apr-12	Personal Information Withheld		Sec. 6.1 Climate 6.1.1 Rationale – 3rd bullet: Public or other stakeholder input; Will property owners and residents be included as "stakeholders"?	dAIR comment	General	Greenhouse Gas Management	6.1	The proponent has been in consultation with local community groups to gain any anecdotal information from property owners and residents. KGHM Ajax Mining Inc. would welcome any additional input - they can be contacted directly at their office in Kamloops or via their website http://www.ajaxmine.ca/ .	
1440	339	4-Apr-12	Personal Information Withheld		6.1.2 Baseline Information collection program for climate in the project area. a) How was the information collected for each weather component: wind direction, wind speed, precipitation, including fog, dew, snow both blowing and drifting, temperature and insolation (solar radiation arriving at the earth surface)? b) At what elevations were these data collected? c) Were projections done as to the differences in all of the above, but most particularly, wind direction, as the height of the WRF increase over time? Will these calculations be required in the AIR? d) Figure 6-1-1 shows only one meteorological station, (noted that the text refers to "stations" – and that appears to be in the lea of Sugarloaf Mountain and north of the TSF Why was this particular site chosen, and why were no others installed in this huge area with complicated wind inversions? Will the AIR require meteorological stations on the perimeter of the site, being two each on the west, east and south; an additional one on the north, and another located between the TSF and the North WRMF. Data required in the AIR should include, but not be limited to: those weather components listed in Sec. 6.1.2 in addition to those I have noted above in Sec. 6.1.2 a) Projections as to changes in this data will be required, as the height of the TSF and North WRMF increases over time, ideally every three years. Will air monitoring stations also be required throughout the City and surrounding area? Will these be located in consultation with the City of Kamloops and TNRD? e) No mention has been made of the chemical composition of fog, dew, snow and rain. Will the AIR require inclusion of the chemical composition of those weather components, as well as that of the haze that the particulate matter will create.?	dAIR comment	General	Greenhouse Gas Management	6.1	The present location of the Ajax meteorological station was chosen to satisfy basic information needs respecting the site water balance. Additional meteorological measurement sites are not contemplated. For the purposes of the Air Quality Assessment the Ministry of Environment provided a three-year CALMET data set that adequately characterizes the local and regional dispersion meteorology. Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1466	343	4-Apr-12	Personal Information Withheld		20/03/2012. I would like assurances that there are enough well placed weather monitoring stations in a variety of sites in Kamloops, so that we have good information before any decisions are made on the mine.	Project comment	General	Greenhouse Gas Management	6.1	General statement. The Application will discuss the baseline information collection program (sample sites, sample frequency, etc.) for climate in the Project area and will summarize the climate characteristics in the area, as described in the AIR.	
11	6	21-Jan-12	Natasha Lyndon	Kamloops, BC	I am completely opposed to the proposed Ajax Mine Project to be located within the city of Kamloops. My objections to the Ajax Mine proposal are as follows: - the environmental hazards (well documented by the Kamloops Area Preservation Association) - the blasting effects on the very unstable area in the Aberdeen Hills - the effect on property assessments of nearby homes. I do not think that the numbers of jobs at the proposed Ajax Mine will be of value - since that number of jobs in tourism and related sectors will very likely be LOST when our beautiful city's environment is damaged by the effects of the mine. There is NOTHING that will convince me that the Ajax Mine is a viable, valuable, wise or necessary project for the City of Kamloops.	Project comment	General	Geology, Landforms, Soils, Property Values, Economic Diversification	6.2 7.5 7.6	Please refer to the AIR for the studies proposed to assess the potential effects of the project on the biophysical, social, and economic environment. Please refer to sections of the AIR listed in column "dAIR Rev E Section#."	

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70	27	7-Feb-12	Graeme Hope	Kamloops, BC	3. The success that all models used in the proposed evaluation process (particularly air quality and slope stability and blasting) have had in previous mining scenarios should be included. For example, if a model has been used before, how successful was it in predicting the outcomes. And if the models have not been evaluated against other real situations, how can they be trusted. 6. All similar scenarios where a mine has been situated close to a city and the outcomes should be examined. For example, Butte Montana has an old mine on or within its boundaries. What have been positive and negative outcomes of that mine?	dAIR comment	General	Geology, Landforms, Soils Air Quality	6.2 10.1	Modeling requires the use of many assumptions due to the uncertainty related to determining the physical, biological and geochemical characteristics of complex natural systems. Modelling results are used as a tool to aide in the design of monitoring programs and mitigation measures, mine planning, and to outline potential risks. Models will be calibrated with site-specific data. The assumptions, limitations, and confidence of the models will be discussed in the Application/EIS. Any examples of large open pit mines within cities in similar geographical, geological and climate settings to Kamloops will be presented in the Application where relevant to the VC study methodology.	Air Quality - 3.3.4.1
102	42	Public comment form from the Feb 6&7 Information Session	Peter Northcott	Kamloops, BC	Mention is made (p.20) of natural seismic events. However, there is no mention of whether or not the mining activities will affect the frequency &/or magnitude of regional seismicity. Given that in other instances, mining has been linked to changes in seismicity, perhaps this issue should be addressed.	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. The effects of the proposed project on seismicity will be discussed in the Application.	
123	54	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		3) What effects will the daily blasting of 200,000 tons of rock have on the geological instability of the mine (in particular, Pine Valley, Dufferin & Aberdeen) not to mention the rest Kamloops.	dAIR comment	blasting	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
132	58	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Also, with all the instability & underground springs etc. - how will this contribute to this instability? If there are so many concerns now, blasting, etc., will surely add to the problem. The City has been working very hard to correct this situation. Will all this work be for nothing?	dAIR comment	blasting	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
139	60	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		d. Blasting – since we live so close, foundation damage is a possibility	dAIR comment	blasting	Geology, Landforms, Soils Property Values	6.2 7.5	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	

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146	65	8-Feb-12	Alan Havisto	Kamloops, BC	<p>Questions for the Environmental Open House</p> <p>1. Most of Aberdeen is on a slide are protected by wells and pumps 24 hours a day with a back up generator system. If ground water is coming from higher up from Peterson Creek or Jacko Lake , what will happen when Ajax starts blasting and running heavy equipment? Will it change the ground water direction and cause a slide not the mention the extra water from Kamloops Lake.</p> <p>2. In Ajax's report it says the mine will construct a barrier to protect the Kinder Morgan Pipeline and to protect Jacko Lake from debris. Since the lake is beside the pit, how is Ajax going to keep Jacko from flowing into the pit?</p> <p>18. When the mine is closing up the pit will be filled with water, with the weight of the water in the pit plus waste rock in two piles and tailings pond. What affect will this have on the ground water problem in Aberdeen as there will be twice the ground pressure?</p>	dAIR comment	Ajax open pit	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modeling predict exceedances of guidelines or standards</p>	
178	72	9-Feb-12	Personal Information Withheld	Kamloops, BC	There is a existing Kinder Morgan Pipeline how will the blasting and vibration affect the integrity of this pipeline?	dAIR comment	blasting	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>The Application will identify monitoring and mitigation measures required in the event that project effects on the pipeline are predicted.</p>	
190	77	10-Feb-12	Personal Information Withheld		What composition of elements does the area rock contain	dAIR comment	General	Geology, Landforms, Soils	6.2	Mineral composition of the ore and waste will be provided in the Application/EIS.	
213	80	10-Feb-12	Personal Information Withheld		<p>[^]http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (54 of 77) [2012-02-24 3:07:19 PM][^]</p> <p>(1) Aberdeen slide – if groundwater is coming up from Peterson Creek or Jacko Lake what will happen when Ajax starts blasting and running heavy equipment? Will it change the groundwater direction and cause a slide</p> <p>(2) Since the lake is beside the pit how is Ajax going to keep Jacko from flowing into the pit?</p> <p>(18) effect of pit water filling and waste rock dumps and tailings piles on ground water problem in Aberdeen ground pressure</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>Study methodology presented in the Application will include discussion of the parameters that make up the assessment and how they will be used to determine potential impacts on the Aberdeen area. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Mitigation measures will be implemented should modeling predict effects to groundwater flow volumes.</p>	

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231	83	10-Feb-12	Personal Information Withheld		http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (48 of 77) [2012-02-24 3:07:19 PM] (1) Soil instability due to blasting from the mine affecting personal property, water management	dAIR comment	blasting	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
239	84	10-Feb-12	Personal Information Withheld		(4) Land slides: Aberdeen area – full size blast should be conducted to make sure the mountain structure will not be affected; mitigation of risk to residential area	dAIR comment	blasting	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
242	85	10-Feb-12	Personal Information Withheld		Section 7.8 what monitoring and studies has KGHM-Ajax performed to study the effects on the groundwater ...; concerns with respect to slope stability	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. The baseline studies conducted and an overview of the existing ground water program will be presented as background in the Application, as described in the AIR. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modeling predict exceedances of guidelines or standards	
250	86	10-Feb-12	Personal Information Withheld		4. Amount of uranium that will be dug out	dAIR comment	blasting	Geology, Landforms, Soils	6.2	Mineral composition of the ore and waste will be provided in the Application/EIS.	
273	88	10-Feb-12	Personal Information Withheld		6. Structural damage of homes from constant vibration, compensation for damage	dAIR comment	General	Geology, Landforms, Soils Property Values	6.2 7.5	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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275	89	11-Feb-12	David Verhoeff	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (25 of 77) [2012-02-24 3:07:19 PM]</p> <p>First off, I'd like to say that I have no objections to mining. My objections and concerns are with the proximity of this proposed mine to the city of Kamloops, particularly the Aberdeen neighbourhood. Here is a list of concerns:</p> <p>1. Aberdeen is known for it's slope stability issues. There are areas that are "red-zoned" and construction is not allowed. How can a mine with daily blasting guarantee that there will be no structural damage to houses and/or landscapes during the mine's life or long after?</p>	dAIR comment	blasting	Geology, Landforms, Soils Property Values Noise and Vibration	6.2 7.5 10.4	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations.	Noise and Vibration - 3.3.4.2
277	89	11-Feb-12	David Verhoeff	Kamloops, BC	<p>2. Aberdeen is known for it's ever-changing pattern of ground water flows. The city has constructed a network of underground pipes and a system of pumps to control the ground water. What kind of effect will the mine cause by manipulating the flow of Peterson Creek and disturbing the ground water through the excavation of a pit by means of "controlled" explosions?</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>Study methodology presented in the Application will include discussion of the parameters that make up the assessment and how they will be used to determine potential impacts on the Aberdeen area. The model used will be described.</p>	
302	95	13-Feb-12	Gordon Kerfoot	Kamloops, BC	<p>(4) With respect to the ground water evaluation, a comprehensive review of potential negative impacts and probabilities needs to be determined to ensure the Aberdeen ground water situation is not altered and worsened. The ground stability in the Van Horne area is maintained stable only with constant removal of ground water via pumps. The proposed mine sits upslope from Aberdeen and its construction (structures, pit, ponds) and operation (blasting) can not be allowed to negatively alter the ground water situation in Aberdeen.</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>The baseline studies conducted and an overview of the existing ground water program will be presented as background in the Application, as described in the AIR. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modeling predict exceedances of guidelines or standards</p>	
324	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	<p>This 2 kilometer by 1 kilometer by 1500 feet deep pit when the proponent is finished mining will it be left to fill with water, or whatever, if water would this new "lake" make the Aberdeen Hill more unstable after 23 years of blasting? 1 blast per day, 30days x 12months =360blasts/ year x 23years= 8280 blasts? Would this water slowly seep into the hill potentially saturating the ground which could lead to slippage? We know Aberdeen Hill is unstable now and there is an underground water problem and issues already how can we be sure these problems will not increase with the shockwaves going through the ground?</p>	dAIR comment	Ajax open pit	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p>	

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352	112	20-Feb-12	Personal Information Withheld	Kamloops, BC	I am concerned that blasting and shifting of land/water will have a negative impact on my house/foundation. Who will be head accountable is this happens?	dAIR comment	blasting	Geology, Landforms, Soils Property Values	6.2 7.5	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations.	
389	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	d) what is the potential consequence to slope stability in Aberdeen and the impact on buildings and infrastructure?	dAIR comment	General	Geology, Landforms, Soils Property Values	6.2 7.5	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
394	126	27-Feb-12	Frank Mayhood	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (44 of 57) [2012-03-02 9:25:43 AM]^</p> <p>Aberdeen has experienced recent slide activity. The City has spent millions of dollars drilling relief wells and pumping water to keep the slide are from moving. Shaking this area does not make good sense. Please do sufficient seismic testing to insure that blasting will not effect the stability of the Aberdeen hillside. Also, should a future slide occur, who would be liable for the damages? Are the permits structured in a way tha moves all, or at least most, of this risk to the mining company?</p>	dAIR comment	blasting	Geology, Landforms, Soils	6.2	<p>The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.</p>	
417	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>3.3 SITE GEOCHEMISTRY</p> <p>There is no reference to studies which address the possible effects of the massive weight of the waste rock piles on the substrata, and possibly on the ground water in the Aberdeen area.</p> <p>1. Have any been done?</p> <p>The Project description (PD) states that the North Waste Dump (NWD) will contain 728 Million tonnes of rock, and the East Waste Dump (EWD) will contain 420 million tonnes. In addition, there will be 2 overburden stockpiles (adjacent to the waste rock dumps) which will contain a total of 7.5 million tonnes. This gives a total of 1 billion, 155 million, 500 thousand tonnes of rock pressing down on the substrata immediately uphill of Aberdeen, which already has significant excess groundwater and ground slippage problems which require the operation of a number of wells, and the monitoring of piezometers registering ground movement.</p> <p>1. What studies have been done to address the above noted? This should be done and the results made public before the application is allowed to proceed.</p>	dAIR comment	waste rock management facilities	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modeling predict exceedances of guidelines or standards</p>	

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422	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>3.8 WASTE ROCK STORAGE AND ORE STOCKPILES</p> <p>1. What studies have been required of the proponent designed to determine the effect on the substrata of the weight of the waste rock storage and ore stockpiles, the total of which is estimated by Abacus to be 1 billion, 142 million, 520 thousand tonnes? Bearing in mind the existing water and ground shifting problems already present in the Aberdeen area immediately below the mine site, the consequences of the pressure of this vast amount of rock could prove disastrous for the infrastructure, and for the residents living in this area.</p>	dAIR comment	waste rock management facilities stockpiles	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modeling predict exceedances of guidelines or standards</p>	
424	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>3.12 SITE WATER MANAGEMENT.</p> <p>The Ajax Project Description figure of 1,688 m³/h (1,688,000 litres/hr.) of water is established as the design requirement of the Project. Knight Piesold representatives at the recent Ajax Open House stated that this amount of water would be pumped from Kamloops Lake to the mine site 24/7, 365 days per year. This means that an annual total of 14 billion, 690 million, 520,000 litres of water will be supplied to the mine site for 23 years.</p> <p>1.How much fresh water will be removed from Kamloops Lake? 2. Will the amount removed be measured? 3.Will the amount of water used be open to the public? 4.This section also mentions pit water will be pumped to a central water pond. Is this Jacko Lake? 5.Where is central water pond? 6.How will the proponent achieve the "zero discharge" claim for the mine site? 7.Given the huge amount of water to be pumped to the mine site 24/7, 365 days per year, how will KGHM prevent the escape of water from the mine site toward Kamloops thus worsening the situation in Aberdeen? Any additional water entering the Aberdeen area could prove disastrous. This area already has significant excess groundwater and ground slippage problems which require the operation of a number of wells, and the monitoring of piezometers registering ground movement.</p>	dAIR comment	water management	Geology, Landforms, Soils	6.2	<p>As stated in the dAIR, approximately 1,688 m³/h water was established as the design requirement of the Project. Water management design features will be described in the Application/EIS. The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>The hydrologic analysis will consider the volume of water extracted, the timing of the water extractions, and the effect those extractions will have on the surrounding habitats that may be affected. Mitigation measures, which could include reducing the freshwater extraction requirement from fish bearing waters, will be explored and identified within the Application.</p>	
430	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>6.2 GEOLOGY, LANDFORMS AND SOILS</p> <p>6.2.4 Potential Effects of the Proposed Project and Proposed Mitigation</p> <p>3. With respect to concerns about slope stability in the Aberdeen area, have there been seismic tests or other tests to determine the natural fracturing and faults in the Iron Mask Batholith?</p> <p>4. What effect will the weight of overburden from the East and North tailings piles have on slope stability, either alone, or in conjunction with groundwater effects on properties in the mine study area?</p> <p>5. What is the source of any information relied upon by the EAO in assessing the proponent's proposal in this respect?</p> <p>6. What has been concluded in this respect, and what are the qualifications of the individual on whom the EAO relies to ensure that property values are not affected in this way?</p> <p>7. Have any independent building studies been undertaken, determining whether the vibration from equipment and from blasting have the potential to cause homes 8. If so, is there sufficient data on which to predict that this will not transpire? 9. If so, please disclose publicly, any studies pertaining to groundwater, overburden and the potential for damage to improvements in these communities. 10. If not, why not? 11. will the EAO give the citizens of Kamloops assurance that this testing will be completed, measured against the claims of the proponent and disclosed publicly before any approvals are granted to the proponent?</p> <p>12. If testing of the nature and extent described above has not been undertaken to date, what is the period of time over which testing or calculations must be completed, in order to safely predict the effect this mine will have on safe drinking water, groundwater and slope stability?</p> <p>13. In the event that adjacent property owners experience a drop in their property values that are attributed to the mine operations, will there be any legal rights to compensation under the law of negligence: nuisance or such civil remedies for damage as may be available under the Mines Act?</p> <p>14. If so, what scheme of compensation do the proponent, the EAO and the CEA Agency understand to apply?</p> <p>15. Will be proponents be required to post a bond to compensate homeowners in the event they are able to prove a diminishment of property value?</p> <p>16. Will affected property owners have the right to seek injunctive relief against the mine in the event that the mine operations damage house foundations or other structural aspects of their homes?</p> <p>17. Will the proponent be required to do a baseline geotechnical assessment of the foundations of all the properties in the Regional Study Area as defined in Figure 10.3-1 Noise and Vibration Effects Study Area before any blasting is permitted?</p>	dAIR comment	General	Geology, Landforms, Soils Property Values	6.2 7.5	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.</p>	

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433	130	28-Feb-12	Rob Wycherley	Kamloops, BC	6.6 Groundwater Quantity 1.What will be the effect of groundwater runoff into the Ajax open pit on the quantity of water in the nearby Peterson Creek aquifer (Sugarloaf Sand Gravel Aquifer)? 2.What will be the subsidence effects on surface landforms over the Peterson Creek aquifer, if mine operations decrease the amount of water in this aquifer? 3.If mine operations result in a drawdown of the Peterson Creek aquifer, what will be the effects on licensed users of this aquifer? 4. Has the proponent determined whether the volume of water used (or its potential escape) has the potential to freeze inside of the natural fracturing and fault system and undermine the stability of the Aberdeen slope in that manner?	dAIR comment	General	Geology, Landforms, Soils Groundwater Quantity	6.2 6.6	Precipitation, seepage from pitwalls, and horizontal drains will introduce water into the pit. During operation a pit drainage and dewatering system will maintain pit wall stability; drain water and prevent water pressures from building up behind the pit walls; and remove surface water that is collected in sumps. At closure the pit will be allowed to fill with runoff from groundwater inflows and precipitation. The Application/EIS will include the project water balance model and water management plan, which will discuss any changes in groundwater discharge.	
458	132	28-Feb-12	Heather Mewhort	Kamloops, BC	3. Our home is our fortune. After raising four children and assisting them to attain university degrees, what we have left of value is our home in Aberdeen. a. Can you assure me that there will be no structural damage inflicted on our home as a result of the close proximity of	dAIR comment	blasting	Geology, Landforms, Soils Property Values	6.2 7.5	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
491	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	16. What drainage/sloughing measures have been studied to balance the height, width and composition of the waste rock area when it has been sprayed with water or the rains or snow melt cause runoff down slopes toward the public Goose Lake road and Peterson creek?	dAIR comment	waste rock management facilities	Geology, Landforms, Soils	6.2	Results of geotechnical studies have informed the feasibility design of all mine infrastructure, including waste rock dumps. These geotechnical studies will be reconfirmed for detail design to ensure that codes and standards are achievable for construction. The results from those studies will be included in the Application/EIS document. Detail design will be required for project construction, in accordance with a Mines Act Permit. The water quality assessment will include any mine contact water, including that from waste rock management facilities.	

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529	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>12. With respect to paragraph 6.4.2 regarding concerns about slope stability in the Aberdeen area, have there been seismic tests or other tests to determine the natural fracturing and faults in the Iron Mask Batholith?</p> <p>• 6.4.2 - proponent proposes to provide ... "a summary of the surface hydrology of the project area and is the source of the information." ... please confirm that the proponent is not required to simply provide a summary of surface hydrology</p> <p>14 section 3.1.3 - Sugarloaf and Sugarloaf hybrid phases of the Iron Mask Batholith. Have there been any studies conducted to determine whether blasting and mine operations will undermine the current structural integrity of the batholith or magnify the effect of the fractured sections of the batholith? if not, will this be done before any approvals are granted?</p> <p>16. is there potential for water that may escape from the mine may further de- stabilize the natural fracturing and phone systems within the batholith? 17. has the proponent determined whether the volume of water used (or its potential escape) has the potential to freeze inside of the natural fracturing and fault system and undermine the stability of the Aberdeen slope in that manner?</p> <p>18. What effect will the weight of overburden from the East and North tailings piles have on slope stability, either alone, or in conjunction with groundwater effects?</p> <p>19. Could these potential assessed be mitigated by moving the tailings piles self of the proposed pit, near the area currently earmarked for explosive storage? 20. If so, will the EAO and the CEA Agency require this modification to the proponent plan? 21. What is the source of any information relied upon by the EAO in assessing the accuracy and completeness of the proponent's proposal in this respect? 22. What has been concluded in this respect, and what are the qualifications of the individual on whom the EAO relies to ensure that property values are not affected in this way?</p> <p>23. Have any independent building studies been undertaken, determining whether the vibration from equipment and from blasting have the potential to cause homes in the Aberdeen and Pineview subdivisions, to settle, for foundations to crack or for improvements such as pools or landscaping, to fail? 24. If so, is there sufficient data on which to predict that this will not transpire?</p> <p>25. If so, please disclose publicly, any studies pertaining to groundwater, overburden and the potential for damage to improvements in these communities. 26. If not, why not? 27. If not, will the EAO give the citizens of Kamloops assurance that this testing will be completed, measured against the claims of the proponent and disclosed publicly before any approvals are granted to the proponent? 28. If testing of the nature and extent described above has not been undertaken to date, what is the period of time over which testing or calculations must be completed, in order to safely predict the effect this mine will have on safe drinking water, groundwater and slope stability?</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>These issues will be discussed in the Application/EIS. The proponent has utilized applied science to determine the effects of the blast tests, and will not be conducting full scale test blasting. The projected daily blasts are designed with 60 holes.</p> <p>The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modeling predict exceedances of guidelines or standards." The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. It is not feasible to conduct a "full size operational blast" prior to operation. Vibration characteristics can be accurately related to the charge weight and distance and can be used to model blast vibrations from a production blast at the same site. Modelling will to predict blasting PPV and air overpressure. Assessment will include clarification of how different types of subsurface materials will distribute vibration and the effects of this on different parts of the surrounding area.</p>	
557	150	7-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (68 of 69)[2012-03-14 4:29:55 PM]^</p> <p>I am concerned about the following as a result of actions and/or operations of business proposed by the Ajax Mine Project:</p> <p>1) potential for exacerbated ground water impacts on properties, basements and buildings in the Aberdeen subdivision; there are already significant ground water affects in the area and my concern is that blasting and other operations will exacerbate the potential hazards from ground water impacts particularly to the Aberdeen area of Kamloops. This is already a significantly sensitive area of Kamloops and therefore highly susceptible to such types of activities as proposed in the Ajax Mine Project.</p>	dAIR comment	blasting	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p>	
559	150	7-Mar-12	Personal Information Withheld	Kamloops, BC	<p>3) potential impacts on soil and water throughout the area including Kamloops; particularly the potential for soil erosion and destabilization of soil and ground water that could negatively impact property throughout the hills of Knutsford and Aberdeen areas of Kamloops as well as other areas that are historically sensitive to or potentially sensitive to soil and ground water disruption;</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p>	
604	162	9-Mar-12	Frank Dwyer	Kamloops, BC	<p>• What will be the effect of massive and deep fracturing of the underlying rock on the geological stability of the north facing Kamloops valley slopes and on the integrity of groundwater in the mine vicinity?</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p>	

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619	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	<p>8. What regulations regarding the distance of inset from the immediate edge of the Goose Lake Road is required for the continuous haul trucks dumping waste rock and consequently impacting the traffic due to the particulate/emissions/vibration? What studies have been done to indicate the degree of potential for road bank shifting/sliding during this working process?</p> <p>9. What tests have been done in the east waste rock area shadowing the Goose Lake Road to ascertain the ground stability when under compaction/pressure and vibration of waste rock and equipment over time and depth?</p> <p>10. How will the "Sugarloaf Sand Gravel Aquifer" be protected from adverse impacts resulting from drainage and the compaction of the East Waste rock 94m high "storage dump"? This aquifer extends east from the main mine site to the end of Goose Lake Road, the full extent of Peterson Creek. Will continued vibration and emissions over time impact the quality or quantity of this aquifer?</p>	dAIR comment	waste rock management facilities	Geology, Landforms, Soils	6.2	<p>The results of geotechnical investigations under the foundation of the proposed East Waste Rock Storage Facility will inform the detail design. The design will include slope angles that are stable under static and dynamic loading. The potential effects of the facility on the aquifer are being studied.</p> <p>The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards.</p>	
660	176	13-Mar-12	Personal Information Withheld	Knutsford, BC	<p>[^]http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (11 of 69)[2012-03-14 4:29:55 PM][^] Map 2.2-1 of the AIR document shows a recent addition of 4 stockpiles (an area East of the North WRF & North of the open pit) covering at least 500 acres (200 Ha) within Kamloops city limits & ever closer to Pineview Valley & Aberdeen residential areas (approx. 700 M. from the City's "Urban Growth Bdry") This would add another 85 million tonnes of rock deposited on the surface in closer proximity to Aberdeen & also partly within the same area originally planned for the location of the processing plant which was moved due to bedrock not being sufficient to support the machinery. (1)-Is the bedrock sufficient to support the weight of the stockpiles when it was not sufficient to support the processing plant? (2)-Has a further study been done on the bedrock depth to prove the ground will not collapse under the extra weight? (3)- Will this additional weight further aggravate the Aberdeen Groundwater seepage problem? (4)-Why was this new area not shown in the "Fact Book" enabling residents to see how much closer this proposed project would be to their homes?</p>	dAIR comment	stockpiles	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p>	
723	204	20-Mar-12	Personal Information Withheld	Kamloops, BC	<p>[^]http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (6 of 23) [2012-03-26 3:53:56 PM][^] The recently added ore stockpile storage area described in sections 3.8.2 & 3.9, P.26 of the AIR document is of considerable concern, being located even closer to Aberdeen & Pineview Valley residential areas, East of the north waste rock dump & North of the open mine pit. This area appears to be several hundred acres in size with 3 large rock piles between 200 & 250 feet high, as well as 2 smaller overburden stockpiles, & seemingly very close to the City's urban growth boundary & within a kilometer of Pacific Way school & many homes. It is noted this location is part of that which was the original location of the processing plant, since relocated because of unstable ground. The questions are: • Is bedrock sufficient to support the 87.5 million tonnes contained in these stockpiles? Will this further aggravate the Aberdeen water seepage problem? • What is the actual area covered by these stockpiles? • Do these stockpiles need to be located so close to the school & residential areas?</p>	dAIR comment	stockpiles	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. The area covered by the stockpiles will be included in the Application/EIS. Section 17.4 will discuss "Alternative means" of carrying out the proposed Project, defined as technically and economically feasible ways that the proposed Project could be implemented: stockpiles will be included in this assessment.</p>	
737	209	21-Mar-12	Lora S	Kamloops, BC	<p>7. What impact will the mine have on the Aberdeen Ground Water/Underground Spring Problem? The Golder & Associates 2006 stability review of the Aberdeen Groundwater states: "The groundwater model indicates the recent rise in groundwater pressure within the downslope development area largely results from the expanding area of new upslope development. While the upslope development contributes to increased groundwater pressure and therefore to reduce stability in downslope areas, the upslope development is located on more stable strata and is not susceptible to the same type of stability concerns." 8. What impact will the weight of the Waste Rock piles have on ground water and ground stability?</p>	dAIR comment	waste rock management facilities	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p>	

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791	225	23-Mar-12	Personal Information Withheld	Kamloops, BC	9. Would this additional 87.5 (or possibly more) million tonnes of material be taken into consideration in your Aberdeen groundwater seepage and soil stability study? 10. The stockpiles are located in part of the same area originally designated for the processing plant, which was subsequently moved due to insufficient bedrock to support the weight – is bedrock sufficient to support an additional 87.5 million tonnes of ore?	dAIR comment	stockpiles	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
813	237	25-Mar-12	Personal Information Withheld	Kamloops, BC	2. Air quality, and airborne contaminants deposited on homes, gardens and agricultural lands. My concern relates to the potential deposition of both dust and more importantly, heavy metal or other contaminants (Appendix 1) as winds from the south and southwest pick up particulates and deposit them downwind. The Regional Study Area identified in Figure 6.1-1 cannot be justified until a rigorous modeling of wind patterns and potential dust plumes is undertaken. Some of the particulates associated with the waste rock and blasting are very small and potentially have a very large fallout plume that is affected by windspeed and precipitation. The potential fallout plume needs to be defined based on wind speed (maximums and minimums, and average wind speed) and this information used to objectively delineate the RSA. Once an appropriate RSA based on the potential dust plume is defined, it is critical that both air and soil monitoring sites be established to provide rigorous baseline reference information. Unlike surface water quality, soil quality needs to be defined as a Valued Component as it is critical to agriculture and residential food production. The City of Kamloops has an active (and for that matter, proactive) Community Gardens program, highlighting the value of local produce. In summary, the proposed air (and soil) monitoring program needs to be objectively based on the potential dust plume area, and monitoring stations established to evaluate both air particulates (dust and dirt), air contaminants (potential heavy metals or other contaminants that have health effects beyond simple respiratory irritation), and soil contamination by heavy metals (see list in Appendix 1).	dAIR comment	General	Geology, Landforms, Soils Land and Resource Use	6.2 8.5	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. The number, placement, and specifications of the air quality monitoring program will be specified by the BC Ministry of Environment. They will be specified in the 'Monitoring and Reporting' clause of the Air Permit developed by the Moe in the concurrent permitting process. The human health effects assessment will be based on ambient air quality criteria developed by regulatory agencies such as BC MOE and Health Canada and will look at incremental contributions from the project to determine the significance of the project-related contribution to local ambient air quality. Soil has been identified as a Valued Component, as outlined in Section 6.2 of the AIR. Residential food production was noted as a concern; the proponent has been advised by HC to incorporate Country Foods as a VC in the assessment.	
835	250	26-Mar-12	Hugh Jordan	Kamloops, BC	3. Impact on land/soil/property value: what impact will such large excavation along with on-going blasting have on soil stability and water table of the region, residential property value and grassland?	dAIR comment	General	Geology, Landforms, Soils Grasslands Property Values	6.2 6.10 7.5	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. Potential impacts on property values will be assessed in the Application/EIS. Potential effects on grasslands will be assessed under the Rare and Sensitive Ecological Communities VC.	
868	252	26-Mar-12	Paula Pick	Knutsford, BC	6.2.4 and 6.5.2 • These sections may be inadequate. The whole Aberdeen sits on an unstable slope. The City informs me that the "infrastructure now owned and operated by the City (30 dewatering wells and 100+ piezometers)" is valued at having a "replacement cost of \$8 million". The City was not able to assess total value of the consulting work as it was not paid for by the City. Why is there no substantial mention of this issue and investment in the draft AIR? Did Abacus not know about the issue before its feasibility study?	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
870	252	26-Mar-12	Paula Pick	Knutsford, BC	• What effects will the weight of the waste, tailings and ore piles have on slope stability? What geotechnical studies have been done to determine the impact of the enormous weight on the groundwater above Aberdeen?	dAIR comment	waste rock management facilities TSF stockpiles	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	

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889	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (29 of 37) [2012-03-29 4:02:53 PM^</p> <p>I make the following requests regarding additions to the scope of what is to be included in the environmental assessment:</p> <ul style="list-style-type: none"> • Potential earth removal impacts. The mass of subsurface that is to be removed and relocated to earth dumps and piles on site will be substantial. Potential local earthquake proximate to the site caused from unloading one area and re loading another area need to be considered – and risks need to be assigned and evaluated. 	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
890	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	Other related factors include: the removal and relocation of groundwater; the effects on other adjacent earth stability issues such as the Aberdeen slide and groundwater and soil erosion issues that are already a concern within the Aberdeen area need to be assessed.	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
892	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	However the release of natural gases (into the local surface and groundwater) presently locked into the subsurface rocks by vibration and unloading and loading of the subsurface needs to also be assessed. In other jurisdictions, similar effects have been quite serious. Sensitive down gradient receptors that use the Thompson River make this quite important.	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
905	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>3.3 Site Geochemistry</p> <p>Considering the extremely close proximity of the proposed very large open-pit mine, and its related facilities, not only to the City of Kamloops but to other populated and agricultural areas and sensitive and/or recreational natural environments also, wherein in each or other live not just full-time residents and year round resident wildlife but also from time to time, including but not limited to, non-resident students (both domestic and foreign), visitors (recreational and business, both foreign and domestic), and migratory wildlife species (both domestic and foreign) –</p> <p>Will the Proponent(s) and the Governments, both of BC and Canada:</p> <p>1) Provide to the Public:</p> <p>i) a comprehensive, all-inclusive inventory of the elements, and the minerals which they comprise, as are contained within each of the following categories of raw mine rock and processed mine rock, per each category: a) ore; b) low-grade to be stockpiled; c) waste rock; d) concentrate (both shippable and/or to be reduced to metals on-site), and e) tailings; and, in the case of the waste rock provide also the lithologies, their proportions within the waste rock dumps, and the above requested information per each lithology comprising the waste rock dumps, potentially?</p> <p>ii) a comprehensive list of the concentrations of elements, and the minerals which they comprise, as contained within each of these categories of raw mine rock and processed mine rock, per each category: a) ore; b) low-grade to be stockpiled; c) waste rock; d) concentrate (both shippable and/or to be reduced to metals on-site), and e) tailings; and, in the case of the waste rock provide this information per each lithology comprising the waste rock dumps, potentially?</p> <p>iii) a comprehensive, all-inclusive review of the known toxicity information regarding each element and mineral species, per each element and mineral, contained within: a) ore; b) low-grade to be stockpiled; c) waste rock; d) concentrate (both shippable and/or to be reduced to metals on-site) and e) tailings; and, in the case of the waste rock provide this information per each lithology comprising the waste rock dumps, potentially?</p> <p>iv) access to the most up to date 3-D geological model (block model) and geological sections showing drill hole locations, directions and attitudes, and distribution of ore elements and elements of health/environmental concern?</p> <p>iv) further opportunities both to require specific follow-up analytical and/or toxicological studies, and to submit further concerns/enquires that may arise once the above-requested information is available?</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>The mineral composition of the ore and waste rock will be presented in the Application/EIS.</p> <p>The mineral composition of the ore and waste rock will be described in sufficient detail to inform the effects assessment. Details on the selection and rationale will be presented in the Application/EIS.</p>	
906	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>3.3 Site Geochemistry</p> <p>2) Allow access to statistically representative numbers of pulps, as residual from the Proponent(s)' commercial laboratory analytical work and metallurgical studies, per each of the above-listed categories, as applicable, for the purpose of independent analytical cross-checking of the Proponent's analytical results, with the selection of the required pulps to be re-analyzed, the methods by which they be re-analyzed, and the laboratories to be engaged to conduct these analytical cross-checks to be specified by researchers associated with KAPA and/or CAG?</p> <p>3) Provide industry-standard quality, environmental baseline data regarding the present concentrations of hexavalent Chromium [Cr (VI)] in the surface waters and ground waters, as resident and as migrating through the Project area, presently?</p> <p>4) Provide a) the chemical composition, and source, of any binding agent to be used in conjunction with tailings dry-stacking, b) the acid rock drainage / metal leaching (ARD/ML) characteristics of the tailings both with and without the use of the binder, and c) the expected pH's of both the interstitial solution within the tailings pile and as run-off from the tailings pile?</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>Results of baseline studies will be presented in the Application/EIS.</p> <p>The chemical composition and source of binding agents will be included/addressed in the Application.</p>	

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911	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	3.8 WASTE ROCK STORAGE AND ORE STOCKPILES 2. Have any geotechnical studies been done regarding the stability of the slope between the proposed East Waste Rock Facility and the community of Knutsford and Highway 5A and how this stability might be affected by this waste rock facility?	dAIR comment	waste rock management facilities	Geology, Landforms, Soils	6.2	The stability of the East Waste Rock Facility and the slopes below it to the west and southeast have been evaluated. The waste rock facility and the slopes are stable under static and dynamic loading in those directions. Although the stability of slopes to the east have not been specifically analyzed for stability there is a relatively wide (~200m) setback from the break in slope and instability in this area is considered highly unlikely. Feasibility level design information will be presented in the Application. Detail design will be required for project construction, in accordance with a Mines Act Permit.	
918	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	6.2 Geology, Landforms and Soils - 6.2.4 Potential Effects of the Proposed Project and Proposed Mitigation 13. Will the proponent be required to do a baseline geotechnical assessment of the foundations of all the properties in the Regional Study Area as defined in Figure 10.3-1 Noise and Vibration Effects Study Area before any blasting is permitted? 14. Has the slip surface for the slope west of the Knutsford Community Hall and Highway 5A been studied to determine if the increased vertical load pressure placed on this slope by the East Waste Rock Facility will trigger slope instability?	dAIR comment	General	Geology, Landforms, Soils Property Values	6.2 7.5	Baseline geotechnical assessments will be conducted within and surrounding the project footprint; it would not be feasible for these to be conducted throughout the regional study area. Feasibility level design information will be presented in the Application. The Application will include maps and figures outlining the study areas. Detail design will be required for project construction, in accordance with a Mines Act Permit.	
933	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	46. What impact will the blasting have on the proposed Coal Hill water reservoir?	dAIR comment	blasting	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. Assessment of the effects on existing structures will be done by comparing predicted levels of air overpressure and ground vibration to safe limits. Details of the proposed Coal Hill reservoir can be incorporated into the assessment, if available.	

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972	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (14 of 77)[2012-03-29 3:57:49 PM]^ Will a baseline be set for air quality (dust particulates), noise level at different regions (e.g.. Aberdeen, pineview valley, knotch hill), and house foundation settlement before the mine is constructed?	dAIR comment	General	Geology, Landforms, Soils Property Values Air Quality Noise and Vibration	6.2 7.5 10.1 10.4	The results of baseline studies for air quality and noise will be presented in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
974	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	Can the effects of thousands of tons of rocks and debris moved to new locations on creating pressure on ground water sources be predicted to be safe?	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
975	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	What are the effects of daily blasts for twenty years on nearby subdivisions for land settlement?	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
1009	269	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (5 of 77)[2012-03-29 3:57:49 PM]^ AIR-3.9-OVERBURDEN & TOPSOIL STOCKPILES: "A total of 7.5 million tonnes of inpit overburden will be stockpiled over the LOM to meet site reclamation requirements with any remaining topsoil stored within the WRF. A total of 4.5 Mt of OVB & topsoil will be stored in the north Overburden Stockpile close to the NWD & another 3 Mt will be stored in the East Overburden Stockpile close to the EWD. The overburden tonnages in the two stockpiles are considered sufficient to cover the reclamation requirements for the NWD & EWD. --To what depth would 3 million tonnes of topsoil & overburden cover the 650 acre (260 ha) area of the East WRF? --To what depth would 4.5 million tonnes of topsoil & overburden cover the 1000 acre (403 ha) area of the North WRF? --What is the actual depth of topsoil/overburden that is "considered sufficient" to cover the waste rock facilities? --What are the qualifications of the person who has "considered" this to be "sufficient"? --Have climate & weather conditions peculiar to the area been considered when determining the depth of soil required for the best possible restoration? --How would erosion of the topsoil from wind & water be prevented before any seeding becomes established? --What would be done to prevent the establishment of noxious weeds before any seeding becomes established? --Who would oversee this reclamation & for how many years would it be monitored? --What species of seed would be used for this reclamation? --Would there be any plan to establish a nursery for growing "plugs" for the reclamation of the waste rock facilities? --Highland Valley Copper Mine makes the following statement re their reclamation procedure: "Because the waste rock is generally coarse & lacking fine materials suitable to support sustainable vegetation, a layer of capping material is applied to the site. The capping layer is between 0.5 and 1.0 metre thick & is composed of either friable waste rock from the pit or overburden removed to develop the pit. Each area is then seeded & planted with appropriate species, & aerially fertilized annually for 3 to 4 years until the plants are established." -- Would the proponent use similar guidelines for reclamation at the proposed Ajax project?	dAIR comment	reclamation	Geology, Landforms, Soils	6.2	This information will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	
1014	270	27-Mar-12	Personal Information Withheld	Kamloops, BC	Some of metals tend to be less mobile in water which may concentrate in the topsoil. Have the mine proponent conducted a survey and geochemical testing of soils in the area? Were the soil samples analyzed by a qualified lab for metals including arsenic (As), copper (Cu), and chromium (Cr)? Was the soil texture determined? What are the conclusions of statistical evaluation? It is assumed that metal concentrations in all survey samples are within acceptable threshold limits as per the BC Contaminated Sites Regulation (CSR) and with a 95% certainty? Is there a monitoring plan to assess soil quality? Some soil contamination may occur due to wind blowing of settling pond sediments when exposed to drying or mined waste rock stockpiles, which likely will transport clay-size and silt-size particles in the direction of blowing wind. Will the soil monitoring programme be coordinated in accordance with the climatic data monitoring conclusions and recommendations?	dAIR comment	General	Geology, Landforms, Soils	6.2	Baseline groundwater sampling has been conducted in wells situated around the project site. Results will be presented in the Application/EIS. Soil has been identified as a VC. Monitoring and management plans during project operation, closure and post-closure are outlined in the AIR in Section 11. The need for any additional monitoring programs are described in Section 17.2.	

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1032	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	18. Will there be more extensive blasting tests conducted using full blast magnitudes and with measurements taken at appropriate locations, using sound level meters and PPV?	dAIR comment	blasting	Geology, Landforms, Soils Visual Impact/Aesthetic Features Air Quality Noise and Vibration	6.2 8.4 10.1 10.4 11.2	The proponent has utilized applied science to determine the effects of the blast tests, and will not be conducting full scale test blasting. It is not feasible to conduct a "full size operational blast" prior to operation. Modelling is sufficient to predict blasting PPV and air overpressure. Vibration characteristics can be accurately related to the charge weight and distance - such a relationship is site specific and can be used to model blast vibrations from a production blast at the same site. From the recorded waveforms, the ground resonant frequency and the range of vibration frequencies that the ground supports can be estimated. The Application will provide a detailed explanation as to why a test blast is adequate to assess vibration effects. The discussion will contain the following information: - amount of blasting material used during the test blasts as compared to a full size operation blast - predicted vibration levels in the Aberdeen and Pineview Valley subdivisions - predicted noise levels in the Aberdeen and Pineview Valley subdivisions - predicted impacts on ground water tables and underground springs in the Aberdeen and Pineview Valley subdivisions; Kinder Morgan Pipeline, Jacko Lake and berm (Geology, Landforms and Soils VC) - visual impact of daily blasting in the Aberdeen and Pineview Valley subdivisions and the rest of the City of Kamloops (Visual Impact VC) - risk of oil spill into Jacko Lake and Peterson Creek (Accidents and Malfunctions) - dust dispersion (Air quality VC)	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
1036	272	27-Mar-12	Personal Information Withheld	Kamloops, BC	Section 16.9.1 of the Ajax Feasibility Study Technical Report states: "To prevent water pressure from building up immediately behind pit walls, 140 mm diameter horizontal drain holes will be installed every 100 m, on every second double bench stack. These holes will be an average of 150 m long. The holes will be drilled into the bench at an upward inclined angle to promote drainage. Over the life of the project approximately 1,083 drain holes and 162,450 m of drilling will be required" Also: "Predicted groundwater inflow to the open pit will contribute an average of 6 L/s over the life-of-mine..." 1. What measures prevent damage to the aquifer and associated domestic wells in the area? 2. According to the MOE well database, domestic wells exist within the aquifer area that are listed as capable of producing 100gpm (0.75 litres/sec). In comparison, the assumption of 6 L/s entering the pit would appear extremely conservative. Please explain this assumption. 3. If the pit requires extensive dewatering, how and where will the water be managed? Further, the Feasibility Study Technical Report, section 16.3, Pit Design, states: "The highest crest elevation of the ultimate pit is 988 m and the pit bottom elevation is 412 m" This is a depth of 576 m. Also in 20.5.3: "Once mining has ceased, site drainage will be altered to allow mine impacted run-off to be routed into the open pit. Post closure water quality in the open pit will be modelled based to approximate pit lake water quality and to determine any water treatment requirements prior to releasing any overflow to the receiving environment." 4. Presuming that the bottom of the pit is below the level of the aquifer (which would appear to be the case from area well lithologies), then what measures will prevent contamination from the pit flowing into the aquifer and influencing the water quality of the aquifer and wells when the pit is decommissioned and filled with water? 5. What level of monitoring will be in place to ensure that water quality meets the Guidelines for Canadian Drinking Water Quality? How and by whom will landowners with affected wells be compensated for damage that may occur? 6. What is meant by the statement "modelled based to approximate pit lake water quality"? According to the mapping provided all the waste rock facilities and ore stockpiles ... continued ... will be located to the north of the pit, on top of the aquifer. 7. Will the considerable weight of the waste rock cause the bedrock to collapse into the aquifer, therefore reducing flows in the direction of the pit? 8. Is this an intentional result of placing large volumes of waste rock over the aquifer, perhaps confining it and reducing mine dewatering requirements? 9. Would a potential collapse of the bedrock put additional pressure on the ancient and, more recent, 1997 slide areas north of the Ajax operation? What is the potential effect on downslope Aberdeen soils as a result of increasing the upslope pressure?	dAIR comment	Ajax open pit	Geology, Landforms, Soils Groundwater Quantity	6.2 6.6	A pit filling study is being undertaken and results will be included in the application. Any potential effects on the hydrogeologic system will be evaluated, and where necessary, appropriate mitigation will be proposed. Project effects on the aquifer will be addressed in the Application/EIS. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
1038	272	27-Mar-12	Personal Information Withheld	Kamloops, BC	From Aberdeen Groundwater Area Information Summary, City of Kamloops, available from the City of Kamloops Website: "the number of pumped wells used for stability treatment in Aberdeen has increased over time to 30, currently with 14 located in the Van Horne Slide area. The other wells are installed and operating at selected locations in Aberdeen within Area B with most of them completed in or around Area A. In addition to the dewatering wells, as of 2006 there are about 88 piezometers distributed through the Aberdeen Area, with about 25 additional piezometers in Van Horne. 13. What will be the cumulative effect on the area known as "the 1995 Van Horne Slide" due to mine activities? 14. Who will bear the cost of additional monitoring and potential remediation both short and long term? 15. Will Aberdeen area, and in particular Van Horne residents be compensated by the proponents for potential declines in real estate values?	dAIR comment	General	Geology, Landforms, Soils	6.2	13. The proponent is in the process of information sharing with the City of Kamloops to gain access to their data files regarding slope stability issues in the Aberdeen area. Potential effects from the project will be assessed. 14. Any additional measures required will be discussed with the city of Kamloops. 15. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1043	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	1. How is it possible to have a mine that will be so deep it will reach the depths of our hospital downtown when the residents of Aberdeen are not allowed to put in pools because the ground is too unstable?	Project comment	General	Geology, Landforms, Soils	6.2	Please see the AIR for a description of the background information and effects assessment related to landforms and geohazards.	

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1044	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	2. What impact will the mine have on the Aberdeen Ground Water/Underground Spring Problem?	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
1045	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	3. What impact will the weight of the Waste Rock piles have on ground water and ground stability?	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
1074	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (63 of 77) [2012-03-29 3:57:49 PM]^ Further to our letter of January 3, 2012, it was suggested that the base lines identified by our group needed to be expanded and the type of information in these base line studies should be identified. We have expanded on each area identified as a concern for our members, and enclose information and questions for your action. 1 & 2. Ground Water Potability and Surface Water a. An inventory of all wells, for both domestic and stock use, need to be done and not relying on the government data base for this information. These wells need baseline information on rate of flow and water quality before any activities with the open pit blasting occurs. This area is determined by the vibration study map of the proposed mine document Figure 10.3-1 (RSA). If there are any changes caused by the mine, who will address the problems and what avenue will the residents have to be compensated?</p>	dAIR comment	General	Geology, Landforms, Soils Groundwater Quantity Property Values Land and Resource Use	6.2 6.6 7.5 8.5	The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project. The water quality model used will be calibrated with baseline sampling from dedicated wells established in and around the proposed project area. Monitoring of these wells will continue during project operation and post-closure, in accordance with any operational permit conditions.	
1091	279	27-Mar-12	Personal Information Withheld	Knutsford, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (62 of 77) [2012-03-29 3:57:49 PM]^ EAST WASTE ROCK DUMP: -- What testing has been done to determine the depth of bedrock for ground stability of this area that is proposed to carry a load 420 Million tonnes (or more) of waste rock ? -- My understanding is that there is at least a 200 foot deep bed of gravel & clay above the bedrock -- Would this type of ground support the massive amount of rock estimated to be piled there? -- Will the stability of the area be monitored on a regular basis over the entire life of the project? If so, who will be responsible? If not, why not? Will the proponent give a written guarantee that if any damage should occur from ground slippage, sinking, water seepage, falling rock, landslide, etc. that immediate homeowners or travellers along Goose Lake road will be compensated for such damage?</p>	dAIR comment	waste rock management facilities	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	

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1116	282	27-Mar-12	Muriel Miller	Aberdeen, BC	3) The instability of the land in Aberdeen and the issues with ground water, how will this be affected?	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
1160	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>7.8 Infrastructure</p> <p>7.8.1; 2nd bullet; will property owners and residents be included as "stakeholders"? If not why not? will these inclusions be required in the AIR?</p> <p>7.8.2 Background</p> <p>a. it is stated "improvements in housing, health and wellbeing to project workers and their families". This is qualified as being "generally". Are there "generally" any people living within 3km of "similar" projects? If so, how many?</p> <p>b. where in Canada would there be a proposal for a mine of this size partially within the city boundaries of a city of 86000 people?</p> <p>c. have any baseline studies been done to assess the housing, health and wellbeing of the current residents who live within 3km of the proposed project? When and by whom? Have the studies been published and available to the public?</p> <p>d. if these studies are going to be done on the construction and operation-related workers and their families, will the AIR require that they be done on the people already living within 3km of the proposed mine?</p> <p>7.8.4 Potential Effects, Potential Mitigation</p> <p>a. what baseline studies have been done in identifying and analyzing the potential adverse effects resulting from the proposed project with regard to the unique underground hydrogeology of the Aberdeen area?</p> <p>b. what baseline studies have been done to identify the structural integrity of existing homes and structures in the Aberdeen area? Will these studies be required in the AIR? Will these studies be published and available to the public?</p> <p>c. has study been given to anticipate the possible adverse effects of blasting, re-routing of roads and waterways, resulting in changed water pressure to the existing underground and groundwater problems and ongoing remediation of these in the Aberdeen area? Will such studies be required in the AIR? Some of the possible, and even probably, adverse effects could include land slippage, causing slippage of structures; structure foundations, road, sidewalk and patio cracking; cracking walls in homes; gas line and gas pipeline disturbances, communication and cable line disruption, and water and sewer pipe breakage on both private and city-owned properties.</p> <p>d. what mitigation of the costs of repair/replacement of such damage is planned by KAM? Will the AIR require such mitigation and if so to what degree of mitigation – 100%?</p> <p>e. how much in a financial bond does KAM propose to post to cover the cost of such repair/replacement to current standards, in compliance with all building codes? Will such a bond be a requirement of the AIR?</p>	dAIR comment	General	Geology, Landforms, Soils Surface Water Quantity Groundwater Quantity Property Values Infrastructure, Public Facilities and Services	6.2 6.4 6.6 7.5 8.2	<p>The Application/EIS will describe the methodology used to identify stakeholders, results of the studies and the study area. The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. Hydrogeological baseline study methodology, assumptions and results will be presented in the Application/EIS. The structural integrity of existing homes and structures in the Aberdeen area will not be quantified in the Application/EIS. Possible adverse effects of blasting, re-routing of roads and waterway will be discussed as they relate to Geology, Landforms and Soils.</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	
1168	294	27-Mar-12	Personal Information Withheld		<p>There will be huge amounts of water pumped up from Kamloops Lake – many hundreds of millions of gallons a year. Water will be used to dampen dust (when it is not too cold).</p> <p>1) What will be the effect of the weight of the water and the seepage into the surrounding areas on the unstable soil in Aberdeen, and on the aquifer that is Peterson Creek? What monitoring has the mind done on the soil stability in the area of the proposed mine? In how many areas of the mine has it been studied, and over how many years? If these studies have not been done, why not and when will they be done?</p> <p>5) When the trees and forests in place above Aberdeen and Pineview Valley are removed and or die from alteration of water courses or poisoning of their roots from the altered fog being absorbed by the root and leaf systems, what will be the effect on soil erosion, surface and subsurface run off, in an already unstable area?</p>	dAIR comment	General	Geology, Landforms, Soils	6.2	<p>The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.</p> <p>Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.</p>	
1196	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	<p>Geology</p> <p>1. What studies have been done to address the effects of the weight of the waste rock piles?</p> <p>2. Aberdeen has easements on residential properties that they can't move soil unless given permission by the city due to the instability of the soil so how is this addressed in the application?</p> <p>3. How has this been studied to see the effect of these piles on the aqueducts?</p> <p>4. Will the waste rock piles material leak into the aqueducts and if so how is this going to be prevented?</p> <p>5. If the aqueducts will be altered by the waste rock piles how has this been tested and what are those results?</p> <p>6. If the mine is prolonged how high is the waste rock allowed to go to for a height, is there a cap?</p> <p>7. If there isn't a cap height why not?</p> <p>8. Will there be wells with piezometers registering the round movement and if so how many and in what locations?</p> <p>9. If not why not?</p>	dAIR comment	waste rock management facilities	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	

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1197	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	10. What part of the application details the financial responsibility of the mine if the ground becomes further unstable do to the rock piles? 11. What is the responsibility of the government both federal and provincial if the rock has created instability to residential area?	EAO/CEA Agency Process Comment	waste rock management facilities	Geology, Landforms, Soils	6.2	Please see the AIR for a description of the background information and effects assessment related to landforms and geohazards.	
1213	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	Can the effects of thousands of tons of rocks and debris moved to new locations on creating pressure on ground water sources be predicted to be safe?	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
1244	309	4-Apr-12	Christine Casorso	Kamloops, BC	How will the blasting effect the structure of my child's school and my home? How can you judge the long term effects of blasting? Who monitors this and what recourse do we have if the structure of my child's school or our house changes. I can tell you our house has shifted due to the housing construction behind us, we can no longer close certain doors. What would significant and continuous blasting do. How will this effect the ground water in Aberdeen which is already precarious at best. Will there be increased flooding to our houses?	dAIR comment	blasting	Geology, Landforms, Soils Property Values Infrastructure, Public Facilities and Services	6.2 7.5 8.2	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations.	
1299	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	2. In relation to slope stability in lower Aberdeen, we realized that there was no mention of investigating the downslope pressures from redistributing massive amounts of heavy material to other locations, coupled with the additional weight at mine closure with the filling of the pit with water. The amount of weight will be massive and given this weight is above areas where slope instability is suggested, we feel this question should be added as an assessment item.	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project.	
1380	330	4-Apr-12	Personal Information withheld		disturbing underground water, my parents live in Aberdeen and have experienced the underground water problems, this could restart that scenario	dAIR comment	General	Geology, Landforms, Soils	6.2	The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	

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1387	332	4-Apr-12	Personal Information withheld		<p>2. Water issues:</p> <ul style="list-style-type: none"> • impact to water quality and drainage related to the polluted groundwater flow through from the tailings • impact on water sources as well as any changes to groundwater flow which can destabilize land and housing developments. • a recognition that the Aberdeen area is known to be a vulnerable area due to the underground springs; disruption to the existing stability can compromise this area. 	dAIR comment	General	Geology, Landforms, Soils Groundwater Quality	6.2 6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	
1400	336	4-Apr-12	Personal Information Withheld		6.What is the thickness of the topsoil to be placed over the mine's waste piles when the mine closes?	dAIR comment	General	Geology, Landforms, Soils	6.2	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	
1418	337	4-Apr-12	Personal Information Withheld		Some of metals tend to be less mobile in water which may concentrate in the topsoil. Have the mine proponent conducted a survey and geochemical testing of soils in the area? Were the soil samples analyzed by a qualified lab for metals including arsenic (As), copper (Cu), and chromium (Cr)? Was the soil texture determined? What are the conclusions of statistical evaluation? It is assumed that metal concentrations in all survey samples are within acceptable threshold limits as per the BC Contaminated Sites Regulation (CSR) and with a 95% certainty? Is there a monitoring plan to assess soil quality?	dAIR comment	General	Geology, Landforms, Soils	6.2	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. Effects of the project on soils will also be assessed as part of the HHERA.	
1419	337	4-Apr-12	Personal Information Withheld		Some soil contamination may occur due to wind blowing of settling pond sediments when exposed to drying or mined waste rock stockpiles, which likely will transport clay-size and silt-size particles in the direction of blowing wind. Will the soil monitoring programme be coordinated in accordance with the climatic data monitoring conclusions and recommendations?	dAIR comment	General	Geology, Landforms, Soils	6.2	Soil has been identified as a VC and will be assessed in the Application/EIS. Effects of the project on soils will also be assessed as part of the HHERA.	

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1427	338	4-Apr-12	Personal Information Withheld	Kamloops	Ground destabilization due to vibration: • There are known ground water concerns for houses in Aberdeen. If current dewatering stations go down, there could be foundation issues in many houses. How will the blasting and other mining operations affect ground stabilization? If my foundation gets cracked, will I be compensated? Since there are existing issues already, how will we prove it was from the mine?	dAIR comment	General	Geology, Landforms, Soils Property Values	6.2 7.5	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations. Depending on the outcome of these studies KGHM Ajax will develop an appropriate response that may include an offer of pre-development Property Condition Assessments for structures in any identified areas of concern and/or continuous vibration monitoring.	
1447	339	4-Apr-12	Personal Information Withheld		Sec. 7.8.4. Potential Effects, Proposed Mitigation a) What baseline studies have been done in identifying and analyzing the potential adverse effects resulting from the proposed project with regard to the unique underground hydrogeology of the Aberdeen area? (by "hydrogeology", I am referring to the underground water streams and pumps and monitoring piezometers already in existence in the area) b) What baseline studies have been done to identify the structural integrity of existing homes and structures in the Aberdeen area? Will these studies be required in the AIR? IR. If so, will these studies be published and available to the public? c) Has study been given to anticipate the possible adverse effects of blasting, re-routing of roads and waterways, resulting in changed water pressure to the existing underground and groundwater problems and on-going remediation of these in the Aberdeen area? Will such studies be required in the AIR? Some of the possible, and even probable, adverse effects could include land slippage, causing slippage of structures; structure foundations, road, sidewalk and patio cracking; cracking walls in homes; gas line and gas pipeline disturbances, communication and cable line disruption, and water and sewer pipe breakage on both private and city-owned properties. d) What mitigation of the costs of repair/replacement of such damage is planned by KAM? Will the AIR require such mitigation, and if so, to what degree of mitigation – 100%? e) How much in a financial bond does KAM propose to post to cover the cost of such repair/replacement to current standards, in compliance with all building codes? Will such a bond be a requirement of the AIR ?	dAIR comment	General	Geology, Landforms, Soils Surface Water Quantity Groundwater Quantity Infrastructure, Public Facilities and Services	6.2 6.4 6.6 8.2	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards. The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1461	342	4-Apr-12	Personal Information Withheld		I am concerned about the geological destabilization that may occur due to the mine-related blasting and vibration. There are areas in the city (like Aberdeen) that are already unstable due to geologic deposits and hydrologic flow pressures. Further destabilization of the ground would wreck havoc with house foundations and civic infrastructure.	dAIR comment	General	Geology, Landforms, Soils Property Values	6.2 7.5	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	

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1467	344	23-Mar-12	John Schleiermacher	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (25 of 61)[2012-03-29 4:08:06 PM]^</p> <ul style="list-style-type: none"> • How much blasting material was used during the test blasts as compared to a full size operation blast? • Why was the public not consulted prior to the test blast so they could make their own assessment of the impact? • Why was the test blast conducted in the dead of winter when incidental public viewing is unlikely? • Why was the test blast conducted on a weekday when incidental public viewing is unlikely? • What was the test blast not of full operation size? • Was the small test blast inadequate to fully measure the levels of vibration in the Aberdeen and Pineview Valley subdivisions? • Was the small test blast inadequate to fully measure the levels of noise in the Aberdeen and Pineview Valley subdivisions? • Was the small test blast inadequate to fully measure the impact on the ground water tables and underground springs in the Aberdeen and Pineview Valley subdivisions? • Was the small test blast inadequate to fully measure the visual impact of daily blasting in the Aberdeen and Pineview Valley subdivisions? • Was the small test blast inadequate to fully measure the impact on the Kinder Morgan Pipeline? • Why was the small test blast not conducted within the closest future operational blast distance from the Kinder Morgan to reflect impact during operation blasts and risk of oil spill into Jacko Lake and Peterson Creek? • Why was the test blast not conducted within the closest point of future blasts from Jacko Lake to adequately measure potential damage to the protective berm and subsequent drainage of Jacko Lake and damage to the Peterson Creek watershed? • Was the test blast adequate to measure the amount of dust and dispersion of dust during operational blasts? • Is the Proponent prepared to conduct full size operation blasts? • Will the full size test blasts be conducted during the different seasons and weather conditions so dust, noise, vibrations and visual effects can be adequately studied under varying conditions? • Will the public be allowed to participate, with proper safety measures in place, in the viewing of the test blasts to make their own personal assessments of the long-term impacts of dust, vibration, noise and visual effects on the city of Kamloops? 	dAIR comment	blasting	Geology, Landforms, Soils, Visual Impact/Aesthetic Features, Air Quality, Noise and Vibration	6.2 8.4 10.1 10.4 11.2	<p>These issues will be discussed in the Application/EIS. The proponent has utilized applied science to determine the effects of the blast tests, and will not be conducting full scale test blasting. The projected daily blasts are designed with 60 holes.</p> <p>It is not feasible to conduct a "full size operational blast" prior to operation. Vibration characteristics can be accurately related to the charge weight and distance and can be used to model blast vibrations from a production blast at the same site. Modelling will predict blasting PPV and air overpressure. The Application will provide a detailed explanation as to why a test blast is adequate to assess vibration effects. The discussion will contain the following information: - amount of blasting material used during the test blasts as compared to a full size operation blast - predicted vibration levels in the Aberdeen and Pineview Valley subdivisions - predicted noise levels in the Aberdeen and Pineview Valley subdivisions - predicted impacts on ground water tables and underground springs in the Aberdeen and Pineview Valley subdivisions; Kinder Morgan Pipeline; Jacko Lake and berm (Geology, Landforms and Soils VC) - visual impact of daily blasting in the Aberdeen and Pineview Valley subdivisions and the rest of the City of Kamloops (Visual Impact VC) - risk of oil spill into Jacko Lake and Peterson Creek (Accidents and Malfunctions) - dust dispersion (Air quality VC)</p>	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
109	46	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Environmental issues - Impact on available clean water.	dAIR comment	General	Surface Water Quality	6.3	<p>The potential effects of construction, operation and closure on water quality will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.</p> <p>A mass balance numerical model will be used for predicting any changes in water chemistry resulting from the activities and infrastructure associated with the proposed project. A numerical (mathematical) model uses a series of equations to relate input parameters and variables to quantified outputs. As noted in the AIR/EIS Guidelines, the Application/EIS will include a discussion of the assumptions that underlie any model used, the quality of the data, and the degree of certainty of the modelled results. The Application will substantiate all conclusions and discuss the assumptions that underlie any model used, the quality of the data, and the degree of certainty of the modelled results, as stated in the AIR. All modeling input and output files will be provided, including all electronic files used to develop, calibrate and apply numerical model(s), as well as relevant base map files and calibration data sets.</p>	
125	56	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Are things like noise levels, air and water quality levels going to be brought in line to the levels that folks in the Aberdeen are now enjoy or will some other perhaps less rigorous but technically "safe" measurements be used - If the latter, how fair is that to the folks who own homes in the affected area? What will the mining company do to compensate these folks for their loss of air quality, sound quality, etc. (Not to mention property value.)	dAIR comment	General	Surface Water Quality, Groundwater Quality, Air Quality, Noise and Vibration	6.3 6.5 10.1 10.4	<p>The potential effects of construction, operation and closure on water quality will be predicted using a numerical mass balance model. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Noise, air and water quality studies will evaluate potential effects on the community; results will be compared to provincial and federal guidelines and standards.</p> <p>Potential effects on property value will be assessed under social and economic VCs.</p>	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2

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159	67	8-Feb-12	Personal Information Withheld	Kamloops, BC	Impact to water, run off, etc. especially Peterson Creek and Jacko Lake	dAIR comment	General	Surface Water Quality	6.3	The potential effects of construction, operation and closure on water quality will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Please see the AIR for the list of VCs proposed for assessment in the Application, which include fish and fish habitat.	
172	71	9-Feb-12	David and Alison McKinnon	Kamloops, BC	I have several concerns; 1) The difference in heights of land at the watershed between the Cherry Creek drainage and the Peterson Creek drainage is not that substantial at the proposed site of the tailings pond. Failure of the berm or containment on this could affect the waters in Peterson Creek and thus the central part of the City of Kamloops. It would also affect the aesthetics of the Peterson Creek trails and the water quality in the S. Thompson River, a salmon river.	dAIR comment	TSF	Surface Water Quality Groundwater Quality	6.3 6.5	Containment dams will be built in accordance with provincial dam safety guidelines. As stated in the AIR, the Application will identify mitigation strategies and treatment processes required to maintain water quality and discuss the effectiveness of proposed mitigation measures. Contingency measures will be included.	
200	77	10-Feb-12	Personal Information Withheld	Kamloops, BC	If the pit water is toxic will the people be responsible for cleanup costs What will be done with the pit	dAIR comment	Ajax open pit	Surface Water Quality	6.3	The potential effects of construction, operation and closure on water quality will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. A conceptual closure and reclamation plan will be presented in the Application/EIS and will include options for the pit.	

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211	79	10-Feb-12	Personal Information Withheld		(8) Peterson Creek water quality and flow	dAIR comment	General	Surface Water Quality Surface Water Quantity	6.3 6.4	The potential effects of construction, operation and closure on water quality will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. The Application will describe expected changes to surface hydrology resulting from infrastructure development, as noted in the AIR.	
244	85	10-Feb-12	Personal Information Withheld		What will the proponent do to monitor the composition of the (Peterson Creek) water before it goes into the mine, and subsequently when it emerges to assay the toxic minerals which may be present in the water, and then transmitted to the Thompson River and affect the salmon	dAIR comment	General	Surface Water Quality	6.3	An Environmental Management Act permit will be required to operate the mine, and will determine the criteria for any water discharged from the mine. Monitoring requirements will also be specified in the permit. The goal of the project is to have zero surface water discharge to the environment during operation. Water management mechanisms and procedures will be described in detail in the Application/EIS. Water management mechanisms will include ditches for collection of seepage and runoff for contact water. All water collected, recycled, or used on the project will require containment or storage in existing ponds or in man-made structures. Baseline studies of the quality of Peterson Creek be performed as part of the assessment. The Application will address Peterson Creek values (water quality and quantity), fish, and wildlife.	
251	86	10-Feb-12	Personal Information Withheld		5. Arsenic in water sources from past mining 6. Fish bearing status of Inks Lake – people fish there 7. Jacko Lake water draining into the pit	dAIR comment	blasting	Surface Water Quality Fish Populations and Fish Habitat	6.3 6.7	The potential effects of construction, operation and closure on water quality and quantity will be predicted using numerical mass balance models. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. The fish bearing status of Inks Lake will be assessed and results will be presented in the Application/EIS. Results of hydrogeological studies, including hydraulic connectivity between the pit and Jacko Lake, will also be presented in the Application.	

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274	88	10-Feb-12	Personal Information Withheld		8. Acid mine drainage into water sources or Thompson River	dAIR comment	General	Surface Water Quality	6.3	The Application will integrate results of the Metal Leaching / Acid Rock Drainage prediction work, baseline surface water quality, hydrology, hydrogeology, and water balance information to develop water quality predictions in the receiving environment.	
286	90	11-Feb-12	Larry Edwards	Kamloops, BC	Secondly, a guarantee that there won't be any leeching of contaminants into Jocko Lake.	dAIR comment	General	Surface Water Quality	6.3	The potential effects of construction, operation and closure on water quality and quantity will be predicted using numerical mass balance models. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
291	94	12-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(20 of 77) [2012-02-24 3:07:19 PM]^</p> <p>Main concerns: Water- details of getting water from Kamloops Lake. Long term chemicals in Inks Lake, seepage. Mine compliance with water preservation bylaws. Reduction in water table and effect on stability. Prevention of birds landing on Inks Lake. Diverting Creek- what will happen to the wildlife in the creek area where the water is diverted from? how long will it take for the Peterson Creek to recover from the diversion? what impact will the new flow have on the existing water path below?</p>	dAIR comment	General	Surface Water Quality Surface Water Quantity	6.3 6.4	<p>Details on site wide water management will be presented in the Application/EIS. The potential effects of construction, operation and closure on water quality and quantity will be predicted using numerical mass balance models. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Details on the Peterson Creek diversion will be presented in the Application/EIS.</p> <p>Inks Lake will be included in the assessment of project effects on birds. The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area and effects on downstream flows.</p>	
325	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	If the water becomes toxic like many other open pits, like the open pit in Butte Montana for instance are we the people left holding the costs for the cleanup effort?	dAIR comment	Ajax open pit	Surface Water Quality	6.3	The proponent will develop a conceptual Closure and Reclamation Plan that will include estimates of long term maintenance and monitoring costs, and will comply with the Mines Act Permit requirements for reclamation bonding.	

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331	102	13-Feb-12	C.B. Villeneuve	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(3 of 77) [2012-02-24 3:07:19 PM] 'Another concern is the waste water. Where will it go? How many thousands of cubic liters will be pumped from Kamloops Lake to replace the water that can not be recycled anymore? Inks Lake has a limited capacity, how long will it take until it has reached its limits? Some of the solids will settle, some of the water will evaporate, but there will be a hell of a lot of polluted water seeping into the ground, and going... where? De-stabilizing the ground and joining that already seeping into upper Aberdeen? I attended the Open house at the Town Lodge; I thought I could get answers there, but those people at the displays did not have them, or did not want to give them.</p>	dAIR comment	General	Surface Water Quality Surface Water Quantity	6.3 6.4	<p>Details on site wide water management will be presented in the Application/EIS. The potential effects of construction, operation and closure on surface water quantity and quality will be assessed using a watershed and water balance model. Results will be presented in the Application/EIS.</p> <p>The goal of the project is to have zero surface water discharge to the environment during operation. Water management mechanisms and procedures will be described in detail in the Application/EIS. Water management mechanisms will include ditches for collection of seepage and runoff for contact water. All water collected, recycled, or used on the project will require containment or storage in existing ponds or in man-made structures.</p>	
425	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>8. How will KGHM prevent water contaminated with toxic elements from leaking into Peterson Creek, a source of water for Knutsford residents? Both Peterson Creek and Cherry Creek could drain such toxic contaminants into the Thompson River, a source of fish and drinking water for downstream residents.</p>	dAIR comment	General	Surface Water Quality	6.3	<p>The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.</p>	
527	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>3. Are there any independent studies being relied upon by the EAO to determine the potential for leaching mining chemicals or trace elements into the drinking water table used by ranchers in the area for their own use and for livestock, and for the drinking wells in and around the Knutsford area? 4. In respect of my previous question, and referring to Appendix 1 of the draft AIR document, what are the potential measures for leaching of alkalines, ammonia, nitrate, phosphate, cyanide, arsenic, chromium, lead, mercury or uranium? 5. Appendix 1 of the AIR document shows what are described as water quality analysis parameters. What does this term mean? 6. Specifically, does Appendix 1 show the current standards of heavy metals measured in the groundwater, or does it show the maximum allowable standards which are allowed? 7. What is the source of this information? 8. What is the area over which any tests have been conducted?</p>	dAIR comment	General	Surface Water Quality Groundwater Quality Domestic Water Quality	6.3 6.5 10.2	<p>3.This information will be provided in the Application/EIS. 4. This information will be provided in the Application/EIS. 5. Appendix 1 lists the water quality parameters that will be analyzed. 6. The values in Appendix 1 are the method detection limits (MDL). 7. MDL are provided by the analysing laboratory. 8. This information will be provided in the Application/EIS.</p> <p>Please see column "dAIR Rev E Section#."</p>	

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558	150	7-Mar-12	Personal Information Withheld	Kamloops, BC	2) water impacts, specifically any impacts and contamination of surface and ground water; I am also concerned about the potential for contamination of water that runs through to local streams, estuaries, and ground water supplies affecting Kamloops and area residents and local wildlife. Ground water streams are prominent in the area.	dAIR comment	General	Surface Water Quality Groundwater Quality	6.3 6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Groundwater/surface water interaction will be considered when looking at the potential downstream effects of the proposed project	
596	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• I understand that the mine has not been doing back ground Water quality sampling in the Thompson River above Peterson Creek discharge. Why is this not being done so that cumulative WQ impacts can be assessed?	dAIR comment	General	Surface Water Quality	6.3	Water sampling locations will be described and the rationale for their selection will be discussed in the Application/EIS .	
639	167	12-Mar-12	John Schleiermacher	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (36 of 69)^</p> <p>Section 6.3 SURFACE WATER QUALITY Section 6.17.1 Background Monitoring sites that have selected and shown on Figure 6.3-1 do not include Rush Creek. Rush Creek is important part of the watershed that will be impacted by the proposed Ajax Mine and is vital for local cattle ranching and wildlife. The following questions need to be answered:</p> <ul style="list-style-type: none"> • Why was Rush Creek not listed for monitoring in the draft AIR? • What will be the impact on Rush Creek from the mining activity, in particular the Tailings Storage Facility? • Will Rush Creek be diverted? • If so, where will Rush Creek be diverted? • What impact will the diversion have on local wildlife/ irrigation requirements on down stream ranches/ Alkali Creek below the proposed mine site/ Cherry Creek below the proposed mine site? • Will any of the following Dissolved Metals be allowed to flow into the Rush Creek, Alkali Creek and Cherry Creek from the proposed Tailings Storage Facility and how much? (Aluminum ... Zinc) <p>All of the above have identified as being on the proposed mine site by the proponent in the Knight Piesold Project Summary and will be subject to leaching from the proposed Tailings Storage Facility.</p> <ul style="list-style-type: none"> • Will any of the following Dissolved Anions be allowed to flow into the Rush Creek, Alkali Creek and Cherry Creek from the proposed Tailings Storage Facility and how much? (Bromide -Chloride -Fluoride -Sulfate) <p>All of the above have identified as being on the proposed mine site by the proponent in the Knight Piesold Project Summary and will be subject to leaching from the proposed Tailings Storage Facility.</p> <ul style="list-style-type: none"> • What is the Proponent prepared to do to protect and maintain the flow and quality of water in Rush Creek/Alkali Creek? • What is the Proponent prepared to do to protect and maintain the flow and quality of water in Cherry Creek and subsequently into Kamloops Lake? • What is the Proponent prepared to do to protect and maintain the flow and quality of water for local ranches and wildlife from Rush Creek? 	dAIR comment	TSF	Surface Water Quality Surface Water Quantity	6.3 6.4	Rush Creek is not included in the baseline surface water quality monitoring program because it is an ephemeral stream with no alluvial channel noted in the project area. The water management plan will include provision for either capturing surface flows in Rush Creek for storage in one of the TSF runoff ponds and use as process water, or diverting flows around the TSF and into downstream catchment areas. The potential effects of construction, operation and closure on water quality and quantity will be predicted using numerical mass balance models. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. The assessment will identify water quantity changes and potential effects on downstream habitats supporting fish. A discussion of Rush Creek, it's values and how this area will or will not be assessed for potential will be discussed in the Application/EIS.	
663	178	13-Mar-12	Personal Information Withheld	Kamloops, BC	• The impact on our waters. This includes many elements from the effect on salmon runs through Kamloops Lake after the lake level is changed by the mine, the groundwater in the immediate area of the mine including farm land to the west, the damage to Inks Lake caused by having a tailings pile at its shore, the impact on Jacko Lake and Petersen Creek and the fact that they will bring toxins from the mine site through, again, residential neighbourhoods and into the South Thompson and, again, the salmon runs.	dAIR comment	General	Surface Water Quality Surface Water Quantity Groundwater Quality Groundwater Quantity	6.3 6.4 6.5 6.6	The potential effects of construction, operation and closure on water quality and water quantity will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	

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712	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	8. Can the proponent guarantee that water quality of Peterson Creek will not be damaged? What process will be in place to measure water quality and flow?	dAIR comment	General	Surface Water Quality	6.3	The potential effects of construction, operation and closure on water quality and quantity will be predicted using watershed (water quantity) and a numerical mass balance water balance (water quantity) models. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
727	205	20-Mar-12	Kristen Marini	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (2 of 23) [2012-03-26 3:53:56 PM]^ 1. How is the mine going to prevent contamination of the Peterson Creek watershed? 2. What will be done to ensure arsenic levels in our water do not increase?	dAIR comment	General	Surface Water Quality	6.3	The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
731	207	21-Mar-12	Jillian Rutherford	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (53 of 61) [2012-03-29 4:08:06 PM]^ 1) A detailed and specific investigation of not only the main metals and substances to be produced by the mine, but also the possible trace elements and their derivatives (which may be caused by reactions between the elements themselves, the environment, and with water and oxygen). 2) A preventative plan for each of these should be constructed, and an understanding of the full risks associated with a possible contamination event by any of these chemicals should be reached, with particular emphasis on their effect on the sockeye salmon. 3) A more complete and detailed emergency plan to prevent runoff in the case of unexpected rainfall should be established. 4) Greater review of the studies that analyze the effect of the elements and compounds in question on aquatic wildlife in the Thompson River, and sockeye salmon in particular.	dAIR comment	General	Surface Water Quality Fish Populations and Fish Habitat	6.3 6.7	The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Monitoring and mitigation plans are included in Section 11 of the dAIR and in corresponding sections of the Application/EIS. Results from water quality models will be used to assess any potential effects on fish populations in and downstream of the project.	

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739	209	21-Mar-12	Lora S	Kamloops, BC	10. What effect will the mine's operation have on the already fragile Peterson Creek Watershed. Samantha Cooper, Ministry of Environment, has produced a report entitled A GISbased water quality risk assessment of Thompson Region watersheds, January, 2011. In this report, the Peterson Creek Watershed has been ranked the number 1 highest risk small watershed in the Thompson Region. Ms. Cooper states: The highest ranked small watershed unit was Peterson Creek (Kamloops) due to its high landscape score ...and its moderate water use multiplier ... The high landscape score was largely driven by high proportions of urban development (its lower reaches run through the City of Kamloops), mining, and agriculture.	dAIR comment	General	Surface Water Quality	6.3	The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
759	212	22-Mar-12	Kevin Buxton	Kamloops, BC	Sections 6.1 - 6.7 - Water • The proponent must specify which surface and ground water model will be used and must provide rationale for selecting that model over alternatives. The proponent must consider running alternative models and if so must discuss differences in results between the models. The proponent must describe/quantify the results of the modeling in terms of expected accuracy of the predictions. The proponent must assess cumulative impacts on ground and surface water in terms of potential increase in project size/scope due to increased mineral prices as mentioned previously under Section 3.0.	dAIR comment	General	Surface Water Quality Groundwater Quality	6.3 6.5	Cumulative impacts will be assessed for those projects or activities that are deemed "reasonably foreseeable"; an increase in the proposed project size or scope will not therefore be included. A numerical mass balance model will be used for predicting any changes in water chemistry resulting from the activities and infrastructure associated with the proposed project. A numerical (mathematical) model uses a series of equations to relate input parameters and variables to quantified outputs. As noted in the AIR/EIS Guidelines, the Application/EIS will include a discussion of the assumptions that underlie any model used, the quality of the data, and the degree of certainty of the modelled results.	
788	225	23-Mar-12	Personal Information Withheld	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (21 of 61)[2012-03-29 4:08:06 PM] [^] Re Ore Stockpiles, p.26 of AIR – 3.8.2 & 3.9 Note: According to the Feasibility study, fig 16.5, the strategic ore stockpile will be 72 meters high (240ft); the low ore stockpile will be 64 meters high (213ft); the medium ore stockpile will be 60 meters high (200ft). The AIR document (p.26 – 3.2.8), however, indicates the medium grade ore stockpile will be 36 meters high (120ft) – a discrepancy of 24 meters (89ft) – which figure is correct? 1. What would be done to protect the Guerin Creek area from pollution of any sort?	dAIR comment	stockpiles	Surface Water Quality	6.3	Section 16.8 of the Feasibility Study notes that the medium grade stockpile will be built over a base of waste material at the 986 masl, with the crest at 1022 masl, a difference of 36 metres. It is noted that the crest elevation of the medium grade ore stockpile is recorded as 1,046 masl on Figure 16.5 of the Feasibility Study; this discrepancy will be rectified in the Project Description section of the Application/EIS. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	

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812	237	25-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 61)[2012-03-29 4:08:06 PM]^</p> <p>1. Water quality and flow degradation of Peterson Ck. We live in south Kamloops and are frequent users of Peterson Ck. Park. From the overview map of the proposed project, both the Ajax pit and the East Waste Rock facility are within the catchment of Peterson Ck. and are within several hundred meters of the creek itself. My concerns relate to flow disruption and water quality of the stream. Within the draft AIR (Ref. No. VA101-246/8-2) a monitoring program for flow characteristics is outlined in Fig. 6.3-1 and this may be adequate. An identified valued component is both surface water quantity and quality, and the single, somewhat downstream sampling station on Peterson Ck. is inadequate. Potential airborne contaminants from blasting, hauling and rock processing as well as airborne contaminants from the East Waste Rock facility can potentially be carried much further than the current proposed downstream monitoring station. Peterson Ck. represents an evening cold air drainage route with the potential for airborne contaminants being deposited directly into the stream or adhering to vegetation, and then being washed into the creek during rain or snow melt events. Furthermore, strong south and southwest winds are common, and as with cold air drainage winds, dust from the mine site carried by these winds would deposit materials directly into the creek or onto vegetation along the ravine walls, to be washed into Peterson Ck. during rain or snow melt events. Several additional water quality monitoring stations need to be established along the stream to the confluence with the South Thompson River.</p>	dAIR comment	General	Surface Water Quality	6.3	<p>The results of air dispersion modelling for several parameters of interest will be incorporated into the water quality model to assess the effects of dust deposition on soil and water quality.</p> <p>Monitoring sites have been selected to characterize spatial variability in water chemistry. This will be expanded on in the Application as part of the background information. A description of how air dispersion modelling will be included in surface water modelling will be included in the Application, including naming the parameters of interest that will be identified following the air quality assessment.</p>	
815	238	25-Mar-12	Personal Information Withheld	Knutsford, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 61)[2012-03-29 4:08:06 PM]^</p> <p>The Feasibility Study, p.18-10 states: "Knight Piesold carried out testing to confirm the acid generation potential of the ore & mine waste rock as part of the Feasibility Study. The results will be presented in a report by Knight Piesold" ----Has this report been completed? If so, why is it not contained in the Feasibility Study as stated? Are the test results available to the public? If not, why not? If so, why is the report not available for scrutiny during the public comment period?</p>	Project comment	General	Surface Water Quality	6.3	<p>Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.</p>	
914	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>3.12 Site Water Management</p> <p>2. The annual precipitation amount of about 200 mm falling on 25 square kilometers of surface will yield a yearly water input of 5 million cubic meters. Rain and snow falling on the site will interact with all materials stored on the surface at the mine site.</p> <p>3. What program is proposed to measure the chemistry of the precipitation induced runoff from waste rock and ore piles to monitor for heavy metals and other hazardous materials?</p>	dAIR comment	waste rock management facilities	Surface Water Quality	6.3	<p>The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Several of the monitoring and management plans presented in Section 11.2 of the dAIR are applicable to water quality monitoring during operations, including: • Surface Water Quality Management and Monitoring Plan, • Groundwater Quality Management and Monitoring Plan, • Acid Rock Drainage Management Plan, • Accidents and Malfunctions Plan, • Natural Hazards Management Plan (e.g. landslides, floods), • Emergency Response Plan</p> <p>Please see the AIR for a description of the background information and effects assessment related to landforms and geohazards.</p>	

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919	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	6.4 Surface Water Quality 2. From a hydro-geological point of view, the conceptual diversion of Peterson Creek may not be achievable as the creek most likely is interconnected with the unconfined sand-gravel aquifer underneath. Even if the creek is diverted there will still be underground flow towards existing domestic water wells near Highway 5A in the east. How the proponent is planning to achieve the diversion of Peterson Creek? 3. What is the drainage plan for the East Waste Rock Management Facility?	dAIR comment	waste rock management facilities	Surface Water Quality Groundwater Quality	6.3 6.5	The Peterson Creek diversion as shown is conceptual at this time and as engineering studies develop, The potential effects of construction, operation and closure will be modelled. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards inputs of fish habitat, water chemistry will be evaluated and compensation of any potential effects will be mitigated. This level of design will be required for permitting. The Peterson Creek diversion as shown is conceptual at this time. Additional details will be presented in the Application. The AIR notes that groundwater/surface water interaction will be considered when looking at the potential downstream effects of the proposed project using the numerical mass balance models.	
1010	270	27-Mar-12	Personal Information Withheld	Kamloops, BC	^a http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (4 of 77)[2012-03-29 3:57:49 PM] ^a Exposure of crushed rock material to environmental processes including precipitation will likely lead to metal leaching of copper, cadmium, manganese, molybdenum, antimony, strontium and other metals, which in turn will likely pollute surface water and groundwater, plus contamination of soils will likely occur. Have the mine proponent conducted field sampling and analytical programme that included Acid-Base Accounting (ABA) elemental analysis and leach tests or sequential column tests? The samples would have to be representative of mining waste rock. If so, what is the assessed acid rock drainage (ARD) potential?	dAIR comment	waste rock management facilities	Surface Water Quality Groundwater Quality	6.3 6.5	The Application/EIS will integrate results of the Metal Leaching/Acid Rock Drainage (ML/ARD) prediction work, baseline surface water quality, hydrology, hydrogeology, and water balance information to develop water quality predictions. Predictions will be used as a basis for effects assessment; to determine materials handling procedures; and to assess and develop ML/ARD mitigation/management requirements for the project.	
1012	270	27-Mar-12	Personal Information Withheld	Kamloops, BC	What are the water sampling locations in surface streams and other water bodies,	dAIR comment	General	Surface Water Quality	6.3	The water monitoring program will be described in detail in the Application/EIS.	
1015	270	27-Mar-12	Personal Information Withheld	Kamloops, BC	What are the anticipated leakage/seepage rates from the settling tailings pond? What is the plan for treatment of captured effluent?	dAIR comment	TSF	Surface Water Quality Groundwater Quality	6.3 6.5	Site wide water management details, including anticipated leakage/seepage rates from the TSF, will be included in the Application/EIS.	

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1039	272	27-Mar-12	Personal Information Withheld	Kamloops, BC	From page 20-5 of the Feasibility Study Technical Report: "Jacko Lake water quality samples were consistently below guideline limits with the exception of dissolved selenium, which occasionally exceeded the CCME limit. Appendix H (Tables 20.1-1 through 20.1-10) contains the sample results to date for the freshwater sites around the Project area." 16. What is the potential for increase in selenium levels due to mining activities, i.e. process water and seepage? 17. Kamloops is home to several plant species known for their ability to acquire and concentrate selenium in the edible parts in potentially toxic concentrations. What danger does this present to cattle grazing, wildlife and insect pollinators?	dAIR comment	General	Surface Water Quality	6.3	The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for irrigation and livestock water. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1041	272	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 77) [2012-03-29 3:57:49 PM]^ I asked the following questions to Ajax Mine representatives and none of them could be answered. I need them answered as it is regarding my community. Please answer as soon as possible. "Ajax mine will be a zero discharge facility helping to preserve local water quality, water quantity and fisheries" - www.ajaxmine.ca The Ajax Mine will consume 46-138 billion L of Kamloops water, how is that preservation? What will the 46-138 billion L of Kamloops water be used for and how will none of that water be contaminated? Where will the 46-138 billion L of Kamloops water go after the mine uses it? Will any of it evaporate with chemicals in it, or will it be shipped off to infect somewhere else? How would Ajax mine help Kamloops #1 fishery, if it is made inaccessible to the public? Would KGHM recover a leak if it were to occur during the relocating of the Kinder Morgan Pipeline? How would Ajax mine avoid the slaughtering of many local animals/insects on the mining site? Would Ajax Mine stop the project if environmental and health impacts were drastically affecting Kamloops locals? In 23 years would the Ajax Mine leave Kamloops in a positive and sustainable state for our children to live on?	dAIR comment	General	Surface Water Quality	6.3	The goal of the project is to have zero surface water discharge to the environment during operation. Water management mechanisms and procedures will be described in detail in the Application/EIS. Water management mechanisms will include ditches for collection of seepage and runoff for contact water. All water collected, recycled, or used on the project will require containment or storage in existing ponds or in man-made structures. The hydrologic analysis will consider the volume of water extracted, the timing of the water extractions, and the effect those extractions will have on the surrounding habitats that may be affected. Mitigation measures to reduce the freshwater extraction requirement from fish bearing waters will be explored and identified within the Application.	
1068	275	27-Mar-12	Frances Vyse	Kamloops, BC	6.3 Surface Water Quality Why is Alkali Creek not mentioned in the list of monitoring sites? Surely this is one of the more critical water bodies that needs monitoring? The headwaters of this small creek will be covered by the tailings facility, and yet there is nary a mention of the downstream impacts. As the only appreciable tributary of Cherry Creek (... not directly impacted by mine development), shouldn't there be a monitoring station on this creek? Will the mouth of cherry creek at Kamloops Lake have a monitoring station to monitor that leachates from the tailings facility are not carried into Kamloops Lake via Alkali Creek? The salmon in Kamloops Lake would appreciate it.	dAIR comment	General	Surface Water Quality	6.3	Alkali Creek and Cherry Creek are included in the surface water monitoring program. Results from baseline monitoring and modelling will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	

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1101	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	6.3/ 6.3.2 Water Quality - There is a need for a water quality and quantity monitoring site at the TSF west pond.	dAIR comment	TSF	Surface Water Quality Surface Water Quantity	6.3 6.4	Alkali Creek and Cherry Creek, located downstream of the TSF West Pond, are included in the surface water monitoring program. Results from baseline monitoring and modelling will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1109	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	Figure 6.3-1 Surface Water Quality Effects Study Area As discussed before there is a need for an additional water monitoring station at the TSF west pond. Independent monitoring: Similar to the Cache Creek Landfill site this operation needs to have independent water and air quality monitoring: - Monitoring financed by the proponent - Independent consultant approved by the proponent, City of Kamloops and TNRD undertakes actual site monitoring - City of Kamloops and TNRD and Government receive the independent data - Proponent, and government bodies facilitate actions as needed	dAIR comment	TSF	Surface Water Quality	6.3	Alkali Creek and Cherry Creek, located downstream of the TSF West Pond, are included in the surface water monitoring program. Results from baseline monitoring and modelling will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Effects pathways will be included in the Application. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
1129	286	27-Mar-12	Personal Information Withheld	Knutsford, BC	The potential for toxic runoff into Peterson Creek and underground streams that support our well.	dAIR comment	General	Surface Water Quality Groundwater Quality	6.3 6.5	The potential effects of construction, operation and closure on water quality and quantity (surface and groundwater) will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	

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1151	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	39. what resources are you pulling from for a water source? 40. how will the Aberdeen residents be affected regarding water usage? 41. how will the rivers be affected? 42. how will your waste travel down into Peterson creek? 43. will Peterson creek be toxic?	dAIR comment	General	Surface Water Quality Surface Water Quantity	6.3 6.4	The potential effects of construction, operation and closure on water quality and quantity (surface and groundwater) will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1175	300	27-Mar-12	Erin Maze	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (31 of 77) [2012-03-29 3:57:49 PM]^ I have a scientific background with a BSc in Biology and a BTEch in Environmental Health. I have an understanding of water quality and the effects that mining can have on both ground and surface water. I also have an understanding of outdoor air quality and how topography can affect it. I am deeply opposed to this mine both as a scientist and as a resident of Kamloops. I have grave concerns about the effects the mine could have on air quality, water quality (surface and ground), and quality of life in Kamloops. Air and water quality are readily quantifiable, quality of life perhaps less so.	Project comment	General	Surface Water Quality Groundwater Quality Community Health and Well-Being Air Quality	6.3 6.5 8.1 10.1	Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	Air Quality - 3.3.4.1
1177	300	27-Mar-12	Erin Maze	Kamloops, BC	Water: with respect to water quality, one does not have to look very far to see examples of water sources contaminated by mining operations. Britannia copper mine and the devastation of Britannia Creek by the mining tailings is fairly close to home. There is an abundance of surface and groundwater in the area in which this mine is planned. As our clean water supply diminishes due to human activity, this resource becomes ever more valuable. I do not wish to see Kamloops area water rendered incapable of supporting life.	Project comment	General	Surface Water Quality Groundwater Quality Domestic Water Quality	6.3 6.5 10.2	Potential effects of the project on water quality will be discussed in the Application - please see the AIR for an outline of studies proposed to address the issues in terms of surface and groundwater quality environmental effects and human health effects.	

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1206	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	18. What fraction of the water is expected to be stored in tanks? 19. Is there a limit on how much water is stored? 20. Are there any methods that will be used to measure the chemistry of the precipitation runoff on the waste rock? 21. If not why not? 22. Are there any methods that will be used to prevent runoff water from getting into the aquifers? 23. If not why not? 24. How much water will be removed from Kamloops Lake? 25. How will this be done? 26. How much per day over how many days? 27. Is there a cap limit on how much water can be siphoned out of Kamloops Lake?	dAIR comment	General	Surface Water Quality Surface Water Quantity	6.3 6.4	Mine water management details will be presented in the Application/EIS, including the amount of water to be stored in tanks and in the process water and runoff ponds. The potential effects of construction, operation and closure on water quality and quantity (surface and groundwater) will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1238	307	2012/04/04	E.A. Clarke	Kamloops, BC	25/01/2012. I would like to see the following two items included for study or consideration in the future Application/EIS document: 1) Over the life of the proposed Ajax mine many tons of explosives will be used. I understand that ammonia nitrate is a key component of explosives and that it has the potential to introduce significant quantities of nitrates into both surface and sub-surface water. Nitrates are known to pose a threat to human and aquatic life. I would like to know how the proponent intends to minimize the possibility of nitrates entering these water sources and in the event that it does what steps it would take to treat them and remove them.	dAIR comment	blasting	Surface Water Quality	6.3	The potential effects of construction, operation and closure on water quality and quantity (surface and groundwater) will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1270	313	4-Apr-12	Santo D'Aquino		3. Peterson and cherry creeks. - Ajax project plan - carry out procedures to minimize any potential impacts. - if there are negative impacts, what form of mitigation will take place. how many dollars in the trust fund??	dAIR comment	General	Surface Water Quality Surface Water Quantity	6.3 6.4	The potential effects of construction, operation and closure on water quality and quantity (surface and groundwater) will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. A reclamation bond will be set in accordance with a Mines Act permit.	

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1332	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<ul style="list-style-type: none"> information on current conditions in Jacko Lake in regard to water quality, fish habitat, fishing opportunities, and potential lowering of lake water levels if sub-surface drainage is not prevented detailed fish habitat surveys in Peterson Creek watershed including methods of capture, enumeration and mapping to support assessments of any watercourses in the watershed that historically supported fish and surveys for other aquatic biota including invertebrates and amphibians that might be there aquatic information for Inks Lake, including confirmation of fish presence or absence, to evaluate the residual impacts to the Inks Lake ecosystem should they proceed with using the lake for tailings storage multi-year survey on water levels in Kamloops Lake collection of baseline data of water levels in the Thompson River for future comparisons of the health of salmon populations assessment of conditions in Wallender Lake and Cherry Creek assessment of conditions in Alkali Creek, a tributary headwater of Cherry Creek assessment of conditions in Alkali Creek, a tributary headwater of Cherry Creek that will be buried under the tailing pile; potential for leaching from the pile 	dAIR comment	General	Surface Water Quality Fish Populations and Fish Habitat Jacko Lake	6.3 6.7 8.7	<p>Results from baseline sampling programs will be presented in the Application/EIS. The potential effects of construction, operation and closure on water quality and quantity (surface and groundwater) will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Potential impacts on water levels in Kamloops Lake and the Thompson River will be assessed via a regional hydrological assessment. The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability.</p> <p>No fish studies are proposed in Wallender Lake because it is an ephemeral water body with no surface connection to other fish-bearing waters. The AIR outlines the studies that are being proposed to address fisheries-related issues, including both the biophysical studies and the social and economic assessments related to Jacko Lake. Monitoring and management plans during project operation, closure and post-closure are outlined in the AIR in Section 11. The need for any additional monitoring programs are described in Section 17.2.</p>	
1333	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<ul style="list-style-type: none"> detailed analysis of wetlands and saline ponds on site 	dAIR comment	General	Surface Water Quality Rare and Sensitive Ecological Communities	6.3 6.9	<p>A site wide water balance and water quality model will be used to assess the effects of the proposed project on surface water quality.</p> <p>Any wetlands and saline ponds potentially impacted will also be included in the water quality assessment. Wetlands have also been identified under the rare and sensitive ecological communities VC. Wetlands will be assessed in relation to any wildlife species habitat associations.</p>	
1341	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<p>3.7.2 Thickened Tailings Pond</p> <p>As noted above, the proponent must ensure that baseline information is collected on water--courses in the direct vicinity of the thickened tailings ponds to ensure that any changes in water quality are noted and addressed immediately.</p>	dAIR comment	water management	Surface Water Quality	6.3	<p>Alkali Creek and Cherry Creek, located downstream of the TSF West Pond, are included in the surface water monitoring program. Results from baseline monitoring and modelling will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.</p> <p>The area proposed for the Thickened Tailings Plant Emergency Pond is in a seasonally wetted area called "Alga Pond". No alluvial inlet or outlet channels are present; the pond is reported to have a maximum depth of less than 1 metre, and baseline sampling for the New Gold mine found no fish.</p>	

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1345	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.3 Surface Water Quality Impacts to Jacko Lake The proponent should: address impacts to water quality, fish and fish habitat that will be caused by all phases of the projects; provide proposed mitigation activities to minimize these impacts; and consult with community groups in any fish habitat compensation plans, including requesting DFO to allow community groups to provide input to the Authorization. geological investigations are required to determine the likelihood of water levels being reduced. Ajax should: drill boreholes where the western wall of the open pit mine is planned; and the cut-off wall and associated drains will need to be designed so that the wall extends both horizontally and vertically into a low permeable native material and that leakage at the ends of the slurry wall is minimized. the proponent must provide a plan for the protection and timely replacement of lost vegetation to protect surface waters.	dAIR comment	General	Surface Water Quality Fish Populations and Fish Habitat	6.3 6.7	Potential impacts, mitigation measures and residual impacts to water quality and fish and fish habitat will be assessed in the Application/EIS. A conceptual fish habitat compensation plan for the northeast arm of Jacko Lake will also be included in the Application/EIS and will be a requirement for permitting should the project receive approval. Operation permitting licences and authorizations are outside the scope of the EA. Please see Section 6 of the AIR where it is noted that wetlands will be assessed under the rare and sensitive ecological communities VC.	
1375	329	4-Apr-12	Personal Information withheld		10. Will air bourn pollution have an effect on surrounding water bodies, such as the North/South Thompson River, Kamloops Lake (i.e. the city's water supply)?	dAIR comment	General	Surface Water Quality	6.3	The results of air dispersion modelling for several parameters of interest will be incorporated into the water quality model to assess the potential effects of dust deposition on soil and water quality. A description of how air dispersion modelling will be included in surface water modelling will be included in AIR, including naming the parameters of interest that will be identified following the air quality assessment.	
1415	337	4-Apr-12	Personal Information Withheld		27/03/2012 Exposure of crushed rock material to environmental processes including precipitation will likely lead to metal leaching of copper (Cu), cadmium (Cd), manganese (Mn), molybdenum (Mo), antimony (Sb), strontium (Sr) and other metals, which in turn will likely pollute surface water and groundwater, plus contamination of soils will likely occur. Have the mine proponent conducted field sampling and analytical programme that included Acid-Base Accounting (ABA) elemental analysis and leach tests or sequential column tests? The samples would have to be representative of mining waste rock. If so, what is the assessed acid rock drainage (ARD) potential?	dAIR comment	waste rock management facilities	Surface Water Quality Groundwater Quality	6.3 6.5	The Application will integrate results of the Metal Leaching / Acid Rock Drainage prediction work, baseline surface water quality, hydrology, hydrogeology, and water balance information to develop water quality predictions. Predictions will be used as a basis for effects assessment; to determine materials handling procedures; and to assess and develop ML/ARD mitigation/management requirements for the project.	
1417	337	4-Apr-12	Personal Information Withheld		It is assumed that the mine proponent have developed a surface water and groundwater baseline quality monitoring program to define the normal range of water quality variations, which would also sufficiently characterize the seasonal influences. Review of surface water and groundwater quality from similar (mining) sites indicate increased salinity, alkalinity, hardness, and concentrations of sulfates, fluoride, and metals including mercury, arsenic, copper and iron. What are the water sampling locations in surface streams and other water bodies, and how many groundwater monitoring piezometers are planned up-gradient and down-gradient from the proposed mining activities perimeter? What are the water quality conclusions of preliminary baseline monitoring? If so, was a qualified analytical lab responsible for water testing? and were specific QA/QC procedures followed? What kind?	dAIR comment	General	Surface Water Quality Groundwater Quality	6.3 6.5	Baseline groundwater sampling has been conducted in wells situated around the project site. Results will be presented in the Application/EIS.	

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1423	338	4-Apr-12	Personal Information Withheld	Kamloops	<p>Water Quality:</p> <ul style="list-style-type: none"> • What methods will be used to make sure that chemicals do not leach into the water table? • What will the effects be on our drinking water if leaching occurs? • What do they mean when they say that Inks Lake will be used for surface run off? What surfaces, what will be going into the lake? 	dAIR comment	General	Surface Water Quality Groundwater Quality	6.3 6.5	<p>Precipitation from the TSF and any mine contact water in the catchment area will be directed to Inks Lake. A site wide water balance will describe water movements within the proposed Project area and effects on downstream and downgradient flows. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users. Results from numerical water quality models will be compared to applicable provincial and federal guidelines or standards for the protection of aquatic life, drinking water, agriculture, and irrigation. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Monitoring programs to be developed and implemented as part of the project Environmental Management System will ensure that measures and controls are in place to minimise the potential for environmental degradation. The following plans described in the AIR/EIS Guidelines relevant to this concern include: • Surface Water Quality Management and Monitoring Plan • Groundwater Quality Management and Monitoring Plan • Erosion and Sediment Control Plan • Acid Rock Drainage Management Plan • Water Management and Hydrometric Monitoring Plan • Fisheries And Aquatic Life Monitoring Plan.</p> <p>Follow Up programs are also required under federal legislation. As described in the AIR/EIS Guidelines, the purpose of follow up programs is to verify the accuracy of the environmental assessment of the project and determine the effectiveness of any measures taken to mitigate the adverse environmental effects of the project.</p>	
1424	338	4-Apr-12	Personal Information Withheld	Kamloops	<p>Diversion of Peterson Creek:</p> <ul style="list-style-type: none"> • How will 1.5 km of Peterson Creek be diverted? Will culverts be used? Will it be restored afterwards? 	dAIR comment	General	Surface Water Quality Surface Water Quantity	6.3 6.4	<p>Fish Habitat Compensation plans will be discussed in the Application/EIS. Approval under Section 9 of the provincial Water Act is required for changes in and about a stream. Authorization from Fisheries and Oceans Canada will be required for any fish habitat loss.</p> <p>The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area and effects on downstream flows. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users. Studies that have been done to quantify the fisheries values of both Jacko Lake and Peterson Creek will be presented in the Application and will inform the effects assessment. The Application will also include details regarding the design of the potential relocation of Peterson Creek and the habitat values or gains that may be provided.</p>	
1462	342	4-Apr-12	Personal Information Withheld		I am very concerned about the potential for damage to the quality of groundwater and surface water by dust, heavy metals and acidification.	dAIR comment	General	Surface Water Quality Groundwater Quality	6.3 6.5	<p>Baseline groundwater sampling has been conducted in wells situated around the project site. The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Results will be presented in the Application/EIS.</p> <p>The Application will include a description of air quality and water quality modelling procedures.</p>	

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2	1	11-Jan-12	Kamloops Stockmen's Association	Kamloops, BC	2. Surface Water (a) Flow (b) Current Water Licences	dAIR comment	General	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on quantity will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS. Effects of the project on water supplies for livestock and irrigation will be assessed under the Land and Resource Use VC with input from the results of the surface water and groundwater quantity and quality modelling.	
14	7	2-Feb-12	Personal Information Withheld		(6) Carbon monoxide, aluminum output, visual impacts, blasting, noise, ground vibration, hydrology with respect to runoff from property, financial impact to residential land for future development, property released from ALR contingent on spray irrigation from east WRD	dAIR comment	waste rock management facilities	Surface Water Quantity Property Values Land and Resource Use Visual Impact/Aesthetic Features Noise and Vibration	6.4 7.5 8.5 8.4 10.4	All of the identified issues will be addressed and results will be presented in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
19	11	6-Feb-12	Katherine Michell	Kamloops, BC	Concerns to the Proposed Ajax Mine 1. Water licences in regards to Jocko Lake. There a number of water users and any change in the level of the lake or flow of Peterson Creek will be very detrimental. i.e. users of water above the lake have to wait until the level of the lake reaches a certain level, if for some reason the lake losses water from the vibration of the blasting—it leaves us in a hazardous position. The existing water wells both domestic and stock use in the surrounding area need to have a base line study done in case of any shift in water table or damage due to vibration.	dAIR comment	blasting	Surface Water Quantity Groundwater Quantity Noise and Vibration	6.4 6.6 10.4	Effects of the proposed project on surface and groundwater flows will be assessed, with results presented in the Application/EIS. KGHM Ajax Mining Inc. has initiated a groundwater well inventory program in the project area. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users. The Application will assess the potential effects of blasting on Jacko Lake and Peterson Creek water levels.	Noise and Vibration - 3.3.4.2

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25	13	7-Feb-12	Dianne Kerr	Kamloops, BC	<p>2. Water The volume of water required for the processing of the mined rock is also a concern. This is a semi arid location. We have experienced severe water concerns in the past where watertables were dangerously low. The projections for future water shortages related to global warming are well known. How can we justify designating that amount of water for private interests when we face a future that indicates water will be in short supply? How also, do we protect against the cost of pumping the water to the site becoming so expensive that we face a future request from the company for a different, and potentially even more vulnerable, source of water? How also do we protect against disintegration of agreements between the proponents and New Gold for shared water use potentially also resulting in reconsideration of the original water requirement? Once the mine is in operation, those requests usually get approved. Finally, what are the environmental risks of diverting Peterson Creek? What will the effect be on fish? What will be the risk of pollution to the "new waterway"? What will the effect be on the underground spring flows in the vicinity of Peterson Creek?</p>	dAIR comment	fresh water supply Ajax open pit	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on surface water quantity will be assessed using a watershed and water balance model. Results will be presented in the Application/EIS. The effects of the Peterson Creek diversion on downstream aquatic use and on groundwater flows will be assessed and results presented in the Application/EIS.	
93	34	Public comment form from the Feb 6&7 Information Session	Doug Haughton	Knutsford, BC	<p>Water: The area in question encompasses many different streams and lakes, which are under Provincial water licences. This must be maintained. also neighbouring water sources like Edith Lake and Anderson Creek must not be affected by the mine's present or future operations. Jocko Lake and Peterson Creek must be protected. Water is, and will be, the most valuable product on this earth, along with our food production.</p>	dAIR comment	General	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on water quantity will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS.	
141	60	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		c. Water run off	dAIR comment	General	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on quantity will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS.	

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228	82	10-Feb-12	Personal Information Withheld		(4) Surface water and existing wells ... should be monitored prior to construction and development of the mine and through operation and reclamation (5) Ranch has used water from Jocko Creek for irrigation for decades, water rights based on water outflow levels from Jocko Lake: how will irrigation rights be affected and protected if mine operations change water levels or drain Jocko Lake – irrigation increases profitability	dAIR comment	TSF reclamation	Surface Water Quantity Groundwater Quantity	6.4 6.6	The potential effects of construction, operation and closure on quantity will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users.	
238	84	10-Feb-12	Personal Information Withheld		(3) River levels: water proposed to draw from Kamloops Lake affecting South Thompson River, which already experiences very low levels – affect communities and salmon runs; effect of global warming on water available	dAIR comment	fresh water supply	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on quantity will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS. The potential impacts of climate change on the hydrologic cycle will be discussed in the Application.	
343	109	18-Feb-12	Mary Jordan	Kamloops, BC	3. Potential water shortages. Water withdrawal from Kamloops Lake is identified as a concern as well as an area to be assessed. Just how this will be assessed isn't clear. • Should the city experience water shortages that require rationing, what guarantee will we have that the mine will be required to reduce their water usage? • What contingency will be put in place ... with water shortage and a choice between using water for residential use or to keep the dust controlled at the mine site?	dAIR comment	fresh water supply	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on surface water quantity and quality will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS. The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows). The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users.	

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377	124	26-Feb-12	Personal Information Withheld	Kamloops, BC	I also believe the company needs to provide data and explanation as to why they can not achieve a higher usage of recycled water in the project. Water is a limited resource and the mine should be striving for higher recovery and treatment to reduce or eliminate the need for raw water.	dAIR comment	fresh water supply	Surface Water Quantity	6.4 17.2	The potential effects of construction, operation and closure on surface water quantity and quality will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS. The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR.	
431	130	28-Feb-12	Rob Wycherley	Kamloops, BC	6.4 Surface Water Quantity The proponent claims that the mine will be a 'zero discharge facility.' This implies that runoff from the mining area that now enters Jacko Lake will be retained by the mine. 1. What will be the decrease in runoff to Jacko Lake and how will this impact the lake? 6.4.2 Background 1. At paragraph 6.4.2 in the AIR document, the proponent proposes to provide "...a summary of the surface hydrology of the project area and is the source of the information." With respect to surface hydrology and all hydrology issues being considered, please confirm that the proponent is not required to simply provide a summary of surface hydrology and please also confirm that subsurface details will be explored to determine the long-term effects of the mine on the down slope community.	dAIR comment	water management	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on surface water and groundwater quantity will be assessed using a watershed and water balance model. Baseline information, methodology, model assumptions and results will be presented in the Application/EIS. Effects on Jacko Lake will be assessed as part of the hydrology program, as described in the AIR.	
469	136	1-Mar-12	Personal Information Withheld	Kamloops, BC	Water: What will be the impact on Kamloops Lake and how will the proponent bring the water to the site from the lake? -If the water from Kamloops Lake is to be piped up to the mine site where will the pipeline run?	dAIR comment	fresh water supply	Surface Water Quantity	6.4	A water balance will be developed to assist with the site water management and to determine the inflows and outflows from mine facilities. The potential for required use of surface water for the project to affect surface water and groundwater flows and quality will be assessed in the Application/EIS. Details regarding the water intake and supply lines will be presented as part of the Project Description in the Application/EIS. The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows). The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users.	

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786	223	23-Mar-12	Personal Information Withheld	Kamloops, BC	Water: the area in question encompasses many different streams and lakes, which are under Provincial water licenses. This must be maintained. Also neighbouring water sources like Edith Lake and Anderson Creek must not be affected by the mine's present of future operations. Jocko Lake and Peterson Creek must be protected. Water is, and will be, the most valuable product on this earth, along with our food production.	dAIR comment	General	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on quantity will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS.	
833	249	26-Mar-12	MK Claydon	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (10 of 37) [2012-03-29 4:02:53 PM]^</p> <p>1. Impact on water. The mine plans to reroute Peterson Creek, which feeds into the Thompson River System. You can move the water flow/creek bed but you cannot recreate the ecology of the creek...It will be barren. How will this affect the ecosystem of the area? The shoreline of the North and South Thompson Rivers are protected residents along the river are not permitted to alter the shorelines adjacent to their property, yet a large corporation will be given free rein to make drastic changes to waterbodies in this watershed? As part of the mine plan Inks Lake will be destroyed and we cannot risk the impact on Jacko Lake, an historic fly fishing lake so well known for generations, and such an important water body in the fly fishing economy. Ajax Mine will use massive amounts of water that will be pumped from Kamloops Lake. What effect will this have over a period of 20years or more on the level of water in the lake and in the Thompson River System? Affecting the volume of water in the lake will affect the water temperature which in turn will have an impact on the ecosystem of the lake and migrating sockeye salmon for the very important Adams River Sockeye Run. The risk will be even more so during the low flow months in the later summer, early fall. Even if the some of the water is returned what will that waste/returned water contain? In low water years , who will have priority for water use? (Ranchers? Community? Mine?)</p>	dAIR comment	General	Surface Water Quantity Fish Populations and Fish Habitat Jacko Lake	6.4 6.7 8.7	A conceptual fish habitat compensation plan will be included in the Application/EIS for any potential loss of fish habitat resulting from the Peterson Creek diversion. It should be noted that Peterson Creek at the outlet of the lake, near the proposed diversion, was previously diverted by Teck during development of the old Alton project, and the channel is dredged on a regular basis to maintain capacity and ensure irrigation flows. The potential effects of construction, operation and closure on water quantity will be assessed using a watershed and water balance model. Effects on current water licences and water users, as well as aquatic biota, will be assessed. Results will be presented in the Application/EIS.	
864	252	26-Mar-12	Paula Pick	Knutsford, BC	<p>3.7.1 Tailings management</p> <p>• This is the only mention of zero surface water discharge in the entire draft AIR. Since the proponent is making big claims about the mine being a 'zero discharge' facility, would it not be appropriate to outline in considerable detail how this is to be achieved? What if this does not happen? So much water is going to be pumped from Kamloops Lake, it's hard to understand where all that water will go, without damage or changes to the area. How will the proponent prevent contaminated water from leaking into the watershed? More water entering the Aberdeen subdivision would be disastrous.</p>	dAIR comment	water management	Surface Water Quantity	6.4	The goal of the project is to have zero surface water discharge to the environment during operation. Water management mechanisms and procedures will be described in detail in the Application. As described in the AIR, water management of the TSF will include water collection ditches around the TSF for collection of seepage and runoff, and the TSF ponds. All water collected, recycled, or used on the project will require containment or storage in man-made structures.	

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992	266	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (10 of 77)[2012-03-29 3:57:49 PM]^</p> <p>"Ajax mine will be a zero discharge facility helping to preserve local water quality, water quantity and fisheries" - www.ajaxmine.ca The Ajax Mine will consume 46-138 billion L of Kamloops water, how is that preservation? What will the 46-138 billion L of Kamloops water be used for and how will none of that water be contaminated? Where will the 46-138 billion L of Kamloops water go after the mine uses it? Will any of it evaporate with chemicals in it, or will it be shipped off to infect somewhere else? How would Ajax mine help Kamloops #1 fishery, if it is made inaccessible to the public? Would KGHM take responsibility if a leak were to occur during the relocating of the Kinder Morgan Pipeline? Would Ajax Mine take responsibility for the slaughter of many local animals/insects on the mining site? Would Ajax Mine stop the project if environmental and health impacts were drastically affecting Kamloops locals? In 23 years would the Ajax Mine leave Kamloops in a positive and sustainable state for our children to live on? None of these questions were directly answered by the Ajax representatives. Is this project really safe or fair? NO</p>	dAIR comment	General	Surface Water Quantity	6.4	Mine water management will include provision for either capturing surface flows for storage and use as process water, or diverting flows around the mine site and into downstream catchment areas. Details will be presented in the Application/EIS. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1026	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	12. What does zero discharge facility mean? This does not seem realistic.	dAIR comment	water management	Surface Water Quantity	6.4	The goal of the project is to have zero surface water discharge to the environment during operation. Water management mechanisms and procedures will be described in detail in the Application/EIS. Water management mechanisms will include ditches for collection of seepage and runoff for contact water. All water collected, recycled, or used on the project will require containment or storage in existing ponds or in man-made structures.	
1075	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	<p>b. Surface water courses such as creeks and other freshet water courses need to be documented and water amounts recorded for a period of at least 4 years Figure 6.7-1. The mine will affect a number of watersheds such as Peterson, Anderson, and Cherry Creek.</p> <p>c. Inks Lake is important as a natural habitat as well as a basin for run off from the surrounding area plus water from Jocko Lake in high water years. Where will this water go if Inks Lake is utilized?</p>	dAIR comment	General	Surface Water Quantity	6.4	The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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1077	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	f. If the course of Peterson Creek is moved as it states in the application, who determines the timing of the project, and who monitors the potential problems with water loss or habitat loss?	dAIR comment	General	Surface Water Quantity	6.4	Approval under Section 9 of the provincial Water Act is required for changes in and about a stream. Authorization from Fisheries and Oceans Canada will be required for any fish habitat loss. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1099	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	3.14 Water Supply -We do not see any mention of how the removal of 1,688 cubic meters of water per hour is going to impact the Thompson River especially during the low water period in late summer and fall. We already have many users drawing water from this system which results in low water flows and higher water temperatures which in past years has severely impacted Salmon stocks.	dAIR comment	General	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on surface water quantity and quality will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS.	
1118	282	27-Mar-12	Muriel Miller	Aberdeen, BC	5) The large quantity of water from the Thompson River or Kamloops Lake that will be needed to run the mine. (We already have water restrictions in the summer)	Project comment	General	Surface Water Quantity	6.4	This information will be included in the Application/EIS.	
1128	286	27-Mar-12	Personal Information Withheld	Knutsford, BC	Loss of our irrigation creek right on Peterson creek (from Jacko Lake), disturbance to the ground water that supplies our well.	dAIR comment	General	Surface Water Quantity Groundwater Quantity	6.4 6.6	The potential effects of construction, operation and closure on surface water quantity and quality will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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1131	286	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (51 of 77) [2012-03-29 3:57:49 PM]^</p> <p>Section 3.14.1 Fresh Water Supply System The projected fresh water supply requirements for the Ajax Mine of 1,688 m3/h will represent .39% of low flow rates of the Thompson River at the south west end of Kamloops Lake. The following questions need to be answered to determine the full impact of the great amount of fresh water requirements to Kamloops and the surrounding area: - What is the lowest flow rate recorded on the Thompson River during periods of drought and what is the projected highest rate of withdrawal of the proposed Ajax Mine during periods of drought? - What is the lowest flow rate recorded on the Thompson River during periods of drought and what is the projected combined highest rate of withdrawal of the proposed Ajax Mine and the amount projected from the neighboring Newgold Mine? - What impact will the operation of Ajax Mine have on the availability of water for communities downstream of Kamloops Lake during periods of drought? - What combined impact will the operation of both Newgold and Ajax Mine have on the availability of water for communities downstream of Kamloops Lake during periods of drought? - Of the total 340,098,240,000 litres to be pumped to the mine site over the lifespan of Ajax Mine, what will be the maximum amount of water and weight of water at the mine site at one time and above the subdivisions of Aberdeen and Pineview Valley, based on the Proponent's NO DISCHARGE policy? - What actions will the proponent take to ensure that none of the water is allowed to escape into Kamloops ground water and subsequently into the subdivisions of Aberdeen and Pineview Valley? - What studies has the Proponent undertaken to determine whether the local ground can withstand the weight of introduced water and waste rock dumps?</p>	dAIR comment	fresh water supply waste rock management facilities	Surface Water Quantity Groundwater Quantity	6.4 6.6	The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1282	317	4-Apr-12	Freya Nygaard		<p>4. How does Ajax Mining Inc. plan on restoring the 46-138 billion litres of our local water that the project will consume during the mines lifetime? What methods will the company use?</p> <p>5. If Ajax Mining Inc. is using our local water for the project purposed, how would the company make sure the chemicals used in all the mines operations would not mix in and contaminate our drinking water and fish habitats? If the water did become contaminated, what procedures would the company take to clean it up? Would the company be able to guarantee a 100% successful clean up of the areas affected?</p>	dAIR comment	General	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on water quality and quantity (surface and groundwater) will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1284	317	4-Apr-12	Freya Nygaard		<p>7. How is Ajax Mine and it's corresponding facilities a zero-discharge facility if the chemicals and dust are being brought in to our city through wind, water, trucks and other vehicles and machinery that leave the mine site?</p> <p>8. What will Ajax Mine's by-product of dust consist of? What chemicals and trace metals would be found in it?</p> <p>9. Will the dust coming into the city from the Ajax Mine inhibit Kamloops' ability to grow food, such as in a backyard garden, thus cutting off our access to locally grown foods?</p> <p>10. What methods will Ajax Ming Inc. use to minimize the dust coming into our city? By how much will the dust be minimized? How much dust will be produced?</p>	dAIR comment	General	Surface Water Quantity Land and Resource Use Air Quality Country Foods	6.4 8.5 10.1 10.3	The principle of "zero discharge" is recycling of all contact water (water that is used for processing or flows over mine-disturbed areas). Because of water reuse contact water will not be released into the environment during mine operation. At closure, water will be released if it meets federal guidelines or standards or site-specific water quality objectives prior to or following treatment. Chemical parameters of the dust will be presented in the Application/ EIS. The Application/ EIS will describe mitigation measures that will be implemented, and discuss residual effects on land and resource use such as backyard gardens.	Air Quality - 3.3.4.1

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1293	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	<p>4. What is the hydrology of the area at the mine site and further north of the mine?</p> <p>a. How does the hydrology at the mine site impact areas further north and into residential areas?</p> <p>b. Where does groundwater at the mine site migrate to?</p> <p>c. Will there be any increase to groundwater levels and piezometric pressures downslope?</p> <p>d. Who will be responsible for the ongoing monitoring and dewatering that will be required?</p> <p>e. Disaster plan? What is the plan to deal with increases in groundwater and piezometric pressures if they are compromised?</p> <p>f. Who will be responsible for compensation to homeowners should stability issues arise?</p> <p>e note that groundwater quality & quantity is being assessed, however we note Section 6.6.4 indicates the "proponent will describe measures they will commit to undertake to mitigate the potential adverse effects identified in Aberdeen resulting from the proposed project". Mitigate is not acceptable, measures to ensure NO adverse effects need to be undertaken. Section 11.2 Environmental Management and Monitoring Plans does not include an ongoing management and monitoring plan for the Aberdeen groundwater issues and Section 17.6 Accidents or Malfunctions does not include a detailed plan for increased groundwater levels, piezometric pressures and/or ground movement. A detailed plan needs to be developed that clearly outlines the potential adverse effects and the measures that will be initiated or activities halted if adverse effects are realized and what compensation will be given to those that become affected and who will be responsible for payment of that compensation</p>	dAIR comment	General	Surface Water Quantity Groundwater Quantity	6.4 6.6	The RSA boundary will be extended to include the entire Aberdeen subdivision. The Accidents and Malfunctions Plan proposed in the AIR will discuss mitigation measures to be implemented in the event that failure of project infrastructure or mitigation mechanisms. Additional monitoring locations will be established as required to assess potential impacts on the Aberdeen subdivision. The rationale of the number and location of existing monitoring sites will be presented in the Application.	
1294	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	<p>5. How much water will be taken from Kamloops Lake during a typical day of operations?</p> <p>a. How does this volume affect water levels of the lake especially during late summer and winter seasons when the lake volume is at its lowest?</p> <p>b. What will be the impacts to fish & wildlife that use Kamloops Lake?</p> <p>c. What will be the impacts to the annual salmon run?</p> <p>Upon review of the draft AIR it is not clear as to whether the impacts to Kamloops Lake and our future water supply is being addressed. The draft AIR talks about assessing water quality but not water quantity and the impacts that could result if all water license holders on the Thompson Rivers and Kamloops Lake use their quota during drought conditions or in the future with climate changes.</p>	dAIR comment	General	Surface Water Quantity	6.4	The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows).	
1295	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	<p>6. What will be the impacts to Makao Lake and Guerin Creek?</p> <p>Again it does not appear that impacts to Makao Lake and Guerin Creek are being considered. As we currently have ranch leases on our properties, they are reliant on adequate water in these two water courses.</p>	dAIR comment	General	Surface Water Quantity	6.4	A site wide water balance and water quality model will be used to assess the effects of the proposed project on surface water quality and quantity.	

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1303	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	6. Impacts to Peterson Creek. It does not appear that Peterson Creek is being assessed even though it will be severely impacted by the relocation of a portion of this water course and the potential for contamination. As a large number of wildlife and fauna relies on this water course it should be added to the draft AIR.	dAIR comment	Ajax open pit	Surface Water Quantity	6.4	A variety of wildlife surveys and rare plant surveys have been completed across the study area, including the vicinity of Peterson Creek. Survey results will be reported in the Project Application/EIS. The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area and effects on downstream flows. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users. Studies that have been done to quantify the fisheries values of both Jacko Lake and Peterson Creek will be presented in the Application and will inform the effects assessment. The Application will also include details regarding the design of the potential relocation of Peterson Creek and the habitat values or gains that may be provided.	
1312	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		Specific Comments 6.4.1 Surface Hydrology Effects The study area should include Peterson Cr. south of the Hwy.#5. It is uncertain if the diversion of Kamloops Lake water up to the site and the diversion of Peterson Cr. itself will result in changes to downstream hydrology of Peterson Cr.. Baseline data, preferably over a year, should be gained in both the development area and Peterson Cr. south of Hwy #5 through use of continuous data-loggers to capture depth, rates of change and their frequency and magnitude so that a relationship can be made with the development area and projected changes modelled.	dAIR comment	General	Surface Water Quantity	6.4	Studies that have been done to quantify the fisheries values of both Jacko Lake and Peterson Creek will be presented in the Application and will inform the effects assessment. The Application will also include details regarding the design of the potential relocation of Peterson Creek and the habitat values or gains that may be provided. The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows).	
1346	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.4 Surface Water Quantity The proponent must demonstrate that their blasting activities will not fracture bedrock at the bottom of Jacko Lake in such a manner as to cause lake drainage. They should provide information from other similar mine projects that have had success mining near a lake to compare their mine blasting plan with other projects that were successful in geologically similar environments. Wetlands in the area will likely be damaged and destroyed as a result of this project and a section of The proponent should provide justification for the removal of wetlands and the diversion of Peterson Creek , if applicable, for their project footprint including plans for compensation for such losses, and drainage plans where water is re--directed away from ponds or lakes.	dAIR comment	blasting	Surface Water Quantity Jacko Lake	6.4 8.7	Results of hydrogeological assessments of the pit and area surrounding Jacko Lake will be presented in the Application/EIS. Available blasting plans from similar mine projects will be reviewed and if applicable discussed in the Application/EIS. Approval under Section 9 of the provincial Water Act is required for changes in and about a stream. Authorization from Fisheries and Oceans Canada will be required for any fish habitat loss. Fish Habitat Compensation plans will be discussed in the Application/EIS. The potential effects assessment in the Application/EIS will include the effects of blasting on rock fracturing, pitwall and slope stability; project effects on landforms and soil erosion, and the effects of the Project on geohazards.	

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1348	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.6 Groundwater Quantity The proponent should present plans to prevent contamination of waterways, including bottom sediments, and plans for restoration of natural drainage patterns after mine closure.	dAIR comment	General	Surface Water Quantity	6.4	The potential effects of construction, operation and closure on water quality and quantity (surface and groundwater) will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards for freshwater aquatic life. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Closure and Reclamation details will also be presented in the Application/EIS.	
1402	336	4-Apr-12	Personal Information Withheld		8. With the estimated 1600cuM of water per hour to be drawn from Kamloops Lake, what will the effect be on Lake levels, and how will this affect residences on the lake, with wharves moorages and beaches ?	dAIR comment	General	Surface Water Quantity	6.4	The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows).	
1406	336	4-Apr-12	Personal Information Withheld		12. What does zero discharge facility mean? This does not seem realistic.	dAIR comment	water management	Surface Water Quantity	6.4	The principle of "zero discharge" is recycling of all contact water (water that is used for processing or flows over mine-disturbed areas). Because of water reuse, contact water will not be released into the environment during mine operation. At closure, water will be released if it meets federal guidelines or standards or site-specific water quality objectives prior to or following treatment.	

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1426	338	4-Apr-12	Personal Information Withheld	Kamloops	Taking huge amounts of water from Kamloops Lake: • Is it sustainable? What will the long term effect be?	dAIR comment	General	Surface Water Quantity	6.4	The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows).	
1	1	11-Jan-12	Kamloops Stockmen's Association	Kamloops, BC	The Kamloops Stockmen's Association met on December 13, 2011 to determine base lines they felt should be established during the Assessment Process for the Ajax Mine near Kamloops. 1. Groundwater potability	dAIR comment	General	Groundwater Quality	6.5	Baseline groundwater sampling has been conducted in wells situated around the project site. Results will be presented in the Application/EIS.	
9	4	15-Jan-12	Kevin and Lenna Lutz	Kamloops, BC	We would like to express our disapproval towards this project due to proximity to the city limits of Kamloops. Any mining project will contribute considerable to the local environment in a negative way. Air, water, noise, etc. We understand the financial benefit a mining project of this size can be to any community; it just should be so close to the community. Today that community belongs to over 80,000 people.... Kamloops, BC.	Project comment	General	Groundwater Quality Groundwater Quantity Air Quality Noise and Vibration	6.5 6.6 10.1 10.4	Please refer to the AIR for the studies proposed to assess the potential effects of the project on air quality, ground water and noise. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
20	11	6-Feb-12	Katherine Michell	Kamloops, BC	The water quality in wells need to be tested so it can have a baseline as well.	dAIR comment	General	Groundwater Quality	6.5	Baseline groundwater sampling has been conducted in wells situated around the project site. Results will be presented in the Application/EIS.	

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53	21	7-Feb-12	Hugh Jordan	Kamloops, BC	3. Will Inks lake bottom be sealed to prevent seepage of contaminants into groundwater?	dAIR comment	water management	Groundwater Quality	6.5	A site wide water balance will describe water movements within the proposed Project area and effects on downstream and downgradient flows. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users. Results from numerical water quality models will be compared to applicable provincial and federal guidelines or standards for the protection of aquatic life, drinking water, agriculture, and irrigation. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Monitoring programs to be developed and implemented as part of the project Environmental Management System will ensure that measures and controls are in place to minimise the potential for environmental degradation. The following plans described in the AIR/EIS Guidelines relevant to this concern include: • Surface Water Quality Management and Monitoring Plan • Groundwater Quality Management and Monitoring Plan • Erosion and Sediment Control Plan • Acid Rock Drainage Management Plan • Water Management and Hydrometric Monitoring Plan • Fisheries And Aquatic Life Monitoring Plan Follow Up programs are also required under federal legislation. As described in the AIR/EIS Guidelines, the purpose of follow up programs is to verify the accuracy of the environmental assessment of the project and determine the effectiveness of any measures taken to mitigate the adverse environmental effects of the project.	
227	82	10-Feb-12	Personal Information Withheld		(3) Groundwater flow and quality should be studied prior to operation and as tailings accumulate; effect of ground compression from weight of tailings on groundwater quantity and quality needs to be monitored	dAIR comment	waste rock management facilities	Groundwater Quality Groundwater Quantity	6.5 6.6	Baseline groundwater sampling has been conducted in wells situated around the project site. Results will be presented in the Application/EIS. The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project. The Application will include a description of how compression will be considered in the assessment.	
279	89	11-Feb-12	David Verhoeff	Kamloops, BC	9. Water Quality - contaminated ground water?	dAIR comment	General	Groundwater Quality	6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	

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387	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	b) what will be the impact of leaching of tailings into groundwater and Kamloops Lake	dAIR comment	General	Groundwater Quality	6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
432	130	28-Feb-12	Rob Wycherley	Kamloops, BC	6.5 Groundwater Quality 1. Are there any independent studies being relied upon by the EAO to determine the potential for leaching into the drinking water table used by ranchers in the area for their own use and for livestock, and for the drinking wells in and around the Knutsford area? 2. Appendix 1 of the AIR document lists water quality analysis parameters. What does this mean? 3. Specifically, does Appendix 1 show the current standards of heavy metals measured in the groundwater, or does it show the maximum allowable standards 4. What is the source of this information? 5. What is the area over which any tests have been conducted? 6. Assuming that the values expressed in Appendix 1 reflect proposed maximum values during mine operation, what are the cumulative human health effects over time of the ingestion of water containing: cyanide; Arsenic; Cadmium; Chromium; Cobalt; Lead; Mercury; Titanium; Uranium; Vanadium and Zinc in the values expressed therein? 7. If this information is currently not known (and independently verified) by the EAO, will it be done before any approvals are granted? 8. If this information is currently not known why is an issue that is likely to be of crucial importance to the long-term health of the local population, not known?	dAIR comment	General	Groundwater Quality	6.5	Baseline groundwater sampling has been conducted in wells situated around the project site. The baseline program design, study area, methodology, assumptions, and results will be presented in the Application/EIS. The values presented in Appendix 1 of the dAIR are the parameter Method Detection Limits (MDL) and not maximum values.	
471	136	1-Mar-12	Personal Information Withheld	Kamloops, BC	Water is a significant problem in Knutsford. Can the proponent guarantee that ground water will not be reduced or polluted?	dAIR comment	General	Groundwater Quality Groundwater Quantity	6.5 6.6	The potential effects of construction, operation and closure on water quality and quantity will be predicted using numerical mass balance models. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	

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501	145	3-Mar-12	Personal Information Withheld	Kamloops, BC	5. All ground water leading off site needs to be protected from contaminating downstream directions. If all the above and other requisite environmental and engineering safeguards are put in place, then I could support this mine as I also believe that the resources in this Province that the world needs help pay for our Education, Health, other important Social services and our standard of living. Without resource extraction and utilization, none of these things are sustainable or affordable regardless of what the naysayers, socialists and NDP types think.	Project comment	General	Groundwater Quality	6.5	Details on site wide water management will be presented in the Application/EIS. The potential effects of construction, operation and closure on groundwater quality will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
526	147	5-Mar-12	Kevin Cowan	Kamloops, BC	2. Please refer to my questions pertaining to page 11 of the Booklet. When considering the effect upon groundwater, please refer to question 1."a-f" and "l-o" and answer these questions again as they pertain to the effect the mine may have on groundwater.	dAIR comment	General	Groundwater Quality	6.5	The potential effects of construction, operation and closure on water quality and quantity will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
592	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• Python Lake in Pineview Subdivision within 1500m or so of the mine site is fed by ground water. Why is there no monitoring of Water Quality of Python Lake occurring to establish back ground levels. Resident has reported observing a someone from a previous mine on the proposed Ajax site had to do some monitoring of Python Lake as there apparently are shafts in the hill behind the subdivision that could be carrying leachate to the ground water system.	dAIR comment	General	Groundwater Quality	6.5	Groundwater monitoring wells are established around the project site and will be used to monitor groundwater quality. The potential effects of construction, operation and closure on groundwater quality will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	

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595	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• Will the pit be lined to prevent leachate from entering ground water system.	dAIR comment	Ajax open pit	Groundwater Quality	6.5	The pit will not be lined. Site wide water management details, including anticipated leakage/seepage rates from the TSF, will be included in the Application/EIS. A site wide water balance will describe water movements within the proposed Project area and effects on downstream and downgradient flows. The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users. Results from numerical water quality models will be compared to applicable provincial and federal guidelines or standards	
610	163	10-Mar-12	Personal Information Withheld	Kamloops, BC	• Water is a significant problem in Knutsford. Will ground water be reduced or polluted?	dAIR comment	General	Groundwater Quality Groundwater Quantity	6.5 6.6	The potential effects of construction, operation and closure on groundwater quality and quantity will be predicted using a numerical mass balance models. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
622	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	16. What drainage/sloughing measures have been studied to balance the height, width and composition of the waste rock area when it has been sprayed with water or the rains or snow melt cause runoff down slopes toward the public Goose Lake road and Peterson creek? 17. What dust/ metals would the runoff waters contain that come from the east waste rock storage facility and how will they effect the Aquifers' water quality in the short and long term?	dAIR comment	waste rock management facilities	Groundwater Quality	6.5	The potential effects of the waste rock management facilities will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	

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624	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	21. What route will the proposed KAM be using to bring the BC Government subsidized Hydro to the mine site and at what distance will the high voltage line be from the Goose Lake Road? 22. Will the proximity of the High Voltage Hydro line to the Sugar Loaf Aquifer which runs the distance of the proposed east Ajax mine site and waste rock dump to the east end of Goose Lake Road be influenced by the increased level of the magnetic field?	dAIR comment	transmission line	Groundwater Quality	6.5	Project design details will be presented in the Application/EIS. The potential effects of construction, operation and closure will be predicted for physical and chemical parameters using a numerical mass balance model. Magnetic fields are produced by the flow of current through wires and occur only at close range. Because electric fields rapidly become weaker as the distance from the line increases, there is not sufficient evidence to establish a definitive pathway for a cause-effect relationship between the hydro power line and any aquifers.	
704	198	19-Mar-12	Scott Quibell	Kamloops, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (11 of 23)[2012-03-26 3:53:56 PM] I am respectfully writing with my concerns surrounding the Ajax Mine proposal. This project will have an unimaginable effect on the natural areas adjacent to Kamloops. One area of my concern is with the fragile waterway of Peterson Creek. This creek, although small in size, is the center piece of one of Kamloops' most iconic parks. This waterway is listed as the most at-risk small watershed unit in the Thompson Region by the Government of BC in its own report of January 2011 (http://www.env.gov.bc.ca/wat/wq/pdf/gis-report-thompson-jan2011.pdf). While this waterway is small, it flows directly into the Thompson River which supports one of the most important salmon runs in the world. Adding another level of strain to this creek through its diversion and carrying of leached contaminants from mining activities is unacceptable. Add to this the effects on surrounding forested areas from copper ore dust asphyxiation, as described by Natural Resources Canada. The grassland area surrounding this proposed mine is home to a diverse range of flora and fauna and is slow to recover. This area will be forever lost to the people of Kamloops.	Project comment	General	Groundwater Quality Grasslands	6.5 6.10	Section 6 of the Application / EIS will address effects to Peterson Creek, including changes to water quality and water quantity .	
891	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	• Potential groundwater impacts. A detailed assessment of the change in the chemistry of the surface and groundwater and how it will affect the living environment will hopefully be assessed.	dAIR comment	General	Groundwater Quality	6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Results from water quality models will be used to assess any potential effects on fish populations and other aquatic biota in and downstream of the project area.	

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920	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>6.5 Groundwater Quality What does the acronym 'MDL' mean? 3. How is the proponent planning to mitigate contamination of groundwater from acid rock runoff and seepage? The main mineral of the rock to be mined is chalcopyrite which will have the potential to release sulfates into the aquatic environment, which would also increase the leaching potential of heavy metals into the surface water and groundwater. 4. The proposed location of the East Waste Rock Management Facility is on top of unconfined Sugarloaf Sand-Gravel Aquifer, which would likely help spread of contamination through the flowing groundwater first east towards Knutsford, and then south towards the City of Kamloops and Thompson River. Is there a monitoring program to determine the groundwater background chemistry? 5. What is the assessment of groundwater contamination from acid rock leaching? 6. If so, what are the specific monitoring and mitigating plans? 7. Is there an estimate for how long it would take for contamination from the mine site to reach South Thompson River?</p>	dAIR comment	waste rock management facilities	Groundwater Quality	6.5	<p>MDL is the acronym for Method Detection Limit. The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Baseline groundwater sampling has been conducted in wells situated around the project site. Results will be presented in the Application/EIS.</p> <p>Assessment and prediction of ML/ARD potential will be conducted according to applicable policy and guidelines documents, including: • Policy for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, Ministry of Energy and Mines and Ministry of Environment, Lands and Parks, July 1998. • Guidelines for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, Price and Errington, August 1998. The ML/ARD prediction program will include: • Identifying and describing all geological materials excavated, exposed or otherwise disturbed. • Predicting the ML/ARD potential, and • Developing a mitigation and monitoring program based on the ML/ARD potential.</p>	
1011	270	27-Mar-12	Personal Information Withheld	Kamloops, BC	If the laboratory test assessed metal leaching is significant, what are the potential groundwater impacts? If the impacts are significant then what are the preventative and mitigation measures proposed by the mine proponents?	dAIR comment	General	Groundwater Quality	6.5	The Application/EIS will integrate results of the Metal Leaching / Acid Rock Drainage (ML/ARD) prediction work, baseline surface water quality, hydrology, hydrogeology, and water balance information to develop water quality predictions. Predictions will be used as a basis for effects assessment, to determine materials handling procedures; and to assess and develop ML/ARD mitigation/management requirements for the project.	
1013	270	27-Mar-12	Personal Information Withheld	Kamloops, BC	and how many groundwater monitoring piezometers are planned up-gradient and down-gradient from the proposed mining activities perimeter? What are the water quality conclusions of preliminary baseline monitoring? If so, was a qualified analytical lab responsible for water testing? And were specific QA/QC procedures followed? What kind?	dAIR comment	General	Groundwater Quality	6.5	The water monitoring program will be described in detail in the Application/EIS. QA/QC procedures for field and lab work will be included in the Application/EIS.	
1018	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	3. What proof will Ajax provide to ensure the contamination of groundwater will not affect adjacent wells and fish in our lakes and rivers?	dAIR comment	General	Groundwater Quality	6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards, and monitoring programs for surface and groundwater quality and quantity and fish populations and habitat will be discussed in the Application/EIS.	

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1025	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	11. What studies have been done on the aquifers below the mine site and what plans are in place to protect those aquifers from contamination?	dAIR comment	General	Groundwater Quality	6.5	Baseline groundwater sampling has been conducted in wells situated around the project site. Results will be presented in the Application/EIS. The Application will also include discussion of project impacts on groundwater quantity (characterization of the bulk hydraulic conductivity for overburden and bedrock materials, rate and direction of groundwater flow, interpretation of aquifer and aquitard locations, etc.) as described in the AIR.	
1037	272	27-Mar-12	Personal Information Withheld	Kamloops, BC	A second, smaller, shallower and highly vulnerable aquifer (MOE classification and mapping) of approximately 2.2 sq.km lies to the east of the pit in the Peterson Creek area. The Knight Piesold Project Description document, Section 7.1.5, in reference to Peterson Creek states: "release of effluents to the aquatic environment may cause deterioration of aquatic habitat and result in mortality or reduction in utilization of habitat by fish species. Reduced water quality could have negative impacts on irrigation water and human health" 10. Does the EAO and CEEA consider negative effects to human health and environment an acceptable fish with the inevitable long term costs to be borne by the taxpayer? 11. What specific measures will be taken to protect this aquifer from mine related contamination? 12. Who will bear the costs of any long term degradation that might occur? What mitigation and remediation activities will the proponent be responsible for implementing?	dAIR comment	General	Groundwater Quality	6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1079	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	j. What measures are in place to deal with the potential of contaminates leaching from the tailings stockpile into the ground water on the watershed west of the stockpile? Who will monitor this potential problem?	dAIR comment	General	Groundwater Quality	6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Follow-up programs will presented in the Application/EIS, designed for post-closure monitoring.	
1102	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	6.5.2 Ground Water Quality – Background The inventory of ground water users should include more than just discussions with water licence holders. Some physical monitoring of water quality and quantity before, during and after mine development is required.	dAIR comment	General	Groundwater Quality	6.5	Baseline monitoring and proposed operational and post-closure monitoring will be discussed in the Application/EIS.	

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1110	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	Figure 6.5-1 Ground Water Effects Study Area We would expect the ground water study area needs to be extended to the north into the Aberdeen subdivision as there are potential ground water concerns from the northwest waste rock and ore processing and storage sites through subsurface channels.	dAIR comment	General	Groundwater Quality Groundwater Quantity	6.5 6.6	The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project. The Aberdeen subdivision is included in the groundwater effects study area.	
1117	282	27-Mar-12	Muriel Miller	Aberdeen, BC	4) Contamination of ground water.	dAIR comment	General	Groundwater Quality	6.5	The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
1169	294	27-Mar-12	Personal Information Withheld		6.5 Groundwater Quality Have studies been done to find out potential for leaching from the mine into the drinking water table used by ranchers for themselves and livestock, and people who have wells on Petersen Creek? How will this aquifer and that of Cherry Creek be affected by the mining? Much of both these creeks are underground in certain areas. Petersen Creek drains directly out of Jacko Lake. It will become contaminated by the dust from the adjacent open pit mine and which are toxic to humans (and often to animals) such as Arsenic, Lead, Cadmium, Uranium, Strontium, all of which have been mentioned in various chemical analyses. What effect will these toxic substances have? When will studies of the present water composition be put in place? (they should be done for a period of at least 3 years to ascertain what is the normal flow at different times of year.) what are the cumulative effects on human health of the metals above (there are others, but the point is made)? What compensation will be in place for the destruction of the fishing lake open earliest in the Kamloops area (a popular fishing area which is a huge tourist attraction)? This lake can never be replaced, or can the enjoyment that many people obtain from the easy accessibility and beautiful scenery. If the answers to the above questions are not known at the present time, then the BCEAO and the CEAA should request an independent assessment of these concerns – which is why an independent federal review was requested in the first place.	dAIR comment	General	Groundwater Quality Jacko Lake	6.5 8.7	Baseline groundwater sampling has been conducted in wells situated around the project site. Results will be presented in the Application/EIS. The potential effects of construction, operation and closure will be modelled. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. A HHERA will be included in the Application/EIS. Jacko Lake has been identified as a VC. Access to Jacko Lake will be preserved during operation; however, recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS. A conceptual fish habitat compensation plan will also be included in the Application/EIS and will be a requirement for permitting should the project receive approval.	

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1334	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<ul style="list-style-type: none"> establishment of a baseline and ongoing monitoring (through the use of borehole data) of drinking water wells in the area, extended to the north from the existing proposal to ensure that areas that may be affected by the northwest waste rock and processing sites are also captured. Without the establishment of baseline conditions for terrestrial and hydrological features and an accompanying long term monitoring program, it will be impossible for the proponent to assess any damage or destruction that has occurred as a result of their activities to be able to determine conclusively: what is currently on the site what has been lost as a result of mine operations (if it goes forward) what must be reclaimed and how it should be completed 	dAIR comment	General	Groundwater Quality Groundwater Quantity	6.5 6.6	<p>KGHM Ajax Mining Inc. has initiated a groundwater well inventory program in the project area.</p> <p>Monitoring and management plans during project operation, closure and post-closure are outlined in the AIR in Section 11. The need for any additional monitoring programs are described in Section 17.2.</p>	
1347	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<p>6.5 Groundwater Quality</p> <p>The proponent must provide evidence and ongoing monitoring (through the use of borehole data and/or other relevant data gathering techniques) that drinking water wells in the vicinity of the project will not be contaminated. The proponent should be required to monitor water flows and water quality on individual water wells of downstream users to ensure the owners of these systems that their supply or water quality are not being harmed.</p> <p>"Zero discharge" of process affected water has not been demonstrated. The proponent should install boreholes and complete hydraulic testing around Inks Lake and complete a water balance to show that inputs and outputs of the Inks Lake tailings storage facility result in a zero discharge environment.</p>	dAIR comment	General	Groundwater Quality	6.5	<p>Baseline groundwater sampling has been conducted in wells situated around the project site. The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. The model will be used to predict water flows and water quality on individual water wells of downstream users.</p>	
1376	329	4-Apr-12	Personal Information withheld		11. Is there potential for toxins to leach into ground water and contaminate water sources, including those that supply well water on private property?	dAIR comment	General	Groundwater Quality	6.5	<p>The potential effects of construction, operation and closure will be predicted using a numerical mass balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. The model will be used to predict water flows and water quality on individual water wells of downstream users.</p>	
1384	331	4-Apr-12	Emma Bourassa	Kamloops, BC	<p>13/03/2012. Prior to this mine being developed so close to the city, it is necessary to have another case brought forward that has the same circumstances- semi arid desert means Kamloops is sitting on much groundwater that is moving. Who knows where it goes? How will that be investigated and then measured for change? In terms of measuring change, there MUST be a before measurement of air and water quality as well as the health of animals and people both close to the mine and in concentric distances around it. That is the only way to be able to make an informed report on the mine's effects.</p> <p>Are there 22 doctors in place to come to Kamloops and replace the ones who leave? Who is recruiting? What are the contracts in place? Who will pay for this? Has a worst case scenario been done- e.g. what is the economic cost to the city, the province and individuals if the mine starts, is found to be unmanageable and leaves? Especially if it leaves a polluted, unfinished state. Who is responsible for cleanup? Does the company have to prove funding in advance to take care of this? I cannot support such development without having a clear idea that both the worst and best case scenarios are investigated- and not based on a mathematical formula by an economist only. The team needs to have input from farmers, health practitioners, water experts and social scientists.</p>	Project comment	General	Groundwater Quality Air Quality	6.5 10.1	<p>General statement.</p> <p>Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.</p>	Air Quality - 3.3.4.1

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1405	336	4-Apr-12	Personal Information Withheld		11. What studies have been done on the aquifers below the mine site and what plans are in place to protect those aquifers from contamination?	dAIR comment	General	Groundwater Quality	6.5	Baseline groundwater sampling has been conducted in wells situated around the project site. The potential effects of construction, operation and closure will be modelled. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Results will be presented in the Application/EIS.	
1416	337	4-Apr-12	Personal Information Withheld		If the laboratory test assessed metal leaching is significant, what are the potential groundwater impacts. If the impacts are significant then what are the preventive and mitigation measures proposed by the mine proponents?	dAIR comment	General	Groundwater Quality	6.5	The Application/EIS will integrate results of the Metal Leaching / Acid Rock Drainage prediction work, baseline surface water quality, hydrology, hydrogeology, and water balance information to develop water quality predictions. Predictions will be used as a basis for effects assessment; to determine materials handling procedures; and to assess and develop ML/ARD mitigation/management requirements for the project.	
1420	337	4-Apr-12	Personal Information Withheld		What are the anticipated leakage/seepage rates from the settling tailings pond? what is the plan for treatment of captured effluent?	dAIR comment	TSF	Groundwater Quality	6.5	The tailing system and associated infrastructure is designed to collect both process and contact water to re-utilize the water in the process. The leachate from the TSF will be collected and sent to the Process Pond water. This will be available in the Application/EIS. Feasibility level geotechnical drilling of the soils, till and bedrock has indicated that the underlying bedrock is very competent, and that there will be minimal seepage of water into the bedrock layers. Baseline studies in support of the EA will be presented as appendices to the Application.	

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261	87	10-Feb-12	Personal Information Withheld		water wells may be negatively impacted by diversion of ground water water use	dAIR comment	General	Groundwater Quantity	6.6	The potential effects of construction, operation and closure on quantity will be assessed using a watershed and water balance model. Effects on current water licences will be assessed. Results will be presented in the Application/EIS.	
397	127	27-Feb-12	Personal Information Withheld	Aberdeen, BC	What are the impacts of the daily water use of open pit mines in other communities in North America? Is it sustainable? What are the ground water issues?	dAIR comment	General	Groundwater Quantity	6.6	Please see the AIR for proposed studies to assess the effects of the project on ground water quality and quantity.	
474	137	1-Mar-12	Personal Information Withheld	Chase, BC	' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (70 of 77) [2012-03-06 2:47:31 PM]' Water supply to mobile home parks in the area, other residences as well – mobile home park with fragile water supply - owner is a developer who will no doubt request that TNRD and the city of Kamloops supply him with city water. It might be a prudent safeguard for the citizens of Kamloops and TNRD the mining company be required to put in place a bond to cover most, if not all, of the cost, if this should happen	dAIR comment	General	Groundwater Quantity	6.6	Potential impacts of the proposed Project on groundwater flow will be assessed in the Application/EIS. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
475	137	1-Mar-12	Personal Information Withheld	Chase, BC	Aberdeen area has underground water issues – where is the origin of this water? What affect will redirecting creeks have on it?	dAIR comment	General	Groundwater Quantity	6.6	A water balance will be developed to assist with the site water management and to determine the inflows and outflows from mine facilities. The potential for required use of surface water for the project to affect surface water and groundwater flows and quality will be assessed in the Application/EIS.	
488	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	10. How will the "Sugarloaf Hill" aquifer be protected from adverse impacts resulting from drainage and the compaction of the East Waste rock 94m high "storage dump?".	dAIR comment	waste rock management facilities	Groundwater Quantity	6.6	A water balance will be developed to assist with the site water management and to determine the inflows and outflows from mine facilities. The potential for required use of surface water for the project to affect surface water and groundwater flows and quality will be assessed in the Application/EIS.	

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503	146	4-Mar-12	Personal Information Withheld	Kamloops, BC	Who would be held responsible should ground water patterns and flows be changed were the mine developed? Would KGHM be held responsible for home damage? Would they cover all costs to home owners? Would KGHM be held responsible for any costs to the City of Kamloops should new ground water seepage affect roads, sidewalks and parks?	dAIR comment	General	Groundwater Quantity	6.6	A water balance will be developed to assist with the site water management and to determine the inflows and outflows from mine facilities. The potential for required use of surface water for the project to affect surface water and groundwater flows and quality will be assessed in the Application/EIS. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
525	147	5-Mar-12	Kevin Cowan	Kamloops, BC	1. In the Booklet, the third bullet point on page 13 addresses the potential for water withdrawal from Kamloops Lake for mine processing and dust control, to cause water shortages and affect downstream communities. In section 6.3.7 the proponent proposes only to provide a summary of potential residual and cumulative effects. Why is the proponent not being required to provide details in respect of surface and groundwater use and their effect on the adjacent community of Kamloops, given the potential for significant effects on water quality and slope stability?	Project comment	General	Groundwater Quantity	6.6	This information will be presented in detail in the Application/EIS. Please note that Section 6.3.7 of the dAIR (Conclusion) is intended to summarize the information that is presented in detail in the previous sub-sections (Rationale, Background, Potential Effects, Residual Effects, etc.).	
556	149	7-Mar-12	Hugh Jordan	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (69 of 69)[2012-03-14 4:29:55 PM] [^] There are rural homes and ranches who rely on wells for water in the general area of the mine. With the pit being half a kilometer deep the water table will be lowered. Will they receive any assistance to drill their wells deeper? Knutsford already has a well problem.	dAIR comment	General	Groundwater Quantity	6.6	Discussion of assistance (financial or in-kind agreements) is outside the scope of the EA. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
626	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	3. Has groundwater mapping been done to show the connectedness of our well water source and how it may be influenced by the Ajax mine operation? 4. Will the water table be impacted as a result of the Ajax mine operation? 5. Will baseline studies of our well be done and what studies have been or will be done to ensure that the Ajax mine operation will have no impact on our well water? Will these studies be carried out for all area well users impacted by the Ajax mine?	dAIR comment	General	Groundwater Quantity	6.6	Groundwater levels at monitoring wells in the project area have been monitored as part of the baseline program. The potential effects of construction, operation and closure on groundwater quantity will be assessed using a watershed and water balance model. Baseline information, methodology, model assumptions and results will be presented in the Application/EIS.	

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664	178	13-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> The addition of the immense quantity of water the mine demands. This will affect wetlands, wells, runoff patterns and potentially allow Petersen Creek and others to bring even more toxins into our neighbourhoods and rivers. Also the potential threat to homes and infrastructure from the change to the hydrology of the area must be considered. 	dAIR comment	fresh water supply	Groundwater Quantity	6.6	The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
678	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	<p>6. Possible Impact on Ground Water/Underground Streams:</p> <ul style="list-style-type: none"> Will the mine be culpable should any of their activities affect the existing problems with groundwater in our neighbourhood or if the water under our home becomes a problem? Who will determine the cause of any potential problems that occur? How would we be compensated if a problem occurred and we suspected it could be related to mining activities? Would we have to mount a costly legal battle and hire expensive consultants or will there be provisions made to deal with these types of concerns if they arise? 	dAIR comment	General	Groundwater Quantity	6.6	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
700	195	17-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> What are Ajax's plans to monitor ground water quantity and quality in the Aberdeen area? How many monitor wells are they willing to install? How is Ajax going to insure that Jacko lake is not impacted by the close proximity of the mine pit? If there was problems, are they required to remedy? 	dAIR comment	General	Groundwater Quantity	6.6	Site wide water management details, including anticipated leakage/seepage rates from the tailings storage facility, will be included in the Application/EIS. The potential effects of construction, operation and closure on water quantity will be predicted using a watershed and water balance model. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards.	
800	227	24-Mar-12	Marcia Wilson and Klaus Mey	Kamloops, BC	<p>Groundwater Impact: this is a significant concern to us in light of the fact that our home on Turnberry Place is directly adjacent to two homes who have already experienced significant damage due to water issues, to the degree that their basements had to be rebuilt. As well, other houses on the street currently have water issues and one house has water in the basement. After buying our home we learned from a map of our neighbourhood that Geurin Creek originally ran right through our backyard. The city is constantly monitoring and working on Aberdeen water issues and has invested much money on managing the issue.</p> <p>If mining activities affect our home in some way, will the mine cover all costs of repair as well as compensate our family for the stress and inconvenience of dealing with the issues? Will insurance be valid? Who will determine if the water issues related to the mine, especially since water issues on private property are currently not considered the city's responsibility to address but the responsibility of the homeowner?</p>	dAIR comment	General	Groundwater Quantity	6.6	<p>Effects of blasting on groundwater levels will be included in the Application/EIS.</p> <p>The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project.</p>	

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874	252	26-Mar-12	Paula Pick	Knutsford, BC	• What will be the effect of 23 years of blasting on groundwater levels?	dAIR comment	blasting	Groundwater Quantity	6.6	Effects of blasting on terrain stability will be assessed, with results presented in the Application/EIS. The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project.	
921	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	6.6 Groundwater Quantity 5. What will be the effect of geostatic load pressure from the East Waste Rock Facility on the pore pressure of the groundwater in the slope above the Knutsford Community Hall and Highway 5A? 6. Will the increase in geostatic pressure on the Peterson Creek Aquifer (officially known as the Sugarloaf Hill aquifer) decrease the capacity of this aquifer?	dAIR comment	General	Groundwater Quantity	6.6	Geotechnical investigations have been carried out in the foundation of the proposed East Waste Rock Facility. This will be assessed in the Application/EIS.	
1092	279	27-Mar-12	Personal Information Withheld	Knutsford, BC	This area also has drainage & groundwater problems at present-has this been taken into consideration? Is further testing planned for this area?-If not, why not? Will the proponent guarantee stability of the area?	dAIR comment	waste rock management facilities	Groundwater Quantity	6.6	The potential effects of the proposed project on groundwater flow and quantity will be assessed. If results of this assessment indicate the potential for significant change then mitigation and/or additional study will be proposed as part of the assessment. This assessment process would be applied to the potential for slope instability, structural damage to existing residential properties and municipal infrastructure down gradient from the project.	
1228	305	4-Apr-12	Kenneth Graf	Kamloops (Aberdeen), BC	5) Ground water, it is my understanding that it will be necessary for Ajax to have dewatering wells to prevent intrusion of water into the open pit during mine operations. This water could be used to augment the process water drawn from Kamloops lake, be used to assist in dust control or if in sufficient quantity/quality provide an additional water source for Kamloops reducing the cities cost of pumping water to the higher levels of the city such as Aberdeen. This could be a win/win opportunity and should be considered?	dAIR comment	General	Groundwater Quantity	6.6	Mine water management details will be presented in the Application/EIS	

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122	54	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		2) What impact will the lowering and warming of Kamloops lake and river system have on salmon habitat?	dAIR comment	fresh water supply	Fish Populations and Fish Habitat	6.7	Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC. Mitigation measures will be explored and identified within the Application.	
147	65	8-Feb-12	Alan Havisto		17. The water being pumped out of Kamloops Lake will have how big of an effect on the Thompson River specifically on lowering the water levels and the risk to the fish? How much water does the mine plan on using on a daily basis?	dAIR comment	fresh water supply	Fish Populations and Fish Habitat	6.7	Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC. Mitigation measures will be explored and identified within the Application.	
176	72	9-Feb-12	Personal Information Withheld	Kamloops, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (65 of 77) [2012-02-24 3:07:19 PM] Ajax Mine and NuGold will be sharing a common intake pipeline for water out of Kamloops Lake. Will the water level in Kamloops Lake drop because of the amount of water required for these two mines? How will this effect the salmon runs?	dAIR comment	fresh water supply	Fish Populations and Fish Habitat	6.7	Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC. Mitigation measures will be explored and identified within the Application.	

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214	80	10-Feb-12	Personal Information Withheld		(17) effect of pumping water out of Kamloops Lake on lower water levels and effect on Thompson River fish stocks, how much water will the mine use on a daily basis	dAIR comment	fresh water supply	Fish Populations and Fish Habitat	6.7	Daily water requirements will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC. Mitigation measures will be explored and identified within the Application.	
243	85	10-Feb-12	Personal Information Withheld		Quantity of surface water Section 6.4 will the level of water in Kamloops Lake drop as a result of the water which will be used by the mine? Assuming the level of water will drop, what is the probability of the average temperature within the lake rising slowly? will this along with the effect of mine leachate reduce or eliminate salmon runs up the Fraser and Thompson? Discussion of monitoring should be done	dAIR comment	General	Fish Populations and Fish Habitat	6.7	Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC. Mitigation measures will be explored and identified within the Application.	
263	87	10-Feb-12	Personal Information Withheld		destruction of Peterson Creek probably destruction of Jacko Lake due to toxicity and/or lower water levels that will affect spawning	dAIR comment	General	Fish Populations and Fish Habitat	6.7	The Application/EIS will present results of the surface and groundwater quality and quantity assessments and results of hydrogeological studies, including hydraulic connectivity between the pit and Jacko Lake. Effects on aquatic flora and fauna will be assessed. Studies that have been done to quantify the fisheries values of both Jacko Lake and Peterson Creek will be presented in the Application and will inform the effects assessment. The Application will also include details regarding the design of the potential relocation of Peterson Creek and the habitat values or gains that may be provided.	

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278	89	11-Feb-12	David Verhoeff	Kamloops, BC	7. The mine claims it will only draw 0.2% of the water in Kamloops Lake for it's proposed project. How much exactly is 0.2% in gallons. What effect will this have on the lake and the fish habitat it supports? What effect will this have during the summer when the river levels run low? What effect will this have on the recreation the river supports? What kind of effect will this have on the world famous Adams River Sockeye salmon run?	dAIR comment	General	Fish Populations and Fish Habitat	6.7	Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC. Mitigation measures will be explored and identified within the Application.	
323	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	What effect would the blasting have on fishes in Jacko Lake?	dAIR comment	blasting	Fish Populations and Fish Habitat	6.7	The Application/EIS will include an analysis of potential effects of the proposed Project on fish and fish habitat in Jacko Lake.	
434	130	28-Feb-12	Rob Wycherley	Kamloops, BC	6.7 Fish Populations and Fish Habitat Because of the potential adverse environmental effects of ANFO, its use in Canada is regulated by Section 36(3) of the Fisheries Act (1985), which prohibits the deposit of deleterious substances into waters frequented by fish, unless otherwise permitted by regulation. There is no regulation pursuant to the Fisheries Act that permits the deposit of by-products resulting from the use of ammonium nitrate-fuel oil mixtures. Also, the use of ANFO near bodies of water is not recommended by the Institute of Makers of Explosives, which stipulates that No use of ammonium nitrate-fuel oil mixtures occurs in or near water due to the production of toxic byproducts (ammonia) (Wright and Hopky, 1998). Defence R&D Canada – Valcartier Technical Memorandum. DRDC Valcartier TM 2009-195 January 2010 Water withdrawals from Kamloops Lake are projected to be approximately 1.7 million litres per hour. This means that approximately 14.9 billion liters of water will be pumped to and used by the mine each year. 1.Is this similar to the volume of water currently being used by the Highland Valley Copper Mine and drawn from the Thompson River? 2.Have hydrometric stations been installed in the Thompson and Fraser River basins, to determine the effect that Highland Valley Copper has on water depths? 3.If hydrometric stations have been installed, where are they located? 4.Will new or different hydrometric stations be utilized to monitor the use of water by the proponent? 5.If they exist, what are these measurements and how much depth have these rivers lost as a result? 6.What is the projected loss of steps and flow in the Thompson and Fraser Rivers if the proponent begins drawing water from Kamloops Lake? 7.Have studies been done pertaining to freshwater fish in the Thompson and Fraser Rivers and the effect that the mine will impact upon water temperatures and oxygen levels? 9.These studies are to be undertaken, who will undertake the studies? 10.If any studies at this nature are undertaken, what role will the EAO and the CEA Agency play in ensuring that the data is accurate and complete? 16.Jacko Lake will be separated from the Ajax Open Pit by only a berm. How will emissions from the use of ANFO in rock blasting be prevented from entering Jacko Lake? 17.What will be the chemical composition of these emissions? 18.What will be the impact on aquatic habitat of these emissions?	dAIR comment	blasting	Fish Populations and Fish Habitat	6.7	Water quality modelling will include the chemical constituents of ANFO. Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. Studies that have been done to quantify the fisheries values of both Jacko Lake and Peterson Creek will be presented in the Application and will inform the effects assessment. The Application will also include details regarding the design of the potential relocation of Peterson Creek and the habitat values or gains that may be provided. Operations will adhere to regulations and guidance set out under the Explosives Act (e.g. quantity/distance regulations) and federal fisheries guidelines for blasting in and around water. Effects on surface water quality (blasting restudies, contaminants) will be assessed as part of the surface water quality VC; the significance of any alterations will be assessed with respect to water quality guidelines for the protection of aquatic life.	

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587	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• 3.14 Water supply: Why is there not requirement for the intake description regarding how it will meet the DFO end of pipe fish screening guidelines to prevent harm to fish.	dAIR comment	fresh water supply	Fish Populations and Fish Habitat	6.7	The design of the water intake will be presented in the Application/EIS. All work will be done in accordance with provincial and federal permit conditions, including DFO authorizations, if required.	
605	162	9-Mar-12	Frank Dwyer	Kamloops, BC	• Anticipating further global warming, what effect will large scale water withdrawal from Kamloops Lake have on the low mid-summer flows of the Thompson River below Kamloops Lake and in particular on water temperature during critical development times for salmon and steelhead populations rearing in main stem Thompson River?	dAIR comment	General	Fish Populations and Fish Habitat	6.7	Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC. Mitigation measures will be explored and identified within the Application.	
886	254	26-Mar-12	Debbie Gill	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (25 of 37) [2012-03-29 4:02:53 PM]^ I'd like to comment on a statement from the "Ajax Copper-Gold Project Fact Booklet" which was included in the local newspaper. Under "Water Use and Water Quality", it's stated "Naturally-occurring sulphates tend to be highly concentrated in Inks Lake, making it uninhabitable by fish and other aquatic life". For the past 2 years, our second-year Ecology class at TRU, in the Dept. of Biological Sciences, has done an October fieldtrip to Inks Lake, where, among other activities, we have carried out zooplankton tows, benthic kick surveys and vertical net sweeps close to the shoreline. Aquatic invertebrate life is plentiful in Inks Lake. For example, in our zooplankton tows, we have sampled an average of 37,100 copepods per cubic metre. Our vertical net sweeps have yielded an average of 1,590 amphipods per cubic metre. Average total insect larvae densities have reached as high as 1,870 larvae per cubic metre, in vertical net sweeps. It's difficult to imagine how if, as stated in the booklet, "Ajax has been studying fisheries and aquatic resources in this area since 2007", they have come to the conclusion that there's no aquatic life in Inks Lake.	Project comment	General	Fish Populations and Fish Habitat	6.7	Please see the AIR for an outline of the studies proposed to assess impacts to the surface water environment. Sediment quality, benthic macroinvertebrate diversity, and phytoplankton and zooplankton diversity will be reported for Jacko Lake and Inks Lake, as currently stated in the AIR.	

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922	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	6.7 Fish Populations and Fish Habitat 1. Given the proximity of Jacko Lake to the open pit, where ANFO will be used, how will the proponent prevent the deposition of ANFO by-products and residues into Jacko Lake? 2. If this cannot be prevented, what will be the chemical composition of these emissions? 3. What will be the impact on aquatic habitat of these emissions?	dAIR comment	blasting	Fish Populations and Fish Habitat	6.7	The Application/EIS will present results of the surface and groundwater quality assessments and modelling. Where effects are predicted, mitigation measures will be implemented. Monitoring programs will be completed in accordance with all provincial and federal permits and authorizations. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods. Mitigations to reduce any identified impacts will be explored and identified within the Application.	
923	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	1. What is the projected decline of flow in the Thompson River during extreme low water periods? 2. What are the effects on water temperatures and oxygen levels in the Thompson River during extreme low flow periods due to water withdrawals by the mine?	dAIR comment	General	Fish Populations and Fish Habitat	6.7	Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. The hydrologic analysis will consider the volume of water extracted, the timing of the water extractions, and the effect those extractions will have on the surrounding habitats that may be affected. Mitigations to reduce the freshwater extraction requirement from fish bearing waters will be explored and identified within the Application. Water chemistry during low flow periods will be discussed in the Application.	
996	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	Water - pollutants running off from the tailings into our water, lakes, streams. Taking water from Kamloops lake in vast quantities.. the effects of that water loss on fish, particularly salmon.	dAIR comment	General	Fish Populations and Fish Habitat	6.7	The Application/EIS will present results of the surface and groundwater quality assessments and modelling. Where effects are predicted, mitigation measures will be implemented. Monitoring programs will be completed in accordance with all provincial and federal permits and authorizations. Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS. Baseline studies and how they will be utilized along with modelling to predict potential mine implications on Kamloops Lake, Jacko Lake, Peterson Creek, fisheries resources will be presented in the Application. Mitigation measures and follow up monitoring programs will be discussed if significant issues/impacts are predicted.	

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1132	286	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>- What impact will the operation of Ajax Mine have on the water temperatures in Kamloops Lake and the Thompson River downstream of Kamloops Lake during periods of drought?</p> <p>- What will the combined impact be of Newgold Mine and Ajax Mine on the water temperatures in Kamloops Lake and the Thompson River downstream of Kamloops Lake during periods of drought?</p> <p>- What affect will the water temperature have on aquatic life in particular spawning salmon and salmon fry during periods of drought while Ajax Mine is withdrawing water at full capacity?</p> <p>- What affect will the water temperature have on aquatic life in particular spawning salmon and salmon fry during periods of drought while both Newgold Mine and Ajax Mine are withdrawing water at full capacity?</p> <p>- Is the proponent prepared to cease withdrawal of water from Kamloops Lake if water temperatures are at dangerous level for aquatic life and salmon and inadequate water flow is available for downstream communities? The fresh water supply system will transport a maximum total of 14,786,880,000 litres of fresh water into the proposed mine site per year of which ½ of the footprint lies within the City of Kamloops, much of it within just metres of the subdivisions of Aberdeen and Pineview Valley. At the weight of one kilogram per litre of water at 4 degrees Celsius, the following questions need to be answered.</p>	dAIR comment	General	Fish Populations and Fish Habitat	6.7	<p>Changes to water temperature associated with reduced flows will be discussed in the Application/EIS.</p> <p>Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.</p>	
1207	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	<p>28. How will this impact our Salmon Runs? 29. If this hasn't been reviewed in depth why not? 30. Are these findings made public?</p> <p>31. Is there any research on how Salmon and other fish have responded to a similar situation of toxins put into the water?</p> <p>32. How will this impact communities further down? 33. If this hasn't been reviewed in depth why not?</p> <p>34. Are these findings made public?</p> <p>35. Will there be monitored testing of the water at different stages from where Peterson and Cherry Creek enter the Thompson River and Kamloops Lake and further down?</p> <p>36. If not can you explain why our fisheries and the life forms that consume the water are not important enough to monitor this situation?</p> <p>37. If it is will the information be made public? 43. If not why not?</p> <p>44. Has these methods been put into place where there are measureable results that can be verified by the public?</p> <p>45. How many piezometers will be in wells monitoring the ground movement from all forms of water?</p> <p>46. If there is a plan in place where will they be located and how many?</p> <p>47. Will the results be public? 48. If not why not?</p>	dAIR comment	General	Fish Populations and Fish Habitat	6.7	<p>The Application/EIS will present results of the surface and groundwater quality assessments and modelling. Where effects are predicted, mitigation measures will be implemented. Monitoring programs will be completed in accordance with all provincial and federal permits and authorizations. Hydrological analysis of the volume of water to be extracted for mine process and potable water on Kamloops Lake will be presented in the Application/EIS.</p> <p>The hydrologic analysis will consider the volume of water extracted and timing (surface water quantity VC). The effects assessment on fish stocks will be informed by the surface water quantity VC and surface water quality VC.</p>	
1258	311	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	<p>Dust:</p> <p>1. This could be a big issue if it isn't controlled. What will the proponent do to control the dust?</p> <p>2. I don't want to see a layer of dust on the lake when I go up there. I want to see a nice clean lake with a little riffle so my fly line gets a nice drift.</p> <p>3. Fish eat the invertebrates (shrimp, chironomids, dragon flies, damsel flies, etc.) so the dust cannot be allowed to settle on and eventually cover up these important areas.</p>	dAIR comment	General	Fish Populations and Fish Habitat Jacko Lake	6.7 8.7	<p>Mitigation measures to address fugitive dust issues will be discussed in the Application/EIS. Potential impacts on the biophysical aquatic environment will be included in Section 6.</p>	

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1259	311	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	<p>Invertebrates and Fish: 1. Has or will the proponent study Jacko Lake invertebrates to determine their current populations so remediation work can be carried out if studies determine that they have declined? 2. Will fish be sampled to determine their health, population, etc. so that 5 and 10 years down the road we know if the Ajax mine has had an impact? Then what can be done to mitigate it? I would like to see a 3D model of Jacko Lake as if I was sitting in my boat so I can see how the mine will change the aesthetics of the landscape. I would like to restate that Jacko Lake is a very important facility for Kamloops residents and tourists. I can be fishing as Jacko Lake from my condo in south Kamloops in ½ hour. I also work part time at Wholesale Sports fishing department and when people want to go fishing to a lake close by we send them to Jacko, Edith, and Six Mile Lakes. These lakes are easily accessible and you can fish from shore. They are also great for children.</p>	dAIR comment	General	Fish Populations and Fish Habitat Jacko Lake Visual Impact/Aesthetic Features	6.7 8.7 8.4	<p>Potential impacts on the biophysical aquatic environment will be included in Section 6. The dAIR will be revised to reflect an additional viewpoint from Jacko Lake in the visual impact assessment. Jacko Lake has been identified as a VC and will be assessed in the Application/EIS. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.</p>	
1268	313	4-Apr-12	Santo D'Aquino		<p>13/02/2012. My name is Santo D'Aquino. I am a natural resource and worked for environment Canada for 18 years as head of water planning in the Pacific and Yukon region. We were involved in the planning and management of watersheds in the region including transboundary watersheds. You have my permission to post my name and comments if the computer works correctly. My comments are associated with the information in your Ajax copper - gold project fact booklet. The proposed Ajax copper - gold mine project has many benefits. However, I also believe it has many economic, environmental, social, and political costs. If the project is to be considered a benefit - cost analysis must first be done. 1. " project will be designed in such a way that protects fisheries and aquatic resources and mitigates any adverse environmental impacts. " - if and when adverse impacts occur, how will Ajax deal with them?? - will Ajax create a trust fund that provides dollars for dealing with mitigation when it occurs??</p>	dAIR comment	General	Fish Populations and Fish Habitat	6.7	<p>Mitigation measures will be described in the Application/EIS. Reclamation bonding is a permitting issue assessed by the provincial regulatory agency as part of the application for a Mines Act permit.</p>	
1279	316	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	<p>4. Environment: a. How often are water samples going to be taken and by whom? b. how will the impact on fish and aquatic insects be evaluated and reported? c. will the sediment be sampled, evaluated and reported? d. will the mine haul roads be treated for dust suppression? e. will the noise from mining activities be mitigated and how? Thank you for letting us provide you with our concerns. We look forward to your response in the final EIS.</p>	dAIR comment	General	Fish Populations and Fish Habitat	6.7	<p>a. Baseline water quality sampling will be described in the Application/EIS, as noted in Section 6.3 and 6.5 of the dAIR. b. project effects assessment methodology is described in Section 5.6 of the dAIR; this information will be included in the dAIR for each VC, including for fish populations and fish habitat c. sediment will be sampled: methodology and results will be presented in the Application/EIS d. haul roads will be treated with dust suppressants as needed e. noise from mining activities will be mitigated - this information will be included in the Application/EIS.</p>	
1313	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		<p>6.7 Fish Populations and Fish Habitat The potential effects to be assessed currently include "loss of habitat and altered fish distribution and abundance in Peterson Creek downstream of the Project area resulting from reduced flow;" Figure 6.7-1 Aquatic Effects Study Area shows this sampling is restricted to the development area. If there is potential for hydrological and water quality changes to occur, this evaluation should include Peterson Cr. downstream of the Hwy. 5a. This creek is a wildlife corridor down to the South Thompson River where the confluence also provides rearing habitat for juvenile salmonids. The Creek's productivity is relevant to animals as well as fish and baseline data such as those listed in the AIS e.g. invertebrate production, should be captured in this area.</p>	dAIR comment	General	Fish Populations and Fish Habitat	6.7	<p>Hydrological and water quality changes will be assessed through modelling. Peterson Creek downstream of the project area is included in the RSA. Invertebrate productivity will be assessed in relation to fish productivity (food, habitat indicators, etc.).</p>	

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1336	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<p>3.14 Water Supply</p> <p>It seems likely that the removal of 1,688 cubic meters of water per hour for the mine's operations will have an impact on the Thompson River, and subsequently on its resident salmon stocks—a species population that has already seen fluctuating numbers due to other human impacts. It is critical that the water levels of Thompson River be included in the baseline studies and ongoing evaluations as noted above.</p>	dAIR comment	General	Fish Populations and Fish Habitat	6.7	Hydrological changes to Thompson River will be assessed through modelling. Effects on water level changes to fish habitat will be discussed in relation to the magnitude of changes.	
1349	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<p>6.7 Fish Populations and Fish Habitats</p> <p>The proponent should provide details of fish habitat surveys including methods of capture, enumeration and mapping to support assessments of any watercourses that historically supported fish; surveys for other aquatic biota including invertebrates and amphibians that might inhabit Peterson Creek and other potentially impacted waterways; consult with community groups about the HADD created in impacted watercourses and the effects to downstream habitats to develop comprehensive habitat compensation plans; and determine whether waste rock piles will leach metals or acidifying substances to surface waters and/or groundwater.</p> <p>The proponent should provide plans to prevent Noise/vibration disturbance to anglers and other recreational users of Jacko Lake; and if prevention of disturbance is not feasible, the proponent should consult with stakeholders about compensation for the lost enjoyment of the lake.</p> <p>We would like to request that DFO not only be actively involved in the review process, but also provide open access to stakeholders of the documentation under review.</p> <p>The proponent should reference the fisheries effects assessments in the South Thompson River at the mouth and downstream of Peterson Creek and ensure that any potential effects from Alkali Creek and Cherry Creek inputs to Kamloops Lake are also taken into account if there is any possibility that contaminated surface water can reach this creek.</p>	dAIR comment	General	Fish Populations and Fish Habitat	6.7	<p>Details of fish habitat surveys including methods of capture, enumeration and mapping will be included in the Application/EIS for potentially impacted watercourses described in Section 6.7.2 of the dAIR. Comprehensive habitat compensation plans will be developed in consultation with Fisheries and Oceans Canada and the provincial fisheries biologist. Potential ARD/ML will be included in the surface and groundwater quality modelling and assessments.</p> <p>Rationale for all methodology will be included in the Application.</p>	
1352	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<p>6.10 Terrestrial Invertebrate VC</p> <p>This section should include rare/unique aquatic invertebrates such as alkaphilic species.</p>	dAIR comment	General	Fish Populations and Fish Habitat	6.7	<p>Aquatic invertebrates will be assessed as they relate to fish populations and fish habitat (food, habitat indicators, etc.).</p> <p>Original comment relates to terrestrial invertebrates but refers to "alkaphilic" species (e.g., those found in alkaline ponds such as Wallender Lake). AIR currently notes that terrestrial invertebrates at risk are being assessed.</p>	
1425	338	4-Apr-12	Personal Information Withheld	Kamloops	<p>Jacko Lake:</p> <ul style="list-style-type: none"> • I've heard that this lake is approximately 1000 feet lower in elevation than some other fishing lakes in the area, and therefore the season starts sooner. Therefore it is a unique lake. How will the mine affect access to this lake? Will it still be a good lake for fishing? If not, is this significant? • With such close proximity to the mine, there will definitely be dustfall into the lake. How will this affect the fish? Will the lake be able to produce edible fish after 23 years of mining in the area? 	dAIR comment	General	Fish Populations and Fish Habitat Jacko Lake	6.7 8.7	Please see the AIR for a description of the studies proposed to assess the effects of the proposed project on Jacko Lake; the methodology to be used for the effects assessment; and the requirement for mitigation measures should a significant adverse effect be predicted.	

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1073	276	27-Mar-12	Robert Schemenauer	Kamloops, BC	Impacts on Vegetation: The ridge separating the proposed mine site from upper Aberdeen is forested. The material generated by the mining operations will be deposited in the forest by both dry deposition (from the aerosols) and wet deposition (from the fog). Depending on the chemistry of the aerosols and fog droplets there can be acute impacts on the foliage and/or chronic changes in soil chemistry that over time will weaken or kill the trees and other vegetation. Impacts of dry and wet deposition on vegetation have been documented in North America and Europe for decades. There is reason to be concerned for the health of this residual forest in the hills around Kamloops. A part of the Environmental Assessment should be a careful determination of the potential impact to natural vegetation in and around the mine site and a calculation of the resultant costs to the community. This should include the impact of the loss of the forest on surface and subsurface runoff and on soil erosion. The broad theme of how the proposed KGHM Ajax Mine would affect weather, and over the longer term climate, is extremely important to the people not only in the city of Kamloops but to those living in rural areas in all directions from the mine. I ask that this subject be given the serious attention it deserves.	dAIR comment	General	Rare Plants Rare and Sensitive Ecological Communities Air Quality	6.8 6.9 10.1	Rare plants and Rare and sensitive ecological communities have been identified as VC for study in the Application/EIS. Potential impacts on air quality and fugitive dust deposition on surrounding areas will be assessed as part of the HHERA. Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	Air Quality - 3.3.4.1
1350	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.8 Rare Plants The use of the RISC methodology is flawed, given its intent to be used for large scale sampling—not rare plant inventories. Proposed site plan area should be surveyed in its entirety for rare plant species. All species with habitat requirements met by the ecosystems on site (with range that could exist in area) should be included as VCs.	dAIR comment	General	Rare Plants	6.8	The potential effects of the Project on plant species at risk will be described in the Project Application, as well as mitigation measures and residual effects. The Application will also report the results of rare plant surveys done for the Project. The rare plant field surveys have been done across the Project area using standard methodologies for rare plant surveys, and have been completed by an experienced botanist.	
67	27	7-Feb-12	Graeme Hope	Kamloops, BC	I would like the following examined or considered and also reported on by the proponent during the EA process. 1. What is the expected time period before the areas disturbed by rock piles, tailings ponds, etc., are able to sustain existing native vegetation (grasslands or forests)? And what will the mining proponent do to aid the rehabilitation or restoration processes?	dAIR comment	reclamation	Rare and Sensitive Ecological Communities Grasslands	6.9 6.10	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life.	
160	67	8-Feb-12	Personal Information Withheld	Kamloops, BC	Damage to sensitive grass lands and an ecosystem	dAIR comment	General	Rare and Sensitive Ecological Communities Grasslands	6.9 6.10	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS and Mines Act permit application. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life.	

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586	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> 3.9 Over burden and top soil stock piles: What are the reclamation requirements and do they include modeling for a very arid climate and for native vegetation and for upland game bird requirements. 	dAIR comment	stockpiles	Rare and Sensitive Ecological Communities Grasslands Non-migratory Gamebirds	6.9 6.10 6.16	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life.	
725	204	20-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> What will be done to prevent noxious weeds from establishing in the two overburden stock piles? 	dAIR comment	stockpiles	Rare and Sensitive Ecological Communities	6.9	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life. Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	
744	211	21-Mar-12	Kathy Baethke	Kamloops, BC	<p>[^]http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (39 of 61) [2012-03-29 4:08:06 PM][^]</p> <ul style="list-style-type: none"> it is important that reclamation plans take into consideration the rebuilding of damaged soils caused by the mining activity and successional plantings are both studied and completed to ensure a return to a healthy, viable ecosystem studies to ensure successful reintroduction of native grassland species at both primary and secondary levels must be undertaken to ensure protection and sustainability of these fragile grasslands - reclamation of grassland cryptogamic crusts studies of native flora need to be undertaken to determine which plants can adapt to post mining soils and which of these are hyperaccumulators; it is important to undertake a study of the area before disturbance to ensure a proper mix can be created to maintain the historical function of the ecosystem a specific listing of native flora that can hyperaccumulate heavy metals should be built and cross referenced with those animals that are directly or indirectly consuming them 	dAIR comment	General	Rare and Sensitive Ecological Communities Grasslands	6.9 6.10	Rebuilding of damaged soils will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. If hyperaccumulators are currently present they will be assessed as part of the baseline studies. The Application will evaluate the potential changes in exposures/risks to human and ecological (plant and animal) receptors that are predicted to occur between baseline and post closure conditions. If plantings during reclamation change the vegetation makeup in the area and hyperaccumulators are selected for reclamation plantings, then this could be incorporated into the assessment.	
792	225	23-Mar-12	Personal Information Withheld	Kamloops, BC	12. What would be done to prevent noxious weeds from establishing in the overburden?	dAIR comment	stockpiles	Rare and Sensitive Ecological Communities	6.9	Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	

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Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
1361	327	12-Mar-12	Paula Pick	Knutsford, BC	6.2.2 • Will the proponent be seeking expert advice on the cryptogamic soils that are of crucial importance to native grasses, forbs, fescues, lichens, shrubs, wildflowers, etc. that support the rich diversity of life in the grasslands?	dAIR comment	General	Rare and Sensitive Ecological Communities Grasslands	6.9 6.10	Grasslands will be assessed under the Rare and Sensitive Ecological communities VC, as described in the AIR. All surveys will be conducted according to RISC standards.	
1363	327	12-Mar-12	Paula Pick	Knutsford, BC	6.9.1 • Why are native grasslands not considered on the own, given how rare, sensitive, important they are and how impossible to mitigate their disturbance? • Will the Proponent be required to hire experts to assess and inventory the quality, extent, types of native grasses, soils, lichens, etc.? 6.9.4 • "Mitigation strategies will include proven methods, BMP's..." What if there are none for native grasslands?	dAIR comment	General	Rare and Sensitive Ecological Communities Grasslands	6.9 6.10	Grasslands will be assessed under the Rare and Sensitive Ecological communities VC, as described in the AIR. All surveys will be conducted according to RISC standards.	
26	13	7-Feb-12	Dianne Kerr	Kamloops, BC	3. Grasslands The grasslands in the interior around Kamloops are not only beautiful, they are unique and exist nowhere else in the province. We also know that once they are gone, they are gone. No amount of reclamation can bring them back. The proposed mining operation will destroy a huge swathe of a beautiful and endangered botanical species. How will the replacement ground cover further encroach and take over the precious grasslands that remain, causing them also to begin to disappear?	dAIR comment	General	Grasslands	6.10	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life. The reclamation program will include end land use objectives, taking into consideration the recommendation of the Ministry of Energy and Mines that the reclamation program be aimed at ecological restoration of naturally occurring grassland communities, as described in the AIR.	
90	34	Public comment form from the Feb 6&7 Information Session	Doug Haughton	Knutsford, BC	Grassland restoration and preservation: Mines in general do not have the greatest track record in grassland restoration and reclamation. They have rather been known as "rape and run artists". Reclamation must be done on an ongoing basis as the land is mined and not to be left at the end of the mine's life to do so, as changes in financial situations may prohibit reclamation to be done. Also they must have a weed control program in place before they start mining to control our vast amount of noxious weeds which invade our grasslands. All you to do is look at the land they're on and neighbouring land to know that noxious weeds are a threat to the grasslands. What they do on their property will affect all the neighbouring landholders around them. The land in question is presently a working cattle ranch, encompassing three to four previously operating ranches. Ajax mine should remain a working cattle ranch.	dAIR comment	reclamation	Grasslands	6.10	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life. Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan. Mitigation and monitoring measures for invasive plant species during project operation will be included in the Wildlife/Vegetation Monitoring Plan, as currently described in the AIR.	

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210	79	10-Feb-12	Personal Information Withheld		(5) native grasslands monitoring and mitigation (9) reclamation and bonding	dAIR comment	General	Grasslands	6.10 11	This will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life. Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan. Mitigation and monitoring measures for invasive plant species during project operation will be included in the Wildlife/Vegetation Monitoring Plan, as currently described in the AIR.	
276	89	11-Feb-12	David Verhoeff	Kamloops, BC	We should be preserving this natural grassland habitat for future generations of humans and wildlife NOT destroying it for a very short term gain which may prove economically to be no gain at all.	dAIR comment	General	Grasslands	6.10	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life.	
466	136	1-Mar-12	Personal Information Withheld	Kamloops, BC	' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (71 of 77) [2012-03-06 2:47:31 PM]' First, let me say that I do not live in Aberdeen and I am not opposed to mining. I am, however, not in favor of the mine being in such close proximity to the City of Kamloops. I attended the Open House and was pleased with the process. I also appreciate the open house being held over two days. It was unfortunate that a 3 dimensional map was not available as this would give us a clearer picture of the mine's footprint. My questions were answered but many explanations were vague. I still have concerns with the following issues: According the B.C. Agricultural Land Commission's website, property that is given ALR status (Agricultural Land Reserve) is subject to the ALC Act "which was established to preserve agricultural land for present and future generations and to encourage the establishment and maintenance of farms as a secure source of food". Considering the proponent plans to acquire land that is in the Agricultural Land Reserve (ALR), how is it possible for them to use this same agricultural land for mining? Grasslands: - According to the BC Government website, State of Environment Reporting, "Grasslands are Canada's most endangered ecosystem". B.C. Grasslands' site states that "Grassland ecosystems are more endangered than coastal old growth forests" and "Grasslands cover less than one percent of a province B.C."... How can the Ministry of Environment allow this large, open pit mine to be situated on a self admitted "endangered area"? Reclamation is expected to return the area back to its former state. Information posted on the BC Government 's Parks website says that the "Cryptogamic Crust... natural grasslands is the occurrence of a thin, fragile, living, organic crust comprised of bacteria, algae, lichens, mosses, fungi and liverworts. ... This thin biotic layer... may include 30 or more species on any one site. The cryptogamic crust is vital to grassland ecosystems and several of its component species are rare or endangered." With this in mind, it doesn't seem possible to recreate the cyptogamic crust of the damaged grasslands. How can the proponent guarantee that reclamation will completely restore the crust to its original state? Invasive or non-native plants are a problem in local grasslands with 14 noxious plant already listed in the BC Weed Control Act. They spread rapidly particularly in disturbed areas. B.C.Grasslands states that "Non-native species reduce that biodiversity of the grasslands and once established are usually very difficult to control". Can the proponent guarantee that reclamation will replace only native plants and no noxious weeds? What material will the company use to refill the hole/pit to reclaim it back to its original form?	dAIR comment	General	Grasslands	6.10	KGHM Ajax is applying to the Agricultural Land Commission for a temporary non-farm use permit. As per Mines Act requirements, pre-disturbance vegetation studies will be conducted to determine baseline productivity (biomass), diversity (species composition) and metals content. Similarly, baseline soils data (morphological and chemical) must be submitted as part of the Conceptual Reclamation and Closure Plan which will be included in the Application/EIS. Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan.	
583	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• 2.2.4 Proposed Project Schedule: It is not reasonable in such an arid environment to determine that ecological systems have recovered after only 5 years. One only has to look at the difficulty that the land fill in Cache Creek is having in getting natural grass land vegetation even with irrigation. Will there be long term bonding to ensure restoration of the sensitive grass land ecosystem and will the monitoring be done by an independent consultant?	dAIR comment	reclamation	Grasslands	6.10	Reclamation measures and monitoring will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. Bonding requirements will be determined by the Ministry of Energy and Mines. As stated in the AIR, the Application will include an outline of the end land use objectives.	

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643	171	12-Mar-12	Diane James	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (33 of 69)^</p> <p>I respectfully submit my following comments and questions regarding the proposed KGHM Ajax mining project. Specifically, I am addressing Grassland Conservation. My concerns are based on issues raised by the following: "Grasslands Mapping Project, A Conservation Risk Assessment"(2004), in which the Provincial Government ranks grassland conservation as HIGH. The American Association for the Advancement of Science conference (Vancouver, February 2012). "Grasslands Protection: A Primer For Local Governments", prepared by the Environmental Law Clinic, UVic Faculty of Law, 2010 and financed by Environment Canada, the B.C. Ministry of Environment and The Real Estate Foundation of B.C.. This report provides information on values of importance pertaining to grasslands including outcomes due to any landscape loss. The worth of grasslands and associated green spaces are invaluable according to this report. Loss of grasslands, including associated water courses, wetlands and other sensitive natural areas and systems, continues to such a degree, conservation may only be possible for select areas versus saving all existing grasslands. As to global warming, mining is referred to as one of the negative influences on global warming, if not managed carefully. With this preamble, I have attempted to highlight both Governments' recognition of grassland importance and fragility. Using the Knight Piesold Consulting draft application information requirement study as a reference, I would appreciate consideration and written answers to the following questions:</p> <p>a) With respect to the thin and fragile cryptogamic crust, how much will realistically be saved and what is the expected survival rate of all species within this crust?</p> <p>b) How does the proponent calculate for adequate topsoil collection and species survival rate in terms of quantity and cost?</p> <p>c) Will the proponent pay for all seed sources, plants etc. in enough quantity to prevent establishment of invasive plants and to properly recreate a new grassland?</p> <p>d) What will the proponent do if not enough topsoil can be saved and what is the definition of enough?</p> <p>e) Define both the proponent's and environmental agencies' ideal of a "successful" new grassland.</p>	dAIR comment	General	Grasslands	6.10	<p>Potential impacts to rare and sensitive ecological communities will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. Biological soil crusts (sometimes referred to as cryptogamic crusts) are very fragile and sensitive to disturbances by humans, livestock, wildlife (ungulates) and vehicle traffic. Research indicates that it is difficult and impractical to salvage soil crusts and once disturbed, it may take several decades for them to re-establish. The baseline soil characterization study that will be completed as part of the Conceptual Reclamation and Closure Plan will identify and classify the volumes of available soil that are suitable for reclamation use. From this analysis a Soil Handling Plan is developed to guide the stripping, salvage and stockpiling of soil materials for subsequent use in reclamation. The volume required is calculated using the dimensions of the disturbances to be reclaimed (e.g. waste rock facilities, tailings storage facilities, etc.). All seed and plant types required to achieve the planned post-closure end land use objectives will be acquired. If applicable, the plan will identify protocols to "build", amend and/or acquire additional soil material for use in reclamation. The number of years mandated post mine closure to ensure successful reclamation, including consideration of new remedial information, will be addressed in the reclamation permitting conditions issued by the Ministry of Energy and Mines if the project is approved. Annual reclamation reports would be required and the Ministry would be responsible for routine site inspections to ensure the reclamation plan is implemented.</p>	
648	174	12-Mar-12	Personal Information Withheld		<p>5) Regarding the grass lands, this is bunch grass area. Once the bunch grass is destroyed it can never be brought back. This is extremely important because only 1% of BC is in natural grass lands, off which 50% has been lost. This is also the nesting sites of over 40% of all bird species native to BC. This fact can not be mitigated. Will the Mine be responsible for this change in environment?</p>	dAIR comment	General	Grasslands	6.10	<p>A reclamation plan will be prepared for the Project. The plan will include consideration of wildlife habitat and habitat features important to focal wildlife species.</p> <p>The Application will include an outline of end land use objectives, taking into consideration the recommendation of Ministry of Energy and Mines that the reclamation program be aimed at ecological restoration of naturally occurring grassland communities. A Conceptual Reclamation and Closure Plan will be described in the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life</p>	
709	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	<p>5. What does the mining proponent intend to do about the destruction of some of the last remaining native grasslands in British Columbia? What mechanism will be in effect to monitor and mitigate the effects on the grasslands?</p>	dAIR comment	General	Grasslands	6.10	<p>Rebuilding of damaged soils will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.</p>	

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783	223	23-Mar-12	Personal Information Withheld	Kamloops, BC	Grassland restoration and preservation: Reclamation must be done on an ongoing basis as the land is mined and not to be left at the end of the mine's life to do so, as changes in financial situations may prohibit reclamation to be done. Also they must have a weed control program in place before they start mining to control our vast amount of noxious weeds which invade our grasslands. What they do on their property will affect all the neighbouring landholders around them. The land in question is presently a working cattle ranch, encompassing three to four previously operating ranches. Ajax mine should remain a working cattle ranch.	dAIR comment	General	Grasslands	6.10	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life. Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan.	
836	250	26-Mar-12	Hugh Jordan	Kamloops, BC	4. Impact on wildlife and grasslands: our grasslands are sensitive and we have seen much work go into protecting habitat in Lac du Bois. So why would we allow another area of our city to face habitat destruction?	Project comment	General	Grasslands	6.10	Reclamation measures and monitoring will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	
999	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	Grasslands - loss of a huge tract of grasslands habitat which will never be recovered.	dAIR comment	General	Grasslands	6.10	Reclamation measures and monitoring will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	
1080	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	3 & 7. Grasslands and Hay a. Is Ajax going to do a baseline study of the contents and amount of dust on grasslands and hay production before construction/operation begins? b. Will this be monitored until the mine site and tailings pond is currently reclaimed? c. How much effect will the dust have above the baseline on grass and hay production?	dAIR comment	General	Grasslands	6.10	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	

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1331	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<ul style="list-style-type: none"> grassland health and condition in relation to both forage capacity and habitat for rare, at risk and common species (overall biodiversity on site). The proponent has committed to providing baseline information on many target species throughout the report, but no indication is given that the studies will be ongoing throughout the project, which is critical to determine overall effects of the project throughout its lifespan. 	dAIR comment	General	Grasslands	6.10	<p>This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life.</p> <p>Monitoring and management plans during project operation, closure and post-closure are outlined in the AIR in Section 11. The need for any additional monitoring programs are described in Section 17.2.</p>	
1343	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<p>3.18 Closure and Reclamation</p> <p>We are extremely concerned with the proponent's emphasis "that the reclamation program be aimed at ecological restoration of naturally occurring grassland communities". To the best of our knowledge, native grasslands have never been successfully restored to their natural condition and the proponent must recognize that compensation for the loss of these grassland ecosystems will likely have to be evaluated and addressed in their closure and reclamation plan.</p> <p>As well, given the experimental nature of the undertaking the proponent is proposing, it is critical that grassland restoration projects begin in pilot sites while the mine is still operational and continue at an increasing rate for a minimum of 10 years after the mine has been closed. Finally, the proponent must fully disclose what a tailings dry closure will look like and how it will function, specifically in terms of its capacity to contribute to the re-establishment of soil and vegetation on its surface.</p>	dAIR comment	General	Grasslands	6.10	<p>This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life.</p>	
1351	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<p>6.9 Rare and sensitive ecological communities</p> <p>Contradictions exist between the recommendations of Environment Canada regarding grassland ecosystems and "potentially important sites" being identified as "pocket grasslands removed from grasslands". Are proponents following provincial standards for ecosystem identification?</p> <p>Habitat suitability (current condition) and capability (potential best habitat condition) should be assessed using baseline studies recommended in the Introduction to ensure that the full ecological values of the site are understood.</p> <p>The area of the proposed mine is at the northern end of Douglas Plateau Important Bird Area (IBA) No. 172. Species mentioned on the IBA website include sandhill cranes, raptors, shorebirds and mixed waterfowl flocks, and reference the whole site as a major migration corridor for loons, grebes, waterfowl, raptors, shorebirds, gulls and passerines.</p>	dAIR comment	General	Grasslands	6.10	<p>Rare and sensitive ecological communities within the study area have been identified using standard Terrestrial Ecosystem Mapping (TEM), in consultation with the BC Conservation Data Centre and the Regional Ecologist. Impacts on habitat suitability and capability will be assessed using standard provincial methods for TEM-based habitat mapping for the VCs for which this is appropriate. Point-count migratory bird surveys, raptor transects and waterfowl surveys have been done across the Project area to record use by all bird species. Survey results will be reported in the Application/EIS.</p>	

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1365	327	12-Mar-12	Paula Pick	Knutsford, BC	17.2 <ul style="list-style-type: none"> It is Environmental Canada and BC Environment that state that Grasslands are a rare ecology and need to be protected. The microbiotic or cryptogamic crust must be studied in detail by experts. Who will conduct these studies? 	dAIR comment	General	Grasslands	6.10	Grasslands will be assessed under the Rare and Sensitive Ecological communities VC, as described in the AIR. All surveys will be conducted according to RISC standards. The Application/EIS will include identification and detailed summary of the qualified professionals contributing to the Application/EIS, as stated in Section 2.1.2 of the AIR.	
1428	338	4-Apr-12	Personal Information Withheld	Kamloops	Destruction of Beautiful Grasslands: <ul style="list-style-type: none"> I heard that this type of grassland is special and represents only 1% of the province. What percentage of Canada do these rare grasslands represent? How much would have to be destroyed before it was considered "considerable adverse affects"? Currently there are ranchers that depend on this land (and the creek) for their livelihood. It also affects the grandchildren, future generations of ranchers. How will they be compensated? How many people would have to be affected before it was considered "considerable adverse affects"? 	dAIR comment	General	Grasslands	6.10	Grasslands will be assessed under the Rare and Sensitive Ecological communities VC, as described in the AIR. All surveys will be conducted according to RISC standards. The Application/EIS will include identification and detailed summary of the qualified professionals contributing to the Application/EIS, as stated in Section 2.1.2 of the AIR.	
634	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	10.0 Assessment of health Effects, Proposed Ajax Mine 1. What are the Legal obligations documented for the KGHM/Abacas mining companies to follow the MOE2008 B.C. guidelines and the KCAC guidelines as enforceable by the Federal Gov. of Canada and B.C. Gov.? 2. How has the Proposed Kinder Morgan Pipeline rerouting/double tracking proposed process and the established two railway stations and routes been included in the measured Air Quality and environment adverse impacts studies? 3. What chemical nature is in the dust and emissions from each area, Tailings compound, Waste rock, Flotation process, Blasting detonations? What amount of chemical and toxic level of each individually identified chemicals and heavy metals have been measured and by what method? 4. What is the extent that air quality predictions in the AIR have been documented to show the effect of non local/ local forest fires, slash burnings and grass fire emissions and been taken into account when the air quality predictions are being determined? (Study released 2011 from Kelowna Health) What are the proposed mitigation measures at these times being presented by the proponent in the event of the air quality being adversely impacted by these sources and compounded by the proponents emissions? 5. What studies have been done to determine the air quality condensable fraction on the toxicity of the air being breathed in the immediate area as well as the dispersion areas? What would the condensable fraction as it pertains to soil (i.e.: backyard gardens, hayfields, etc.) and open water sources over time? 6. What instruments have been used and prediction studies used to determine the impact on the air quality and therefore soil and open water quality that will adversely effect the existing insect population, especially the pollinating bee population, in the proposed mine development area and what distances of impact have they been adequately considered?	dAIR comment	General	Terrestrial Invertebrates Air Quality Country Foods	6.11 10.1 10.3	Regulatory requirements will be included in the Application/EIS. The analysis will include assessment of cumulative impacts from existing and reasonably foreseeable projects. The twinning of the Kinder Morgan pipeline may be included if additional details are available prior to submission of the Application/EIS. The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and assay results and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The default setting for both CALMET and CALPUFF models will be consistent with those recommended in the BC dispersion modelling guidelines. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory. Additional details will be presented in the Application/EIS. A HHERA will evaluate potential effects on human and ecological receptors.	Air Quality - 3.3.4.1

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362	115	23-Feb-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (54 of 57) [2012-03-02 9:25:43 AM]*</p> <p>Further to my earlier comment about the frog migration I wanted to attach this link as an example of exactly what is happening between Inks and Jacko lakes with the frog population that will be wiped out. Questions 7 thru 9 in the link will definitely educate people to the migration and describe this area almost exact. I'm just wondering if there's any plan for this or if you plan on wiping out this population? If so good luck with the mosquitos.</p> <p>Q. Where do frogs live? A. They live near lakes, ponds, and streams. This habitat helps keep their skin moist, which is necessary to their survival.</p> <p>Q. What do frogs eat? A. Frogs are carnivores. They eat other animals, typically bugs and worms.</p> <p>Q. How do frogs hunt for food? A. Except for an occasional blink, the hunting frog sits almost motionless. It waits for a meal to fly by, then snares it with a long, sticky tongue.</p> <p>Q. How does a frog use its tongue? A. When a fly or bug flits by, the frog hurls out its sticky tongue, snares the prey, and curls its tongue back in to swallow the meal. It's similar to casting out a fish line, then reeling in a fish.</p> <p>Q. How is a frog's tongue different from most animal tongues? A. It is attached in the front instead of the back, just the opposite of most tongues.</p> <p>Q. Why do so many frogs come out onto roads when it rains? A. Frogs need to keep their amphibian skin moist. They come out to move over land without drying out when it's rainy and wet. They come out on rainy days or nights to forage.</p> <p>Q. Where do frogs go in winter? A. Different species have different strategies for surviving winter. Northern leopard frogs, for example, pass the winter at the bottom of deeper lakes, continued ... far beneath the ice. They settle quietly on the lake bottom in deep water. They stay concealed behind a log or other debris to escape predators. Other types of frogs may hibernate under leaf litter.</p> <p>Q. How do frogs survive the winter in cold places? A. The frogs hibernate in burrows or bury themselves in mud. Toads and frogs are cold-blooded and their body processes slow down as the outside temperature drops. This is why you sometimes find frogs sunning themselves in the spring. Their body temp needs to rise for them to move well. Frogs' bodies have some natural antifreeze chemicals built into them, but a few kinds of frogs who live in especially cold climates can even survive being frozen solid.</p>	Project comment	General	Amphibians	6.12	Two amphibian species have been included as VC (Great Basin spadefoot and western toad). Multiple amphibian surveys have been conducted and survey results and potential effects of the Project on amphibian migrations will be discussed in the Application.	
1241	308	2012/04/04	Personal Information Withheld	Kamloops, BC	<p>One of the main stories to me which surprisingly has not come out yet, or people just don't know about, is the giant frog migration which happens between Jacko and Inks lakes. I will be personally documenting this migration this year with photos and videos, as I have seen it happen both years, because I usually pop into Jacko each day at least for a look. I want to pass on my findings to the mine, to the environment minister, news stations etc. I'm not even a frog lover its just that this isn't just one or two frogs. This is hundreds and hundreds of thousands of the biggest tadpoles I have seen, and I have been to many lakes. So what happens is at a certain time of year on the entire shoreline of Jacko lake, both sides, their migration begins. They are all heading the same direction on both sides of the lake.....towards the bay where the parking lot is. (That's the closest point to Inks Lake.) There are masses of them! Now they all evolve into frogs and begin their migration as small frogs basically right down the Jacko road which leads to only 2 bodies of water, a tiny pond on the left of the Jacko road. Which they go to, and the main mass heads to Inks lake where they live until I guess they obviously return to Jacko to lay their eggs again. There are so many on the road during this migration that you are literally popping them. My g/f's mom was cringing. My point isthat with what these people are planning to do with Inks lake, this will obviously wipe out this massive migration and population of frogs. I believe I am the only one aware of this or who has taken thought to it and I will be doing my best to get this out to you, the public, animal groups, news etc. There is a blind eye being turned to a massive population of wildlife in the area. You are the first person I have spoken to about this. I am one single big hearted person and not part of any group or organization. This is this governments chance to do something for the people and not back out of everything with a prerecorded message about the economy. I think mining is good if its done tastefully and with little harm to its surroundings. I never hear a complaint about NewGold. Anyway thank you for your time if you read this. I have soon poor quality pictures I believe of the giant tadpole migration and the frogs on the road, ample pictures of wildlife on the road into Jacko if you are interested. I will be getting much better footage this year knowing I am out to make people aware Or if you are interested in what I discover this year I would gladly share with you. Thanks for your time.</p> <p>Please keep Kamloops green and clean!</p> <p>PS I just had one last thought I would like to share. If this mine cannot be stopped..... there is a flat area between Inks Lake and Jacko Lake on the Jacko road which is right in the middle of this migration. It looks like there are no 3 kilometre long buildings planned here so perhaps they could dig it out a bit and flood it to make a habitat. It would also freeze in the winter and maybe could be used for recreational use. Still a slap in the face but maybe at least a little bandaaid on a massive wound help just a little.</p>	dAIR comment	access and haul roads	Amphibians	6.12	Two amphibian species have been included as VCs (Great Basin spadefoot and western toad). Multiple amphibian surveys have been conducted and survey results and potential effects of the Project on amphibian migrations will be discussed in the Application/EIS.	
1353	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.11.1 Amphibian VC : Include Long--toed Salamander.	dAIR comment	General	Amphibians	6.12	<p>Species chosen as wildlife VCs are generally at-risk species or those that are managed on the landscape. The status of the Long-toed Salamander is described as 'Large number of individuals with sites distributed throughout BC and limited threats' by the BC Conservation Data Centre. The amphibian VCs that have been chosen are western toad and Great Basin spadefoot, which are both of conservation concern.</p> <p>The use of VCs in environmental assessments is standard practice, helping to focus limited resources on meaningful measures of environmental change. Common, widespread species are generally not selected as VCs, due to the absence of any measurable endpoint for the assessment.</p>	

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Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
1354	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.12.3 Reptile VC : Expand the spatial boundaries to include areas within two kilometres that could potentially support dens for rattlesnakes and gopher snakes. These animals can travel quite long distances and surveying within 500 metres may not find den sites that could produce individuals that could move onto mine property.	dAIR comment	General	Reptiles	6.13	There are no known rattlesnake or gophersnake dens listed in the regional den database that are within 2 km of the Project , and much of that area is private land. The results of field surveys for snakes, discussion of potential effects of the Project, mitigation measures and residual effects will be presented in the Application/EIS. Details of study methodology will be presented in the Application, including as noted in the AIR, the source of the data.	
574	157	8-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	Section 6.13.1 • Include Swans (not sure of the breed, I think they are Trumpeter Swans) they regularly use Inks Lake in the fall and again in the spring during migration. Section 6.17.1	dAIR comment	General	Migratory Birds	6.14	A list of migratory waterfowl observed during field surveys of the project area will be presented in the Application/EIS. Potential impacts to migratory birds will be discussed under the "Migratory Birds" Valued Component.	
1059	275	27-Mar-12	Frances Vyse	Kamloops, BC	3. Important bird areas: the project is entirely within a nationally-designated IBA: Douglas Plateau IBA BC172. Acknowledge this – include brief description of the site and species of concern.	dAIR comment	General	Migratory Birds Raptors Non-migratory Gamebirds	6.14 6.15 6.16	This information will be included in the Application/EIS.	
1097	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	3.7.1 Tailings Storage Facility: To stockpile the tailings along the Coquihalla Highway at the proposed location is fundamentally wrong as this will have major impacts on the visual approaches to the city of Kamloops. This area is also an important wintering habitat for Whitetail Deer and some mule Deer. In the spring and early summer Inks Lake and the adjacent ponds are also important for swans and ducks especially as the ice is off these lakes earlier than most other lakes in the area. In the winter these lakes are used by numerous individuals for ice skating and recreating. The proponent should look at piping the tailings to existing sites west of the highway which already contain mine wastes.	dAIR comment	TSF	Migratory Birds Mammals Land and Resource Use Visual Impact/Aesthetic Features	6.14 6.17 8.5 8.4 17.2	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The additional concerns noted in the comment have been included for study in the Application/EIS. The rationale for the selection of project components will be presented in the Application/EIS, along with an analysis of technically and economically feasible alternatives.	
1103	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	6.8, 6.9, 6.10, Rare Plants, Rare and sensitive ecological communities etc. The list of Red and Blue listed plants, animals etc. locations provided by the BC Conservation Data Centre are based on existing documented occurrence. As much of this area has not been surveyed and documented on their records there is a need for field work to confirm the presence or absence of all potentially rare species. 6.13.1 Migratory Birds -The list should also include swans, red winged blackbird, yellow winged blackbirds and various duck species.	dAIR comment	General	Migratory Birds	6.14	A variety of wildlife surveys and rare plant surveys have been completed across the study area. Survey results will be reported in the project Application/EIS.	

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1314	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		6.14 Raptor VC This section notes there are more than 130 bird species and that it will assess the effects on a sub-set. While not a raptor, the blue-bird is a particularly special bird to this community as demonstrated by the long-term efforts to foster their population through the blue-bird nesting box program which is present in the development area. The effects of this development on the birds, the nest box program and the individuals/organization that valued this enterprise and invested effort in preserving these birds should be reflected here and in 6.9 Rare and sensitive ecological communities, 7.0 Economic Effects and 8.0 Assessment of Potential Social Effects (both impacts to recreational wildlife viewing and any effect on supporter's moral).	dAIR comment	General	Migratory Birds	6.14	A list of bird species observed during field surveys of the project area (including bluebirds) will be presented. Bluebirds will be assessed within the 'Migratory Birds' Valued Component.	
1337	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	3.3 Site Geochemistry Changing mineral and chemical composition of water systems can have an unanticipated effect on species such as waterfowl that use the area for breeding. The geochemistry analysis must detail the potential effects of water contamination in the tailings pile and surrounding seepage capture ponds on wildlife. This should be included in the adaptive management plan for all water features.	dAIR comment	water management	Migratory Birds	6.14	Water quality impacts on waterfowl will be included in the Application/EIS.	
1355	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.13.1 Migratory Bird VC : The species list should include barn swallow, clay--coloured sparrow (locally rare), horned lark, lark sparrow, red winged blackbird, yellow--headed blackbirds and various duck species.	dAIR comment	General	Migratory Birds	6.14	Point-count bird surveys and waterfowl surveys have been done across the Project area to record use by all bird species. Survey results will be reported in the Project application. Species identified as federally or provincially at risk will be assessed as VC.	
436	130	28-Feb-12	Rob Wycherley	Kamloops, BC	6.14 Raptors 1.Will bald eagles be added as a Valued Component?	dAIR comment	General	Raptors	6.15	Bald Eagles will be added under the 'Raptor' Valued Component. Potential effects on the eagle nest on Jacko Lake will be assessed.	
467	136	1-Mar-12	Personal Information Withheld	Kamloops, BC	Wildlife: According to BC Wetlands.org "grasslands occupy less than 0.8% of the provincial land base (but) more than 30% of British Columbia's species at risk depend on grasslands for their survival. Development and fragmentation of grassland habitat seriously threaten the survival of these species". Can the proponent ensure that these species will not be adversely affected? The B.C. Wildlife Park has had a 20 year Burrowing Owl breeding program. Burrowing Owls were extirpated from the area prior to 1980. In speaking with a representative from the Park, I was told that it is the "most successful breeder of Burrowing Owls in North America". They release approximately 100 owls into the grasslands annually. Can the proponent guarantee that they will not negatively affect the breeding grounds of the burrowing owl and/or the release program?	dAIR comment	General	Raptors	6.15	Burrowing Owls will be added to the list as a VC and the Application/EIS will describe the potential effects, mitigation measures and residual effects for this species.	

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490	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	15. What Studies document the sustainability of the introduced Burrowing Owl population, the raptor population, the Beaver population and other birds and wildlife common to the Goose Lake Road environment and its educational benefits when impacted by the Mine site and waste rock production?	dAIR comment	General	Raptors	6.15	The results of wildlife surveys within the project area will be reported in the Application/EIS. The Application/EIS will include the assessment of potential effects of the Project on wildlife VCs, mitigation strategies proposed and assessment of residual effects. The Application/EIS will include a list of references consulted as supporting documentation.	
1104	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	6.14.1 Raptor -The list should also include burrowing owl.	dAIR comment	General	Raptors	6.15	Burrowing Owl will be added to the list as a VC.	
1356	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.14.1 Raptor VC : Add Great Gray Owl and Burrowing Owl	dAIR comment	General	Raptors	6.15	Burrowing Owl will be added to the list as a VC. Species chosen as wildlife VCs are generally at-risk species or those that are managed on the landscape. Point-count bird surveys and waterfowl surveys have been done across the Project area to record use by all bird species. Survey results will be reported in the Project application. Great Gray Owls are not federally nor provincially at risk.	
1358	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.17.1 Mammal VC : Rodents should be assessed as important food supply elements for raptors. They could be listed here or dealt with under the raptor analysis, but they must be included even though they may not be of conservation concern.	dAIR comment	General	Raptors	6.15	One rodent, the Great Basin pocket mouse, is included as a VC. The potential effects of the Project on raptors (including their food supply) will be described in the Project Application, as well as mitigation measures and residual effects. The Application will also report the results of wildlife surveys done for the Project.	
1364	327	12-Mar-12	Paula Pick	Knutsford, BC	6.14.1 • Why is Burrowing Owl not included here? The Burrowing Owl is red-listed in BC and federally. It is endangered. The re-introduction programs, bringing it back from extirpation is having success. The proposed mine is located in prime Burrowing Owl habitat. A mine that will destroy habitat and a re-introduction program that relies on specific critical habitat are incompatible. 8.5.2 • Bird watching and Nature Appreciation should be added to the list of 'Other land and Resource use'.	dAIR comment	General	Raptors	6.15	Burrowing Owl will be added to the list of as a VC. Species chosen as wildlife VCs are generally at-risk species or those that are managed on the landscape. Bird watching will be assessed as a category of outdoor recreation	

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1357	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	6.15.1 Non---migratory Gamebird VC : They should add Dusky Grouse.	dAIR comment	General	Non-migratory Gamebirds	6.16	Point-count migratory bird surveys and waterfowl surveys have been done across the Project area to record use by all bird species. Survey results will be reported in the Application/EIS. All species encountered during point count surveys would be recorded. The use of VCs in environmental assessments is standard practice, helping to focus limited resources on meaningful measures of environmental change. Common, widespread species are generally not selected as VCs, due to the absence of any measureable endpoint for the assessment.	
47	17	7-Feb-12	Personal Information Withheld	Aberdeen, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (7 of 23) [2012-02-24 3:11:29 PM] In Aberdeen we sometimes have trouble with bears entering our yards. And sometimes those bears end up hurt. Will the noise and activity result in more bears entering our yards and potentially being hurt? What about other wildlife? Will the noise and activity cause them to move towards town and open them to harm? If so, what will be done to protect them? It is my HOPE that my neighbors will be more diligent regarding their trash cans.	dAIR comment	General	Mammals	6.17	The potential effects of the Project on mammals will be described in the project Application/EIS, as well as mitigation measures and residual effects.	
182	73	9-Feb-12	Personal Information Withheld	Kamloops, BC	5. With the dislocation of the resident wildlife such as Mule and Whitetail deer, what measures have the mine put into place to mitigate this problem.	dAIR comment	General	Mammals	6.17	The potential effects of the Project on ungulates and their habitat, mitigation options, and residual effects will be discussed in the Application/EIS. The effects of the project on ungulate winter range will be quantified.	
212	79	10-Feb-12	Personal Information Withheld		(12) Aberdeen/Pineview wildlife issue mitigation	dAIR comment	General	Mammals	6.17	The potential effects of the Project on mammals will be described in the project Application/EIS, as well as mitigation measures and residual effects.	

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451	131	28-Feb-12	John Schleiermacher	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (1 of 57) [2012-03-02 9:25:43 AM]^</p> <p>6.17 Mammal VC; 6.17.1 Rationale</p> <p>1. Moose - The footprint of the proposed Ajax Mine will encroach on habitat frequented by Moose, in particular during the winter months. The number of moose that winter in the area depends on the severity of the winter. They tend to winter and feed in the areas west from the base of Sugarloaf Mt to the east towards Coal Hill. The area just south of proposed mine site, is known by locals as the Lac Le Jeune Burn, has one of the highest densities of Moose in the world and has been designated as a Critical Wintering Range in the KAMLOOPS LAND AND RESOUC E MANAGEMENT PLAN. The area is highly valued by hunters, both locally and from the mainland due to its high density of Moose and easy access. The following questions need to be answered:</p> <ul style="list-style-type: none"> - What affect will the proposed Ajax Mine have on the normal migration patterns and habitat of local Moose? - What affect will the propose mine have on the health and numbers of the local Moose population? - How will the impact of the mine affect the harvest rates of local Moose? - What will be the economic impact of the reduced Moose population and reduced hunter days in the field? - What plans does the proponent have to eliminate the loss of the Moose population and loss to the local economy from reduced hunter activity? <p>2. Mule Deer – The proposed Ajax Mine will have a significant negative affect on the local Mule Deer population. The Mule Deer have been designated as regionally important in the KAMLOOPS LAND AND RESOUC E MANAGEMENT PLAN and the foot print of the mine, in particular the proposed Tailings Storage Facility has been dedicated as Critical Wintering Range for the mule deer. The south facing slopes of Sugarloaf Mt, Iron Mask Mt and Coal Hill are ideal for Mule Deer during the rutting season and essential for their survival during the winter months. The different components of the Ajax Mine will disrupt the traditional migration patterns and will prevent them from reaching said area. The migration route from the summering grounds south of the proposed mine site to the wintering area will be blocked as following from west to east (image included in letter).</p> <ul style="list-style-type: none"> - The eight foot game fence paralleling the Coquihalla Hwy from Kamloops south to Lac Le Jeune will block travel to the west. - The Tailings Storage Facility will block any migration between the Coquihalla Hwy and the Lac Le Jeune Hwy. - The North Waste Rock Facility will block migration between the Lac Le Jeune Hwy and the Ajax pit. - The Ajax Pit will block migration from the North Waste Rock Facility to the East waste Rock Facility. - The East Waste Rock Facility will block migration between the Ajax pit and the community of Knutsford. 	dAIR comment	General	Mammals	6.17	The potential effects of the Project on ungulates and their habitat, mitigation options, and residual effects will be discussed in the Application/EIS. The effects of the project on ungulate winter range will be quantified. It should be noted that the Proponent does not have authority to adjust ungulate harvest regulations or seasons; this is done by the Ministry of Environment	
452	131	28-Feb-12	John Schleiermacher	Kamloops, BC	<p>The following questions need to be answered:</p> <ul style="list-style-type: none"> - What action does the Proponent have to ensure that the mule deer herds have safe passage to their Critical Wintering Range? - The only corridor to the Critical Wintering Range will be straight down the Lac Le Jeune Hwy or crossing Hwy #5 to the east. What studies has the proponent undertaken to determine which one of these options may or may not be taken? If no studies have been done, why not? - Mule Deer generally travel in large herds at night to reach their wintering area. What studies has the proponent undertaken to determine the risk to traffic on Hwy #5 and the Lac Le Jeune Hwy? If not, why not? - What action is the proponent prepared to take to eliminate the increased risk of wildlife/ traffic impact? - What will the impact be to the Mule Deer population due to the loss of valuable rutting area due to the construction of the TSF? - What plans does the proponent have to protect the rutting area? - What will be the impact be to the mule deer population be due to the loss of valuable Critical Wintering Range at the proposed TSF site? - What plans does the Proponent have to protect the designated Critical Wintering Range? - If the deer choose to winter in nearby residential areas, will there be human/wildlife conflicts and danger to residents? (e.g.: Kimberly and Cranbrook) - What action is the Proponent prepared to take to prevent human/ wildlife conflicts and danger to residents? - If a cull is required as in Kimberly and Cranbrook, will the Proponent fund such a cull and be prepared to conduct a proper public consultation prior to a cull? Who will conduct the cull? - If the deer choose to winter in nearby private farms, What is the Proponent be prepared to do to avoid conflict between farmers and the deer? - is the Proponent prepared to compensate farmers to damage to their property such as fences and cost of hay eaten by Wintering deer? - What will the impact be on local harvest rates for local hunters If herd size and health is compromised by the location of the TSF? What will the loss of economic value be due to lost hunting area and opportunity to the local economy? - How will the Proponent comply with section 2.1.12 (Wildlife) of the Ministry of Agriculture and Lands Ministerial Order dated January 8, 2009 with States the following objective? <p>Ensure habitat needs of all natural occurring wildlife species are provided for. Special attention will be paid to red- and blue- listed species, as defined by the Ministry of Environment, and species designated as regionally important (e.g. Mule Deer)</p>	dAIR comment	General	Mammals	6.17	The potential effects of the Project on ungulates and their habitat, mitigation options, and residual effects will be discussed in the Application/EIS. The effects of the project on ungulate winter range will be quantified. Please note that the Proponent does not have the authority to cull ungulates or design such a cull. The BC Ministry of Agriculture's Agriculture Wildlife Program provides assistance to forage, grain and livestock producers in the province of British Columbia for verified standing crop and livestock losses due to wildlife.	
453	131	28-Feb-12	John Schleiermacher	Kamloops, BC	<ul style="list-style-type: none"> - How will the Proponent comply with section 2.1.12.1 (Wildlife) of the Ministry of Agriculture and Lands Ministerial Order dated January 8, 2009 with States the following objectives? 1) Maintain or enhance forage production and habitat requirements in critical deer winter range. 2) Disperse the timber harvest throughout the winter range and spread it out evenly over the rotation (e.g. TSF) 3) Maintain at least 25% of forest area in thermal cover. Link thermal cover units together with suitable travel corridors, especially mature Douglas fir vets on ridges. <p>The following mammal species should be included in the Application Information Requirements due to the significant negative impacts of the proposed Ajax Mine:</p> <p>2. White-tailed Deer – The proposed Tailing Storage Facility will have negative impact on the species. The area has been designated as a Critical Wintering Range in the KAMLOOPS LAND AND RESOUC E MANAGEMENT PLAN. The TSF will be located in the traditional wintering area of the White-tailed Deer as well as in the annual rutting area, which will likely have a significant negative affect in the overall health of the species. The following questions need to be answered:</p> <ul style="list-style-type: none"> - Why was this species not included in the draft AIRS? - What will be the expected affect be on the local herd be due to their displacement from their traditional breeding area? - What will be the expected mortality rate of the local herd be due to their displacement from their traditional wintering area and winter food source? - Will the deer find another wintering area and where? - Will the new habitat have sufficient food sources to maintain the numbers and health of the White-tailed Deer herd? - If the deer choose to winter in nearby residential areas, will there be human/wildlife conflicts and danger to residents? (e.g.: Kimberly and Cranbrook) - What action is the proponent prepared to take to prevent human/ wildlife conflicts and danger to residents? - If a cull is required as in Kimberly and Cranbrook, will the proponent fund such a cull and be prepared to conduct a proper public consultation prior to a cull? Who will conduct the cull? - If the deer choose to winter in nearby private farms, what is the proponent prepared to do to avoid conflict between farmers and the deer? 	dAIR comment	General	Mammals Land and Resource Use	6.17 8.5	White-tailed deer numbers are low in the area as they have colonized it relatively recently. The Ministry of Environment has indicated, in discussion with project biologists, that the needs of white-tailed deer in this area are covered adequately in management for mule deer, so white-tailed deer were not included as a separate VC.	Economic Diversification has been identified as a VC in the AIR. The proponents wildlife biologist has been in consultation with the local MoE wildlife specialist to develop the list of preliminary wildlife VCs. Justification for selection of VCs will be included in the Application.

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454	131	28-Feb-12	John Schleiermacher	Kamloops, BC	<ul style="list-style-type: none"> - is the Proponent prepared to compensate farmers to damage to their property such as fences and cost of hay eaten by Wintering deer? - What will be impact on local harvest rates for local hunters if herd size and health is compromised by the location of the TSF? What will be the loss on economic value due to lost hunting area and opportunity to the local economy? <p>3. Black Bear – The footprint of the proposed Ajax Mine will have a significant negative affect on the black bear habitat and population. Black Bear are common in the entire area during the three seasons where they feed and raise their cubs as well as rely on numerous dens in the area to over winter. The following questions need to be answered:</p> <ul style="list-style-type: none"> - Why was this species not include in the draft AIRS? - What will be the overall affect on the Black Bear population due to the destruction of feeding and winter area? - Will the displaced bears search for food in local residential areas, will there be an increase in human/wildlife conflicts? What research has the proponent undertaken to determine the level of increased risk in black bear/human conflicts? If not, why not? - What action is the proponent prepared to take to prevent human/ wildlife conflicts and danger to residents? <p>4. Coyote – The foot print of the proposed mine is home to numerous packs of Coyotes that sustain their numbers by feeding on various species of rodents naturally found in the area. The following questions need to be answered:</p> <ul style="list-style-type: none"> - Why was this species not include in the draft AIRS? - What research has the Proponent undertaken to determine the affect of the proposed mine have on the natural food supply of the Coyote? If not, why not? - If the natural food source is negatively affected by the operation of the mine, will the coyotes search for food in residential areas? - What will be the affect on wildlife/ human conflicts? Small pets such as dogs and cats make and easy target for coyotes whose natural food source has been reduced. They can also become a danger to children in their search for food. - What is the proponent prepared to do to avoid wildlife/human conflicts and danger to pets and small children? - If the natural food source is negatively affected by the operation of the mine, will the Coyotes search for food at the nearby sheep ranch? - What is the proponent prepared to do to protect the sheep in the ranch next to the TSP due to destruction of natural habitat and food sources? 	dAIR comment	General	Mammals	6.17	A program to prevent and deal with problem wildlife on the Project property will be developed. The proponent does not have authority to apply a problem wildlife program outside of its own property. Problem coyotes and bears in residential areas generally result from issues regarding improper storage and management of garbage, fruit tree and pet food attractants in those areas. Losses of natural habitat result from many human activities including urbanization, road-building, industrial development and conversion to agricultural fields and golf courses, all of which are occurring within Kamloops. The BC Ministry of Agriculture's Agriculture Wildlife Program provides assistance to forage, grain and livestock producers in the province of British Columbia for verified crop and livestock losses due to wildlife. Both black bears and coyotes are widespread, and neither are considered species at risk. Both are hunted in the vicinity of the Project.	
455	131	28-Feb-12	John Schleiermacher	Kamloops, BC	<p>6.17 Mammal VC; 6.17.3 Spatial and Temporal Boundaries</p> <p>The Regional Study Area (Figure 6.8-1) is insufficient in size to properly study the long term effects on the numerous mammals impacted by the proposed Ajax Mine, in particular the ungulate population. The study area needs to be expanded to include the entire migration routes of Mule Deer, White-tailed Deer, and Moose that winter in the area which will be impacted by the mines operation. Portions of the proposed mine site has been designated as Critical Wintering Range for deer species and the Mule Deer is designated as "regionally important" in the KAMLOOPS LAND AND RESOUCE MANAGEMENT PLAN.</p> <p>The following questions must be answered:</p> <ul style="list-style-type: none"> - Why does the Regional Study Area (Figure 6.8-1) not include the entire migration route of the Mule Deer, which has been designated as regionally important? - What will the long-term regional affects of the proposed Ajax Mine have on the long-term health and well being of the Mule Deer? - Why does the Regional Study Area (Figure 6.8-1) not include the entire migration route of the Moose? - What will the long-term regional affects of the proposed Ajax Mine have on the long-term health and well being of the Moose? - Why does the Regional Study Area (Figure 6.8-1) not include the entire migration route of the White-tailed Deer? - What will the long-term regional affects of the proposed Ajax Mine have on the long-term health and well being of the White-tailed Deer? 	dAIR comment	General	Mammals	6.17	The potential effects of the Project on ungulates and their habitat, mitigation options, and residual effects will be discussed in the Application/EIS. The effects of the project on ungulate winter range will be quantified.	
506	146	4-Mar-12	Personal Information Withheld	Kamloops, BC	<p>* How many species of animals and plants are put at risk by the construction of the mine?</p> <p>Have alternate migration paths been considered for the various animals currently using the proposed mine site and are there plans to build suitable alternate paths?</p>	dAIR comment	General	Mammals	6.17	The potential effects of the Project on mammals will be described in the project Application/EIS, as well as mitigation measures and residual effects.	

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575	157	8-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	Section 6.17.1 • Include White Tail Deer. These should not be lumped in with Mule Deer as they have totally different habits.	dAIR comment	General	Mammals	6.17	White-tailed deer numbers are low in the area as they have colonized it relatively recently. The Ministry of Environment has indicated, in discussion with project biologists, that the needs of white-tailed deer in this area are covered adequately in management for mule deer, so white-tailed deer were not included as a separate VC.	
716	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	12. How does the mining proponent intend to cope with the potential of Aberdeen and Pineview residents having to deal with increased wildlife issues as bear, deer, moose and coyotes are displaced and migrate into residential areas? What process will be in place for this potential problem?	dAIR comment	General	Mammals	6.17	The BC Ministry of Agriculture's Agriculture Wildlife Program provides assistance to forage, grain and livestock producers in the province of British Columbia for verified crop and livestock losses due to wildlife. This issue will be assessed in relation to the Mammal VC.	
758	212	22-Mar-12	Kevin Buxton	Kamloops, BC	Section 6.17 - Wildlife and Their Habitat - Mammal • The proponent must describe opportunities for ungulate winter range enhancement to offset losses due to the project - i.e. the "no net loss" principle. Degree of winter range loss and suitability of offsetting activities to be vetted by the Ministry of Forests, Lands and Natural Resource Operations local wildlife biologist and the BC Wildlife Federation, and confirmed through appropriate survey techniques. The proponent must also describe/propose opportunities for establishing a fund to allow for future habitat enhancement to account for the permanent nature of the habitat loss due to the project. It should be noted that the proponent's initial project feasibility document states that there is no specified critical ungulate winter range is inside the project area, but no ungulate surveys have been undertaken to determine ungulate use of the area. From direct experience the area affected by the proposed tailings storage facility supports both year-round and wintering populations of mule deer, white-tailed deer, and moose.	dAIR comment	General	Mammals	6.17	The potential effects of the Project on ungulates and their habitat, mitigation options, and residual effects will be discussed in the Application/EIS. The effects of the project on ungulate winter range will be quantified. The Application will include discussion of mitigation measures the proponent will commit to taking to avoid or minimize significant adverse effects. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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1082	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	<p>e. Effects of dust on deer grazing around the Ajax mine site: i. There are approximately 300-500 head of deer in the Jocko Lake area: 1. There has been an increase in mule and white tail deer population during the last few years 2. With the increased mining activities, the deer will scatter in all directions 3. There will be a higher risk of deer kills on the local highways 4. Dust on plants is hard on the teeth and forage is not palatable 5. Compost of dust could have an effect on species of plants grazed and grazing patterns 6. Availability of uncontaminated water will also change deer habits as sloughs and springs could disappear 7. Noise levels will also have an effect on deer movement 8. In discussion with a wildlife consultant, there is the possibility of extending the game fence 9. If the deer are alienated from this area, more pressure will be put on hay fields throughout the growing season and hay stacks during the winter. This will also put more pressure on the lower elevation fir stands in the winter and lower part of crown range in the spring. 10. We would require a better analyze of dust amounts to get a more accurate idea of the grazing patters and types of plants grazed. 11. Also the amount of rain will have an impact of grazing patterns and the species of forage grazed.</p>	dAIR comment	General	Mammals	6.17	The potential effects of the Project on ungulates and their habitat, mitigation options, and residual effects will be discussed in the Application/EIS. The effects of the project on ungulate winter range will be quantified.	
1105	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	6.17.1 Mammal -The list should also include Whitetail deer.	dAIR comment	General	Mammals	6.17	White-tailed deer numbers are low in the area as they have colonized it relatively recently. The Ministry of Environment has indicated, in discussion with project biologists, that the needs of white-tailed deer in this area are covered adequately in management for mule deer, so white-tailed deer were not included as a separate VC.	
1315	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		<p>6.17 Mammal VC The following effects should be accounted for: a. Increased traffic on mammals e.g. mortalities, injury and displacement. b. Displacement of animals into other animals territory and adjacent urban areas and likely outcomes. c. Lethal and sub-lethal effects increased airborne dust, and contaminated dust might have on mammals within the range of impact. Similarly, this analysis should be extended other effected animals within the range of impact.</p>	dAIR comment	General	Mammals	6.17	The potential effects of the Project on mammals will be described in the Project Application, as well as mitigation measures and residual effects. The Application will also report the results of wildlife surveys done for the Project. A HHERA will be conducted to assess the effects of potential air and water quality contamination on wildlife.	
31	13	7-Feb-12	Dianne Kerr		d) Employment - The anticipated job opportunities promised by the company fail to take into account two things: 1) Many of the jobs will require skills that will be filled by people who do not live in Kamloops and 2) The number of jobs depends on the price of copper. We saw the curtailed mine operation and job elimination when Afton went through the cycle of low copper prices. Kamloops residents are also aware of the negative employment impact of the mining proposal on other occupations like ranching and tourist related jobs to name a couple.	dAIR comment	General	Labour force, Employment and Training	7.2	If suitable data exists, estimates will be provided for indirect/spin-off employment; estimates of the number of hires coming out of Kamloops will be provided. Details regarding hiring preferences will be communicated and incorporated into the Application/EIS; expected tools to oversee/monitor will be determined at a later date.	

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35	13	7-Feb-12	Dianne Kerr		b) Employment As mentioned, employment opportunities may be shortlived depending on metal prices, employment will not all be local, and other business may be negatively effected creating less employment in those areas.	dAIR comment	General	Labour force, Employment and Training	7.2	A breakdown of the anticipated employment opportunities (including numbers and durations or jobs, income) and anticipated employee sources (local or otherwise) will be provided in the Application/EIS. Details regarding hiring preferences will be included. A cumulative effects assessment will be conducted as part of the assessment presented in the Application for each of the identified VCs, including economic diversification.	
40	14	7-Feb-12	Dianne Kerr	Kamloops, BC	2. Social Effects Assessment Although you heard concerns over the negative perception of Kamloops as a heavy industry town with the attendant difficulties to remain a "Tournament Capital" and to continue to attract doctors and other professionals, there seems to be nothing in the description of "What will be Assessed" that appears to address this. There should be. The outside perception of Kamloops can affect many things that this City currently regards as important elements in the quality of life here. In addition to those difficulties mentioned, we should consider the possible effect of a negative image on enrolments at the university. Will international students choose to go elsewhere? Will tourists avoid us? Will the convention business be dead forever? Also, the sight lines examined in the methods to assess visual impact should include sights lines from the Coquihalla Highway and Highway 5A as both are gateway entrances to the City. 3. Vision for the City Nowhere in the opportunity for input has there been a chance to talk about anything other than what local residents would gain or lose from this development. What has never been discussed and potentially what we cannot address through the existing process is what we wanted our community to be, what our vision was for this City, what we hoped to create as the optimal place to live, work and bring up our families. How will the magnitude of this project affect that vision? Is it compatible with previous plans for the future of this City? I am familiar with the communities cited in the Ajax brochure as examples of communities with mines located in their boundaries. I lived in Timmins for over a year. I hope Kamloops never becomes another Timmins. It was dirty, had a hard time attracting or keeping professionals like doctors let alone specialists, and I can assure you that it was not a destination point for any tourists visiting Ontario. I saw the moonscape that was Sudbury many years ago and although I understand there has been substantial effort placed on improving the visual landscape, it still has the reputation as an ugly place you would want to avoid. At the very least, there should be consultation with the City Official Plan and how it will be affected by this huge mining development. We don't want to become another Timmins.	dAIR comment	General	Labour force, Employment and Training Community Health and Well-Being Visual Impact/Aesthetic Features	7.2 8.1 8.4	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project. Further consideration will be given to expanding the scope of the visual impact assessment to locations that have been identified as particularly sensitive areas. The assessment will include a consideration of community development and planning and what effects the Project may have. The Application will include reference to the OCP and other community planning initiatives, as described in the AIR.	
66	26	7-Feb-12	Personal Information Withheld	Kamloops, BC	^a http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (12 of 23) [2012-02-24 3:11:29 PM] I have 35 years of mining experience and have worked both hourly and staff. Highland Valley Copper rock dumps that are retired now stand in a foot of alfalfa. The tailings dams that are no longer used are full of healthy fish. The water from Kemess tailings dam was cleaner then the water running down from the mountain run off. Dust control is a lot better then Kamloops City Dump. With 400 possible jobs and then the spin off jobs would help a lot of the unemployed in Kamloops. I realize this would stop the housing tracks from continuing to be built in that area, but there's lots of room else where.	Project comment	General	Labour force, Employment and Training Economic Diversification Land and Resource Use	7.2 7.6 8.5	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
112	47	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		2) Will Ajax establish training programs through TRU to provide qualified local labor?	Project comment	General	Labour force, Employment and Training	7.2	The proponent has been in discussion with local educational institutions to identify labour and training requirements for the mine.	
143	62	8-Feb-12	Personal Information Withheld	Kamloops, BC	In the economic assessment you should give some consideration to the potential of this large project to change the balance of the employment base of the community. At present we have a mix of heavy industry, clean, light industry, large business and small business operations. Will the effect of this large heavy industry be compatible with the other employers currently operating in Kamloops or will it result in a reduced market base for tourism, and the university for example because people move from the area or avoid the area. If these other employers reduce their employment opportunities then Kamloops reverts to a resource based economy with the attendant dependence on the boom, bust cycle typical of the City years ago. We have worked hard to create a more diverse employment base and it would be a major step backwards if we sacrifice a more stable balanced employment base for a relatively short term resource based economy.	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well. A cumulative effects assessment will be conducted as part of the assessment presented in the Application for each of the identified VCs, including economic diversification.	

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166	67	8-Feb-12	Personal Information Withheld		Difficulties attracting professionals and other business to the area	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well.	
253	86	10-Feb-12	Personal Information Withheld		10. What are the actual job numbers, who will get the jobs (people not from Kamloops)	dAIR comment	blasting	Labour force, Employment and Training	7.2	The Application/EIS will include a breakdown of anticipated employment opportunities to be taken up by Kamloops residents and others.	
385	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	4. Social. a) how will the effect the ability for Kamloops to attract and maintain health professionals in the community and at Royal Inland Hospital? b) how will it affect the ability ... to attract other professionals ... c) how many additional permanent residents for Kamloops are anticipated? d) Royal Inland Hospital ... what direct contribution will the proponent make to improve health care for the existing residents and the increase in population?	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well.	

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438	130	28-Feb-12	Rob Wycherley	Kamloops, BC	7.1 LABOUR FORCE 1.Of the 400 jobs with the mine promises to deliver to this community, how many jobs will be dedicated to professionals such as chemists, geologists, engineers etc.? 2.How many of the jobs promised will require previous experience, training or certification in various aspects of hard rock mining? 3.How many jobs will actually be provided to residents of Kamloops with no previous experience in mining? 4.What are those jobs? 5.Komatsu has begun marketing GPS systems for ore carriers and excavators, which operate in a closed environment without human drivers or operators. 6.Will KGHM Ajax commit in writing, that they will not replace any drivers or operators with GPS or computerized operating systems and thereby commit to protect all of the jobs that they currently promise to bring to the Kamloops economy? 7. If not, how many workers would be displaced in the event that computer/GPS operating systems are employed? 8.Of the jobs projected, have any been promised to members of the Kamloops Indian Band or other members of the aboriginal community, and if so, what percentage?	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a breakdown of anticipated employment opportunities to be taken up by Kamloops residents and others.	
439	130	28-Feb-12	Rob Wycherley	Kamloops, BC	7.4 Employment A total of 145 of the 395 direct jobs to be created during the operation of the mine are haul truck drivers. The Rio Tinto West Angelas Mine in Australia is operating driverless haul trucks by remote control, and the mining industry in general is looking at the use of remote control haul trucks as a means of reducing labour costs and labour shortages. 1.Is KGHM Ajax considering the use of remote control haul trucks? 2.If not? Why not?	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a breakdown of anticipated employment opportunities to be taken up by Kamloops residents and others.	
531	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Section 7.0 economic benefits 1. With respect to the economic benefits suggested by the mine proponents, I seek confirmation as to what these benefits are, who will be employed and that these benefits will actually be delivered over the 23 year projected life of the mine. To that end, my questions are: • Of the 400 jobs with the mine promises to deliver to this community, how many jobs will be dedicated to professionals such as chemists, geologists, engineers etc.? • How many of the jobs promised will require previous experience, training or certification • how many jobs will actually be provided to residents of Kamloops with no previous experience in mining ? What are those jobs? • how many employees will be hired in this manner each year (short term contracts)? • What percentage of the mine workforce will be represented by short term contract employees? • Will short term contract employees be eligible for extended benefits, pensions and a right of re-hire? Will the EAO require the proponents to commit, in writing, the number of full time permanent employees they propose to hire? • Will KGHM Ajax commit in writing, that they will not replace any drivers or operators with GPS or computerized operating systems and thereby commit to protect all of the jobs that they currently promise to bring to the Kamloops economy? If not, how many workers would be displaced in the event that computer/GPS operating systems are employed? • Of the jobs projected, have any been promised to members of the Kamloops Indian Band or other members of the aboriginal community, and if so, what percentage? • Will KMGH Ajax confirm that this mine will remain open throughout the projected lifetime? if so, is there a guarantee that all reclamation will be completed forthwith upon the mine being closed down before the proposed date of closure?	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a breakdown of anticipated employment opportunities to be taken up by Kamloops residents and others.	
533	147	5-Mar-12	Kevin Cowan	Kamloops, BC	5. Have there been any economic studies undertaken, to determine a loss of jobs in the agricultural, construction, tourism or professional sectors in the event that the mine limits population growth during the course of its lifetime? If so, what is that study, who is the author and what are the projections? If not, why has such a study not been undertaken? If a study of this nature has not yet been undertaken, will such a study be undertaken by the Ministry of Environment or any other government ministry, prior to completion of the assessment process? If not, why not? Have there been any economic studies undertaken, to determine a mine related diminishment in enrollment at Thompson Rivers University, in the event the mine is allowed to proceed? Have there been any economic studies undertaken, to determine the extent of mine related reduction in Tournament Capital Activities in the event that the Mine is approved? If so, what is that study, who is the author and what are the projections? If not, why has such a study not been undertaken? If a study of this nature has not yet been undertaken, will such a study be undertaken by the Ministry of Environment or any other government ministry, prior to completion of the assessment process? If not, why not?	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will consider employment conditions in other sectors, post-secondary school enrollment and programming as well as other economic activities (e.g., Tournament Capital).	
599	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• How many jobs will be for Canadians only and how many foreign jobs will be allowed as the mine is from Poland and will they bring staff here instead of training for near 100% Canadian resident jobs.	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a breakdown of anticipated employment opportunities to be taken up by Kamloops residents and others.	

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654	175	12-Mar-12	K Goodall	Kamloops, BC	2) Can the proponent definitively provide both primary employment figures and separate predicted spin off employment numbers? Of these primary positions, how many hires does the proponent believe will be from outside of the city of Kamloops? 3) Will the proponent have a protocol in place to ensure hiring preferences is given to the local population and provide training support to ensure local workers will qualify for jobs within the project? Who will oversee this? If not, why not?	dAIR comment	General	Labour force, Employment and Training	7.2	If suitable data exists, estimates will be provided for indirect/spin-off employment; estimates of the number of hires coming out of Kamloops will be provided. Details regarding hiring preferences will be communicated and incorporated into the Application/EIS; expected tools to oversee/monitor will be determined at a later date	
732	208	20-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (53 of 61) [2012-03-29 4:08:06 PM]^ In a similar scenario (as the Ajax proposal) of foreign ownership in partnership with a Canadian company, David Chamber, Ph.D., P.Geop., & President of the Center for Science in Public Participation, reports on the Feasibility Study of the Rosia Montana project, a joint venture with the Romanian Government & Toronto-based Gabriel Resources, & comments as follows: "If this project is typical of other mining projects managed by foreign owned companies, many of the high paying jobs will go to expatriates. When cost cutting becomes an issue, trimming the number of employees often becomes a primary consideration so a reduction in the number of jobs in long-term might be expected, & the jobs cut will almost certainly be those of local workers."--(1) If this project is approved would KGHM guarantee that Kamloops residents, British Columbians, & Canadians, will be given top priority for job placement? (2) If this project is approved & at some time cost-cutting should become necessary would KGHM guarantee that in the event of staff reductions, Kamloops residents, British Columbians & Canadians, would be the last to be cut?	dAIR comment	General	Labour force, Employment and Training	7.2	If suitable data exists, estimates will be provided for indirect/spin-off employment; estimates of the number of hires coming out of Kamloops will be provided. Details regarding hiring preferences will be communicated and incorporated into the Application/EIS; expected tools to oversee/monitor will be determined at a later date.	
751	212	22-Mar-12	Kevin Buxton	Kamloops, BC	Section 5 - Effects Assessment - specifically Table 5.1 • Component 4 - must assess proportions of direct and indirect employment numbers expected to come from the existing local labour pool and from outside of the local area (Kamloops).	dAIR comment	General	Labour force, Employment and Training	7.2	If suitable data exists, estimates will be provided for indirect/spin-off employment; estimates of the number of hires coming out of Kamloops will be provided. Details regarding hiring preferences will be communicated and incorporated into the Application/EIS; expected tools to oversee/monitor will be determined at a later date.	

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771	218	23-Mar-12	Personal Information Withheld	Kamloops, BC	<p>Employment</p> <ul style="list-style-type: none"> Will the mine guarantee a certain number of employees to be hired from currently within Kamloops, or will they hire and move 400 new people to town to take these jobs? If Kamloopsians are not able to get jobs at the mine where is the benefit for the city? Will the mine guarantee that they will not bring in foreign workers and house them at the mine for cheaper labour? Will the mine guarantee that they will not purchase remote-controlled haul trucks, thus eliminating jobs from the mine? 	dAIR comment	General	Labour force, Employment and Training	7.2	If suitable data exists, estimates will be provided for indirect/spin-off employment; estimates of the number of hires coming out of Kamloops will be provided. Details regarding hiring preferences will be communicated and incorporated into the Application/EIS; expected tools to oversee/monitor will be determined at a later date.	
838	250	26-Mar-12	Hugh Jordan	Kamloops, BC	<p>6. we have a lot of difficulty attracting physicians ... to the Kamloops area. It will be even more difficult to do so if we add more pollution to our region. how can an open pit mine set up operation within and closely bordering a city that grew from agriculture and transportation and now grows in the area of higher education ... recreation ... and transportation. Please for the six impacts/risks cited above, do not permit this open pit mine to re-open and grow within and so close to such a large area population.</p>	Project comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a consideration of the perception/reputation of the City of Kamloops as well as current and anticipated capacity of health and other services.	
875	252	26-Mar-12	Paula Pick	Knutsford, BC	<p>7.4 Employment</p> <ul style="list-style-type: none"> Will the proponent, in the breakdown of the number of people that will be hired, state how many will come from Poland? How many KGHM Polish employees will be hired? 	dAIR comment	General	Labour force, Employment and Training	7.2	If suitable data exists, estimates will be provided for indirect/spin-off employment; estimates of the number of hires coming out of Kamloops will be provided. Details regarding hiring preferences will be communicated and incorporated into the Application/EIS; expected tools to oversee/monitor will be determined at a later date.	

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1121	282	27-Mar-12	Muriel Miller	Aberdeen, BC	8) What about the ability to attract professionals such as doctors, etc.? How will this mine affect TRU?	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well.	
1144	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	16. how are you going to compensate for adding more doctors to come to Kamloops, because the city will now have more health issues. when there is already a shortage in Kamloops?	Project comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well.	
1248	309	4-Apr-12	Christine Casorso	Kamloops, BC	How is a city who is trying to build a reputation, for having a good university and being a tournament capital supposed to attract professors, students and athletes when you have an open pit copper mine in the city limits and produces diminished air quality and potential soil toxins. How are we to attract new doctors and nurses? How do you ask people to put their health at risk to move here?	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a consideration of the perception/reputation of the City of Kamloops as well as current and anticipated capacity of health and other services.	

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1272	313	4-Apr-12	Santo D'Aquino		5. benefits to Kamloops, British Columbia and Canada. such a project can create significant economic stimulus, tax revenues and jobs. I want to deals jobs for construction and operational we have direct and indirect jobs. Ajax booklet gives a good breakdown. I have a question. can we assume that 90 - 95% of the workers will come from the Kamloops region, British Columbia and Canada and only 5 - 10% of the worker will come from outside of Canada. if not, what is the correct breakdown??	dAIR comment	General	Labour force, Employment and Training	7.2		
1301	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	4. Another consideration that appears to be absent from the draft AIR is the adverse socioeconomic impacts the mine will have on our business and health professionals. The draft AIR talks about social and health issues but does not address the consequences to a community by the loss of and inability to attract these highly specialized individuals.	dAIR comment	General	Labour force, Employment and Training	7.2	The Application/EIS will include a description of the number and nature of jobs associated with the Project and an estimate of income related to those jobs. It will also include a description of employment trends (including key sectors in the City). Potential effects on other types of employment in the area will be considered as well.	
52	21	7-Feb-12	Hugh Jordan	Kamloops, BC	2. Are there examples of large open pit mines within cities in similar geography and rock and climate to Kamloops. The cities mentioned in the brochure were all located in the hard rock Canadian Shield, and in less dry climate? 9. Is there a neutral review of the KGHM track record of other international projects outside of Poland. How good is their labour relations. I can't help thinking about Vale who took over the mines in Sudbury and have locked out employees for the last year. 10. The mine approval must be based on the holistic good of our community. Short term money should be secondary to our health, and preserving the present economy. A project more complimentary with the Tournament Capital promotion would be preferable.	Project comment	General	Business Economic Diversification	7.4 7.6	Any examples of large open pit mines within cities in similar geographical, geological and climate settings to Kamloops will be presented in the Application where relevant to the VC study methodology. The KGHM Environmental Management System that will be described in the Application is discussed in Section 2 of the AIR. Community image and branding will be assessed as part of the Economic Diversification or business VCs.	

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440	130	28-Feb-12	Rob Wycherley	Kamloops, BC	7.5 Business Many people living in Kamloops are not dependent on local employment, by virtue of being employed elsewhere, or being retired. How many residents in Kamloops will relocate from the city due to the construction and operation of the mine? What will be the effects on business due to this relocation? How will this affect population growth projections?	dAIR comment	General	Business	7.4	The Application/EIS will consider indirect economic benefits (expenditures and employment as feasible), economic diversification, population demographics, community health and well-being and perceptions regarding the City.	
752	212	22-Mar-12	Kevin Buxton	Kamloops, BC	• Component 5 - must specify what types of businesses will be negatively affected and the nature of the negative effects - i.e. recruitment and retention of employees, loss of customer base, etc.	dAIR comment	General	Business	7.4	The scope of the assessment will include a consideration of potential impacts (both positive and negative) on businesses.	
760	212	22-Mar-12	Kevin Buxton	Kamloops, BC	Section 8.0 - Assessment of Potential Social Effects • The proponent must describe relevant local government plans/goals, and how the project will effect each. Examples include the City of Kamloops Kamplan, Sustainability Plan, Parks Master Plan, Communities in Bloom program, etc. The proponent will describe the recruitment and retention plans of the major local employers such as the Interior Health Authority, Thompson Rivers University, City of Kamloops, Sun Peaks Resort, and how the project will effect these. Aesthetics of the project must be made easily viewable by members of the public - see Section 3 comments for a description of a suitable method of disseminating three-dimensional imagery.	dAIR comment	General	Business	7.4	The Application/EIS will describe potential effects of the Project with respect to the local land use and development processes (as per the documents noted in the public comment, and others). Potential effects on other occupational sectors will be considered.	

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1114	282	27-Mar-12	Muriel Miller	Aberdeen, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (56 of 77) [2012-03-29 3:57:49 PM]^ I am writing this comment as a 24 year resident of Aberdeen Hills Subdivision. My concerns are the same as other residents of Kamloops. 1) The amount of dust, probably toxic that the mine will produce and that will settle in our valley. We are the Tournament Capital of Canada. How will a mine within the city limits effect our reputation and the quality of the air visitors will breathe?</p>	dAIR comment	General	Business Economic Diversification Air Quality	7.4 7.6 10.1	<p>The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors. Results will be presented in the Application/EIS.</p> <p>Community image and branding will be assessed as part of the Economic Diversification or business VCs.</p>	Air Quality - 3.3.4.1
1435	338	4-Apr-12	Personal Information Withheld	Kamloops	<p>3. City Reputation: 1. Tournament Capital: If there is a noticeable amount of dust in the air, and smog settling in the valley, that could affect our reputation as the "Tournament Capital of Canada". Kamloops has worked hard to achieve this title, and has invested copious amounts of money into the facilities necessary. Current revenues from tournaments bring in approximately \$11 Million per year. Even if the mine runs successfully for 23 years, the predicted municipal revenue is only \$110 Million total. If you divide that by 23 years, it's only \$4.78 Million per year, which is much less than money from tournaments. Also, \$4.78 M is not a lot compared with the city's annual revenue of \$189.3 million (as reported in the 2010 annual report) it would only increase by 2.5%. 2. Or Industrial Town: We already have the pulp mill, it stinks sometimes, and we don't want any more reason to be known as an industrial town. There are two other mines close by, plenty of jobs there.</p>	dAIR comment	General	Business Economic Diversification Community Health and Well-Being	7.4 7.6 8.1	<p>The Application/EIS will include discussion on the reputation/perception of the City and on the anticipated economic contributions of the Tournament Capital campaign and Project.</p>	
108	46	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		<p>2) impact on property values to all the homes, land etc. in the Pine View Valley, Aberdeen & Knutsford locations</p>	dAIR comment	General	Property Values	7.5	<p>Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	

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118	52	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		I am concerned about how this will affect the re-sale value of my home and others in the Upper Sahali and Aberdeen. I would like to see a study that assesses any effects the mine may have on real estate in the Kamloops area.	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
120	53	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Moreover, how will you compensate those of us living in the catchment area who have already seen our property values go down just a coincidence? Possibly, given that mining companies often build houses for their workers they could offer fair market value to owners of nearby houses who purchased their homes because of quietness, air quality	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
128	57	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Vibration from blasting - Global BC News reported recently that residents of Sooke, BC on Vancouver Island felt vibrations from Washington State across the Juan De Fuca Strait which is considerably farther away than what Pineview Valley is from the mine. How will this blasting at the mine affect stability in this area and what effects could homeowners be facing? Who will be monitoring this in the operations on a continual basis?	dAIR comment	blasting	Property Values Noise and Vibration	7.5 10.4	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations.	Noise and Vibration - 3.3.4.2
131	58	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Very concerned about my house value decreasing.	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	

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134	59	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld	Kamloops, BC	4. Extreme Noise/vibration issues: ask yourself, would you intentionally expose your children, family and environment to these extreme conditions every day 24/7? At what cost? 7. The mine says they did 2 blasts of 15 holes each with significant vibration, at what cost & damage to structures in the neighbourhoods bordering on this mine will these blasts cause? 12: peace & quiet 14. Ajax should have to have real life explosions in 200 blast holes at regular charge & use a seismograph set-up in Pineview & Aberdeen neighbourhoods. Not the 15 they had?	dAIR comment	blasting	Property Values Noise and Vibration	7.5 10.4	These issues will be discussed in the Application/EIS. The proponent has utilized applied science to determine the effects of the blast tests, and will not be conducting full scale test blasting. The projected daily blasts are designed with 60 holes. It is not feasible to conduct a "full size operational blast" prior to operation. Vibration characteristics can be accurately related to the charge weight and distance and can be used to model blast vibrations from a production blast at the same site. Modelling will to predict blasting PPV and air overpressure.	Noise and Vibration - 3.3.4.2
150	65	8-Feb-12	Alan Havisto	Kamloops, BC	5. When the blasting starts how often and what times of the day will the blasting take place? 7. What will the noise levels be in Aberdeen and other areas close to the mine? 8. How far away will vibration be felt and who will pay for any possible damage to homes?	dAIR comment	blasting	Property Values Noise and Vibration	7.5 10.4	5. It is currently anticipated that blasting will occur once per day, at around noon, coinciding with shift change. 7. This information will be provided in the Application/EIS. 8. The vibration effects assessment will include discussion of the radius in which vibration will be measureable. The Application will include discussion of mitigation measures the Proponent is prepared to take to avoid or minimize significant adverse effects.	Noise and Vibration - 3.3.4.2
155	65	8-Feb-12	Alan Havisto	Kamloops, BC	15. Ajax has stated property values won't be affected in areas closer to the mine, what information do you have to support this comment?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
164	67	8-Feb-12	Personal Information Withheld		Property values, already evident that the desirable area of Kamloops has changed	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
187	76	10-Feb-12	Personal Information Withheld	Kamloops, BC	^a http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (60 of 77) [2012-02-24 3:07:19 PM] ^a As an Aberdeen resident, I have many concerns about the proposed Ajax mine; however, many of my concerns have already been brought up by other commenters. Instead of covering the same ground, I would like to identify some less talked about problems that I believe the environmental review should cover. 1. Noise: Most discussion related to noise has been about blasting. I believe a more comprehensive look into noise production is needed. The noise level for each phase of the project should be quantified. This should consider noise from crushers, conveyer belts, haul trucks (including reverse warning alarm), etc. It should be determined if actors, such as weather, could affect the distance noise from the mine would travel. 2. Air blast: I understand that detonating explosives can cause an air blast effect, as well as ground vibration. It should be determined which areas of Kamloops could be affected by air blast, what variables could increase air blast, and whether air blast could cause property damage or negative health effects.	dAIR comment	General	Property Values Noise and Vibration	7.5 10.4	These issues will be discussed in the Application/EIS. Please see column "dAIR Rev E Section#."	Noise and Vibration - 3.3.4.2

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203	79	10-Feb-12	Personal Information Withheld		(2) Pineview/Aberdeen property values; reimbursement of residents if mine has negative impact	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
217	80	10-Feb-12	Personal Information Withheld		(5) How often and at what times of day will blasting occur (7) What will the noise levels be in Aberdeen and areas near the mine (8) How far away will vibration be felt and who will pay for possible damage to homes	dAIR comment	blasting	Property Values Noise and Vibration	7.5 10.4	5. It is currently anticipated that blasting will occur once per day, at around noon, coinciding with shift change. 7. This information will be provided in the Application/EIS. 8. The vibration effects assessment will include discussion of the radius in which vibration will be measureable. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Noise and Vibration - 3.3.4.2
222	80	10-Feb-12	Personal Information Withheld		(15) What information does the company have to support the claim that property values in areas close to the mine won't be affected	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	

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248	86	10-Feb-12	Personal Information Withheld		http://www.eao.gov.bc.ca/ppp/comments/Ajax_Comments.html (39 of 77) [2012-02-24 3:07:19 PM] 1. Noise from blasting 2. Blasting and vibration on housing foundations, compensation; effects on groundwater, compensation 8. Noise pollution causing lack of sleep, health ailments	dAIR comment	blasting	Property Values Noise and Vibration	7.5 10.4	<p>Noise effects will be discussed in the Application. The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations.</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	Noise and Vibration - 3.3.4.2
252	86	10-Feb-12	Personal Information Withheld		9. Property value, reimbursement	dAIR comment	blasting	Property Values	7.5	<p>Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	
266	87	10-Feb-12	Personal Information Withheld		probable lowering of property values city expansion Require property by property assessment completed to satisfaction of owner over industrialization of the area	dAIR comment	General	Property Values	7.5	<p>Property values and city expansion, as per City of Kamloops land use and development planning, will be included in the assessment presented in the Application/EIS. Individual property assessments and over-industrialization are not within the scope of the assessment.</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	

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270	88	10-Feb-12	Personal Information Withheld		9. Property values, reimbursement for drop in property values, inability to sell homes	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
374	123	24-Feb-12	Sean McGuiness	Kamloops, BC	close proximity of mine to Kamloops a deterrent to future residents, and detrimental to the community image. Impact of home and property values.	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
380	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	b) what will be the impact of property values in Kamloops and who will compensate for a probable decrease in values and loss of home owner's equity?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
382	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	d) how many residents in Kamloops will be seeking to relocated to another city and what is the anticipated impact to the local economy and real estate market?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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398	127	27-Feb-12	Personal Information Withheld	Aberdeen, BC	Is there any consideration for the value of properties in the immediate vicinity of the mine? If so, what has been discussed? What is the impact on properties within 10 kms of other open pits mines in North America?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
441	130	28-Feb-12	Rob Wycherley	Kamloops, BC	7.7 Housing 1.A study in Tennessee concluded that property values tend to decrease in proximity to open pit mines. With regard to similar open pit mines in Canada and the United States, what is the spatial relationship of residential property values for similar homes (age, size, construction cost) and property sizes in relation to distance from the mine?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
459	132	28-Feb-12	Heather Mewhort	Kamloops, BC	b. Can you also assure me that the real estate value of our home will not be de-valued by the mine's proximity to Aberdeen and the environmental impacts associated with it?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
485	142	3-Mar-12	Personal Information Withheld	Kamloops, BC	' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (65 of 77) [2012-03-06 2:47:31 PM]' Draft AIR Section 7.7 Housing - Residential property values and how they may be influenced by the proposed mine may prove to be the primary topic of concern for residents in the neighborhoods surrounding the site. A consultant for the proponent noted at the Feb 6-7, 2012 open house that it was one of the top three issues of concern amongst the public. Section 7.7.4 The statement is made that "the effects assessment will attempt to characterize the impact of the mine on real estate prices and availability". The use of the word "attempt" downplays the importance of this area of assessment and the absolute necessity of completing it fully and as accurately as accepted methods allow. Quantitative study methods such as hedonic modeling and contingent valuation must be used as the primary assessment model rather than relying on the more subjective, qualitative options available. Such studies are used to predict changes in property values associated with proximity to environmental amenities or liabilities. These studies also allow for items such as good air quality, views and noise levels to be described in financial terms and are used in community real estate valuations. The position put forward by the proponent in support of the project is almost entirely economically based. Qualitative data will tend to carry less weight when compared to the positive financial aspects of the proposal. Quantitative data should therefore be expressed in economic terms as well to allow for directly comparable positive and negative outcomes. Such an approach will allow for more informed decision making to occur. Quantitative studies of this kind apparently require specialized data collection and statistical skills. As with all other aspects of the assessment process, government agency working group members provide an oversight and auditing function for the proponents consulting services. If adequate expertise does not exist with the working group membership, the EAO must obtain qualified independent consulting services to provide assurances that the study methodologies and interpretation of results are reflective of the local community interests. I was advised by the consultant responsible for such work at the open house that such quantitative models were the superior options available. I believe that the community is deserving of the most rigorous and representative review methods possible.	dAIR comment	General	Property Values	7.5	The assessment of economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources.	
505	146	4-Mar-12	Personal Information Withheld	Kamloops, BC	What is considered an "acceptable" depreciation of home values due to the deterioration of a large area of the city? - Is there to be remuneration for home owners living close (within three kilometres?) of the mine?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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536	147	5-Mar-12	Kevin Cowan	Kamloops, BC	17. section 7.7.4 - proponent states that it will identify and analyze potential adverse effects from the project, including housing affordability and availability. This presupposes that the mine will be a positive variable to the adjacent neighborhood. Why has the proponent not included de-valued housing and a glut on the market as a consequence of adjacent mining activities? 18. Will the EAO and the CEA Agency require studies addressing the devaluation of homes as a consequence of adjacent mining activities? 19. If not, why not?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
597	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• As per the section Benefits to Canadians why is there not a section on the potential negative impacts to the residents of Kamloops and how they will be compensated from likely decreases in real estate values and potential loss of sporting event participation and attendance to TRU.	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
629	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	8. How will the Ajax mine prevent my family's property value from decreasing and the quality of the properties ranch land from being directly impacted by the dust/ metal uptake?	dAIR comment	General	Property Values Air Quality	7.5 10.1	Dispersion modelling will be used to predict the composition and quantity of PM in various parts of the City. These levels will be evaluated against provincial, federal, or international standards and guidelines to ensure that exposures do not result in deleterious effects. Perceived effects on property values will be assessed under the Housing VC. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Air Quality - 3.3.4.1

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649	175	12-Mar-12	K Goodall	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (12 of 69)^</p> <p>1) Vibration - blasting</p> <ul style="list-style-type: none"> The mine blasting is not expected to have an impact on residences. However, if the proponent is incorrect in this expectation, how will they address any structural damage that does occur to local residences and public buildings/infrastructure? Will the proponent pay for any and all repairs that may be required? If not, why not? What if the residence becomes inhabitable? Will the onus of proof be on the homeowner/city to show that the project is responsible? If so, what will be the criteria? What kind of documentation will be required? Will homeowners be required to obtain specific insurance against such damage occurring and who will pay for it? is it even possible to obtain such insurance? 	dAIR comment	blasting	Property Values Infrastructure, Public Facilities and Services	7.5 8.2	<p>Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). The issue of financial compensation for structural damage is outside the scope of the EA.</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	
656	175	12-Mar-12	K Goodall	Kamloops, BC	<p>5) If property values are negatively impacted due to the mine location, will the proponent compensate homeowners for the loss of fair market value and/or equity? If so what criteria will be used? If we are unable to sell our home due to the proximity of the mine will the proponent provide appropriate compensation? If so, will a bond be set aside in advance of project start up? If not, why not?</p>	dAIR comment	General	Property Values	7.5	<p>Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	
668	178	13-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> Property values. The impact of the mine on neighbourhoods, schools and parks through the above concerns as well as Noise/vibration will have an adverse effect on resale. Homes are often a family's chief investment for retirement. To change land that is currently in the Agricultural Land Reserve to heavy industrial after people have invested destabilizes any future investment whether residential or commercial. <p>All of these issues of course grow out of the placement of a mining operation this close to a major community. We need controlled growth to feed our economy but it can't be at the expense of existing communities. Another concern I would like to raise is the inability of the proponent to provide accurate maps and computer models of their proposal to the public. The proponent must have this material to go ahead with an investment of this size. To not be willing to pass these on to the public demonstrates a reluctance to be transparent and brings into question any information they do release.</p>	dAIR comment	General	Property Values	7.5	<p>Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Please see the figures presented in the dAIR for figures (maps) outlining the project area in relation to the city boundary and existing residences.</p> <p>The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs.</p>	

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676	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	<ul style="list-style-type: none"> • There will be Noise/vibrations at the mine. Will we be able to hear it? • How far away will you have to be to get away from an awareness of the Noise/vibration? • Could the noise serve as a low level irritant for the mine's neighbours, a constant source of worry and stress about our health, home foundations, children, etc.? • Will the mine have any impact on the peacefulness of our community during the day? Will the mine have any impact on our ability to enjoy our home with the windows open at any time, day or night? Will the noise impact increase with different weather conditions? If so, will the mine cease operations during specified types of conditions? 	dAIR comment	General	Property Values Noise and Vibration	7.5 10.4	The noise emissions from the mine are expected to be generally constant. Some variability in noise emissions may take place but it is difficult to quantify. The noise contribution from the mine at the residential receptors will vary greatly with changing atmospheric conditions. Some days the mine will be completely inaudible, while other days the noise levels from the mine may be close to those predicted in the assessment. However, at no time should the mine noise at the residences exceed the predicted levels. Post-construction testing can be used to confirm that the mine complies with the noise targets as per HC recommendations and BC OGC Guidelines. Noise mitigation measures will be implemented in the event of non-compliance	Noise and Vibration - 3.3.4.2
677	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	<p>5. Impact on Property Value/Cost of Moving:</p> <ul style="list-style-type: none"> • We ask that the proponent be held responsible for any drop in our property sale price and our moving expenses should the mine be approved. • We understand that there are quantitative methods such as hedonic modeling and contingent valuation to predict and monitor any changes in our property value and we feel that it is reasonable that those methods, rather than more qualitative/ subjective tools, are used in assessing any impact to property values. I would argue that in this case the "gold standard" should be applied as a large percentage of the Kamloops population live in areas that could be impacted by the mine operations and many homes in our area are of high value and quality. • From the reading I have done, it is my understanding that the impact of industrial development/dumps etc. on buying habits has more influence with buyers of higher end real estate. We do not trust the proponent to be objective and fair regarding the impact on property value (and therefore our family's financial position). Jim Whittaker, a representative of Abacus mining, stated publicly at a city council meeting that he thought property values in our neighbourhood may rise as a result of the mine moving to town. Our opinion is that our property value is more likely to decrease when compared to other areas of the city. In fact, we think this has already occurred based on the possibility of this mine being approved. I would like to make sure that this variable is measured as objectively as possible, especially given the mine representatives apparent disregard for the potentially negative impact on some of the mine's closest neighbours. 	dAIR comment	General	Property Values	7.5	The assessment of economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
701	195	17-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> • How will home-owners be compensated for potential reduced house values in Aberdeen? 	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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706	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	2. Pineview/Dufferin/Aberdeen residents have consistently maintained their property values. What independent process will be put in place prior to the opening of the mine to accurately assess the effect on property values? How does Ajax/KGHM propose to reimburse residents for potential reductions in property values if the mine does have a negative impact?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
722	203	20-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (7 of 23) [2012-03-26 3:53:56 PM]^ The EAO needs to fund a 3rd party socio economic consultant to critique the proponent's consultants' study methodologies and assumptions in this area. Qualitative housing value studies (surveys with local realtors etc.) are cheaper but not quantitative. Hedonic regression analysis to predict property value changes and contingent valuation surveys to apply monetary costs to noise and sight lines as 2 examples. Anything less than hedonic regression and contingent valuation surveys will guarantee soft qualitative data that won't be weighted evenly against the other economic benefits. Neighborhoods might take a significant cut in equity worth 10's of millions of dollars without any effort taken to quantify such costs. It is essential to apply economic modelling to social, health assessments to even the playing field.	dAIR comment	General	Property Values	7.5	The assessment of economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources.	
736	209	21-Mar-12	Lora S	Kamloops, BC	6. Determine the effect the mine will have on property values in neighbourhoods adjacent to the mine. We need the "Cadillac" of analysis to be done, nothing less! If the property values decrease, how will KAM compensate us?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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742	209	21-Mar-12	Lora S	Kamloops, BC	13. Provide an independent legal opinion regarding any and all legal avenues available to property owners for compensation for the following: a. loss of property value; b. property damage, including structural and non-structural, due to blasting and vibration; c. soil instability due to increased ground water issues caused by the mine; d. mine/industrial dust on homes, property and vehicles which causes corrosion; and e. loss of enjoyment of life and property.	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
762	212	22-Mar-12	Kevin Buxton	Kamloops, BC	Noise and Vibration Impacts on Human Health <ul style="list-style-type: none"> Limiting Noise/vibration impacts to direct human health impacts is, again, unacceptable. The proponent must identify and describe any "annoyance factors" that could affect the quality of life of nearby communities. These will also need to be accounted for in the assessments of potential economic effects (Section 7.0) and potential social effects (Section 8.0). 	dAIR comment	General	Property Values Noise and Vibration	7.5 10.4	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Noise and Vibration - 3.3.4.2
774	220	23-Mar-12	Jordan Lawrence	Kamloops, BC	Can I be guaranteed that my property value will not decrease due to the mine?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
799	227	24-Mar-12	Marcia Wilson and Klaus Mey	Kamloops, BC	Impact on Property Values: Our family (us, my mom and my inlaws) own 3 homes in Aberdeen collectively. Some say that property values will go up as the miners will want somewhere to live (will they want to buy my house and veggies garden?). Others are concerned property values will go down. If they go down our family will collectively be financially impacted by this venture, especially if we choose to move for health reasons. What economic models will be used to assess this potential? If home values do go down why should families have to absorb that loss? Is there a way that the mine could be held accountable and compensate for these financial losses and the cost of moving should people choose to leave to protect themselves related to pre-existing health conditions?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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814	237	25-Mar-12	Personal Information Withheld	Kamloops, BC	3. Economic impacts. The AIR does not address or provide any economic analysis relating to potential reduced real estate markets and property values should the mine produce contaminants that are not compatible with the healthy living values currently enjoyed by Kamloops residents. Neither section 7.6 (Cost of living) or 7.7 (Housing) provide any information on this potentially important issue. A subsection of section 7.0 (Assessment of potential economic effects) needs to address this issue directly.	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Section 10 of the Application/EIS will assess potential health effects.	
824	245	26-Mar-12	Personal Information Withheld	Kamloops, BC	Re: negative effect on property values: I would like to know what Ajax Mines is prepared to do to mitigate the financial effects to owners in the event that homes do not appreciate as much as they would have if the mine had not proceeded. 4. How will Ajax Mine compensate owners? 5. How will a "baseline" be established? 6. How will the expected growth rate be determined?	Project comment	General	Property Values	7.5	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
827	246	26-Mar-12	Joanne	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (8 of 37) [2012-03-29 4:02:53 PM]^ We relocated our young family to Pineview Valley after the birth of our son who has respiratory challenges, in order to live above the inversion level and keep his little lungs more frequently in the clear of the pollution that often settles over the lower portions of the city. The AJAX mine proposal, and its recent quiet addition of extra debris piles in closer proximity to Pineview Valley now appear poised to threaten the quality of our air and hence the quality of activity and life of our now 7 year old son. Who will shoulder the cost of the increased pressure on our hospital's respiratory therapy department when more residents like our son start feeling the ill effects of the dust and heavy metal particulate from the AJAX mine in the air over Kamloops? Who will compensate our family for the decrease in the value of our home so that we can purchase a home in another community when we are forced to sell in Kamloops and move due to our son's impaired lung health.	Project comment	General	Property Values Infrastructure, Public Facilities and Services Air Quality	7.5 8.2 10.1	Please see the AIR for a description of the studies proposed to assess the potential environmental, social, and economic effects of the proposed project.	Air Quality - 3.3.4.1

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828	246	26-Mar-12	Joanne	Kamloops, BC	In addition, I am a shift worker, and the daytime quiet of Pineview is perfect for my sleep needs. At last year's open house, and more recently in the downtown AJAX information office, we were told that blasting activities will be heard and felt by residents of Aberdeen and Pineview Valley, thus compromising the sleep of not only shift workers but of all residents. As far as the vibrations, who will be compensating us for the cracks in the foundation of our home after mine activities commence?	dAIR comment	blasting	Property Values Noise and Vibration	7.5 10.4	Information on the noise study methodology and results will be provided in the Application/EIS. The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	Noise and Vibration - 3.3.4.2
978	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will the mine be prepared to compensate a decline in property values if it's existence adversely affects nearby existing residences?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1000	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	Economic - loss of attractiveness of this community to many professionals and others who see this as an outdoor paradise - which it is. loss of tourism. loss of home values in areas closer to the mine in particular.	dAIR comment	General	Property Values Economic Diversification	7.5 7.6	Tourism will be considered in the economic diversification assessment. Property values will be considered under the Housing VC.	

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1006	268	27-Mar-12	Personal Information Withheld	Kamloops, BC	4) The City of Kamloops and property owners have invested \$\$ Millions in planning, development and infrastructure costs in the Aberdeen, Pine Valley, and Sahali neighbourhoods, including provisions for major future growth. What assurance and guarantees can you [provide that Ajax will fairly compensate residents and the City for lost property values and lost opportunities?	dAIR comment	General	Property Values	7.5	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1017	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	2. What studies have been completed to analyze the mine's effect on nearby property values in the City and the Regional District?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
1024	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	10. Has a study been completed on the potential effects of vibration on nearby homes, foundations and pools, etc.	dAIR comment	blasting	Property Values Infrastructure, Public Facilities and Services	7.5 8.2	A vibration impact study will be included in the Application/EIS.	
1051	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	9. What effect will the mine have on property values in neighbourhoods adjacent to the mine and how will the residents be compensated?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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1083	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	<p>4. House building structures</p> <p>a. Can those rangers who live next to the Ajax mine be assured that the proposed 20+ years of blasting will have no detrimental effects on their homes and various other buildings?</p> <p>b. How is the size/strength of the charges that will be used at Ajax determined?</p> <p>c. If there are limits to the size of the charges, who sets them, and will they be enforced and if so by whom?</p> <p>d. who monitors the monitoring sites with regards to excessive blasting vibration levels, and can or will the mine be held accountable if the acceptable levels are exceeded?</p> <p>e. what safe guards will be in place to prevent any structural damage on neighboring property due to the effects of blasting over the life of the Ajax mine?</p>	dAIR comment	blasting	Property Values Infrastructure, Public Facilities and Services	7.5 8.2	<p>A vibration impact study will be included in the Application/EIS. Information on blasting procedures and mitigation measures will be provided in the Project Description section of the Application/EIS.</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	
1119	282	27-Mar-12	Muriel Miller	Aberdeen, BC	6) Property values? Our home is part of our children's inheritance. Will that be reduced?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
1159	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>7.7 Housing</p> <p>7.7.1 Rationale; 2nd bullet; will property owners and residents be included as "stakeholders"? if not why not? will this inclusion be required in the AIR?</p> <p>7.7.2</p> <p>a. what baseline studies were done on the local and regional housing market, when were they done and by whom? Were the results available to the public and if not why not?</p> <p>b. did any baseline study include the particular neighbourhoods of Aberdeen, Knutsford and Pineview Valley, being areas in closest proximity to the proposed site. if not why not? Will those studies be required in the AIR?</p> <p>c. If a baseline study was done was it ever updated due to the significant increase in population of the Pineview Valley area between 2006-2012? When and by whom? Will the AIR require annual updates of property values in Aberdeen, Knutsford and Pineview Valley, with comparisons make between percentage of increase or decrease in values to the rest of Kamloops?</p> <p>7.7.4</p> <p>It is stated that the effects assessment of the socioeconomic baseline will be done through a review of similar studies/projects, as well as other factors that can impact real estate prices, etc. What other studies/projects could be considered to be similar? Where in Canada has an open pit mine proposal of this size and location actually within the boundary of a city of 86000 people been done? Will the AIR require this information to be given?</p>	dAIR comment	General	Property Values	7.5	<p>Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	
1211	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (14 of 77) [2012-03-29 3:57:49 PM]^</p> <p>Will a baseline be set for air quality (dust particulates), noise level at different regions (e.g., Aberdeen, pineview valley, knotch hill), and house foundation settlement before the mine is constructed?</p>	dAIR comment	General	Property Values Air Quality Noise and Vibration	7.5 10.1 10.4	<p>The results of baseline studies for air quality and noise will be presented in the Application/EIS.</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2

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1217	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will the mine be prepared to compensate a decline in property values if it's existence adversely affects nearby existing residences?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1232	306	4-Jan-12	Personal Information Withheld		2. The noise and dust impact of this waste rock dump will greatly impact the value of our properties and also the neighborhood of Edinburgh and Aberdeen.	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse).	
1236	306	4-Jan-12	Personal Information Withheld		6. The other concerns I have are in regards to carbon monoxide, aluminum output, visual impacts, blasting and noise and the magnitude of ground vibration, hydrology of the area in regards to the run off from my property and the financial impact to the residential land for future development. As you are probably aware the remainder of my property which is approximately 800 acres has been approved for release from the agricultural land reserve contingent upon spray irrigation and this east waste dump site will greatly impact the value of my property.	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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1249	309	4-Apr-12	Christine Casorso	Kamloops, BC	We are not a wealthy family our equity is in our house we are being asked to jeopardize that for a mine that could risk our health. Our property values will drop. Who compensates us for that?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1296	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	7. What will be the financial impacts/implications on: a. Residential land values of future development lands during the time the mine is in operation and after operations conclude or cease mid development? b. Residential land values of homes currently constructed and occupied in the Aberdeen area? c. What are the documented impacts that similar residential developments have realized from such close proximity to a mine site of this size and nature? Section 7.7 addresses housing and potential impacts to local and regional housing in relation to affordability and availability and attempts to provide measures to mitigate adverse effects. The wording does not appear to address the concerns asked above, especially in relation to the Aberdeen neighbourhood given its close proximity to the mine site. We would also expect to see more than a mitigation commitment, but rather a commitment to compensate homeowners for loss in property values.	dAIR comment	General	Property Values	7.5	Property Value will be assessed as a VC and will include all property types. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1368	329	4-Apr-12	Personal Information withheld		3. I am also concerned about the frequent blasting that will take place. I have attended the public meeting and heard one of the representatives say that it is unlikely that we will feel the blasts. Although we may not feel the blasts, that does not mean the vibrations won't impact homes. A few years ago, Hugh Allen Drive was extended into Pineview (please keep in mind this road is ~1 km from our home). To put the road in, blasting was required. I noticed at this time that the drywall in our house began to crack in several places and am assuming it is because of the blasting. I'm concerned that the frequent blasting at such a close proximity will have negative effects on my home by means of our foundation cracking, drywall cracking etc.	dAIR comment	blasting	Property Values Infrastructure, Public Facilities and Services Noise and Vibration	7.5 8.2 10.4	Potential effects of vibration from blasting will be assessed in the Application/EIS. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	Noise and Vibration - 3.3.4.2

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1369	329	4-Apr-12	Personal Information withheld		4. I am very concerned that the establishment of the mine will significantly reduce the value of our home	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1383	330	4-Apr-12	Personal Information withheld		property values, will my acreage no longer have any value?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1396	336	4-Apr-12	Personal Information Withheld		2. What studies have been completed to analyze the mine's effect on nearby property values in the City and Regional District?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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1404	336	4-Apr-12	Personal Information withheld		10. Has a study been completed on the potential effects of vibration on nearby homes, foundations and pools, etc.	dAIR comment	General	Property Values Noise and Vibration	7.5 10.4	This issue will be assessed in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Noise and Vibration - 3.3.4.2
1434	338	4-Apr-12	Personal Information Withheld	Kamloops	2. Property Values: 1. Bad for me: I don't want to move! It's costly, with real estate fees and taxes. Also, I have put a lot of money and work into my yard, which wouldn't be recovered if we sold. Houses in Aberdeen are geographically closer to the mine than other neighbourhoods, but there are no roads going directly to the mine sight. So workers will probably choose other neighbourhoods, not Aberdeen. 2. Bad for the city: No one will want to live in Aberdeen, but this is where the city has planned most of it's growth. If property values decrease, there will be less tax revenue. If people choose to live elsewhere in the city (North Shore, Batchelor Heights, Valleyview, Juniper, etc.) that will put a strain on existing roadways.	Project comment	General	Property Values	7.5	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	
1443	339	4-Apr-12	Personal Information Withheld		Sec. 7.7.2 a) What baseline studies were done on the local and regional housing market, when were they done, and by whom? If so, were the results available to the public, and b) Did any baseline study include the particular neighbourhoods of Aberdeen, Knutsford and Pineview Valley, being the areas in closest proximity to the proposed site. Will those studies be required in the AIR? c) If a baseline study was done was it ever up-dated due to the significant increase in population of the Pineview Valley area in each of the years between 2006 and 2012? If so, when and by whom was the update done? Will the AIR require annual updates of property values in Aberdeen, Knutsford and Pineview Valley, with comparisons made between the percentage of increase or decrease in property values in the rest of Kamloops.?	dAIR comment	General	Property Values	7.5	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Annual updates of property values in Kamloops are not proposed in the AIR for inclusion in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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1465	342	4-Apr-12	Personal Information Withheld		I believe that a mine in the City of Kamloops would decrease the value of my property, as the city would begin to resemble a moonscape. It seems as if all the economic benefits of the mine would go to the corporate owner, and the citizens of Kamloops would be left to pay for all the economic externalities (environmental degradation and restoration costs, legal costs, social costs of health care/hospitalization). Please do not allow the KGHM Ajax Mine to be approved.	dAIR comment	General	Property Values	7.5	Statement of opposition - out of scope of the AIR/EIS Guidelines. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
39	14	7-Feb-12	Dianne Kerr	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (4 of 23) [2012-02-24 3:11:29 PM]^ COMMENTS RE THE PROPOSED AJAX MINE Further to the "open house" meetings February 6 and 7 re the above, I have these comments to add. 1. Economic Effects Assessment There should be more of a cost/benefit approach to your economic effects assessment. Your current list of "What will be Assessed" focuses more on examining benefits rather than looking at attendant costs. If you examine government revenues then you should be identifying the government subsidies to the mine as a cost. The hydro subsidies to the mine are an example of a substantial cost. The loss of tourism revenues because of the negative effect on the continued ability of the community to attract tourists should also be considered. What is the cost to the ranching community? What is the cost to the community of curtailed growth in the southwest area designated years ago as the primary location for expansion? What is the cost of Inks Lake? What is the cost of maintaining the Lac Le Jeune road for mine truck traffic? What is the cost of increased pressure on municipal services? There should also be some way of statistically predicting the likelihood that the mine will operate for all of its 23 projected years and that it will continue to provide the 380 direct jobs it claims to provide throughout that period of time. If the economic benefits are to be based on the job and duration estimates, then we should look at the history of mining operations and how often they actually do operate for the full extent of their projected lifetimes and that they maintain the staffing levels they originally estimated. Afton certainly did not. It would be interesting also to see the historical data on how often mining operations have requested tax breaks once their operation is up and running.</p>	dAIR comment	General	Economic Diversification	7.6	<p>A cost benefit analysis approach will not be used. Instead, we will be using a socio-economic impact assessment approach. The assessment of economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources. To the extent practical, the specific issues identified will be considered. Predictions regarding mine life fall outside the current scope of the assessment.</p> <p>The projected 23 year Life of Mine is based on commodity prices, among other things. The Application will include a discussion of factors which may influence the Life of Mine, such as metallurgical recoveries, geotechnical characteristics of the rock mass, capital and operating cost estimates, etc.</p>	
56	21	7-Feb-12	Hugh Jordan	Kamloops, BC	6. Kamloops is vulnerable to temperature inversions trapping air contaminants for substantial periods of time. Dust, especially in our dry climate would cause severe problems. The brochure indicated a very early stage of planning dust control. Without absolute control of dust, our long term very successful Tournament Capital promotion would be jeopardized. That would be very damaging to the large dependency of our motels and hotels.	dAIR comment	General	Economic Diversification	7.6	Dust modelling is being undertaken. Results of the modelling will be used in the assessment of socio-economic effects which will include consideration of other economic activities (e.g., Tournament Capital).	

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Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
68	27	7-Feb-12	Graeme Hope	Kamloops, BC	2. The true economic costs and benefits (especially long-term) of having a mine that is highly visible to the Coquihalla highway and within 2 kms of Kamloops city. Such economic factors would include: effects on tourism, effects on potential retirement income, effects on fishing and its economic return. 5. A complete literature review should support all evaluation processes, i.e., all evaluation processes should be scientifically justified.	dAIR comment	General	Economic Diversification	7.6	The assessment of socio-economic effects will examine effects on tourism and fishing and will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources. Effects on retirement income are beyond the scope and will not be examined.	
95	35	Public comment form from the Feb 6&7 Information Session	Dennis Robertson	Kamloops, BC	I see the word "monitored" a great deal, but not "enforcement" or "penalties" What happens if the metal prices drop or for some other reason (labor) the mine closes prematurely? Is there a bond to cover reclamation costs? I strongly feel this mine "within the city of Kamloops, will taint "the blossom capital of Canada." The impact on tourism and our ability to attract long term clean industries will be detrimental to my home town.	dAIR comment	reclamation	Economic Diversification	7.6	Conditions for mine operation will be outlined in various licences and authorizations required following regulatory approval. Effects of project operation and decommissioning on city image and the branding of Kamloops as the Tournament Capital will be assessed under the Economic Diversification VC in the Application/EIS. Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	
359	1469	21-Feb-12	Jacqueline Sorenson	Kamloops, BC	Indirect economic impacts: As I have read many letters submitted by the public and attended both open houses, I think the environmental concerns have been expressed adequately so far. What appears to be lacking is a social assessment and clear cost/benefit analysis in this evaluation process. We hear only of the ~380 full time jobs ... I suggest that impacts to these indirect aspects of our economy may easily outweigh ~400 term-certain, potentially volatile jobs that are highly dependent on a constantly fluctuating copper market.	dAIR comment	General	Economic Diversification	7.6	A cost benefit analysis approach will not be used. Instead, we will be using a socio-economic impact assessment approach. Conditions for mine operation will be outlined in various licences and authorizations required following regulatory approval. Effects of project operation and decommissioning on city image and the branding of Kamloops as the Tournament Capital will be assessed under the Economic Diversification VC in the Application/EIS.	
381	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	c) how will this affect the desirability of Kamloops as a retirement destination and the subsequent economic impact?	dAIR comment	General	Economic Diversification	7.6	Conditions for mine operation will be outlined in various licences and authorizations required following regulatory approval. Effects of project operation on city image and the branding of Kamloops as the Tournament Capital will be examined to the extent feasible.	

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383	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	e) what effect will the stigma of a 'mining town' with an open pit mine have on the ability of the city to attract new non-mining related businesses to town?	dAIR comment	General	Economic Diversification	7.6	Conditions for mine operation will be outlined in various licences and authorizations required following regulatory approval. Effects of project operation on city image and the branding of Kamloops as the Tournament Capital will be examined to the extent feasible.	
445	130	28-Feb-12	Rob Wycherley	Kamloops, BC	1. Have there been any economic studies undertaken, to determine a loss of jobs in the agricultural, construction, tourism or professional sectors in the event that the mine limits population growth during the course of its lifetime? 2. If so, what is that study, who is the author and what are the projections? 4. If a study of this nature has not yet been undertaken, will such a study be undertaken by the Ministry of Environment or any other government ministry, prior to completion of the assessment process? 5. If not, why not? 6. Have there been any economic studies undertaken, to determine a mine related diminishment in enrollment at Thompson Rivers University, in the event the mine is allowed to proceed? 7. Have there been any economic studies undertaken, to determine the extent of mine related reduction in Tournament Capital Activities in the event that the Mine is approved? 8. If so, what is that study, who is the author and what are the projections? 9. If not, why has such a study not been undertaken? 10. If a study of this nature has not yet been undertaken, will such a study be undertaken by the Ministry of Environment or any other government ministry, prior to completion of the assessment process?	dAIR comment	General	Economic Diversification	7.6	Effects of project operation and decommissioning on the economy will be examined including those relating to city image and the branding of Kamloops as the Tournament Capital. Potential effects of the Project on local employment in the sectors identified, as well as TRU enrollment and Tournament Capital activities will be examined.	
472	136	1-Mar-12	Personal Information Withheld	Kamloops, BC	City Appeal: Kamloops has been marketed as "The Tournament Capital" and has spent a significant amount of taxpayer's money to position us as a recreation and tourist destination. An open pit mine partially within city limits and the tailings area visible from the Coquihalla are destructive, in my opinion, to this image. Therefore, I see the location of this mine as a negative to the future of tourism and sporting events (and the financial benefits) in Kamloops.	dAIR comment	General	Economic Diversification	7.6	Effects of project operation and decommissioning on the economy will be examined including those relating to city image and the branding of Kamloops as the Tournament Capital.	
534	147	5-Mar-12	Kevin Cowan	Kamloops, BC	12. In section 7.2.2 of the Draft AIR document, the application is described again, as providing "a summary" of education and skills available in the local area, and on page 96, the proponent provides a list of areas that will be assessed for impact by the mine. These include numerous major employers, but do not include small business people and small companies that are less likely to survive if negative consequences of the mine come to pass. Why have small business people and employers not been included in this study group? 13. Will the EAO and CEA Agency require that the proponent commit to and complete studies of this nature prior to any approvals being considered?	dAIR comment	General	Economic Diversification	7.6	Potential effects on the business community as a whole will be examined.	

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563	150	7-Mar-12	Personal Information Withheld	Kamloops, BC	7) affects on residential and business economy, particularly any negative affects on real estate prices as a result of any impacts (as outlined above as well as other unforeseen impacts) from the actions and/or operations of the Ajax Mine.	dAIR comment	General	Economic Diversification	7.6	Potential effects on real-estate prices will be included in the assessment. Assessment of property value effects will include industrial, commercial, agricultural and institutional properties, not just residential.	
591	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• The proposed mine is within the Kamloops airshed and the City of Kamloops airshed management plan has a vision of continuous improvement in air quality throughout the community/region. The mine will obviously have a negative effect on air quality how will the mine meet the Cities vision and since it will likely degrade air quality this may prevent other longer term businesses from coming to Kamloops as the air quality may be degraded enough from the mine to prevent further loading.	dAIR comment	General	Economic Diversification Air Quality	7.6 10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
611	163	10-Mar-12	Personal Information Withheld	Kamloops, BC	City Appeal: • Kamloops has been marketed as "The Tournament Capital" and has spent a significant amount of taxpayer's money to position us as a recreation and tourist destination. An open pit mine partially within city limits and the tailings area visible from the Coquihalla are destructive, in my opinion, to this image. Could the location of this mine have a negative effect on the future of tourism and sporting events (and the financial benefits) in Kamloops?	dAIR comment	General	Economic Diversification	7.6	Effects of project operation and decommissioning on the economy will be examined including those relating to city image and the branding of Kamloops as the Tournament Capital.	
653	175	12-Mar-12	K Goodall	Kamloops, BC	Economic and Social Issues 1) Can the proponent please advise what the projects actual estimated annual contribution will be to BC taxpayers, by item, net of any federal, provincial or municipal government tax and/or start up and operational subsidies? Then please measure it against: the estimated annual profit that KGHM/Ajax anticipates from this project?	dAIR comment	General	Economic Diversification	7.6	Project contributions in the form of taxes (with consideration of start up and operational subsidies) will be considered in the assessment. Examination of Project profits falls outside of the scope of the EA.	

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666	178	13-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> The negative impact on the image of the region and Kamloops' Tournament Capital tourism initiative. The City has invested heavily in the Tournament Capital as an economic motivator through rebranding the city. To allow a tailings pile 150 meters high by 3 km long parallel to the highway at one of the major entrances to the city will be a strong deterrent to tourism and private investment. Ajax will jeopardize this work. 	dAIR comment	General	Economic Diversification	7.6	Effects of project operation and decommissioning on the economy will be examined including those relating to city image and the branding of Kamloops as the Tournament Capital.	
680	180	14-Mar-12	Les Laithwaite	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (23 of 23) [2012-03-26 3:53:56 PM]^ I am particularly interested in seeing the estimated effect of the mine with regard to fostering economic diversification, and to providing benefits to Canadians. I am concerned the Kamloops and area economy is becoming more dependent on tax payer supported institutions (e.g. TRU) and facilities (e.g. tournament capital facility maintenance and branding). At the same time there are those in the community that have little regard for or support of tax generating businesses (e.g. Ajax) that could offset these costs. I see the mine as potentially helping maintain economic diversity in the region. I also believe the economic value of "the tournament capital" brand is over emphasized; I would appreciate an estimate of its value included in the review.</p>	dAIR comment	General	Economic Diversification	7.6	The scope of the assessment will include a consideration of economic diversification. The economic contribution of the "Tournament Capital" brand will be examined.	
754	212	22-Mar-12	Kevin Buxton	Kamloops, BC	<ul style="list-style-type: none"> Component 9 - proponent must describe any potential of the project to limit economic diversification of the local area - i.e. tourism, recreation, knowledge-based industries, etc. 	dAIR comment	General	Economic Diversification	7.6	The scope of the assessment will include a consideration of economic diversification.	
761	212	22-Mar-12	Kevin Buxton	Kamloops, BC	<p>Section 10.0 - Assessment of Potential Health Effects Air Quality Impacts on Human Health <ul style="list-style-type: none"> Limiting air quality impacts to direct human health impacts is unacceptable. The term "air quality" is subjective and the general public likely has a different frame of reference for describing this than do air quality experts. To the general public, the overall impression of air quality includes visual impacts, air clarity, odour, dust fall, etc. The proponent must also assess air quality in terms of these other factors. This may involve the analysis of dust types/size ranges other than those routinely analyzed for direct human health impacts. Results of these analyses may variously affect the assessments of potential economic effects (Section 7.0) and potential social effects (Section 8.0). </p>	dAIR comment	General	Economic Diversification Community Health and Well-Being Land and Resource Use Air Quality	7.6 8.1 8.5 10.1	Assessment of particulate deposition will be included in the Application/EIS as it pertains to land and resource use and community health and well-being.	Air Quality - 3.3.4.1

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1134	287	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (50 of 77) [2012-03-29 3:57:49 PM]^</p> <p>The socio economic analysis should take account of the revenues and spin off benefits of special events such as the Summer Games, Senior Games, tournaments, conventions, movie shooting etc. Those revenues and spin off should be deducted from the promised benefits of the mine in light of the fact that those events are unlikely to occur in the future if the mine is approved. Kamloops will no longer be the place they want to come. Also, we are unlikely to be able to attract more technological employers like the new Telus data centre with its 200 jobs and construction work. Telus apparently used "stability in the environment" as a criteria in its decision to locate here. If the mine is approved it will destabilize the community and its current balanced economy will become the vulnerable boom/bust economy of a resource based City. There is also likely to be transience in the population and certainly initial movement in the population as people leave to escape the mine while more transient others undoubtedly will move in. Other technological employers are also likely to find the giant mine incompatible with their choices for location.</p> <p>Finally, how do you quantify being "a nice place to live"? It affects many aspects of the economy - the decisions employers make regarding what they find compatible with their needs and the needs of their employees, whether there are a range of employment opportunities available including clean, light industry, and the "green" employment opportunities of the future, the availability of professional services to the City, the likelihood of growth related to retirees moving into the community, the decisions of events planners. Most profoundly there is the effect on the social experience of the citizens, their mental health (arguably much worse in resource based communities), their recreational opportunities, their willingness to stay and contribute to the community because they like where they live and they want to stay and raise their families here. We spent countless planning sessions envisioning and creating the community we wanted. The immensity of this project will change what we wanted our City to be. We have existing jobs and we have 200 new jobs at the Telus data centre on the drawing board. We'd like to attract more jobs that don't require us to sacrifice the community we are. We won't be able to do that if this mine goes ahead. How do you value that? What is our "vision" worth in socio economic terms? It is worth everything to me.</p>	dAIR comment	General	Economic Diversification	7.6	The Application/EIS will include the topic of economic diversification but will not provide a detailed breakdown of revenues and spin off benefits from the events/activities noted. It will include assessment of indirect economic benefits (expenditures and employment as feasible), perceptions regarding the City (e.g., from a tourism context). Population demographics will be presented, including migration trends. Potential effects on community health and well-being (e.g., mental health) and recreational activities will be examined as well. The EA will also include an examination of City of Kamloops vision, planning and related documents and processes in the context of the Project.	
1271	313	4-Apr-12	Santo D'Aquino		<p>4. mine operation - the booklet provides a useful diagram - steps 1 - 4. it indicates that the concentrates will be transported by truck to Vancouver to be loaded on ships and taken overseas { China } ?? for smelting process and refining and sold on the open market. these are our natural resources! We should process our own natural resources and obtain the economic benefits. Maybe this is one case where the economic costs are greater than the economic benefits. is this the case??</p>	dAIR comment	concentrate transport	Economic Diversification	7.6	The Application/EIS will discuss the copper concentrate market; a smelter is not included in the project design.	
1300	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	<p>3. A significant impact to the City is the loss of future development lands and it appears that this issue is not addressed in the draft AIR. Heavy weighting must be placed on assessing the impacts and cost to the city, taxpayers and land developers for the loss of future development lands that are adjacent to the proposed mine. KAMPLAN clearly states that 48% of the City's future growth over the next 24 years is located on lands adjacent or within 1 km of the proposed mine. A large amount of time and resources (financial & operational) have been spent on planning, designing and installing upsized services to accommodate this growth. A clear and concise assessment needs to be completed to address where the City's future growth will expand to, the costs to the taxpayers to redirect this change, who is paying for the associated costs and who is going to reimburse the City and land developers for the infrastructure and planning costs spent to date and compensate land holders for the loss of investment put into purchasing and holding of these lands.</p>	dAIR comment	General	Economic Diversification	7.6	A description of the land ownership and land use regime including tenures, licenses, permits or other authorizations that would be potentially affected by the proposed Project; and the status of consultations with holders of such tenures and permits, and private land owners including resolution of land tenure issues will be included in the Application/EIS, as stated in Section 2.6 of the dAIR. The Application/EIS will discuss estimated annual government revenues from the construction and operation phases of the proposed Project, including local/municipal property taxes and regional district taxes. The Application/EIS will include examination of City of Kamloops vision and planning documents and processes in the context of the Project. Specific costs as noted in the comment are not expected to be characterized as part of the Application/EIS.	

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1316	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		7.0 Assessment of Potential Economic Effects The legacy of the project in terms of the pit and tailings piles will be evident for the foreseeable future. This long-view needs to be factored into the economic analysis and include impacts on tourism (see 8.0 and 8.7 below). Providing this information as two scenarios would make this quite relevant and easier to understand e.g. showing the current economic trajectory that the community is on as compared to one with the mine.	dAIR comment	Ajax open pit TSF	Economic Diversification	7.6	The scope of the assessment will include a consideration of economic diversification (including tourism).	
1317	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		8.0 Assessment of Potential Social Effects Kamloops has a diverse economic base with agriculture, industry and tourism present. Successful efforts have been made by the City of Kamloops and residents to cultivate the appealing identity of Kamloops as the Tournament Capital of Canada. This has been no small task as there is a pulp-mill in the City that does degrade the airshed and its management continues to be controversial. The social effects analysis of this AIS needs to consider the impacts to the residents' and the City's image as it shifts from the one being cultivated i.e. tourism and Tournament Capital of Canada, to one with a mine within its City limits. This analysis should also consider the cumulative effects of the mine and pulp-mill as the mine could likely be the tipping point where the Tournament Capital of Canada image is "overwhelmed". I don't know how this is done, but do think the vote in #1 Overarching Comments will help. In addition, key person interviews are a suggested means to gain information and these should include medical professionals and university professors currently living and working in the community. The process for consultation in #2 General Comments is also recommended, where the criteria for key persons is publicized. The draft AIS notes literature reviews is another sources of information for the assessment. The AIS should reference the experience of Butte Montana, with its open pit mine and Berkley pit in the community which is now a Superfund site for environmental clean-up. It should examine what other US communities think about Butte, and see if comparisons can be made to what is expected for Kamloops.	dAIR comment	General	Economic Diversification Community Health and Well-Being	7.6 8.1	The Application/EIS will include discussion regarding the image or perception of the City of Kamloops. Insights are expected to come from key person interviews, including professionals in the medical, university and other fields. Other case study projects will be used where feasible and comparable.	
1371	329	4-Apr-12	Personal Information withheld		5. I would like to know what the economic benefits for Kamloops and the province are. I noticed in the 'Summary of the draft AIR guidelines' that the raw resources are being transported overseas for final processing. In summary, I would like to know more about KGHM Ajax Mining Inc., who they are, who their partners are and how much revenue will remain in BC.	dAIR comment	concentrate transport	Economic Diversification	7.6	Revenues will be discussed at the Provincial level. Mining revenue accrued by individual cities is not available Government revenues will be discussed under Project Benefits, as described in the AIR.	

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51	21	7-Feb-12	Hugh Jordan	Kamloops, BC	1. There is a covenant on my deed that my property is on unstable soil, and that I can't sue the city for any damage related to the instability. What assurance or protections do I have related to destabilization of my property from the blasting vibrations, or the water management by the mine? The brochure simply states that the blast vibration in tests meets North American municipal standards. That doesn't sound good enough for Kamloops special case.	dAIR comment	blasting	Property Values	7.5	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations.	Noise and Vibration - 3.3.4.2
180	73	9-Feb-12	Personal Information Withheld	Kamloops, BC	2. All the existing structures, within the Regional Study Area as stated in "Noise/vibration study Figure 10.3-1 need to be inspected by an Independent home inspector, to document a baseline for future problems from the vibration.	dAIR comment	General	Property Values	7.5	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations.	Noise and Vibration - 3.3.4.2
107	46	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Social impact on the city of Kamloops - directly 1) proximity to a currently healthy community and all the recreational activities 3) the liveability within the city of Kamloops	dAIR comment	General	Community Health and Well-Being	8.1	Community health and well-being has been included as a VC and will be assessed in the Application/EIS.	
129	57	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Health can be affected - How will the different City Areas be monitored on a regular basis?	dAIR comment	General	Community Health and Well-Being	8.1	A Human Health and Ecological Risk Assessment (HHERA) will be included in the Application/EIS to address concerns relating to potential adverse environmental impacts. If the Ajax project receives regulatory approval the number, placement, and specifications for all monitoring programs will be developed and approved at the permitting stage.	

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151	65	8-Feb-12	Alan Havisto	Kamloops, BC	9. Where will the power line come through and will there be in health issues considering it will be close to homes? What studies have or will be conducted? 16. What will happen to the rock waste when its piled up and it lets off many chemicals not healthy to the general public? Will you cover the piles as you go along because of the east winds blowing over Kamloops? 20. What health issues will results from this mine being so close to residential homes? What tests have been done to dispute this concern? I am a concerned citizen that has lived in Kamloops for many years. I believe the mine is too close to the city and will affect everyone's quality of life. There are far too many unanswered questions and I would be very happy to see Ajax leave and go look for another area to destroy.	dAIR comment	transmission line waste rock management facilities	Community Health and Well-Being	8.1	The location of all project components and mitigation measures will be detailed in the Application/EIS. There is little evidence that electric fields at the intensities associated with power lines directly impact human health therefore no studies are proposed for inclusion in the Application/EIS. A Human Health and Ecological Risk Assessment will be included in the Application/EIS to address concerns relating to potential adverse environmental impacts. If the Ajax project receives regulatory approval the number, placement, and specifications for all monitoring programs will be developed and approved at the permitting stage.	
165	67	8-Feb-12	Personal Information Withheld		Change of the community identity/image and resulting losses to tourism and outdoor industries.	dAIR comment	General	Community Health and Well-Being	8.1	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project.	
170	69	9-Feb-12	Personal Information Withheld	Kamloops, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (67 of 77) [2012-02-24 3:07:19 PM] The social and economic effects assessment methods identified in the Proposed Ajax Mine booklet include the processes of interviews and public consultation. There should be some guidelines regarding the selection of persons interviewed and involved in consultation meetings. It would be relatively easy to "stack the deck" as it were depending on who is selected for the interviews and consultation meetings. For example, the largest population concentration in Kamloops is now the southwest sector but will it be involved in the qualitative data gathering to the extent that the concentration of their numbers warrants? Will the Labour Council be among those consulted in the Economic assessment? Who are the "key persons" who are apparently the only ones to be interviewed for the social assessment? I think there should also be a requirement to do an assessment of the quality of life in the communities of Timmins, Sudbury and Val d'Or (the communities Ajax mentioned in their brochure as examples of communities with mines within their boundaries. Apparently there are ways to do this as we see ratings of cities across the country related to their quality of life. That assessment should be compared to the present assessment of quality of life in Kamloops at the present time.	dAIR comment	General	Community Health and Well-Being	8.1	The assessment of social and economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources. Information on the key persons interviewed, such as area of the City in which they live, etc. will be included in the Application.	
205	79	10-Feb-12	Personal Information Withheld		(10) contribution to social, cultural, environmental and economic life of Kamloops	dAIR comment	General	Community Health and Well-Being	8.1	Project contributions to the local community will be assessed in the Application/EIS.	
240	85	10-Feb-12	Personal Information Withheld		[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (41 of 77) [2012-02-24 3:07:19 PM] Section 8.2 Community health and well-being: what dispersion modelling of the dust produced by the explosives, and the dust that will blow off the dry stack tailings area has been done or will be done; inventory of air quality parameters should be expanded to include all potential contaminants and their sources: a. trace metals and air pollutants in Schedule 1 of CEPA b. PM10 and PM2.5, toxicological properties for all parameters	dAIR comment	blasting	Community Health and Well-Being	8.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants.	

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257	87	10-Feb-12	Personal Information Withheld		dust – degradation of hay and forage crops, quality of life, effect of dust on Jacko Lake water quality and biota; dust loading on crops and washing on clothes lines; loss of agricultural and grazing lands; over industrialization of area	dAIR comment	General	Community Health and Well-Being Land and Resource Use Air Quality	8.1 8.5 10.1	Out of scope of the AIR/EIS Guidelines.	Air Quality - 3.3.4.1
269	88	10-Feb-12	Personal Information Withheld		7. Quality of life (silence, clean air, peace, wild animals, ability to spend time outdoors without having to listen to or feel vibrations from blasting, breathe tailings dust, worry about health issues)	dAIR comment	General	Community Health and Well-Being	8.1	The scope of the Application/EIS will include commentary on potential effects on quality of life related to the Project.	
283	89	11-Feb-12	David Verhoeff	Kamloops, BC	6. Kamloops has re branded itself as the Tournament Capital of Canada. It has won numerous national "Communities in Bloom" awards. It has completed a masterful "Move to Kamloops" campaign that targeted families from across BC and Alberta to "Move to Kamloops". The incentives to attract families to move here were; living in a healthy, active and vibrant community. The "big sell" was a community just large enough to provide all of the good things in life but just small enough to avoid the negatives of larger community (traffic congestion, long line ups, long wait-lists, etc. Fishing, golfing, horseback riding, world class facilities, mountain biking, skiing were all promoted and successfully branded as being what Kamloops was all about. What was the cost of these promotions and what will be the repercussions to once again being branded as a mining town	dAIR comment	General	Community Health and Well-Being	8.1	The Application/EIS will include a consideration of City of Kamloops planning and development (current and anticipated), housing and the value of Jacko Lake. It will also consider the potential effects of the Project on way of life and other economic activities.	
358	1469	21-Feb-12	Jacqueline Sorenson	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (1 of 18) [2012-02-24 3:14:53 PM]^ Community health: there is evidence from the literature that caution should be used in locating mines close to communities. It is well known that ultra fine dust particles that are produced during the extraction process can cause adverse health effects in humans . . any level of exposure to potential contaminants is unacceptable to our children.	dAIR comment	General	Community Health and Well-Being	8.1	A Human Health and Ecological Risk Assessment will be included in the Application/EIS to address concerns relating to potential adverse environmental impacts.	
365	118	23-Feb-12	Bonnie Klohn	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (51 of 57) [2012-03-02 9:25:43 AM]^ Economic diversification is crucial for small cities such as Kamloops that have populations under 100,000. The vast majority of small cities in BC face serious problems with aging and declining populations, loss of tax base and degrading infrastructure, especially when resource industries in the area die out. "Staples economies" based on unsustainable resource extraction are at great risk of the whiplash effect of boom and bust cycles. Although many people view the added jobs that accompany a mine as a great way to achieve economic growth, there are many more creative strategies Kamloops can pursue to ensure economic growth that is healthy and less vulnerable to availability and market prices of our resources. The difference between a city like Kamloops that is currently steadily growing and cities that are struggling to hold on to their population bases, can be quite subtle; the dependence on a pulp mill forced to close (i.e. Prince Rupert) or the reliance on the timber industry that is experiencing falling prices (Quesnel and Terrace). The "mine town" reputation that comes along with projects like the Ajax mine can further impede Kamloops' ability to be viewed as a city that is filled with potential for technical and professional businesses to locate here, and can be a detriment for growth in the tourism sector. As the Tournament Capital of Canada, Kamloops has made a name for itself and attracted people from all over the world. I am therefore, very concerned and interested to know how this "mine town" reputation can be mitigated, and furthermore, what supports will be put in place to ensure that our economic diversification continues to be maximized in areas that foster health and the environment, and isn't characterized by mining input industries. Finally, I would like to know what plans are in place to avoid the potential "boom" and "bust" cycle that is typically associated with projects such as the Ajax mine. Thank you for taking the time to carefully consider these comments before moving forward with the proposed project.	dAIR comment	General	Community Health and Well-Being	8.1	The Application/EIS will consider potential effects related to the City of Kamloops being perceived as a 'mining town' as well as issues related to 'boom and bust'.	

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366	119	23-Feb-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (50 of 57) [2012-03-02 9:25:43 AM]^</p> <p>We are concerned citizens who strongly believe that the magnitude of this proposed mining project will alter the direction that the city has taken in the past 20 years. Moving from being a pulp mill town with predominately resource based industries, we have become a university town, increasingly diverse and far less dependent on the boom and bust resource based economy of the past.</p> <p>We feel that this proposed project represents a major deviation from the long term vision that past city planners created in concert with community input. Much time, effort and money has gone into the progress we have made towards the achievement of that vision. We can point with pride to a balanced economy with many clean, light industry employers, cleaner air, state of the art water treatment, expanded recreational and cultural facilities, and many City beautification projects. Kamloops is a now a place where people move to enjoy our community lifestyle. It is now a place that tourists want to visit. The size of this project and its attendant aesthetic and environmental impact on this community will forever alter what we have created as the place we want to live and raise our families and it will certainly change the image we present to those outside the community. In effect we will be moving backward to the days decades ago when we were a resource based economy with a fairly transient population and with little to offer tourists. This is not where we were going. It would be a enormous disservice to the community if all the efforts of the past few decades are sacrificed for a very short term operation, and one which we can argue does not really offer a lot to our community on a cost/benefit basis if the true costs are considered. As a result of our concerns we are attaching some questions for your consideration, many of which we feel are not being addressed.</p> <ol style="list-style-type: none"> 1. What is our vision for the Kamloops community in the future and does the Ajax Mine fit with the long range OCP? 2. How will this affect our Brand as The Tournament Capital of Canada and our current image as a vibrant, healthy city that supports a diverse lifestyle? 3. Will we be able to attract the professional people that support our community; doctors and other health practitioners, teachers, lawyers, entrepreneurs, etc.? And will some already here choose to relocate? 4. What will be the impact on TRU? Will people continue to consider this the community of choice for Canadian and international students? 5. Will innovative sustainable industries in the emerging economy (hi-tech, green) choose a mining community? 6. Are we entrenched in traditional resource-based industries rather than thinking outside the box as we move from the industrial age to the digital age? 9. Have we adequately considered the long term and immediate costs of this proposal as well as the benefits and who will benefit and who will pay the costs? 10. Are we considering future generations? 	dAIR comment	General	Community Health and Well-Being	8.1	(1)(2)(3)(4) To the extent feasible, the assessment will consider issues related to the City of Kamloops planning, Tournament Capital campaign and related. Comments in this category are within the current scope of our assessment that are being addressed within specific VCs. (5)(6) Comments in this category fall outside the current scope of our assessment. (9)(10) This information will be provided in the Application/EIS.	
444	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>8.2 Community Health and Well Being</p> <ol style="list-style-type: none"> 1. Will KGHM Ajax be undertaking regular (e.g., every six months) blood and urine tests of its work force? 2. Will KGHM Ajax be required to disclose to the Public Health Authorities the aggregate results of these tests? 3. Will KGHM Ajax be willing to fund regular blood and urine tests of school children in the three elementary schools closest to the mine (Pacific Way, Aberdeen, McGowan) to determine if the possible health effects of mine dust? <p>When the social effects consultant retained by the proponent arrived in Kamloops several weeks ago, he stated Kamloops was known to be an industrial town, and asked why there would be opposition to more industrial activity. Kamloops has spent many years working to dispel an image of our city as an industrial town. Furthermore, there are activities such as home building in the Aberdeen, Pineview and North Sahali areas that may be undercut if demand for homes in this area decline. Should this transpire, property values may fall and homes may become difficult to sell as a result. To the extent that the mine will undermine these endeavors, KAPA wishes to know whether this issue has been studied to determine the likelihood that it will occur, and the cost it may have on existing businesses in the community.</p>	dAIR comment	General	Community Health and Well-Being	8.1	(1)(2)(3) Testing of employees, school children and regulatory disclosure fall outside the scope of the assessment. (4)(5) Topics related to the perception of the City of Kamloops, housing property value and businesses will be addressed in the assessment.	
461	132	28-Feb-12	Heather Mewhort	Kamloops, BC	<p>5. Although our children are adults who live elsewhere, we are concerned with the mine's proximity to two vibrant elementary schools. How will you protect the children of Aberdeen from the dangers and the adverse environmental impacts of the mine?</p> <p>To conclude, I love my home. I like my neighbours. I love the neighbourhood of Aberdeen. Our clean, clear air, the quietude of our surroundings, the natural beauty of our location, and the safety that we enjoy have made my adult life here one to be envied. My final question to KGHM Ajax Mining is what gives you the right to destroy my life here in Aberdeen as have known it for twenty-five years?</p>	dAIR comment	General	Community Health and Well-Being	8.1	A Human Health and Ecological Risk Assessment will be included in the Application/EIS to address concerns relating to potential adverse environmental impacts.	
477	137	1-Mar-12	Personal Information Withheld	Chase, BC	negative impact on the quality of life in Kamloops and surrounding areas; affect on health if Kamloops air shed becomes more polluted than it already is	dAIR comment	General	Community Health and Well-Being	8.1	A Human Health and Ecological Risk Assessment will be included in the Application/EIS to address concerns relating to potential adverse environmental impacts.	

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532	147	5-Mar-12	Kevin Cowan	Kamloops, BC	2. Kamloops has spent many years working to dispel an image of our city as an industrial town. Has this been taken into consideration by the EAO or the CEA Agency? 3. Is there any comparative data from similar communities, similarly located to a mine of this scope, showing the effects on industries such as agriculture, tourism, service or recreation? 4. If so, what is this data and what does it show?	dAIR comment	General	Community Health and Well-Being	8.1	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project. Data from similar communities will be discussed in the Application/EIS if relevant and applicable to the proposed Project.	
551	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Sections 10.1.4, 10.2.4, 10.3.2, 10.3.3) 1. In the event that mine approval is granted, the effectiveness of monitoring systems and the effectiveness of dispute resolution mechanisms will be of great importance to affected landowners and business owners. I wish to ask questions pertaining to the degree of accuracy of the monitoring systems as follows: a. Once allowable levels of ambient dust and trace elements within ambient dust have been determined, how will these be monitored for ongoing compliance by the mine? b. What kinds of data collection devices are being contemplated? c. Who has tested the proposed data collection devices for accuracy? d. Who will be responsible for their calibration from time to time? e. Who will be responsible for measuring these values and how often will this be done? f. How many of these devices will be utilized, and where will they be located? g. How will these devices be secured against tampering? h. What devices are contemplated for the measurement of compliance with noise levels as stipulated under any mine license? 2. In the draft AIR document, Section 10.1.4, 10.2.4, 10.3.2, 10.3.3 10.3.4 and 10.3.5 with respect to dust, Dispute Resolution and Sanctions for Non Compliance are described in general terms. My questions in this respect are: a. As significant portions of the waste dump facilities are within the city limits of Kamloops, will the mine be subject to the municipal noise bylaw? b. If not, why not? c. If a complaint is made as to the level of ambient noise, to whom must it be reported and who will investigate the validity of the complaints? d. In the event that ambient dust, trace elements or ambient noise limits are exceeded, will the mine be required to halt operations until such time as compliance can be assured? e. If not, after what period of time or after what level of noncompliance will the mine be required to curtail mining operations until compliance can be assured? f. In the event that ongoing noncompliance arises, what sanctions are contemplated? g. What level of proof is required, and will the mine be allowed to lead evidence of its own in such hearings? 3. Referring to draft AIR document 10.1, 10.2, and 10.3, it is apparent that there are numerous issues associated with the proposed Ajax mine, that may impact upon public health. Has the public health medical officer been consulted within the context of the British Columbia Public Health Act? 4. If not, why not?	dAIR comment	General	Community Health and Well-Being	8.1	If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be approved by the BC Ministry of Environment in the 'Monitoring and Reporting' clause of the Air Permit. The BC MOE provides oversight and performs quality assurance on these programs. Who performs the monitoring is unknown at this time. Compliance and Enforcement of Waste Discharge Permits are the purview of the BC Ministry of Environment. We suggest they be contacted to explain their response to potential issues. The Interior Health Authority is actively involved in consultation through the EAO-chaired Health Sub-Committee.	
552	147	5-Mar-12	Kevin Cowan	Kamloops, BC	6. Are extended mining activities and their predicted environmental effects, captured in any of the definitions from the Public Health Act quoted above? 7. If so, which mining activities or predicted environmental effects fall within the parameters of these definitions? 8. Section 1 of the Public Health Act also defines a population, as including a sub class within the population. Does the subclass of population within the meaning of this legislation include those residents of neighborhoods immediately adjacent to the proposed Ajax mine? 9. If not, why not? 10. Section 1 of the Public Health Act also defines preventative measures, as meaning measures that may be taken for the purpose of preventing illness, promoting health, preventing transmission of an infectious agent or preventing contamination by a hazardous agent including the measures set out in section 16. 11. Have any of these goals of the Public Health Act and of preventative measures described there, been considered in light of the proposed Ajax mine? 12. If so, what are the results? 13. If not, why not? 14. What steps have been taken to date to ensure that a public health plan is being prepared to ensure that preventative measures and remedial steps can be taken under the public health that in the event that the mine is approved and that its activities result in health hazards or health impediments as described in the Public Health Act? 15. If nothing has been done to date, when will this be done? 16. What role does the public have in making representations to the public health medical officer or other officials engaged in a mine specific public health plan?	dAIR comment	General	Community Health and Well-Being	8.1	A Human Health and Ecological Risk Assessment will be included in the Application/EIS to address concerns relating to potential adverse environmental impacts.	
674	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	3. Loss of Recreation Potential: • What will be the impact of this project on the many people who use this area for recreation? Regular physical activity is important to maintenance of physical and mental health. Many of us ride or walk from our homes to exercise in the area between the current developments and proposed mine site. Even though this area won't be directly impacted by the mine footprint, will it retain its appeal as a recreational area? If not, will people be discouraged from regular exercise if they have to drive in order to find a place to exercise?	dAIR comment	General	Community Health and Well-Being	8.1	The Application/EIS will include a consideration of recreational use of the area as well as community health and well-being.	

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692	190	16-Mar-12	Kim Tamblyn		<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (16 of 23)[2012-03-26 3:53:56 PM]^</p> <p>I was just browsing the Stop Ajax website and I noticed that there were almost a 1,000 Facebook users who indicated that they supported the Stop Ajax Mine movement. I was impressed. I have also been browsing the comments on this website and I have been impressed by the amount of time and energy people have put into going through the various documents, doing research and asking questions. Without a doubt people are concerned. I am also concerned. I am very worried that this mine will go through regardless of the concerns of the citizens of Kamloops. The ramifications of a mine so close to Kamloops will be enormous. Besides all of the very real health concerns and impact on the environment, we will have difficulties attracting professionals to work in our hospital and university. One of the main enticements that we use to attract people to Kamloops is lifestyle. Lakes, boating, fishing, skiing... are all in our backyard. We are only just now recovering from the doctor shortage of a few years ago. The university contributes an enormous amount of money to the community. We will have troubles attracting students and employees to a town where the air quality is compromised. As well, all of the time and money that went into making Kamloops the "Tournament Capital" could be wasted. Finding balance in Kamloops is essential to the success of a healthy community. Over the years Kamloops has diversified to the point where we are no longer dependent on forestry and pulp and paper. Tourism, technology, events, postsecondary education, location (highways and railways) have all managed to keep Kamloops on a positive growth rate even when the North American economy has been depressed. The current delicate balance in Kamloops is working and throwing a mine into the mix will alter the community irrevocably.</p>	dAIR comment	General	Community Health and Well-Being	8.1	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project. The assessment will include a consideration of City of Kamloops planning and development (current and anticipated), and also consider the potential effects of the Project on way of life and other economic activities.	
801	227	24-Mar-12	Marcia Wilson and Klaus Mey	Kamloops, BC	<p>Social Impact – Recruitment of Health Professionals and Community Need to Redefine Itself</p> <p>Our community is built on a vision of health and wellness. The City has invested a great deal in marketing itself as the "Tournament Capital" – a title which would be greatly compromised by our shift to a mining town. The development of the mine would result in a complete re-definition of what makes Kamloops livable. "Mining jobs" will have limited appeal to health professionals who are deciding where they want to set up practice</p> <p>As people look to whether or not they want to live in Kamloops we need to consider the potential loss of great community leaders and volunteers- I consider our family to be an asset to the community. We are easily replaceable but could it be that proactive people who care about health and who choose to leave could in fact result in a broader shift within the community at a variety of levels? As well, many people I know who grew up here are returning to Kamloops to raise their families- my brother, for example. Will these families come if there is a mine? Will these young families continue to move here and offer their skills?</p>	dAIR comment	General	Community Health and Well-Being	8.1	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project. The assessment will include a consideration of City of Kamloops planning and development (current and anticipated), and also consider the potential effects of the Project on way of life and other economic activities.	
807	232	25-Mar-12	Richard Holmes	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (7 of 61)[2012-03-29 4:08:06 PM]^</p> <p>A letter sent to The Kamloops Daily News: Recent letters have suggested that there are two opposing sides on the Ajax mine--- those who stress the importance of copper in our lives and those who are, in principle, opposed to the idea of another mine. There is a third side which should be recognized--those who would like to see a mine established but not in the location being proposed. The vein of ore which is to be mined is said to stretch for miles south and east of Kamloops. If this is true, the mine should be located where there is no chance that it will destroy the quality of life in Kamloops.</p>	Project comment	General	Community Health and Well-Being	8.1	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	
849	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	Both the City of Kamloops and TNRD have land use policies and other documents in place to guide community development. The Ajax Mine proposal was never anticipated during the preparation of current community planning policy and in many respects the mine is in conflict with much of the adopted policy dictating growth management of the city and regional district.	Project comment	General	Community Health and Well-Being	8.1	The Application/EIS will include a description of any management and monitoring programs or regional studies, including the City of Kamloops Official Community Plan and Sustainable Kamloops Plan, as well as the Thompson Nicola Regional District (TNRD) Official Community Plans, guidelines, and bylaws as they relate to the Project, as stated in Section 2.6 of the dAIR.	

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883	253	26-Mar-12	Ron B. Smith	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (24 of 37) [2012-03-29 4:02:53 PM]^</p> <p>8.1 Culture</p> <p>It is not clear how the proponent proposes to measure shared values and goals. Kamloops has changed over the years. It was once viewed as a dirty industrial city. Pollution meant money. The City has evolved into a more diversified community and continues to move from a resource dependent to a knowledge dependent community. This project tends to pull us back into an unsustainable economy. When the ore has been extracted we are left with a deep hole and mounds of waste material. This will be the legacy of this project. What processes will determine the vision we have for our community?</p>	dAIR comment	General	Community Health and Well-Being	8.1	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project. The assessment will include a consideration of community development and planning and what effects the Project may have.	
884	253	26-Mar-12	Ron B. Smith	Kamloops, BC	<p>8.2 Community Health and Well-Being</p> <p>8.2.4 identifies effects of decommissioning and closure activities. Included in that category is the Ajax pit closure presented in 3.18.3. With steep and possibly unstable sidewalls the pit poses a major public safety hazard. How long is it estimated for the pit to fill with water? Is it within the estimated two-year mine closure period followed by the three-year reclamation and monitoring phase? The hazard posed by the abandoned pit is acknowledged and is to be managed by an earthen berm. How are people and animals to be kept off the berm? The danger posed by this human constructed pit with its steep slopes will not decrease with the passage of time so who will ultimately be responsible to maintain public access control? What is the estimated time before the tailings storage facility dykes are breached?</p>	dAIR comment	Ajax open pit	Community Health and Well-Being	8.1	Closure and post-closure project details will be presented in the Application/EIS.	
895	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	<p>What studies have been done to show the effects of dust on people suffering from respiratory problems, living within 2 or more km of an open pit mine?</p>	dAIR comment	General	Community Health and Well-Being	8.1	The scope of the assessment will include commentary on potential effects on community perception and quality of life related to the Project. The assessment will include a consideration of community development and planning and what effects the Project may have.	
1008	268	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>The City and residents have spent much time and money in shedding an image of an industry town (pulp mill town). It has taken along time, as is working. We do not want to revert back to that stigma - a dirty mining town. Residents are not opposed to mining, but we are opposed to Ajax.</p>	dAIR comment	General	Community Health and Well-Being	8.1	Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	

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1164	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>8.2 Community Health</p> <p>8.2.1 Rationale:</p> <p>a. 2nd bullet; will property owners and residents be included as "stakeholders"? If not why not? will these inclusions be required in the AIR?</p> <p>8.2.2</p> <p>a. what baseline studies have been done to provide the summary of the local and regional community health, when were they done and by whom? Will this be a requirement of the AIR?</p> <p>b. if existing data obtained from the local Health Authority were used to provide the summary, of local and regional community health, which studies were they, when were they prepared, and by whom? Our recommendation for the AIR is that such studies be required, and that they be required to be published and made public.</p> <p>c. what baseline studies have been done on the respiratory health of the residents of Kamloops and region? When were they done and by whom? Will the AIR require such studies be done with regard to respiratory health in particular, and that they be made available to health practitioners in the community for comment, evaluation, and publication?</p> <p>8.2.4 First bullet: Potential Adverse Effects:</p> <p>a. beginning in the construction phase of the proposed mine it is expected that there will be dust, whether toxic or benign is not known, and whether fugitive or not is not known, but any kind of dust can be an irritant to many individuals, especially children and seniors. In order to mitigate the potential adverse effects of dust, will the AIR require that the proponent provide dust monitors in schools within 3km of the proposed site, as well as senior residences? If these air monitors show an increase of dust particulates in the area with the growth of the proposed mine, will the AIR require that the 3 km boundary of dust monitor installations be increased accordingly?</p>	dAIR comment	General	Community Health and Well-Being	8.1	Background studies in support of the community health and well-being VC will be presented in the Application/EIS as stated in the dAIR. The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors. Results will be presented in the Application/EIS.	
1446	339	4-Apr-12	Personal Information Withheld		<p>Sec. 7.8.2 Background.</p> <p>a) It is stated "improvements in housing, health and wellbeing to project workers and their families". This is qualified as being "generally". Are there "generally" any people living within 3 km of "similar" projects? If so, how many?</p> <p>b) Where in Canada would there be a proposal for a mine of this size partially within the City boundaries of a City of 86,000 people?</p> <p>c) Have any baseline studies been done to assess the housing, health and wellbeing of the current residents who live within 3km of the proposed project? If so, when, and by whom? If so, have the studies been published and available to the public?</p> <p>d) If these studies are going to be done on the construction and operation-related workers and their families, will the AIR require that they be done on the people already living within 3km of the proposed mine.?</p>	dAIR comment	General	Community Health and Well-Being	8.1	The Application/EIS will provide commentary regarding community health and well-being. Where comparable conditions exist with respect to other operations, insights from these will be used to inform the current assessment.	
1449	339	4-Apr-12	Personal Information withheld		<p>g) Has a socio economic baseline study been done on the demographics of the surrounding area, in order to facilitate the changes that will be needed in the KamPlan for the area if families with children and/or seniors move away? Will this be required in the AIR?</p> <p>h) What studies will be undertaken by KAM to assess the ongoing effects on the housing, health and wellbeing of the residents, particularly those in the Aberdeen, Knutsford and Pineview Valley of Kamloops, being the closest to the proposed project site? Will the AIR require that such studies be done at least at 3 year intervals?</p> <p>i) When will the results of the studies required under this section, 7.8.4, and subsequent studies be made public? Will this be set out in the AIR?</p>	dAIR comment	General	Community Health and Well-Being	8.1	<p>The assessment of socio economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources.</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	
1452	339	4-Apr-12	Personal Information Withheld		<p>Sec. 8.2 Community Health</p> <p>8.2.1 Rationale:</p> <p>a) 2nd Bullet: Does "stakeholder" include individual property owners and residents? Will this be required in the AIR?</p>	dAIR comment	General	Community Health and Well-Being	8.1	Insights are expected to come from key person interviews, including professionals in the medical, university and other fields.	

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1458	340	4-Apr-12	Personal Information Withheld		<p>13/03/2012. Listed below are some of our major concerns:</p> <p>#1 The mine will be 50% within the city limits; unprecedented in Canada and the site will be size of North and South Kamloops together .</p> <p>#2 The predominate SW winds will convey large amounts of particulate matter, allowing inhalation into our lungs.</p> <p>#3 Nowhere in Canada is a mine so close to a city, it will change the city that we know and love .</p> <p>#4 Kamloops is described as the tournament capital of Canada, imagine the first introduction to our city as an athlete is an open pit mine on our doorstep!!!</p> <p>#5 Certainly the air quality will get worse. I remember the smoke in the city in the summer of 2009 and attending music in the park and having to leave, as I couldn't breathe. I had to go to the Emergency with difficulty breathing. We will have increased visits to the doctors, stressing our already burdened health care system.</p> <p>#6 The Ore concentration is about the lowest concentration of any mine in the world !!</p> <p>#7 We are strong advocates of prevention and try to make healthy choices, like walking, biking, which will be curtailed with the diminished air quality</p> <p>#8 Why should one always choose wealth over health. Thoughts are that it will bring increased employment to our area, larger tax base etc. If the mine would to proceed we will be moving from this area.</p> <p>Please consider the above when making a decision. Speaking to many friends re this issue, we haven't heard from one that supports the proposed mine - they are all in disbelief</p>	Project comment	General	Community Health and Well-Being Air Quality	8.1 10.1	Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	Air Quality - 3.3.4.1
15	7	2-Feb-12	Personal Information Withheld		(7) North WRD covering old Lac Le Jeune wagon road used to access property; road was a public road public money was spent to build in 1928	dAIR comment	waste rock management facilities	Infrastructure, Public Facilities and Services	8.2	Project Land Use as it relates to existing infrastructure will be discussed in the Application/EIS.	
21	11	6-Feb-12	Katherine Michell	Kamloops, BC	The traffic use on the Lac Le Jeune Road need to be studied in great detail for it has safety issues in both construction and weather related incidents. Ranchers use this road to take cattle from one pasture to another, and this requires riders on horseback, pickup trucks, and generally will last 4-6 hours and the traffic is tied up, and delays do occur. On our ranch, we pass cattle from one side of the road to the other many times through the year. We have property on both sides, so that is a management tool and would be a hardship to have it hindered.	dAIR comment	traffic	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed in consultation with relevant public stakeholder agencies, including the City of Kamloops and the Ministry of Transportation and Infrastructure (MoTI). The roads surrounding the mine that were reviewed in this Traffic Impact Study are the following: • Highway 5 (Coquihalla Highway) • Lac Le Jeune Road • Sugarloaf Road • Frontage Road (Versatile Drive) • Copperhead Drive • Goose Lake Road • Inks Lake Road • Haul Road	
32	13	7-Feb-12	Dianne Kerr		e) City long range plans - During the years when I served as an alderman on the City Council, we had long range plans for residential growth to primarily take place in the southwest sector (the area closest to the proposed mine operation). We invested large amounts of taxpayer dollars to build sufficient infrastructure capacity to support future housing requirements in this area. I cannot imagine that there will be many homebuyers interested in purchasing their homes in the southwest of Kamloops if they are in close proximity to the proposed mine operation	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2 2.6	A description of the City of Kamloops Official Community Plan as it relates to the Project will be included in the Application/EIS.	

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36	13	7-Feb-12	Dianne Kerr		c) Taxes Initial tax benefits from an operation of this magnitude will undoubtedly be offset by some service requirements. Also, there are all too many examples of primary industry demands for "tax breaks" when the economy changes, accompanied by the usual threats to shut down and lay people off.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Out of scope of the AIR/EIS Guidelines.	
78	29	7-Feb-12	Gina Morris	Kamloops, BC	(10) When Abacus and KGHM decided that the venture to build Ajax mine was "viable," did they mean that by using the roadways that are already built, and by using the electrical grid, as well as the water and sewer systems that are already in place because of the city of Kamloops, it makes their job of setting up a mine really affordable (there will be enough profit vs. costs of setting up/running a mine)? (11) The infrastructure of Kamloops must make setting up a mine less costly. Has KGHM looked for deposits of gold and copper farther away from Kamloops where they could pay to have roads, water, sewer and electricity made available to their mine? Can KGHM prove that there is no mining venture away from Kamloops ...that they could do alternatively?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	As stated in Section 17.4 of the dAIR, the Application/EIS will include: • A description of the alternative means of carrying out the Project; • The reasons for selecting the preferred option; • An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and • The environmental effects of any such alternative means.	
81	30	7-Feb-12	Pat Tombe	Lac Le Jeune, BC	The Lac Le Jeune highway is presently not a good road. Steep, narrow potholes, icy and winding. I understand there will be upwards of 400 to 500 employees in addition to subcontractors, delivery personnel etc. accessing the mine every day. My concern is that the secondary highway will be the likely access to the mine (unless it can be reconfigured to come off the Coquihalla). We presently travel the road daily to and from town. I am concerned that at certain parts of the day the risk of accidents (shift changes) will undoubtedly rise significantly. I presume the majority of the employees will be coming from Kamloops. It seems to me that the road will have to be improved from below the Iron Mask subdivision to at least the Inks lake overpass. Widening and resurfacing at a minimum and some increased enforcement. I don't see this as necessarily the domain of the mine but coordination with the city to ensure there is safe and secure access for everyone who will use the road. Also, during construction I do not believe that the Lac Le Jeune road should be used to bring in heavy equipment, huge mining structures etc. I would prefer access for these items to take place from the Coquihalla.	dAIR comment	Concentrate transport	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS.	
153	65	8-Feb-12	Alan Havisto	Kamloops, BC	13. What changes will be made to Lac Le Jeune Road to accommodate the large haul trucks and trucks going to Vancouver? What will be the routes, and who will pay for any changes?	dAIR comment	Concentrate transport	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS.	
154	65	8-Feb-12	Alan Havisto		14. What arrangements will be made for fire protection in case of fire with aa south west wind blowing toward the city most of the time? Who will pay the costs?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Fresh water will be supplied to a fresh/fire water storage tank from Kamloops Lake for fire water for emergency use. A Fire Hazard and Abatement Plan will be developed for the proposed Project . The Application will include discussion of requirements for fire protection and other municipal emergency services.	

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156	65	8-Feb-12	Alan Havisto	Kamloops, BC	19. Who will pay for the changes to infrastructure planning and expenditures for growth in the Aberdeen area? Growth will be changed to other areas because of the mine and therefore there will be extra costs to taxpayers.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	A description of the City of Kamloops Official Community Plan as it relates to the Project will be included in the Application/EIS.	
168	67	8-Feb-12	Personal Information Withheld	Kamloops, BC	Impact on highways from increased heavy trucks	dAIR comment	Concentrate transport	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS.	
173	71	9-Feb-12	David and Alison McKinnon		2) The proposed East Waste Rock pile, and the rock crushers are very close to the upper developments of the Aberdeen area of Kamloops. As well as negative aesthetic effects, these will lead to noise and dust (from blasting, mine traffic and crushing) negatively affecting further housing development in that area. The City of Kamloops already suffers from a shortage of suitable housing development land. The mine developers suggest water trucks as a method of dust control. This will be difficult with the heat of a Kamloops summer.	dAIR comment	Waste rock management facilities	Infrastructure, Public Facilities and Services	8.2	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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175	71	9-Feb-12	David and Alison McKinnon		4) The proposed tailings pond is close to both the Coquihalla Highway and Lac Le Jeune Road.	dAIR comment	TSF	Infrastructure, Public Facilities and Services	8.2	Geotechnical studies have been conducted for all mine infrastructure for the feasibility level design presented in the dAIR. During the upcoming EPCM (Engineering, Procurement, Construction Management) stage of the process, these geotechnical studies will be reconfirmed to assure that codes and standards are achievable for construction.		
179	73	9-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (64 of 77) [2012-02-24 3:07:19 PM]^</p> <p>After attending the Open House, I was disappointed with the lack of personnel with more indepth information.</p> <p>1. Traffic on the Lac Le Jeune road will be impacted greatly with the number of ore trucks travelling 24/7. When questioned, there seemed to be confusion on the route these ore trucks will use. If connected directly to the Coquihalla it would lessen the number of ore trucks and leave the passenger vehicles which would be a better solution.</p>	dAIR comment	Concentrate transport	Infrastructure, Public Facilities and Services	8.2	The route for concentrate transport to Vancouver will be presented in the Application/EIS. Also included in Section 17.4 will be: • A description of the alternative means of carrying out the Project; • The reasons for selecting the preferred option; • An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and • The environmental effects of any such alternative means.		
186	75	10-Feb-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (62 of 77) [2012-02-24 3:07:19 PM]</p> <p>The proposed Ajax mine is not considering where future growth will eventually be in relation to the mine. The Official Community Plan for Kamloops calls for 1200 more residential units to be built closer to the mine than where current development is now. Studies need to take this into account and not based on where development currently is. This land is required to support future growth of the City as all infrastructure for water/sewer etc. is sized to accommodate this growth. If this growth is to now be impacted where will development now have to occur? The answer is it will have to go into another area of the City that will require millions of dollars to put the infrastructure in place thus impacting every citizen in Kamloops and the Province to provide funding to accommodate these requirements. Further at the public form I spoke to 2 representatives who were not even aware of the OCP growth management area as they say they have not seen this material yet??? I find it strange that they are not showing the full picture to public. Please look at his as the Rock Pits are way too close to the future growth areas. Please find the attached link that shows the growth management boundary that should be included in your assessment.</p> <p>http://www.kamloops.ca/communityplanning/aberdeen.shtml</p>	dAIR comment	Waste rock management facilities	Infrastructure, Public Facilities and Services	8.2	A description of the City of Kamloops Official Community Plan as it relates to the Project will be included in the Application/EIS.	The Aberdeen Area Plan is part of the Kamloops Official Community Plan, and will be discussed in the Application.	

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220	80	10-Feb-12	Personal Information Withheld		(13) What changes will be made to Lac Le Jeune Road to accommodate the large haul trucks and trucks going to Vancouver, what will be the routes and who will pay for any changes (19) changes to infrastructure planning and expenditures for growth in the Aberdeen area – growth changed to other areas of the city, extra cost to taxpayers	dAIR comment	Concentrate transport	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS. A description of the City of Kamloops Official Community Plan as it relates to the Project will be included in the Application/EIS.	
221	80	10-Feb-12	Personal Information Withheld		(14) What arrangements will be made for fire protection, who will pay the costs	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Fresh and potable water will be supplied to a fresh/fire water storage tank from Kamloops Lake for fire water for emergency use. A Fire Hazard and Abatement Plan will be developed for the proposed Project . The Application will include discussion of requirements for fire protection and other municipal emergency services.	
226	82	10-Feb-12	Personal Information Withheld		(2) TSF design needs to be evaluated to ensure that it doesn't encroach on neighbouring land or disrupt highway design – height and wall angle, slope allow for reclamation and grass growth to limit invasive weeds.	dAIR comment	TSF reclamation	Infrastructure, Public Facilities and Services Land and Resource Use	8.2 8.5	Existing infrastructure will be considered in the design of all project components.	

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265	87	10-Feb-12	Personal Information Withheld		heavy highway use, accidents, impact on road maintenance	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS.	
280	89	11-Feb-12	David Verhoeff	Kamloops, BC	3. The City of Kamloops has tremendous growth plans for the Aberdeen neighbourhood. Infrastructure is already in place and much of the taxpayers dollars have already been spent. The city has planned for future expansion by: installing pipelines and pumping stations from our state of the art water treatment facility to serve the present and future areas of Aberdeen. A Fire hall has already been built at the top of Aberdeen to serve the ever growing community that has been proposed for the area. What kind of effect on housing sales and future development will a mine have? Keep in mind that the mine will be a 5 minute walk from this area. If this neighbourhood is no longer capable of supporting future growth, what is the cost going to be to rebuild the infrastructure (water pipes, firehall, schools) to a more develop-able area (such as Bachelor Heights).	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The Application/EIS will include a consideration of City of Kamloops planning and development (current and anticipated), and housing. It will also consider the potential effects of the Project on way of life and other economic activities.	
285	90	11-Feb-12	Larry Edwards	Kamloops, BC	I am in favour of the Ajax Mine providing the following concerns are addressed: The ore truck route must not include the Lac Le Jeune roadway, rather the preferred route should be directly west along side Inks Lake to the Coquihalla Highway.	dAIR comment	concentrate transport	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed for the Project which includes Lac Le Jeune Road; the results will be included in the Applications/EIS.	

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296	94	12-Feb-12	Personal Information Withheld	Kamloops, BC	Roads- who pays for the extra road repairs due to additional heavy traffic?	dAIR comment	concentrate transport	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS.	
314	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Will the proponent guarantee payment for any future structural damage to homes in the area they cause by blasting?	dAIR comment	blasting	Infrastructure, Public Facilities and Services	8.2	The issue of financial compensation for structural damage is outside the scope of the EA. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
315	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Will the proponent guarantee payment for any future infrastructure damage to the municipal works of the City of Kamloops attributed to their working of this mine?	dAIR comment	blasting	Infrastructure, Public Facilities and Services	8.2	Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	

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328	99	13-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(8 of 77) [2012-02-24 3:07:19 PM]^</p> <p>The draft AIR/EIS Document does not adequately address these issues: The Lac Le Jeune Road is not designed well enough for the safe passage of increased truck and vehicle traffic to and from the mine nor the transport of 20 trips of heavy copper and gold concentrate to Vancouver and return each day and is unsafe to do. The Ajax Mine has a public road ... travelling through the middle of an active mining operation. We believe that the Coquihalla Hwy should be designated as the main artery to bring staff supplies an concentrate to and from the mine via the Coquihalla Interchange at Inks Lake Road. If however, the Lac Le Jeune Road is the final choice as the main transportation route to the mine, then we would expect to see a major upgrade of this entire road to the same standards used to upgrade roads between the Lac Le Jeune Interchange on the Coquihalla Hwy, to Highland Valley Copper ...</p>	dAIR comment	access and haul roads traffic	Infrastructure, Public Facilities and Services	8.2	The route for concentrate transport to Vancouver will be presented in the Application/EIS. Also included in Section 17.4 will be: • A description of the alternative means of carrying out the Project; • The reasons for selecting the preferred option; • An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and • The environmental effects of any such alternative means. The proponent is not responsible for maintenance or upgrades to provincial infrastructure.	
329	100	13-Feb-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(5 of 77) [2012-02-24 3:07:19 PM]^</p> <p>Main Issues: Motor vehicle accidents resulting from trucking ore. Could train ore instead to avoid this. Lac Le Jeune road is not designed for heavy trucking traffic. Hazard to recreational users.</p>	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS.	
354	112	20-Feb-12	Personal Information Withheld	Kamloops, BC	<p>Lack of health care professionals- Royal Inland Hospital has difficulty attracting specialists. Our wait times are longer here than in other communities. If the mine goes ahead it is my view that it will make it far more difficult to attract doctors and other professionals to come to our community.</p>	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	<p>General statement.</p> <p>Please see the AIR for a description of the studies proposed to assess the potential environmental, social, and economic effects of the proposed project.</p>	
361	114	22-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(57 of 57) [2012-03-02 9:25:43 AM]^</p> <p>This comment is in regards to Transportation: Asking KGHM are you aware of the distance from your mine site to Vancouver and the terrain your trucks will have to navigate. Are you really going to ship your ore concentrate by a Semi TRUCK to Vancouver. (and for your information the Lac Le Jeune Highway as described in various articles is not a Highway but a two lane country road with at this time of the year the possibility of weight restrictions) We are not sure but we would guess one (1) railcar will carry more ore than one (1) truck. A train with maybe 50 or more rail cars would most likely be able to load one ship with one train. You are going to need more than 50 truckloads to equal that one 50 car train and then you have to drive that truck back to the mine site empty. The Coquihalla Hwy. has been closed numerous times this winter and by all accounts the trains have kept rolling. The Fuel bill, truck driver wages (2)(1 driver should not be making the round trip after the wait to unload) With these two factors and the grade of ore you are reporting will cut drastically into your profit margin. Please tell Abacus Mining Co. it is not worth the expense of most likely a Billion Dollars by the time you are in production to destroy the way of life of Kamloopsians and surrounding areas, the mine free grasslands, many types of wildlife and the image of Kamloops. Find a mine sight with a higher grade ore than this area and a much more viable and reliable transportation plan.</p>	dAIR comment	concentrate transport	Infrastructure, Public Facilities and Services	8.2	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	

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363	116	23-Feb-12	Personal Information Withheld	Kamloops, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (53 of 57) [2012-03-02 9:25:43 AM]^ I'd like to know what the project's impact will be on local traffic patterns: What route will vehicles be taking to and from the site, including employees and commercial vehicles? How much traffic volume will the site produce? How many loads of concentrate will be transported from the site daily, where will they be transported to, and what route will they take?	Project comment	access and haul roads traffic	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS.	
442	130	28-Feb-12	Rob Wycherley	Kamloops, BC	7.8 INFRASTRUCTURE Electricity Supply With respect to power costs, on February 20, 2012, the Kamloops Daily News stated, in an editorial, that B.C. Hydro rates will rise by 7% (more than double that what promised by the provincial government.) The B.C. Auditor General reported that this was due to questionable accounting by B.C.Hydro and the provincial government. There is also a great deal of information showing B.C.Hydro being compelled to purchase privately produced power (run of river hydro and gasification projects) at non economic prices with the price to be made up by consumers. Smart meters are being introduced to better manage the losses being incurred by B. C. Hydro. KAPA has concerns that the people of our community, indeed the entire province, are being forced to subsidize the cost of electrical power for KAM, i.e., the mine will use power at or below the combined cost of generation, transmission and distribution production. 1. Is it correct to state that the Mine, assuming it is approved, has negotiated the provision of electrical power from B.C. Hydro at well below the generation, transmission and distribution cost of this power? 2. If so, what is the actual cost of electrical power projected to be charged to the mine, expressed in kilowatt hours? 3. If so, how does this rate of electrical charge compare with other large industrial users of electrical power in British Columbia? 4. When and with whom was any agreement for cheap electrical power negotiated, and what documents were provided to B.C. Hydro and /or the provincial government in support of this agreement? 5. What is the current cost of generation of this electrical power, expressed in kilowatt hours? 6. How many kilowatt hours of electrical power is projected to be used by the mine each year of its projected operation? 7. Assuming that the electrical power being sold to the mine at 1/3 of the retail costs charged other consumers, what is the value of lost revenue to B.C. Hydro, expressed in dollars, annually AND over the projected life of the mine? 8. What is the economic loss of this lost revenue to the Province of British Columbia?	dAIR comment	transmission line	Infrastructure, Public Facilities and Services	8.2	1. The proponent is in discussion with BC Hydro regarding the provision of electrical power. 2. The cost of electrical power will be presented in the Application/EIS. 3. Comparison with other industrial users is outside of the scope of the EA. 4. The proponent is in discussion with BC Hydro regarding the provision of electrical power. 5. This is outside the scope of the EA. 6. This information will be presented in the Application/EIS 7. This is outside the scope of the EA. 8. This is outside the scope of the EA.	
447	130	28-Feb-12	Rob Wycherley	Kamloops, BC	8.3 Public Facilities and Services, Including Transportation The more rain, snow, or hail falls, the less the friction of the road surface. Rain can lead to dynamic aquaplaning. A layer of water on the road surface can cause the vehicle to lose contact with the road surface and to skid. The chance of aquaplaning depends on the skidding resistance of the road, but of course also on the vehicle's speed and tyre tread depths (Ellinghaus, 1983; Terpstra, 1995; Van Ganse, 1981). When it has been dry for a long time, a drizzle can lead to viscous aquaplaning if drops of oil and dust, together with water, produce a thin liquid film on the road surface. When the rain gets heavier, the chance of viscous aquaplaning lessens because the road surface is swept clean (Terpstra, 1995; Eisenberg, 2003) www.swov.nl. The Tailings Storage Site will be located within 100 metres of the Coquihalla Highway. During the morning hours the ultimately 180 metre high tailings site will shade a section of the highway. 1.What will be the effects on driving conditions when tailings dust is blown on to the highway? 2.Have any studies been done to estimate the amount of decreased traction due to fine rock dust on asphalt? 3.What will be the effects on driving conditions due to shading of the highway? 4.If a court of law determines that tailings dust is responsible for accidents on the Coquihalla Highway, will KGHM Ajax have sufficient liability insurance to cover the judgement?	dAIR comment	TSF	Infrastructure, Public Facilities and Services Visual Impact/Aesthetic Features	8.2 8.4	Fugitive dust dispersion modelling will be completed for the Application/EIS. Mitigation measures will be implemented to address potential impacts of entrained dust. The issue of liability insurance is outside the scope of the EA. Shading has been identified as a VC in the AIR; shading in areas surrounding the tailings pile will be included in the assessment.	

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464	134	1-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (75 of 77) [2012-03-06 2:47:31 PM]' As a resident of Lac Le Jeune I have serious concerns regarding the proposed route of transport of product from the mine to Vancouver via Lac Le Jeune Road. This road is narrow, winding and steep with narrow shoulders and, in places steep drop-offs. It is currently a pretty little road with lots of wildlife and is the main route used by Lac Le Jeune residents commuting to and fro from Kamloops, plus a large number of users accessing nearby recreational facilities year round, and in my mind is totally unsuitable for heavy truck traffic grinding it's way slowly up the hills. There is little opportunity to safely pass slow vehicles especially in winter. Also, judging by past experiences with occasional logging and other large trucks that try to use the back road rather than the Coquihalla, they tend to travel way too fast especially on the downhills and curves, frequently crossing the center line. The road condition is also questionable especially at this time of year with nasty frost heaves and currently has a 70% weight restriction on it. No doubt this would only get worse with heavier traffic. IF the mine were to proceed, would the Inks Lake interchange not be more appropriate? It is so close, would keep traffic away from residential areas and would deliver the trucks quickly at the Coquihalla, a highway designed for heavy traffic rather than subject locals to more noise and risk than necessary	dAIR comment	concentrate transport	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed for Lac Le Jeune Road and the results will be included in the Applications/EIS.	
489	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	11. What studies have been done to determine how the Mine Site Activities will impact the use of Goose Lake Road as an Educational Facility? Goose Lake Road is currently used by TRU and School Buses/cars to transport students a number of times a year to study the beaver and bird population and habitat? Goose Lake is designated an Educational Resource B.C. Lake (Victoria Information Guide) 12. What studies have been done to determine the impact on the recreational individuals and clubs utilizing the Goose Lake Road on a regular basis for, personal fitness? 13. What study has been done to insure the safety/health and time schedule of the two Elementary School children that are transported to the Pacific Way School each morning ...This is deemed by Gov. as a School Bus Route. What studies are being conducted to provide documentation as to the possible health issues the impact may impose over their school years? 14. What study has been done to confirm safe/healthy access on Goose lake Road for many (six in our family) working adults, allowing them to maintain normal traffic flow for job locations as well as Kamloops businesses several (often in access of 14 times in our family) times per/day?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The Application/EIS will include detailed consideration of Goose Lake road and its use as a school route, recreational area and access route for local residents. Consideration will also be given to the area in the context of the Human Health Risk Application/EIS.	
562	150	7-Mar-12	Personal Information Withheld	Kamloops, BC	6) impacts of increased traffic from the Ajax Mine activities, particularly the potential impact of mine related traffic and use on local roadways affecting maintenance and safety of local roadways, including but not limited to Highways 5 and 5A, and including Lac Le Jeune and Goose Lake Roads.	dAIR comment	traffic	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed for the Project and will include Lac Le Jeune Road; the results will be included in the Applications/EIS.	

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572	157	8-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (61 of 69)[2012-03-14 4:29:55 PM]^</p> <p>Section 3.17 – additional items to consider should include:</p> <ul style="list-style-type: none"> • Effects on the traffic along the Lac Le Jeune Road through the Project area, i.e. mine traffic crossing the LLJ road, tracking of mud and dirt from the mine roads onto the LLJ road • What additional traffic impacts can the public anticipate due to the construction required before mine start-up. • Traffic impact Study should be undertaken. What effects will the additional heavy truck traffic have on the highway infrastructure (road surface and bridges, etc.) and what magnitude of cost can be associated with rehabilitation of the roadway systems due to the heavy mine trucks. • Description and mitigation of the interaction of the heavy trucks with recreational users of the LLJ road. i.e. joggers and cyclists, no paved shoulders, slow moving heavy trucks and lack of passing opportunities, etc. 	dAIR comment	traffic	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed for the Project and will include Lac Le Jeune Road; the results will be included in the Applications/EIS.	
576	157	8-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>Section 8.3.4</p> <ul style="list-style-type: none"> • This section appears to be related more to the mine site itself. It should be expanded to include all areas and components affected by the mine. i.e. aesthetics, roads used, recreational opportunities, etc. 	dAIR comment	traffic	Infrastructure, Public Facilities and Services	8.2	Aesthetics, road use, and recreational opportunities will be assessed in other sections of the Application/EIS.	
598	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> • Parents may want to move their kids from the schools adjacent to the mine to other schools in Kamloops which will have a negative impact on the school system what is the plan to deal with this issue. 	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Potential effects on the public education sector will be assessed.	
616	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	<p>4. Since the transportation of explosives daily is across the Goose Lake road and Peterson Creek and this public road access is between the storage facility and the open pit for use therein, how will the mine provide public traffic and ground water safety on a regular basis or in the event of accidents?</p> <p>5. What would be the Environmental impacts of the installation of an over head transportation route across the Goose Lake road if this method is chosen by the mine and what local traffic problems would be involved during installation?</p> <p>12. What studies have been done to determine the impact on the recreational individuals and clubs utilizing the Goose Lake Road on a regular basis for, personal fitness? (Bikers, joggers, walkers, bird identification groups, Orienteering club, etc.)</p> <p>13. What study has been done to insure the safety/health and time schedule of the two Elementary School children that are transported to the Pacific Way School each morning at 7:50 and return home between 2:50 and 4:00P.M.?(Week days). This is deemed by Gov. as a "School Bus Route". What studies are being conducted to provide documentation as to the possible health issues the impact may impose over their school years?</p> <p>14. What study has been done to confirm safe/healthy access on Goose lake Road for many (six in our family) working adults, allowing them to maintain normal traffic flow for job locations as well as Kamloops businesses several (often in excess of 14 times in our family) times per/day?</p> <p>19. What distance of inset and safety protection methods are required and will be implemented from the proposed mine site open pit/crushing equipment and the public Goose Lake Road traffic?</p> <p>20. In the event of an accident preventing the haul trucks making their schedule by transporting ore on the Lac Le Jeune highway will they, at any time, use the Goose Lake road and the highway #5A to reach the Coquihalla highway?</p>	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed for the Project and will include Goose Lake Road; the results will be included in the Applications/EIS.	
620	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	<p>11. What studies have been done to determine how the Mine Site Activities will impact the use of Goose Lake Road as an Educational Facility? Goose Lake Road is currently used by TRU and School Buses/cars to transport students a number of times a year to study the beaver and bird population and habitat? Goose Lake is designated an Educational Resource B.C. Lake (Victoria Information Guide)</p>	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Goose Lake Road.	

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630	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	9. When will the Ajax mine provide home and property assessments to our families residences and those of the area within a 2km. radius of the site to provide the baseline necessary for comparison? 11. Since a prior to development structural inspection of homes will be required for comparison, when will the Ajax mine have structural inspections commissioned for our families' homes and for those within a 2km. radius of the site development? AIR Proposed Ajax Mine Development Section	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). The assessment of economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources. Individual property assessments will not be included in the analysis. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
655	175	12-Mar-12	K Goodall	Kamloops, BC	4) Kamloops residents and small businesses pay standard rates for hydroelectric power, and have new metered water rates coming in to effect in the near future. In fairness and in keeping with a 'social contract' with the people of Kamloops, will the proponent opt to pay an unsubsidized rate for both power and water to be utilized at the site? If not, why not?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The Application/EIS will include details regarding government incentives/subsidies.	
657	175	12-Mar-12	K Goodall	Kamloops, BC	6) What action will the proponent take in order to retain and recruit medical and other professional personnel? Will funds be earmarked in advance to facilitate this action? Will this action be an ongoing commitment to the city through the life of the mine?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Potential effects on selected occupational sectors will be assessed.	

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679	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	7. Impact on Professional Recruitment/Retention: • We are concerned that this mine may influence the choice of people (who are not seeking work in the mining industry), when they are choosing where they would like to settle/raise their families. Had this mine been in place when we moved, it would have impacted our decision to move to Kamloops in general and especially our decision to raise our family in Aberdeen. We are considering relocating from Kamloops if the mine is approved and we are concerned that other professionals may also either leave Kamloops or not come here in the first place. We are already short of physicians and allied health professionals in Kamloops. Of those already here, a number have stated that they may leave if the project goes ahead. Justified or not, a community's reputation and therefore, the people it attracts, is often dependent on the industry it attracts. How will the proponent compensate for the negative stigma which we believe is likely to be attached to the city if the mine is approved, especially in regard to health care professionals who are very concerned and conscious of possible environmental health impacts?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Topics related to the perception of the City of Kamloops will be addressed in the assessment. Potential effects of the project on other infrastructure and services in the City will also be considered, including health sector-related professions.	
684	184	15-Mar-12	Richard Holmes	Aberdeen, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (20 of 23) [2012-03-26 3:53:56 PM] [^] At the meeting of the Kamloops Community Association last night, it was stated that the ore that is being mined by Ajax is available in a strip stretching from Kamloops almost to Kelowna (or was it Penticton?), and that the reason the mine wants to establish so close to the city of Kamloops is so that it can take advantage of the infrastructure that has been paid for by others. Is this correct?	Project comment	General	Infrastructure, Public Facilities and Services	8.2	As stated in Section 17.4 of the dAIR, the Application/EIS will include: • A description of the alternative means of carrying out the Project; • The reasons for selecting the preferred option; • An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and • The environmental effects of any such alternative means. This will include discussion of the size and location of the mine.	
688	187	15-Mar-12	Richard Holmes	Aberdeen, BC	2. The ore that is being mined stretches far from Kamloops and that the only advantage of establishing a mine so close to the city is that it enables the mine to take advantage of infrastructure paid for by others.	Project comment	General	Infrastructure, Public Facilities and Services	8.2	duplicate	
689	187	15-Mar-12	Richard Holmes	Aberdeen, BC	3. Contingency plans should be required by the Provincial and Federal governments before granting permission for the mine to operate. These plans would require establishing maximum levels for external costs of the mine (road deterioration, flooding of property, destabilization of ground, earth tremors, noise and dust pollution, deterioration of property values) beyond which the mine would be required by law to pay for mitigation measures. If these mitigation measures prove to be too costly, the mine should be refused permission to operate.	Project comment	General	Infrastructure, Public Facilities and Services	8.2	duplicate	

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717	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	13. What will be the effect on the Lac Le Jeune road as the ore laden transport trucks make their way to the Coquihalla Highway. Who will pay for upgrades?	dAIR comment	concentrate transport	Infrastructure, Public Facilities and Services	8.2	The project will not be responsible for provincial road maintenance or upgrades to provincial infrastructure but will contribute to government revenues through municipal, regional, provincial and federal taxes.	
728	205	20-Mar-12	Kristen Marini	Kamloops, BC	3. The technical report on the mine stated that they will be pumping 2000m3/hour of fresh water from Kamloops Lake to the mine site. Is this mine going to pay for all the water they will be using, just like other residents of Kamloops who are metered and pay for their water usage?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The project will require a Water Licence under the provincial Water Act.	
729	205	20-Mar-12	Kristen Marini	Kamloops, BC	4. Will the companies behind the mine pay for the medical treatment for those who do develop cancers if arsenic levels in water do rise?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
753	212	22-Mar-12	Kevin Buxton	Kamloops, BC	• Component 8 - proponent must describe anticipated increased costs for maintenance of publicly funded infrastructure.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The project will contribute to government revenues through municipal, regional, provincial and federal taxes.	
770	218	23-Mar-12	Personal Information Withheld	Kamloops, BC	^ http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (30 of 61)[2012-03-29 4:08:06 PM]^ • Will it become more difficult to attract doctors and other healthcare workers to Kamloops once we are labelled as a "mining town"? Royal Inland Hospital is already is over capacity, and new residents to Kamloops cannot find a family doctor as there are no family doctors taking new patients. How will the mine affect the quality of healthcare in our town if our population does increase due to the mine, but we aren't able to attract an appropriate number of doctors to accommodate our population?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The Application/EIS will consider healthcare capacity and potential effects related to the Project.	
772	219	23-Mar-12	Personal Information Withheld	Kamloops, BC	^ http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (28 of 61)[2012-03-29 4:08:06 PM]^ Excerpt from letter to The Honorable Dr. Terry Lake: my major concern with respect to the mine is about health effects: primarily about the effects of the mine on the number of physicians in Kamloops. Many of the physicians moved to Kamloops for the outdoor recreation opportunities that this area provides - if this proposed mine proceeds so close to the city ... some of these physicians will relocate out of our community. the decision to relocate will be based on several factors but i feel this exodus is inevitable should the mine proceed. i think that the decision will be based primarily on emotion rather than reason and no amount of science will be able to convince anyone otherwise. I realize that it is not fair for a city to be "held hostage" by any one group of professionals, but this seems to be the case to me, and I cannot envision a way for anyone to mitigate this problem. there are many other factors of concern with respect to this new mine, such as foreign ownership, foreign contracting, disruption of lakes and waterways, ground water effects, remediation concerns and so on. as there are far too many unknowns and uncertainties with having such a massive open pit mine so close to such a large community, i urge you in the strongest possible terms ... to not approve this mine. it is physically just too close to the city of Kamloops to take chances.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	

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777	220	23-Mar-12	Jordan Lawrence	Kamloops, BC	Can I be guaranteed that my one accessible hospital that is already running at over 100% capacity will not become busier due to respiratory health issues caused by the mine?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The Application/EIS will consider healthcare capacity and potential effects related to the Project.	
802	227	24-Mar-12	Marcia Wilson and Klaus Mey	Kamloops, BC	Recruiting GP's and specialists is expensive and difficult. Allied health professionals such as physiotherapists are in great shortage not just for private clinics but also for the community health system where people are seen in their homes. Allied health professionals are critical to the overall health of our health care system and to keeping our hospitals accessible for acute needs. Interior Health is currently short SIX full time physiotherapists for the hospital and community. There are roughly 18,000 people who do not have a general practitioner. these are huge numbers and a mine will not make Kamloops a more attractive place to move. physicians and physios, to generalize, tend to be keen on outdoor activities and to value quality of life. I currently know of one physio and one doctor who are both considering leaving town as they can easily find work in more palatable areas should a mine be constructed. These are two professions that are in great shortage here. It is unreasonable to expect that we will be able to readily recruit these medical professionals into a mining town, or that current professionals will stay here altruistically. Physicians - especially specialists - leave town frequently often based on the spouses (typically wife's) opinion and experience, and on the overall climate of the Kamloops health care system which is short of docs. Current recruitment efforts focus on quality of life identifying Kamloops as "the natural place to work and play"	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The Application/EIS will consider healthcare capacity and potential effects related to the Project.	
823	245	26-Mar-12	Personal Information Withheld	Kamloops, BC	^ http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (6 of 37) [2012-03-29 4:02:53 PM]^ Re: damage to buildings and other structures: Aberdeen has already experienced some slope instability and the planned blasting and large scale earth displacement could compromise the structural integrity of buildings and walls. I would like to know what Ajax Mines is prepared to do to mitigate the financial effects to owners in the event that homes, buildings or other structures such as retaining walls incur/sustain damage after the start of mine development activities. 1. Will Ajax Mine assume responsibility for damages to structures after the start of mining development activities? 2. How will Ajax Mine compensate owners? 3. How will a "baseline" be established? (baseline: original condition of structure against which to compare the extent of the damage)	Project comment	General	Infrastructure, Public Facilities and Services	8.2	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
829	246	26-Mar-12	Joanne	Kamloops, BC	Mining trucks proposing to use the Lac Le Jeune Road is also a concern. The Lac Le Jeune Road is a winding, narrow, one lane road used by residents of Lac Le Jeune, and by families and individuals to access recreational areas for activities like camping, fishing, skiing, etc. It has some steep drop offs, is rough in some areas, and is lacking shoulders in others. Putting mine trucks on this road is putting all users of this road at higher risk of a catastrophic accident - and the mine trucks by virtue of their size and weight will win every time. Admittedly, our objections to the current mine proposal are based on self interest, as are the objections of most who are taking the time to comment. But if we don't speak up and take some responsibility for representing our best interests and attempting to safeguard our family's health and wellbeing, who will? But we are NOT anti-mining.	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed for the Project and will include Lac Le Jeune Road; the results will be included in the Applications/EIS.	

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845	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	The proximity of existing residential neighbourhoods is cause for a multitude of potential major conflicts that could negatively impact the livability and market value of these neighbourhoods. These residential areas were carefully planned and developed by private and public sectors with zero consideration given to a mining operation on the scale of Ajax being introduced just over the ridge.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	
850	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	Lac Le Jeune Road should not be used as a haul road connecting the mine site to the Coquihalla. Road cross section, horizontal and vertical alignment, current volume of local and industrial traffic, and safety concerns as demonstrated by recent logging truck spills should eliminate Lac Le Jeune Road as a viable haul road option. The Inks Lake Road, as a linkage to the Coquihalla, is far more suitable and places industrial traffic on a major highway designed to accommodate this use.	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	The route for concentrate transport to Vancouver will be presented in the Application/EIS. Also included in Section 17.4 will be: • A description of the alternative means of carrying out the Project; • The reasons for selecting the preferred option; • An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and • The environmental effects of any such alternative means.	
863	252	26-Mar-12	Paula Pick	Knutsford, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (20 of 37) [2012-03-29 4:02:53 PM]^ This is a follow up to my submission of March 12. Please include my name with this 2nd submission. 3.15 Power supply • Who will pay for the new power infrastructure? • How is it possible that mines in BC get Hydro power at a subsidized rate of 3.5 cents/kwh? In Ontario the rate for industry is 6-7 cents/kwh. Osisko Mining at Hammond Reef in Ontario considers that a good price.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The proponent will pay for the proposed power line. The Application/EIS will include details regarding government incentives/subsidies.	
869	252	26-Mar-12	Paula Pick	Knutsford, BC	• What protection do homeowners have in the event that the mine operations create further instability, which results in damage of any sort to homes and structures? Will the mine pay for all damage? Since the test blast was not the same as the daily blasts, how will the environmental assessment be able to adequately consider this issue properly?	dAIR comment	blasting	Infrastructure, Public Facilities and Services	8.2	Potential effects of the Project on housing and property values will be considered in the assessment (beneficial or adverse). A vibration impact study will be included in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
873	252	26-Mar-12	Paula Pick	Knutsford, BC	• The City has already protected itself by requiring that homeowners sign a covenant not to sue the city for damages. Will the mine be asking the same?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Out of scope of the AIR/EIS Guidelines.	

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913	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	6. Since the transportation of explosives daily is across Goose Lake road and Peterson Creek and this public road access is between the storage facility and the open pit for use therein, how will the mine provide public/water safety?	dAIR comment	explosives storage facility	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Goose Lake Road and the results will be included in the Applications/EIS. Environmental management and monitoring plans will be developed to ensure that human and environmental health and safety is accounted for through all phases of the Project.	
977	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will there be a constant monitoring system in place as the mine progresses, and a contingency plan put in place if public health and existing infrastructure is threatened?	dAIR comment	General	Infrastructure, Public Facilities and Services Health	8.2 10	Environmental management and monitoring plans will be developed to ensure that human and environmental health and safety is accounted for through all phases of the Project.	
984	261	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (13 of 77)[2012-03-29 3:57:49 PM]^ GOOSE LAKE ROAD, KNUTSFORD - is a frequently travelled 'thru' road, used by residents to & from work & for transporting children to school & used by school buses to Goose Lake (designated as an 'educational resource BC lake') for studies of wildlife & their habitat, as well as recreationalists (hikers, joggers, dog walkers, cyclists. Mine vehicles crossing against the traffic flow to the explosives storage area could constitute a serious hazard. --How many times per day would this road to explosive storage be used? --What would be done to ensure the safety of travellers on Goose Lake road when mine vehicles are crossing? --For how long would traffic be delayed for crossing vehicles? --Since Peterson Creek runs parallel to Goose Lake road would a bridge be built over both the road & creek leading from directly inside the mine area? --If a bridge was constructed how would pollution of Peterson Creek be prevented? --If a bridge was constructed would it be gated in order to prevent wildlife from using it in an attempt to migrate further north since their usual routes would be blocked off by the mine?	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	A traffic impact study will be undertaken for Goose Lake Road. A detailed project description will be presented in the Application. Proposed alternatives for the site access road will be described, along with the reasons for selecting the preferred option, as described in the AIR.	
985	262	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (12 of 77)[2012-03-29 3:57:49 PM]^ EMPLOYEES CAR PARK AREA--Please indicate the location of the employees car park area & the size of same. One would assume this must be a very large area given the number of employees indicated , but it is not shown on any map. --Will you guarantee Goose Lake road will not be used for mine traffic? This is a narrow, winding, dirt road & most definitely not suitable for heavy equipment, nor would it be appropriate given its normal regular use by residents, school buses, & runners, cyclists, etc.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The location and size of the parking area for employees and contractors will be included in the Application/EIS.	
1030	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	16. How will the tailing pile affect adjacent highway driving conditions?	dAIR comment	TSF	Infrastructure, Public Facilities and Services	8.2	Fugitive dust dispersion modelling will be completed for the Application/EIS to assesses potential impacts of the tailings storage facility on adjacent lands. Mitigation measures will be implemented to address potential impacts. Shading has been identified as a VC in the AIR; shading in areas surrounding the tailings pile will be included in the assessment.	

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1034	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	20. What comparative studies and precedents of mines in very close proximity to residential areas have been found, and what are the results of those studies, as typically, mines do not build on site housing for their workers for obvious reasons?	Project comment	General	Infrastructure, Public Facilities and Services	8.2	Where relevant, case studies from other jurisdictions will be used to help inform this assessment.	
1065	275	27-Mar-12	Frances Vyse	Kamloops, BC	3.17 Access and Transport Corridors On-site roads are described ... in Section 3.16 and reference is made to public roads for travel from Kamloops to and from the site, but there is not a mention of how this will be done. Lac Le Jeune road is used daily by residents of the community of Lac Le Jeune; by people going to fish, to mountain bike, and to access Stake Lake (cross country, hiking, biking). On a typical winter Saturday and Sunday there could be as many as 250 vehicles going up to Stake Lake and back to town. I personally use that road 3-4 times per week to access ski trails. It is not a suitable road for mine-related vehicles, witness the last two winters when we had to contend with the overloaded logging trucks on a regular basis. The dAIR must show mine access by a dedicated road access, presumably off the Coquihalla Hwy at Inks Lake Rd. The road needs to be planned and designed in such a way that it does not allow access to the Lac Le Jeune Rd or interfere in any way with the use and enjoyment of that road by residents or visitors. A not insignificant issue would be the safe storage of dangerous materials. The mine site would need to be impenetrable to persons interested in removing materials they thought might be useful to activities they might be involved in, lawful or not.	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	Access to the project area will be described in the Application/EIS. The explosives magazines will be built to federal design standards; this will be described in the Application/EIS.	
1076	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	d. What will the mine do if or when the vibration from the blasting damages the storage dam at Jocko Lake? As they do not have a license on the water system, is there a system in place that will deal with this problem? Who will be responsible to repair and maintain the dam if there is damage to it? Who will monitor the security of the dam? Will the licensees be able to access the dam once the mine is in production? Will the security bond cover this problem? After the life of the dam, does the mine have a responsibility to return the water system back to what it was before the operation started? e. What protection do the licensees have if there is any interruption of the supply of water?	dAIR comment	blasting	Infrastructure, Public Facilities and Services Noise and Vibration	8.2 10.4	Potential effects of vibration from blasting will be assessed in the Application/EIS.	Noise and Vibration - 3.3.4.2
1087	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	10. The cost of inspections for structures that may be affected by the mine activity, should be born by the proponents.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1141	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	6. where is the road going to be?	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	Access to the project area will be described in the Application/EIS.	

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1154	292	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	The information I received at one of the mine's open houses said LLJ rd was to be the main access road. This is problematic. Not only, as mentioned by others, and is incapable of supporting heavier, increased traffic loads and volumes, the whole road within C of K limits will have to be redone. It's a mess as it is, but there have already been issues with the possibility of collapse onto residents of Iron Mask Trailer Park. Several years ago C of K were called to respond to some sort of collapse issues at the Trailer Park. Apparently, C of K recognized potential for future problems and decided to wait until damage or collapse occurred. C of K should have records of this. The questions now are WHO will be paying for building a road capable of supporting and sustaining highly increased volume and load amounts? Who will be paying for the cost of maintenance? In the event the road does collapse onto the trailer park, who is or will be responsible for damage incurred? While air quality in relationship to the mine was being discussed, few city residents recognized the situation below - down the Lac Le Jeune Road. C of K opened the KamPlan to future rezoning of the area along lower Lac Le Jeune and Sugarloaf Roads: opened it up to locate "air polluting industry" in the area adjacent to and west of the small light industrial section on LLJ rd. The area is now dubbed "Iron Mask West". Local long term residents' 30 year weather observations made claim that the area is no longer above the inversion zone but in it. These reports were not taken into consideration and the Kamplan was opened for future zoning change regarding the intended, but undefined, "air polluting" industry. The property in question (also held by mining interests) is now able to be rezoned and allow air polluting industry. Again this shows a lack of concern by the City in regards to the health of its residents.	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed for the Project and will include Lac Le Jeune Road; the results will be included in the Applications/EIS.	
1163	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	7.8.5 Residual Effects a. what specific studies will be done to identify what these will be, when and by whom will they be done? Using what methodology? Will these be required by the AIR and be available to the public in full? if not why not? 7.8.6 Cumulative Effects Assessment b. what specific studies will be done to identify what these will be, when and by whom will they be done and using what methodology? Will these be required by the AIR? if not why not?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	This information will be presented in the Application/EIS	
1171	296	27-Mar-12	Personal Information Withheld	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (35 of 77) [2012-03-29 3:57:49 PM]^ Another unanswered question is in regard to the pipeline. I was told by a KGHM rep that the pipeline will be moved, yet the last map I saw showed its location between Jacko Lake and the pit = with virtually no clearance between the two. This is a disaster waiting to happen. What will 23 years of vibration do to this pipeline. Our washing machine slowly, but continually crawls along the floor. If left as is, this pipeline could leak. the fact that it is even in the area should be concern, let alone so close to such a major operation. It is not just the mine that will have vibrations, but vibration from big truck hauling needs to be taken into account. The pipeline is also adjacent to the North Waste Rock Management facility and the Processing Plant. Are we to become the new Gulf North? The clearance for twin piping is a minimum of 300 feet – called "a construction safety zone". KGHM thinks they will just move the line a tad? One of them said it was already moved when the pit was in operation years ago. What is it? If the current line pumps 300,000 barrels per day, what does that equate to if the line ruptures. This is too close to a civilization. Waaay too close.	dAIR comment	General	Infrastructure, Public Facilities and Services Noise and Vibration	8.2 10.4	Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	Noise and Vibration - 3.3.4.2
1222	304	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	Email dated 07/02/2012 . First of all I want to thank you for the Open House in Kamloops. The Open House allowed me to talk directly to Government the Proponent and their Experts I raised my concerns and each person I talked to asked me to put it in writing so they could make sure my concerns were dealt with. A Federal Government Panel Review in my opinion is not required. I will write several different letters so that my concerns can be directed more easily to the applicable government/proponent and expert. My concern is with the interaction of big ore trucks and motor vehicles. Accidents do happen and the best way to eliminate or reduce incidents from happening is for the Proponent to ship their ore via rail. Both CNR and CPR go through Kamloops and their tracks are readily available. The proponent as I understand it wants to put the ore on trucks drive them to the Lac Le Jeune interchange and then down the Coquihalla to the Port of Vancouver. First of all the Lac Le Jeune road is not designed to handle heavy traffic. Recreational users on this roadway should not have to interact with heavy ore trucks. With the current conditions of the Coquihalla (especially in winter time) the proponent should be made to transport their ore by locomotive to the Port of Vancouver. When the ore trucks leave the mine they should proceed to the Inks Lake interchange (on their own road) access the highway and then taken to a rail spur and loaded on trains to the Port of Vancouver. I know there are rail spurs in Dallas (Lafarge and Molly Cop), CNR in Rayleigh, Mission Flats)Dontar and City of Kamloops has land for sale with the railway running right behind their property). There may be other rail spurs that I don't even know about. I'm sure KGHM and government can work together with these and or any companies that have rail spurs to provide KGHM with accessibility to these facilities. If there is an extra net cost to the proponent then government should assist with some onetime costs. Keep in mind the proponent will save gas, vehicle maintenance and labour costs from driving to the Port of Vancouver. Railways are a very efficient way of shipping goods so I believe it is incumbent upon our governments to keep as many big rigs as possible off the highway and encourage the use of our rail system. Should you require any clarification on these items please feel free to contact me at home phone #250-851-0073 cell phone #250-319-9187 email: lpiggin@telus.net.	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	A traffic impact study is being developed for the Project and will include Lac Le Jeune Road; the results will be included in the Applications/EIS. A traffic impact study has been conducted in consultation with the proponent and relevant public stakeholder agencies, including the City of Kamloops and the Ministry of Transportation and Infrastructure (MoTI). The roads surrounding the mine that were reviewed in this Traffic Impact Study are the following: • Highway 5 (Coquihalla Highway) • Lac Le Jeune Road • Sugarloaf Road • Frontage Road (Versatile Drive) • Copperhead Drive • Goose Lake Road • Inks Lake Road • Haul Road	

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1225	305	4-Apr-12	Kenneth Graf	Kamloops (Aberdeen), BC	2) It is my understanding that the concentrate will be shipped on the Lac La Jeune road to the interchange to Logan Lake/Lac la Jeune. This will put heavy traffic on the Lac La Jeune road which is quite narrow and two way opposed traffic for several Kilometers. Has Ajax considered accessing the Coquihalla at the Inks lake Interchange, it is much closer and there already is an overpass across the Lac La Jeune road that could be utilized?	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	The route for concentrate transport to Vancouver will be presented in the Application/EIS. Also included in Section 17.4 will be: • A description of the alternative means of carrying out the Project; • The reasons for selecting the preferred option; • An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and • The environmental effects of any such alternative means.	
1239	307	2012/04/04	E.A. Clarke	Kamloops, BC	2) It is proposed that ore concentrate would be transported from the mine site to the Port of Vancouver by public roads. Invariably this would increase the frequency and number of heavy vehicles on the roads and result in an added burden to taxpayers through increased repair and maintenance costs, congestion and potential accidents. There is no evidence in the AIR document that either the BC Ministry of Transportation or communities along the transportation corridor particularly the City of Vancouver have or will be consulted on this proposed project.	dAIR comment	concentrate transport	Infrastructure, Public Facilities and Services	8.2	The proponent is in discussion with government representatives to determine the licences and approvals that will be required for the use of provincial highways. The proponent does not intend to consult with communities along the transportation route, as the number of ore concentrate transport trucks will not have a discernible impact on traffic volume.	
1359	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	8.3 Public Facilities and Services, Including Transportation In regard to the shipping of concentrate, there is nothing in the AIR (nor in the displays at the open house on Feb. 6 and 7) dealing with the potential impacts to recreational users of the several other lakes (McConnell, Stake, Lodgepole, Lac Le Jeune, Fred and Walloper) south of Jacko if they choose to use the old Lac Le Jeune Road as the preferred route to access Highway 5 at the Logan Lake interchange. That road currently is 2-lane and winding. From the mine south to the Logan Lake interchange is about 21 kilometres of uphill of varying steepness without passing lanes. We are told that there will be about 30 to 40 ore trucks per day going to Vancouver, which translates to 60 to 80 ore trucks on that road daily. All the lakes named above, but Fred, are open to angling year round. Fisheries biologists tell us that those lakes generate conservatively 24,000 angler days per year, which translates to about \$2,400,000 being injected into the provincial economy annually. McConnell and Walloper lakes are also day-use provincial parks, while Lac Le Jeune has a major provincial park. In winter, Stake Lake is also the site of a very popular cross-country skiing facility. All of the lakes named must be accessed via the Lac Le Jeune Road. Clearly, in its present state, that road is not designed to simultaneously accommodate several slow-moving large industrial vehicles per hour and recreational vehicles bound for fishing or skiing destinations. Obviously, the recreational experience of anglers and skiers would be negatively impacted by not only being stuck behind the slow moving trucks on the uphill, but once at their destinations, by the noise of the ore-laden trucks as they grind up the hills. In addition, the Lac Le Jeune Road traverses good deer habitat its entire length south from the mine to the Logan Lake interchange and the danger of collisions of fast moving downhill-bound empty ore trucks with deer is potentially great. The proponent should tell us how they plan to accommodate the above-named concern.	dAIR comment	concentrate transport	Infrastructure, Public Facilities and Services Land and Resource Use	8.2 8.5	The proponent is considering establishing an ore concentrate transport route from the project area via a diverted Inks Lake Road directly to the Coquihalla Highway, rather than utilizing Lac Le Jeune Road. Effects on outdoor recreation will be assessed as part of the land and resource use VC, as noted in the AIR.	
1367	329	4-Apr-12	Personal Information withheld		2. I am anticipating there will be increased traffic (example-employees driving to work and large transport vehicles moving material) on the lac la Jeune and copperhead roads. These roads have steep inclines and I imagine the larger trucks may need to use their breaks (noise and pollution) while descending. Further to this, I'm curious on how the mine will support the maintenance and upgrades to infrastructure (I'm certain the increase traffic will have physical impacts to roadways etc.). I want to ensure that these increase maintenance fees are NOT going to be covered by my tax dollars (i.e. I don't want to experience a tax increase b/c of the mine).	dAIR comment	access and haul roads	Infrastructure, Public Facilities and Services	8.2	Potential impacts of noise will be studied in the Application/EIS. The project will not be responsible for provincial road maintenance or upgrades to provincial infrastructure but will contribute to government revenues through municipal, regional, provincial and federal taxes.	
1377	329	4-Apr-12	Personal Information withheld		12. Will there be on site parking for employees?- Parking space in Pineview is limited as it is as there are numerous vehicles being parked in our neighborhood for folks that work at Highland Valley Mine and carpool. I do not want to see our community become a 'parking lot'.	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The location and size of the parking area for employees and contractors will be included in the Application/EIS.	

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1410	336	4-Apr-12	Personal Information Withheld		16. How will the tailings pile affect adjacent highway driving conditions?	dAIR comment	TSF	Infrastructure, Public Facilities and Services	8.2	Fugitive dust dispersion modelling will be completed for the Application/EIS to assesses potential impacts of the tailings storage facility on adjacent lands. Mitigation measures will be implemented to address potential impacts. Shading has been identified as a VC in the AIR; shading in areas surrounding the tailings pile will be included in the assessment.	
1441	339	4-Apr-12	Personal Information Withheld		Figure 2.2.1 Truck Shop and Fuel Storage Area a) What base line studies have been done on the possible effects of the location of these facilities in relation to the adjacent neighbourhoods, which are between 1.5 and 2 km away? Will data in this regard will be required in the AIR, taking into account the area residents' rights to "quiet enjoyment of their properties" being disturbed by • "beeping" of vehicles when backing up • the effects of area lighting during normal darkness hours, • engine and machine noise • the possibility of accidents, being vehicular and/or explosive b) Where will emergency equipment be located, and what contingency plans will be in place to mitigate the effects on the neighbouring properties of the inevitable accidents? What degree of mitigation will be required in the AIR?	dAIR comment	truck shop and fuel storage area	Infrastructure, Public Facilities and Services Dark Sky Noise and Vibration	8.2 8.3 10.4	This information will be provided in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Noise and Vibration - 3.3.4.2
1442	339	4-Apr-12	Personal Information Withheld		7-7.1 Rationale – 2nd bullet – Does "stakeholder" include individual property owners and residents? Will this inclusion will be required in the AIR?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	As stated in Section 2.6 of the dAIR, the Application will include description of the land ownership and land use regime including tenures, licenses, permits or other authorizations that would be potentially affected by the proposed Project; and the status of consultations with holders of such tenures and permits, and private land owners including resolution of land tenure issues. Property Value will be assessed as a VC and will include all property types. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1445	339	4-Apr-12	Personal Information Withheld		7.8.1 2nd bullet: Does "stakeholder" include individual property owners and residents? Will these inclusions will be required in the AIR?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	The Application/EIS will describe the methodology used to identify stakeholders.	

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1450	339	4-Apr-12	Personal Information Withheld		7.8.5 Residual Effects a) What specific studies will be done to identify what these will be, when and by whom will they be done? Using what methodology? Will these be required in the AIR and be available to the public in full?	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	This information will be included in the Application/EIS.	
1451	339	4-Apr-12	Personal Information Withheld		7.8.6 Cumulative Effects Assessment b) What specific studies will be done to identify what these will be, when and by whom will they be done, and using what methodology? Will these be required for the AIR	dAIR comment	General	Infrastructure, Public Facilities and Services	8.2	This information will be included in the Application/EIS.	
97	37	Public comment form from the Feb 6&7 Information Session	Beverley Markle, Pres. Of Astronomical Society	Kamloops, BC	The effect of the proposed Ajax mine on quality of dark skies has been mentioned under Social and Economic Effects. We thank you for that. Our astronomy club is interested in maintaining the pristine dark sky of the Stave Lake Cross Country ski area and the Stave Lake Observatory. However it is for the long term benefit of the dark skies to the environment, wildlife and vegetation that our club is endeavouring to establish a "dark sky preserve" designation for Stave lake. We ask that under "Environmental Potential Effects" (Section 6.0) quality of darkness be added to the list.	dAIR comment	General	Dark Sky	8.3	Effects of additional lighting on the environmental VC will be addressed in the Application/EIS.	
613	164	10-Mar-12	Kamloops Astronomical Society (KAS)	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (50 of 69) [2012-03-14 4:29:55 PM] [^] Main concerns: At our meeting on December 8, 2011 with the Environmental Assessment Office representatives, it was suggested that if the Ajax mine creates a negative impact for the users of Stake Lake Observatory, rather than mitigation, the mining company could find it cheaper to move the observatory to a different location. This scenario is not considered by KAS as a probable or desirable option for the above reasons (see actual comment). We wish to work to maintain the facilities that we presently have. In order to do that, the KAS would like to have: 1) A detailed description of what the proponent is going to do to address light pollution; 2) A detailed description of the metrics that are to be used to measure the impact that a) light pollution b) dust and c) additional night time vehicular traffic on the Lacey Le Jeune Road created by the mine's operations will have on the public's and the KAS's use and enjoyment of the Stake Lake Observatory and the KAS's on-going dark sky preserve project; 3) A separate section in the Draft Information Requirements document dedicated to addressing the economic, environmental, and social impacts of the light pollution created by Ajax Mine; and 4) An acceptable agreement with a mitigation strategy with Ajax Mine in place before the mine is operational, in the event that the impacts of light pollution created by Ajax mine on the use and enjoyment of the Stake Lake Observatory are or become unacceptable to KAS.	dAIR comment	General	Dark Sky	8.3	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS.	
625	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	7.7 – Housing 1. What studies have been or will be done to assess how the mine will influence the existing night-time darkness quality at our families' residences, especially during cloud cover, as well as those in the Kamloops city area? 2. Will a request for a night-time sky/line of sight modeling instruments to be placed on our property and that of the influenced Kamloops city areas? Will this be accommodated to provide appropriate data prior to Ajax mine development?	dAIR comment	General	Dark Sky	8.3	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS.	

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1166	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>8.4.1 third bullet will property owners and residents be included as "stakeholders"?</p> <p>a. As a possible effect for the loss of dark sky in the area surrounding the mine, will the AIR require the proponent to commission a study of the residual effects to community well being of the loss of night rest/sleep?</p> <p>b. To support the stated "scientific/professional knowledge" will the proponent be required to work with the UBC sleep clinic or other professional body to determine a baseline study of rest/sleep disturbances?</p> <p>c. Will the AIR further require that the proponent then do follow up studies at perhaps, bi-yearly intervals, using a professional body to determine how the rest/sleep disturbances may increase as the spatial boundaries of the open pit and attendant lighting increase?</p>	dAIR comment	General	Dark Sky	8.3	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS. Rest/sleep disturbance will not be a component of the dark sky study.	
1456	339	4-Apr-12	Personal Information Withheld		<p>Sec. 8.4.1 Third bullet: Will the AIR require that "stakeholder" will include individual residents of the area?</p> <p>a) As a possible effect of the loss of dark sky in the area surrounding the mine, will the AIR require the proponent to commission a study of the residual effect to community well being of the loss of night rest/sleep?</p> <p>b) To support the stated "scientific/professional knowledge, will the proponent be required to work with the UBC Sleep Clinic or other professional body to determine a baseline study of rest/sleep disturbances?</p> <p>c) Will the AIR further require that the proponent then do follow up studies at perhaps, bi-yearly intervals, using a professional body to determine how the rest/sleep disturbances may increase as the spatial boundaries of the open pit, and attendant lighting, increase?</p>	dAIR comment	General	Dark Sky	8.3	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS. Rest/sleep disturbance will not be a component of the dark sky study.	
24	13	7-Feb-12	Dianne Kerr	Kamloops, BC	<p>1 Visual Impact The visual impact of this project will be horrific. The size of the tailings pile, visible from the entrance to Kamloops on the Coquihalla Highway, will be overwhelmingly ugly. The visual of the huge open pit will be similarly an overwhelming blight on a previously beautiful landscape. Anyone considering this proposal should have to have driven by the Highland Valley open pit when it was operating at its height to fully grasp the visual impact of this devastation. That impact will, in this case, be felt at the gateway to our City. It will affect the City image. Kamloops has worked hard to create an image of itself as "The Tournament Capital of Canada", as a university community and as a community with diverse recreational and cultural opportunities. We are finally beginning to see the receding of the reputation we had as "that stinking pulp mill town". Our growth in tourism will take a backward step. Whatever will be the plan for mitigation of this "moonscape", the reality is it will not be undertaken for a very long time, and the people in Kamloops will have to live with the unmitigated aesthetic nightmare for many years. Without a performance bond, the City may have to live with it forever if the company does not, for whatever reasons, honor the reclamation requirements.</p>	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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29	13	7-Feb-12	Dianne Kerr		Light. We heard the concerns of the astronomy groups with respect to the destruction of the black night sky they require for the observatory they have just built in the vicinity.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS.	
34	13	7-Feb-12	Dianne Kerr		5. Economics The scope of the assessment should include consideration of the following factors: a) Visual Impact There is an economic value to the visual impact on the City related to its future ability to attract tourism, long term residence in the community, and the location of other business not compatible with this mining operation.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The Application/EIS will include a consideration of potential impacts of the Project on Kamloops tourism and recreation, a component of which would be a visual impact study.	
65	25	7-Feb-12	Gary Jung	Kamloops, BC	I understand that the North Waste Rock pit will be 140 metres high and is 1.5 km from the Pineview Valley area which is 60 metres high. My concern is, will my Pineview neighbourhood have this waste rock in plain sight? And how will you minimize the impact of having this ugly mess in plain view? I also understand that the Tailings Storage pit will be 150 metres high and it is adjacent to the Coquihalla Highway, and therefore this ugly mess will also be 'in your face'. My concern is how will you be minimizing this ugly mess from plain view? As part of the assessment process I would like to see conceptual drawings of how the new improved views of both the North Waste Rock pit and the Tailings Storage pit will look like after corrective action has been taken. It would be nice if these conceptual drawings were poster size and of high quality so that we don't have to guess about these things rather than depend on the razzle dazzle of electronic presentations. Thanks and I look for to your positive response.	dAIR comment	Ajax open pit waste rock management facilities	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	
69	27	7-Feb-12	Graeme Hope		4. A complete visual evaluation should be part of the process, using well accepted landscape models and techniques.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	

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152	65	8-Feb-12	Alan Havisto	Kamloops, BC	10. What level of light can we expect in Aberdeen, Knutsford, or Pine Valley? 11. Will tailings piles extend past the height of the hills, and will there be lost daylight or sunlight to areas? If there is leaching from the tailings pond is there the potential for acid rain?	dAIR comment	waste rock management facilities TSF	Visual Impact/Aesthetic Features	8.4	This information will be included in the Application/EIS. KGHM Ajax Mining Inc. (KAM) does not plan to study precipitation chemistry as emissions of appreciable quantities of acidifying emissions (oxides of sulphur and/or nitrogen) are not expected to occur.	
162	67	8-Feb-12	Personal Information Withheld	Kamloops, BC	Visual impact, especially of the ten story slag heap	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	
194	77	10-Feb-12	Personal Information Withheld		Will the public be shown the models used to do the studies	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	
204	79	10-Feb-12	Personal Information Withheld		(6) aesthetics of tailings from Coquihalla Highway	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	
209	79	10-Feb-12	Personal Information Withheld		(4) light pollution mitigation measures and monitoring	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	This information will be included in the Application/EIS.	

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219	80	10-Feb-12	Personal Information Withheld		(10) Levels of light in Aberdeen, Knutsford, Pine Valley (11) Will tailings piles extend past the level of the hills, Will there be lost daylight or sunlight, if there is leaching from the tailings pond is there the potential for acid rain	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	This information will be included in the Application/EIS. KGHM Ajax Mining Inc. (KAM) does not plan to study precipitation chemistry as emissions of appreciable quantities of acidifying emissions (oxides of sulphur and/or nitrogen) are not expected to occur.	
245	85	10-Feb-12	Personal Information Withheld		Section 10.3 Noise, Vibration, Light Pollution- what level of noise will be heard by the residents (of Aberdeen and Sahali); what studies have been done on the decibel levels at different distances from an open pit mine of this magnitude during all phases of operation – where there will be blasting, intermittent backing up of trucks etc. Will a large proportion of residents who live within a few kilometres of the mine suffer from sleep deprivation?	dAIR comment	General	Visual Impact/Aesthetic Features Noise and Vibration	8.4 10.4	These issues will be discussed in the Application/EIS.	Noise and Vibration - 3.3.4.2
260	87	10-Feb-12	Personal Information Withheld		light pollution	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	This will be assessed in the Application/EIS.	
262	87	10-Feb-12	Personal Information Withheld		visual impact unnatural appearance and conditions of reclaimed areas	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	

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299	95	13-Feb-12	Gordon Kerfoot	Kamloops, BC	(3) With respect to waste rock storage piles, no piles should be visible from any point in the Aberdeen neighborhood. Property owners did not purchase their homes in Aberdeen to view industrial waste. Certainly if the piles are visible, excessive dust and noise will encroach on the neighborhood as well regardless of promised controls.	dAIR comment	Waste rock management facilities	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The rationale for the selection of project components will be presented in the Application/EIS, along with an analysis of technically and economically feasible alternatives.	
303	96	13-Feb-12	Personal Information Withheld	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (17 of 77) [2012-02-24 3:07:19 PM] [^] I have multiple concerns with traffic, dust, loss of grasslands, riparian impacts etc. that I have little faith that mitigation will alleviate. My major concern is with the huge tailings pile between two highways that will be a terrible eyesore and major source of dust through our valley. Please make us a model so the people of Kamloops can see what is really planned for this major entry to our city. The only reason Ajax hasn't made one yet is that they know the response it will get.	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	The Application/EIS will include a consideration of potential impacts of the Project on Kamloops tourism and recreation, a component of which would be a visual impact study. The AIR will be revised to indicate that a physical 3D model has been produced and made available for public viewing.	
353	112	20-Feb-12	Personal Information Withheld	Kamloops, BC	Light pollution. how much light will be released 24 hours per day?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	This information will be included in the Application/EIS.	
449	130	28-Feb-12	Rob Wycherley	Kamloops, BC	8.7 VISUAL IMPACTS On page 16 of the Proposed Ajax Mine Project booklet, the proponent states that this section of the application will ..." Assess the potential direct and indirect effects of the proposed project on visual and aesthetic resources." 7. Who will assess these potential direct and indirect effects? 8. When will this be done? 9. What steps will the EAO or the CEA Agency take, to assess the accuracy and completeness of information provided by the proponent? 10. Will the proponent be using models in order to assess this information and these effects? 11. As models will not be able to predict the emotional, psychological or social response of the community at Kamloops to the presence of the mine, will the EAO require comparative studies taken in respect of: Highland Valley Copper and Logan Lake; The Rio Tinto Mine and Salt Lake City; The Pima Mission Mine and Phoenix; and any large mine complexes near large communities in Australia or South America? 12. If not, why not, in light of the inability of models to predict these effects?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The Application/EIS will provide commentary regarding community health and well-being. Where comparable conditions exist with respect to other operations, insights from these will be used to inform the current Application/EIS. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
478	138	2-Mar-12	Personal Information Withheld	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (69 of 77) [2012-03-06 2:47:31 PM] [^] I want to ensure that the following studies on undertaken in regards to the Ajax Mine Project: 1) Impact of lighting mine for 24 operations on the night skies.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	This information will be included in the Application/EIS.	

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480	138	2-Mar-12	Personal Information Withheld	Kamloops, BC	3) Is landscape development by berming and plant material going to occur to lesson visual impact of mining operations?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. On-going reclamation activities will be included in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. Actual revegetation treatments and species selections will vary by reclamation treatment unit and end land use objectives for specific areas.	
484	141	3-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (67 of 77) [2012-03-06 2:47:31 PM]</p> <p>Draft AIR Section 8.7 Visual Impact</p> <p>The proponent has now had two public event opportunities since June 2011 to provide accurate, visual representation of the project in three dimensional context to the adjacent community. The public was again denied an opportunity to see what the open pit mine would look like in relative scale (depth of pit, height of rock pile, tailings and land coverage) as compared to the City. The two dimensional overlays presented by the proponent have remained unchanged from their initial information release in early 2011, yet members of the public have since succeeded in producing 3D type images on their own based on the proponents data.</p> <p>The primary purpose of the Feb 6-7, 2012 open house was to inform the public on issues of concern. A more informed public would in theory be better able to provide focused comments to the EA office to assist in the refinement of the draft AIR.</p> <ul style="list-style-type: none"> • The proponent has failed in its obligation to adequately inform the public of this valued component during the 60 day comment period, and • The ability of the public to provide informed comment on Section 8.7 of the draft AIR within the 60 day review window has therefore been compromised. <p>It is not clear how the yet to be completed video promised by the proponent is to be shared with the public now that the open house opportunity has passed.</p> <p>Section 8.7.2</p> <p>Visual impact assessment should include sight lines from the air in addition to those noted from ground based vantage points. The dramatic views of open pit mines from above, particularly when close to urban centers are widely circulated through on-line media and may influence the "outside worlds" perception of Kamloops, potentially impacting tourism, investment and property valuation interests in particular. The analysis of effects should not be solely based on a qualitative approach as suggested from holding key person interviews. No information is provided as to what "key person interviews" actually means although it suggests a basis in subjective opinions being provided. Qualitative data can not be directly or easily compared to the proponents monetary benefit approach for the project. Quantitative approaches such as Contingent Valuation and Hedonic modeling should be required of the proponent to characterize non-markets goods such as visuals in terms of monetary value. he EAO must provide for independent expertise in auditing the proponents quantitative study methodologies and interpretation of results. The Province should engage third party consulting firm to carry out this task.</p>	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	<p>The Application/EIS will include a consideration of potential impacts of the Project on Kamloops tourism and recreation, a component of which would be a visual impact study. Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Application/EIS.</p> <p>A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.</p>	
499	145	3-Mar-12	Personal Information Withheld	Kamloops, BC	3. The mine site and pits need to be screened from the Highway 5 corridor as it will not be an attractive south entrance to Kamloops.	Project comment	General	Visual Impact/Aesthetic Features	8.4	The Application/EIS will include a consideration of potential impacts of the Project on Kamloops tourism and recreation, a component of which would be a visual impact study.	
504	146	4-Mar-12	Personal Information Withheld	Kamloops, BC	* What measures would be taken by the mine to eliminate ANY light pollution from the mine at night?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	This information will be included in the Application/EIS.	

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508	146	4-Mar-12	Personal Information Withheld	Kamloops, BC	* The mine would be visible both to those entering Kamloops by the highway and to those flying overhead on Vancouver flights. This would not be a desirable "first impression" for visitors to our city. How might this eyesore impact other industries in Kamloops such as tourism and recreation?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The Application/EIS will include a consideration of potential impacts of the Project on Kamloops tourism and recreation, a component of which would be a visual impact study. It will also cover topics related to visual and aesthetic resources using standard methodologies.	
541	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Section 8.0 visual and aesthetic resources: •1. Who will assess these potential direct and indirect effects? When will this be done? What steps will the EAO or the CEA Agency take, to assess the accuracy and completeness of information provided by the proponent? Will the proponent be using models in order to access this information and these effects? As models will not be able to predict the of the community at Kamloops to the presence of the mine, will the EAO require comparative studies taken in respect of:• Highland Valley Copper and Logan Lake;• The Rio Tinto Mine and Salt Lake City;• The Pima Mission Mine and Phoenix; and • any large mine complexes near large communities in Australia, New Zealand or South America? If not, why not, in light of the inability of models to predict emotional, psychological or social effects?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The Application/EIS will include a consideration of potential impacts of the Project on Kamloops tourism and recreation, a component of which would be a visual impact study. It will also cover topics related to visual and aesthetic resources using standard methodologies. To the extent that they are relevant, other operations that have similarities to the Project (e.g., close to urban centres) will be considered.	
542	147	5-Mar-12	Kevin Cowan	Kamloops, BC	2. key person interviews - Who are key persons as described here? How are they determined and by whom? Are these key persons individuals or representatives of body such as Interior Health, the City of Kamloops and the Regional District? Will individuals who declare a social or pecuniary interest in the mine be granted standing as a key person? If not, why not? If so, will there be a limit on the number of key persons with whom these discussions will take place?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Insights are expected to come from key person interviews, including professionals in the medical, university and other fields. The rationale for the selection of project components will be presented in the Application/EIS, along with an analysis of technically and economically feasible alternatives.	
553	148	6-Mar-12	Gisela Ruckert	Kamloops, BC	^ http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html [2012-03-08 4:27:27 PM]^ I am concerned about the visual effect of having the tailings heap right beside the Coquihalla at the south entrance to Kamloops, especially since I am under the impression that growing any vegetation on this material would be impossible. I would like to see 3-D models/images of this tailings storage facility in various stages of mine life. In addition, I would like to see alternate locations with a lower impact on the entrance corridor investigated and costed.	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	

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565	152	7-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (67 of 69)[2012-03-14 4:29:55 PM]^</p> <p>Re: Application Information Requirements for proposed Ajax Mine, Kamloops BC</p> <p>I am requesting that the applicant be required to provide 3-D modelling and mapping for the proposed mine. The two dimensional mapping provided to date does not give the average citizen the scale or mass of the proposed mine and hence are at a disadvantage at assessing it's impact on their community. There should be 3 dimensional handouts showing views as follows:</p> <ul style="list-style-type: none"> - driving towards Kamloops in the Coquihalla highway. - sitting in a boat on Jacko Lake. - driving west on Goose Lake Road. - cresting the hill, on foot, from the Aberdeen housing area. <p>With today's technology this should not be too onerous a request and will give the ordinary resident of Kamloops and Knutsford a much better opportunity to visualize what is proposed and it's impact on the environment.</p>	dAIR comment	traffic	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	
579	157	8-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>The draft AIR acknowledges "Closure and Reclamation" but only as a final process. I didn't notice anything regarding on-going reclamation or on-going beautification during the life of the mine. I noticed some discussion regarding seeding as part of the reclamation, but nothing regarding planting (shrubs, trees, etc.). Since the tailings pile will be visible from the Coquihalla Highway (entrance to Kamloops) contouring of the tailings pile would be preferable with tree planting. Also the LLJ Road will pass between the tailings pile and waste rock piles, what will be included for this area to mitigate the aesthetics?</p>	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	On-going reclamation activities will be included in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. Actual revegetation treatments and species selections will vary by reclamation treatment unit and end land use objectives for specific areas.	
673	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	<p>2. Winter Light:</p> <ul style="list-style-type: none"> • We are appalled that there have not been any 3D models available for viewing by this stage of the environmental review. Daytime sunlight has been linked to human mental and emotional health. Will the Ajax project have any effect on daytime sun for any of the residents of Kamloops if it is approved? 	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	<p>The potential effects of the project infrastructure on the amount of sunlight on neighbouring properties will be assessed in the Application/EIS.</p> <p>A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.</p>	
675	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	<p>4. Aesthetics/Noise:</p> <ul style="list-style-type: none"> • Mental and emotional health is influenced by outdoor beauty and peaceful surroundings. What impact will Ajax mine have on the beauty and the peacefulness of our community? 	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The Application/EIS will consider visual aesthetics, noise and vibrations in the context of community health and well-being.	
708	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	<p>4. What does the mining proponent intend to do to keep light pollution down? What monitoring will be in place prior to the mine opening?</p>	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS.	

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710	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	6. How does the mining proponent intend to mitigate the ugly sightline effect of a mountain of tailings adjacent to the Coquihalla Highway leading into Kamloops?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	
747	212	22-Mar-12	Kevin Buxton	Kamloops, BC	• Proponent must provide, for open public use, a three-dimensional rendering of the proposed project suitable for viewing in Google Earth or other similar medium (suggestion is .KML file format). This will ensure that members of the public are able to view the project spatially from any chosen virtual location. This type of rendering must not be limited to fixed images or videos produced for pre-chosen static viewpoints. The importance of this for allowing the general public to fully realize the visual impacts of the project cannot be overstated. Note - this also applies to Part B, Section 8.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
778	220	23-Mar-12	Jordan Lawrence	Kamloops, BC	Can I be guaranteed that I won't see or hear any of the basting or heavy machinery that would be operational only be a few kilometers from my house?	dAIR comment	General	Visual Impact/Aesthetic Features Noise and Vibration	8.4 10.4	Information on the noise study methodology and results will be provided in detail in the Application/EIS. Visual impacts will be assessed as a VC, as described in the AIR.	Noise and Vibration - 3.3.4.2
847	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	The proposed tailings storage facility, located between the Coquihalla Highway and Lac Le Jeune Road, is the most prominent visual blight given the public roads on either side, the lack of foreground landscape, and the sheer scale of the man-made landform in contrast with the surrounding natural landscape. The relocation of the potential tailings storage facility to east of Lac Le Jeune Road would help mitigate the visual impact of the most pronounced landform and reduce the perceived footprint of the mine. It would also allow for continued year round public recreation on Inks Lake and surrounding area. A reconfiguration of the mining plan may require a reduction in product yield.	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The rationale for the selection of project components will be presented in the Application/EIS, along with an analysis of technically and economically feasible alternatives.	

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894	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	• Potential esthetic impacts are starting to be taken very seriously with respect to a lot of developments around the world as the effects on tourism, the culture of an area, and civic pride have a huge impact on health and well being of occupants. Evaluation of other locations where people from other parts of Canada like to retire and the effect that the spending of their savings have on a community should be undertaken. The mine would probably transform the Kamloops community to some extent. Obtaining good baseline data may be very useful if the mine does go ahead so that other mine sites proposed in and adjacent to similar communities with a high esthetic value can be prevented from consideration sooner.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The assessment will include a consideration of community development and planning and what effects the Project may have. Community image and branding will be assessed as part of the Community Well-Being or Economic Diversification Vcs.	
981	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will the mine be visible from central Kamloops?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	This information will be provided in the Application/EIS.	
989	265	27-Mar-12	Personal Information Withheld	Kamloops, BC	We are also concerned about the amount of light at night that will emanate from the mine and how it will lighten up the Aberdeen neighbourhood and the plan to keep it to a minimum.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS.	
990	265	27-Mar-12	Personal Information Withheld	Kamloops, BC	We are additionally concerned about the sightlines from the Aberdeen community and do not want to see any evidence of mine operations from Aberdeen and ideally from the rest of Kamloops.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	
998	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	Light- the constant light pollution of the night sky from 24 hour operations.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS.	

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1069	275	27-Mar-12	Frances Vyse	Kamloops, BC	<p>8.7 Visual Impact</p> <p>A long ski season has meant many opportunities for driving through the proposed mine area- and to study the potential visual impacts of this proposal. How do you propose to hide all the various mining activities from those driving along Lac Le Jeune Rd? It is presently a pleasant rural drive for the many people who live along the road or use it to access the many recreational opportunities south of Kamloops. Negative changes beside or visible along the road as a result of the mine could greatly impact the numbers of people going to Stake Lake XC ski trails, a popular volunteer run facility. How do you propose to minimise the impact of the tailings facilities on people driving up and down the Lac Le Jeune Rd? Although situated beside the Coquihalla Hwy, the height of the facility is such that it would soon be visible from a long stretch of Lac Le Jeune Rd. How will the rock covering be disguised so it will merge with the surrounding landscape? Impossible? How will the dam in Inks Lake area be designed so it fits into the present landscapes? How will it be finished so it merges into the surrounding landscape? And rehabilitated?</p>	dAIR comment	waste rock management facilities	Visual Impact/Aesthetic Features	8.4	<p>Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. Details of post-closure activities will be presented in the conceptual reclamation plan.</p> <p>Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.</p>	
1106	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	<p>8.7.2 Visual Impact -The assessment of visual impacts should also address the impacts from the center of Jacko Lake for recreational anglers as well as the visual impacts on persons traveling along the Coquihalla highway.</p>	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	<p>The dAIR will be revised to reflect an additional viewpoint from Jacko Lake in the visual impact assessment.</p>	
1142	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>7. what will they view look like from sun rivers; with the tailing ponds being so high in height?</p> <p>30. how will the AJAX mine change the sitelines and horizon view lines from dallas?</p> <p>31. how will the AJAX mine change the sitelines and horizon view lines from batchelor?</p> <p>32. how will the AJAX mine change the sitelines and horizon view lines from Raleigh?</p> <p>33. how will the A JAX mine change the sitelines and horizon view lines from sun rivers?</p> <p>34. how will the AJAX mine change the sitelines and horizon view lines from brocklehurst?</p>	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	<p>Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.</p> <p>Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.</p>	
1149	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>37. what will the night sky of Kamloops look like after the AJAX mine is functioning?</p>	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	<p>The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS.</p>	

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1220	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will the mine be visible from central Kamloops?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	This information will be provided in the Application/EIS. Visual Impact has been identified as a VC - please see the AIR for a description of the proposed methodology.	
1226	305	4-Apr-12	Kenneth Graf	Kamloops (Aberdeen), BC	3) From the topography I don't believe that residence in the Aberdeen area will be able to see the mine operations or waste dumps, however some residence along Highway 5, the Knutsford area, Goose Lake road and Edith Lake road will have the visual impact of the mine. I suggest that early planting of several rows of coniferous trees along the mine perimeter or preferably on high ground between the mine and property owners in these areas could reduce the visual impact, provide some barrier to sound, provide habitat for wildlife and reduce the effect of wind born dust.	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings and mitigation measures will be included in the Application/EIS and will be used as part of the Visual Impact Assessment.	
1231	306	4-Jan-12	Personal Information Withheld		Further to my conversation with your secretary on January 4, 2012 I stressed to her the concerns I have with this mining project relative to the close proximity boarding my property for one and a half miles on the southern boundary and one mile on the western boundary. My concerns are as follows 1. The east west rock dump site that is approximately 1.8 km wide by 1.2 km in length straddles my south boundary and as per the printout on your website it was to be 90 meters high and now I am informed it will be 150 meters high, approximately 500 feet and this will be a huge visual impact to the 400 acres that is out of the agricultural land reserve and has been approved by the City of Kamloops under an OCP in 2010. We also have had approved a housing and village development of approximately 60 hectares in November 2011. This development is within a half a mile of your present east waste rock dump.	dAIR comment	waste rock management facilities	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs.	
1263	312	4-Apr-12	Donovan Cavers, City Councillor	Kamloops, BC	• If approved will the dry tailings "hill", set to be located adjacent to the Coquihalla hwy (which carries many tourist visitors to our City), be shaped in a way that blends it into the contours of the surrounding area?	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. Details of post-closure activities will be presented in the conceptual reclamation plan.	

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1292	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	<p>3. What are the impacts to current and future residents and wildlife from light pollution?</p> <p>a. What is the size of the lighting system?</p> <p>b. Lumen output generated?</p> <p>c. At what distance will this light be visible?</p> <p>Again this subject is being assessed for impacts to neighbourhoods but not to humans or wildlife. It is widely recognized that continuous or disrupted light patterns can have severe health effects to both humans and wildlife, including nocturnal animals. This subject needs to be added to the draft AIR for assessment.</p>	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Effects of additional lighting on the environmental VC will be addressed. Information on lighting requirements and mitigation measures will be provided in the Application/EIS.	
1319	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		<p>8.7 Visual Impacts</p> <p>Visual impacts could have economic effects and social effects, so the assessment suggested here should be incorporated into 7.0 and 8.0 also. Flights into Kamloops from Vancouver and other southern locations could allow visitors to see the development site. People travelling the Highway #5 and Lac le Jeune Road will see the development. Will it dissuade people from visiting or moving to Kamloops? These effects need to be quantified. Again, this is where the 3-D models could be useful. They could be installed in Visitor Centers depicting the site lines visitors would have upon entering the community from the highway. They could be put in the departure lounge of the Kamloops airport. Surveys of people could be undertaken to ask how these developments might impact their desire to visit or relocate to the community. Concurrence with the community on what the survey questions are would be appropriate.</p>	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The assessment will include consideration of potential negative perceptions of the City resulting from the Project. The methods will be largely qualitative with insights gleaned from knowledgeable local people. Surveys fall outside the current scope of the assessment.	
1340	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	<p>3.7.1 Tailings Storage Facility</p> <p>it will be highly visible to the thousands of travellers that pass through and enter into the City on the Coquihalla Highway each year, as well as citizens of Kamloops on many of the City's major transportation arteries. The proposed TSF will also damage and destroy a large area of ponderosa pine forest and grasslands in good condition. Once again, it is critical that the proponent provide the public with a rationale for the selection of this facility site so the decision can be assessed by those that will be most impacted by it.</p>	dAIR comment	TSF	Visual Impact/Aesthetic Features	8.4	Conceptual drawings will be included in the Application/EIS and will be used as part of the Visual Impact Assessment. The rationale for the selection of this facility site will be presented in the Application/EIS, along with an analysis of technically and economically feasible alternatives.	
1382	330	4-Apr-12	Personal Information withheld		light pollution, will the skies be lit up each night?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	This information will be included in the Application/EIS.	
1429	338	4-Apr-12	Personal Information Withheld	Kamloops	<p>Shading:</p> <p>• How much sunlight will we lose in the winter? (We live on an east facing slope, therefore the amount of sunlight in our yard is reduced in the winter, due to the low angle of the sun. The east waste rock pile is so high that it will probably further reduce the amount of available sunlight in the winter. In addition to less enjoyment, our heating costs could go up, if there is less sunlight shining on our house. This will be the situation for many homes in Aberdeen.)</p>	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The potential impacts of project components on shading of neighbouring lands will be discussed in the Application/EIS.	

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1430	338	4-Apr-12	Personal Information Withheld	Kamloops	Light pollution: • How much extra light will we see at night in Aberdeen and other areas?	dAIR comment	General	Visual Impact/Aesthetic Features	8.4	The proponent is in contact with the Kamloops Astronomical Society and will develop dark sky studies, with results presented in the Application/EIS.	
3	1	11-Jan-12	Kamloops Stockmen's Association	Kamloops, BC	3. Grasslands (a) Grazing Levels (b) Nutrient Contents of Grass 4. House and Building Structures 5. Fencing and Cattle Movement (a) Underpasses (b) Corrals 7. Hay (a) Production Levels (b) Metal Content	dAIR comment	General	Land and Resource Use	8.5	(a) Grazing levels – vegetation monitoring transects will be established in grassland/range areas, including both areas that will remain undisturbed and areas that will be disturbed by mining activities. These sites will be used to record and monitor species composition (% cover of the various grasses, forbs and woody species) and biomass (kg/ha of dry matter production). This will provide baseline pre-disturbance reference information on grassland composition and productivity. As disturbed areas are reclaimed, additional transects will be established and similar analyses will be conducted. Establishment of a number of small grazing enclosures in undisturbed grassland areas may also be used to evaluate the productivity of the grassland in the absence of the influence of grazing. (b) Nutrient content of grass – Samples will be collected from each of the vegetation transects and analyzed for nutrient content (forage analysis) as well as metals concentrations as per the requirements of the Reclamation Code. 4. House and Building Structures – a vibration study will assess mining impacts on house and building structures. 5. Fencing and cattle movement - this will be addressed to the extent that, where livestock grazing is identified as an end land use, the plan will identify the need for fencing, gates and watering locations as part of an overall planned grazing and livestock management system. Access management and safety for livestock, people and equipment will need to be addressed as well. 7. Hay – as per Grazing Levels above.	
6	1	12-Jan-12	Kamloops Stockmen's Association	Kamloops, BC	8. Livestock (a) Production (b) Reproduction (c) Conception (d) Air Quality and Dust Level Monitoring	dAIR comment	General	Land and Resource Use	8.5	(a) Production, (b) Reproduction and (c) Conception – The preliminary study protocol will involve retrospective interviews and surveys with ranchers to learn about their operations and review their historic records, and will not be a scientific endeavour as there is huge variability in the genetic potential of the various cattle herds that may be involved and the pre-existing range conditions, as well as significant variation in the management capabilities of the ranchers. Where available, baseline information on reproduction rates, calf survival rates, average weight gains (cows, calves, yearlings), herd health (epidemiology) and potentially even metals levels in livestock tissues (meat cuts and organs) will be obtained to identify trends and potential livestock and human health impacts, especially for cattle that have been grazing on the existing revegetated waste rock facilities associated with the original Ajax mine workings. (d) Dust impacts to vegetation and mitigation measures will be identified in the conceptual reclamation plan. These will be based partly on predictive modeling of potential dust deposition patterns and concentrations associated with mining activities.	

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12	7	2-Feb-12	Personal Information Withheld		Please see ' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (23 of 23) [2012-02-24 3:11:30 PM]' for the complete comment. The major concerns identified were: (1) Visual impact of east waste rock dump straddling property; proximity to 400 acres outside of the agricultural land reserve and approved under the City of Kamloops OCP and housing and village development.	dAIR comment	waste rock management facilities	Land and Resource Use	8.5	Project Land Use as it relates to the City of Kamloops OCP and the ALR will be discussed in Section 8.5 of the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
30	13	7-Feb-12	Dianne Kerr		c) Recreation - The location of the proposed mining operation has been a favorite recreational area for many local residents. What will be the effect on those recreational pursuits if this operation goes ahead? Access as well as the ability of this area to continue to offer the same quality of recreational opportunities are both concerns.	dAIR comment	General	Land and Resource Use	8.5	The impact of the project on recreational opportunities will be assessed in the Application/EIS.	
44	16	7-Feb-12	Mike Lutz	Kamloops, BC	I am concerned about the proposed Tailings Storage Facility. Many people use this area around inks lake road and inks lake for recreational uses. People play hockey on inks lake in the winter, paintball, motocross, run their pets not to mention the agricultural use from livestock. The proposed process water storage and tailings storage would have a great impact on this. Since most of this area is crown land I think the mine should be required to set aside some land and develop it into a public recreation space of some kind. Since access will be affected to the existing areas. It seems like more public use land gets lost to commercial development.	dAIR comment	TSF	Land and Resource Use	8.5	The impact of the project on recreational opportunities will be assessed in the Application/EIS.	

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49	19	7-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (8 of 23) [2012-02-24 3:11:29 PM] ^ Into what areas does the City of Kamloops see city development (residential and commercial growth expectations). This information, shown as an overlay on the map of 23 year mine projection would help indicate possible land use conflicts. Further, the existing area map needs to include city boundary lines.	dAIR comment	General	Land and Resource Use	8.5	The impact of the project on the city boundary will be assessed in the Application/EIS.	
91	34	Public comment form from the Feb 6&7 Information Session	Doug Haughton	Knutsford, BC	Agricultural Land Reserve: All of the land in question is within the agricultural land Reserve and should stay in the reserve and not allowed to be excluded. An operating permit should be granted to the mine to remove and store the topsoil, and also remove the ore deposit, and then the land should immediately be reclaimed to the best of the mine's ability. Exclusion of the land from the ALR would totally end the future agricultural production of this property. As a rancher myself, we must live under these regulations to operate a working gravel pit.	dAIR comment	General	Land and Resource Use	8.5	The proponent is in discussion with the Agricultural Land Commission to address the use of lands within the Agricultural Land Reserve.	
181	73	9-Feb-12	Personal Information Withheld	Kamloops, BC	3. Baseline studies must be done on surrounding hayfields and pastures in order to have documentation in the event of pollution from dust drift, or leaching from the tailings storage area. 4. The spread of noxious weeds is a huge concern, for once the topsoil is disturbed and vehicles travel all over, the weeds spread easily, and it takes years to repair the damage. 6. What is the reclamation schedule of the Tailings area and waste dump? These areas need stewardship for up to 20 years after the pit is closed, for this is a semi-arid climate and vegetation takes a long time to get established.	dAIR comment	General	Land and Resource Use	8.5	As per Mines Act requirements, pre-disturbance vegetation studies will be conducted to determine baseline productivity (biomass), diversity (species composition) and metals content. Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan. The reclamation schedule will be presented in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. As per section 3.18.1 and 3.18.2 of the dAIR, tailings reclamation will occur following mine closure, while waste rock facilities will be reclaimed concurrently. Control of invasive plant species will be included in the Wildlife/Vegetation Monitoring Plan, as currently described in the AIR. Please see Section 3.18 of the AIR for clarity on components of the reclamation plan.	

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183	73	9-Feb-12	Personal Information Withheld	Kamloops, BC	8. Baseline studies on the health of the livestock being raised for human consumption must be done. This needs to include fertility, weaning weights of calves, rate of gain, and the safe levels of heavy metals in the meat.	dAIR comment	General	Land and Resource Use	8.5	<p>Baseline studies will involve retrospective interviews and surveys with ranchers to learn about their operations and review their historic records, and will not be a scientific endeavour as there is huge variability in the genetic potential of the various cattle herds that may be involved and the pre-existing range conditions, as well as significant variation in the management capabilities of the ranchers. Where available, baseline information on reproduction rates, calf survival rates, average weight gains (cows, calves, yearlings), herd health (epidemiology) and potentially even metals levels in livestock tissues (meat cuts and organs) will be obtained to identify trends and potential livestock and human health impacts, especially for cattle that have been grazing on the existing revegetated waste rock facilities associated with the original Ajax mine workings.</p> <p>Baseline studies will involve retrospective interviews and surveys with ranchers to learn about their operations and review their historic records, and will not be a scientific endeavour as there is huge variability in the genetic potential of the various cattle herds that may be involved and the pre-existing range conditions, as well as significant variation in the management capabilities of the ranchers. Where available, baseline information on reproduction rates, calf survival rates, average weight gains (cows, calves, yearlings), herd health (epidemiology) and potentially even metals levels in livestock tissues (meat cuts and organs) will be obtained from ranchers to identify trends and potential livestock and human health impacts, especially for cattle that have been grazing on the existing revegetated waste rock facilities associated with the original Ajax mine workings.</p>	
229	82	10-Feb-12	Personal Information Withheld		<p>(6) Soil testing and forage analysis in areas adjacent to tailings compound should be evaluated throughout the planning and operation of the mine – loss of production or quality needs to be incorporated into the plans and method for compensation determined</p> <p>(7) Wildlife numbers and movement should be studied prior to operations, mitigation measures for effect of translocated wildlife on neighbouring ranchers e.g. wildlife fencing, compensation for damages</p> <p>(8) Operations should be designed to allow for reclamation of area back to useable agricultural land with safe forage and safe surface water; if not possible, additional land should be relegated to ALR for agricultural use</p> <p>(9) Weed control of disrupted lands required prior to and during operations and reclamation phase</p> <p>(10) Mitigation measures for loss of agricultural land, grasslands on ranchers and livestock production in the area.</p>	dAIR comment	General	Land and Resource Use	8.5	<p>As per Mines Act requirements, pre-disturbance vegetation studies will be conducted to determine baseline productivity (biomass), diversity (species composition) and metals content. Similarly, baseline soils data (morphological and chemical) must be submitted as part of the Conceptual Reclamation and Closure Plan. End land use will be identified in the reclamation and closure plan. Noxious and invasive plant management strategies will be included in the Conceptual Reclamation and Closure Plan to be included in the Application/EIS.</p> <p>The Wildlife/Vegetation Monitoring Plan will include an invasive plant management program during operations, as currently noted in the AIR. It will also include mitigation measures for potential effects of translocated wildlife on local property owners.</p>	
234	83	10-Feb-12	Personal Information Withheld		<p>(6) Dust affecting city reputation and tourism, and economy</p> <p>(7) Dust affecting fog at the airport, thus affecting the economy with airport closures</p> <p>(8) resolving dust and environment issues before the approval of the mine</p>	dAIR comment	General	Land and Resource Use Visual Impact/Aesthetic Features Air Quality	8.5 8.4 10.1	<p>City image, tourism and economy will be discussed in Section 8.7 of the Application/EIS in terms of land and resource use.</p> <p>Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. Business, Economic Diversification and Community Well-Being will also be assessed in the Application, as outlined in the AIR.</p>	Air Quality - 3.3.4.1

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246	85	10-Feb-12	Personal Information Withheld		Section 7.9.4 what effects will the Project have upon: recreation (Inks Lake, mountain biking, dog walking, hiking); wildlife, hunting – what will be the effect on these animals with the mine area being so heavily trafficked, since there is no way that they can escape easily from the winter location?; tourism – how will an open pit mine affect the Tournament Capital of Canada	dAIR comment	General	Land and Resource Use	8.5	The impact of the project on recreational opportunities will be assessed in the Application/EIS. The presence of the project on the branding of the city as the Tournament Capital of Canada will be assessed.	
298	95	13-Feb-12	Gordon Kerfoot	Kamloops, BC	I am an 18-year Kamloops Aberdeen resident and have the following comments regarding the Ajax Mine proposal: (1) With regard to negative social and health impacts, the assessment needs to strongly consider the fact that the proposed project is heavy industrial and will encroach on an existing fifteen to twenty year established neighborhood. The neighborhood is NOT encroaching on an existing industrial facility, and this is a very important distinction.	dAIR comment	General	Land and Resource Use Health	8.5 10	The identified concerns will be addressed in the Application/EIS.	
379	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	2. Local economy: a) what will be the effect on tourism and recreation? - local resident use of the area, lost tourism volume and dollars to the region	dAIR comment	General	Land and Resource Use	8.5	The impact of the project on recreational opportunities will be assessed in the Application/EIS. The presence of the project on the branding of the city as the Tournament Capital of Canada and on tourism dollars will be assessed.	
392	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	g) will Inks Lake still be usable for recreation...?	dAIR comment	General	Land and Resource Use Outdoor Recreation	8.5 8.6	Inks Lake will not be accessible for recreation. Please see the AIR for proposed studies to assess the effects of the project on recreational opportunities.	

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399	127	27-Feb-12	Personal Information Withheld	Aberdeen, BC	Are there alternate plans in place for how the mine is built? IE: the placement of waste rock facilities so they are not within 2 kms of neighbourhoods and schools.	dAIR comment	waste rock management facilities	Land and Resource Use	8.5 17.2	An analysis of technically and economically feasible alternatives for project components will be presented in the Application/EIS.	
448	130	28-Feb-12	Rob Wycherley	Kamloops, BC	8.5 LAND AND RESOURCE USE On page 14 of the Proposed Ajax Mine Project booklet, reference is made, in the last bullet point on the left-hand column, to interviews with potentially affected landowners. 1. Who are the potential landowners? 2. How were they identified, and by whom? 3. Is there an economic or pecuniary threshold which must be shown in order for the potential landowners to be heard on the issues? 4. If so, what is it and who determined this threshold? 5. What is the purpose to which the proponent proposes to put economic information that will be collected? 6. What conclusions are expected to be drawn from this information, and by whom? 7. If the conclusions are drawn by the proponent, what steps will the EAO or the CEA Agency take to ensure that these conclusions are accurate and reflect the view of all interested parties? 8. Will an individual or group of individuals be free to seek standing before the EAO and CEA Agency to ask questions and make suggestions in this regard? 9. If so, at what stage in the process will individuals be invited to make representations in this regard?	EAO/CEA Agency Process Comment	General	Land and Resource Use	8.5	The methodology for identifying affected landowners and for the social and economic assessment will be included in the Application/EIS. Agreed	
460	132	28-Feb-12	Heather Mewhort	Kamloops, BC	4. The mine will displace and destroy many areas where we enjoy recreational activities. For example, we like to kayak and fish on Jacko Lake. Every fall, my husband tramps the trails that surround Inks Lake hunting for deer and snowshoes the same area in winter. What are you planning to do to provide alternate untouched wilderness areas close to our home in which we may pursue our recreational activities?	dAIR comment	General	Land and Resource Use	8.5	The impact of the project on recreational opportunities will be assessed in the Application/EIS.	
535	147	5-Mar-12	Kevin Cowan	Kamloops, BC	14. section 7.2.6 - identify and describe reasonably foreseeable projects or activities that have the potential to interact with the proposed project. ... what information does the proponent ... have to show where the city of Kamloops will be able to grow, if at all, during the proposed life of the mine? 15. section 7.7 - As the public or other stakeholders are all homeowners adjacent to the mine, will these individuals all be given a voice in further assessment as holding special standing as a stakeholder in the approval process? If not, why not?	dAIR comment	General	Land and Resource Use	8.5	The city growth boundary will be considered in the land and resources assessment included in the Application/EIS.	

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570	156	7-Mar-12	Anne Grube	Kamloops, BC	Inks Lake -- This lake seems to have been omitted entirely from the draft document (unless I just missed it somehow). 9. Will Inks Lake be included in Section 8, using the same parameters as Jacko Lake? I note that (p. 117) "Jacko Lake will be included as a VC based on public and stakeholder input during the early consultation period." I participated in an early tour of the mine area, and it was stated at that time by some of us that Inks Lake has been the scene of family skating, bonfires, etc. for years. As a cross-country skier (but not a skater), I have many times observed these activities before I skied up the road to Jacko Lake--on our tour, it was suggested that Inks Lake was a "dead lake", but I have observed many birds on this lake, and have been told that sometimes trumpeter swans are seen here. (Note: please include cross-country skiers and hikers in "key person interviews" under 8.6.4 "Potential Effects of the Proposed Project and Proposed Mitigation") The Jacko Lake Road is a particularly pleasant moonlight ski due to the open terrain and its proximity to Kamloops-- 10. Will skiers, hikers, etc. still have access to this area? (Or will they still want to come here?)	dAIR comment	General	Land and Resource Use	8.5	The effects of the project on the use of Inks Lake for recreational activities will be assessed in the Application/EIS. Access to Jacko Lake will be preserved during operation; however, recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS. Recreational opportunities in and around Inks Lake will be interrupted for the life of mine for public safety reasons, since it is proposed that Inks Lake be used as a seepage collection and process water pond.	
573	157	8-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	Table 5.1-1 • Under Social Valued Components include Inks Lake. Inks Lake is very heavily used during the winter for skating, hockey, and motorcycle ice racing	dAIR comment	General	Land and Resource Use	8.5	The effects of the project on the use of Inks Lake for recreational activities will be assessed in the Application/EIS.	
578	157	8-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	Section 8 • Include a new section to deal with Ink Lake (similar to 8.6 Jacko Lake)	dAIR comment	General	Land and Resource Use	8.5	The effects of the project on the use of Inks Lake for recreational activities will be assessed in the Application/EIS.	
580	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (57 of 69) [2012-03-14 4:29:55 PM]* Federal – Provincial Harmonization. • As this is supposed to be a coordinated Environmental Assessment and following the principles of the Canada-BC agreement for EA assessment cooperation why has the Provincial Agricultural Land Commission Act review requirements not been included in the EA particularly when the entire proposed mine area is within the Agricultural Land Reserve (ALR)? • Why was the Agricultural Land Commission (ALC) and the Kamloops BC Cattleman's Association not consulted on the development of the AIR (Application Information Requirements)? • Why was the proponent not directed by the Provincial and Federal Governments to apply first to the ALC for exclusion of the lands from the ALR or for non farm use of lands before allowing for the coordinated EA to be undertaken. i.e. if not ALC approval then there is no potential for the project. Save the tax payers \$ from a potentially unnecessary EA process. Ajax must have known when they purchased the mining rights that the land is in the ALR.	EAO/CEA Agency Process Comment	General	Land and Resource Use	8.5	The proponent is in discussion with the ALC regarding exclusion of the lands from the ALR or for non farm use. This will be discussed in the Application/EIS.	

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589	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> 3.1.8 Closure and Reclamation: Will the soil classification or agriculture capability rating of the property both current and post development be scoped in ? i.e. the mine pit will completely destroy nearly 300 hectares of grazing grass lands, the tailings storage and north waste rock and east waste rock management facilities, roads, & other infrastructure will harmfully alter likely thousands of additional hectares of grazing grass lands. Even if capped with the original soils the elevation change of the lands will make it extremely difficult to return them to productive agricultural lands and grass lands for wildlife. This is very arid country and unless Ajax plans on doing spray irrigation it is not likely that natural native vegetation can be re established how will these impacts be fully mitigated and how will the loss of about 300 hectares of agricultural reserve land be compensated for? 	dAIR comment	reclamation	Land and Resource Use	8.5	The Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS will include this information. A soil survey must be conducted to classify the capability of the soil and characterize the suitability of the soil for reclamation purposes. From this analysis a Soil Handling Plan is developed to guide the stripping, salvage and stockpiling of soil materials for subsequent use in reclamation.	
593	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> Why can the pit development not be staged so that all the waste rock and tailing go back into the pit and the site capped with the native soil as this would return the site back to natural as possible and reduce the impact to ALR lands by hundreds of hectares? 	dAIR comment	Ajax open pit	Land and Resource Use	8.5	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	
612	163	10-Mar-12	Personal Information Withheld	Kamloops, BC	<p>ALR:</p> <ul style="list-style-type: none"> According to the B.C. Agricultural Land Commission's website, property that is given ALR status (Agricultural Land Reserve) is subject to the ALC Act "which was established to preserve agricultural land for present and future generations and to encourage the establishment and maintenance of farms as a secure source of food". Considering the proponent plans to acquire land that is in the Agricultural Land Reserve (ALR), how is it possible for them to use this same agricultural land for mining? 	dAIR comment	General	Land and Resource Use	8.5	The proponent is in discussion with the ALC regarding temporary non-farm use for the life of the mine. This will be discussed in the Application/EIS.	
617	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	6. Would daily notification and posting of blasting times and duration that will impact public utilization of Goose Lake road, (Sound, ground vibration/air over pressure and particulate/emissions fallout) be forthcoming and user friendly to the local traffic and the local community population?	dAIR comment	blasting	Land and Resource Use	8.5	Daily notification and posting of blasting times and duration will be communicated to the public.	
647	174	12-Mar-12	Personal Information Withheld		<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (19 of 69)[2012-03-14 4:29:55 PM]^</p> <p>My background is ranching. I have become familiar with some of the issues and impacts that mines can have in the community.</p> <p>1) I had Craigmont Mine in my range area, had animals poisoned from eating grass grown on private land adjacent to the tailing areas. Also I am still paying water rights on a creek that has dried up because of the blasting underground, which has diverted to water from its natural course.</p> <p>2) With regard to other mines, Highland Valley Copper. There were problems with high mineral contents moving through the Guichon Creek, coming from the former Lomex operation. In that case we resolved the problem by re-building the dam on Mamette Lake, creating a greater draw down of Water for irrigation, but retaining all the waters in two small creeks in the Highland Valley area for the mine to use internally.</p> <p>3) I note that the Ajax Mine have made no reference to those kinds of problems. It is important for domestic and non domestic animals that their mineral intake must be held in a crucial balance. All animals need to have Selenium and Copper in balance. Different species require different amounts. How will this be addressed?</p> <p>4) I also note there is no mention or plans to fence this mine site. This is critical for safety off people (especially children) and animals of all kinds. Is there any plans, and kind of fence?</p> <p>6) This mine will remove grazing areas that are currently being used and can never be reclaimed with the losses to adjacent ranches and wildlife. What then?</p>	dAIR comment	General	Land and Resource Use	8.5	Studies are proposed to assess these issues. Grasses will be analyzed for nutrient content (forage analysis) as well as metals concentrations as per the requirements of the Reclamation Code. Fencing and cattle movement will be addressed to the extent that, where livestock grazing is identified as an end land use, the plan will identify the need for fencing, gates and watering locations as part of an overall planned grazing and livestock management system. Access management and safety for livestock, people and equipment will need to be addressed as well.	

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Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
652	175	12-Mar-12	K Goodall	Kamloops, BC	<p>3) Air Quality – Dust</p> <ul style="list-style-type: none"> • How will the proponent deal with fugitive dust in the residential areas? • Will the proponent pay for cleanup of windows, siding and yards impacted by dust? • What about household equipment, will the proponent pay for damage to pools, hot tubs, air condition intakes, heat pumps? If not, why not? • If the soil in my backyard vegetable garden is contaminated by dust from the mine will I be compensated for time and material by the proponent? • What kind of documentation will be required to ensure fair compensation? • Will the proponent replace damaged soil with new soil safe to grow edibles in? if not, why not? • If I am unable to open my windows or enjoy my yard and vegetable garden for the next 23 years how will the proponent address the impact and what will they do to resolve the issue? <p>Air Quality – CO2 & Other Toxic Emissions</p> <ul style="list-style-type: none"> • How will the proponent address possible air quality impacts arising from the use of heavy machinery on the project? • What particulates will be measured? • How will particulates be measured? • Where will the measurements be taken from? Will they be taken from more than one location? • Will the negative impacts from odour released from burning diesel fuel/machinery exhaust be considered? Do tailings emit odour? Will this be considered as well? • What recourse will residents have if air quality is affected? 	dAIR comment	General	Land and Resource Use Air Quality Country Foods	8.5 10.1 10.3	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed (Kamloops Airport, Kamloops Brocklehurst, Afton, Walloper) and upper air data from a detailed meteorological inventory. Modelling results will be presented in the Application/EIS. Odour would be considered in so far as some of the ambient air quality criteria may be based on odour. If the Ajax project receives regulatory approval, the number, placement, and specifications of the air quality monitoring program will be specified by the BC Ministry of Environment. They will be specified in the 'Monitoring and Reporting' clause of the Air Permit developed by the Moe.	Air Quality - 3.3.4.1
661	177	13-Mar-12	Personal Information Withheld	Knutsford, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (11 of 69)[2012-03-14 4:29:55 PM]^</p> <p>Re Inks Lake: The area around & including Inks Lake, marked on some maps as "process water pond" appears to be about 125 acres (50 ha) in size. The "Project Fact Book states: "Inks Lake will be used as a catchment for surface run-off & a source of water for the mine process plant". This judges Inks Lake as a "write-off", justified by the statement "naturally occurring sulphates tend to be highly concentrated in Inks Lake, making it uninhabitable by fish & other aquatic life". Entirely overlooked is the fact that this is a popular, easily accessed recreational area, within Kamloops city limits, very well used by PEOPLE year round, particularly during the winter months, by skaters & hockey players. Inks Lake is also a very popular area for birds & trumpeter swans are also seen there. To entirely eliminate this area from public use would make a huge impact, which would not be quickly forgotten by those PEOPLE who enjoy outdoor recreation.</p>	dAIR comment	water management	Land and Resource Use	8.5	The impact of the project on recreational opportunities will be assessed in the Application/EIS.	
683	183	14-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (20 of 23) [2012-03-26 3:53:56 PM]^</p> <p>Main concern: The area under investigation is mostly within the South West sector of the City of Kamloops and is the "primary growth" area of the city, and thus will continually be under scrutiny to be removed from the Agricultural reserve with or without a mine. We need now to consider deeded agricultural reserve park lands for the future – similar to Lac Du Bois Grasslands Park (and Painted Bluffs Park which protects against future mining). Suggested future grassland reserve-park lands:</p> <ul style="list-style-type: none"> • Deeded reserve-park land of the natural grasslands on Aberdeen Highland Skyline. • Deeded reserve-park land from the lac Le Jeune Road. 	dAIR comment	General	Land and Resource Use	8.5	Out of scope of the AIR/EIS Guidelines.	
685	185	15-Mar-12	Richard Holmes	Aberdeen, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (20 of 23) [2012-03-26 3:53:56 PM]^</p> <p>Is the body of ore being mined by Ajax available further from the city of Kamloops? If so, why is the proposal for Ajax to be built so close to the city of Kamloops?</p>	Project comment	General	Land and Resource Use	8.5	An analysis of technically and economically feasible alternatives for project components will be presented in the Application/EIS.	
690	188	15-Mar-12	Discovery-Corp Enterprises Inc.	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (18 of 23)[2012-03-26 3:53:56 PM]^</p> <p>We attended the information sessions on the Ajax Mine Project on February 8 and 9. As a mineral exploration company, we support the mining industry in British Columbia. However, we have a very serious issue with the proposed Ajax Mine which will have a damaging economic impact on enjoyment of neighbouring lands and mineral claims. Our reading of the limited maps provided shows that one of the proposed tailings ponds would actually block access to our Galaxy Property which has a valuable copper-gold deposit. We therefore request KGHM produce a detailed map of the area on a scale of 1:10,000 which includes existing mineral claims, roads and the proposed mine to determine if this is the case. We were not consulted on the proposed mine even though we are neighbours and the proposal would have a significant impact on our business. It is completely unacceptable to Discovery-Corp that our ability to develop the economic potential of our Galaxy Project be negatively impacted by Ajax. Without changes acceptable to Discovery-Corp, we will have to consider all our options to oppose Ajax.</p>	dAIR comment	General	Land and Resource Use	8.5	Detailed maps will be provided in the Application/EIS showing existing mineral claims and roads in relation to the proposed project infrastructure.	
740	209	21-Mar-12	Lora S	Kamloops, BC	<p>11. Desirable neighbourhoods will be negatively impacted if Ajax is located to the south and their power lines will be located to the east. Where will the City of Kamloops be able to expand? We cannot all fit in Bachelor Heights.</p>	dAIR comment	General	Land and Resource Use	8.5	The impact of the project on the ability of the city of Kamloops to expand to the south and east will be assessed in the Application/EIS.	

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782	223	23-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (24 of 61)[2012-03-29 4:08:06 PM]^ • Neighbourly issues: the first and utmost priority of this mine should be coming to terms with all the neighbouring ranchers and landholders to satisfy their needs as the mine will drastically change their 100 year old operations.	dAIR comment	General	Land and Resource Use	8.5	The proponent is in discussion with the neighbouring ranchers to accommodate land use requirements. This will be discussed in the Application/EIS.	
784	223	23-Mar-12	Personal Information Withheld	Kamloops, BC	Agricultural Land Reserve: All of the land in question is within the Agricultural Land Reserve and should stay in the reserve and not be allowed to be excluded. An operating permit should be granted to the mine to remove and store topsoil, and also remove the ore deposit, and then the land should immediately be reclaimed to the best of the mine's ability. Exclusion of the land from the ALR would totally end the future agricultural production of this property. As a rancher myself, we must live under these regulations to operate a working gravel pit.	dAIR comment	General	Land and Resource Use	8.5	The proponent is in discussion with the ALC regarding temporary non-farm use for the life of the mine. This will be discussed in the Application/EIS.	
793	226	24-Mar-12	Kamloops Food Policy Council (KFPC)	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (18 of 61)[2012-03-29 4:08:06 PM]^ 8.5 land & resource use 8.1.1 Because the proposed mine is within the City of Kamloops city limits, the KFPC requests that Urban Agriculture be added to the list of valued components 8.2.4 Potential effects of the proposed project, 8.2.5 Residual effects & significance, 8.2.6 Cumulative effects assessment • (With regards to the accumulation of windborne dust carrying heavy metals) The KFPC is concerned with the proximity of the proposed Ajax mine and its effect on home gardens, community gardens, Public Produce sites and edible landscaping. How will it affect seed saving? KFPC is also concerned with the effects of contamination on honey bees and other pollinators such as wild bees: most plants must be pollinated to set fruit and then seed. the Ajax mine needs to provide assays, (representative samples throughout the site) of heavy metals such as cadmium/zinc, lead, arsenic and copper.	dAIR comment	General	Land and Resource Use Country Foods	8.5 10.3	A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors, including local gardens. Results will be presented in the Application/EIS.	
817	240	26-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 37) [2012-03-29 4:02:53 PM]^ 'Proposed Ajax Mine Project' booklet, page 14: Socio-cultural implications arising from the loss of agricultural activities will be examined in part through interviews with potentially affected landowners. -- Is there criteria that must be met in order to qualify for interview? If so what is the criteria? When will interviews take place? In what ways will this info be used? Will the info be used for benefit of landowners who would be drastically impacted by this mine proposal?	dAIR comment	General	Land and Resource Use	8.5	Rationale for inclusion of landowners involved in the assessment will be provided in the Application/EIS. The interviews will occur during the pre-Application period. The information gained through interviews will help to inform the socioeconomic assessment.	
846	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	The potential development of Ajax would have a very dominant impact on adjoining land use in the southwest Kamloops area. Consideration should be given to how future uses would interface with the mine operation during and after mine operation	dAIR comment	General	Land and Resource Use	8.5	The impact of the project on the ability of the city of Kamloops to expand will be assessed in the Application/EIS.	

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848	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	In addition to the powerful visual impacts, the tailings location claims the lands between the Coquihalla Highway and Lac Le Jeune Road for the mine operation thereby excluding other potential future uses that could be well suited for the area given the available infrastructure and the anticipated future industrial land use designation if the mine was to proceed.	dAIR comment	TSF	Land and Resource Use	8.5	The impact of the project on the ability of the city of Kamloops to expand will be assessed in the Application/EIS.	
853	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	Given the scale of the mine operation and the resulting landscape transformation, post operation land use should be extensively considered prior to operation commencing as this may impact facility design. A 23 year operation period that leaves behind an obliterated landscape on the scale of Ajax requires that future uses be examined now instead of at the conclusion of reclamation. The enormous impact of the mine on the city landscape requires a higher resolution level of post operation land use potential as compared to a rural location. This forward thinking may uncover future uses (i.e.. alternative energy production) that would allow a reuse and recycle approach to an otherwise sterile byproduct left in the landscape for generations to come. The proposed mine location in an urban setting should trigger another level of applicant requirements that challenge the proponent to think about the mining operation in the context of the city's sustainability goals and objectives. The city has spent a lot of time and energy in developing a sustainable direction which needs to be respected. The mine applicant should be asked to show how the proposed mine can be part of a sustainable future for Kamloops.	Project comment	General	Land and Resource Use	8.5	Development of the proposed mine will be discussed in relation to land and resource management plans and official community plans. Please see the AIR for an outline of the information that will be included in the Application pertaining to reclamation, specifically where it states that the Application will include an outline of the end land use objectives, taking into consideration the recommendation of Ministry of Energy and Mines (MEM) that the reclamation program be aimed at ecological restoration of naturally occurring grassland communities.	
877	252	26-Mar-12	Paula Pick	Knutsford, BC	8.5 Land and Resource Use • Nowhere in the document is there mention that I could find of the ALR, the Agricultural Land Reserve. Why is this? I understand that some or a lot of the land is under the ALR. This should be a Valued Component (VC). The loss of this land for agricultural use has an economic impact on local ranchers. While the proponent is saying, "We strive to support the current ranching businesses near the Ajax Mine", there is no mention in the draft AIR as to how they are doing this. What legal requirements come from the land being in the ALR? What loss to BC of the loss of this land? What precedents are there for mines in ALR lands?	dAIR comment	General	Land and Resource Use	8.5	The proponent is in discussion with the Agricultural Land Commission to address the use of lands within the Agricultural Land Reserve. Neighbouring ranchers are being consulted to ensure that land requirements are accommodated. Details will be presented in the Application/EIS.	
937	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	10.5 Healthy Living 10.5.4 Potential Effects of the Proposed Project and Proposed Mitigation 1. Will people still be allowed to skate on Inks lake in the winter?	dAIR comment	General	Land and Resource Use	8.5	Recreational opportunities in and around Inks Lake will be interrupted for the life of the mine for public safety reasons, since it is proposed that Inks Lake be used as a seepage collection and process water pond.	
1001	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	Recreation - loss of the quiet rural area for biking and enjoying nature.	dAIR comment	General	Land and Resource Use	8.5	The impact of the project on recreational opportunities will be assessed in the Application/EIS.	

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1022	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	8. With the estimated 1600cuM of water per hour to be drawn from Kamloops Lake, what will the effect be on Lake levels, and how will this affect residences on the lake, with wharves moorages and beaches?	dAIR comment	water management	Land and Resource Use	8.5	This information will be provided in the Application/EIS.	
1033	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	19. How will the mine development impact skating on Inks Lake and fishing on Jacko Lake?	dAIR comment	General	Land and Resource Use Jacko Lake	8.5 8.7	Access to Jacko Lake will be preserved during operation; however, recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS. Recreational opportunities in and around Inks Lake will be interrupted for the life of mine for public safety reasons, since it is proposed that Inks Lake be used as a seepage collection and process water pond. Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	
1058	275	27-Mar-12	Frances Vyse	Kamloops, BC	2. Agricultural Land Reserve Act: acknowledgement that the land in question is all in the ALR; that the application to take lands out of the ALR. ALR land should be shown on maps.	dAIR comment	General	Land and Resource Use	8.5	The proponent is in discussion with the ALC regarding exclusion of the lands from the ALR or for non farm use. This will be discussed in the Application/EIS. ALR lands will be shown on figures in the Application/EIS.	
1060	275	27-Mar-12	Frances Vyse	Kamloops, BC	4. Detail description of all proposed developments, their locations, elevations, including landscape features that would be destroyed and how views from Pineview-Aberdeen, Lac Le Jeune Rd, Coquihalla Hwy, and all surrounding ranches. Before and after scenario.	dAIR comment	General	Land and Resource Use	8.5	This information will be included in the Application/EIS.	
1081	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	d. How will Ajax manage any negative effects on livestock grass and hay production?	dAIR comment	General	Land and Resource Use	8.5	Vegetation monitoring transects will be established in grassland/range areas, including both areas that will remain undisturbed and areas that will be disturbed by mining activities. These sites will be used to record and monitor species composition (% cover of the various grasses, forbs and woody species) and biomass (kg/ha of dry matter production). This will provide baseline pre-disturbance reference information on grassland composition and productivity. As disturbed areas are reclaimed, additional transects will be established and similar analyses will be conducted. Samples will be collected from each of the vegetation transects and analyzed for nutrient content (forage analysis) as well as metals concentrations as per the requirements of the Reclamation Code.	

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1084	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	<p>5 & 8. Fencing and Cattle Movement and Livestock</p> <p>a. Analysis of the grass and hay must include full mineral/metal analysis to ensure that no leaching of mineral or toxic buildup occurs. We recommend that all this be monitored annually while the mine is in operation.</p> <p>b. Effects on air quality, water, and feed could negatively impact the cattle grazing on the surrounding lands. Reproductive rates, calf survivability and weight gains of cows, calves and yearlings could be decreased. We recommend that the mine measure and create baselines for these values that can be agreed upon and used to measure any changes in the future. Additionally, because these cattle become human food, the mine should measure and insure that there is no accumulation of any toxic metals in the tissues of cattle grazing on lands affected by mining activities. These values should be monitored annually until reclamation is complete.</p> <p>c. The mining activities and land use will displace the local deer population onto the adjacent ranchers hay and grasslands. Increased use by the deer will decrease the amount available for cattle. The mine will have to control the deer population, provide fencing to protect stored feed or compensate the ranches for the loss.</p> <p>d. The mine must ensure that all boundary fences are kept up to ensure adjacent cattle are kept out of the active mining areas, but access must be allowed for ranchers to retrieve any cattle that get into the mining areas through fence breaks, accidents, etc.</p> <p>e. We would ask that mine traffic up Lac Le Jeune Road be reduced on days in June when cows are trailed up this highway and the days in December when cows are trailed down this highway. Also we would request an underpass just south of the Goose Lake Rd intersection for moving cattle across Lac Le Jeune highway.</p> <p>f. We also request that the land used for the mine activities and then reclaimed be suitable for cattle grazing. Specifically, areas of the tailings impoundment and waste rock dumps that are piled up at the angle of repose will have to be modified in areas to create a grade that cattle can easily move up and down in certain areas to access these new plateaus. The vegetation should be suitable for grazing cattle and both the cattle and the vegetation should be measured to ensure that they contain safe levels of minerals/metals.</p>	dAIR comment	General	Land and Resource Use	8.5	Grazing levels – vegetation monitoring transects will be established in grassland/range areas, including both areas that will remain undisturbed and areas that will be disturbed by mining activities. These sites will be used to record and monitor species composition (% cover of the various grasses, forbs and woody species) and biomass (kg/ha of dry matter production). This will provide baseline pre-disturbance reference information on grassland composition and productivity. As disturbed areas are reclaimed, additional transects will be established and similar analyses will be conducted. Establishment of a number of small grazing enclosures in undisturbed grassland areas may also be used to evaluate the productivity of the grassland in the absence of the influence of grazing. Nutrient content of grass – Samples will be collected from each of the vegetation transects and analyzed for nutrient content (forage analysis) as well as metals concentrations as per the requirements of the Reclamation Code. Fencing and cattle movement - this will be addressed to the extent that, where livestock grazing is identified as an end land use, the plan will identify the need for fencing, gates and watering locations as part of an overall planned grazing and livestock management system. Access management and safety for livestock, people and equipment will need to be addressed as well. End land use objectives will be discussed in the conceptual reclamation plan presented in the Application/EIS.	
1085	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	<p>6. Noise and Disruption Levels</p> <p>a. What procedures will be put in place to monitor the noise levels and disruption to surroundings ranching operations and how will corrective actions be achieved? These levels may affect livestock as well as human activities.</p>	dAIR comment	General	Land and Resource Use Noise and Vibration	8.5 10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
1100	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	<p>5.1.6.1 Potential Interaction between Residual Project Effects and other Projects or Activities Under the Tourism and Commercial Recreation Activities the cross country skiing at Stake Lake is missed as an activity.</p>	dAIR comment	General	Land and Resource Use	8.5	Impacts from cross country skiing and other outdoor recreational pursuits will be included in the cumulative effects assessment if they possess sufficient project-description information to inform a cumulative effects assessment.	
1178	300	27-Mar-12	Erin Maze	Kamloops, BC	<p>Quality of life: I have been a Kamloops resident all of my life. I have loved it here for many reasons, but the primary reason is the natural beauty of the area and the proximity to nature. The beauty of the rolling hills and grasslands and the abundance of wildlife in and around the city are priceless to me. The little lakes, the bubbling streams, the rippling grasslands, the creatures that abide in these locations - this is the cost of what is being proposed. How can one place a dollar value on that? How about the health and well being of the citizens of this city, of what value is that? And in that question consider the many aspects of what comprises health. According to the WHO "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity". Who stands to benefit from this operation? Most of them do not live here, do not have to live and breathe the consequences of this decision. The fallout to the Kamloops residents will be very large and will far surpass the short lifespan of the mine. One very typical human failing is the tendency to look at the small picture when we choose our course of action. It would behoove us to take a step back and consider long term consequences rather than simply short term ones. The proposed life span of this mine is a mere 23 years. I firmly believe that the costs vastly outweigh the gains of this proposed mine and urge the people making the decision on this to prevent it from going ahead.</p>	dAIR comment	General	Land and Resource Use Visual Impact/Aesthetic Features Health	8.5 8.4 10	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1214	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>What are the effects of daily blasts for twenty years on nearby subdivisions for land settlement?</p>	dAIR comment	blasting	Land and Resource Use	8.5	This information will be provided in the Application/EIS.	
1237	306	4-Jan-12	Personal Information Withheld		<p>7. We also have concerns that your north waste rock dump site as presently presented will cover the old Lac Le Jeune wagon road that gives us access into our property being Lot 845 and 1013, this old wagon road is a road that public money was spent on to build in 1928 (Galaxy Road). In conclusion I would like to suggest that prior to your open house on February 6 and 7 that you address and mitigate the concerns that we have as a landowner in the close proximity to your mining operation. We would expect your cooperation and concerns to mitigate the various issues we are bringing to your attention.</p>	dAIR comment	waste rock management facilities	Land and Resource Use	8.5	The proponent is in discussion with neighbouring ranchers to ensure accommodation of land use concerns.	

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1240	308	2012/04/04	Personal Information Withheld	Kamloops, BC	14/02/2012 I write to you with my deepest concerns about the proposed Ajax mine in the Kamloops area. I have lived in this area for only 2 years and spend much of my time in the area in which they plan to demolish. Yes demolish. Sorry to sound harsh, but its just sad. I spend many days in the winter with other locals skating gleefully on Inks lake. Skating on local lakes is a big part of Kamloops. It makes you feel so Canadian! Which is something I never felt when I lived on the coast. I also spend probably 3 to 5 days a week fishing Jacko Lake. I have fished many lakes, and this is a true trophy lake! I also spend countless hours driving around this area taking photos of the local wildlife. To be honest, I don't think anybody spends as much time up there as I do. What concerns me most is there are definitely some untold stories here which apparently this team of experts the mine has, is leaving out. Are they leaving stuff out? Or have they just not done a thorough enough investigation of the area.	dAIR comment	General	Land and Resource Use	8.5	Access to Jacko Lake will be preserved during operation; however, recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS. Recreational opportunities in and around Inks Lake will be interrupted for the life of mine for public safety reasons, since it is proposed that Inks Lake be used as a seepage collection and process water pond. Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	
1291	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	2. What are the impacts to current and future residents and wildlife from dust emissions? Again we appreciate that dust emissions (air quality) has been identified as a potential health risk to humans but the effect to wildlife and especially beef stock; as these animals become part of the food chain to humans, should be considered as a potential health issue and assessed accordingly.	dAIR comment	General	Land and Resource Use Air Quality	8.5 10.1	A HHERA will evaluate incremental change in air quality and the potential changes in human health, including any resulting from ingestion of local wildlife. Effects on range cattle will be assessed under land and resource use.	Air Quality - 3.3.4.1
1305	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	Lastly it was brought to our attention that additional areas in close proximity to the proposed mine site have undergone mineral exploration and have the potential for extraction. One area is the Iron Mask neighbourhood, the other is a KMGH Ajax site south of the proposed pit. This news is disturbing in that there could be a possibility that other mines could make similar applications and receive a permit to operate after this project is approved. The question is: What would the impacts be to Kamloops and what would the landscape look like in this larger context? The draft AIR in numerous locations refers to identification and description of existing or reasonable foreseeable projects or activities that have the potential to interact with the proposed project, we expect that this scenario would be classified as a "reasonable foreseeable project or activity" and would be included in the assessment.	dAIR comment	General	Land and Resource Use	8.5	Mineral exploration will be included in the cumulative effects assessment of the proposed Project. Section 5.1.6 of the AIR outlines the cumulative effects assessment methodology that will be followed in the Application. "Reasonably foreseeable" projects are defined in this section of the AIR are as follows: o Have entered into a formal project approval or permitting process, or o Have not entered a formal process but that have been discussed publicly by proponents, or o Have been specified through discussion with regulators, Aboriginal groups, and/or other stakeholders, and o Possess sufficient project-description information to inform a cumulative effects assessment.	

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1318	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		<p>8.5 Land and Resource Use</p> <p>The effects on the following should be accounted for:</p> <p>a. Outdoor recreation should encompass hiking, cycling and wildlife viewing opportunities.</p> <p>b. Any changes to Peterson Cr. that would alter it from its current state and potentially impact its value as a recreation corridor.</p> <p>c. Any changes to the Stake Lake skiing experience that would alter it from its current state.</p>	dAIR comment	General	Land and Resource Use	8.5	Hiking, cycling and wildlife viewing opportunities will be addressed. Peterson Creek will be diverted adjacent to the pit - the area will likely be fenced for safety and security reasons; therefore, any recreational usage will be restricted. The project is not expected to physically affect the Stake Lake area, located approximately 11.5 km south of the project along Lac Le Jeune Road.	
1413	336	4-Apr-12	Personal Information Withheld		19. How will the mine development impact skating on Inks Lake and fishing on Jacko Lake?	dAIR comment	General	Land and Resource Use	8.5	Access to Jacko Lake will be preserved during operation; however, recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS. Recreational opportunities in and around Inks Lake will be interrupted for the life of mine for public safety reasons, since it is proposed that Inks Lake be used as a seepage collection and process water pond.	
1433	338	4-Apr-12	Personal Information Withheld	Kamloops	<p>Additional Concerns:</p> <p>1. Decreased quality of life:</p> <p>1. In the summertime I like to sleep with my windows open, it's very quiet, and the fresh air is wonderful. If there were lots of noise or dust, that would be bad.</p> <ul style="list-style-type: none"> • My kids play outside a lot, if there were lots of dust, that would be bad. • The extra dust will also cause more house cleaning, inside and out. More dusting, more vacuuming, more washing windows, and perhaps power-washing the exterior siding periodically. More time spent cleaning is bad. • Outdoor skating rinks, such as the one in Pine View will probably be covered with grit. • If I can hear beeping, similar to living near a construction zone, that could threaten my sanity. I find that sound almost intolerable, but with construction, it usually only lasts for a few months, not 23 years! 	Project comment	General	Land and Resource Use Air Quality Noise and Vibration	8.5 10.1 10.4	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2

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45	16	7-Feb-12	Mike Lutz	Kamloops, BC	Also the potential for Jocko lake to leak water into the Ajax pit seems quite high. That being said it seems like a very high price to pay to destroy a vital trophy fishing lake. Not to mention the possible effects on the water licensees.	dAIR comment	Ajax open pit	Jacko Lake	8.7	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Results will be presented in the Application/EIS. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and surface and ground water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods.	
55	21	7-Feb-12	Hugh Jordan	Kamloops, BC	5. Will the recreation benefits of Jacko Lake be preserved?	dAIR comment	General	Jacko Lake	8.7	Access to Jacko Lake will be preserved. Recreation in and around Jacko Lake will be restricted during blasting for public safety. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and surface and ground water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods.	
233	83	10-Feb-12	Personal Information Withheld		(5) Will the recreation benefits of Jacko Lake be preserved?	dAIR comment	General	Jacko Lake	8.7	Access to Jacko Lake will be preserved. Recreation in and around Jacko Lake will be restricted during blasting for public safety. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and surface and ground water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods.	
247	85	10-Feb-12	Personal Information Withheld		Jacko Lake Section 8.6 what will be the effect of the fish in the lake which will be close to the dust and vibrations from the explosives to mine the rock? Lake provides \$1,000,000 in revenue annually to the town, average of 25 people visits per day 365 days per year according to DFO; what substitute can be used to replace this lake	dAIR comment	General	Jacko Lake	8.7	Blasting effects on fish in Jacko Lake will be assessed, with results presented in the Application/EIS. The assessment will also consider Project-related economic effects on the use of Jacko Lake to the city of Kamloops. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and surface and ground water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods.	

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282	89	11-Feb-12	David Verhoeff	Kamloops, BC	5. Jacko Lake is a jewel that is well known for it's fishing. If there is even a 1% chance of this lake being lost due to contamination or leakage what is the value you can put on the loss of it? It is irreplaceable once it is gone! Yes, there are many other lakes that surround Kamloops but that is what makes this city such a great place to live in. Just because we have so many lakes does not mean we won't miss even one of them. You have 10 fingers on your hand; would that mean you wouldn't miss one of them if it was gone forever?	dAIR comment	General	Jacko Lake	8.7	Blasting effects on fish in Jacko Lake will be assessed, with results presented in the Application/EIS. The assessment will also consider Project-related economic effects on the use of Jacko Lake to the city of Kamloops. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and surface and ground water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods.	
481	138	2-Mar-12	Personal Information Withheld	Kamloops, BC	4) Is a thorough study going to occur of potential mining impact on Jacko Lake in regards to fishing and water quality?	dAIR comment	Ajax open pit	Jacko Lake	8.7	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Results will be presented in the Application/EIS. Surface water and groundwater quality will be assessed in Section 6. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and surface and ground water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods.	
577	157	8-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	Section 8.6.4 • Include a discussion how fishing will be impacted during operations at the mine. i.e. blasting, will fishermen be required to leave the lake during blasting (within 500m of the blast)	dAIR comment	traffic	Jacko Lake	8.7	Access to Jacko Lake will be preserved. Recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS.	
594	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• What is the plan for the potential of blasting in the pit and changes to hydrology to prevent the draining of Jacko Lake a popular fishing lake.	dAIR comment	blasting	Jacko Lake	8.7	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Results will be presented in the Application/EIS.	
665	178	13-Mar-12	Personal Information Withheld	Kamloops, BC	• On a more specific note is the possibility of Jacko Lake eventually 'falling' into the pit. They are directly next to each other, with the pit much deeper, divided by an earth berm. To increase the concern, this berm will also contain the Kinder Morgan natural gas pipeline. Jacko is a prime trout fishing lake and tourist draw.	dAIR comment	Ajax open pit	Jacko Lake	8.7	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Results will be presented in the Application/EIS.	

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711	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	7. Can the mining proponent guarantee that the vibrant Jacko Lake fishery not be damaged. What process will be in place to measure the effect?	dAIR comment	General	Jacko Lake	8.7	Blasting effects on fish in Jacko Lake will be assessed, with results presented in the Application/EIS. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and water quality, as well as through social and economic VCs such as Outdoor Recreation and Country Foods.	
721	202	20-Mar-12	Alec Farquharson	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (7 of 23) [2012-03-26 3:53:56 PM]^ I am opposed to the development of the AJAX mine in/at its present form/location. The primary reason is that, although I have read much of the current proponent data, I can find no comment re compensation/mitigation should the blasting/ digging near the NE corner of JACKO Lk cause leakage leading to the destruction of this recreational resource. During one of the PR tours an exec. of AJAX commented that the mineralization under the lake is at least as rich as their main pit. Although this would increase the mine life and produce increased profits, it would remove the lake for ever. When Bethlehem Copper began development in the Highland Valley, they were 'up front' and set up a fund to compensate for the loss of public recreational recourses. This fund is still assisting with local projects. In the AJAX case the profits would be in the millions but the loss of recreational value for perpetuity would be in the hundreds of millions if a dollar value were to try and be calculated. I am not certain the current plan will adequately protect the lake and its perpetual recreational value to the citizens of BC/Canada.	dAIR comment	General	Jacko Lake	8.7	Blasting effects on fish in Jacko Lake will be assessed, with results presented in the Application/EIS. The Application will include the results of studies assessing mine design and water management predictions. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
878	252	26-Mar-12	Paula Pick	Knutsford, BC	8.6 Jacko Lake • There is an issue with the pit wall and Jacko Lake. A study needs to be done of the risk of the pit wall fracturing and Jacko Lake draining into the pit.	dAIR comment	Ajax open pit	Jacko Lake	8.7	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Results will be presented in the Application/EIS.	
885	253	26-Mar-12	Ron B. Smith	Kamloops, BC	8.6 Jacko Lake There should be an acknowledgement of the possibility of the drainage of this valuable resource. Not only will water head increase as the pit deepens but also new openings for seepage may be created by blasting. There is no proposed mitigation for this possible development. There is acknowledgement that Jacko Lake potentially will be influenced by pit development (6.3.2) but the inference is it will be minor. What determines if it is more economical or socially acceptable to manage the leakage or drain the lake?	dAIR comment	Ajax open pit	Jacko Lake	8.7	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Results will be presented in the Application/EIS. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods. Mitigations to reduce any identified impacts will be explored and identified within the Application.	

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938	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	2. Will it be safe to eat fish from Jacko Lake after 20 years of the mine being in production?	dAIR comment	General	Jacko Lake	8.7	A Human Health and Ecological Risk Assessment will be included in the Application/EIS to assess the effects of the project on consumption of fish from Jacko Lake.	
1007	268	27-Mar-12	Personal Information Withheld	Kamloops, BC	5) Despite promises by Ajax to protect Jacko Lake and Peterson Creek, I believe that is impossible with their proposal. It is in their interests to see Jacko Lake drain; then access the ore under it. Firstly, EAO should require a SAFE undisturbed buffer between the pit and the lake - minimum 100 meters. Secondly, Absolutely prohibit mining of any ore close to or under Jacko Lake - even if the lake is inadvertently drained.	dAIR comment	General	Jacko Lake	8.7	Studies to quantify the fisheries values of both Jacko Lake and Peterson Creek will be presented in the Application and will inform the effects assessment. The Application will also include details regarding the design of the potential relocation of Peterson Creek and the habitat values or gains that may be provided.	
1027	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	13. Will the mine use ANFO? If so, how will the mine deal with the recommendation from the Institute of Makers Explosives recommendation that this mixture should not be used near bodies of waters, i.e. Jacko?	dAIR comment	blasting	Jacko Lake	8.7	The mine will use ANFO; use will be in accordance with all manufacturers recommendations and applicable federal and provincial guidelines. ANFO (Ammonium Nitrate Fuel Oil) Please see the AIR for a description of the studies proposed to assess potential effects of project operation on surface water quality, and the commitment to identify, in the Application, mitigation measures that will be utilized to minimize project effects.	

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1078	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	g. The one arm of Jocko Lake that is to have a berm built on it could cause many problems. What action would occur is the berm creates a shift of surface water to become ground water? With the increased vibration, what safeguards are in place if there is a rupture of the Kinder Morgan pipeline and the water course is polluted? h. With the amount of vibration from blasting what safeguards are in place to make sure there are no fractures in the lake bottom and the consequential loss of water? If this should occur, what measures are in place to repair this damage and compensate the water licensees? Have soil studies been done as to the potential fracturing of the rock around the lake? i. What recourse will the water licensees, and other affected people have if a problem does arise? Will these problems be addressed without going to a civil court?	dAIR comment	blasting	Jacko Lake	8.7	The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Any subsequent or secondary effects on existing infrastructure will be assessed. Results will be presented in the Application/EIS. The issue of legal recourse is outside of the scope of the EA. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1095	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	3.4.5 In Pit crushing and conveying: The use of in pit crushers was not discussed in the original presentations. We now find that it is proposed to extend the conveyor system adjacent to the northeast corner of Jacko Lake. Although proposed to be hidden by a partial berm of rock material this location is going to significantly impact noise levels along the lake shore and potentially allows dust particles to escape and impact the waters of Jacko Lake. All efforts should be taken to move the conveyor system to an alternate location to lessen the impact on Jacko Lake.	dAIR comment	Ajax open pit	Jacko Lake Noise and Vibration	8.7 10.4	Alternative means of carrying out the proposed Project will be discussed in Section 17 of the Application/EIS. The Application will include: • A description of the alternative means of carrying out the Project; • The reasons for selecting the preferred option; • An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and • The environmental effects of any such alternative means.	Noise and Vibration - 3.3.4.2
1096	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	3.6 Process Plant and Ore Processing: In the original presentations the Process Plant was to be further from Jacko Lake and berms would be created to lessen the noise and visual distraction on Jacko Lake. Now that the processing plant is even closer to Jacko Lake it is important that these berms and visual and noise abatement barriers are in place.	dAIR comment	processing facility	Jacko Lake	8.7	Statement acknowledged.	

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1130	286	27-Mar-12	Personal Information Withheld	Knutsford, BC	Seriously concerned that Jacko Lake will be destroyed by this project.	dAIR comment	General	Jacko Lake	8.7	Jacko Lake has been identified as a VC.	
1184	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Page 16 describes information sourced from "Key person interviews" 1. Who are these key people described? 2. How are they selected and by whom? 3. Are these key people representing Interior Health, the City of Kamloops and the Regional District or are they individuals? 4. Will individuals who declare a social or financial interest in the mine be granted a standing as a key person? 5. If no, then why not? 6. If yes then will there be a limit on the total number of key persons with whom these discussions will take place?	Project comment	General	Jacko Lake Visual Impact/Aesthetic Features	8.7 8.4	Description of "key persons" will be provided in the Application/EIS.	
1256	311	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	10/02/2012. This letter will deal with Jacko Lake. During the open house on February 6th 2012 one of the persons I talked to was the blasting company. They gave me optimistic that they could do their blasts in such a manner that the vibrations to the fish could be minimized. My questions are: 1. How often will the blasting occur? Daily (how many times during the day), weekly? 2. What time of the day will the blasting occur? 3. Can the blasting occur so the fish aren't "off the bite" for the rest of the day? 4. The users need to know when the lake will be closed because of blasting? Will there be a web page that is updated regularly so users can find if they can fish the lake or not? Signage? 5. Have environmental studies been carried out at other mining facilities that set blasting standards for fish and other aquatic invertebrates? What are the standards? What studies will be carried out at the Ajax Copper Gold Proposal?	dAIR comment	blasting	Jacko Lake	8.7	This information will be provided in the Application/EIS.	
1257	311	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	While fishing one of the enjoyment factors is the quality of the experience. 1. Noise of the vehicles passing the lake and noise from the mine need to be dampened. How can this be done? It will not be any fun fishing Jacko Lake if the noise is unbearable. 2. Berms with trees and shrubs is one suggestion. Your experts must have some other ideas, what are they? 3. Berms with high banks to screen vehicles from lake users. 4. Fencing? At the east end of Jacko Lake the berm is slated to take part of the lake. 1. Can the mine be developed without taking part of the lake? Why not? 2. Wherever the berm is being located it needs to screen activities on the berm from the lake. Trees, shrubs, fencing, etc. need to be installed. 3. The rocks and debris on the bank facing the lake need to be controlled so they don't roll into the lake. Retaining walls etc. What are your plans? Access to the lake: 1. Will lake users have their own access road and will users be guaranteed access to the lake for fishing purposes? 2. Who will own the boat launch area? Will it be maintained? 3. Who will maintain the toilets?	dAIR comment	General	Jacko Lake	8.7	Mitigation measures to address noise and visual concerns and safety requirements will be discussed in the Application/EIS. The current access to Jacko Lake will not be affected by mine infrastructure; however, recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS. Ownership of the boat launch area will not be affected by the proposed project. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods. Mitigations to reduce any identified impacts will be explored and identified within the Application.	

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1269	313	4-Apr-12	Santo D'Aquino		2. Jacko lake is a popular fishing lake with a high quality fish stock and high quality aquatic insect population. kghm Ajax indicates that: - " it will adhere to all regulations and work to preserve the lake and fish stocks." - the diagram on the second page of the booklet shows the mine layout. - it shows the mine taking a small part of the lake. when all is said and done, if the Ajax mine is allowed to proceed, I believe it will destroy part or all of Jacko lake. what mitigation can take place to replace Jacko lake?? how many dollars are needed in the trust fund??	dAIR comment	General	Jacko Lake	8.7	A conceptual fish habitat compensation plan will also be included in the Application/EIS and will be a requirement for permitting should the project receive approval. The issue of financial compensation is outside of the scope of the EA. Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods. Mitigations to reduce any identified impacts will be explored and identified within the Application.	
1274	315	4-Apr-12	Personal Information Withheld		05/02/2012. I write this letter to express my interest and concern about the above proposed mine project. I have reviewed the document "Ajax Copper-Gold Project Fact Booklet" produced by the proponent as well as the draft AIR/EIS Guidelines document. I would like to specifically address issues surrounding the ecological and recreational values of Jacko Lake. From 1974 to 2003 I was employed by the provincial government as the regional small lakes biologist. I am very familiar with the lake in terms of fisheries management, habitat protection, water licensing and access management. Jacko Lake is a very valuable resource to the residents of Kamloops and in particular to those families and individuals who fish or enjoy other recreational activities on Jacko Lake. It is also a popular destination for visiting anglers from other parts of BC, neighbouring provinces and states. This low elevation grassland lake has supported a rainbow trout fishery for almost 60 years. Other grassland lakes in the Kamloops area are currently suffering from elevated pH levels due to low water levels attributed to fluctuating spring freshet flows due in part to climate change and impacts from the Mountain Pine Beetle infestation. Trout survival in Stump, Six Mile and Morgan lakes are currently being impacted. Jacko seems to be spared from these environmental impacts. While stocked on an annual basis there is also natural recruitment that occurs in the inlet, Peterson Creek. I have personally witnessed upwards of 200 adult rainbow trout spawning in the creek. The provincial government also owns a conservation water license on Jacko Lake which ensures there is sufficient water covering valuable shoal or littoral zones of the lake. Current plans for this mine show an infilling of the very far end of what we call mine bay. The first environmental impact reports indicate that this infill has minimal impact as the habitat loss is insignificant. I beg to differ on the value of this small but important piece of littoral and riparian habitat. The very end of this bay, even though less than a metre deep provides significant invertebrate habitat and is well used by both juvenile and adult rainbow trout for feeding and rearing habitat. I personally have spent many hours fishing right up against the longstem bulrush that line the entire end of this bay. Trout will often move well into the bulrush patches and feed in water less than half a metre in depth.	dAIR comment	General	Jacko Lake	8.7	A conceptual fish habitat compensation plan for the northeast arm of Jacko Lake will be included in the Application/EIS and will be a requirement for permitting should the project receive approval. The fisheries values of both Jacko Lake and Peterson Creek will be discussed in the Application/EIS and will inform the effects assessment. The Application will also include details regarding the design of the potential relocation of Peterson Creek and the habitat values or gains that may be provided.	
1275	315	4-Apr-12	Personal Information withheld		On high water years water from Jacko lake flows both east down Peterson Creek and west towards Inks Lake. There are culverts under the Lac Le Jeune road for passage of this water. I have witnessed this westward flow of water several times in the past 10 years. Angler effort on Jacko Lake is regionally and provincially significant. Numerous creel census, aerial boat count census and more recently stationary camera counts show that from early April to the end of October there can be as many as 10,000 angler days spent on the lake. Currently, an angler day in BC is valued at \$100. That equates to upwards of a million dollars a season generated to the local and provincial economy from recreational anglers. The lake is not open to fishing during the ice covered period. Regionally, Jacko Lake is definitely in the top 10 lakes for angler use and at 10,000 angler days/year it ranks very high on the provincial level. Its popularity/reputation is based on several factors including nutrient rich water that grows big, healthy fish, early ice off due to low elevation and proximity to Kamloops. My biggest concern is the potential to lose the water in the lake from fracturing of bedrock within close proximity of the lake. It is also my understanding there are significant deposits of ore bearing rock beneath the lake. I suggest that an independent engineering study be done to determine the potential for this event to occur. As well, a compensation fund should be established to mitigate any loss of this fishery or impact to the fishery due to the operation of the mine. The technology exists to build another Jacko lake within the Peterson Creek watershed or within close proximity. Any compensation/mitigation fund should consider impacts or losses to both fish and wildlife resources.	dAIR comment	General	Jacko Lake	8.7	A conceptual fish habitat compensation plan for the northeast arm of Jacko Lake will also be included in the Application/EIS and will be a requirement for permitting should the project receive approval. The issue of financial compensation is outside of the scope of the EA. The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Results will be presented in the Application/EIS. The Application will describe the studies and modelling conducted to assess the potential impacts of the mine on Jacko Lake and Peterson Creek. The assessment will include the concern raised for rock fracturing and loss of important water resources supporting Jacko Lake and Peterson Creek ecosystem. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects. The geological assessment is being conducted by independent consultants hired by the Proponent. All studies will be included in the Application for review by experts on the Technical Working Group and by the public.	

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1277	316	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	<p>14/02/2012 The comments in this letter are from the Kamloops Flyfishers and will therefore deal with fishing related items. We thank the proponent for the presentation they gave our club at our February 2011 meeting. We also wish to thank the governments and proponent for the open house of February 6th and 7th 2012. We will address our comments to the potential impact of the proposed mine on Jacko Lake. In particular we are concerned about the impact to fish and aquatic insects as well as the quality of fly fishing.</p> <p>Our concerns are:</p> <ol style="list-style-type: none"> 1. Effects of blasting <ol style="list-style-type: none"> a. On fish b. On insects c. On enjoyment of fishing d. On access to the lake. What is the blasting schedule? How will anglers be notified? Will there be noticeable vibrations on Jacko Lake? 3. Access: <ol style="list-style-type: none"> a. Are anglers guaranteed access to Jacko Lake as we do now? b. Will blasting limit access to the lake by anglers? 	dAIR comment	blasting	Jacko Lake	8.7	Jacko Lake has been identified as a VC. The potential effects assessment of the Project will include the effects of blasting on rock fracturing, pitwall and slope stability. Access to Jacko Lake will be preserved during operation; however, recreation in and around Jacko Lake will be restricted during blasting for public safety - this will be discussed in the Application/EIS.	
1278	316	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	<ol style="list-style-type: none"> 2. Berm at east end of Jacko Lake <ol style="list-style-type: none"> a. Does the berm have to be in the lake at all? b. Will the visual impact of the berm be minimized? c. To what extent of the lake be diminished? 	dAIR comment	General	Jacko Lake	8.7	This concern will be addressed in the Application/EIS.	
1283	317	4-Apr-12	Freya Nygaard		<ol style="list-style-type: none"> 6. Jacko Lake is Kamloops' number one fishing lake, bringing \$1,000,000 into the local economy. How does Ajax Mining Inc. plan on helping to preserve this fishery if the lake is made inaccessible or unusable to the public? 	dAIR comment	General	Jacko Lake	8.7	<p>Blasting effects on fish in Jacko Lake will be assessed, with results presented in the Application/EIS. The assessment will also consider Project-related economic effects on the use of Jacko Lake to the city of Kamloops.</p> <p>Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods. Mitigations to reduce any identified impacts will be explored and identified within the Application.</p>	
1325	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethway	Kamloops, BC	<ol style="list-style-type: none"> 2. Similarly, if Ajax is to proceed, a reasoned, researched and believable proposal for compensation should also be developed for the damage and destruction to Jacko Lake (section 3.18). Again, this dollar figure should cover all aspects of the loss of this recreational, ecological, and cultural area. 	Project comment	General	Jacko Lake	8.7	<p>Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods. Mitigations to reduce any identified impacts will be explored and identified within the Application.</p>	

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1339	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	3.4.5 In Pit Crushing and Conveying The new proposal to install a conveyor for the pit crusher on the northeast arm of Jacko Lake will likely increase noise levels and disturbance in the areas, leading to a likely negative impact for anglers using the lake, as well as wildlife and fish that rely on the area for habitat. This site would destroy the peace and quiet of the present fishing experience and should be reconsidered.	dAIR comment	General	Jacko Lake	8.7	Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods. Mitigations to reduce any identified impacts will be explored and identified within the Application.	
1381	330	4-Apr-12	Personal Information withheld		disturbing the area around Jacko Lake, this is a beautiful lake that has a numerous species of wildlife, beautiful, healthy grassland and frequent usage by fishermen and kayakers	dAIR comment	General	Jacko Lake	8.7	Potential effects of the proposed project on Jacko assessed in the Application/EIS.	
495	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	9.1 Heritage Objects 1. What archaeological resources, in the form of sites or objects, were found to be valued components in the proposed Ajax mine development area? 2. What will be the method of mitigation used to preserve the found resources for the historical, scientific and educational worth under the BC "Heritage Conservation Act"?	dAIR comment	General	Heritage objects	9.1	This information will be provided in the Application/EIS.	
635	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	AIR, 9.1 Heritage Objects 1. What archaeological resources, in the form of sites or objects, were found to be valued components in the proposed Ajax mine development area? 2. What will be the method of mitigation used to preserve the found resources for the historical, scientific and educational worth under the BC "Heritage Conservation Act"?	dAIR comment	General	Heritage objects	9.1	This information will be provided in the Application/EIS. Please see the AIR for an outline of the information to be presented, such as archaeological resources and mitigation measures.	
1111	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	Figure 9.1-1 Heritage Effects Study Area This map boundary is supposed to approximate the Kamloops LRMP but varies significantly from the actual boundaries.	dAIR comment	General	Heritage objects Heritage sites	9.1 9.2	It is not the intention of the Regional Study Area boundary shown on Figure 9.1-1 to approximate the Kamloops LRMP.	
1276	315	4-Apr-12	Personal Information Withheld		While working for the province I was responsible for the land exchange with Teck to secure the current public access site to the lake. When I built the road and parking area I was required to conduct an archeological assessment for First Nations interests. There was evidence found of historical use by First Nations peoples and as such I had to fence off an area with our property in order to protect the site. I would suspect there are other areas around Jacko lake or within the footprint of the proposed operation that have similar values. I would appreciate acknowledgement of this letter as well as having it documented and the concerns addressed within the public comment section of this consultation process.	dAIR comment	General	Heritage objects Heritage sites	9.1 9.2	As noted in section 9.1.2 of the dAIR, the Application/EIS will include information obtained from archaeological overview and impact assessments and from traditional ecological or community knowledge.	

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17	9	5-Feb-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (22 of 23) [2012-02-24 3:11:30 PM]</p> <p>You state that the dust impact will be mitigated. What percentage increase (versus the already marginal air quality we have now) will this cause ? Please show us your study for us to review it. Can you guarantee it during the major windy nights we have ? If it's above your projection, what will you do to compensate our livelihood in this area – economic, health (short and long term) social (can we enjoy our parks, backyards, trails). Will children like mine, with respiratory problems like asthma be affected in any way ? What studies do you have to prove this – and if they do experience increased problems – either playing in their back yards, running on the soccer field or on the school yard at pacific way – what will you do to stop this immediately – and compensate us ?</p>	dAIR comment	General	Air Quality	10.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological data were supplied by the BC Ministry of Environment. A Human Health and Ecological Risk Assessment (HERA) will assess potential health effects based on the predicted incremental change in overall air quality (not on total air quality). This means that the potential for mining operations to result in health effects will be based on the potential increase in dust levels in the local airshed that could be generated by mining operations and not on overall dust levels in the local airshed.</p> <p>The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1
28	13	7-Feb-12	Dianne Kerr		Dust. (Kamloops is a very windy location. Despite whatever attempts are made, we know from even small developments that it is virtually impossible to keep the dust under control. I shudder to think what will happen with that gigantic tailings pile in a hurricane like Kamloops wind, and we get them fairly often.)	dAIR comment	TSF	Air Quality	10.1	Results of air quality dispersion modelling will be presented in the Application/EIS.	Air Quality - 3.3.4.1
48	18	7-Feb-12	Russ Reid	Kamloops, BC	I have been practiced as a specialist in Internal Medicine in Kamloops for 25 years. I don't foresee significant health problems from the Ajax project. The location against the south side of the hill plus the depth of the mine as it progresses should prevent much of the dust from reaching the city. We did not experience obvious dust from any of the previous mining activity in the area. I think the effect on patients with respiratory problems will be limited but certainly support close ongoing monitoring of air quality.	Project comment	General	Air Quality	10.1	Statement of support - out of scope of the AIR/EIS Guidelines.	Air Quality - 3.3.4.1

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73	29	7-Feb-12	Gina Morris	Kamloops, BC	(4) I would like to know, is there naturally occurring mercury in the ground? Thank you for setting our minds at ease about cyanide and mercury use, can you list all of the naturally occurring metals/chemicals that will become airborne as a result of blasting and crushing? (5) If you can answer yes to number 4, will you list all of these metals/chemicals and their possible ill effects on health, so that everyone can read about it?	dAIR comment	Processing facility	Air Quality	10.1	Naturally occurring Mercury is one of the substances of interest that will be addressed in a companion Human Health and Ecological Risk Assessment (HHERA), to be filed with the Application. The list of metals and other chemicals of potential concern associated with the mining operations will be listed in the HHERA documents. The toxicological benchmarks used to evaluate potential human health effects associated with exposures to materials associated with mine activities will be taken from Health Canada. Descriptions of the toxicological effects that could be associated with each of these chemicals can be obtained from Health Canada. All of the other substances of interest that will be modelled will be described in the Final Detailed Dispersion Modelling Plan.	Air Quality - 3.3.4.1
75	29	7-Feb-12	Gina Morris	Kamloops, BC	(2) Use of magnesium chloride and calcium chloride mixed with water to act as binding agents to keep dust down, certain amount of dust that unable to prevent; dust from the rocks and metals that are blasted and crushed, & particulates from the explosive, "ANFO" in air. How does ANFO particulates, affect lung health? (3) Following your test blast, did you study the contents of the resulting dust particles? If yes, what were the chemical and metal components of this dust? (6) Should you be unable to capture all the airborne particulates with the spraying of your combined water, magnesium chloride and calcium chloride, can Ajax mine guarantee that people will not become sick?	dAIR comment	blasting	Air Quality	10.1	Particulate matter and other emissions from blasting will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system. Results will be presented in the Application/EIS. The HHERA will evaluate exposures to particulate matter that may be released as a result of mining operations and assess the potential health effects that could be associated with these exposures in the context of local pre-existing air quality. Where necessary, attention will be given to potential interactions between specific particulates and biological systems. The HHERA will determine the likelihood that the levels of mine-related particulates represent potential concerns for sensitive members of the population. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
106	45	Public comment form from the Feb 6&7 Information Session	Sam Parobec	Kamloops, BC	The potential dust & air quality hazards that can arise from open pit mining should be considered if the amount &/or frequency would fall within the Kamloops Clean air policies coming into place. If the mine is found within city limits, it should be held to the same municipal standards that all residents must abide by.	dAIR comment	General	Air Quality	10.1	City of Kamloops policies respecting air quality will not supersede or supplant the limits or conditions imposed in the BC MOE's Waste Discharge Permit. However, these policies as they affect air quality and noise are being accounted for in the Air Quality study methodology.	Air Quality - 3.3.4.1
116	50	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		The monitors of air quality must remain independent of the company. They cannot be employed by the company. The monitors must be paid for by the public and responsible to the public only. If they fail to report levels of particulate, etc., that are dangerous to human health they must be accountable for some of the damage and fines in instances where they were negligent or irresponsible in their monitoring and reporting to the public.	Project comment	General	Air Quality	10.1	Independent. Qualified Professionals conduct the baseline and impact assessment studies for the proponent; all methodology, assumptions, results, and interpretation will be provided in the Application for public review.	Air Quality - 3.3.4.1

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119	53	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Many of the issues that concern me have been included in the proposed document. To put a personal face on a technical question regarding air quality considerations: How will you ensure that my 2 1/2 year old grandson who suffers from numerous health challenges will be able to breathe freely given the amount of dust that will be generated. He lives in Upper Aberdeen probably less than 2 kms from the mine.	dAIR comment	General	Air Quality	10.1	Potential effects of the project on human health, including any potential effects of altered air quality, will be assessed as a Health VC. Mitigation measures will be implemented where effects are predicted, and the significance of residual effects will be assessed. Monitoring programs during operations will document air quality conditions and additional mitigation measures will be considered where measured effects exceed those predicted during the effects assessment.	Air Quality - 3.3.4.1
124	55	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		The air and dust impact is an important aspect of the project. I attempted to obtain detail on the nature and quality of the input data for the model. The expert Mr. Reid was either unable or unwilling to give me information with respect to the number of sampling stations and the periodicity of the data. This information is important to assess the methodology and should be provided by the proponent. There is no existing example of this size of mine being developed within (or largely within) the boundaries of an existing urban area. The proponent should be asked to develop a detailed socio economic impact approach which addresses the issue. In my over 20 years of developing and participating in public environmental consultation I have never seen security guards in the room, What message is being sent?	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
130	57	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Dust levels - will each area of the city have dust control monitors put in place?	dAIR comment	General	Air Quality	10.1 11	A conceptual Air Control Monitoring and Dust Control Plan will be included in the Application/EIS. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be specified by the BC Ministry of Environment. They will be specified in the 'Monitoring and Reporting' clause of the Air Permit developed by the MOE.	Air Quality - 3.3.4.1

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133	59	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld	Kamloops, BC	<p>"Ajax Mine Questions and Concerns"</p> <p>The concerns relating to the AIR are as follows:</p> <p>3. Extreme Dust: They say they will control dust with magnesium chloride & calcium chloride. All you have to do is Google these substances to see they also have hazards to peoples health, especially in large quantities. Read the MSDS on these substances.</p> <p>5. there is no possible way anything can control the amount of dust this project will produce. This area has glacial silt soil & is very windy.</p> <p>8. Explosions: The smell & extreme toxic fallout caused by blasts each day.</p>	dAIR comment	blasting	Air Quality	10.1	<p>5. Sources of particulate matter include fugitive dust from haul roads mechanically induced by traffic, fugitive dust from conveyances and transfer points, fugitive dust from land areas such as the Ajax open pit, access and haul roads, the tailings storage facility, the waste rock management facilities, and blasting. PM emissions from each of these source areas and activities will be mitigated to the greatest extent practicable. Particulate matter and other emissions from blasting will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system.</p> <p>Design details regarding dust suppression for various activities and mine components will be provided in the Project Description section of the Application/EIS.</p>	Air Quality - 3.3.4.1
140	60	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		b. Dust carried by the constant breeze from the west to the east	dAIR comment	General	Air Quality	10.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants.</p> <p>This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1
144	63	8-Feb-12	David Simms		<p>Winds are complex in hilly terrain but the Canadian Wind Atlas suggests that there is a high probability of winds blowing from the South-West in the Kamloops area. As those air masses are forced upward, by the hills, lying to South of Kamloops, where the proposed mine would be built, they will increase in speed -this is called Bernoulli's Principle. Hence, the ability of those winds to pick up, and transport small particles will increase. As the winds come over the hills, they will diminish in speed - again, this is Bernoulli at work. Just as the high speed winds are able to pick up particles, those same air masses, now burdened with particulate, will slow down once they get over the hills, and allow the suspended particulate to fall. Of course, this particulate matter will fall right into the populated area of Kamloops. Kamloops is noted for its semi-desert, and very dry, climate. This means that there are fewer droplets of water vapour, in the air, to which dust particles might cling and, eventually become heavy enough to fall out of suspension in the air. Dry places have the potential to become dusty places. Add, to that, the effects of the wind, both in direction and speed, and this suggests that Kamloops will become a very dusty place, should this mine go ahead. The phenomenon of airborne dust has occurred before in Kamloops. Once excavation removed the vegetative cover while development was occurring, both at Sun Rivers and in the South-West corner around Wall Mart and Home Depot, significant quantities of dust really altered the air in Kamloops. As a photographer, I observed this. There will be an array of extremely small sized particles, produced at this mine, should it move ahead. The constant explosions will not only break a portion of the rock into ultra-fine particles but they will propel them upward, right into the wind stream. Extremely fine dust, down to 25 microns and less, produced by excavation and milling, will also be present and it will be amply available for transport by the wind. There will be heavy metal particles, like arsenic, cadmium and even some radioactive elements entering the wind stream because those minerals are present in the deposit. It is impossible to discriminate between what will enter the atmosphere and what will not. Combustion products from the blasting will also enter the wind stream. I don't pretend to be well versed in medical research. However, I have been told that particulate, called P10 and smaller -10 microns and less- can enter the lungs, lodge there and ultimately become a cause of cancer. I believe that Ajax will pose a serious health concern to the residents of Kamloops and that there is no way of mitigating this. I have to remind myself that this project will operate ...continued ...</p> <p>24 hours per day , seven days a week, for over twenty years. Fine dust could become a feature of living in Kamloops. I also have to remind myself that there have been open pit mines built near populated areas, elsewhere in Canada. I'm originally from Quebec. The cases of Black Lake, Thetford Mines and Asbestos come to mind. Although any epidemiological information from such areas would be interesting, I doubt that there is any case of an open pit mine, near a populated area with the unfortunate combination of prevailing wind direction and speed, topography, plus the ultra low humidity, as there is in Kamloops. The proposed Ajax mine would be unique, given the above factors. I would hope that, for those same reasons, it will be turned down. I also believe that a precondition, for the mine to proceed -if it must- should be the publication of a baseline public health survey with emphasis on lung ailments. People are entitled to know what the health effects of the mine WERE, even after the fact. Since the population will be unwitting and, probably unwilling, subjects of a giant public health experiment, wouldn't they also be entitled to know the results of this experiment ?</p>	dAIR comment	General	Air Quality	10.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants.</p> <p>This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1

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145	64	8-Feb-12	David Simms		In relation to my last post, why wouldn't the Ajax proponent be required to fund an independent study of wind, humidity and particulate levels, to serve as a baseline, BEFORE being given the go-ahead for this project ? For example, rows of anemometers could be installed along the ridge, near the mine site and along the tops of the hills, just South of the city. Humidity levels could also be monitored at these locations. The dust content of the air, within the city, could also be monitored and time-stamped so it could be related to the other data. This way, scientific information would be gathered BEFORE mining activities begin. Continued monitoring, after the proposed mine begins operations, would allow the impact, on dust levels and the particle sizes, to be ascertained. A year, or more, of monitoring would probably be sufficient to see what impact the mine would have. Then, coupled with the epidemiological study, some definitive conclusions could be made.	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
148	65	8-Feb-12	Alan Havisto	Kamloops, BC	3. The wind usually blows fairly strong in the summer from the south east, how is the mine going to keep the toxic dust from entering the city? I would like to know the proposed levels of dust and what chemicals would be in the dust? 6. What will be done to monitor the air in Kamloops and specially areas close to the mine? 12. What will be done to monitor the air quality in surrounding area? How often and where?	dAIR comment	General	Air Quality	10.1	Dispersion modelling will be used to predict the composition and quantity of particulate matter in various parts of the City. These levels will be evaluated against provincial, federal, or international standards and guidelines to ensure that exposures do not result in deleterious effects. The application of mitigation measures will ensure that these effects are not meaningful in terms of the human, ecological, and health outcomes. The quantity of particulate matter from all sources will be calculated using published emission factors and facility engineering design estimates. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. . A sub-set of these parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be developed by the BC Ministry of Environment in the 'Monitoring and Reporting' clause of the Air Permit.	Air Quality - 3.3.4.1
158	67	8-Feb-12	Personal Information Withheld	Kamloops, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (69 of 77) [2012-02-24 3:07:19 PM] I have significant concerns regarding the proposed Ajax Mine. These include but are not limited to: -Health issues especially from dust	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1

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185	74	10-Feb-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (63 of 77) [2012-02-24 3:07:19 PM]</p> <p>I have several questions about the proposed mine and found at the "open house" the answers we not truthful. I was told there would be no noise, no dust and we would not feel any vibrations in our homes that are so close to the mine site? What is the point of having a public question/ answer forum if they are not going to tell the truth? Having said that one of my questions would be dust related. The "dust expert" at the meeting said "if there is dust on your homes, you can take a sample of the dust, the mine will test the dust and if in fact it is mine dust they will come clean it". That all seems very kind but my question is how will they do the same for my children and their lungs? Can i call the mine and have them test my children for dust exposure? I am not concerned with a clean exterior of my home, i am very concerned that that same dust will be inhaled by my children and all the children in our area. How will they monitor our kids health and long term exposure? What procedure and safety features are in place to protect our most precious assets... our children. In closing i am asking for "proof", perhaps tests, reports, statistics that have been conducted on children growing up around mines and in this case less than 5Km for a mine site.</p>	Project comment	General	Air Quality	10.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. The "dust expert" does not recall stating that the mine would clean local residences if mine dust is found to be present within.</p> <p>The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1
197	77	10-Feb-12	Personal Information Withheld	Kamloops, BC	East waste rock dump – noise from trucks and dumping, dust; would the proponent consider moving these to the old Afton area	dAIR comment	waste rock management facilities	Air Quality Noise and Vibration	10.1 10.4 17.2	The Application/EIS will include assessments of potential dust and noise impacts of the project on receptors. Section 17.4 of the Application/EIS will include discussion of alternative technically and economically feasible ways of carrying out the project; the east waste rock management facility will be included in this assessment.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
208	79	10-Feb-12	Personal Information Withheld		(3) air quality monitoring instruments; what independent body will monitor the results & what action plans does the proponent have in place prior to construction to address the issue	dAIR comment	General	Air Quality	10.1	A conceptual Air Control Monitoring and Dust Control Plan will be included in the Application/EIS. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be dictated by the BC Ministry of Environment. They will be detailed in the 'Monitoring and Reporting' clause of the Air Permit developed by the MOE.	Air Quality - 3.3.4.1

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215	80	10-Feb-12	Personal Information Withheld		(3) Keeping dust from entering city; proposed levels of dust and chemical composition (6) What will be done to monitor the air in Kamloops and in areas near the mine? (12) What will be done to monitor the air quality in the surrounding area, how often and where (16) Chemical emissions from waste rock piles, will they be covered	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A conceptual Air Control Monitoring and Dust Control Plan will be included in the Application/EIS. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be dictated by the BC Ministry of Environment. They will be detailed in the 'Monitoring and Reporting' clause of the Air Permit developed by the MOE. The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
225	82	10-Feb-12	Personal Information Withheld		^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (49 of 77) [2012-02-24 3:07:19 PM]^ (1) Dust preventative measures need to be mandated to ensure that dust doesn't become a health hazard or environmental problem; effects of wind patterns on thickened tailings; cattle dying from ingestion of dust preventative compounds	dAIR comment	TSF	Air Quality	10.1	Dust and general environmental issues are being assessed in the Application/EIS.	Air Quality - 3.3.4.1
236	84	10-Feb-12	Personal Information Withheld		http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (47 of 77) [2012-02-24 3:07:19 PM]^ email dated 7th February 2012 (1) Pollution from dust: currently experience dust issues, many cases of bronchial ailments, presence of arsenic and lead in rocks to be disturbed in mining, contribution to health issues	dAIR comment	Ajax open pit	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. A conceptual Air Control Monitoring and Dust Control Plan will be included in the Application/EIS. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be dictated by the BC Ministry of Environment. They will be detailed in the 'Monitoring and Reporting' clause of the Air Permit developed by the MOE. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1

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241	85	10-Feb-12	Personal Information Withheld		Section 10.1.2 sampling station at Brocklehurst: Why is the sampling being done in an area which is not within the immediate 5km of the proposed mine site – essential to have sampling station within 2-5 km of proposed mine site Will the proponent clearly define the Land Surface Area and the criteria used to determine its boundaries in assessing the potential human health effects; clear justification for methods of data collection should be provided	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. The HHERA will evaluate the potential human health concerns related to the incremental changes in air quality related to the CACs associated with activities at the mine. This will include trace metals and particulate matter and the CACs identified as relevant, by CEPA. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
249	86	10-Feb-12	Personal Information Withheld		3. Dust impacts, respiratory problems, inability of watering to mitigate dust 11. Concern about magnesium chloride and calcium chloride effects on breathing	dAIR comment	General	Air Quality	10.1	Effects of dust on human health will be included in the Application/EIS. Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment, including the requirements for mitigation measures. The AIR also describes the management and monitoring plans to be developed as part of the Application, and the requirement for any follow up programs to verify the accuracy of the environmental assessment of the project. Design details regarding dust suppression for various activities and mine components will be provided in the Project Description section of the Application/EIS.	Air Quality - 3.3.4.1
254	87	10-Feb-12	Personal Information Withheld		^ http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (31 of 77) [2012-02-24 3:07:19 PM]^ Would like to see all items mentioned in comment included in assessment. 1. Meteorology of area: dust and chemical impact – taking into account high winds, rain events (acid drainage from waste rock dumps and tailings piles); sources of dust and toxins – waste dumps, tailings, crushers, blasting, roads, shovels, drills, dozers and loaders	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. Observed hourly averaged meteorological data are used in the modelling program, which may include extreme weather events if these have occurred during the period of record. Extreme weather events will be discussed in Section 17.5 of the Application (Effects of the Environment on the Project). This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1

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264	87	10-Feb-12	Personal Information Withheld		air quality and air shed carbon emissions,	dAIR comment	General	Air Quality	10.1	This will be assessed in the Application/EIS.	Air Quality - 3.3.4.1
284	89	11-Feb-12	David Verhoeff	Kamloops, BC	8. Air Quality - dust? potential toxins?	dAIR comment	General	Air Quality	10.1	All of the substances of interest that will be modelled will be described in the Final Detailed Dispersion Modelling Plan as reviewed and approved by the BC EAO-Chaired Health Sub-Committee of the Technical Working Group. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. . A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. All of the substances of interest that will be modelled will be described in the Final Detailed Dispersion Modelling Plan. The air quality dispersion modelling plan was provided to the BC EAO, CEA Agency and TWG for input and was approved by the regional air quality meteorologist. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. . A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants.	Air Quality - 3.3.4.1
289	92	11-Feb-12	Anne Lloyd	Kamloops, BC	Members of my family have been diagnosed with allergies to dust. We live in the Aberdeen area. What is the exact projection of anticipated increase to atmospheric dust if the mine is approved? If this mine was in operation before we purchased our home in Kamloops, we would not have bought it. Will we now be forced to relocate? If so, how does this seem fair?	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1

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295	94	12-Feb-12	Personal Information Withheld	Kamloops, BC	Dust- effects on local vegetation and lakes? effects on young people and seniors? how will longterm health effects (costs) be handled by the mine? effects of spraying roads with chloride chemicals to manage dust? will there be a roof over stockpiled rock?	dAIR comment	Waste rock management facilities	Air Quality	10.1	Effects of dust on vegetation and lakes and on human health will be included in the Application/EIS. At the concentrations contemplated for dust control, magnesium chloride and calcium chloride immediately dissociate to Mg and Cl or Ca and Cl, all of which are essential elements. Design details regarding the ore stockpiles will be provided in the Project Description section of the Application/EIS.	Air Quality - 3.3.4.1
313	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Will the tailings pile have an odor?	dAIR comment	TSF	Air Quality	10.1	Potential odours associated with the tailings storage facility will be discussed in the air quality assessment. Odour would be considered in so far as some of the ambient air quality criteria may be based on odour. Air quality criteria that are based on odour will be discussed in the Application/EIS.	Air Quality - 3.3.4.1
321	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Where are the current dust stations they are using to collect data?	dAIR comment	General	Air Quality	10.1	The location of the dustfall monitoring stations will be included as part of the baseline information presented in Section 10.1 of the Application/EIS.	Air Quality - 3.3.4.1
326	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Have they done any studies of dust at Highland Valley Copper another open pit mine close by and subjected to high winds, maybe not the heat we get but close?	dAIR comment	General	Air Quality	10.1	Comparisons to Highland Valley Copper will not be done as part of this Application as these data have no direct relevance on the Ajax Project.	Air Quality - 3.3.4.1

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338	108	15-Feb-12	Ken Soneff	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (17 of 18) [2012-02-24 3:14:53 PM]^</p> <p>I am a resident and homeowner of 8 years in Aberdeen adjacent to the former Aberdeen golf course. My concerns at this time to the proposed Ajax mine are in regard to noise and dust. Prevailing and strongest winds in Aberdeen blow through the mine area into Aberdeen and Pine Valley. This will convey both noise and dust to our immediate area. My greatest concern is in regard to air quality and I am requesting that baseline air quality monitoring stations be established through Aberdeen, Pine Valley and Dufferin prior to any mine site development. Sites should include the Aberdeen, Pacific Way and Dufferin schools. The purpose and need to establish baseline air quality prior to any construction is to benefit, both residents and the mine owners to better address the inevitable complaints that will occur after mine development. I appreciate that modeling of wind patterns may be planned, but this is not sufficient to address air quality impacts. Also the air quality must be monitored in the residential neighbourhoods close to the mine and must not be taken from air monitoring sites downtown, or lower in the valley as the wind and air quality is significantly different lower in the valley. No mine development should occur until adequate baseline data is collected (this includes other impacts such as water quality etc.) I would appreciate receiving a response to my concern.</p>	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. A conceptual Air Control Monitoring and Dust Control Plan will be included in the Application/EIS. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be specified by the BC Ministry of Environment. They will be detailed in the 'Monitoring and Reporting' clause of the Air Permit developed by the MOE.	Air Quality - 3.3.4.1
349	112	20-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (9 of 18) [2012-02-24 3:14:53 PM]^</p> <p>My concerns regarding the proposed Ajax mine within city limits are: -air quality. Fine dust from the mine will occur. The prevailing winds in the Aberdeen area are south to north or down hill from the mine. The air quality in our valley is compromised at times and health warning are made aware on the radio due to stale air sitting in the valley. When this occurs if the mine is in place there will be increased respiratory health risks to all.</p>	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Air Quality Technical Data Report that will accompany the Application/EIS. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. A HHERA will evaluate potential effects on human and ecological receptors.	Air Quality - 3.3.4.1
368	120	23-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (49 of 57) [2012-03-02 9:25:43 AM]^</p> <p>We own an ranch southwest of Kamloops. Afton's old tailings pond is located 800 metres from our house, New Gold's tailing's pond is located 750-800 metres from our house and Ajax's proposed tailing's pond will be located approximately 2 km from our house. We also get whatever Domtar puts out of their stack when winds come from a northerly direction. The Coquihalla Highway is approximately 2 km from us with 1500 transport trucks, plus small vehicles commuting daily. We would like to know what the health risk is to us and our family who live in this area. We look forward to hearing from you.</p>	dAIR comment	TSF	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. A HHERA will evaluate potential effects on human and ecological receptors.	Air Quality - 3.3.4.1

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372	123	24-Feb-12	Sean McGuiness	Kamloops, BC	although dust and noise can be mitigated, they cannot be eliminated completely. Dust inhalation can cause health risks. What about noise from trucks and other heavy equipment?	dAIR comment	General	Air Quality Noise and Vibration	10.1 10.4	Dust and noise issues are being assessed in the Application/EIS.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
384	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	3. Health a) what is the estimated increase in airborne particulates? b) what is the specific composition of the airborne pollutants and what are the potential health consequences? c) what is the potential for increased exposure to toxins ... cyclists using Goose Lake Rd, Inks Lake skaters d) what will be the estimates for: increased incidence of respiratory illness, visits to the emergency room, doctors offices, disease or decreased quality of life e) how does the proponent and Ministries providing permits justify allowing for new exposures to particulates and pollutants in a population?	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. . A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. A HHERA will evaluate potential effects on human and ecological receptors.	Air Quality - 3.3.4.1
388	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	c) what will be the effect of evaporating contaminants from tailings into the air?	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. A HHERA will evaluate potential effects on human and ecological receptors.	Air Quality - 3.3.4.1

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401	129	27-Feb-12	Kamloops Area Preservation Association	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (39 of 57) [2012-03-02 9:25:43 AM]^ Submission from Douw G. Steyn, From the letter - Main issues: The proposed development has the potential to add a substantial source of mineral dust to the air pollutant burden of the Kamloops Valley. While the dust is mainly inert mineral material, the possibility of heavy metals contamination of the dust poses a particular concern. We believe that particular care must be exercised in understanding the air quality implications of the proposed development, given the close proximity of the mine installations to residential areas of Kamloops. 2 major matter should be dealt with to appropriately address air quality: quality and representativeness of observational data used to drive the dispersion modeling and methodologies used to perform the meteorological and dispersion modeling. Atmospheric modeling must capture the spatial and temporal variation in wind fields and associated pollutant dispersion in the Kamloops Valley. We recommend CALMET to calculate meteorological fields and CALPUFF to understand pollutant dispersion from the mine site and tailings piles. Emissions rates should be calculated using appropriate methods such as USEPA AP-42 Compilation of Emission. Meteorological Data Requirements: A network of meteorological station data is needed by CALMET to capture spatial and temporal variability of meteorology in the Kamloops Valley and in the immediate area of the tailings piles. We believe the following data and analysis will be needed: 1. tower-mounted anemometer at or near the create of Sugarloaf Hill or Coal Hill to characterize valley scale wind speed and direction in general location of proposed tailings pile. 2. meteorological measurements at or near the location of the proposed tailings piles are needed in order to understand dust suspension from tailings piles. Such data will also allow an assessment of frequency of occurrence and direction of strong winds over the tailings piles. 3. long-term meteorological data is needed to capture seasonal variations and that data is representative of long-term average conditions in the valley. 30 years from the Kamloops airport should suffice 4. upper-level meteorological data is require to run CALMET. Kelowna is the closest location. The representativeness of this for Kamloops would have to be investigated. ...continued ... Perhaps use ACARS based soundings from the Kamloops airport or prognostically generated 3D wind fields from a numerical prediction model run at high resolution. 5. hourly meteorological data would be useful for initializing the CALMET model. Potential for additional data from MFRNRO, MOT, MOE stations should be explored. Emissions Data Requirements: Characterizing emissions rates is important for dispersion modeling. 3 different sources of fugitive emissions: vehicle travel on paved and unpaved roads, handling the mining material, and wind erosion of tailings piles. Calculating emissions from these sources will require estimates of silt loading and moisture content from roadbed material and tailings. In order to assess wind-assisted erosion rates from the tailings structure should be undertaken so that the tailing's threshold velocity friction can be calculated.</p>	dAIR comment	General	Air Quality	10.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. The quantity of particulate matter from all sources will be calculated using published emission factors and facility engineering design estimates. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. The CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory. The CALMET data set will have a 250m grid resolution throughout the modelling domain and 10 vertical levels. The CALPUFF domain is sized to capture all values of interest (e.g. predicted concentrations greater than 10% of the applicable ambient air quality objective). The CALMET data set captures all possible hourly meteorological conditions over the period 2003-2005. The dispersion modelling results presented will be representative of maximum emission rates following application of mitigation. It is not generally accepted practice to present dispersion modelling results for uncontrolled emissions. This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1
456	132	28-Feb-12	Heather Mewhort	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (1 of 57) [2012-03-02 9:25:43 AM]^ Dear Environmental Assessors of the KGHM Ajax Mine Proposal: After reading the displays prepared by the Environmental Agencies, based on information prepared by KGHM Ajax Mining Inc., on February 7, 2012, I have a heavy heart. I am afraid that the mine is a "done deal". However, I can only hope that my questions will be answered and my concerns addressed by the KGHM Ajax Mining Company. In reality, I hope that this mine will not be situated so close to my home in Aberdeen. 1. I have asthma and take Advair twice a day. Can you assure me that the air in Aberdeen and Kamloops, as a whole, will not deteriorate as a result of the Ajax mine situated in such close proximity to my home and partially within Kamloops' city boundaries?</p>	dAIR comment	General	Air Quality	10.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. HHERA will evaluate potential metal uptake from dustfall into locally grown produce and forage and from forage into locally raised livestock. Assessment of metal concentrations in locally grown produce is intended as part of the baseline study, and could, if necessary be continued during operations if the HHERA identifies potential concerns related to produce consumption.</p>	Air Quality - 3.3.4.1
468	136	1-Mar-12	Personal Information Withheld	Kamloops, BC	<p>Dust and air quality Kamloops and Knutsford are notoriously windy. How can the proponent guarantee that dust will not escape into the air from the mine, waste rock facility or the tailings area? -If or when the dust enters the air can they guarantee that the particulate will not compromise the air quality of Kamloops? -During certain conditions Dometar emissions sit in the valley and the air quality health index is negatively affected creating problems for people with respiratory issues and those with autoimmune or chronic illnesses. Can the proponent guarantee that the dust generated by the mine will not add to the burden on the air quality during these conditions? Can the proponent guarantee that the air-borne dust contains no toxins? What long and short-term affect does the dust have on the plants and trees and on the birds and animals that ingest them?</p>	dAIR comment	General	Air Quality	10.1	<p>Dispersion modelling will be used to predict the composition and quantity of particulate matter in various parts of the City. These levels will be evaluated against provincial, federal, or international standards and guidelines to ensure that exposures do not result in deleterious effects. HHERA will be based on ambient air quality criteria developed by regulatory agencies such as BC MOE and Health Canada. And will look at incremental contributions from the project to determine the significance of the project-related contribution to local ambient air quality. A HHERA will evaluate the potential human health concerns related to the incremental changes in air quality related to activities associated with the proposed mine.</p>	Air Quality - 3.3.4.1

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476	137	1-Mar-12	Personal Information Withheld	Chase, BC	Dust created by mining process – water can't be used to keep dust down in winter – calcium chloride impractical or too expensive	dAIR comment	General	Air Quality	10.1	Design details regarding dust suppression for various activities and mine components will be provided in the Project Description section of the Application/EIS.	Air Quality - 3.3.4.1
482	139	2-Mar-12	Personal Information Withheld	Kamloops, BC	' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (69 of 77) [2012-03-06 2:47:31 PM]' I would like to see an estimate of how much silica is going to be blown over and onto the neighbourhoods of Kamloops by the proposed mine. I would like a study from another similar open pit mine that shows how much silica (and any other health compromising substances) is deposited on the landscape 2 km from the mine, over at least a time period of a few months (preferably a year). That's how much may be deposited on the nearby Pacific Way school grounds from the Ajax mine. Is that level of silica tolerable, i.e. will it have an impact on growing lungs that play there everyday?	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. HHERA will evaluate potential metal uptake from dustfall into locally grown produce and forage and from forage into locally raised livestock. Assessment of metal concentrations in locally grown produce is intended as part of the baseline study, and could, if necessary be continued during operations if the HHERA identifies potential concerns related to produce consumption.	Air Quality - 3.3.4.1
486	143	3-Mar-12	Personal Information Withheld	Kamloops, BC	' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (65 of 77) [2012-03-06 2:47:31 PM]' My biggest concern is mine dust and dust from explosions causing health problems for the residents of Kamloops. The health of my family, friends and community is far more important than development of a mine.	dAIR comment	General	Air Quality	10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. HHERA will evaluate potential metal uptake from dustfall into locally grown produce and forage and from forage into locally raised livestock. Assessment of metal concentrations in locally grown produce is intended as part of the baseline study, and could, if necessary be continued during operations if the HHERA identifies potential concerns related to produce consumption.	Air Quality - 3.3.4.1

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493	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	<p>Section 10.0 - Assessment of Potential Health Effects</p> <p>1. What up to date data is being used to track the particulate matter in the very diverse geographic area that will address the complex flow and dispersion patterns that are unique to the Kamloops and Knutsford region?</p> <p>2. What models of equipment and methods for prediction have been used and are being used to provide baseline and continual accuracy when inversions and low wind speeds are present? What are the large and small particulate measurements registered?</p> <p>3. Where are the locations of each monitor in distance from and in relation to the proposed tailings storage facility, the proposed open pit, the proposed mineral crushing equipment and the west and east proposed waste rock sites?</p> <p>4. What specific short term and long term instruments are to be placed to monitor the continual emission factors associated with dust from the mineral crushing equipment/facilities?</p> <p>5. What are the multiple variables that have been addressed in the estimation of fugitive emission sources and what sources have been identified?</p> <p>6. Over what years was the baseline data collected and to what measure of certainty can these be attributed to the development location, size and components?</p> <p>7. What methods determined the individual Point source predictions and the variable certainty of fugitive particulate predictions, large and small particulate and emission fumes?</p> <p>8. What models have been used to measure and what specific studies to predict the suspended particulate and include the condensable fraction? Were the studies used relevant to the location, size and mining components of this proposed development?</p> <p>9. From what height was the upper air data recovered and where in Kamloops is this equipment/instruments located to provide information accuracy? Was this instrument relevant to the distance and geographical location of the proposed mine development?</p> <p>10. What measures have been in place, where and for what time period, to determine the "Keeping-Clean-Areas-Clean Guideline measurement data for the Upper Aberdeen, Pineview Valley, Knutsford, and Proposed Mine Site immediate south area, also Goose Lake Road, Inks Lake and the Lac Le Jeune Road as indicated in the AIR as reference? ...continued ...</p> <p>11. What are the Legal obligations documented for the KGHM/Abacas mining companies to follow the MOE2008 B.C. guidelines and the KCAC guidelines as enforceable by the Federal Gov. of Canada and B.C. Gov.?</p> <p>12. How has the Proposed Kinder Morgan Pipeline rerouting/double tracking proposed process and the established two railway stations and routes been included in the measured Air Quality and environment adverse impacts studies?</p>	dAIR comment	General	Air Quality	10.1	<p>The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and assay results and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The default setting for both CALMET and CALPUFF models will be consistent with those recommended in the BC dispersion modelling guidelines. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory. Additional details will be presented in the Application/EIS. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be specified by the BC Ministry of Environment. They will be specified in the 'Monitoring and Reporting' clause of the Air Permit. Regulatory requirements will be included in the Application/EIS. The analysis will include assessment of cumulative impacts from existing and reasonably foreseeable projects. The twinning of the Kinder Morgan pipeline may be included if additional details are available prior to submission of the Application/EIS.</p> <p>The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1
494	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	<p>13. What chemical nature is in the dust and emissions from each area, Tailings compound, Waste rock, Flotation process, Blasting detonations? What amount of chemical and toxic level of each individual identified chemical has been measured and by what method?</p> <p>14. To what degree have the potential for, local/ area invasive, forest fire, slash burning and grass fire emissions been taken into account when the air quality predictions are being determined? (Study released 2011 from Kelowna Health) What are the proposed mitigation measures at these times, being presented by the proponent in the event of the air quality being effected by these sources?</p> <p>15. What studies have been done to determine the air quality condensable fraction on the toxicity of the soil in the immediate as well as dispersion areas? What would the condensable fraction be of open water sources over time?</p> <p>16. What instruments have been used and prediction studies used to determine the impact on the air quality and therefore soil and open water quality that will adversely effect the existing insect population, especially the pollinating bee population, in the proposed mine development area and what distances of impact have they been adequately considered?</p>	dAIR comment	General	Air Quality	10.1	<p>Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. The quantity of particulate matter from all sources will be calculated using published emission factors and facility engineering design estimates. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. It is not generally accepted practice to present dispersion modelling results for uncontrolled emissions. A HHERA will evaluate potential effects on human and ecological receptors.</p> <p>This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1
507	146	4-Mar-12	Personal Information Withheld	Kamloops, BC	<p>How can the mine guarantee that no mine dust would escape from the mine site?</p> <p>How could escaped mine dust affect the safety of garden crops?</p> <p>What safety and health guarantees are in place for the children who attend Pacific Way Elementary and Aberdeen Elementary?</p> <p>Will dust levels on school playgrounds be measured and acted upon on a regular basis?</p> <p>Would such dust be tested for dangerous chemical composition?</p>	dAIR comment	General	Air Quality Country Foods	10.1 10.3	<p>Dispersion modelling will be used to predict the composition and quantity of PM in various parts of the City. These levels will be evaluated against provincial, federal, or international standards and guidelines to ensure that exposures do not result in deleterious effects. A HHERA will look at incremental contributions from the project to determine the significance of the project-related contribution to local ambient air quality. A conceptual Air Control Monitoring and Dust Control Plan will be included in the Application/EIS. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be dictated by the BC Ministry of Environment. They will be detailed in the 'Monitoring and Reporting' clause of the Air Permit developed by the MOE.</p>	Air Quality - 3.3.4.1

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545	147	5-Mar-12	Kevin Cowan	Kamloops, BC	23. In section 10.1.4, the proponent states ... that mitigation measures will be discussed to minimize the release of fugitive dust during all phases of construction, operation and decommissioning and closure. 24. What is the meaning of the phrase "mitigation measures will be discussed"? 25. Will the EAO required that the proponent specifically describe mitigation measures, commit to them in writing and ensure absolute compliance before granting any approvals? 26. If not, why not? 27. With respect to available assay material in the drilling cores already sampled during preliminary exploration, my specific questions are as follows: a. How many drill cores have been taken from the proposed mine site in order to provide data for the proponents and for the Environmental Assessment Office? b. What are the locations of the drill sites within the mine and have they been mapped? c. How deep is each of the drill cores? d. How have the drill cores been preserved, and will they be made available to the environmental assessment office or to interested parties in the public for sampling and assay testing? e. If not, why not?	dAIR comment	General	Air Quality	10.1 19	A Table of Commitments will be provided in the Application/EIS, which may include a specific description of mitigation measures (described in Section 19 of the dAIR). The drilling program will be described in the Application/EIS. The drill cores have been preserved. It is not the role of the EAO to conduct sampling or run assays; results of the assays will be used in the effects assessment to be presented in the Application/EIS, to which the public will have access. The cores will not be made available.	Air Quality - 3.3.4.1
547	147	5-Mar-12	Kevin Cowan	Kamloops, BC	29. Further questions pertaining to dust suppression and monitoring, are as follows: a. What communities, as close as Kamloops to a mine of this scope, have been studied b. Have there been studies to determine the size of the dust granules, and if so, what are these values? c. What are the projected dimensions of the dust plume expected to rise from the mining operation (expressed in volume and in distance covered)? d. What is the source of this information? e. If this information does not exist, why does it not exist, and when will this information be available for environmental assessment? f. Have the proponents or the environmental assessment offices modeled the dust cloud to determine if likely location, extent and effect upon the population of Kamloops? g. If so, how does one access this information? h. If not, why not? i. What are the current allowable limits of ambient mine dust in the Kamloops airshed, expressed in parts per million, and how were these limits determined? j. What are the current levels of ambient dust in Kamloops airshed, expressed in parts per million, and how are these levels measured? k. By who are they measured? l. Are there weather conditions which will require the mine to cease operations, and if so, what are they? 31. Will the proponent be required to conduct detailed tests and model confirming the amount of copper solutions which will be inhaled by the citizens of Kamloops and their projected effect on long-term health? 32. If not, why not? 33. If so, has this been done and where can the studies be reviewed? 34. To what extent have the drilling cores sampled by the proponents, been assayed in order to determine the precise amount of dangerous trace elements, including, but not limited to copper compounds, arsenic, chromium, lead, mercury, uranium etc.? 35. If these values have been determined, please confirm which drilling holes have been sampled, at what depths and by whom? 36. If these values have not been determined, please explain when this will transpire and by whom? 37. Is there any risk of poisonous gas caused by the chemical reactions in the expositions, H ₂ SO ₄ , radon gas or other harmful substances being released by the mining process? 38. Has this been studied and reported upon by the proponent or measured by the EAO? 39. If not, why not? 40. If these values (hazardous substances, copper compounds, poisonous gases) have not been determined by the proponents, please explain why and please also explain: ...continued ... a. whether the drilling cores have been made available for similar testing by the Environmental Assessment Office, and if so, has this been done independently by the EAO? b. If the drilling cores are made available to the EAO, are there plans to independently assay the drilling core in order to test these values and compare them with those supplied by the proponents? c. Within the Kamloops air shed, what are the allowable limits for each trace element may have negative effects on human health? d. Are there any studies on the effect on human health of ambient mine dust or the trace elements projected to be suspended in the ambient dust likely to be thrown up by the Ajax mine? e. What are these studies, and have they been incorporated into the environmental assessment process to date? f. If so, what are these results and what are the projected health issues which may affect the residence of Kamloops? g. If not, why have studies of this nature not been undertaken or required of the proponents? h. If not, will studies of this nature be demanded of the proponents prior to completion of the environmental assessment process? i. What is the projected consumption of fossil fuels in the operation of the mine, expressed in litres of fuel burned during each day of production? j. Has the proponent or the government conducted studies as to the effect that consumption of fossil fuels will further degrade the air quality in the Kamloops area? k. If so, is this information available to the public? l. If not, why not?	dAIR comment	General	Air Quality	10.1	Comparisons to other projects near communities will not be included as part of the air quality modelling presented in the Application/EIS as these data have no direct relevance on the Ajax Project proposed by KGHM Ajax Mining Inc. Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. The drilling program will be described in the Application/EIS. The drill cores have been preserved. It is not the role of the EAO to conduct sampling or run assays; results of the assays will be used in the effects assessment to be presented in the Application/EIS, to which the public will have access. The cores will not be made available to interested parties. The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS. Where valid comparisons can be made to operating mines, they will be, on a VC specific basis.	Air Quality - 3.3.4.1
554	148	6-Mar-12	Gisela Ruckert	Kamloops, BC	In addition, I would like to see alternate locations for the waste dumps investigated and costed out to potentially mitigate the concerns of Aberdeen residents re dust and equipment noise.	dAIR comment	waste rock management facilities	Air Quality Noise and Vibration	10.1 10.4 17.2	Section 17.4 of the Application/EIS will include discussion of alternative technically and economically feasible ways of carrying out the project; the waste rock management facility will be included in this assessment.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2

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555	148	6-Mar-12	Gisela Ruckert	Kamloops, BC	Thirdly, I believe that air quality monitoring needs to be done on site and in the neighbourhood. Current monitoring locations as far away as Brocklehurst cannot be deemed adequate to meet the needs of residents living within two km of the site.	dAIR comment	General	Air Quality	10.1	Potential air quality effects will be assessed in the Application/EIS. The baseline monitoring program will be described.	Air Quality - 3.3.4.1
560	150	7-Mar-12	Personal Information Withheld	Kamloops, BC	4) increased dust and potential for health damaging particulates;	dAIR comment	General	Air Quality	10.1	Potential air quality effects will be assessed in the Application/EIS. A HHERA will evaluate potential effects on human and ecological receptors.	Air Quality - 3.3.4.1
566	153	7-Mar-12	Judy Wigmore	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (66 of 69)[2012-03-14 4:29:55 PM]^</p> <p>I have the following requests on the Ajax Mine Project:</p> <p>1. Regarding air quality, the proponent needs to:</p> <p>a) Identify what will be in the tailings and how this "dust" will be dispersed in real time over the Kamloops airshed. Data from a hypothetical dispersion model is not acceptable as it will not reflect the true dispersion of tailing particulates throughout the Kamloops airshed.</p> <p>b) Locate weather data stations in areas that will create dust . . . the proposed waste rock, tailings and open pit areas. Weather data from the current weather station (lee of Sugarloaf Mountain) is not relevant as the location is not in a potential "dusty" area.</p> <p>c) If the project is approved, the proponent must be directed to establish air monitoring stations throughout the Kamloops airshed before construction begins. Monitoring stations need to be in directly effected neighbourhoods (i.e. Pacific Way, Aberdeen, Dufferin, Sahali, Pine View) and other locations (i.e. TRU campus, Royal Island Hospital, MacArthur Island, Westsyde, Valley View, Rose Hill). School yards are great locations for educating students, their families and surrounding residents about what's in the air they are breathing.</p> <p>2. The proponent needs to have a 3D scaled model of the project available for public review.</p> <p>3. The proponent must ensure that all project maps and diagrams are to scale, with scale identified.</p>	dAIR comment	TSF	Air Quality	10.1	<p>1 a) The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. This information will be presented in the Application/EIS. b) It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. c) The number, placement, and specifications of the air quality monitoring program will be specified by the BC Ministry of Environment. They will be specified in the 'Monitoring and Reporting' clause of the Air Permit developed by the Moe. 2. Please see the project website for a 3D visual representation of the project. 3. Maps and diagrams to be presented in the Application/EIS will scaled.</p> <p>The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1

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585	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> 3.8.1 Waste Rock Storage Facilities: From a common sense perspective the NWD and EWD are located too close to residential developments and schools. As the piles get higher and become a mass of unprotected soils it is not reasonable to expect that water and binding agents will control dust especially during the winter freezing months and during high wind events which happen in the area. Has winter freezing high wind events and the elevation & size changes of the waste piles been factored into the dust dispersion modelling. The model must also factor in that there are children and adults with respiratory conditions within 1500meters. 	dAIR comment	waste rock management facilities	Air Quality	10.1	Potential air quality effects will be assessed in the Application/EIS. The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. Modelling results will be presented for two years identified as having the highest levels of mining activity to obtain conservative estimates.	Air Quality - 3.3.4.1
603	162	9-Mar-12	Frank Dwyer	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (55 of 69) [2012-03-14 4:29:55 PM]^</p> <p>I and my family trust that the assessment will review the following questions and appreciate the opportunity to participate:</p> <ul style="list-style-type: none"> What pollutants will regular and large scale blasting discharge into the atmosphere as a byproduct of the detonation of diesel fuel and ammonium nitrate (or other explosives)? 	dAIR comment	blasting	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
606	162	9-Mar-12	Frank Dwyer	Kamloops, BC	<ul style="list-style-type: none"> Finally, what contribution will the mass of diesel fuel truck engines have - through down slope migration of pollutants - have on ozone accumulating during the hot summer months within the Kamloops city bowl? 	dAIR comment	General	Air Quality	10.1	The potential and likelihood of ozone forming will be considered from the perspective of emission quantities and dispersion.	Air Quality - 3.3.4.1

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607	163	10-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (53 of 69) [2012-03-14 4:29:55 PM]^</p> <p>I am not opposed to mining however I do have a few questions/concerns due to the proximity of this proposed mine to the City of Kamloops.</p> <p>Air Quality:</p> <ul style="list-style-type: none"> • Kamloops and Knutsford are notoriously windy. Is there a guarantee that dust will not escape from the mine, waste rock facility or the tailings area into the air? • If or when the dust enters the air will the particulate not compromise the air quality of Kamloops? • Will the dust generated by the mine add to the burden on the air quality? • Will the air-borne dust contains toxins? • What long and short-term affect would the dust have on people with respiratory issues and those with autoimmune or chronic illnesses as well as the plants and trees and on the birds and animals that ingest them? 	dAIR comment	General	Air Quality	10.1	Dispersion modelling will be used to predict the composition and quantity of particulate matter in various parts of the City. These levels will be evaluated against provincial, federal, or international standards and guidelines to ensure that exposures do not result in deleterious effects. The application of mitigation measures will ensure that these effects are not meaningful in terms of the human, ecological, and health outcomes. The quantity of particulate matter from all sources will be calculated using published emission factors and facility engineering design estimates and determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of these parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants, with results included in a HHERA. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
632	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	<p>10.0 - Assessment of Potential Health Effects</p> <ol style="list-style-type: none"> 1. What up to date data is being used to track the particulate matter in the very diverse geographic area that will address the complex flow and dispersion patterns that are unique to the Kamloops and Knutsford region? 2. What models of equipment and methods for prediction have been used, dates given, and are being used to provide baseline and continual accuracy when inversions and low wind speeds are present? What are the large and small particulate measurements registered? 3. Was or will the Cal-Puff data be used with the reflection of the winds to account for the extensive geographical changes in the immediate area? 4. How have the draws of the upper winds down the steep hills/valley walls into the valley bottom been assessed and has temperature change been predicted in the data predictions? 5. Where are the locations of each monitor in distance from and in relation to; the proposed tailings storage facility, the proposed open pit, the proposed mineral crushing equipment and the west and east proposed waste rock sites? 6. What specific short term and long term instruments are to be placed to monitor the continual emission factors associated with dust from the mineral crushing equipment/facilities? Who will provide the continual monitoring required? 7. What are the multiple variables that have been addressed in the estimation of fugitive emission sources and what sources have been identified? 8. How have the results of the limited vertical and horizontal mixing due to temperature inversions and topography been inset into the air quality conversions and what instruments/methods were used? 9. What analysis has been done to accurately identify the heavy metal particulate that is contained in recently opened geological materials as the Ajax mine operation continually progresses? Will the resulting emissions be lethal when blown into the air? 	dAIR comment	General	Air Quality	10.1	<p>A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory. Additional details will be presented in the Application/EIS. The CALPUFF modelling system will be used as specified in the Final Detailed Dispersion Modelling Plan as reviewed and approved by the BC EAO-Chaired Health Sub-Committee. The default setting for both CALMET and CALPUFF models will be consistent with those recommended in the BC dispersion modelling guidelines. The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. . If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be specified by the BC Ministry of Environment. They will be specified in the 'Monitoring and Reporting' clause of the Air Permit.</p> <p>The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.</p>	Air Quality - 3.3.4.1
633	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	<ol style="list-style-type: none"> 10. Over what years was the baseline data collected for wind velocity, direction, particulate and to what measure of certainty can these be attributed to the proposed Ajax mine development location, proposed Ajax mine size and emissions and assay components? 10. What methods determined the individual Point Source predictions and the variable certainty of fugitive particulate predictions, large and small particulate and emission fumes? 11. What models have been used to measure and what specific studies were used to predict the suspended particulate and include the condensable fraction? Were the studies used relevant to the location, size and mining components of the Ajax proposed development? 12. From what height was the upper air data recovered and where in Kamloops is this equipment/instruments located to provide information accuracy? Was this instrument relevant to the distance and geographical location of the proposed Ajax mine development? 13. What measures have been in place, where and for what time period, to determine the "Keeping-Clean-Areas-Clean Guideline" measurement data for the Upper Aberdeen, Pineview Valley, Knutsford, and Proposed Mine Site immediate south area, also Goose Lake Road, Inks Lake and the Lac Le Jeune Road as the proponent indicated in the AIR as reference? 	dAIR comment	General	Air Quality	10.1	<p>The CALMET data set covers the years 2003-2005. The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. . This information will be presented in the Application/EIS. b) It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. Baseline air quality measurements, and the baseline air quality derived from them will be addressed in the Application/EIS.</p>	Air Quality - 3.3.4.1

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642	170	12-Mar-12	Peter English	Aberdeen, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (35 of 69)^ Further studies - Air quality as it exists to date. Monitoring standards, enforcement of acceptable tolerance levels, power to cease and desist to date versus after Ajax becomes a reality. What undesirable trace elements are currently present (arsenic??) when disturbed, what health risks (if any) are envisioned, who monitors, who enforces, who is empowered to order a cease and desist notice. Air common denominator to ALL residents in and around Kamloops. Author of this concern resides within 5 kilometer radius of proposed mine site.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and assay results and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The default setting for both CALMET and CALPUFF models will be consistent with those recommended in the BC dispersion modelling guidelines. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed and upper air data from a detailed meteorological inventory. Additional details will be presented in the Application/EIS. A HHERA will evaluate potential effects on human and ecological receptors. If the project receives environmental approval, conditions for operation will be outlined in various provincial and federal licences and authorizations.	Air Quality - 3.3.4.1
662	178	13-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (8 of 69)[2012-03-14 4:29:55 PM]^ Although not an expert in these matters I feel I must comment on the proposed Ajax Mine project. My family and I live approximately 5 km northeast of the centre of the existing Ajax pit and perhaps as close as 3 km to the East Waste Rock Management Facility. I can sit at my kitchen table and see Coal Hill and the ridge behind which the mine will be operating. I did attend the Open House on Feb 7, 2012 but feel many of my questions were either not answered sufficiently or at all. Part of the problem was simply the casual style of the event that made it almost impossible to find all the proponent's experts to get answers or, when found, hard to keep their attention to complete a discussion. The major points of my concern are: • The impact on air quality in the Kamloops area, a region that has geographic challenges to air quality. To add more particulates to the Kamloops airshed is ill advised. We already have industrial, transportation and residential emissions added to the natural particulates from the alluvial soils of the area. And, of course, Ajax is situated upwind of the majority of the city. The dust created will blow over residential areas (Aberdeen, Sahali, Pine View, Dufferin) before making it into the river valley and spreading predominantly eastward through North and South Kamloops and Kamloops Indian Band lands.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
671	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	<p>1. Air Quality: • We are concerned that our neighbourhood will have an increase in airborne particulate/pollution and that this will have a negative impact on our health. One of us already has respiratory problems triggered by pollen allergies and pollutants from forest fires (almost every year - not just in 2003). More pollution is likely to exacerbate these problems. • We are concerned that the currently proposed dust/pollution modelling study may need to be more stringent in order to satisfy the unique concerns in this case. • Will there be any increase in dust and other pollution from mining trucks, tailings erosion, explosions, crushers, etc., related to the mine? If so, what will be the possible particulate percentage increase in our area and other parts of the city? How far away will particles be carried? How will it be monitored, who will do the monitoring, and what will happen if the increase is more than what is predicted? If it is to be monitored by the mine, what will they do if pollution exceeds the current levels despite their best efforts? Will the mine be responsible for cleaning our home or our vehicles, both inside and out, if there are problems related to dust? Will there be established, preexisting criteria to determine if and when any reparation must be done? • Regarding the data that has been collected to model the impact of dust/pollution, we wonder if, due to the recent loss of many trees killed by the pine beetle, there may have been changes in wind patterns that could impact the data that will be used? • Further, given the proposed height of the waste rock and tailings piles, we also have concerns about the use of the existing weather stations to model the dust dispersion. The final size of the proposed holding sites are at least equivalent, perhaps even larger, than some of the existing rises (hills). As such, they may well affect wind currents in and of themselves. Would data designed to mimic the effects of these piles over the course of the mine's life yield a more realistic model on which to base dispersion of pollutants, that is, data based on wind currents caused by the shapes of land masses at various heights up to and including the final proposed height?</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. The number, placement, and specifications of the air quality monitoring program will be specified by the BC Ministry of Environment. They will be specified in the 'Monitoring and Reporting' clause of the Air Permit developed by the Moe. While there has been some loss of tree cover in the region these are not substantial enough to affect the broad values of surface roughness, albedo, Bowen ratio, soil heat flux, anthropogenic heat flux, and leaf area index (LAI) as represented in the North American land-cover data set (CEC 2010). These values were applied as recommended in the BC dispersion modelling guidelines. While this is possible to accomplish this by developing a unique CALMET data set for the key year dispersion modelling scenarios employing a revised digital elevation model its use is not warranted.	Air Quality - 3.3.4.1

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672	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	<ul style="list-style-type: none"> We suspect that the Calmet and Calpuff models, using data collected from existing weather stations may not adequately account for this particular existing topography, let alone the changes to the topography if this mine becomes a reality. Given these extraordinary circumstances, providing anything less than the very best data possible amounts to negligence on the part of those agencies responsible for the protection of the people of Canada. We understand that there are various resolutions which can be used when performing modelling. Due to the complex nature of the geographical terrain in the area and the proximity of residences to the mine, we would like a high standard applied when choosing the resolution used by the proponent in modelling the impacts of potential pollution. We request that pollution modelling studies show dispersion 20 kms in all directions from the mine. In addition to dust measurements, what will be the impact of other types of pollution added to the air by the large fleet of heavy equipment and trucks operated at the mine? We are very concerned about the amount of added diesel emissions the mine may produce, especially in light of recent research released in the United States linking diesel pollution to increased risk of lung cancer. 	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulates will be determined based upon a list of substances detected in assay results provided by the proponent. The dispersion modelling domain is set at 25 km x 25 km, centered on the open-pit mine site. The CALPUFF domain is sized to capture all values of interest (e.g. predicted concentrations greater than 10% of the applicable ambient air quality objective). It includes most of the City of Kamloops excepting the Westsyde and Rayleigh developments in the North Thompson valley and Barnhartvale, Dallas, and Monte Creek to the East. The Application / EIS will consider the incremental increase in diesel emissions as a result of the operations in assessing the incremental change in health risk that may occur in the community.	Air Quality - 3.3.4.1
686	186	15-Mar-12	Richard Holmes	Aberdeen, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (19 of 23) [2012-03-26 3:53:56 PM]^</p> <p>A huge quantity of rock needs to be crushed by the proposed Ajax Mine in order to obtain the copper and gold being sought. What toxic material will be contained in the resulting dust?</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulates will be determined based upon a list of substances detected in assay results provided by the proponent.	Air Quality - 3.3.4.1
687	187	15-Mar-12	Richard Holmes	Aberdeen, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (19 of 23)[2012-03-26 3:53:56 PM]^</p> <p>Letter to the Kamloops Daily news: A number of points of public interest were made at the Aberdeen Community Association meeting last night . These include the following: 1. No information has yet been provided by the mine on the toxic material that will be released into the air through the dust created by crushing rock in the mining operation.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulates released during mine operations will be determined based upon a list of substances detected in assay results provided by the proponent.	Air Quality - 3.3.4.1

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707	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	3. What measuring instruments will be installed prior to the proposed mining operation to gauge air quality? What independent body will measure those results and what action plan does the proponent have in place prior to construction to address this issue?	dAIR comment	General	Air Quality	10.1	A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implemented for each of the mine components. Baseline information collected for the EA will be included in the Application/EIS.	Air Quality - 3.3.4.1
734	209	21-Mar-12	Lora S	Kamloops, BC	2. What is the composition of the ore? Provide assay reports. 3. What toxic metals including heavy metals are contained in the ore/dust? Provide a comprehensive list with amounts. 4. Will there be crystalline silica (known to cause cancer) contained in the dust from the KAM project? a. If yes, in what amounts? b. If yes, what size are the particles? c. If yes, how does KAM propose to eliminate crystalline silica.	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulates will be determined based upon a list of substances detected in assay results provided by the proponent.	Air Quality - 3.3.4.1
795	227	24-Mar-12	Marcia Wilson and Klaus Mey	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (11 of 61)[2012-03-29 4:08:06 PM]^ Air Quality/Dust Overall increase in airborne particulate and pollution in our Aberdeen neighborhood and in Kamloops as a whole (especially in light of our poor air quality during fires, weather inversions, etc.), and its impact on people with respiratory issues. I cannot imagine not being able to walk my dog in my own neighborhood with my family out of fear that it could exacerbate my asthma, which has been getting worse over time. I currently work with a specialist in Kelowna to manage my asthma – will we need more physician visits and better access to specialists for people with respiratory issues who live in Kamloops? This will negatively impact our health system and the health of community members.	dAIR comment	General	Air Quality	10.1	A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors. Results will be presented in the Application/EIS.	Air Quality - 3.3.4.1
810	235	25-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (3 of 61)[2012-03-29 4:08:06 PM]^ I share the concerns expressed by many Kamloops residents regarding the Ajax proposal. The expected negative impacts are many, and they are exacerbated by the size and proximity of the mine to Kamloops and major residential areas. For brevity, I will limit my comments to: 1) It is common for copper/gold ore to contain trace elements which are harmful to human health. Was the ore and rock assay(s) designed to capture those trace elements? If not, why not? 2) Ajax has refused to provide open public access to the assay results - say they can be viewed (in part) via office visit. What is the justification of refusing disclosure to the public of potentially harmful substances thru exposure caused by Ajax?? 3) what assurance or guarantee can Ajax provide that those substances will not be introduced into our environment??? By whatever means??? 4) Kamloops air quality is already degraded, and it is exacerbated by periods of weather inversions. Dust, including toxins, will be created in blasting, hauling, crushing, waste rock storage, tailings storage, etc., etc. What assurance or guarantee will Ajax provide that its operations will not further degrade our air quality?? Note: Even without an Ajax in our backyard, our air quality can be expected to deteriorate due to existing industry, urban growth, major transportation (Hwy #1, Hwy #5, 2 national railways, etc.) - cumulative effects will grow. We do not need an Ajax to further degrade our air quality. Allow me to say, I am not opposed to mining, but Ajax is too big and too close to residential areas. Without independent verification, and secured, longterm guarantees regarding health, safety, environment, quality of life, residential solitude, etc., I am opposed to the Ajax proposal.	Project comment	General	Air Quality	10.1	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	Air Quality - 3.3.4.1

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820	242	26-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (4 of 37) [2012-03-29 4:02:53 PM]^</p> <p>I am requesting a air quality analysis be done properly within the environmental assessment process with data that is relevant to the health and wellbeing of an already vibrant small city community. This is the first mine of this magnitude with very close proximity to a large population in Canada. I am also requesting a 3dimensional diagram be given to the Kamloops population so that the actual impact on viewscapes is forthcoming as part of this industrial activity.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
825	245	26-Mar-12	Personal Information Withheld	Kamloops, BC	<p>Re: air quality: 7. To what substance (complete assay) will the population of Kamloops be exposed to due to: a) the blasting process b) the nature of the explosives c) the excavation and exposure of the lower strata d) fuel emissions</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
831	247	26-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (9 of 37) [2012-03-29 4:02:53 PM]^</p> <p>How can one be sure we will not be breathing in particles in the air? No one can control the direction the wind blows.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1

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832	248	26-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (10 of 37) [2012-03-29 4:02:53 PM]^</p> <p>The loss of Air Quality due to the Ajax proposed open pit mine is the concern for the inhabitant's of Kamloops as it affects everybody, asthmatic and healthy people. The information available at the open house for the public was dismal, no information on the amount of dust generated, other than some assumptions as per the "expert "available at the open house, nor was the any information available on any contaminants in the dust. How can a member of the public make an informed decision when the crucial information is withheld or not available?</p> <p>The proposed open pit mine must be rejected as the mine company failed to address the health impacts caused by the dust and its contaminants. The city of Kamloops due to the prevailing winds is in it's entirely within the dust plume of the proposed mine. The company proposed spraying some water over the tailings as a solution. This lack of concern by the company is an insult to the public and the review process, as the detrimental exposure of the air pollution will not be measurable till after the mine is closed and the company has left, leaving the health cost to the people of BC.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
866	252	26-Mar-12	Paula Pick	Knutsford, BC	<ul style="list-style-type: none"> Why did the mine not conduct any baseline dust monitoring program for 3-5 years in advance of a mine proposal as the industry standard would indicate? 	dAIR comment	General	Air Quality	10.1	Description of the baseline dust monitoring program (location of stations, spatial and temporal coverage) and results will be presented in the Application/EIS.	Air Quality - 3.3.4.1
879	252	26-Mar-12	Paula Pick	Knutsford, BC	<p>10.1.1 Air Quality</p> <ul style="list-style-type: none"> What studies have been done to measure the amount of dangerous trace elements in the drilling cores? 	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulates will be determined based upon a list of substances detected in assay results provided by the proponent.	Air Quality - 3.3.4.1

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881	252	26-Mar-12	Paula Pick	Knutsford, BC	• As Dr. Douw Steyn stated recently, "Kamloops has air quality problems.. especially in winter time". How will air quality modeling be conducted? What climate data will be used for this?	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of particulates generated during mining will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. . A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. These CALMET data are based on surface measurements at four locations in the airshed (Kamloops Airport, Kamloops Brocklehurst, Afton, Walloper) and upper air data from a detailed meteorological inventory Modelling results will be presented in the Application/EIS. The modelling plan was modified based on the submission by Douw Steyn.	Air Quality - 3.3.4.1
882	252	26-Mar-12	Paula Pick	Knutsford, BC	What studies have been done to show the effects of dust on people suffering from respiratory problems, living within 2 or more km of an open pit mine?	dAIR comment	General	Air Quality	10.1	A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors. Results will be presented in the Application/EIS.	Air Quality - 3.3.4.1
887	255	26-Mar-12	P. Gabriel	Kamloops, BC	^ http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (25 of 37) [2012-03-29 4:02:53 PM]^ With regard to environment, air quality, and resultant health concerns, what safeguards will be put in place to ensure the existing concentration and longevity of negative ions in our surrounding area is maintained? Will that be frequently measured and monitored? How and how often and will the public be apprised of the negative ion concentration trend in our residential and surrounding area? We chose to live in this area because of the "feel good" and health benefits derived from an environment rich with negative ions. ANY amount of dust, pollution of any kind will have a destructive effect on this rich concentration and longevity of negative ions in our air. This, as scientifically demonstrated (references included) will translate into negative effects on health of our bodies in many ways (attachment). Many residents may not realize the reason for declining health and so should be made aware of the changes in our environment with regard to the negative ion concentration. Lastly, how will those affected be compensated? Who will lobby for them? To what degree will they be compensated? Who will make that decision? When will we know the results of that decision?	dAIR comment	General	Air Quality	10.1	Air quality will be assessed in the Application/EIS. A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	Air Quality - 3.3.4.1

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888	255	26-Mar-12	P. Gabriel	Kamloops, BC	EFFECTS OF NEGATIVELY CHARGED FRESH AIR 1. Improved sense of well being 2. Increased rate and quality of growth in plants and animals 3. Improved function of the lung's protective cilia 4. Tranquilization and relaxation (decreased anxiety) 5. Lowered body temperature 6. Lowered resting heart rate 7. Decreased survival of bacteria and viruses in the air 8. Improved learning in mammals 9. Decreased severity of stomach ulcers . What factors does the concentration of negative ions in the air have relation with? In the natural air, the concentration of negative ions depends on the climate, geographical conditions and atmosphere pollutions, etc. According to tests, the concentration of negative ions reaches its highest data from June to September, and reaches its lowest data from Jan. to March. In the rest months, it varies between the two data above. Generally, on the surface of the earth, the concentration of negative ions is about several thousand pcs per one cubic centimeter. It is only 10~30pcs/cm3 in metropolitan theater, 40~50pcs/ cm3 in metropolitan room, 100~200pcs/cm3 in the green belt, 400~600pcs/cm3 in the park, 700~1000/ cm3 in the suburb and 20000pcs/cm3 or more in the seashore, valley, waterfall area. Negative ion in the air is absolutely necessary to human being just like sunshine. The life of negative ion is very short, it's about a few minutes in clean air and only a few seconds in dirty environment or even shorter. In the open fields, seashores, country, water and spring areas its life can reach to more than 20 minutes, because in these areas the air pressure is smaller and the dust is fewer, so more negative ions can be generated from the air. The World Health Organization advises that the concentration of negative ion in fresh air shouldn't be below 1000~1500pcs/cm3. However, due to too many cement road surface, large vehicle flow rate, industrial pollutions and high population density, etc., the concentration of positive ions such as suspending granules, germina and dust, etc., will increase, and the concentration of negative ions will obviously decrease. That can lower the quality of air and affect health level of human body. What symptoms will the decrease of the concentration of negative ions in rooms cause? continued ... 1. When you get up in the morning, if you feel hard to breathe, nausea, light headedness, or your blood pressure is higher than usual 2. There is some smell excitative to your nose or eyes, and this smell is hard to dispel for a long time. 3. Insomnia, dysfunction of autonomic nerve, functional nerve disease, feeling dizzy or headachy or fretful. 4. Inappetence, functions of immunity lower, body resistibility lowers, easy to feel tired, always catch cold, the skin is sensitive. 5. You don't smoke, but you always feel uncomfortable with your throat, always cough, and can't breathe smoothly. 6. Plants at home are difficult to live, most of your family members have the same disease that will disappear or affect you less when you leave away from home	Project comment	General	Air Quality	10.1	Air quality will be assessed in the Application/EIS. A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors.	Air Quality - 3.3.4.1
893	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	• Potential impacts from the release of radon gas into homes in the Aberdeen and Sahali area from the local disturbance, vibration, and potentially changing of groundwater levels at the mine site and adjacent to the mine site needs to be assessed. A thorough baseline study should be undertaken in the area before the mine opens so that changes and increases or effects such as lung cancer rates (if they occur in the area) can be assessed 2,5,10,20 years after the disturbance (mine) starts, and can also be assessed and compared to similar effects from particulate fallout in the area.	dAIR comment	General	Air Quality	10.1	A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors. Results will be presented in the Application/EIS.	Air Quality - 3.3.4.1
909	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	3.7 Tailings Management In the July 11, 2011 letter from the City of Kamloops, the following questions were asked. The issues raised by these questions have not been sufficiently reflected in the draft AIR/EIS Guidelines: 1. We are concerned about evaporation and leaching from the tailings pond. Does this have the potential to vaporize chemicals?	dAIR comment	TSF	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment.	Air Quality - 3.3.4.1
926	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	10.1.6 Cumulative Effects Assessment 1. Why are the CN and CP rail yards and railway operations not included in the list of activities that currently contribute to background PM in the Kamloops area?	dAIR comment	General	Air Quality	10.1	The rail yards will be added to the list of projects to consider in the cumulative effects assessment.	Air Quality - 3.3.4.1

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940	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>2. The project summary document does not go into details regarding the types of chemicals that will be used and by-products that will be formed during the various mining operations including, but not limited to, blasting, crushing, concentrating, etc. We would like to know the details of those chemicals and by-products.</p> <p>3. What are the levels of dust going to be on existing and proposed neighbourhoods?</p> <p>4. Specifically how much additional dust is going to fall in the surrounding neighbourhoods (Aberdeen, Upper Sahali, Pineview Valley, Dufferin and Knutsford) in any given month and what mitigation measures will be utilized? Will an increase in dust levels result in increased health problems for the general public and/or those with pre-existing respiratory conditions?</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment.	Air Quality - 3.3.4.1
942	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>Dust Control</p> <ol style="list-style-type: none"> 1. How many employees will be involved in dust suppression? 2. How much water will be used to suppress dust? 3. How much calcium chloride and magnesium chloride, and any other dust suppressants or binding agents will be used per year? 4. How much has been budgeted per year for dust control? 5. How much dust (expressed in tons) is expected to be generated on a daily basis from the mining operation (including blasting, transport, waste dumping and processing)? 6. What percentage is likely to escape mine site? 7. What data has been gathered in support of this? 8. What comparison studies have been made with the Highland Valley Copper Mine to determine the dust footprint from that mine? 9. Studies of Mine dust from Arizona (YOU TUBE) – what dust suppression mechanisms used there 10. Given the reported lack of success in controlling dust in Arizona, what improved or enhanced dust suppression mechanisms are being proposed by the proponent? 11. What communities, as close as Kamloops to a mine of this scope, have been studied 12. Have there been studies to determine the size of the dust particles, and if so, what are these values? 13. What are the projected dimensions of the dust plume expected to rise from the mining operation (expressed in volume and in distance covered)? 14. What is the source of this information? 15. If this information does not exist, why does it not exist, and when will this information be available for environmental assessment? 16. Have the proponents or the environmental assessment offices modeled the dust cloud to determine its likely location, extent and effect upon the population of Kamloops? 17. If so, how does one access this information? ...continued ... 19. What are the allowable limits of ambient mine dust in the Kamloops airshed, expressed in parts per million, and how were these limits determined? 20. What are the current levels of ambient dust in Kamloops airshed, expressed in parts per million, and how are these levels measured? 21. By who are they measured? 22. Are there weather conditions which will require the mine to cease operations, and if so, what are they? 	dAIR comment	General	Air Quality	10.1	Design details regarding dust suppression for various activities and mine components will be provided in the Project Description section of the Application/EIS. Particulate matter and other emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system.	Air Quality - 3.3.4.1
979	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>Will there be a significant increase in dust particulates, not only on nearby residences but central Kamloops as well?</p> <p>What will these dust particles consist of and what is the risk to health?</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors, including local gardens. Results will be presented in the Application/EIS.	Air Quality - 3.3.4.1

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993	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (8 of 77)[2012-03-29 3:57:49 PM]^</p> <p>My comment is simply this; The point of asking questions is for the company to provide their mitigation strategies to deal with concerns people have When the mine goes in. There is NO mitigation possible that would make it acceptable to dig a mine and pile up waste within or right on the edge of this city. It's existence and location would hugely and permanently negatively affect the rest of my life, and that of my family. We came to Kamloops 20 years ago as a young family. We chose the city with significant reservations because of the pulp mill, and air quality issues related to it.</p>	Project comment	General	Air Quality	10.1	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	Air Quality - 3.3.4.1
995	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	<p>On a more specific note my concerns about the effects of a mine include;</p> <p>Air - dust that will escape from the mining, blasting and crushing, and what will be in that dust. what measured levels of contaminants will be in the dust? How much will there be? What effect will it have on soils downwind and do the metals and contaminants enter the food chain in affected soils? How much Air pollution from the constant trucking, green house gas emissions and smog will become part of the Kamloops airshed? What blasting agents will be aerosolized contaminating the airshed.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors, including local gardens. Results will be presented in the Application/EIS.	Air Quality - 3.3.4.1
1072	276	27-Mar-12	Robert Schemenauer	Kamloops, BC	<p>Air Quality: The point made above regarding the aerosol plume that will extend northwards from the mine also has air quality implications. Not only will the particulate load affect visibility and insolation it can also have direct health effects depending on the composition and size of the aerosols. In any measurement program to sample aerosol chemistry and size ranges, consideration also has to be given to how changes in humidity due to the increased water vapour in the plume will increase particle sizes and in turn whether this impacts on the respirable fraction of the aerosols.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors, including local gardens. Results will be presented in the Application/EIS.	Air Quality - 3.3.4.1

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1107	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	10.1.2 Air Quality Background We would suggest the Brocklehurst monitoring station does not really represent the air quality that is going to be encountered at the mine site. The valley station has completely different wind patterns than a site located near the plateau area near the Ajax site. It is suggested for baseline and ongoing monitoring a station should be located on the ridge just to the north of the mine development adjacent to the residential area of Kamloops city.	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1
1139	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	3. What are the respiratory repercussions of this type of mine? 21. how will this affect people with asthma? 23. how much dust will be in the air? 4. what mineral compositions will be released into the air?	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate potential effects of increased airborne particulate matter on human and ecological receptors. Results will be presented in the Application/EIS.	Air Quality - 3.3.4.1
1165	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	8.2.5 Residual Effects and their Significance a. in preparing for the identification and description of potential residual effects concerning respiratory issues, what studies will the proponent undertake, by whom and within what timeline? Will the AIR require that the proponent undertake such studies in the first year of operation if the proposal is accepted, and in every second year thereafter. Further, that the results of such studies be published and made available to the public; further than anecdotal information be accepted by the EAO as part of the studies on residual effects of respiratory issues on human health in the area. b. if the a/n studies on respiratory health in the community show a deterioration of such health, will the AIR require that the proponent provide dust filters in schools up to 3km radius of the proposed site? As follow-up studies may indicate, will the AIR require the proponent to expand the radius and indicated in the follow-up studies? c. if the studies recommended in 8.2.5 a and b show an increase in hospital/doctor/clinic visits due to respiratory issues, how will the AIR require the proponent mitigate the costs of the increased visits, to the health care authorities?	dAIR comment	General	Air Quality	10.1	If the project receives federal and provincial approval, the number, placement, and specifications of the air quality monitoring program will be dictated by the BC Ministry of Environment in the 'Monitoring and Reporting' clause of the Air Permit. Any predicted changes to demand for health care services will be discussed in the Application as part of community well being, as described in the AIR	Air Quality - 3.3.4.1

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1176	300	27-Mar-12	Erin Maze	Kamloops, BC	<p>Air: the mining process extracts metals of choice such as copper and gold from other materials leaving these other materials as waste products. Typical byproducts of mining can include radioactive material, arsenic and metals. These pose health and environmental threats via air and water. To my knowledge, disclosure of the entire contents of the waste materials from with copper is to be extracted has not been made. I demand that any environmental assessment include a complete assay, right down to individual speciation, of the waste in its entirety. It has grave implications for air and water quality. This information must be made available to the public.</p> <p>Furthermore a complete assessment of the air pollution dispersion from the proposed mine site must be made. Any such assessment should include the CALPUFF model and be appropriate in scale and made available to the public.</p> <p>I am aware of the challenges that Kamloops already faces with respect to air quality. Many days, one only has to look across the valley for a graphic demonstration of how pollutants hover in the valley. Air quality is of sufficient concern that backyard burning is not permitted in the city limits. From my home I have a view up and down the valley which runs from east to west. On windy days, I see streams of particulate matter from construction sites and gravel pits made airborne in the valley. They become an integral part of the air we breathe and hang suspended here for days at a time. I understand clearly that whatever is in the dust at the minesite will become an integral part of the air we breathe. Arsenic, very often a component of mine tailings, is a carcinogen in each and every route of exposure. There is no safe exposure level.</p>	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. HHERA will evaluate incremental change in air quality and the potential changes in human health and ecological concerns	Air Quality - 3.3.4.1
1192	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	<p>Will instruments be put in place to continually monitor sound and if no why not? Will these results be public and if no why not? Will instruments be put in place to continually monitor dust and the particulate matter in the air and if no why not? Will these results be public and if no why not?</p>	dAIR comment	General	Air Quality Noise and Vibration	10.1 10.4	If the Ajax project receives regulatory approval the number, placement, and specifications of any monitoring programs will be defined by operating permits. Results of monitoring programs will be submitted to the Moe.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
1203	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	<p>50. If tailings dust cannot be controlled during Arctic air what will be done? 51. Will the mine cease production and work to remedy the problem? 52. If not why not? 53. How will the fugitive dust from the tailing storage facility be controlled? 54. Will the trees that are logged be replaced when the mine is closed? 55. Replacing the trees give the soil stability and if not why not?</p>	dAIR comment	TSF reclamation	Air Quality	10.1	If the project receives environmental approval, conditions for operation will be outlined in various provincial and federal licences and authorizations. A conceptual reclamation plan will be presented in the Application/EIS outlining proposed measures to be implemented following closure.	Air Quality - 3.3.4.1

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1218	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will there be a significant increase in dust particulates, not only on nearby residences but central Kamloops as well? What will these dust particles consist of and what is the risk to health?	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc.	Air Quality - 3.3.4.1
1234	306	4-Jan-12	Personal Information Withheld		4. The other concern I have is the waste rock crushers being on the boundary of my property and I would suggest that these be located in the pit areas to alleviate dust and noise complete with water suppression for the crushers.	dAIR comment	processing facility	Air Quality Noise and Vibration	10.1 10.4	Project design alternatives will be presented in Section 17.4. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
1235	306	4-Jan-12	Personal Information Withheld		5. The other concerns I have are relative to truck traffic that the noise level and dust control be mitigated so that the dust is not carried by the prevailing winds into the Aberdeen and Edinburgh areas.	dAIR comment	access and haul roads	Air Quality Noise and Vibration	10.1 10.4	Air quality and noise assessment results will be presented in the Application/EIS.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
1243	309	4-Apr-12	Christine Casorso	Kamloops, BC	How will this effect our air quality, my husband has asthma already, how can they determine the safety of the air quality before start up. What contaminates (toxins) will be in the dust produced by the mine and how is any increase in dust acceptable. Who monitors the air quality once the mine is in place and how often?	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate incremental change in air quality and the potential changes in human health.	Air Quality - 3.3.4.1

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1266	312	4-Apr-12	Donovan Cavers, City Councillor	Kamloops, BC	• Kamloops is within a semi-arid climate zone is this being considered? In particular the relationship between the very low summer humidity and dust?	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment.	Air Quality - 3.3.4.1
1320	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		10.1 Air Quality Will the mine expose the community and wildlife to increased radon gas? This should be investigated.	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants.	Air Quality - 3.3.4.1
1370	329	4-Apr-12	Personal Information withheld		5. I am worried about the increase pollution (chemicals, dust etc.) in the air. I have noticed that the wind predominantly blows north, up the valley. These winds will push suspended pollution directly into our neighborhood. This will have implications for air quality, cleanliness (keeping a dust free home) and our health.	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants.	Air Quality - 3.3.4.1

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1378	330	4-Apr-12	Personal Information withheld		11/03/2012. I have some serious concerns about the proposed Ajax Mine Project as I live in Knutsford. I have toured the site and attended public meetings. I am concerned about: air pollution, most often the winds blow from the southwest in this area which means any dust will blow to this area and the city of Kamloops, this could become a serious health issue	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants for the HHERA.	Air Quality - 3.3.4.1
1386	332	4-Apr-12	Personal Information withheld		A. The close proximity to the City of Kamloops and residential areas enhances the risks to the environmental and health of the community. Key concerns that I would like to see addressed in the reports: 1. Air quality issues: • airborne dust from mine tailings ponds/activity, emissions from equipment/trucks, etc. • topography of Kamloops which results in air inversion features, compounding the challenges to mitigating air quality impact	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment.	Air Quality - 3.3.4.1
1389	332	4-Apr-12	Personal Information withheld		B. Environmental goals of Kamloops: As there is a Comprehensive Air Management Plan under development in Kamloops, I would like to see this be incorporated and used as one of the benchmarks to assess the potential impact of the Ajax mine. It is important to have a baseline analysis that also reflects the vision and stated goals of our city and community.	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. Baseline information will be presented as part of the analysis.	Air Quality - 3.3.4.1
1394	335	4-Apr-12	Personal Information Withheld		16/03/2012. I am from a mining family and think I understand the mentality of managers and investors of mining companies. They exaggerate the rewards, play down the negatives, and drag their feet re mitigation of distresses. Canadian leaders should probe independently and thoroughly re all environmental aspects of the Ajax Mine project. Of most concern: air quality when it is subjected to winds that carry heavy metals as particles from the open pit into Kamloops and up the valleys of the North and South Thompson Rivers. Our air is already damaging our people, air, and plants. The air is so dirty I need to wash my hair everyday if I go outside. And I always wear a scarf to protect hair and skin. Sometimes I cover my mouth to avoid particulate matter.	Project comment	General	Air Quality	10.1	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	Air Quality - 3.3.4.1

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1454	339	4-Apr-12	Personal Information Withheld		8.2.4 First bullet: Potential adverse effects: a) Beginning in the construction phase of the proposed mine, it is expected there will be dust, whether toxic or benign is not known, and whether fugitive or not is not known, but any kind of dust can be an irritant to many individuals, especially children and seniors. In order to mitigate the potential adverse effects of dust, will the AIR require that the proponent provide dust monitors in schools within 3 km of the proposed site, as well as in seniors' residences? If these air monitors show an increase of dust particulates in the area with the growth of the proposed mine, will the AIR require that the 3 km boundary of dust monitor installations be increased accordingly?	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate incremental change in air quality and the potential changes in human health. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be dictated by the BC Ministry of Environment in the 'Monitoring and Reporting' clause of the Air Permit.	Air Quality - 3.3.4.1
1455	339	4-Apr-12	Personal Information Withheld		8.2.5 Residual Effects and their Significance a) In preparing for the identification and description of potential residual effects concerning respiratory issues, what studies will the proponent undertake, by whom, and within what timeline? Will the AIR require that the proponent undertake such studies in the first year of operation if the proposal is accepted, and in every second year thereafter. Further, that the results of such studies be published and made available to the public; further that anecdotal information be accepted by the Environmental Assessment Office, as part of the studies on residual effects of respiratory issues on human health in the area. If the AIR does not have this requirement, please advise the reason. b) If the a/n studies on respiratory health in the community shows a deterioration of such health, will the AIR require that the proponent provide dust filters in schools up to 3km radius of the proposed site? As follow-up studies may indicate, will the AIR require the proponent to expand the radius as indicated in the follow-up studies? c) If the studies recommended in Sec. 8.2.5. a) and b) show an increase in hospital/doctor/clinic visits due to respiratory issues, how will the AIR require the proponent mitigate the costs of the increased visits, to the health care authorities?	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate incremental change in air quality and the potential changes in human health. If the Ajax project receives regulatory approval the number, placement, and specifications of the air quality monitoring program will be dictated by the BC Ministry of Environment in the 'Monitoring and Reporting' clause of the Air Permit. Any changes to demand for health care services will be discussed in the Application as part of community well being, as described in the AIR	Air Quality - 3.3.4.1
1463	342	4-Apr-12	Personal Information Withheld		I am also concerned about the impact that the mine would have on air quality. We are already in a confined valley with a confined airshed. Dust and pollutants can accumulate in the valley airshed and decrease air quality for all Kamloops residents.	dAIR comment	General	Air Quality	10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. A HHERA will evaluate incremental change in air quality and the potential changes in human health.	Air Quality - 3.3.4.1

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105	44	Public comment form from the Feb 6&7 Information Session	Mavis & Ted Paraventes	Knutsford (Running Horse Ranch Road), BC	Our concern regards the quality & quantity of our domestic water supply obtained from Peterson Creek. We own the following water licences on Peterson Creek: C035094 - Domestic C035096 - Irrigation C035560 -Domestic F019450 - Storage - non power. Will airborne dust affect the quality of our domestic water supply(drinking water)? Who will hold the company responsible or are we left to our own devices?	dAIR comment	General	Domestic Water Quality	10.2	The potential effects of construction, operation and closure (through to post closure) on water quality and quantity will be predicted using a watershed and water balance model, and will include the potential effects of airborne dust. Results will be incorporated into the HHERA. Should the HHERA identify potential concerns related to drinking water quality, mitigation measures would be proposed to reduce the mine-related impacts on water quality. Results will be presented in the Application/EIS.	
237	84	10-Feb-12	Personal Information Withheld		(2) Water: release of arsenic, lead, other elements in air affecting Peterson Creek, effect on water supply for Kamloops, further affecting Cache Creek, Ashcroft, Spences Bridge; water quality effects on wildlife – salmon runs, eagles, ducks, cattle as well as human population	dAIR comment	General	Domestic Water Quality	10.2	The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. The Application will describe the baseline studies and modelling that will be used to predict effects; mitigation measures; and monitoring programs, as described in the AIR.	
350	112	20-Feb-12	Personal Information Withheld	Kamloops, BC	-water quality. Massive quantities of water contaminated by the mineral extracting process will be kept in a storage facility. I believe the likelihood of leaking of contaminated water is too great. the storage like the mine are too close to homes and schools. There are lakes streams and underground springs in the Aberdeen area all which are likely to be contaminated by the process. water runs down hill and our drinking water supply is from the river at the bottom of that hill.	dAIR comment	General	Domestic Water Quality	10.2	The potential effects of construction, operation and closure on water quality will be predicted using a numerical mass balance model. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. A HHERA will evaluate potential water quality effects in the community and will apply the same standards for assessing potential exposures and associated health concerns as are applied across the province when evaluating water quality. Results will be presented in the Application/EIS.	

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528	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Assuming that the values expressed in Appendix 1 reflect proposed maximum values during mine operation, what are the cumulative health effects over time of the ingestion of water containing: Cyanide; b. Arsenic; c. Chromium; d. Lead; e. Mercury; f. Titanium; g. Uranium; and h. Vanadium? If this information is currently not known (and independently verified) by the EAO, will it be done before any approvals are granted? If this information is currently not known, why is an issue that is likely to be of crucial importance to the long-term health of the local population, not known?	dAIR comment	General	Domestic Water Quality	10.2	The values presented in Appendix 1 refer to the Method Detection Limits (MDL). Water quality has been included as a Valued Component in the Human Health assessment category of the Application/EIS.	
1245	309	4-Apr-12	Christine Casorso	Kamloops, BC	How do they determine the safety of our drinking water, and any leaching of toxins into our soil?	dAIR comment	General	Domestic Water Quality	10.2	A HHERA will evaluate incremental change in air quality and the potential changes in human health and ecological concerns.	
450	130	28-Feb-12	Rob Wycherley	Kamloops, BC	SECTION 10.0 ASSESSMENT OF POTENTIAL HEALTH EFFECTS 10.1 Air Quality Section 10.1.1 states that "Air quality has been identified as a valued component (VC) because of the potential risks to human health from the consumption of country foods directly exposed to metal-contaminated dustfall or soils. Criteria air contaminants (CAC), which includes particulate matter, has been identified as a VC because of the potential risks to human health from reduced air quality. Federal and provincial governments have ambient air quality objectives to ensure long-term protection of human health, an especially important issue for the Ajax Project due to its proximity to Kamloops." The Feasibility Study states that "Dust fall monitoring stations have been sited to collect representative data for the Project, taking into consideration existing disturbance and potential sensitive receptors in the area." 1. Where are these monitoring stations located, and what is the raw data from these stations? 2. What baseline data is being used to track the particulate matter in the Kamloops region? 3. Where is the location of each dust monitor in relation to the mine? 4. What is the estimated annual tonnage of particulate matter from the wear and tear of mine truck tires? 10.1.1 Rationale SECTION 10.1.1: Dustfall: Mentions, "...potential risk to human health from consumption of country foods directly exposed to metal-contaminated dustfalls or soils." 1. People in surrounding neighborhoods grow vegetables in their gardens. Can the particulate matter be estimated and how? 2. What will be the effect for homegrown food in humans? 3. Effect on cattle? Will KGHM test my vegetables for contaminants? 4. Can Pacific Way Elementary school playground be tested for contam	dAIR comment	General	Country Foods	10.3	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. HHERA will evaluate potential metal uptake from dustfall into locally grown produce and forage and from forage into locally raised livestock. Assessment of metal concentrations in locally grown produce is intended as part of the baseline study, and could, if necessary be continued during operations if the HHERA identifies potential concerns related to produce consumption. The methodology will be described in the Application, including the location of receptors such as the elementary school.	
631	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	10. What studies have been done to provide insurance that there will not be adverse impacts on garden crops, hay or livestock from the dust/mineral uptake and soil changes as the result of the Ajax mine impact?	dAIR comment	General	Country Foods	10.3	A Human Health and Ecological Risk Assessment will be included in the Application/EIS. Country Foods will be added as a VC to specifically address concerns related to dust deposition on surrounding terrain.	

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5	1	11-Jan-12	Kamloops Stockmen's Association	Kamloops, BC	6. Noise and Disruption Levels	dAIR comment	General	Noise and Vibration	10.4	Noise and vibration will be assessed in the Application/EIS.	
27	13	7-Feb-12	Dianne Kerr	Kamloops, BC	<p>4. People Because the location of the proposed operation is within the City limits of Kamloops, the effect on people should be part of the scope of the environmental assessment.</p> <p>a) Health - Long term health related concerns need to be addressed as well as short term immediacy.</p> <p>b) Nuisance - What will be the effect of a 24hr. 7 day week operation on people who live only 1 km. away? Some of the factors would be:</p> <ul style="list-style-type: none"> - Noise - Effects of blasting at this proximity - Increased traffic (heavy vehicles) 	dAIR comment	blasting traffic	Noise and Vibration	10.4	<p>Noise and vibration assessment results will be included in the Application/EIS. The results for blasting noise and vibration assessment will include: airblast overpressure (noise) and peak particle velocity (ground vibration) predictions for the nearest and most critical residential receptors.</p> <p>Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.</p>	Noise and Vibration - 3.3.4.2
46	16	7-Feb-12	Mike Lutz	Kamloops, BC	With the large noise factor of the machinery and the mill we have been told that we wont hear the noise from the mine operation being so close to Aberdeen. I personally feel this mine is too close to the city and subdivision of Aberdeen.	dAIR comment	Processing facility	Noise and Vibration	10.4	Noise and vibration assessment results will be included in the Application/EIS.	Noise and Vibration - 3.3.4.2

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82	30	7-Feb-12	Pat Tombe	Lac Le Jeune, BC	Noise: Of course, I like everyone else has concerns about general mine noise such as scraping, diesel engines, grinding etc. This would be a continuous noise. We moved to Lac Le Jeune to avoid the general "hum" of the city. At Lac Le Jeune we usually hear no industrial noise other than the odd logging truck. When I am trying to sleep at night I do not want to hear a thing. I understand that there could be the odd noise, such as blasting that may be somewhat unavoidable but I do not want to hear any continuous noise. I have heard that there will be a study for Kamloops (which is closer) but I would like Lac Le Jeune (which is a lot quieter) considered regarding this aspect.	dAIR comment	blasting	Noise and Vibration	10.4	Vibration assessment results will be included in the Application/EIS. The results for blasting noise and vibration assessment will include: airblast overpressure (noise) and peak particle velocity (ground vibration) predictions for the nearest and most critical residential receptors. Effects of noise will be determined at noise sensitive receptors south of the proposed site, including along Lac Le Jeune Road and Goose Lake Road. Potential effects on ranching and road use will be assessed as part of the Land and Resource Use VC.	Noise and Vibration - 3.3.4.2
127	57	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		As a property owner in Pineview Valley Area of Kamloops I have the following concerns: Noise levels - Since the project is 24 hours a day 7 days a week	dAIR comment	General	Noise and Vibration	10.4	Noise and vibration assessment results will be included in the Application/EIS.	Noise and Vibration - 3.3.4.2
138	60	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		a. Constant noise from trucks to and from pit	dAIR comment	traffic	Noise and Vibration	10.4	Mobile equipment within the mine pit, stockpile areas, and tailings storage area will be included in the noise assessment.	Noise and Vibration - 3.3.4.2

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163	67	8-Feb-12	Personal Information Withheld		Impact of Noise, vibration, light to nearby community	dAIR comment	General	Noise and Vibration	10.4	These issues will be discussed in the Application/EIS.	Noise and Vibration - 3.3.4.2
202	79	10-Feb-12	Personal Information Withheld		Please see ' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (56 of 77) [2012-02-24 3:07:19 PM]' for this comment. The following issues are identified: (1) noise from the open pit mine disturbing people within city limits; monitoring and accountability (7) vibration on Jacko Lake fishery and monitoring (11) vibration from blasting on Aberdeen/Pineview lifestyle	dAIR comment	Ajax open pit blasting	Noise and Vibration	10.4	These issues will be discussed in the Application/EIS.	Noise and Vibration - 3.3.4.2
256	87	10-Feb-12	Personal Information Withheld		Noise/vibration	dAIR comment	General	Noise and Vibration	10.4	These issues will be discussed in the Application/EIS.	Noise and Vibration - 3.3.4.2
272	88	10-Feb-12	Personal Information Withheld		5. Noise and vibration from blasting 24 hours a day, 7 days a week	dAIR comment	General	Noise and Vibration	10.4	These issues will be discussed in the Application/EIS.	Noise and Vibration - 3.3.4.2

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294	94	12-Feb-12	Personal Information Withheld	Kamloops, BC	Noise Pollution- noise from the mine on quality of life? plans for reducing/controlling Noise/vibration? stress on nearby fish and wildlife? who will monitor effects on wildlife? Vibration Levels- what will the levels be in Kamloops?	dAIR comment	General	Noise and Vibration	10.4	These issues will be discussed in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Noise and Vibration - 3.3.4.2
312	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	What time of day would they blast? These computer blasts, are they a bunch of small blast going off down a bench milliseconds apart?	dAIR comment	blasting	Noise and Vibration	10.4	Section 3 of the Application/EIS will provide details on blasting protocols during project operation, including mitigation measures. It is currently anticipated that blasting will occur once per day, at around noon, coinciding with shift change. Alternate blasting schedules will be discussed in the Application/EIS.	Noise and Vibration - 3.3.4.2
316	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Will the proponent guarantee they make no noise(s) that can be heard from nearby residences, for instances noise from heavy equipment not just mitigate it to a level of 40 decibels?	dAIR comment	General	Noise and Vibration	10.4	Section 3 of the Application/EIS will provide details on blasting protocols during project operation, including the effectiveness of mitigation measures. The proponent cannot guarantee that no noise will be heard at nearby residences. The Application will discuss the effectiveness of noise mitigation measures from all project activities. A noise complaint response and resolution policy will be established and implemented as part of the environmental management system.	Noise and Vibration - 3.3.4.2
317	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Will the proponent pay for dust, noise and seismic monitoring stations at Pacific Way School and in at least 2 other areas on Pacific Way east of the school?	dAIR comment	General	Noise and Vibration	10.4	Requirements for monitoring during construction and operation will be discussed in the Application/EIS.	Noise and Vibration - 3.3.4.2

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342	109	18-Feb-12	Mary Jordan	Kamloops, BC	2. The Kinder Morgan pipeline runs through the operation site. • While the potential effects of blasting and vibration on the Kinder Morgan pipeline have been identified, there is little in the proposed assessment methods that address this issue. • How can the EIA or subsequent planning assure the absence of an accident over a 25 year period?	dAIR comment	blasting	Noise and Vibration	10.4 11	The following plans presented in Section 11 of the dAIR will be included in corresponding sections of the Application/EIS to reduce and manage the risks of impacts on the Kinder Morgan pipeline. • Hazardous Waste Management Plan • Accidents and Malfunctions Plan • Natural Hazards Management Plan • Emergency Response Plan • Fire Hazard and Abatement Plan Vibration effects from blasting on existing infrastructure will be assessed under the Geology, Landforms and Soils VC.	Noise and Vibration - 3.3.4.2
351	112	20-Feb-12	Personal Information Withheld	Kamloops, BC	Blasting- vibrations will have an impact on ground shifting, making it more likely for leaching of contaminants. No one was able to give a definite answer on how much noise there will be from blasting.	dAIR comment	blasting	Noise and Vibration	10.4	The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations. Results from noise and vibration modelling studies will be presented in the Application/EIS.	Noise and Vibration - 3.3.4.2
356	113	20-Feb-12	Claude St-Pierre	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (4 of 18) [2012-02-24 3:14:53 PM]^ Regarding the blasting report from the KGHM website: http://www.ajaxmine.ca/pdfs/Abacus-MSW-Report-10-May-2011.pdf Note page 23 (Table 9) and page 24(Map) shows 19 perimeter points and the estimated BOP- Blast Over Pressure in dB. Note perimeter point 9 and 2. Point 9(Sahali) is predicted at 114.2 dB at 6.4KM from test blast site, yet Point 2(Aberdeen) is predicted at 113.6 dB at 3.7KM. The closest perimeter point #5 is 2.4 KM away, yet is estimated at 108.2dB...??? Why are the closer perimeter points showing a lower dB level? Is this a common occurrence? How was it estimated? What factors could have caused this? The following is written on page 22 (note the term "PREDICTED"): Table 8 summarizes the predicted PPV from the two small production blasts. It can be seen that the blast vibrations at the perimeter points are well below the vibration limit of 25.4 mm/ s that is normally adapted by North America municipalities. The predicted PPV is even well below human perception - 0.5 to 1.5 mm/s PPV. Table 9 shows the predicted air over pressure at all the perimeter points from the two small blasts. Again, the predicted over pressure is well below 120 dB that begins to cause complaints (Persson et al, 1994). Why are the noise levels being predicted? Why didn't they use real monitoring instruments for a real blast?	Project comment	blasting	Noise and Vibration	10.4	These issues will be discussed in the Application/EIS. The proponent has utilized applied science to determine the effects of the blast tests, and will not be conducting full scale test blasting. It is not feasible to conduct a "full size operational blast" prior to operation. Vibration characteristics can be accurately related to the charge weight and distance and can be used to model blast vibrations from a production blast at the same site. Modelling will predict blasting PPV and air overpressure.	Noise and Vibration - 3.3.4.2
457	132	28-Feb-12	Heather Mewhort	Kamloops, BC	2. We have enjoyed the serenity and tranquility of Aberdeen for twenty-five years, as we have raised our four children. Can you assure me that the noise from the incessant mine traffic and blasting will not affect the quietude that we enjoy in Aberdeen?	dAIR comment	blasting	Noise and Vibration	10.4	Noise issues are being assessed in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Noise and Vibration - 3.3.4.2

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492	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	17.What noise levels from equipment and activity: to include "constant back up loud beeping signals", blasting, vibration and air over pressure, crushing and grinding operations, construction and truck hauling, on a 24hr. 23 year schedule are deemed by Gov. to be acceptable for a rural population? This includes the public Goose Lake Road and home locations.	dAIR comment	waste rock management facilities	Noise and Vibration	10.4	Noise issues are being assessed in the Application/EIS.	Noise and Vibration - 3.3.4.2
548	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Human Health Effects Assessment: Noise and Vibration Section 10.3 1. The proponent states, at section 10.3.2 of the draft AIR document, that it will utilize a Quest 2900 measuring device at "receptor locations." 2. Where are these to be located? 3. How many will there be? 4. How will their location be chosen, having regard to nearby homes, wind patterns and acoustic sound propagation patterns in the area? 5. By whom? 6. Section 10.3.4 describes the CadnaA4.1 computer aided noise abatement system, however, this appears to be a man other measuring device. Like the Quest measuring device, this will provide no useful data until the mine is in operation? Will similar devices be utilized at the Arizona or Highland Valley Copper Mines in order to determine real world sound propagation models to determine what noise abatement must be demanded from the proponent? 7. If not, why not? 8. If not, what is being required of the proponent during the approval stage? 9. The proponent says that it will provide a list of mining equipment, explosives and storage for same, infrastructure and power supply, the capacity and source, hours of use and fuel requirements as a component of the application ... My questions in this respect are: a. Has this information been provided to date? b. If so, to whom has it been provided? c. Is this information available for public scrutiny? d. If not, why not and when will this information be made public? e. how many ore carriers will be used by the proponent to transfer rock from the pit to the "in pit" crushing systems? f. How many ore carriers will be used by the proponent to transfer crushed rock from the "in pit" crushing systems to the permanent secondary crusher? g. How many ore carriers will be used by the proponent to transfer waste rock and process raw to the waste rock management facilities? h. What is the horsepower rating of each of these pieces of equipment? i. What is the sound output of each piece of equipment described above, expressed in decibels? j. Will the ore carriers be required to use engine brakes (also known as jake brakes) when descending from the waste rock facilities or into the pit? k. If so, has the additional noise associated with this activity been factored into the noise projected to emanate from the mine? l. If not, why not? m. How many trucks will be utilized in the movement of all rock, or bearing rock and all waste product used by the proponents? n. Will these trucks be powered by diesel engines or by electric motors? o. If the trucks are powered by diesel engines, what is the noise each will generate, expressed in decibels?	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
549	147	5-Mar-12	Kevin Cowan	Kamloops, BC	p. If the trucks are powered by electric motors, what is the noise each will generate, expressed in decibels? q. How many excavators will be used in the movement of ore and waste rock during the operation of the mine and what is the noise level projected for each, expressed in decibels? r. How many pieces of road construction or maintenance equipment will be used on a daily basis, and what is the noise level of each, expressed in decibels? s. What method of drilling will be used, and what will the noise value of this process be, expressed in decibels? t. What method of crushing the rock and processing the ore will be utilized, and what is the projected noise level of this process (motive power and processing) expressed in decibels? u. What is the total noise projected to rise from all facets of the mine expressed in decibels? v. What is the projected carrying distance of ambient noise expected to be generated by the mine? w. What is the projected ambient noise expected to be generated by the mine, as measured within the communities of Pineview, Aberdeen, Upper Sahali, Knutsford and Rose Hill? x. If studies of these ambient noise values have not been undertaken, why have they not been undertaken and when will they be undertaken? y. If a license to operate a mine is granted to the proponents, what are the allowable levels of ambient noise within the neighbourhoods listed above? z. Specifically what sound abatement processes will be utilized by the proponent to reduce noise? aa. Will compliance with EAO and CEA Agency requirements be required, and will that fact be published before approval is granted? bb. What is the projected high frequency noise anticipated from public address systems and safety systems (such as backup beepers on heavy equipment) utilized by the projected mine? cc. Have other methods of ensuring safety of mine workers without projecting high frequency noise, been considered, and if so, what are these? dd. If GPS operation systems are used, will this negate the need for auditory safety mechanisms? ee. If alternate means of ensuring Mineworkers safety without creation of high frequency noise have been considered, will these be approved by Work Safe BC? ff. Have applications been made? gg. When will each controlled explosion be detonated, and what is the noise expected to arise each time, expressed in decibels? hh. What is the extent of vibration and noise that can be expected by the explosion in each of the adjacent communities and any others that may be affected?	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
550	147	5-Mar-12	Kevin Cowan	Kamloops, BC	10. 10.3.5, the proponent states that it will include amongst its information sources, "information on levels of environmental noise requisite to protect public health and welfare with an adequate margin of safety. My questions in respect of this are as follows: a. Is the goal of the EAO and the CEA Agency in respect of noise propagation, and absence of noise pollution or simply noise pollution within an "adequate margin of safety?" b. Will lifestyle issues be taken into consideration in considering this element of the approval sought by the proponent? c. How will these be measured? d. What is meant by adequate margin in this regard? e. What is meant by safety? f. Will damage to hearing be taken into consideration? g. How will it be taken into consideration? h. Will the effect of ongoing noise pollution be taken into consideration in respect of mental health? i. How will this be done? j. What studies will be made reference to? k. Will the effect of noise on sleep and economic productivity be taken into consideration? l. How? m. Are there no newer studies than the 1974 study referred to in section 10.3.5 of the AIR document? n. Have standards of safety with respect to hearing, psychological health or sleep disorder changed since 1974? o. If so, how have they changed and where is this information published? p. If so, will the proponents be required to remain in compliance with newer standards? 11. 10.3.3 ... the proponent describes sound levels which will be compiled from manufacturer's equipment datasheets and applicable acoustical databases to refine the local and regional study areas based on sound propagation and attenuation. Does this mean that the proponent is already in a position to calculate noise levels accurately? 12. If so, why has the proponent not been required to provide this detailed information in light of the proximity to the city of Kamloops? 13. In the same section of the AIR document, the proponent states, "the proponent will work with Interior Health during the pre-application stage to ensure the proposed LSA and RSA boundaries are appropriately described in the application." As the pre-application stage is now at an end were coming to an end, as the proponent already met with and consulted with Interior Health as described? 14. If so, when was this done, with whom were the meetings conducted, over what period of time and what are the results of those discussions or studies? 15. If not, why not? 16. In section 10.3.4 of the draft AIR document, the proponent states that the Cadna device will be used to assess the noise impact at quote sensitive receptors. Where are these to be located? 17. Who will monitor them and how often? 18. The proponent states that it will use a noise modeling domain 3 km x 3 km from the site boundary. Does this mean that noise from the mine is expected to reach to a 3 km distance? 19. If available, to what distance is my noise expected to travel? 20. If this is not available, why not? 21. The Cadna modeling is focused on "predicted effects" which will be evaluated relative to the applicable regulatory criteria. What will be the source of the predicted effects? How will it be measured against the applicable regulatory criteria? 22. What is the applicable regulatory criteria? 23. If this information is incorrect in the event approval is granted, will the mine be compelled to take immediate remedial measures before continuing my operations? 24. In section 10.3.4, of the AIR document, the proponent states that mitigation measures may include the construction of a buffer between the mine and the Aberdeen and not for neighborhoods. When will it be determined that such a measure is required? 25. What criteria will be applied to this question? 26. At what point will it be done? 27. In the event that a buffer must be built, when will it be required? 28. In the event that the mine is required to move its working footprint further to the south of Kamloops, will buffers of this kind still be needed? 29. If they are needed, will they be required?	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2

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623	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	18. What noise levels from equipment and activity: to include "constant back up loud beeping signals", blasting, vibration and air over pressure, crushing and grinding operations, construction and truck hauling, on a 24hr. 23 year schedule are deemed by Gov. to be acceptable for a Quiet rural population? This includes the public Goose Lake Road.	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in detail in the Application/EIS.	Noise and Vibration - 3.3.4.2
628	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	7. How will the noise decibels and emissions/dust particulates be measured at our homes to ensure our daily continued safety during mine development and operation?	dAIR comment	General	Noise and Vibration	10.4	A conceptual Air Quality Monitoring and Dust Control Plan and Noise Management Plan will be included in the Application/EIS. Monitoring programs relating to operations licences and approvals may also be required.	Noise and Vibration - 3.3.4.2
636	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	AIR, Noise and Vibration 10.3 to 10.3.7 1. Ref. "Guidance for Evaluating Human Health Impacts in Environmental assessment (Jan. 2011)" Page 11, "-----rural areas have a greater expectation of peace and quiet" When the heightened sensitivity, add 10dBA is factored in will the mitigation level be exceeded for the areas outside the city boundary? 2. Will the differences in the seasonal levels be evaluated and appropriately decreased to conform to the "Quiet Rural" guidelines? 3. How were these sound/noise levels measured? Were dwellings and land receptors considered in the assessment or was noise impacts, using the average across locations, the method? 4. Were the sites for sound identification representative geographically and was the distance from each individual piece of operating equipment measured for variances to each individual receptor? 5. What instruments and studies have been used to determine the health impacts relating to discrete noise events when evaluated over the long term, 23years and at 1year/24hrs.per day, increments to the total of 23years? Was the use of additional methodology used in sleep disturbance guidelines as referenced in page 2, 6.1 AIR Canadian Guidelines, implemented? 6. How has the avoidance of tonal/impulsive construction noise levels to be adjusted and avoided at night? Quiet rural adjustments must be added to the highest source adjustment as referenced in page 19 Canadian Guidelines (day adjustment +10, night from 10pm to 7am adjusted by +20) 7. Will all noise level adjustments indicate the +5 adjustment for back up alarms and the fluctuation of background noise levels as they modulate?	dAIR comment	General	Noise and Vibration	10.4	(1) 10 dB will be factored in for receptors in quiet rural areas for the operational case and construction case if the latter lasts longer than 1 year. Noise control measures will be recommended to comply with HC recommendations. If the construction phase ends up lasting less than 1 year, mitigated noise levels (MNL) as per HC recommendations (based off EPA guidelines) will be complied with. MNL are specified explicitly for each type of acoustic environment ranging from rural to noisy urban centers. (2) The guidelines for quiet rural areas are the same regardless of the season (i.e., do not change seasonally). The noise emissions from operations are not expected to change substantially from season to season, therefore seasonal variability will not be considered. The guidelines that will be followed (HC recommendations and BC OGC Guidelines) are effectively based on worst case seasonal conditions where dwelling's windows may be open at night. (3) Sound level measurements will be made to establish baseline sound levels. (4) The sites at which noise measurements will be taken will be representative of the affected acoustic environments. The effects of the mine construction and operation will be assessed using computer modelling. The modelling will be conducted to accurately reflect all the noise sources and all distances between the sources and individual receptors. (5) No discrete type noise events affecting human health are expected during construction or operation of the mine. Blasting is expected to be conducted once a day around noon. The mine will be designed to comply with the very stringent requirements of BC OGC Guidelines and HC recommendations. (6) Pile driving and blasting are projected to be the main sources of impulsive noise. These activities will be carried out during daytime hours. Back-up alarms on mobile equipment are the main sources of tonal noise. All appropriate adjustments during the modelling phase as per HC recommendations will be made. (7) Yes, noise level adjustments will be made for back-up alarms on equipment that is audible at the residential receptors, i.e., when the levels exceed the background sound.	Noise and Vibration - 3.3.4.2

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637	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	<p>8. How have the Low Frequency noise levels been measured in the receptor areas? References specified on page 24, 7.3 Air Canadian Guidelines, annoyance are greater with LF especially during sleep cycles.</p> <p>9. What mitigation measures were predicted for the summer "Open Window" valued component for the "Quiet Rural" areas?</p> <p>10. Has each piece of equipment and sound generating factor been assessed separately and at individual receptors as required?</p> <p>11. Were receptor residences of similar rural geography used, as explained in the AIR cited Canadian Guidelines, 5.5, to develop High Annoyance measurements appropriate for "Quiet Rural", outdoor to indoor?</p> <p>12. What plan and research will be in place to take into account relative change in the noise environment from the prior levels that will consider all Human Health Endpoints?</p> <p>13. Will the "Quiet Rural" criteria maximum be applicable as referenced in the methodology from the Health Canada document "Guidance for Evaluating Human Health Impacts in EA (January 2011) as the "Oil and Gas Commissions noise guidelines are not appropriate for an operating mine site?"</p> <p>14. Will "C weighting" tests be used to evaluate the Low Frequency noise/vibration, not "A weighted"?</p> <p>15. Where are the sensitive receptors located and what data has been collected in direct relationship and distance to these receptors?</p> <p>16. Was the data from an active production blast evaluated or simply the test blast area documented in Feb. 2011?</p> <p>17. Was the over-air pressure factored into the vibration effects in the 3km site boundary area and recorded at sensitive receptors?</p> <p>18. Were the absence of environmental clues, [daylight/darkness, noise/quiet, variations that suppress a number of brain functions (psychological, cognitive and emotional) during the first two hours and last two hours of sleep] that are clinically shown to have the greatest effect on the sleep cycle even if the sleeper does not waken, been evaluated within the 3km site for anticipated adverse health effects? Will the environmental impact of the absence of these clues be instrument monitored on a continuous basis?</p> <p>19. Will the goal to eliminate or reduce noise be appropriately controlled at the source, by appropriate equipment, maintenance or putting buffers in place? 20. To what extent will the reliance of mitigation methods such as "buffers/berms" near the receptors be used to support the decrease of sound?</p> <p>21. How is the proponent adjusting the noise decibels to accommodate the children in the immediate area, homes and schools, when it is documented that sound can translate as much as 20-decibels in difference between the acceptable adult measure and that which is appropriate for a child as sounds entering the smaller ear canal become louder?</p> <p>22. Since the health effects of noise exposure depend on the level of the noise and the length of time of the exposure, how will the proponent's responsibility for causing stress, lack of concentration and chronic health problems in individuals, not employees but area residents, be determined?</p>	dAIR comment	General	Noise and Vibration	10.4	<p>(8) Low frequency noise will be measured in the same fashion as other spectra – using type 1 sound level meters with frequency analyzer. (9) If the inquiry is regarding any noise mitigation measures, these will be known upon the completion of the analysis. The assessment will be for "open window" valued component as indicated in response to question 2. (10) The noise contribution from each piece of equipment will be predicted at each point of reception. Subsequently, overall levels from all pieces of equipment will be calculated. (11) This question is unclear. The somewhat hypothetical term "% Highly Annoyed" is not measured but calculated using the so-called Schults curve provided in (ISO 1996 -1 standard) on the basis of the outside day-night levels. (12) The relative change in noise from current levels will be used to assess human health effects using the cited guidelines and recommendations. Given the low expected noise levels from the mine, in regard to the noise-induced human health end points, only annoyance need be considered. This will be assessed using HC guidelines. No additional research or plan are required. (13) It is unclear as to what is meant by "... Quiet Rural" criteria maximum ...", but Health Canada recommendations of having maximum increase of 6.5% HA will be followed with Quiet Rural locations assessed with 10 dB adjustment. Also, for the work to be comprehensive, the assessment of noise effects will be performed under BC OGC Guidelines. The guidelines are very much relevant to the mine site for the following reasons. The BC OGC Guidelines are more stringent than HC recommendations in vast majority of cases, particularly in quieter areas. Correspondingly, meeting the BC OGC targets results in lower increase in %HA than 6.5% recommended by HC. BC OGC Guidelines are based on Alberta ERCB Directive 038 – a frequently cited document. Directive 038 has an exceptionally good track record of regulating and limiting noise impacts from industrial developments that spans more than 35 years. Each year Alberta ERCB licenses more than 800 facilities while receiving a miniscule number of noise related complaints. Therefore, incorporating BC OGC Guidelines into the noise assessment process results in a much better and broader assessment. (14) Yes, C-weighted scale will be used to assess the low frequency noise component. The A-weighted or C-weighted scales are applicable to noise assessments only and neither is relevant to vibration assessment. (15) No data have yet been collected. (16) Only test blasts were monitored. This is sufficient as blast effects can be scaled up or down with good accuracy. (17) Generally air-blast overpressure is not factored into vibration effects as these represent different physical phenomena. The predictions for air overpressure will be made at all critical receptors to ensure that they are within the established guidelines. If</p>	Noise and Vibration - 3.3.4.2
640	168	12-Mar-12	Craig Mistal	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (35 of 69)^</p> <p>I am concerned about the Noise/vibration model that is proposed in the AIR/EIS Guidelines, as the model itself is silent and may not adequately inform the public of potential noise levels, nor will it gauge the public reaction to such noise levels. While models definitely have their utility, they are fully dependent on inputs, assumptions in their design, and interpretation of the outputs by a trained professional. I would also like to see a practical application of noise assessment in addition to a model. For example, I propose that an active mine site be comprehensively sampled for noise levels (i.e. measure the decibel levels of full-sized mining trucks operating on haul roads, and dumping their loads, and other day-to-day activities). Place noise generators in the same locations for similar activities on in the proposed Ajax mine site, and have those noise generators emit noise at similar decibel levels to those measured at the active mine site. As I believe the proposed Ajax mine project is a 24/7 operation, have the noise generators in operation 24/7 for at least one week. This may inform Kamloops residents to the potential noise levels of day-to-day activities that may come from the proposed Ajax mine project should it be approved, and provide opportunity for public feedback. Note this suggestion does not include blasting noise, which could be added concurrently for the duration of the practical noise application as test blasts occurring at the same frequency and times as the proposed Ajax project.</p>	dAIR comment	General	Noise and Vibration	10.4	<p>The comment here is certainly valid, however, in reality modelling represents the best option in assessing noise effects of new facilities. The models are generally set up to be conservative, i.e., to predict higher levels than would be expected to occur. This comes from conservative estimates of equipment noise emissions, conservative model set-up, and conservatism inherently built into propagation algorithms such as ISO 9613. The result is that the actual noise effects should be lower than predicted. Sound level measurements at another facility that may have different process, different equipment, or different topography and ground condition will likely lead to greater errors and underproduction of noise effects. Also, trying to perform a full scale noise test to replicate a large and complex facility such as the proposed KAM mine is not practical. Neither the mine site topography nor special distribution of noise sources could be replicated</p>	Noise and Vibration - 3.3.4.2
650	175	12-Mar-12	K Goodall	Kamloops, BC	<p>Vibration – operations</p> <p>If the mine is a 24/7 operation, large vehicles and heavy machinery will be in constant use. Our home is located within 1/2 kilometre of new subdivision and the vibration from construction activity is noticeable at times during the day. During late evenings occasional vibrations from truck traffic on highway 5 (approximately 1 1/2 kilometres away) can be felt from within our home. However, there is reprieve from these sensations as they are very intermittent in nature and, while somewhat annoying, are an accepted cost of living in civilization. I am quite concerned that once the project is established we will be exposed to unceasing vibration and its accompanying negative impacts on the health of all local life forms: birds, mammals, fish and amphibians included.</p> <ul style="list-style-type: none"> • How will vibration level be measured? • Where will it be measured from? • Who will decide what level is acceptable? • How will the proponent address this impact? • Will the homeowner be required to provide proof that they were unaffected by vibration in their home prior to project start-up? • What recourse will residents have? • If the proponent is found to be in violation of some agreed upon standard how will they be penalized? Who will enforce any penalty? 	dAIR comment	blasting	Noise and Vibration	10.4	<p>The potential off-site vibration effects associated with project activities such as blasting, rock crushing, and vehicle movement is being assessed. These results will be compared to standard thresholds for acceptable vibration levels on building foundations. Depending on the outcome of these studies KGHM Ajax will develop an appropriate response that may include continuous vibration monitoring.</p>	Noise and Vibration - 3.3.4.2

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651	175	12-Mar-12	K Goodall	Kamloops, BC	<p>2) Noise I understand that local bylaws ostensibly restrict the limit of noise that can be inflicted on a residential area. Nonetheless, I would like to know if the project will be running at maximum noise level allowed at all times?</p> <ul style="list-style-type: none"> • How will this noise level be assessed? • Where will the noise be measured from? If it is shown that the noise is problematic to residents how will the proponent address the impact? • Will mine activity be curtailed until the problem is addressed? • If residents are unable to enjoy the solitude of their own property what legal recourse will we have? 	dAIR comment	General	Noise and Vibration	10.4	<p>The noise emissions from the mine are expected to be generally constant. Some variability in noise emissions may take place but it is difficult to quantify. The noise contribution from the mine at the residential receptors will vary greatly with changing atmospheric conditions. Some days the mine will be completely inaudible, while other days the noise levels from the mine may be close to those predicted in the assessment. However, at no time should the mine noise at the residences exceed the predicted levels. Post-construction testing can be used to confirm that the mine complies with the noise targets as per HC recommendations and BC OGC Guidelines. Noise mitigation measures will be implemented in the event of non-compliance Discussion of legal recourse is outside the scope of the EA.</p>	Noise and Vibration - 3.3.4.2
705	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (9 of 23) [2012-03-26 3:53:56 PM]^ As residents of Kamloops we have the following concerns regarding the proposed Ajax/KGHM copper/gold mine project. 1. Can the mining proponent guarantee that the residents of Kamloops will not be disturbed by the 24/7 industrial noise of an open-pit mining operation within the city limits of Kamloops? What independent monitoring and accountability will be in place to ensure noise levels don't exceed present levels?</p>	dAIR comment	General	Noise and Vibration	10.4	<p>The noise contribution from the mine at the residential receptors will vary greatly with changing atmospheric conditions. Some days the mine will be completely inaudible, while other days the noise levels from the mine may be close to those predicted in the assessment. Post-construction testing can be used to confirm that the mine complies with the noise targets as per HC recommendations and BC OGC Guidelines. Noise mitigation measures will be implemented in the event of non-compliance</p>	Noise and Vibration - 3.3.4.2
715	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	<p>11. Can the mining proponent guarantee that Pineview/Dufferin/Aberdeen and Sahali lifestyles won't be disturbed by vibrations caused by blasting? What process will be in place to measure the effects?</p>	dAIR comment	General	Noise and Vibration	10.4	<p>Information on the noise study methodology and results will be provided in detail in the Application/EIS. Post-construction testing can be used to confirm that the mine complies with the noise targets as per HC recommendations and BC OGC Guidelines. Noise mitigation measures will be implemented in the event of non-compliance</p>	Noise and Vibration - 3.3.4.2

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741	209	21-Mar-12	Lora S	Kamloops, BC	12. Determine what the sound decibels (dB) will be from blasting and mine equipment, including back-up indicators on equipment, for residents with properties neighbouring the mine and beyond the neighbouring properties	dAIR comment	General	Noise and Vibration	10.4	Information on the noise study methodology and results will be provided in detail in the Application/EIS.	Noise and Vibration - 3.3.4.2
748	212	22-Mar-12	Kevin Buxton	Kamloops, BC	• Proponent must provide documented noise level information for each type of large equipment/machinery - both at source and at location of closest neighbourhoods (current and planned).	dAIR comment	General	Noise and Vibration	10.4	Information on the noise study methodology and results will be provided in detail in the Application/EIS.	Noise and Vibration - 3.3.4.2
790	225	23-Mar-12	Personal Information Withheld	Kamloops, BC	3. How will these stockpiles be constructed? (Either way, by haul truck or conveyor system, may greatly increase the noise factor) 4. What would be done to eliminate any additional noise? 5. What is the actual area to be taken up with these stockpiles? 6. Would this ore stockpile and overburden area be expanded over time? 7. At what distance are these stockpiles from the city's residential growth boundary? 8. Is the area limited to 87.5 million tonnes of ore or will the tonnage increase? 11. What would be the height of these stockpiles at the maximum?	dAIR comment	stockpiles	Noise and Vibration	10.4	Section 3 of the Application/EIS will provide details on construction activities and mitigation measures.	Noise and Vibration - 3.3.4.2

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798	227	24-Mar-12	Marcia Wilson and Klaus Mey	Kamloops, BC	<p>Noise Levels</p> <p>We know we would be able to hear noise daily from blasting- as told to Kamloops city council by John Whitaker, KGHM's project manager. Will this be a source of stress for the children attending the 2 elementary schools and 4 preschools in the Aberdeen area? How will this impact be assessed, monitored and addressed? What will the noise levels be from mining activities, other than blasting? What levels will be deemed acceptable? How are they measure and what standards are used? As many people spend a great deal of time outdoors in the summer acceptable levels should be considered from an "open window" perspective, rather than from the perspective of noise levels as detected from inside a home with closed windows. Will people be expected to listen to mining noise 24/7?</p>	dAIR comment	General	Noise and Vibration	10.4	The noise from activities other than blasting will be determined once the mine layout and the operating equipment are finalized. The acceptable noise levels from these activities will be established on the basis of Health Canada recommendations and the requirements of BC OGC Guideline and as such will depend on the existing sound levels and will vary depending on the residential location. The criteria for acceptability are set from the open window perspective.	Noise and Vibration - 3.3.4.2
907	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>3.4.3 Drilling and Blasting</p> <p>2. Would daily notification and posting of blasting times and duration that will impact public utilization of Goose Lake road, (Sound, ground vibration/air over pressure and particulate/emissions fallout) be forthcoming and user friendly to the local and community population?</p> <p>3. When will "Production Blasting" differences from the documented test blast study of Feb. 2011, sound, ground vibration and air over pressure be demonstrated and documented? Will this be required prior to the EAO final review of same?</p> <p>1. What do emulsion explosives include? This should be covered in Section 3.11: Explosives Manufacturing and Storage</p>	dAIR comment	blasting	Noise and Vibration	10.4	2. Daily notification and posting of blasting times and duration will be provided to the local and community population during operations. 3. The results from tests blasts are used to validate and optimize a blast model. The test blasts used explosive charges that were 50 to 60% of the anticipated production charges. The results can therefore be accurately scaled up to reflect production blasts. 1. This information will be included in the Application/EIS.	Noise and Vibration - 3.3.4.2
928	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>The following is written on page 22 (note the term "PREDICTED"): "Table 9 shows the predicted air over pressure at all the perimeter points from the two small blasts. Again, the predicted over pressure is well below 120 dB that begins to cause complaints (Persson et al, 1994)."</p> <p>1. Why are the blast vibration levels being predicted?</p> <p>2. Why didn't they use real monitoring instruments for a real blast?</p> <p>3. The report quotes "two small blasts". If the blasts were larger ones, would it exceed the 120dB level that causes complaints?</p> <p>4. What are the probable random and systematic errors in the calculation of the PPV values?</p> <p>5. What is the expected uncertainty in the values presented in Table 8?</p> <p>6. What impact do these uncertainties have on the conclusions presented regarding the PPV values?</p> <p>7. The test blast undertaken by Abacus was limited in size to the blast sizes that will occur during mining. Why has the proponent not been required to perform a blast test of the size that will be used during normal mine operations in order that a true assessment can be made of the Noise/vibration produced? That should be a requirement which must be met and the results made public before the application is allowed to proceed.</p> <p>8. The full test blast should be measured with sound level meters and PPV monitoring devices to record actual data at the 19 perimeter points. Estimated data is not as accurate.</p> <p>9. Will the proponent also be required to perform the above noted test blast on a day when the prevailing wind is blowing from the southwest in order that an accurate measurement can be made of the noise levels created by the blast in Aberdeen, Pineview Valley, Sahali and points north? And will the proponent be required to perform this blast before the application is allowed to proceed?</p>	Project comment	blasting	Noise and Vibration	10.4	(1) Predictions using modelling tools are made for a number of reasons, such as: • predicting blasting effects at all residences and identifying the critical residences and assessing whether the effects are acceptable. While measurements can only be performed at specific locations, modelling and predictions can be made at any location. • optimizing blast design to minimize the effects on the nearby residences while facilitating a reasonable rate of production. Modelling allows running many scenarios in a reasonable amount of time and identifying the best option to minimize blast effects on nearby residents. This cannot be practically accommodated through full scale testing. • incorporating changes in area topography and pit geometry resulting from mining operations to ensure that there are no problems going forward. This is something that cannot be done with testing. (2) Some smaller blasts have been carried out. The results from those blasts were used to validate and optimize the blast model. The test blasts used explosive charges that were 50 to 60% of the anticipated production charges. The results can therefore be accurately scaled up to reflect production blasts. (3) The actual production blasts are not expected to exceed the 120-dB level. (4) Random and systematic errors are associated with measurements and are not applicable to calculations (predictions). Calculations follow the same fixed algorithm. (5) These are very difficult to quantify without a body of statistical evidence and for that reason, the models are and will be set up in a way that over-predicts PPV at the receptor location. Figures 25 and 26 of the report show that – the predicted values are consistently higher than the measured values. Therefore, if predictions show compliance with the target levels, the actual levels will be in compliance as well. (6) No effect is expected as the predicted values shown in Table 8 are higher than the actual measured levels. (7) It is a common practice to use smaller, scaled-down test blasts. The data from the test blasts performed at Ajax mine showed a high level of consistency. The charges used in test blasts were large enough to validate the blast model. The results from test blasts can be accurately scaled up to reflect a full-scale blast. (8) As per above answer to (7), the full-scale blast is not necessary. (9) See response to (8)	Noise and Vibration - 3.3.4.2

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929	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>10. How will the proponent control the noise created by the continuous use of heavy equipment so close to residences and schools. The Abacus feasibility Study states that the East Waste Rock Facility will be entirely built up using trucks. There will be 6 years where the tonnage moved by trucks to the EWRF ranges from 55 to 69 M tonnes a year. Each truck hauls 218 tonnes of crushed aggregate sized rock. The number of trucks per day hauling waste rock will range from 550 to 600, at least 22 to 25 trucks per hour. This crushed rock will be dumped and then spread out, flattened, and contoured by heavy machinery 24/7. There will also be trucks hauling the 60,000 tonnes of ore per day. This crushed rock will be dumped and then spread out, flattened, and contoured by heavy machinery 24/7, 365 days per year. Both the huge trucks and other equipment emit a great deal of noise (engine noise, back-up alarms etc.).</p> <p>11. How will the proponent comply with the City of Kamloops Noise Regulation By- Law No. 24-42, 2007? I refer in particular to section 6 (a) which construction hours are restricted to the period 07:00 hours to 22:00 hours.</p> <p>12. Ref. "Guidance for Evaluating Human Health Impacts in Environmental assessment (Jan. 2011)" Page 11, "----rural areas have a greater expectation of peace and quiet" When the heightened sensitivity, add 10dBA is factored in will the mitigation level be exceeded for the areas outside the city boundary?</p> <p>13. Will the differences in the seasonal levels be evaluated and appropriately decreased to conform to the "Quiet Rural" guidelines?</p>	dAIR comment	waste rock management facilities	Noise and Vibration	10.4	<p>(10) Should the results of noise effects assessment identify a need for noise mitigation, various options will be considered and presented to ensure the mine is in compliance with permissible sound levels. (11) The effect of mine construction noise on the residents of Kamloops will be assessed in the Application/EIS. If the effects are found to be excessive, noise mitigation measures will be implemented. (12) 10 dB will be factored in for receptors in quiet rural areas for the operational case and construction case if the latter lasts longer than 1 year. Noise control measures will be recommended to comply with Health Canada(HC) recommendations. If the construction phase ends up lasting less than 1 year, mitigated noise levels (MNL) as per HC recommendations will be complied with. MNL are specified explicitly for each type of acoustic environment ranging from rural to noisy urban centers. (13) The guidelines for quiet rural areas do not change seasonal). The noise emissions from operations are not expected to change substantially from season to season, therefore seasonal variability will not be considered. The guidelines that will be followed (HC recommendations and BC Oil and Gas Commission Guidelines) are effectively based on worst case seasonal conditions where dwelling's windows may be open at night.</p>	Noise and Vibration - 3.3.4.2
930	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>14. How were these sound/noise levels measured? Were dwellings and land receptors considered in the assessment or was noise impacts, using the average across locations, the method?</p> <p>15. Were the sites for sound identification representative geographically and was the distance from each individual piece of operating equipment measured for variances to each individual receptor?</p> <p>16. What instruments and studies have been used to determine the health impacts relating to discrete noise events when evaluated over the long term, 23years and at 1year/24hrs per day, increments to the total of 23years? Was the use of additional methodology used in sleep disturbance guidelines as referenced in page 2, 6.1 AIR Canadian Guidelines, implemented?</p> <p>17. How has the avoidance of tonal/impulsive construction noise levels to be adjusted and avoided at night? Quiet rural adjustments must be added to the highest source adjustment as referenced in page 19 Canadian Guidelines (day adjustment +10, night from 10pm to 7am adjusted by +20).</p> <p>18. Will all noise level adjustments indicate the +5 adjustment for back up alarms and the fluctuation of background noise levels as they modulate?</p> <p>19. How have the Low Frequency noise levels been measured in the receptor areas? References specified on page 24, 7.3 Air Canadian Guidelines, annoyance are greater with LF especially during sleep cycles.</p> <p>20. What mediation measures were predicted for the summer "Open Window" valued component for the "Quiet Rural" areas?</p> <p>21. Has each piece of equipment and sound generating factor been assessed separately and at individual receptors as required?</p> <p>22. Were receptor residences of similar rural geography used, as explained in the AIR cited Canadian Guidelines, 5.5, to develop High Annoyance measurements appropriate for "Quiet Rural", outdoor to indoor? 23. What plan and research will be in place to take into account relative change in the noise environment from the prior levels that will consider all Human Health Endpoints?</p> <p>24. Will the "Quiet Rural" criteria maximum be applicable as referenced in the methodology from the Health Canada document "Guidance for Evaluating Human Health Impacts in EA(January 2011) as the "Oil and Gas Commissions noise guidelines are not appropriate for an operating mine site?</p> <p>25. Will "C weighting" tests be used to evaluate the Low Frequency noise/vibration, not "A weighted"?</p> <p>26. Where are the sensitive receptors located and what data has been collected?</p>	dAIR comment	General	Noise and Vibration	10.4	<p>(14) Sound level measurements will be made to establish baseline sound levels. (15) The sites at which noise measurements will be taken will be representative of the affected acoustic environments. The effects of the mine construction and operation will be assessed using computer modelling. The modelling will be conducted to accurately reflect all the noise sources and all distances between the sources and individual receptors. (16) No discrete type noise events affecting human health are expected during construction or operation of the mine. Blasting is expected to be conducted once a day around noon. The noise from blasting will meet the Ontario MOE NPC-119 limits and therefore no adverse effect on human health is expected from this discrete event. NPC-119 has been in effect since 1978 and has been widely used not only in Ontario but in other provinces as well to regulate and limit effects from blasting. The mine will be designed to comply with the very stringent requirements of BC OGC Guidelines and HC recommendations. (17) Pile driving and blasting are the main sources of impulsive noise. These activities will be carried out during the daytime hours. Back-up alarms on mobile equipment are the main sources of tonal noise. All appropriate adjustments during the modelling phase as per HC recommendations will be made. (18) Yes, noise level adjustments will be made for back-up alarms on equipment that is audible at the residential receptors, i.e., when the levels exceed the background sound. (19) Low frequency noise will be measured in the same fashion as other spectra – using Type 1 sound level meters with frequency analyzer. (20) If the inquiry is regarding any noise mitigation measures, these will be known upon the completion of the analysis. The assessment will be for "open window" valued component as indicated in response to question 13. (21) The noise contribution from each piece of equipment will be predicted at each point of reception. Subsequently, overall levels from all pieces of equipment will be calculated. (22) This question is unclear. The somewhat hypothetical term "% Highly Annoyed" (%HA) is not measured but calculated using the so-called Schults curve provided in (ISO 1996 -1 standard) on the basis of the outside day-night levels. With the low residential noise levels required for compliance, occasional annoyance effectively becomes the only Human Health Endpoint. This is dealt with by assessing the increase in %HA resulting from the relative change in the acoustic environment. (24) It is unclear as to what is meant by " . . . "Quiet Rural" criteria maximum . . . ", but Health Canada recommendations of having maximum increase of 6.5% HA will be followed with Quiet Rural locations assessed with 10 dB adjustment. Also, for the work to be comprehensive, the assessment of noise effects will be performed under BC OGC Guidelines. The guidelines are very much relevant to the mine site for</p>	Noise and Vibration - 3.3.4.2
931	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>27. Was the data from an active production blast evaluated or simply the test blast area documented in Feb. 2011?</p> <p>28. Was the over-air pressure factored into the vibration effects in the 3km site boundary area and recorded at sensitive receptors?</p>	dAIR comment	blasting	Noise and Vibration	10.4	<p>These issues will be discussed in the Application/EIS. The proponent has utilized applied science to determine the effects of the blast tests, and will not be conducting full scale test blasting.</p>	Noise and Vibration - 3.3.4.2
932	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>29. Were the absence of environmental clues, [daylight/darkness, noise/quiet, variations that suppress a number of brain functions (psychological, cognitive and emotional) during the first two hours and last two hours of sleep] that are clinically shown to have the greatest effect on the sleep cycle even if the sleeper does not waken, been evaluated within the 3km site for anticipated adverse health effects? Will the environmental impact of the absence of these clues be instrument monitored on a continuous basis?</p> <p>30. Will the goal to eliminate or reduce noise be appropriately controlled at the source, putting buffers in place? To what extent will the reliance of mitigation methods such as "buffers" near the receptors be used to support the decrease of sound?</p> <p>31. How is the proponent adjusting the noise decibels to accommodate the children in the immediate area when it is documented that sound can translate as much as 20-decibels in difference between the acceptable adult measure and that which is appropriate for a child as sounds entering the smaller ear canal become louder?</p> <p>32. Since the health effects of noise exposure depend on the level of the noise and the length of time of the exposure, how will the proponent's responsibility for causing stress, lack of concentration and chronic health problems in individuals be determined? What measures will be put in place by the B.C. Government to hold the proponent accountable and to continue monitoring individuals who are not mine workers but are residing in noise sensitive areas?</p> <p>33. During the winter months, low cloud due to inversions is frequent in the area between the proposed mine and the residential areas in Kamloops. What will be the effect of this low cloud on the conductivity of noise from the mine to the city of Kamloops?</p> <p>34. Where will the data logging sound level meters be installed?</p> <p>35. How many data logging sound level meters will be installed?</p> <p>36. Also, it appears the data loggers log in 1 minute intervals. Is this correct?</p> <p>37. What are the intervals the noise will be logged? Could accurate dBA data be skewed?</p> <p>38. Would it be possible that blasting may not fall within the data logger log interval?</p> <p>39. How will vibration be measured?</p> <p>40. What would be the impact of vibration on the homes and nearby properties?</p> <p>41. Does this 40dBA include blasting as well?</p> <p>42. Also states a noise modeling domain 3km by 3km from the site boundary. There is no map showing this boundary. Could a figure be created for this?</p> <p>43. Mitigation measures could include construction of a buffer between mine/ neighborhoods.</p> <p>44. What type of buffer?</p> <p>45. Low frequency and very low frequency sound generated by turbines and other large machinery can carry great distances and affect both quality of life and human health. What monitoring is being or will be done of sound in the subaudible frequency range?</p>	dAIR comment	General	Noise and Vibration	10.4	<p>This information will be provided in the Application/EIS.</p>	Noise and Vibration - 3.3.4.2

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934	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	Noise from Trucks The proponent says that it will provide a list of mining equipment, explosives and storage for same, infrastructure and power supply, the capacity and source, hours of use and fuel requirements as a component of the application. However, as the proponent as already stated it has completed an economic feasibility study, this list should already exist. The Knight Piesold preliminary report stated that the ore carriers would be capable of carrying 240 tons of rock. Accordingly, it is assumed that details pertaining to this equipment must already be known. 1. Has this information been provided to date? 2. If so, to whom has it been provided? 3. Is this information available for public scrutiny? 5. How many ore carriers will be used by the proponent to transfer rock from the pit to the "in pit" crushing systems? 6. How many ore carriers will be used by the proponent to transfer crushed rock from the "in pit" crushing systems to the permanent secondary crusher? 7. How many ore carriers will be used by the proponent to transfer waste rock and process raw to the waste rock management facilities? 8. What is the horsepower rating of each of these pieces of equipment? 9. What is the sound output of each piece of equipment described above expressed in decibels?	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
935	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	10. How many trucks will be utilized in the movement of all rock, or bearing rock and all waste product used by the proponents? 11. Will these trucks be powered by diesel engines or by electric motors? 12. If the trucks are powered by diesel engines, what is the noise each will generate, expressed in decibels? 13. If the trucks are powered by electric motors, what is the noise each will generate, expressed in decibels? 14. How many excavators will be used in the movement of ore and waste rock during the operation of the mine and what is the noise level projected for each, expressed in decibels? 15. How many pieces of road construction or maintenance equipment will be used on a daily basis, and what is the noise level of each, expressed in decibels? 16. What method of drilling will be used, and what will the noise value of this process be, expressed in decibels? 17. What method of crushing the rock and processing the ore will be utilized, and what is the projected noise level of this process (motive power and processing) expressed in decibels? 18. What is the total noise projected to rise from all facets of the mine expressed in decibels? 19. What is the projected carrying distance of ambient noise expected to be generated by the mine? 20. What is the projected ambient noise expected to be generated by the mine, as measured within the communities of Pineview, Aberdeen, Upper Sahali, Knutsford and Rose Hill? 21. If studies of these ambient noise values have not been undertaken, why have they not been undertaken and when will they be undertaken?	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
936	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	22. If a license to operate a mine is granted to the proponents, what are the allowable levels of ambient noise within the communities listed above in paragraph 5 k? 23. What is the projected high frequency noise anticipated from public address systems and safety systems (such as backup beepers on heavy equipment) utilized by the projected mine? 24. Have other methods of ensuring safety of mine workers without projecting high frequency noise, been considered, and if so, what are these? 25. If GPS operation systems are used, will this negate the need for auditory safety mechanisms? 26. If alternate means of ensuring Mineworkers safety without creation of high frequency noise have been considered, will these be approved by Work Safe BC? 27. Have applications been made? 28. When will each controlled explosion be detonated, and what is the noise expected to arise each time, expressed in decibels? 29. What is the extent of vibration and noise that can be expected by the explosion in each of the adjacent communities and any others that may be affected?	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
944	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	Sanctions for Non Compliance 1. Significant portions of the waste dump facilities are within the city limits of Kamloops. Will the mine be subject to the municipal noise bylaw? 3. If a complaint is made as to the level of ambient noise, to whom must it be reported and who will investigate the validity of the complaints? 4. In the event that ambient dust, trace elements or ambient noise limits are exceeded, will the mine be required to halt operations until such time as compliance can be assured? 5. If not, after what period of time or after what level of noncompliance will the mine be required to curtail mining operations until compliance can be assured? 6. In the event that ongoing noncompliance arises, what sanctions are contemplated? 7. What level of proof is required, and will the mine be allowed to lead evidence of its own in such hearings?	dAIR comment	General	Noise and Vibration	10.4 17.7	Conditions for operation will be outlined in various licences and authorizations; a complaint response and resolution policy will be included as a mitigation measure.	Noise and Vibration - 3.3.4.2
973	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	Several Sample blasts be performed at the maximum blast level at defined times? Can truck backup alarms, and truck movements be simulated at the mine site as well?	dAIR comment	General	Noise and Vibration	10.4	It is a common practice to use smaller, scaled-down test blasts. The charges used in test blasts were large enough to validate the blast model. The results from test blasts can be accurately scaled up to reflect a full-scale blast, therefore a full-scale blast is not necessary. Trying to perform a full scale noise test to replicate a large and complex facility such as the proposed KAM mine is not practical. Neither the mine site topography nor special distribution of noise sources could be replicated.	Noise and Vibration - 3.3.4.2

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991	265	27-Mar-12	Personal Information Withheld	Kamloops, BC	Last, we are concerned about the amount of noise generated by mining operations (blasting, crushing, vehicle traffic) that will be heard in the Aberdeen area and how that will be eliminated or mitigated. We would like to see studies that will show or provide answers to what the effects there will be and how the mine will eliminate the impacts from the issues mentioned above.	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
997	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	Noise - constant noise of trucking, grinding, blasting, the echo effect that will happen on inversion days.	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
1115	282	27-Mar-12	Muriel Miller	Aberdeen, BC	2) The constant Noise/vibration from heavy machinery and blasting. Will we even be able to have our windows open?	dAIR comment	blasting	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
1147	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	26. will you be able to hear the sounds of blasting from Aberdeen? 27. will you be able to hear the sounds of blasting from sun rivers? 28. will you be able to hear the sounds of blasting from batchelor heights? 29. will you be able to hear the sounds of blasting from valleyview?	dAIR comment	blasting	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2

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1158	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	Figure 2.2.1 Truck Shop and Fuel Storage Area a. What base line studies have been done on the possible effects of the location of these facilities in relation to the adjacent neighborhoods, which are between 1.5 and 2 km away? If none, why not? Will data in this regard be required in the AIR, taking into account the area residents' rights to "quiet enjoyment of their properties" being disturbed by -the effects of area lighting during normal darkness hours -engine and machine noise -the possibility of accidents, being vehicular and/or explosive b. where will emergency equipment be located, and what contingency plans will be in place to mitigate the effects on the neighbouring properties of the inevitable accidents? What degree of mitigation will be required in the AIR?	dAIR comment	truck shop and fuel storage area	Noise and Vibration	10.4	This information will be provided in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Noise and Vibration - 3.3.4.2
1201	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	31. Why has the proponent not been required to perform a test blast the size of what will be done during normal mine operations? 32. Will there be test blasts to see the effects of the ballast during the different seasons? 33. If not why not? 34. This should be done with the public's knowledge so that the city of Kamloops residents can see what they is in store for them and if not why not? 35. Would there be a daily posting of blasting times made public? 36. If not why not? 37. Will these blast times limit public access to any roads? 38. How will blast times take the community into consideration and if so how? 39. Can you give a breakdown chemical compounds (chemicals and weight per blast) in the mix of ammonium nitrate/fuel (ANFO) and emulsion explosives will be used for blasting material. 40. Will the explosive logs record the amount and types chemicals and their amount? 41. Will this be made public and if not why not? 42. What will be the frequency of blasting? How many times a day and within how much time of the last blast? 43. How it the blasting schedule determined?	dAIR comment	blasting	Noise and Vibration	10.4	(31-38) The results from tests blasts are used to validate and optimize a blast model. The test blasts used explosive charges that were 50 to 60% of the anticipated production charges. The results can therefore be accurately scaled up to reflect production blasts. (39-43) This information will be included in the Application/EIS.	Noise and Vibration - 3.3.4.2
1212	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	Several Sample blasts be performed at the maximum blast level at defined times? Can truck backup alarms, and truck movements be simulated at the mine site as well?	dAIR comment	blasting	Noise and Vibration	10.4	It is a common practice to use smaller, scaled-down test blasts. The charges used in test blasts were large enough to validate the blast model. The results from test blasts can be accurately scaled up to reflect a full-scale blast, therefore a full-scale blast is not necessary. Trying to perform a full scale noise test to replicate a large and complex facility such as the proposed KAM mine is not practical. Neither the mine site topography nor special distribution of noise sources could be replicated.	Noise and Vibration - 3.3.4.2
1229	305	4-Apr-12	Kenneth Graf	Kamloops (Aberdeen), BC	6) In pit blasting, personally due to my mining back ground and experience with modern controlled blasting techniques I am not concerned with the blasting at the mine. In listening to other residence of Kamloops may people are concerned, although some small scale testing has been done with projected impact on vibration and noise being extrapolated from the test, public perception is skeptical at best with most residence believing it will cause considerable Noise/vibration. This needs further testing and clarification.	dAIR comment	blasting	Noise and Vibration	10.4	It is a common practice to use smaller, scaled-down test blasts. The charges used in test blasts were large enough to validate the blast model. The results from test blasts can be accurately scaled up to reflect a full-scale blast, therefore a full-scale blast is not necessary.	Noise and Vibration - 3.3.4.2

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1247	309	4-Apr-12	Christine Casorso	Kamloops, BC	How can the mine accurately predict the amount of noise produced prior to production. A 24 hour mine will produce significant and detrimental noise to those of us living here. I can here the sound of guns from the gun range across the highway, a significant distance from my house. An open pit copper mine will produce so much more noise than that. Who will monitor that and how often?	dAIR comment	General	Noise and Vibration	10.4	This information will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
1321	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		10.3 Noise and Vibration A number of standards are listed that the projected noise levels will be evaluated against e.g. Oil and Gas Commission's noise control guidelines. First, I do not know if these guidelines were meant to apply to urban areas. Second, how many residents have experienced what those guidelines permit so they could appreciate the study results and put them into their context? I suggest it is more relevant for this proposal to project what the noise levels will be, identify the change from the current situation, and where that effect will extend. Further, the dB level data should be conveyed via comparing this to common noises and levels that people are familiar with e.g. fire-engine siren. Projections should include worst case scenarios e.g. high winds from the south and most conducive temperatures for conveying sound. All sources of noise should be scoped into this analysis including the back-up beeping of vehicles. Along with the noise, the effects on human health should be assessed e.g. potential disruption of sleep during the day or night.	dAIR comment	General	Noise and Vibration	10.4	The noise from blasting will meet the Ontario MOE NPC-119 limits and therefore no adverse effect on human health is expected from this discrete event. NPC-119 has been in effect since 1978 and has been widely used not only in Ontario but in other provinces as well to regulate and limit effects from blasting. The mine will be designed to comply with the very stringent requirements of BC OGC Guidelines and HC recommendations.	Noise and Vibration - 3.3.4.2
1366	329	4-Apr-12	Personal Information withheld		15/02/2012 I am a resident of Pineview Valley and have some concerns about the Ajax Mine. First of all I am not adverse to mining in British Columbia however I have concerns about the proximity of the mine to my community (and others). My concerns are listed below. 1. My husband and I chose to live in Pineview in part because of its peacefulness and atmosphere (a nice quiet community nestled in the hill side). I am concerned about constant noises coming from the mining activities.	dAIR comment	General	Noise and Vibration	10.4	Information on the noise study methodology and results will be provided in detail in the Application/EIS.	Noise and Vibration - 3.3.4.2
1379	330	4-Apr-12	Personal Information withheld		noise pollution, without trees or high mountains, nothing will stop that noise from traveling as noticed when Dawson was blasting	dAIR comment	General	Noise and Vibration	10.4	Information on the noise study methodology and results will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2

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1388	332	4-Apr-12	Personal Information Withheld		3. Noise and vibration due to proximity of activity <ul style="list-style-type: none"> • impact on the community due to the perpetual operational noise • impact of the vibration from substantial and continual blasting 	dAIR comment	General	Noise and Vibration	10.4	Information on the noise study methodology and results will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
1412	336	4-Apr-12	Personal Information Withheld		18. Will there be more extensive blasting tests conducted using full blast magnitudes and with measurements taken at appropriate locations, using sound level meters and PPV?	dAIR comment	blasting	Noise and Vibration	10.4	These issues will be discussed in the Application/EIS. The proponent has utilized applied science to determine the effects of the blast tests, and will not be conducting full scale test blasting.	Noise and Vibration - 3.3.4.2
1422	338	4-Apr-12	Personal Information Withheld	Kamloops	Noise: <ul style="list-style-type: none"> • Are the beeps on the mining equipment much louder than on regular construction vehicles? And how far away will they be audible? (Because the surrounding noise would be much louder at a mine site inside a huge truck, therefore to be safe, perhaps the beeps are loud enough to be heard 1.5 km away. One of the most annoying sounds when living near a construction zone is the constant beeping.) • What noises will be audible in surrounding neighbourhoods? (I'm less concerned with the blasting once a day, and more concerned about any type of steady droning or constant beeping) 	dAIR comment	General	Noise and Vibration	10.4	Information on the noise study methodology and results will be provided in the Application/EIS.	Noise and Vibration - 3.3.4.2
1464	342	4-Apr-12	Personal Information Withheld		The level of blasting and machine noise would also be detrimental to the quality of life of Kamloops residents.	dAIR comment	blasting	Noise and Vibration	10.4	Information on the noise study methodology and results will be provided in detail in Section 10 of the Application/EIS.	Noise and Vibration - 3.3.4.2

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16	8	5-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (23 of 23) [2012-02-24 3:11:30 PM]^ What proof do you have that blasting noise will not be heard in the residential areas of Aberdeen, Pineview Valley, Dufferin and Sahali – affecting quality of life, babies sleeping etc. Were the tests you did of the exact same magnitude and all other variables equal to blasts that will occur during operation? Do you guarantee your statement in the sales brochure that this will be once per day for 5 seconds and this will absolutely never change? What recourse will you give us if you decide to blast multiple times a day? Please provide us the study details of your study on the noise impact – how loud it will be heard and where. If there is noise heard above your projections...what will you do to compensate people? What is appropriate compensation if our babies are woken by blasting?	dAIR comment	blasting	Health Education and Healthy Living	10.5	Vibration assessment results will be included in the Application/EIS. The results for blasting noise and vibration assessment will include: airblast overpressure (noise) and peak particle velocity (ground vibration) predictions for the nearest and most critical residential receptors. Effects pathways will be included in the Application. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects. Blasting schedules will be assessed in the Application. The AIR provides an overview of the methodology for the assessment of baseline noise levels, including the guidance documents or standards used in development of the methodology: this will be expanded on in the Application.	
927	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	10.3.2 Noise and Vibration Regarding the blasting report from the KGHM website: http://www.ajaxmine.ca/pdfs/Abacus-MSW-Report-10-May-2011.pdf Note page 23 (Table 9) and page 24(Map) shows 19 perimeter points and the estimated BOP- Blast Over Pressure in dB. Note perimeter point 9 and 2. Point 9(Sahali) is predicted at 114.2 dB at 6.4 km from test blast site, yet Point 2(Aberdeen) is predicted at 113.6 dB at 3.7 km. The closest perimeter point #5 is 2.4 km away, yet is estimated at 108.2 dB. 1. Why are the closer perimeter points showing a lower BOP strength? 2. Is this a common occurrence? 3. Could the topography of the area cause this to occur and if so are there other locations not indicated on the map that could have higher BOP values than those shown in the table? If so, what locations, including those not shown on the map, had the highest calculated BOP values? 4. What are the probable random and systematic errors in these calculations for the BOP dB? 5. What is the expected uncertainty in the values presented in Table 9? 6. What impact do these uncertainties have on the conclusions presented regarding the BOP values?	Project comment	General	Health Education and Healthy Living	10.5	Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment for noise and vibration in the Application/EIS.	
341	109	18-Feb-12	Mary Jordan	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (11 of 18) [2012-02-24 3:14:53 PM]^ I attended the two day info session at the Kamloops Convention Center February 8th and 7th. While the EIS will address a number of areas impacted by the proposed Ajax mine, nothing I heard convinced me that the long term effects will be, or can be adequately managed. There are too many unknown variables. With concerted effort over the past 20 years, Kamloops has shifted its image as a pulp mill town to a vibrant, healthy city that supports a diverse economy. This reality now stands in jeopardy. I have several areas of concern. 1. The monitoring and enforcement program. There will be numerous changes over the course of 25 years that could affect both the Proponent or the EAO's willingness or ability to effectively manage environmental impact. • The Environmental Management Plan suggests a potential role of community by developing and maintaining an ongoing community group to advise the development and implementation of follow-up and monitoring programs. Would a community group have the expertise necessary to adequately monitor and advise? Would this group be paid and by whom? If such a group were volunteer, what assurance would we have that they would remain in place for the duration of the mine's operation? • The monitoring and enforcement program will be the responsibility of EAO. Given the BC Auditor General's current report that the province is not meeting the enforcement of environmental standards due to staff and financial shortages, I have little confidence in trusting timely reporting and follow-up on detected infractions. • I would suggest that the management of the monitoring and enforcement process would be more effectively served by independent consultants with the necessary expertise, financed by the Proponent and at arm's length from the government.	EAO/CEA Agency Process Comment	General	n/a	17.2	Monitoring and enforcement (including the nature of groups or participants that will be engaged) will be developed and implemented as per Section 17 of the draft AIR. The requirements for monitoring and follow up programs are discussed in the AIR for each VC under each of the Residual Effects and their Significance sub-sections.	
64	24	7-Feb-12	Brian Hayashi	Kamloops, BC	6. Can we do any theoretical studies showing what might happen if we wait for a better economic cycle before mining the deposit? 7. What are the risk/reward stats for other deposits, costs, etc.?	Project comment	General	n/a	17.3	The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR, as well as alternatives to the project.	
1401	336	4-Apr-12	Personal Information Withheld		7. Why cannot the waste and tailings piles be placed into the test pit and the total area regarded to blend with the surrounding hills?	Project comment	General	n/a	17.4	This issue will be addressed in the Application/EIS.	

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627	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	6. How will the Ajax mine respond during an emergency and what sort of communications system will be in place to ensure our families are notified immediately of any accidents, spills or activities out of the norm on the Ajax site?	dAIR comment	General	n/a	17.6	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
941	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	17.7 Mitigation Measures In the second column on page 14 of the Proposed Ajax Mine Project Booklet, the proponent states that the information collected "will be analyzed" and goes on to state that "measures will be identified by the proponent to avoid or mitigate for potential adverse effects..." 1. Who will analyze this information? 2. At what stage in the process will be information be analyzed? 3. How will the methods of analysis and the sources of information be reported to the EAO? 4. Where the proponent states, on page 14 of the booklet, that measures will be identified by the proponent to avoid or mitigate potential effects, what standards will be required of the proponent to ensure that the mitigation is appropriate and workable? 5. What standards will be required of the proponent by the EAO to ensure that any mitigation standards agreed to will be met by the proponent?	Project comment	General	n/a	17.7	This information will be included in the Application/EIS.	
943	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	17.12 Follow-up Programs 1. Once allowable levels of fugitive dust and trace elements within fugitive dust have been determined, how will these be monitored for ongoing compliance by the mine? 2. What kinds of data collection devices are being contemplated? 3. Who has tested the proposed data collection devices for accuracy? 4. Who will be responsible for their calibration from time to time? 5. Who will be responsible for measuring these values and how often will this be done? 6. How many of these devices will be utilized, and where will they be located? 7. How will these devices be secured against tampering? 8. What devices are contemplated for the measurement of compliance with noise levels as stipulated under the mine license?	dAIR comment	General	n/a	17.12	This information will be included in the Application/EIS.	
1360	327	12-Mar-12	Paula Pick	Knutsford, BC	*http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (16 of 69)^ 3.9 Overburden and Topsoil Stockpiles • What will be done to prevent weeds from taking over the topsoil stockpile? • What is the scientific basis for preservation of native seedbanks...for reclamation purposes? • What is the basis specifically in reference to reclaiming native grasslands in BC? Re section 3.18 Closure and Reclamation • In the Draft AIR there is very little mention that 2500ha of pristine native grasslands will be destroyed. Why is more emphasis not made on the vital importance of native grasslands and the critical habitat they represent? • The basis of native grasslands is the unique structure of the soil – "This complex of life forms is referred to as the crypto gamic crust". This unique life form is not mentioned in the draft AIR. • Will KGHM, the Polish mine, stick around for 100 to 250 years to oversee the reclamation process? • How much will native grasses cost for 2500 hectares? Has the proponent costed out the seed and cost of labour to restore the grasslands to their original state?	dAIR comment	General	Grasslands	6.10	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	
1362	327	12-Mar-12	Paula Pick	Knutsford, BC	6.8.1• Will experts be studying the lichens, mosses and algae that make up the rare crust that binds the soil?	dAIR comment	General	Rare and Sensitive Ecological Communities	6.9	Grasslands will be assessed under the Rare and Sensitive Ecological communities VC, as described in the AIR. All surveys will be conducted according to RISC standards. The Application/EIS will include identification and detailed summary of the qualified professionals contributing to the Application/EIS, as stated in Section 2.1.2 of the AIR.	

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1374	329	4-Apr-12	Personal Information withheld		9. I would like to see more about restoration plans once the mine life is complete. Will the grasslands be returned to their natural state? Will Jacko lake be restored? Will all infrastructure be removed, including buildings, roadways, pipelines etc.	dAIR comment	General	Grasslands Jacko Lake	6.10 8.7	This issue will be addressed in the Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS. The plan will identify baseline studies and ongoing reclamation research that will be conducted throughout mine life.	
796	227	24-Mar-12	Marcia Wilson and Klaus Mey	Kamloops, BC	The lack of data regarding the nature of the waste rock and its content, particularly regarding content which in itself may be harmful to health (elements like arsenic for example). Who will the dust affect my garden? Who will decide if my produce – sitting outside all the time – is safe to eat? How would this be assessed? If we do not eat out of our garden we lose both quality of life with respect to food quality as well as from the perspective of the financial impact on our family and my in-laws. This is a big loss for us. Many diseases- like multiple sclerosis- are cause by a combination of genetic and environmental factors. How is the risk of the waste rock metals as a potential contributor to diseases like cancer or other conditions going to be addressed? Is anyone actually funding this kind of research? If there is no data how will you assess the risk?	dAIR comment	General	Health Country Foods	10 10.3	Human health will be assessed in the Application/EIS. Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	
199	77	10-Feb-12	Personal Information Withheld	Kamloops, BC	What blasting tests were done, how big was it, what were the results What time of day would they blast? Are the computer blasts a series of small blasts milliseconds apart Will the proponent guarantee payment for structural damage to homes, municipal infrastructure in the area caused by blasting or mine works Will the proponent pay for dust, noise, seismic monitoring stations around the Pacific Way school What effect would blasting have on fishes in Jacko Lake Will the pit make the Aberdeen Hill more unstable after 23 years of blasting, would pit water seep into the hill and saturate the ground leading to slippage, will blasting make Aberdeen more unstable Will Ajax do a full test blast and invite the public/local news to observe and report the findings along with seismic readings at Pacific Way School, city dog park on Pacific Way and Aberdeen Mall	dAIR comment	blasting	Noise and Vibration	3 10.4	Section 3 of the Application/EIS will provide details on blasting protocols during project operation. The projected daily blasts are designed with 60 holes. It is currently anticipated that blasting will occur once per day, at around noon, coinciding with shift change. The Application will discuss impacts on potential effects on the Aberdeen area, as well as impacts on fish and fish habitat in Jacko Lake. The Application will also identify monitoring and mitigation measures. It is not feasible to conduct a "full size operational blast" prior to operation. Vibration characteristics can be accurately related to the charge weight and distance and can be used to model blast vibrations from a production blast at the same site. Modelling will to predict blasting PPV and air overpressure.	Noise and Vibration - 3.3.4.2

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307	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	<p>Why are the waste rock sites planned where they are, they take no consideration at all to the local residences at all?</p> <p>These piles should not be allowed to be placed where planned, the east pile is especially bad, nearby residents would hear the trucks going up and down the ramp road, hear the waste rock being dumped and the cascading sound of rock going down a slope, the beeping of trucks backing up, the dust generated would blow directly toward Aberdeen Highlands this would have a lasting effect for decades with the dry heat and wind we get in the area, would the proponent move these to another area, maybe the original Afton site so all piles are in one area?</p> <p>Would the proponent ensure there is no dust by enclosing in the waste rock locations before they start mining and dumping waste rock to ensure there is no air borne dust issues?</p>	dAIR comment	Waste rock management facilities	Air Quality Noise and Vibration	3 10.1 10.4 17.2	<p>A detailed project description will be presented in the Application/EIS (Section 3). Section 17 will present technically and economically feasible ways that the proposed Project could be implemented and will include the rationale for siting the waste rock management facilities as proposed. Waste rock locations will not be enclosed - the conceptual reclamation plan to be presented in the Application/EIS will discuss remediation measures for reclamation during mine operations.</p> <p>Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
418	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>2. The assay results (not the rock analysis) should be made publicly available ASAP in order that the public may comment on them. There are significant health implications regarding the fugitive dust that will be produced by the mine.</p> <p>3. How many drill cores have been taken from the proposed mine site in order to provide data for the proponents and for the environmental assessment office? 4. What are the locations of the drill sites within the mine and have they been mapped? 5. How deep is each of the drill cores?</p> <p>6. How have the drill cores been preserved, and will they be made available to the environmental assessment office or to interested parties in the public for sampling and assay testing?</p>	dAIR comment	General	Air Quality	3 10.1	<p>A detailed project description will be presented in the Application/EIS (Section 3). Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment. The composition of particulates will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants.</p>	Air Quality - 3.3.4.1
420	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>3.4.3 DRILLING AND BLASTING</p> <p>The test blast performed by Abacus was very limited in size, and performed under ideal conditions.</p> <p>1. Why has the proponent not been required to perform a blast test of the size that will be used during normal mine operations in order that a true assessment can be made of the Noise/vibration produced? That should be a requirement which must be met and the results made public before the application is allowed to proceed.</p> <p>2. Will the proponent also be required to perform the above noted test blast on a day when the prevailing wind is blowing from the southwest in order that the amount and dispersion of fugitive dust produced by the blast can be measured?</p> <p>"A mix of ammonium nitrate/fuel (ANFO) and emulsion explosives will be used during this process."</p> <p>1.What do emulsion explosives include? This should be covered in Section 3.11: Explosives Manufacturing and Storage.</p> <p>2.What chemical compounds are used in the original chemical reactions as reactants?</p> <p>3.What compounds are produced at each stage throughout the chemical reaction process? 4.What chemical products are produced in the final stages of the process?</p> <p>5.What is the particulate matter size of these products from the drilling and blasting process?</p> <p>6.Will ultra-fine aluminum powder be used in the explosives?</p> <p>7.Will the explosives log that records the amount and types of inputs be disclosed to the public?</p>	dAIR comment	blasting	Noise and Vibration Air Quality	3 10.4 10.1	<p>Results from the Noise and Vibration impact assessments will be provided in the Application/EIS. Dispersion modelling will be included in the air quality effects assessment. This information will be provided in the Application/EIS.</p> <p>Please see column "dAIR Rev E Section#."</p>	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2

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479	138	2-Mar-12	Personal Information Withheld	Kamloops, BC	2) are there plans in place to control dust by large domes-similar to what Afton Mines is doing.?	dAIR comment	stockpiles	Air Quality	3 10.1	A detailed project description will be presented in the Application/EIS (Section 3). Mitigation measures for potential effects will also be discussed.	Air Quality - 3.3.4.1
496	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	<p>Noise and Vibration 10.3 to 10.3.7</p> <p>1. When the heightened sensitivity, add 10dBA is factored in will the mitigation level be exceeded for the areas outside the city boundary?</p> <p>2. Will the differences in the seasonal levels be evaluated and appropriately decreased to conform to the "Quiet Rural" guidelines?</p> <p>3. How were these sound/noise levels measured? Were dwellings and land receptors considered in the assessment or was noise impacts, using the average across locations, the method?</p> <p>4. Were the sites for sound identification representative geographically and was the distance from each individual piece of operating equipment measured for variances to each individual receptor?</p> <p>5. What instruments and studies have been used to determine the health impacts relating to discrete noise events when evaluated over the long term, 23years and at 1year/24hrs.per day, increments to the total of 23years? Was the use of additional methodology used in sleep disturbance guidelines as referenced in page 2, 6.1 AIR Canadian Guidelines, implemented?</p> <p>6. How has the avoidance of tonal/impulsive construction noise levels to be adjusted and avoided at night?</p> <p>7. Will all noise level adjustments indicate the +5 adjustment for back up alarms and the fluctuation of background noise levels as they modulate?</p> <p>8. How have the Low Frequency noise levels been measured in the receptor areas?</p> <p>9. What mediation measures were predicted for the summer "Open Window" valued component for the "Quiet Rural" areas?</p> <p>10. Has each piece of equipment and sound generating factor been assessed separately and at individual receptors as required?</p> <p>11. Were receptor residences of similar rural geography used, as explained in the AIR cited Canadian Guidelines, 5.5, to develop High Annoyance measurements appropriate for "Quiet Rural", outdoor to indoor? 12. What plan and research will be in place to take into account relative change in the noise environment from the prior levels that will consider all Human Health Endpoints?</p> <p>13. Will the "Quiet Rural" criteria maximum be applicable as referenced in the methodology from the Health Canada document "Guidance for Evaluating Human Health Impacts in EA(January 2011) as the "Oil and Gas Commissions noise guidelines are not appropriate for an operating mine site?</p>	dAIR comment	General	Noise and Vibration	3 10.4	<p>(1) 10 dB will be factored in for receptors in quiet rural areas for the operational case and construction case if the latter lasts longer than 1 year. Noise control measures will be recommended to comply with HC recommendations. If the construction phase ends up lasting less than 1 year, mitigated noise levels (MNL) as per HC recommendations (based off EPA guidelines) will be complied with. MNL are specified explicitly for each type of acoustic environment ranging from rural to noisy urban centers. (2) The guidelines for quiet rural areas are the same regardless of the season (i.e., do not change seasonally). The noise emissions from operations are not expected to change substantially from season to season, therefore seasonal variability will not be considered. The guidelines that will be followed (HC recommendations and BC OGC Guidelines) are effectively based on worst case seasonal conditions where dwelling's windows may be open at night. (3) Sound level measurements will be made to establish baseline sound levels. (4) The sites at which noise measurements will be taken will be representative of the affected acoustic environments. The effects of the mine construction and operation will be assessed using computer modelling. The modelling will be conducted to accurately reflect all the noise sources and all distances between the sources and individual receptors. (5) No discrete type noise events affecting human health are expected during construction or operation of the mine. Blasting is expected to be conducted once a day around noon. The mine will be designed to comply with the very stringent requirements of BC OGC Guidelines and HC recommendations. (6) Pile driving and blasting are projected to be the main sources of impulsive noise. These activities will be carried out during daytime hours. Back-up alarms on mobile equipment are the main sources of tonal noise. All appropriate adjustments during the modelling phase as per HC recommendations will be made. (7) Yes, noise level adjustments will be made for back-up alarms on equipment that is audible at the residential receptors, i.e., when the levels exceed the background sound.</p> <p>(1) 10 dB will be factored in for receptors in quiet rural areas for the operational case and construction case if the latter lasts longer than 1 year. Noise control measures will be recommended to comply with HC recommendations. If the construction phase ends up lasting less than 1 year, mitigated noise levels (MNL) as per HC recommendations (based off EPA guidelines) will be complied with. MNL are specified explicitly for each type of acoustic environment ranging from rural to noisy urban centers. (2) The guidelines for quiet rural areas are the same regardless of the season (i.e., do not change seasonally). Seasonal variability will not be</p>	Noise and Vibration - 3.3.4.2
497	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	<p>14. Will "C weighting" tests be used to evaluate the Low Frequency noise/vibration, not "A weighted"?</p> <p>15. Where are the sensitive receptors located and what data has been collected?</p> <p>16. Was the data from an active production blast evaluated or simply the test blast area documented in Feb. 2011?</p> <p>17. Was the over-air pressure factored into the vibration effects in the 3km site boundary area and recorded at sensitive receptors?</p> <p>18. Were the absence of environmental clues ...been evaluated within the 3km site for anticipated adverse health effects? Will the environmental impact of the absence of these clues be instrument monitored on a continuous basis? 19. Will the goal to eliminate or reduce noise be appropriately controlled at the source, putting buffers in place? To what extent will the reliance of mitigation methods such as "buffers" near the receptors be used to support the decrease of sound?</p> <p>20. How is the proponent adjusting the noise decibels to accommodate the children in the immediate area ...?</p> <p>21. Since the health effects of noise exposure depend on the level of the noise and the length of time of the exposure, how will the proponent's responsibility for causing stress, lack of concentration and chronic health problems in individuals be determined? What measures will be put in place by the B.C. Government to hold the proponent accountable and to continue monitoring individuals who are not mine workers but are residing in noise sensitive areas?</p>	dAIR comment	General	Noise and Vibration	3 10.4	<p>(14) Yes, C-weighted scale will be used to assess the low frequency noise component. The A-weighted or C-weighted scales are applicable to noise assessments only and neither is relevant to vibration assessment. (15) No data have yet been collected. (16) Only test blasts were monitored. This is sufficient as blast effects can be scaled up or down with good accuracy. (17) Generally air-blast overpressure is not factored into vibration effects as these represent different physical phenomena. The predictions for air overpressure will be made at all critical receptors to ensure that they are within the established guidelines. If required in the future, actual measurements will be conducted at the most impacted residences during actual production blasts. (18) No work in this regard is planned or intended. (19) Yes, if such measures are required. The need for and required performance of noise control measures will be determined during the assessment. These will be aimed at achieving compliance with HC recommendations and BC OGC Guidelines at all receptors. (20) No such adjustments will be made as HC recommendations and BC OGC Guidelines are directed at all segments of the population. Additionally, shorter ear canals in children make them more sensitive to higher frequencies. Higher frequencies attenuate rapidly with distance and are not expected to have any influence on noise impact. (21) The proponent will ensure that noise levels are sufficiently low so that the noise effects on area residents are acceptable as established by HC and BC OGC for continuous operation.</p>	Noise and Vibration - 3.3.4.2

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498	145	3-Mar-12	Personal Information Withheld	Kamloops, BC	' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (56 of 77) [2012-03-06 2:47:31 PM]' My wife and I have been residents of the Aberdeen subdivision area for 23 years. I love the rural feel of the neighbourhood. I am also like hiking in the outdoors southeast of Aberdeen. Some of our trips summer and winter are in the area of the proposed Ajax mine only a few km from our house. Having said that, I know the Ajax site was an active mine pit approximately 20 + years ago. I am not opposed to this redevelopment of this old site if certain conditions are followed: 1. Old mining habits cannot be followed. In past years a mess was left and there was not much rehab. Just look at how Afton left their site. 2. Modern techniques of blasting and dust control need to be implemented and stringently enforced to prevent unnecessary vibration, shocks and dust exceeding PM5 levels.	Project comment	General	Air Quality Noise and Vibration	3 10.1 10.4	General statement.	Air Quality - 3.3.4.1 Noise and Vibration - 3.3.4.2
502	146	4-Mar-12	Personal Information Withheld	Kamloops, BC	' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (53 of 77) [2012-03-06 2:47:31 PM]' I am writing to express deep concern over the proposed Ajax Mine development. Our home is located exactly two kilometres from the mine in upper Aberdeen. We currently enjoy a very quiet environment and we purchased our house in Aberdeen specifically to avoid urban and industrial noises that are prevalent in some other parts of the city of Kamloops. In the summer we can hear the lovely lowing of the cows that graze in the hills that would become mining land were the Ajax development to go through. One can only imagine that if one can hear cattle one or two kilometres away, the sound of explosions, mining equipment and endless streams of heavy traffic could be very disturbing and an extreme departure from our present lifestyle. Kamloops has come a long way in the past few decades. We are now a university town, we publicise ourselves as the "Tournament Capital" and we are attracting diverse businesses. We have long been involved with the mining industry in surrounding areas but this is now being proposed in our backyard, within city limits! Why would we want to take such a huge step backwards after so much progress has been made in the development of the city of Kamloops? I would like KGHM Ajax Mining Inc. and the environment assessment office to address the following concerns: * How loud would blasting sound? - To what could one compare this level of sound? - How far would this sound be heard in the city? - For how many hours of the day would mining associated sounds be heard? * How well would the sound of heavy equipment and machinery carry over the hills of Aberdeen and Knutsford? - How many residents of Kamloops will be affected by this noise pollution?	dAIR comment	General	Noise and Vibration	3 10.4	These concerns will be addressed in the Application/EIS.	Noise and Vibration - 3.3.4.2
518	147	5-Mar-12	Kevin Cowan	Kamloops, BC	11. AIR section 2.2.5 Can the proponent currently state whether construction or processing noise from the proposed project will be heard by the citizens of Kamloops? * what is the proposed volume of the construction or processing noise that will be audible to neighborhoods in Kamloops? * proponent states that it will use "appropriate technologies" to reduce or prevent pollution. What is meant by "appropriate technologies" in this context? * Who determines whether the mitigating steps taken by the proponent or the appropriate technologies used, are satisfactory, and how is this determined? * proponent states that it will... "meet, and where practical, exceed legal requirements for health, safety and the environment." What is meant by "where practical" in this context? In the event that "where practical" is an economically driven question, what is the amount the mine proposes to spend in mitigation and elimination efforts? * In the event that the monies spent by the mine in mitigation and elimination efforts do not eliminate dust or noise, will the EAO or CEA Agency require the proponent to spend additional monies to completely eliminate these effects? If not, why not, and what standards will be applied in this regard? * environmental management system ... Who will monitor the accuracy of the data recorded in this respect, how often and over what geographic area?	dAIR comment	General	Noise and Vibration	3 10.4 11	This information will be provided in the Application/EIS. The proponent will use best available technology to minimize sound volume. Mitigating steps will be described in the Application/EIS; this information will be reviewed by the regulatory agencies during the EA process. A Noise Management Plan will be included as part of the environmental management system.	Noise and Vibration - 3.3.4.2
544	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Section 3.0 and section 10.0 Air Quality 1. Section 3.3 site geochemistry : results of geochemical characterization will be incorporated into planning and used in the assessment of ... geochemical data will be presented in "sufficient detail to use as a basis for water quality effects assessments." 2. What constitutes sufficient detail in this respect? Who determines this? 3. If the proponent is the source of this data, will be individuals providing this information reside inside the dust footprint? 4. Section 3.4.5 describes "in pit crushing and conveying" and it is apparent by review of figure 2.2-1 at the primary crushing plant will be above the pit. Am I correct that this means there will be crushing that will not be subject to dust domes and dust mediation methods that will be utilized in the primary crusher? 5. Will the proponent be required to use dust domes such as those utilized by Highland Valley Copper? 6. If not, why not? 7. At section 10.1.2 of the draft AIR document, the proponent notes that baseline information is being drawn from the Brocklehurst ... Why are no closer points of measurement being utilized? 8. Section 3.6.9 and 3.6.10 refer to concentrate handling and flocculent and to reagent handling and storage. Has there been a detailed description of the chemicals that will be used for these purposes, their chemical makeup, the amount used on a daily basis, and the extent to which these chemicals and agent will make up any portion of the dust cloud or the water table? 9. If not, why not? 10. If so, what are the potential for human health effects from ingestion of these chemical agents as airborne particulate or suspended in water? 11. Will the EAO require detail of this kind before granting any approval from mine so close to the community? 12. If not, why not? 13. What are the potential health concerns arising from these agents if ingested by children attending one of the three schools immediately adjacent to the mine? 14. What are the potential health concerns arising from these agents, if ingested by asthmatics or people with emphysema, COPD, heart conditions or other ailments that are affected by airborne particulates? 15. Have health issues of this kind been considered over long term studies, using mines close to population centers as a data source? 16. If not, why not? 17. ... waste rock management facilities. What type of herbicide and or pesticide will be utilized, in what volumes and during what climactic conditions? ...continued ... 18. Have studies been undertaken to determine the potential for noxious weed control chemicals to be uplifted from the waste rock management facilities and to become airborne? 19. If so, what are the projected results? 20. If not, why not? 21. proponents have conceded that trace elements of heavy minerals in the rock have the potential to form part of the dust cloud and the inhaled by citizens of the city of Kamloops. In section 3.6.11, the proponent states that an assay lab oratory will be on-site to provide routine assays for the environment departments. However, this level of testing will not be provided by the proponent until after approval has been granted and the mine has begun production. Given the proximity of the city of Kamloops, will the EAO require that this testing will be conducted from the existing drill cores to fully ensure that all toxic or dangerous contents of the dust plume are known and addressed in a proactive manner before any approvals are granted? 22. If not, why not?	dAIR comment	General	Air Quality	3 10.1	The Application/EIS will be submitted for a screening review to the EAO and CEA Agency to determine if the document meets all the requirements of the approved AIR. Following the screening review, the document is then reviewed by the Technical Working Group to determine if concerns have been adequately addressed. A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implemented for each of the mine components. It is not necessary to have site-specific surface meteorological measurements for each source region to adequately characterize dispersion meteorology. A three-dimensional CALMET wind field will be used to drive the CALPUFF model. The CALMET meteorological inputs data were supplied by the BC Ministry of Environment. A HHERA will evaluate potential effects on human and ecological receptors. The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS.	Air Quality - 3.3.4.1

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546	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Dust - General Nuisance Issues 1. Am I correct that approximately 200,000 tons of rock will be blasted each day of the mine's operation? 2. Am I also correct that out of this rock, approximately 60,000 tons of rock will be identified as ore bearing rock that will be processed? 3. If I am incorrect in these figures, what are the correct figures for each of these two values? 4. What percentage of this rock will be converted to dust, sufficiently small to become airborne and escape the mine area? 5. How is this known? 6. How much dust will be released into the Kamloops airshed during a month of mine production? 7. Has this been measured? 8. If not, why not? 9. Will the EAO requires that measurements of this type be modeled and also actually measured through all weather conditions in Kamloops, over the course of the calendar year? 10. If not, why not? 11. If not, what specific mechanisms are being utilized to ensure that accurate data is considered during the approval process? 12. How much dust (expressed in tons) is expected to be generated on a daily basis from the mining operation (including blasting, transport, waste dumping and processing)? 13. What percentage is likely to escape the mine site? 14. What data has been gathered in support of this figure? 15. What comparison studies have been made with the Highland Valley Copper Mine to determine the dust footprint from that mine? 18. Has the EAO considered complaints of this nature in the assessment to date of the Ajax proposal or attempted to replicate the assay results reported at this website? 19. If not, why not? 22. Has the EAO considered these news stories and attempted to measure the impact on the affected communities, in order to predict the effect the proposed Ajax mine may have upon the city of Kamloops? 23. If not, why not? 24. Will the EAO commit to undertaking studies of this nature, interviewing affected individuals in order to ensure that all relevant data is properly in consideration during the approval process? 25. If not, why not? 26. What dust suppression mechanisms used in Arizona are being considered or propose by the proponent at the Ajax mine? 27. How sophisticated are the dust suppression mechanism being used in Arizona as compared to those being demanded of the proponent at Ajax? 28. ...what improved or enhanced dust suppression mechanisms are being proposed by the proponent, that are not being utilized by any of those mines?	dAIR comment	General	Air Quality	3 10.1	Mine operation details will be provided in Section 3 of the Application/EIS. The quantity of particulate matter from all sources will be calculated using published emission factors and facility engineering design estimates. The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. Dispersion modelling of fugitive dust is proceeding as part of the Application/EIS process overseen by the BC EAO. Comparisons to Highland Valley Copper or projects in Arizona will not be done as part of this Application/EIS as these data have no direct relevance on the Ajax Project proposed by KGHM Ajax Mining Inc. Re: Questions 26 - 28 These questions are non-specific and cannot be addressed as part of the EA. Where valid comparisons can be made to operating mines, they will be, on a VC specific basis.	Air Quality - 3.3.4.1
567	154	7-Mar-12	Patrick Lindsay	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (66 of 69)[2012-03-14 4:29:55 PM]^ With an elementary school located so close to the proposed mine site...what precautions are being taken to ensure student safety and air quality?	dAIR comment	General	Air Quality	3 10.1 11 17	Mitigation measures will be discussed in Section 3 (Project Description) of the Application/EIS. Residual effects will be assessed, and conceptual follow-up and monitoring programs will be provided in Section 17.	Air Quality - 3.3.4.1
588	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	• 3.1.6: What is the proposal for dust control on the roads especially in the winter when watering and binders will not work well?	dAIR comment	access and haul roads	Air Quality	3 10.1	Mitigation measures will be discussed in Section 3 (Project Description) of the Application/EIS.	Air Quality - 3.3.4.1
697	195	17-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (14 of 23)[2012-03-26 3:53:56 PM]^ • Is it Ajax's intention to re-vegetate waste rock dump piles on a continuous basis (to help control dust) or are they planning to do this at the end of the mine's life? • Is Ajax willing to pay for air quality monitoring stations in Aberdeen, 2 years before starting mining, in order to establish a base line?	dAIR comment	waste rock management facilities	Air Quality	3 10.1	A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implement for each of the mine components. Baseline information collected for the EA will be included in the Application/EIS.	Air Quality - 3.3.4.1
724	204	20-Mar-12	Personal Information Withheld	Kamloops, BC	• What would be done to eliminate dust blowing off these piles that would be in the direct path of the prevalent southwest winds?	dAIR comment	stockpiles	Air Quality	3 10.1	A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implement for each of the mine components. Baseline information collected for the EA will be included in the Application/EIS.	Air Quality - 3.3.4.1

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789	225	23-Mar-12	Personal Information Withheld	Kamloops, BC	2. Given the height of the stockpiles (240ft; 213ft; 200ft) there is a probability of even more dust dispersing into the residential areas on the prevailing SW winds – what would be done to control dust from emanating from this area?	dAIR comment	stockpiles	Air Quality	3 10.1	A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implement for each of the mine components.	Air Quality - 3.3.4.1
797	227	24-Mar-12	Marcia Wilson and Klaus Mey	Kamloops, BC	The methods they will be using to measure existing air quality and in turn changes in air quality including wind patterns – the use of models which extrapolate data from other areas of the community at a different point in time may not give accurate information. The consultant suggested that they would be using models that are already in existence, which I find confusing since no one historically would have been interested in wind patterns in this area or in air quality in the immediate vicinity of the mine and the Aberdeen neighborhood. How fast and far will the particulate be dispersed? If pollution increases beyond a reasonable level will the mine cease operations? Who decides what a safe level is when it comes to additional particulate matter for people who have respiratory issues? Is data being collected regarding the number of people in Kamloops who have respiratory issues compared to comparable BC cities? If it's already a higher number can an industry which increases air pollution be justified? Plans to mitigate the dust- will they be 100% effective all the time (clearly impossible), or is there potential that weather, human error etc. will result in times of high release of dust? How will dust be controlled in temperatures of 25 below Celsius when water based methods are not effective? Changes to air quality related to diesel use of heavy machinery – how will this be predicted as part of the study? How will it be mitigated? How will the pollution overall affect things like ozone, weather patterns, etc. Could changes due to particulate and pollution affect weather, fog etc. in the Coquihalla transportation region? The recent strong winds in Kamloops resulted in terrible dust storms, especially in the Sahali area near Save On Foods, which limited all people (not just those with lung health issues) from going outside related to its effect on eyes etc. How much dust will be added to the overall dust levels and might this become a more frequent occurrence? In the Aberdeen area will our cars and houses and gardens be layered with dust all the time, or even a little? Will this dust result in the need to clean out houses and cars, and possibly with stronger arm power or chemicals (depending on the nature of the dust)?	dAIR comment	General	Air Quality	3 10.1	How fast and far particulates will be dispersed will be addressed in the Application. The questions regarding conditions under which the mine ceases operations and safe levels for particulates is referred to the BC MOE. The questions regarding the number of people in Kamloops who have respiratory issues compared to comparable BC cities and whether increases air pollution can be justified is referred to Interior Health and the Ministry of Health. Dispersion modelling will be used to predict the composition and quantity of particulate matter in various parts of the City. These levels will be evaluated against provincial, federal, or international standards and guidelines to ensure that exposures do not result in deleterious effects. HHERA will be based on ambient air quality criteria developed by regulatory agencies such as BC MOE and Health Canada and will look at incremental contributions from the project to determine the significance of the project-related contribution to local ambient air quality. A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implement for each of the mine components. The quantity of emissions from heavy equipment exhaust, fugitive emissions, and fugitive road dust will be calculated using published emission factors and facility engineering design estimates. These will be modelled using the CALPUFF modelling system to determine potential effects outside the Project Boundary. Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS.	Air Quality - 3.3.4.1
834	250	26-Mar-12	Hugh Jordan	Kamloops, BC	2. Impact on air quality. Air is already compromised by emissions from Domtar pulp mill – how can we endure further particulate in the air from the open pit operation; Ajax says they plan to spray on to keep the dust down...how is this possible in the winter with below freezing temperatures? This will require more water use. Dust control also includes something else added to the water to calm the dust. What effect will the southwest winds have in moving particulate towards populated areas? What happens when inversion traps pollution in the valley? Is the province ready to deal with the corresponding increasing health care costs?	dAIR comment	Ajax open pit	Air Quality	3 10.1	A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implement for each of the mine components. The quantity of emissions from heavy equipment exhaust, fugitive emissions, and fugitive road dust will be calculated using published emission factors and facility engineering design estimates. These will be modelled using the CALPUFF modelling system to determine potential effects outside the Project Boundary.	Air Quality - 3.3.4.1

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880	252	26-Mar-12	Paula Pick	Knutsford, BC	10.1.4 • Will the proponent be studying the problem of dust in winter? Because of the small or no snow pack, cold temperatures and wind, how will dust in winter be controlled and mitigated? Dust is going to be a particular problem in winter, in this region. • See the question under 6.1 about inversions in winter? Pollutants get trapped under inversions and build up over several days.	dAIR comment	General	Air Quality	3 10.1	The composition and quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. The composition of the particulates will be determined based upon a list of substances detected in assay results provided by the proponent. A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implement for each of the mine components.	Air Quality - 3.3.4.1
1224	305	4-Apr-12	Kenneth Graf	Kamloops (Aberdeen), BC	1) Dust control will be a concern, dust can generally be suppressed on roads, crushing and conveying, it is difficult to control dust on the rock waste dumps. How does Ajax propose to control dust on the rock waste dumps when the trucks are dumping?	dAIR comment	General	Air Quality	3 10.1	A detailed Project Description will be presented in the Application/EIS as described in Section 3 of the dAIR. This will include mitigation measures to be implement for each of the mine components. Baseline information collected for the EA will be included in the Application/EIS.	Air Quality - 3.3.4.1
1204	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	56. How many tones of ANFO and other explosive material will be stored on site? 57. What are the security measures for these explosives? 58. Is there a limit of how much can be stored on site? 59. What safety precautions will be in place for the neighboring residential areas and schools? 60. Will the public be aware of what types of explosives will be stored and what they are composed of and how many? 61. Where is the location of the storage site on a map and how close is it from neighboring roads and houses? 62. If the explosives should be detonated on the storage location what would the impact be?	Project comment	blasting	n/a	3 17.6	This information will be provided in the Application/EIS.	
335	106	15-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (18 of 18) [2012-02-24 3:14:53 PM]^ I have concerns regarding the proximity of the proposed Open Pit to the existing Kinder Morgan pipeline. The pipeline is dangerously close to a considerable portion of the perimeter of the Open Pit. The location of the existing pipeline combined with the unstable soil conditions in this area of the City seem to me to be a recipe for disaster. When a small City excavation in Vancouver can result in a ruptured pipeline and a large spill of oil and contamination of Burrard Inlet, then I question what the massive excavation and potential soil movement in the mining operation create as a risk for a pipeline rupture here with the attendant safety and environmental damage issues? Are there plans to reroute the pipeline? If so who pays the millions of dollars to do this? Has Kinder Morgan been consulted regarding the pipeline issue?	dAIR comment	Ajax open pit	Geology, Landforms, Soils	3 6.2	Potential effects of the project on the Kinder Morgan pipeline will be assessed in the Accidents and Malfunctions section of the Application. Please refer to Section 2.2.2 of the dAIR and to Figure 2.2-1, which shows the project components, including the ore stockpiles. The ore stockpiles described in the project description in Section 3 of the dAIR are based on the Feasibility Study – engineering design is ongoing. The Application will include a detailed project design, including any proposed measures to protect existing infrastructure. Results of the vibration assessment will be used to predict potential effects of the Project on the Kinder Morgan pipeline. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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608	163	10-Mar-12	Personal Information Withheld	Kamloops, BC	Water: • What will be the impact on Kamloops Lake and how would the water be brought to the site from the lake? • If the water from Kamloops Lake is to be piped up to the mine site where will the pipeline run?	dAIR comment	fresh water supply	Surface Water Quantity	3 6.4	The potential effects of construction, operation and closure on surface water quantity will be assessed using a watershed and water balance model. Details regarding the water intake and supply lines will be presented as part of the Project Description in the Application/EIS. The Application will describe expected changes to surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site wide water balance will describe water movements within the proposed Project area, including characterization of water levels, inflows and outflows from water management infrastructure, water withdrawal requirements, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime, including those of extreme events (e.g., low flows). The significance of any change in surface and/or ground water levels as a result of the project will be assessed with respect to the effects on existing water users.	
1205	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Water Resource 1. How will the mine determine water safety as explosives are travelling across Peterson Creek? 2. If there is a problem that occurs that threatens the water safety how long before this is shared with the public? 3. How do you determine that the mine is a zero discharge? 4. The mine will be adding 3 times the water to the area which will increase the snow, fog, dew and rain which is considered discharge is it not? 5. Has there been studies how the change of the humidity of the area will change the growth of plants in the area? 6. Has this test encompassed what particulates have been carried from the site in water (rain, dew, fog and snow)? 7. Why not is not? 8. How has the dew increase been tested to see how it will impact the trucking industry? 9. How has the fog been tested to see how it will impact the visibility for the trucking industry? 10. How will the increase in snow be compensated to the province and city for snow removal? 11. If not why not? 12. How many cubic meters of water will be stored as new surface water at the site? 13. What fraction is expected to seep into the aquifers? 14. What fraction is expected to evaporate into the air? 15. It there any detection methods that will be used to verify how much water have escaped into the atmosphere or into the aquifers? 16. If not why not? 17. Will this be made public?	dAIR comment	water management	Greenhouse Gas Management Domestic Water Quality	3 6.1 10.2	A Traffic Impact Study is being developed for inclusion in the Application/EIS. Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
13	7	2-Feb-12	Personal Information Withheld		(2) Noise and dust impact of waste rock dump impacting property values (3) East WRD should be incorporated into north WRD or moved to south of Jocko Lake (4) Waste rock crushers on property boundary should be moved to pit to alleviate dust and noise and water suppression should be used for crushers (5) Truck traffic noise and dust require mitigation	dAIR comment	waste rock management facilities traffic	Property Values Air Quality Noise and Vibration	3 7.5 10.1 10.4 17.2	Noise and dust impact of waste rock dump impacting property values will be discussed in the Application/EIS. Project design alternatives will be presented in Section 17.4. Truck traffic noise and dust mitigation measures will be discussed in Section 3 (Project Description). Results of air quality dispersion modelling will be used in the effects assessment for the Property Values VC.	Air Quality - 3.3.4.1

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487	144	3-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (57 of 77) [2012-03-06 2:47:31 PM]</p> <p>I respectfully request answers to the following questions: Explosives, Mine Site Main Equipment Sites, Waste Rock Transportation and Dumping: Adverse Impacts on Goose Lake Road Goose Lake Road Impact: AIR 3.8.1, 3.10, 3.11, 3.16</p> <ol style="list-style-type: none"> 1. What distance is required of an explosives storage facility from a public road? 2. What type of storage facility construction is required for the ANFO and where would the "watergel" (Tovex? sodium nitrate, aluminium nitrate), a water pollutant, be stored? 3. Where would the assembling and blending of Ammonium Nitrate and Fuel Oil as well as "watergel" additive take place? Waste deposited? 4. Since the transportation of explosives daily is across Goose Lake road and Peterson Creek ... how will the mine provide public/water safety? 5. What would be the Environmental impacts of the installation of an over head transportation route across the Goose Lake road if this method is chosen by the mine and what local traffic problems would be involved during installation? 6. Would daily notification and posting of blasting times and duration that will impact public utilization of Goose Lake road ... be forthcoming and user friendly to the local and community population? 7. When will "Production Blasting" differences from the documented test blast study ... be demonstrated and documented? Will this be required prior to the EAO final review of same? 8. What regulation regarding the distance of inset from the immediate edge of the Goose Lake Road is required for the continuous haul trucks dumping waste rock and consequently impacting the traffic due to the particulate/emissions/vibration? What studies have been done to indicate the degree of potential for road bank shifting/sliding during this working process? 9. What tests have been done in the east waste rock area shadowing the Goose Lake Road to ascertain the ground stability when under compaction/pressure and vibration of waste rock and equipment over time and depth? 	dAIR comment	traffic blasting explosives storage facility	Infrastructure, Public Facilities and Services	3 8.2	The Project Description section of the Application/EIS will provide detailed information on explosives storage and use. A traffic impact study will be undertaken for Lac Le Jeune Road and the results will be included in the Applications/EIS. The results of geotechnical studies will be provided in the Application/EIS.	
561	150	7-Mar-12	Personal Information Withheld	Kamloops, BC	5) noise, that is disrupting and disturbing to humans as well as animals (domestic and wild alike); I am concerned about noise that could affect the habits and health, and migratory patterns of local wildlife and birds;	dAIR comment	General	Environmental Noise and Vibration	6 10.4	These concerns will be addressed in the Application/EIS.	Noise and Vibration - 3.3.4.2
1290	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	02/03/2012. 1. What are the impacts to current and future residents and wildlife from noise? We appreciate that noise has been identified as a potential health effect to humans but the effect of constant noise on wildlife or domesticated animals does not appear to be considered. As a large area of natural grasslands supporting wildlife will be destroyed and given the close proximity to cattle ranches, the effects to wildlife and animals such as beef stock should be assessed. How does the effect of constant noise affect the health and well being of animals and what changes in behavior is to be expected and the associated impacts thereof.	dAIR comment	General	Environmental Noise and Vibration	6 10.4	This information will be provided in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Noise and Vibration - 3.3.4.2
259	87	10-Feb-12	Personal Information Withheld		3. Quality of life issues: peace and quiet of rural lifestyle dust loading on crops and clothes on laundry lines effect on wildlife, birds, domestic animals destruction of grasslands loss of grazing lands loss of destination tourism	dAIR comment	General	Environmental Community Health and Well-Being Land and Resource Use Health	6 8.1 8.5 10	Noise, vibration, dust dispersion, wildlife, grasslands, commercial land use, and economic issues will be considered in the Application/EIS. Please see the AIR for a description of the studies proposed to assess the identified issues (Sections 6 through 10)	

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322	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Will they show the public the models they are using to do this study?	dAIR comment	General	Environmental Social Air Quality	6 8 10.1	All models used in the assessment will be described, with results included in the Application/EIS.	
85	32	7-Feb-12	Personal Information Withheld	Pineview Valley, British Columbia	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (19 of 23) [2012-02-24 3:11:30 PM] I am concerned about the impact the Ajax mine could have on air quality as I have a child with asthma. If it impacts him in a negative way it would force us to move. Also at this time it is affecting property sales in our area because of the health concerns that have been voiced. For some this is a financial downfall that is already impacting families that cannot sell their homes and move forward in their lives. I do feel that you are asking the questions we all want answered and I thank you for that and it makes me feel better that there is due diligence being taken. Thank you	dAIR comment	General	Economic Air Quality	7 10.1	Any potential change in air quality resulting from project activities will be described in detail in the Application/EIS. Predicted concentrations of all substances of interest will be developed using an air quality dispersion model (CALPUFF). A meteorological model (CALMET) will be used to drive the CALPUFF model. The CALMET meteorological inputs data have been supplied by the BC Ministry of Environment . A Human Health and Ecological Risk Assessment (HHERA) will assess potential health effects based on the predicted incremental change in overall air quality. The quantity of particulate matter from mobile, fugitive, and area source emissions will be calculated using published emission factors and facility engineering design estimates and modelled using the CALPUFF modelling system, as approved by the BC Ministry of Environment. This information will be presented in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	Air Quality - 3.3.4.1
4	1	11-Jan-12	Kamloops Stockmen's Association	Kamloops, BC	9. Any agreements made with the mine need to be building our future ownership. Further discussion with the Kamloops Stockmen's Association to explain and expand or consolidate these base lines may be necessary. We are more than willing to continue this dialogue.	Project comment	General	n/a	n/a	Acknowledged.	
7	2	11-Jan-12	Tracy Upton	Lac Le Jeune, BC	I am against this mine.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
8	3	12-Jan-12	Brett Kidd	Kamloops, BC	I feel that it is time Kamloops stops chasing away large business away. Good jobs are hard to come by in Kamloops and many of our young population have to move away to work. I feel that Ajax will be a huge benefit for our community as it will also bring many Mining related jobs to Kamloops. Kamloops is not a retirement city, it is a working city. Also I believe that Ajax is not going to come here and rape the land as there are to many environmental checks that they will have to follow. If the handful of people don't like living within a few miles of the mine, THEN MOVE .	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	

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18	10	5-Feb-12	Personal Information Withheld	Kamloops, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (22 of 23) [2012-02-24 3:11:30 PM] Why was KGHM described as the worst of the worst carbon polluters as posted in greebiz.com and many other news sources (Google them and you will find them) on April 11, 2011. Other publications echoed this claim due to proven instances of nondisclosure – have you changed your corporate practices ? Much of your literature to date has proven to be untrue- i.e.. the distance from residential areas, a tailings "pond" which it is not" Please comment	Project comment	General	n/a	n/a	Section 2.2.5 of the AIR notes that the corresponding section in the Application will include a description of the Environmental Management System (EMS) and adaptive management approach that will be implemented during all phases of the proposed Project. This section of the AIR further notes "KAM (KGHM Ajax Mining Inc.) is committed to meeting or exceeding the requirements of the environmental and occupational health and safety legislation for each authority in which it operates. KAM is committed to protecting the health and safety of the public, its employees, and the natural environment. Where project activities may negatively affect people and/or the environment, KAM is committed to eliminating or mitigating the extent and magnitude of potential impacts. "	
22	12	6-Feb-12	Krystal Williams	Kamloops, BC	Bottom line is that we are smarter than this. We as human beings have evolved enough to understand the inherent risks and dangers we inflict upon our environment when we undertake projects such as these. There can be no comparison to mining projects of the past. We once thought the world was flat and the earth revolved around the sun. If history has taught us anything it is that we do not know everything. I for one will never consider a property in Aberdeen if this mine goes forward.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
23	13	7-Feb-12	Dianne Kerr	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (1 of 23) [2012-02-24 3:11:29 PM]^ June 19, 2011 COMMENTS RE SCOPE OF ENVIRONMENTAL ASSESSMENT Proposed Ajax/Abacus Copper/Gold Open Pit Mine in Kamloops I attended the public meeting related to the above proposal on June 16. I am writing to expand on the public input received at that meeting. My concerns are both those of a citizen of Kamloops, and also as someone who has lived in two mining towns in Eastern Canada and worked in two large mining operations, both of which were open pit mines. Those past experiences proved to me that the approving bodies either did not consider the long-term detrimental effects on the local population or they did not anticipate them at the approval stage. Unfortunately it was not possible to change the negative realities for the local people once the full extent of the problems were known. I know the past is not the present, but we can learn from the past, hopefully enough to avoid future damage to people and the environment around them. The mining company, as stated clearly at the meeting, can be depended upon to concern themselves with the making of a profit. I hope our approving bodies will consider other aspects of the proposal and their potential to impact our future. Following are issues I hope will be included in the scope of the environmental assessment:	Project comment	General	Economic Social	7 8	Contextual statement Please refer to the AIR for the studies proposed to assess the effects of the proposed project on the biophysical, economic and social environment.	
33	13	7-Feb-12	Dianne Kerr	Kamloops, BC	f) Cumulative Effect - When is enough, enough? We already have a pulp mill located on the prime beach area in our City and which has government approvals to add another stack to discharge below the inversion layer. We used to have the Gulf Oil Refinery that operated on the other side of the river until the owners decided themselves to shut down. We had the Afton mining operation and smelter which was supposed to be monitored but wasn't so that several times the approved particulate discharge was spewing out to Kamloops residents for years. We have two other mining operations currently operating in our immediate environs. Kamloops has more than enough heavy industrial development already.	Project comment	General	n/a	n/a	Please refer to the AIR Section 5 for the cumulative effects assessment methodology.	

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37	13	7-Feb-12	Dianne Kerr		d) Uncertain Future The world economy is in such a state of flux and instability that I question any projections made at this time. The primary client may become unable to buy, the price of copper may drop as it has in many economic cycles.	dAIR comment	General	Economic	7	Out of scope of the AIR/EIS Guidelines.	
38	13	7-Feb-12	Dianne Kerr	Kamloops, BC	e) Who Benefits? This is an operation primarily supplying a Japanese market and 51% owned by a Polish company, taking 51% of the profits to Europe. Does it make economic sense to destroy 25 km. of Canadian land, damage the quality of life of the population centre it encroaches on, and upset the ecosystem in a unique and irreplaceable grasslands area, especially when the primary benefactors are in Japan and Europe? The costs of this operation to the local population far outweigh any small, short-term benefits. The costs of this operation for the proponents are far less than the benefits for the company. In fact, they will have a substantial profit.	Project comment	General	Economic	7	Out of scope of the AIR/EIS Guidelines.	
41	14	7-Feb-12	Dianne Kerr	Kamloops, BC	4. Environmental Management Whatever mitigation strategies are required of the mining company, they are powerless to protect the public interest if a suitable monitoring and enforcement mechanism is not in place. The requirements for the proponent to submit reports re the status of mitigation strategies is not enough. In addition to these reports submitted for provincial and federal review, there should be periodic follow up monitoring by non-company expert personnel to ensure that the report data is accurate and fairly represents what happens on a day to day basis. We have had past experience with inadequate monitoring when the Afton Mine was operational and the particulate emissions exceeded the required limits for a very long time before it was finally noted. A committee of local "watchdogs" is probably a good idea, but I suspect that after a few years of mine operation, the staffing of this volunteer committee will become a problem as will maintaining some level of expertise within the voluntary group. The monitoring plan should include proponent reports submitted for federal and provincial review, plus a community committee, plus periodic (semi annual?) follow up by paid outside experts.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
42	14	7-Feb-12	Dianne Kerr	Kamloops, BC	The original letter submission from June 19, 2011 (unchanged) was also included in this email. I have other concerns regarding this project and I submitted a letter in June outlining those concerns. I will attach a copy of that as well. From what I have seen in the data regarding What you have Heard and What will be Assessed, I believe that my other concerns have been captured in the draft AIR/EIS guidelines. The above comments focus on what I think the draft guidelines missed.	Project comment	General	n/a	n/a	Contextual statement	
43	15	7-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html' (6 of 23) [2012-02-24 3:11:29 PM] ^ i am seven years old. I think that there should be no mine. We hike, bike, ski and skate in the areas where the mine will be. You are going to hurt a lot of stuff with this mine.	Project comment	General	n/a	n/a	Please see the AIR for an explanation of how existing recreational values will be assessed in the Application. The Application will include the methodology outlining how existing recreational values will be assessed. Any required mitigation measures will be presented.	

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50	20	7-Feb-12	Donna Bishop	Kamloops, BC	I have lived in the Kamloops area for the past 30 years. I ALMOST did not move here because I did not want to raise my family in a pulp mill town, having concerns about the air quality, other environmental issues related to pulp mills and as shallow as it may sound - the aestheticsugliness associated with the industry. Over the years, people have made comments like "mmm... that's the smell of money Donna, get over it". I haven't gotten over it and although the smell has improved, it still reeks on a bad day and I wish that I lived elsewhere. Many people have chosen not to live here because we are a mill town and I believe that even more will choose not to live in Kamloops if it is a mill and mining city, with the Ajax Mine being the only one in all of Canada as close to the city. Ajax Mine is making a lot of promises for further research, assessment, monitoring and so on, but I attended the informational meeting the other night and it seemed that this mine is a done deal and that when it does become an ugly, loud, disruptive, polluting, energy hog of an industry, we will be left wondering why our government did not value our city and its' residents concerns enough to insist on a major environmental review of the Ajax Mine	Project comment	General	n/a	n/a	Please see the AIR for an outline of how the research, assessments and monitoring that are being conducted will be used to inform the environmental assessment for the project.	
54	21	7-Feb-12	Hugh Jordan	Kamloops, BC	4. How will the Cherry Creek and Peterson Creek watersheds be managed and their flora and fauna protected?	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
58	21	7-Feb-12	Hugh Jordan		8. Kamloops previous experience with a large industry within the city. I planned to move here shortly after the pulp mill was established. The air quality was so terrible that I quickly changed my mind. It was years before the air quality problem was rectified and eventually I moved here. Though the mill provided good paying jobs, the overall effect stunted Kamloops development and the overall economy. Promoting the city as the Tournament Capital has done a lot to rectify the damage. Kamloops cannot risk the damage with another poorly researched environment review. The dust and other environment problems must be absolutely resolved before approval of the mine.	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
59	22	7-Feb-12	Jane	Kamloops, BC	I spent an hour (wish I had more time) speaking with several representatives of Ajax. I can't say that questions were answered very directly. Of course they all suggested all aspects will be thoroughly explored. However, specific questions were not answered directly. As an example, a farmer that has nearby land was asking about the effect on the water table the tailings pile will have on surrounding land. The representative could not answer the question and deflected to say someone else would know that. Personally, I think Ajax is in Kamloops to give the appearance that they will do a great job on making sure all aspects will be well researched-but according to who? Personally, my concern is how Kamloops as a city, will be effected. I live in Kamloops for the recreational opportunities that are afforded all year round. I use the Lac Le Jeune road at least twice a month, all year round, to go fishing, kayaking, motorbiking, hiking and generally, to enjoy the beauty of the grasslands. I fear the mine will take that away, the reason I live in Kamloops. As I live at the top of Aberdeen, I am concerned how the mine will affect me personally. Unfortunately, if the mine goes through, I have lost one of the best recreational areas for me. I will consider moving from Kamloops to find the tranquility that Kamloops now offers. I realize Ajax will bring economic opportunities, but at my stage of life, I'm not concerned with that. I am close to retirement and am now looking for a peaceful place to call home.	Project comment	General	n/a	n/a	Please see the AIR for an outline of the studies proposed to assess the recreational values of the area. The scope of project is established according to provincial and federal regulations, and all mining activities shall abide by applicable regulations should a favorable determination be reached.	

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60	23	7-Feb-12	Bernhard Schlund	Kamloops, BC	I'm all for the Ajax mine project, would be the best thing to happen for Kamloops period !	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
61	24	7-Feb-12	Brian Hayashi	Kamloops, BC	1. Is there any way to quantify or predict what academic and research studies benefitting mining, processing, material handling, eco-studies, etc. for TRU and other institutions might result from the mine operating? 2. Could we develop a new way of fracturing rock through studies alluded to above that would be vibrationless?	Project comment	General	n/a	n/a	There is not a way to quantify or predict any academic or research studies conducted by TRU or other institutions that could result from the proposed project. The proponent has been in discussion with local institutions regarding training requirements for mine development and operation.	
62	24	7-Feb-12	Brian Hayashi	Kamloops, BC	3. Are there potential economic uses for the waste rock? IE landscaping, countertops, etc.? 4. Can we use the resulting hole for something useful (i.e. landfill, etc.)?	Project comment	General	n/a	n/a	Alternative options for waste rock and pit management will be discussed in the alternatives assessment presented in the Application. A conceptual reclamation plan will be presented in the Application - please see Section 3 of the AIR.	
72	29	7-Feb-12	Gina Morris	Kamloops, BC	Please see ' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (14 of 23) [2012-02-24 3:11:29 PM]' for the complete comment. The major concerns identified were: (1) What percentage of projects like Ajax have reached the environmental review stage and been turned down? What are the names of these projects and what were the reasons for their refusal?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
74	29	7-Feb-12	Gina Morris	Kamloops, BC	(13) Should the mine happen, will KGHM receive a subsidy from BC Hydro? If yes, why (14) Do Domtar and other industries in Kamloops also receive a Hydro subsidy? Regardless of this, shouldn't KGHM have to pay full price for electricity?	Project comment	General	n/a	n/a	The Application/EIS will include details regarding government incentives/subsidies.	
76	29	7-Feb-12	Gina Morris		(7) If people become sick, is Ajax mine prepared to pay compensations for those who are afflicted?	Project comment	General	n/a	n/a	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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77	29	7-Feb-12	Gina Morris	Kamloops, BC	(8) Will you pay compensation to people for losses on their real estate in the event that they wish to move house in order to not live within 2 km of a mine? (9) Starting a mine within 2 km of peoples' homes, is a little like asking people to sit in the "non-smoking section" of a restaurant. will you compensate them for having no choice about the mine arriving at their doorstep?	Project comment	General	n/a	n/a	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
79	29	7-Feb-12	Gina Morris		(12) Will KGHM submit efforts they have made to find alternative gold and copper deposits and give their reasons for not mining farther away from Kamloops?	dAIR comment	General	n/a	n/a	This information will be included in the Application/EIS.	
80	29	7-Feb-12	Gina Morris		(15) KGHM has been shown to have poor environmental standards in Europe... How can the people of Kamloops trust that KGHM will behave how they say they will, especially if the government will not have enough money to pay for staff to monitor and uphold the standards that are first promised? (16) If ... KGHM decides to sell their interests in the mine to another company ... who will make sure that the standards that have been promised will be upheld?	Project comment	General	n/a	n/a	Comment has been referred to EAO and CEA Agency.	
83	31	7-Feb-12	Richard Holmes	Kamloops, BC	My concern is with the possibility of dust, groundwater pollution, noise, lights, road deterioration and earth tremors resulting from mine operations and the effects of these on the quality of human life, on fish habitat, and on other animal and plant life in the nearby area. I have been impressed by what I have learned about the efforts being made to avoid these problems, but would like to know of contingency plans in case some or all of these problems arise in spite of the efforts being made to avoid them.	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	

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84	31	7-Feb-12	Richard Holmes	Kamloops, BC	In particular, will the mine internalize the external costs, if any, of its operations or will it attempt to shift these costs onto others? For example, if it can be established in a court of law that nearby property values have been adversely affected by the operation of the mine, will the mine owners assume those costs, or will they attempt to shift them to the other property owners affected?	Project comment	General	n/a	n/a	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
86	33	7-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (19 of 23) [2012-02-24 3:11:30 PM]^ I purchased my first home in the Aberdeen area at a time when KGHM/Ajax was widely advertising that the Ajax mine would be located 10km from Kamloops. I now find that my home will be roughly 2km from the nearest waste rock pile and I have serious concerns about the effect that the mine will have on me and my family. In this letter, rather than discussing my specific fears about the mine, I would like to identify my concerns about the approval, monitoring, and enforcement processes.	Project comment	General	n/a	n/a	Contextual statement	
87	33	7-Feb-12	Personal Information Withheld	Kamloops, BC	With regard to approval, I am aware that every project that has completed a comprehensive assessment review has been approved by the federal and provincial Ministers of the Environment. This project is unprecedented and I would like to call on both the CEAA and the EAO to strongly recommend that their respective Ministers reject the Ajax project if it appears that Ajax may adversely affect the health or quality of life of Kamloops residents after mitigation measures are taken into account. With regard to monitoring, I have read the July 2011 Auditor General's report and I remain concerned that effective monitoring is not happening on projects that have completed environmental reviews. I was able to speak to representatives of the CEAA and EAO at the recent open house about this issue. I understand that the EAO is working with other departments to expand their capacity to monitor projects. I also understand that requirements are often placed on proponents to monitor their own projects. However, I do not like the idea of Ajax grading its own paper and I remain skeptical as to whether the EAO is able to provide adequate monitoring, given the location and description of the project. Therefore, to supplement these measures, I would like suggest that Ajax be made to provide a large amount of money as a bond for further testing. I would like the money to be used to hire independent experts to monitor all areas of significant concern, such as air quality, water quality, noise, slope stability in the Aberdeen area, vibration, etc. To protect the population of Kamloops, monitoring and further testing should be done as often as is practicable. I would also ask that the monitoring requirements be drafted in such a manner so that the obligations of the proponent are clearly identified. Finally, I have concerns related to the enforcement of requirements placed on Ajax, following the approval process. I understand that typically with these projects, if the proponent begins breaching the requirements placed on it following the environmental assessment, then the EAO will enter a dialogue with the proponent. If the proponent continues to break the rules, then it may face fines. I would strongly suggest that if Ajax poses a health risk to the City of Kamloops or to its own workers, then a dialogue is not appropriate and it must be immediately shut down until the risk is alleviated	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
88	34	Public comment form from the Feb 6&7 Information Session	Doug Haughton	Knutsford, BC	^http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_doc_list_362_p_pub.html . I am writing this submission as a long time Kamloops rancher who has many concerns about this project. Though I am not opposed to it, there are many unanswered questions. Let's take a look a little history about this area. The 70000 acres of land in question is some of the finest grasslands in Western North America. This general area was settled at the turn of the century by many Europeans from all walks of life who came here to make a living off the land. Presently there are many neighbours and ranching families who surround the project who will be drastically affected, both by changes in the landscape and by possible damage to their water and crops with possible dust damage and pollution. The land in question is very unique as it encompasses all fee simple (deeded) land and all the surrounding properties all the same with very little Crown land in the area. The main concerns I have are listed below:	Project comment	General	n/a	n/a	Contextual statement The contextual statements have been included to allow the public to find their comment in the final table in cases where the names of the submitters are withheld.	
92	34	Public comment form from the Feb 6&7 Information Session	Doug Haughton	Knutsford, BC	Wildlife Habitat, Fish Habitat and Local Group Involvement: The mind (sic) should work very closely with the local clubs like the Kamloops Naturalist Club, the Burrowing Owls Society of British Columbia, the BC Grasslands Conservation Counsel, the BC Wildlife Federation, Kamloops Stockman's Association and the BC Cattleman's association. These local groups have worked well together in the past to make and maintain habitat and lifestyle for the future. Their expertise is very valuable.	Project comment	General	n/a	n/a	Acknowledged. The Application will include the Public Consultation Plan developed and implemented by the proponent.	

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94	34	Public comment form from the Feb 6&7 Information Session	Doug Haughton	Knutsford, BC	In closing I would like to say to the Ajax Mining Corporation and to the Environmental Assessment Authority, you have 2 choices if the mine is given permission to proceed. The Ajax mine has the opportunity to showcase to the world their want and need to be a good neighbour, and excellent steward of the land, and a great environmentalist in conjunction with a great mining operation; or they can choose to be the direct opposite. I hope with the help of the Environmental Assessment authority, the first option is chosen. We would like everyone's family and future family to see hat a great footprint this company has left behind. Remember one thing; productive agricultural land in the world is on a decline and the source of the world's food must be protected. we all need to eat.	Project comment	General	n/a	n/a	Contextual statement The contextual statements have been included to allow the public to find their comment in the final table in cases where the names of the submitters are withheld.	
96	36	Public comment form from the Feb 6&7 Information Session	Lee Clearwaters	Tranquille Valley, BC	There is a need for a map of the site with a "scale" so everyone is not guessing at the actual distance form the active mine areas to the present residential areas. The reclamation info you are presenting is not what will be here. Photos of decommissioned mines of a similar size and tonnage should be used. Encouragement could be given to get interested parties out to look at a producing mine i.e.: drive along the highway and look at Highland Valley Copper. Websites that have lots of pictures of mines in action and decommissioned properties.	Project comment	reclamation	n/a	n/a	Illustrative maps and figures, with scales, with project components and current city limits are included in the AIR and will be provided in the Application/EIS. The Conceptual Reclamation and Closure Plan submitted as part of the Application/EIS.	
99	39	Public comment form from the Feb 6&7 Information Session	Kevin Bennett	Knutsford, BC	The proponent had previously committed to provide a 3D visualization in form of Google earth layer so public could more accurately visualize change to the landscape. This was not done for public open house. This should be done & layer available through EAO or build a physical model of mine site & surrounding area & make available to public via another venue.	Project comment	General	n/a	n/a	KAM has provided a 3D video which shows project development from different viewpoints. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
100	40	Public comment form from the Feb 6&7 Information Session	Mike Huberty	Kamloops, BC	Let's start digging!	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
101	41	Public comment form from the Feb 6&7 Information Session	Bevan Ernst	Kamloops, BC	There does not appear to be any notion of what will occur if the monitoring programs detect impacts in excess of guidelines. Will operations be put on hold until there problem has been fixed? What are the options of recourse for the community if once the mine is operational it is found to have detrimental impacts in excess of these impacts predicted in the proposal.	Project comment	General	n/a	n/a	The proponent will be required to follow established guidelines for its operation.	

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103	42	Public comment form from the Feb 6&7 Information Session	Peter Northcott	Kamloops, BC	No guideline/concern appears to address the basic concern of PROXIMITY. This question is the KEY issue. Towns certainly have grown around mines - but the reverse is not the case and should be treated more directly.	Project comment	General	n/a	n/a	General statement. Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	
104	43	Public comment form from the Feb 6&7 Information Session	Barb Kenyon	Kamloops/Sahali, BC	Glad you are bringing new jobs to town.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
110	47	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		1) What kind of bond will be required by Ajax to cover any future problems - what \$ amount? It should be enough to cover worst case scenarios!	dAIR comment	reclamation	n/a	n/a	(1) The reclamation bond is set under the Mines Act Permit. The proponent may request concurrent permitting under the Concurrent Approvals Regulation. If this is the case, reclamation costing will be included in the Application.	
111	47	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		4) Is Ajax's hydro being subsidized? Are they/will they be paying less for Hydro than other industries & residents? Companies making huge profits should not be subsidized!	Project comment	General	n/a	n/a	Section 2.7 of the Application will discuss operating costs of the project. As described in Section 2.7 of the AIR, the discussion will include cost determination process and respective calculation methods. Section 7 of the Application will include an assessment of all positive and negative economic effects. The Application/EIS will include details regarding government incentives/subsidies.	

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113	47	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		3) What guarantee is there that the companies doing the various studies (environmental, economic, ground water, etc.) are not biased to support Ajax since they are being paid by Ajax?	EAO/CEA Agency Process Comment	General	n/a	n/a	(3) Independent, Qualified Professionals conduct the baseline and impact assessment studies for the proponent, all methodology, assumptions, results, and interpretation will be provided in the Application for public review.	
114	48	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Thank you Natasha, for your patience listening to me ramble along outlining my 81 years of life and my work history. Briefly, I apprenticed as a carpenter between 1947 and 1951 at the Hudson Bay Mining and Smelting Co., Flin Flon Manitoba, which gave me the opportunity to secure most of my construction experience as a supervisor. Some these experiences include the original Kamloops Pulp & Paper mill in Kamloops for Hoffman Construction, Construction of original Afton Mine with Commonwealth, the major expansion of the Kamloops Pulp Mill (now Domtar), also the Lafarge Cement Plant (east of Kamloops) and many other projects. I became a City of Kamloops Building Inspector in 1976 and retired 1993 as Deputy Chief Building Insp. The draft AIR/EIS guidelines satisfy my interests and concerns and there are no additional interests that I would like to see. I fully support the proposed KGHM Ajax Copper-Gold Project and the economic benefits the City of Kamloops will enjoy.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
115	49	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Effect on the city re: tourism, university enrollment, retirement, will doctors (with families) & other health professionals come to Kamloops etc. etc.	dAIR comment	General	Social	8	Effects of the project on tourism, university enrollment, retirement, and health professionals will be assessed as Economic VC of the Application/EIS.	
117	51	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Possible effects resulting from damage to the existing Kinder-Morgan pipeline.	Project comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
121	54	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		1)What amounts of ore will be transported out of the mine daily and where will it be transported?	dAIR comment	Concentrate transport	n/a	3	This information will be included in the Application/EIS.	
126	56	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Who is going to police the provincial environmental agency that we are depending on to monitor this mine. an independent assessment of this agency found that it was not doing its job. What is our environmental Minister Terry Lake doing to change the dismal record of the government watch dog.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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135	59	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld	Kamloops, BC	6. I have went to meetings & heard the mine was 10km. away, then they said it was 2km away, now they say it is 1.6 km miles away from homes/Aberdeen/Pineview?? Which is it??	Project comment	General	n/a	n/a	The Application will include figures with the most current basemap available. Figures will indicate the project components, Kamloops city limits, proposed expansion areas, road names, and study area boundaries by VC.	
136	59	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		11. Can we the people trust the company or the government to look after the peoples rights & health & environment??	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
137	60	Public comment form from the Feb 6&7 Information Session	Personal Information Withheld		Environmental Assessment of the Proposed Ajax Mine 1. Our home is located approximately 2.3 km northeast of the proposed open pit. We do not believe the mine should be this close to our city or home. Period. 2. We have grave concerns in the following areas: e. We have been told this copper belt runs for several miles, north to south. Go somewhere remote. f. We could write pages of "what if's" but, bottom line, mines do not belong in residential areas.	Project comment	General	n/a	n/a	The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as well as alternatives to the project.	
142	61	8-Feb-12	Terry Maslasz	Knutsford, BC	I attending the open house both days to hear as much information as possible. It was interesting and scary that the rancher or citizen speaking had more knowledge than the "expert". I observed that dumbfounded look a few times on the experts faces. I would have liked to come out of that open house not feeling that this process is about going through the motions because the decision is made by our fast track Christie and yes man Mr. Lake. What was up with the security? Following elderly people around that were obviously against the mine, was it intimidation or fear? Actually, it was a joke. Ajax mine doesn't have us all fooled. They will give us a toxic dump and destroy our beautiful city but they will make a fortune.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
149	65	8-Feb-12	Alan Havisto	Kamloops, BC	4. Ajax says there will be no cyanide or mercury used to separate the ore, and then what will they use instead?	dAIR comment	Processing facility	n/a	3	This information will be included in the Application/EIS.	
157	66	8-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (70 of 77) [2012-02-24 3:07:19 PM]^ I attended the public comment and display at the Coast Hotel with my glossy book in hand sent out by KGHM/Ajax to Subscribers of the Kamloops Daily News ONLY . On entering the room I see a nice big map of the mine footprint, the same one that is in my glossy book. No distant measurements or CITY BOUNDARY (if it was present not very distinct). I also have the large ringed DAIR binder with the maps in the back, the first one 2-2-1 also has the mine footprint however with the processing plant and ore stockpiles (this may change First impression though) added in a much larger scale and appears in this map even closer to Aberdeen than the glossy book map shows. The map with the distances (glossy handbook) has one measurement from the top of the pit at 2.3 km from Aberdeen. The ore stockpiles they have drawn in come to 'very close to Aberdeen' WHY can they not put this distance in! On questioning the mine Gentlemen we find the glossy book map and the map at the entrance to the display room is what the mine will look like at the end of it's 23 year mine life. (Well, who would have guessed that.) Absolutely, no indication of this (on the first day, there was discussion they may label the display map 'with after 23 years' but obviously can not tell every newspaper subscriber) and with the average age of the Mine Officials, Government People and the Public in attendance let's be honest MOST of them will not be here in 23 years, we really only care what KGHM mine will look like in progressive years to the capacity years. Our children might however there were no children present. One more point on the 'Glossy book' received by 'not every City or TNRD resident' the description of location on the back inside cover is once again 'NEAR the CITY of KAMLOOPS' not within the city or 2.3 km (the closest distance they give but we know it will be closer) to Aberdeen, Pacific Way Elementary and Pine View Valley. The Provincial and Federal Governments have to start asking some very detailed and serious questions of this Mine Group and receive straight forward answers on even the simplest detail. If KGHM /Ajax are afraid to disclose the above details and proper location how can we believe them on more SERIOUS details such as the Blasting, Dust control, protecting Jacko Lake and all the other MAJOR problems associated with this mine. How will we know the TRUTH?	Project comment	General	n/a	n/a	The Application will include annotated figures with the most current basemapping available to illustrate project components. A reference scale will be provided on each figure to allow readers to approximate distances to any area of interest shown on the figure.	
161	67	8-Feb-12	Personal Information Withheld		A company with poor environmental protection history and a province with even worse control or concern of infractions by large corporations, should make anyone nervous.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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167	67	8-Feb-12	Personal Information Withheld		Kamloops is my home by choice. Although I thought this would be my retirement home, I now am preparing for the inevitable and looking elsewhere, but this area will be changed for generations, there is no going back. Mines this size do not make good neighbours, plain and simple.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
169	68	9-Feb-12	Susan Havisto	Kamloops, BC	I attended the open house and was actually shocked that only 1100 people attended. Our environment and health is less important the parking lot that almost 10,000 became involved in the fight. Many of the people at the open house were hired by Ajax to answer your questions. Some told you what you wanted to hear, many said they didn't know and some gave you answers that needed correction by the ranchers or locals that had more knowledge. However, if the environment and health of the citizens of Kamloops was important those citizens would take the time to look on mining sites, environmental sites, the city of Kamloops webpage, and they would get the true information. A few hours of research and you would actually learn what is trying to come into our city. But is it worth the time? No, citizens can complain about groups like KAPA and then they'll complain when the mine is operational and that they were misled by Ajax, KAPA and citizens have no personal gain from investigating this project but Ajax will make billions of dollars. How many of those people that said, "I'm happy with the answers I heard" actually took some time to investigate other then speaking with Ajax's spokesperson who receives a nice fat paycheck and government employees that work for Christy fast track Clarke. No, I don't want the mine to go in because it is too close to town. Also, when a mine this large so close to town and is being fast tracked you know you are in trouble.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
171	70	9-Feb-12	Personal Information Withheld	Lac Le Jeune, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (68 of 77) [2012-02-24 3:07:19 PM] I am all for the mine going ahead, and I think I speak for the silent majority. Most of the people that I have spoken with, are all for the mine but do not wish to get involved. The ones that I have spoken to that are against the mine, seem to be the same ones that oppose everything, or have been fear mongered by others. I feel that the direct economic benefits for the Kamloops region far out way, the minor inconvenience that people will experience with the increased traffic. The indirect benefits for all the trades and local business will be of great benefit As long as all the water and dust issues have been addressed, and the local farmers issues have been met.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
174	71	9-Feb-12	David and Alison McKinnon		3) In addition, weathering and oxidation of residual sulfide ore in waste pile and tailings will form sulfur oxides/sulfuric acid, with further environmental effects on the Aberdeen area and further afield. Concerns about noise from blasting and very bright lights on site.	dAIR comment	Waste rock management facilities	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS. Please refer to Section 6 of the AIR for the list of biophysical VCs and Section 10 for a list of human health VCs proposed for assessment in the Application.	
177	72	9-Feb-12	Personal Information Withheld	Kamloops, BC	How are the trucks that haul the ore being fuelled? Do they have a catchment area to fuel or will they be doing this on the run?	dAIR comment	truck shop and fuel storage area	n/a	3	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	

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184	73	9-Feb-12	Personal Information Withheld	Kamloops, BC	7. There needs to be a "Conflict Management" procedure in place if problems arise. It is very worrying that we are dealing with one set of people and in a short while, we will have new owners and mine personnel. The Community Adviseement Committee is a start, but even that group will need an avenue to follow. 9. The most startling thing at the Open House was that the same question asked to the three main departments-Federal, Provincial, and the Proposed Mine manager resulted in three separate answers and in some cases completely opposite from one another.. It does keep one awake at night wondering what is going on.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
188	76	10-Feb-12	Personal Information Withheld	Kamloops, BC	3. Economic Costs: There is much talk about potential economic benefits of Ajax and little discussion about potential costs. This issue should be explored further. I would suggest that potential costs could include: a. The cost to property owners from declining home values; b. The cost of preparing new areas for population growth, including upgrading of infrastructure, if the southwest sector of Kamloops became less desirable; c. The cost to the taxpayer and others of any subsidies or preferred rates enjoyed by Ajax, including a reduced BC Hydro rate; d. The cost to the City and local merchants if tourism decreased; e. The impact of losing grazing area; f. The impact of losing Jacko Lake as a viable fishing lake; g. The cost of reclamation if the bond posted by Ajax is insufficient; and h. The cost of clean-up, should contamination occur. I understand that these may be difficult to quantify because many of the costs involve assumptions. However, I would note that the economic benefits of Ajax also involve assumptions, such as the continued strong price of copper. Regardless, potential costs need to be factored in to any economic analysis of the project.	dAIR comment	General	Economic	7	a. The cost to property owners from potentially declining home values will be examined to the extent feasible. b. The cost of preparing new areas for population growth, including upgrading of infrastructure will be examined. c. The cost to the taxpayer and others of any subsidies or preferred rates is outside the scope of the EA and will not be considered. d. The cost to the City and local merchants if tourism decreased will be examined. e. The impact of losing grazing area will be assessed. f. Potential impacts of the proposed project on Jacko Lake will be assessed. g. The cost of reclamation is outside the scope of the EA will be outlined as per Section 2.7 of the dAIR; reclamation bonding is required as part of the Mines Act application following EA approval. h. The cost of clean-up, should contamination occur, is outside the scope of the EA.	
189	77	10-Feb-12	Personal Information Withheld	Kamloops, BC	- http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (58 of 77) [2012-02-24 3:07:19 PM]^ What pre-planning work was done prior to present plan as proposed?	dAIR comment	General	n/a	3	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
191	77	10-Feb-12	Personal Information Withheld		Is the water in the old Afton pit currently safe, does it support aquatic life	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
192	77	10-Feb-12	Personal Information Withheld		Does the main Afton pit west of the city support aquatic life in the water	dAIR comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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193	77	10-Feb-12	Personal Information Withheld		Why are the waste rock dumps where they are?	dAIR comment	General	n/a	n/a	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
195	77	10-Feb-12	Personal Information Withheld		Why is there not a 3D scale model available for public viewing	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
196	77	10-Feb-12	Personal Information Withheld		Why did Ajax originally state that the mine was located 10km away from Kamloops	dAIR comment	General	n/a	n/a	General statement. Please see the AIR for a description of the road access to the proposed project area: Access to the proposed Project from Kamloops is via exit 366 off the Trans-Canada Highway (No. 1), east along Frontage Road, and then south along Lac Le Jeune Road to the old Afton Mine Haul Road near the Inks Lake Road Junction, a road distance of approximately 9 km	

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198	77	10-Feb-12	Personal Information Withheld	Kamloops, BC	Would the proponent enclose the waste rock dumps to ensure no air borne dust issues Will the tailings pile have an odour Where are the current dust stations Have studies been done on the dust at Highland Valley Copper	dAIR comment	waste rock management facilities TSF	Health	10	The waste rock dumps will not be enclosed. The Project Description in the Application/EIS will outline the design and mitigation measures to minimize fugitive dust. Potential odours associated with the tailings storage facility will be discussed in the air quality assessment. Odour would be considered in so far as some of the ambient air quality criteria may be based on odour. The existing dustfall monitoring locations will be detailed in the Application/EIS. Highland Valley Copper may monitor dustfall from their operations in accordance with their Waste Discharge Permit (from the BC MOE); however these data have no direct relevance on the KGHM Ajax Mining Inc. Application. The BC MOE can be contacted for these data.	
201	78	10-Feb-12	Personal Information Withheld		Please see ' http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (57 of 77) [2012-02-24 3:07:19 PM]' for this comment. On Friday, January 27, 2012, Mel Rothenberger wrote a column in the Kamloops Daily News which clearly expressed my views regarding this proposed Ajax Mine. Our city has struggled with an image problem for decades and I know this as I have lived here for over 40 years. The terrible stench coming from the pulp mill for years ...coupled with our semi-arid climate ... have made many people leave as soon as possible especially in the heat of the summer. It seems to me the goal of our leaders and our community as a whole should be to enhance the natural, aesthetic beauty of our area, not compromise it. Also, I do have huge concerns about the water, air and noise pollution associated with this project as well as "critter" concerns. I do not doubt that our politicians and the mine people will spin this in ways advantageous to their ends regardless of the wishes of the community. If this mine proposal goes through my husband and I will seriously consider relocating when we decide to downsize. The question is what type of community do we want to live in? Our answer is that we do not want to live in a mining community when we have a choice.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
206	79	10-Feb-12	Personal Information Withheld		(13) proximity of mine to city limits	Project comment	General	n/a	n/a	Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	
207	79	10-Feb-12	Personal Information Withheld		(14) legal avenues for City of Kamloops to ensure compliance with guidelines	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
216	80	10-Feb-12	Personal Information Withheld		(4) What will they use to separate ore?	dAIR comment	Processing facility	n/a	3	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	

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218	80	10-Feb-12	Personal Information Withheld		(9) Power line route, health issues – what studies have or will be conducted	dAIR comment	transmission line	Health	10	Little evidence from peer-reviewed literature suggests that electric fields at the intensities associated with power lines directly impact human health, therefore no studies are proposed for inclusion in the Application/EIS.	
223	80	10-Feb-12	Personal Information Withheld		(20) health issues from mine being close to residential homes, what tests have been done	dAIR comment	General	Health	10	This information will be included in the Application/EIS.	
224	81	10-Feb-12	Personal Information Withheld		please see http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (52 of 77) [2012-02-24 3:07:19 PM]^ submission starts "there is a school of thought out there that posits that a corporation..."	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
230	82	10-Feb-12	Personal Information Withheld		(11) Guidelines for future conflict resolution should be include an established and fair method of consultation and conflict resolution	dAIR comment	General	Health	10	Acknowledged. A Public Consultation Plan will be included in the Application.	

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232	83	10-Feb-12	Personal Information Withheld		(3) Will Inks Lake bottom be sealed to prevent seepage of contaminants into ground water? (4) How will the Cherry Creek and Peterson Creek watersheds be managed and their flora and fauna protected?	dAIR comment	General	Environmental	6	The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. Mine design and changes to that design are affected in part by the environmental conditions of the local area. One potential mitigation to address protection of groundwater from seepage is through a protective liner; other potential mitigations to protect water quality will be considered in the EA based on the geochemistry data collected and analyzed. The potential effects of construction, operation and closure on water quality and quantity will be predicted using a watershed and water balance model. Results will be presented in the Application/EIS and compared to applicable provincial and federal guidelines or standards. Mitigation measures will be implemented should modelling predict exceedances of guidelines or standards. The wildlife, rare plants, rare and sensitive ecological community monitoring and mitigation plans are described in the AIR	
235	83	10-Feb-12	Personal Information Withheld		(2) Are there examples of large open pit mines in similar geography and rock and climate to Kamloops? (9) providing a neutral review of KGHM of other international projects outside Poland - labour relations (10) mine approval based on holistic good of the community - short term money should not be secondary to health.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
258	87	10-Feb-12	Personal Information Withheld		flora and fauna: red and blue listed species; all aquatic life and vertebrates and non vertebrates in all wetlands adjacent to the mine will eventually die	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
267	88	10-Feb-12	Personal Information Withheld		^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(29 of 77) [2012-02-24 3:07:19 PM]^ 1. Location of mine within city limits, proximity to residential areas, schools, retirement homes, retail outlets, highway	Project comment	General	n/a	n/a	This will be assessed in the Application/EIS. (1) Please see column "dAIR Rev E Section#" (2) (3) Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	

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268	88	10-Feb-12	Personal Information Withheld		2. Protection of environment, health of people, wildlife, agriculture, tourism, fishing, recreation, ranch, grasslands 3. Toxicity of tailings dust 4. Effect of dust on nearby residents, compensation for repair of machinery, vehicles, sprinkler systems, furnaces, air conditioners	dAIR comment	General	Health	10	The composition of the particulate will be determined based upon a list of substances detected in assay results provided by KGHM Ajax Mining Inc. A sub-set of parameters will be modelled based upon the toxicity of the mobile portion of each substance that represents a potential human exposure or possibility for uptake into plants. All of the substances of interest that will be modelled will be described in the Final Detailed Dispersion Modelling Plan as reviewed and approved by the BC EAO-Chaired Health Sub-Committee of the Technical Working Group. A HHERA will evaluate potential effects on human and ecological receptors.	
281	89	11-Feb-12	David Verhoeff	Kamloops, BC	4. The City of Kamloops has made it clear that their opinion matters naught. They (Mayor and Councillors) say the decision is out of their hands and that the decision lies with the provincial and federal government. If a referendum were held and the majority of residents were opposed to the mine, what kind of bearing would this have on the provincial and federal governments decision?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
287	90	11-Feb-12	Larry Edwards	Kamloops, BC	Finally, an action plan from KGHM outlining how they will respect our environment once they are in production.	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS. Monitoring and management plans during project operation, closure and post-closure are outlined in the AIR in Section 11. The need for any additional monitoring programs are described in Section 17.2.	
288	91	11-Feb-12	Personal Information Withheld	Kamloops, BC	I attended the information session held here in Kamloops on Feb 7th, 2012. Many of the my concerns have already been raised but it is very clear that whether you are for or against having the Ajax Mine the need for an independent panel review is essential. Why? As it stands right now most Kamloops residents feel that we have no say in whether the mine is approved or not. I constantly here the comment "the decision has already been made". Ultimately, it is a political decision made by a federal minister at a time when the Conservatives will have a majority government & have already stated that they want to open up Canada to more resource industry. It is unprecedented to have an open pit mine within city limits. Over the past few years Kamloops has been positioning itself as a tourism & retirement destination. We need to be able to decide what we want to be known for. Also, should the mine be approved but then ultimately turn out not to be profitable (the ore quality is extremely low grade in comparison with every other copper mine in BC)& shuts down, who cleans up the mess afterwards? I also recommend that Ajax's water requirements be reviewed, I'm not an expert by any means but even I can see that their figures don't make sense & as this is an arid climate we can't afford to be wrong on this item.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
290	93	12-Feb-12	Bob Slipp	Kamloops, BC	If this project can operate within scientific standards for dust levels, noise levels, vibration standards, and air quality, it should be allowed to go forward, with scientific monitoring by Provincial regulatory bodies. My only concern would the proximity to Jacko Lake and the impact on fish habitat & sport fishing. The mine's location in close proximity to the city is of no real consequence, and will be buffered by the bluffs between the area and the Aberdeen community.	Project comment	General	n/a	n/a	Contextual statement Direct and indirect effects of the project on Jacko Lake will be assessed through various VCs such as geology, landforms and soils, and surface and ground water quality and quantity, as well as through social and economic VCs such as Outdoor Recreation and Country Foods.	
292	94	12-Feb-12	Personal Information Withheld	Kamloops, BC	Equipment- is this purchased from Canadian suppliers? Hydro-will the mine have hydro meters? does the mine plan set up it's own power supply/storage?	dAIR comment	General	n/a	3	This information will be included in the Application/EIS.	

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293	94	12-Feb-12	Personal Information Withheld	Kamloops, BC	Blasting- what time will the blasting occur? what is the security plan for the blasting shed? is there a plan for sabotage? Fire- fire plan and prevention plan?	dAIR comment	blasting	n/a	3	This information will be included in the Application/EIS. Column "dAIR Rev E Section#" includes reference to the relevant AIR sections.	
300	95	13-Feb-12	Gordon Kerfoot	Kamloops, BC	(5) An evaluation of the social, environmental, economic, and health impacts should be performed if the mine closure plan is not executed as a result of the corporation becoming insolvent. What legacy will the community have to live with? There is a significant legacy of abandoned mine properties across this nation with ongoing negative impacts to the environment. This cannot be allowed to occur here.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
301	95	13-Feb-12	Gordon Kerfoot	Kamloops, BC	(2) With regard to dust, noise, and vibration at levels less than those considered necessary to produce direct chronic health effects, these nuisance emissions, if permitted, can increase anxiety and stress in individuals leading to ill health effects. For instance, an individual may become quite upset having to listen to back ground noise from heavy equipment operating in the distance while sitting in his back yard where prior to the project no such noise existed. The noise is low in decibel reading and has no direct health concern, but this individual is aggravated by the change and his lack of power to stop or reduce it. Consideration of this type of low level intrusion on people's health and well being needs to be evaluated and considered.	dAIR comment	General	Health	10	The metric of percent highly annoyed will be used for the noise study , in accordance with Health Canada recommendations.	
304	97	13-Feb-12	Jack Herbet	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (17 of 77) [2012-02-24 3:07:19 PM]^ After attending the open house I found it very interesting that one of the ranchers Mr. Strand? seemed to be asking some really good questions quizzing the "experts" about the land and water supply. There seemed to be quite a few occasions he would ask questions and they would have puzzled looks on their faces. This worries me when the so called "experts" cant answer questions by the locals. It seemed to me most residents had concerns about noise pollution, water pollutions and dust issues with this project.	Project comment	General	n/a	n/a	Contextual statement	

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305	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(13 of 77) [2012-02-24 3:07:19 PM]^</p> <p>I do live in Aberdeen and cannot support a mine so close to the City for a number of reasons, from a personal, environmental and a financial perspective. First the personal reasons, my health and my families along with my neighbour's, the main reason we bought in the Highlands was to escape the pollution in the valley in the first place, for those that suggest they mined up in this area in the past that's true, however the scale was hundreds of times smaller. There are just too many variables for this to go ahead and I have some questions below that address them. For anyone to compare this mine with Sudbury, Timmins or Val D'Or is almost laughable, first Kamloops has way more to offer than any of those cities, also none of these cities have the same geographic characteristics as this area, not even close. We already have a wind monitoring station our street, our neighbour's flag and for the last 17 years it indicates a northerly wind 90% of the time, many times a very strong wind, not the east/west direction you see in the valley, we will be constantly bombarded with dust particles, there will be no escaping this regardless of the water and bonding agents the proponent suggests using. What about the blasting and the effect it will have on the hill, 2 years of shockwaves going through the ground in an area already unstable, this alone should halt this project, just too many questions and possibilities. If it does go through what will happen to this huge pit, 2 kilometers long, 1 kilometer wide and 1500 feet deep, let it fill with water? If so will the water end up toxic like so many other old mine pits?, Butte Montana is an example. Location, location, location is a motto the realtor's use when selling a home, well I do not see as the proponent suggests that a mine site this close to the neighborhood would actually increase value, again another statement on their part that is less than truthful much like their claim last year that the mine was 10 kilometers from Kamloops. We have worked hard to build equity in our home and should not be subject to it being devalued for a project of this type and location, what's next, mining in our Provincial and National Parks?</p>	Project comment	General	n/a	n/a	duplicate of comment 77 Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
308	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	What blasting tests were done, how big was it, what were the results?	dAIR comment	blasting	n/a	n/a	These issues will be discussed in the Application/EIS. The proponent has utilized applied science to determine the effects of the blast tests, and will not be conducting full scale test blasting. The projected daily blasts are designed with 60 holes.	
309	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Other than all the "common" elements the proponent says are in the rock waste what are the bad, what composition of elements does the area rock contain?	dAIR comment	Ajax open pit	n/a	3	This information will be included in the Application/EIS.	
310	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Is the water currently in the old Afton Pit at this site safe, does it support aquatic life now?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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311	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Does the main Afton pit west of the city support aquatic life in that water?	dAIR comment	TSF	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
319	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Why is there not a 3D scale model of this project available for viewing in a public place so the public can see the size and location of this project more clearly?	Project comment	General	n/a	n/a	The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
320	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Why did Ajax originally state on its web page that the mine was located 10 kilometers from Kamloops?	Project comment	General	n/a	n/a	The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs.	
327	98	13-Feb-12	Personal Information Withheld	Kamloops, BC	Will Ajax do a "full" test blast and invite the public and local news to observe record and report the findings along with seismic readings at Pacific Way School, the City Dog Park on Pacific Way and measurements at the Aberdeen Mall to suggest a few locations?	Project comment	General	n/a	n/a	It is not feasible to conduct a "full size operational blast" prior to operation. Vibration characteristics can be accurately related to the charge weight and distance and can be used to model blast vibrations from a production blast at the same site. Modelling will to predict blasting PPV and air overpressure.	

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332	103	14-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html(1 of 77) [2012-02-24 3:07:19 PM]^ Ajax Mine questions and concerns Kamloops BC^</p> <ol style="list-style-type: none"> 1. Canadian Bill of Rights ...the right of the individual to life liberty, security of the person and enjoyment of property and the right not to be deprived thereof except by the due process of law 2. In the Ajax Project Fact Booklet they refer to Timmins, Sudbury ...as mines within city limits ... 3. extreme dust: they say they will control dust with Magnesium Chloride and Calcium Chloride. All you have to do is Google these substances to see they also have hazards to people's health ... 4. extreme noise and light and vibration issues ... 5. What happens when I turn on my A/C or Furnace which draws in the combustion air from the outside and could also draw in the extreme dust from the Ajax mine Project ... 6. I have went to meetings and heard the mine was 10km away then they said it was 2km away ... 7. the mine says they did 2 blasts of 15 holes each ... 8. explosions: the smell and extreme toxic fallout caused by blasts each day. 9. The mine has hired experts to base their predictions. Remember Tsawwassen, B.C. when the B.C. Hydro ended up buying 104 homes over a dispute of experts opinions. the precedence has been set. 10. in 2 countries, Peru and Indonesia ... 11. can we the people trust the company or the government to look after the peoples rights and health and environment 12. most informed people are not opposed to mining per se just to the location 13. to even suggest to open an open pit mine of this size and closeness to residential areas is ludicrous and inhumane 14. Ajax should have to have real life explosions in 200 blast holes at regular charge and use a seismograph set-up in the Pineview and Aberdeen neighbourhoods. Not the 15 they had? continued ... 15. again take a moment and ask yourself would you live next door to an open pit mine with its 24/7 operation 	Project comment	General	n/a	n/a	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
333	104	15-Feb-12	Eugene March	Kamloops, BC	Hello After attending the open house in Kamloops, and having been in mining for over 35 years. At coal, led-zinc, and copper mines. Now taking the proposed Ajax Mine project home with me. I have had a chance to read over the proposal and ponder all the questions that concern me and have made a decision that this project is well thought out in all areas and should go ahead. I am in full support.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
334	105	15-Feb-12	Eugene S. March	Kamloops, BC	You have my full support in this project. I have been in the mining for 35 years. I believe this is a good project and will be a boost for Kamloops and area.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
337	107	15-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (17 of 18) [2012-02-24 3:14:53 PM]^</p> <p>How will the mitigation strategies address the issue of enforcement? I've already indicated my concerns about a monitoring process that is inadequate unless it includes periodic evaluation from independent experts to verify the accuracy of reports submitted to the Environment Office by the proponent. I also wish to register my concerns regarding enforcement which also seems inadequate. The present system to address infractions is first, discussion, then fines, then what? How big will the fines be? sufficient to really be a deterrent? Is the local government involved at all in the process of identifying infractions and assessing penalties? They should be. There should be legal authority to shut down the mine for just cause. That is the only real deterrent to overstepping the conditions of the operating certificate. I also question the legal status of enforcing penalties when dealing with a foreign owner. It is all too easy to agree to anything when there are no teeth to enforce those agreements.</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
339	315	16-Feb-12	Personal Information Withheld		<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (15 of 18) [2012-02-24 3:14:53 PM]^</p>	duplicate		n/a	n/a	Duplicate of CEAA submission Please see public comment and proponent response 1274	
340	316	17-Feb-12	Kamloops Fly Fishers' Association		<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (13 of 18) [2012-02-24 3:14:53 PM]^</p>	duplicate		n/a	n/a	Duplicate of CEAA submission Please see public comment and proponent response 1277	

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344	109	18-Feb-12	Mary Jordan	Kamloops, BC	4. Social and Economic Effects. The social effects ... does not give a broad enough assessment. • There also needs to be a social and economic assessment that looks at the overall social and economic costs as well as benefits. • Will we be able to attract the professional people that support our community, doctors and other health practitioners, teachers, lawyers, entrepreneurs, etc.? Will people who have the option choose to relocate? Will TRU continue to be a university of choice for Canadian and International students? How will our 'brand' as The Tournament Capital of Canada be affected?	dAIR comment	General	Economic Social	7 8	(4) Although a formalized cost-benefit analysis is not feasible, costs will be ascribed when available and will be supplemented with qualitative analysis. (5)(6) The assessment will consider potential challenges of attracting service professionals and students.	
345	110	19-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (9 of 18) [2012-02-24 3:14:53 PM]^ Kamloops suffers from a negative image that is, at least in part, the result of industry. The negative image resulted in the B.C. Cancer Agency refusing to come to Kamloops. Instead they went to Kelowna. The developers of Sun Rivers found that selling attractive, reasonably priced property was a challenge because of negative perception of Kamloops. To properly assess the impact of the mine on Kamloops it will be necessary to poll non-Kamloops residents to determine whether the presence of a mine would increase or decrease the likelihood of their moving to Kamloops. The potential economic benefits of the mine will be short lived and stagnant if people will refuse to move to Kamloops. Perception is every bit as important as reality. If the image of Kamloops does plummet, will it be in the same situation it was when the Cancer Agency refused to come? What might the health effects on the population be if physicians and other health care professionals decide they don't want to live next to a mine? Will we be traveling to Salmon Arm or Vernon or Kelowna for all of our medical care?	Project comment	General	Economic Social	7 8	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	
346	110	19-Feb-12	Personal Information Withheld	Kamloops, BC	A second area which needs to be strengthened is the section on Health. Noise, vibration, light, and dust are four potential sources of health problems. What is missing is an evaluation of the effects the new economic conditions will have on the health of the population. For example, if the mine does proceed, the property values in Aberdeen will, in all probability, decrease. The property values may well decrease below the level of a mortgage. Will this have any effect on the health of the Aberdeen residents? If people decide that they do not wish to move to Kamloops and there is a decrease, city wide, in property values, will there be any health implications? Will there be an impact on morbidity or alcohol and drug use or on life expectancy? Another issue which is not addressed is an assessment of the health effects of the loss of the positive benefits of the natural environment?	dAIR comment	General	Health	10	This information will be included in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
347	110	19-Feb-12	Personal Information Withheld	Kamloops, BC	To be believed the answers to these questions must be provided by individuals/ agencies that are not in any conflict of interest. The methods used, the sources of data, the analysis and the interpretation of the data will have to be rigorous, explicitly stated, and made available to the public. The current pronouncement on the economic benefits by the mine's proponents don't meet any of these characteristics.	Project comment	General	n/a	n/a	The complete comment has been provided in this table, but due to the constraints of excel, has been divided into three separate rows. Please see issues 345 and 346 for the rest of the comment.	

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348	111	20-Feb-12	C M Jefferson	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (9 of 18) [2012-02-24 3:14:53 PM]^</p> <p>I would also like to begin by saying that I am also all for new industry coming to the Kamloops region, and breathing new life into our already-thriving community. However, after having attended the recent open house, and read most of the comments on this site and elsewhere, I do remain vehemently opposed to the plans for the Ajax mine project. My concerns include:-</p> <p>How can either/both the proponents, and the government agencies involved, guarantee there will be no risk of damaging consequences to the local community, environment and associated ecosystems, both during and after the life of the mine? Where is the 3D plan modelling the mine site and showing clearly its physical and topographical relationship to the city of Kamloops and surrounding area? This seems a significant omission.</p> <p>With current funding restrictions, how far can monitoring and enforcement of environmental regulations be guaranteed by federal and provincial government agencies? Despite assurances from the proponents and other mining 'experts' that all possible steps will be taken to avoid any risks to community and environment, how can it be possible to guarantee there are no significant risks involved?</p> <p>Finally, as others have commented, foreign (even in part) ownership has never proved conducive to guaranteed compliance with environmental regulations - of particular significance given the very poor global reputation of this Polish mining conglomerate. I fail to be convinced of what the perceived benefits of this proposal are that could possibly outweigh the potential risks faced by the residents of our city, and our surrounding fragile grasslands, forests and lakes.</p>	dAIR comment	General	n/a	n/a	The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
355	112	20-Feb-12	Personal Information Withheld	Kamloops, BC	<p>roads- At the information session I was not given information on what route/road the trucks will transport materials to and from the mine. I was told it was not yet known. It is my belief that this mine is far too close to schools and homes.</p>	dAIR comment	concentrate transport	n/a	n/a	Section 3.17 of the AIR notes that the Application will include a description of public roads used for access/transport between the Project site and the Port of Vancouver and between Kamloops and the Project site.	
357	308	21-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (2 of 18) [2012-02-24 3:14:53 PM]^</p>	duplicate		n/a	n/a	Duplicate of submission 308. Proponent response states that the public submission is a duplicate of submission 308.	
360	1469	21-Feb-12	Jacqueline Sorenson	Kamloops, BC	<p>Lastly, it is not clear why a project of this magnitude that lies within municipal city limits should not be in the very least a partial decision of the residents of Kamloops. How can the provincial and federal ministers decide how this is going to affect our community without a proper referendum at the municipal level. my confidence in the ability of the province to protect its citizens has been severely shaken from this proposal. Premier Clark's announcement to open up 8 new mines in BC as economic stimulus is welcome news for the province in many aspects, but it should not be at the expense of the health, environment and properties of existing communities.</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
364	117	23-Feb-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (53 of 57) [2012-03-02 9:25:43 AM]^</p> <p>Ironically, the Ajax mine will be an economic disaster for the City of Kamloops. Kamloops has been transformed from a mill town to a lifestyle destination. Kamloops has begun to attract families from larger centres because it offers a safe and healthy environment in which to raise children. Its sport facilities and sport programmes for children, its proximity to outdoor recreation areas, its dedicated Arts Council, its libraries, art gallery, Western Canada Theatre, Kamloops Symphony Orchestra, and the recent transformation of the downtown core into a desirable residential district have all contributed to the increasing desirability of Kamloops as a preferred residential area. Healthy real estate values, expanded retail services, and population growth are testaments to the transformation of this lovely city. The next step in the evolution of this beautiful and vibrant city: add a mine, drain the water, and pollute the air?! I think not.</p> <p>I understand that the mine will provide jobs for a tiny percentage of the population during the average working lifetime of the employees. After that, the economic benefit of the mine will be gone. But the devastation for the majority of residents in the city of Kamloops may be irreversible within our lifetime.</p>	Project comment	General	Economic Social	7 8	Please see the AIR for a description of the studies proposed to assess the potential environmental, social, and economic effects of the proposed project.	
367	119	23-Feb-12	Personal Information Withheld	Kamloops, BC	<p>7. How secure are you that the monitoring and enforcement processes will be adequate if this is approved, particularly considering the company's global reputation? Also, our BC Auditor General's report states that this province is not meeting the enforcement of environmental standards due to staff and financial shortages.</p> <p>8. What is your understanding and comfort level with the proposed land reclamation of acres of affected and destroyed grasslands, animal habitat, lakes, and waterways?</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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369	121	24-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (49 of 57) [2012-03-02 9:25:43 AM]^ Some additional points of concern have arisen with respect to the Ajax project. I received a call requesting input on a Kinder Morgan proposal to twin its pipeline through Kamloops. Since the existing pipeline is identified in the published map of the mine as being located so close it virtually borders a significant portion of the open pit mine perimeter, where would this twin pipeline go? Two pipelines going through the minesite seems to double the dangers of a rupture. I also question the feasibility of the NPV of \$416 million. This estimate is based on an 8% discount which in my opinion should be 10% because of the many risk factors attached to this mine. The Harper Creek project near Vavenby uses 10% discount and that would seem to be a more realistic economic projector for this mine as well. What would the NPV be if a 10% discount were used? The lifetime of the mine is already precarious because of the low grade ore. I think a more realistic 10% discount would give a clearer picture of the profitability of the mine and hence the likelihood of it operating for all of the 23 years it claims. We would get a very different picture of the economic cost/benefit if the mine operates only half or less of its projected lifetime.	Project comment	General	n/a	n/a	As described in the AIR, the Application will include an Accidents and Malfunctions section for evaluation of worst case scenarios (i.e. accidental explosion).	
370	122	24-Feb-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (48 of 57) [2012-03-02 9:25:43 AM]^ I saw the proposed power lines for the mine on one of the maps at the information session. Unfortunately, the maps were just of the proposed area and it was not known where these power lines would originate from. I have heard that they will go across Knutsford to Rose Hill and into Valleyview. I would like this to be clarified to the public. I am assuming that these will be high voltage power lines and transformers. What are the guidelines in place regarding how close these can be erected to existing neighbourhoods? It sounds like this is something that will effect several areas of Kamloops.	dAIR comment	transmission line	n/a	3	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
371	123	24-Feb-12	Sean McGuiness	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (47 of 57) [2012-03-02 9:25:43 AM]^ My family has lived in Kamloops for the past 5 years. Since arriving we have been impressed by what this city has to offer families given all its recreational opportunities and surrounding beauty. ...The mine will provide 400 high paying jobs which is definitely a good thing for this city. Despite this i feel there is cause for serious concern on a number of issues	Project comment	General	n/a	n/a	Contextual statement The contextual statements have been included to allow the public to find their comment in the final table in cases where the names of the submitters are withheld.	
375	123	24-Feb-12	Sean McGuiness	Kamloops, BC	significant environmental, social, and economic concerns which need to be addressed. adverse effects could last much longer than the operational life of the mine	Project comment	General	Environmental Economic Social	6 7 8	Please see the AIR for a description of the studies proposed to assess the potential environmental, social, and economic effects of the proposed project.	
378	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (45 of 57) [2012-03-02 9:25:43 AM]^ Main issues: 1. consultation process: is there an open public question and answer period? Will there be a second consultation process ... after the provision of a written response to all questions, and after the Comprehensive review?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
386	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	5. Environment. a) can we please see a 3D model of the site ...	Project comment	General	n/a	n/a	The visual representation of the mine is available through the Ajax Project website, further work is being completed on a stationary physical model and a computer based interactive model Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
390	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	e) how will diversion of Peterson Creek water affect the flora and fauna in the valley	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	

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391	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	f) what is the impact on Jacko Lake flora, fauna and tourism?	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
393	125	26-Feb-12	Derek Plausinis, Andrea Ross	Kamloops, BC	6. General questions a) why should the residents of Kamloops support the project? b) how is the public protected in case the project goes forward and estimated negative impacts ... are in excess of what is anticipated? c) will a bond be posted to cover any environmental clean up expenses in the event the mine closes unexpectedly part way through development/operation?	dAIR comment	General	n/a	11	Please see Section 3.18 of the AIR , which states: The BC Mines Act legislates requirements for closure and reclamation bonding. Section 10 of the Mines Act dictates that, as a condition of receiving a permit to commence mining, the owner give a security deposit for mine reclamation and protection of watercourses and cultural heritage resources in the amount and form specified by the Chief Inspector of Mines. The owner must also deposit an annual security to ensure that sufficient funds are available to complete all permit conditions related to reclamation.	
396	127	27-Feb-12	Personal Information Withheld	Aberdeen, BC	Is KGHM mandated to release all findings in the majority of the health, social, economic and environmental impacts? IE: contents of waste rock dust and health implications.	EAO/CEA Agency Process Comment	General	Health	10	Comment has been referred to the EAO and CEA Agency.	
400	128	27-Feb-12	Rob de Pfyffer	Kamloops, BC	http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (41 of 57) [2012-03-02 9:25:43 AM] Let me first start by stating my qualifications for writing this submission. I have lived in Kamloops my entire life, all 29 years of it, the majority of that in the area close to the proposed Ajax mine site. I love the outdoors; I'm an avid hunter who, with the permission from the ranch owner, has hunted in that area. I have also frequented Jacko Lake and enjoy salmon fishing, which is affected by the Kamloops Lake/ Thompson watershed. My Career background is working in the heavy construction industry, specifically road building and infrastructure work, and yes conveniently enough, in the Aberdeen area of the new subdivision that was once the golf course. All of the concerns in regards to the effects on "Wildlife and Habitat" can be argued that they existed on the same level in the exact location (considering it is so close to the proposed mine) of the current Aberdeen homes that so many of residents who have an issue with the mine now live. Therefore, the issue that has been brought forward by the above mentioned should be removed on the grounds that "it's ok for my personal home to disturb the wildlife and their habitat but not your business." The potential effects brought forward in regards to Jacko Lake and Peterson Creek I see no evidence that Ajax mine has any desire to cause harm to any watershed or fish habitat. In fact upon reading all 159 pages of the draft application, the same concerns put forward by local residents and the KAPA are the very same concerns that are possessed and recognized by the KGHM Ajax Mine Company. Surface and ground water and the potential run off effects are a real concern, again for both those who oppose the mine and the mine itself. Ajax has outlined they will attempt to do everything in their power to prevent any un-necessary damage when dealing with surface and ground water, the primary contributing factor being weather. It is inconceivable to believe or ask that every possible outcome up to and including force majeure can be 100% contained. What we can ask for and expect is that engineered preventative measures are in place, and yes Ajax Mine has put that forward in their proposal. The economic effects of the mine on Kamloops, the Province of B.C. and Canada far outweigh the negatives by leaps and bounds. The story has two sides and for the sake of my article I shall only present what I feel to be the more rational side. The idea that current residents would move away based on the grounds that Kamloops gets labeled as an industrial town is quite frankly ridiculous. To suggest that someone would uproot their family and undertake the ordeal of not just moving, but moving to another part of the province seems a little far-fetched. The City of Kamloops and its expansion plans certainly are not limited to the confines of Aberdeen. In this vast city there are plenty of suitable options and directions in which to expand. With more people working both at the mine and in spin off jobs, property values can only increase, as more individuals will now have the stable income to purchase a house and raise a family. I dare anyone to provide fact based math that proves "grazing, hay production, and tourism" in the immediate area of the mine would create more dollars than the mine itself. On top of all that, let's not forget the tax revenue provided to the various levels of government that can be put to good use. The notion of increased road traffic can also be seen as a positive. Is the city expected or desired by the opposition, who have brought this idea forward, to stay stagnant and not grow at all. If additional roads and or maintenance are needed, to that I say great! More spin off jobs – good paying jobs at that. Health effects that may potentially surface are again a concern for the mine as well. Keep in mind that the people who run/manage the mine in addition to the workers are on the front line of any adverse health effects. Who would want that for themselves or the surrounding community? Oh the dreaded dust, like a broken record comes forward again and again, to the point that this "dust" the mine will be producing has been made out to be this cloud similar to that of something out of a Sci-Fi movie that causes the implosion of the Human Race. Dust control measures are addressed in the draft application and presented in the form of " will be equipped with a dust collection system to control fugitive dust that will be generated. " On top of all the efforts to reduce and	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	

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403	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (7 of 57) [2012-03-02 9:25:43 AM]^</p> <p>2.0 Project Overview</p> <p>At page 16 of the Proposed Ajax Mine Project booklet, the proponent describes information sourced from "key person interviews."</p> <ol style="list-style-type: none"> Who are key persons as described here? How are they determined and by whom? Are these key persons individuals or representatives of body such as Interior Health, the City of Kamloops and the Regional District? Will individuals who declare a social or pecuniary interest in the mine be granted standing as a key person? If so, will there be a limit on the number of key persons with whom these discussions will take place? 	dAIR comment	General	n/a	n/a	This information will be provided in the Application/EIS. Please see column "dAIR Rev E Section#."	
404	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>On page 14 of the Proposed Ajax Mine Project Booklet, under the heading "Next Steps," the proponent states that once the air guidelines is approved by the EAO and the CEA Agency, that the proponent must then collect all information and prepare an application for further review.</p> <ol style="list-style-type: none"> When must this be done? Who will play a role in the analysis of this further application? What role will the public be allowed to take in this process? Who will be involved in the "discussion of the effectiveness of proposed measures" described immediately above the heading "Next Steps?" 	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
405	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>On page 6, the Proposed Ajax Mine Project booklet states that a mine plan will be provided in sufficient detail to support the assessment of potential project related effects.</p> <ol style="list-style-type: none"> Who determines what constitutes sufficient detail? To what extent will assessment of these effects be measured, and by whom? At what stage in the environmental assessment process will the assessment take place? Throughout the AIR/EIS documentation, the term "mitigate" is used in respect of how the proponent will deal with long term or short term adverse effects. Mitigate simply means "to make less." In terms of dust suppression, noise mitigation and long-term health concerns, what degree of mitigation is required? Are there specific standards of mitigation which must be met, or must the proponent simply show that the effects being considered have been lessened compared to what they might otherwise have been? Where are the standards to which the proponent will be held, published? 	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
406	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>Throughout the proponent documents, Abacus Mining Exploration (AME), states that it will provide most of the expertise in the extraction of minerals in the proposed mine, and KMGH is described as a financing partner. In the event that the presence of the mine causes negative affect, remedies for which must be sought in the courts, the people of Kamloops a right to know whether KAM has the resources to pay judgments or whether KMGH is carrying on business in Canada in a manner which will make it subject to the jurisdiction of our courts.</p> <ol style="list-style-type: none"> Under which corporate enabling legislation will KMGH operate, provincial or federal? Will KGMH continue its incorporated structure into this province? Will KGMH and KAM both be required to post bonds with the government to ensure proper reclamation? Will KGMH and KAM be required to post bonds with the government to ensure proper compensation in the event that the mining operation result in environmental degradation or damage to property? If so, in what amounts and by what process? Have any individuals (elected officials ex- elected officials, current or past civil servants) with ties to the federal or provincial government, sought or been offered positions on the Board Directors of KGMH/AJAX or Abacus? If so, who and when? Have KGMH/AJAX or Abacus provided written prospectuses, statements of intent, financing statements, Appendices to all reports, assays or any other documents in support of the proposal, that have not been disclosed publicly or made available to the public? If so, what are these documents, 11.Where are they located? If documents as described in paragraph 2 (i) exist but have not been made available to the public, why have they not been disclosed? 	Project comment	General	n/a	n/a	Please see Section 3.18 of the AIR , which states: The BC Mines Act legislates requirements for closure and reclamation bonding. Section 10 of the Mines Act dictates that, as a condition of receiving a permit to commence mining, the owner give a security deposit for mine reclamation and protection of watercourses and cultural heritage resources in the amount and form specified by the Chief Inspector of Mines. The owner must also deposit an annual security to ensure that sufficient funds are available to complete all permit conditions related to reclamation.	
407	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>2.2.4 Proposed Project Schedule</p> <p>In the Knight Piesold project description report, section 9.1 describes the "permitting process" at page 50/56. In that document, baseline studies are described as being complete by October 2011.</p> <ol style="list-style-type: none"> Have the baseline studies being completed as per the project description report? If so, has that information been made available to either the provincial or federal government body reviewing the proposed project? If not, when will the study be completed and will the approval process the state pending their provision and analysis? Section 9.1 of the Knight Piesold project description report, project approval by the provincial government by March 2012. As the actual application has not yet been delivered, what are the revised projections for completion of the approval process? 	Project comment	General	n/a	n/a	Please see the AIR for a description of the provincial and federal environmental review process, and the studies proposed to assess potential project effects. Results of these studies will be provided in the Application, as described in the AIR.	
408	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>2.3 Provincial Scope of the Project</p> <p>On page one of the Proposed Ajax Mine Project Booklet the proponent describes the next step in the coordinated process. It states that two documents will be submitted to the two different governmental levels, as follows:</p> <ul style="list-style-type: none"> the Application for Provincial EA certificate; and the Environmental Impact Statement to the federal government. <ol style="list-style-type: none"> Are these two documents the same? 2. If not, will a copy of each document be delivered to both levels of government? Will a copy of each document be delivered to the public? If so, when will this occur? 6. If so, will members of the public have an opportunity to make comments to either level of government during the analysis and preparation of the next stages in the process? If valid concerns pertaining to public health, economic considerations or environmental concerns are identified at this stage, will the proponent be required to fully address these before moving on to the next stage? 	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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409	130	28-Feb-12	Rob Wycherley	Kamloops, BC	The Booklet states, at page 3, that the EAO and CEA Agency will require the proponent to provide responses on "how the proponent has considered the issues and concerns." 1. What do "consider or considered" mean in this context; 2. Will the proponent be required to provide detailed answers or simply advise the agency that they have considered the issues and will (future tense) answer or address these in the remainder of the process? 3. Will the proponent be precluded from taking the approval or development process forward until such time as written issues and concerns have been considered and answered?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
410	130	28-Feb-12	Rob Wycherley	Kamloops, BC	Capabilities of B.C. Environmental Assessment Office At the recent public information session, an employee of the B.C. Environmental Assessment Office stated that the provincial EAO has had its budget increased and that proper review and enforcement were now within the capacity of the EAO. 1. Under what legislative enactment or order in Council was the budget and staffing of the provincial EAO increased? 2. When did this occur? 3. Since the auditor general's report was issued, please advise by what amount was the annual budget of the EAO increased? 4. How many additional staff have been hired by the provincial EAO since the auditor general's report was issued? 5. What training and environmental compliance background do all staff employees of the EAO possess? 6. How many of them will be staffed in Kamloops during the assessment process? 7. In the event that the mine is approved, how many of these employees will be permanently residing in Kamloops? 8. Given the extremely close proximity of the proposed mine to a major population center, in the event of ongoing noncompliance in mitigation of noise, thus or threats to human health, will the EAO have authority to compel KAM to immediately cease production until the health or nuisance issues have been properly addressed? 10. If not, what provincial or federal agency has the authority to do so? 11. Has the New Gold Environmental Monitoring Board done any monitoring since it was established? If so, please provide a summary document of the activities of the New Gold Environmental Monitoring Board since this Board was established.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
411	130	28-Feb-12	Rob Wycherley	Kamloops, BC	Assessment Methodology 1. In the event that a residual effect (such as noise or dust) cannot be "eliminated or reduced" will the proponent still be allowed to carry on mining activity? 2. In the event that noise can be reduced to a standard satisfactory to the EAO, what will be the source of the standard which must be met? 3. The fourth bullet point on page 8, says that the EAO will "assess interactions with other past, present and future project effects." What does this phrase mean? 4. In respect of the previous question, and the meaning of the phrase quoted, is the EAO currently engaged in measuring noise, dust, dust cloud foot print from the nearby Highland Valley Copper Mine, in order to gain actual reading against which to measure the proponent's modeling processes? 5. If not, why not? 6. Is the EAO currently studying any other large copper gold mine near large population centers to determine the effect of those mines upon lifestyle, health and property values? 7. If so, which communities, which mines and what data has been compiled, against which to measure the proponent's model predictions? 8. If not, why not? 9. Is the EAO reliant entirely upon models projecting dust clouds, dust contents and cumulative noise? 10. Why is the EAO not insisting upon real-world data against which to measure models?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
412	130	28-Feb-12	Rob Wycherley	Kamloops, BC	Criteria for Evaluating the Significance of Adverse Effects In the Proposed Ajax Mine Project Booklet, on page 8, the six factors used for evaluating the significance of adverse effects of the proposed mine are described. 1. What criteria are used to determine whether in fact our low magnitude or high magnitude? 2. What published criteria will be utilized to measure the magnitude of effects? 3. Who will provide the data that is considered when determining the magnitude of effect? 4. If this data is determined directly by the EAO, what testing methodologies will be utilized? 5. If this data is provided by the proponent, what means will be used by the EAO to determine whether the data is accurate and complete? 6. In respect of determining the probability that adverse effects will occur if the mine is approved, I repeat my questions (1-5), posed in respect of magnitude. 7. In respect of the geographic extent over which the proposed mine may have adverse effects, how is "local extent" and "regional extent" defined? 8. In the sixth listed factor for evaluating significance of adverse affect, under the heading "Context", the author refers to the ability of the environment to accept change and its resilience to imposed stresses. Has the resilience of population bodies to imposed stresses been studied?	dAIR comment	General	Effects Assessment	5	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
413	130	28-Feb-12	Rob Wycherley	Kamloops, BC	EAO and CEA Environmental Assessment Framework for Determining and Assessing Project Effects At page 8A in the Booklet, a nine step algorithm has been set out. 1. Is the proponent still at step number one, in determining (and reporting) the environmental effects of the proposed project? 2. Will this information be included in the actual application? 3. Will the mitigation measures in step number 2 also be included in the application tendered by the proponent? 4. If so, what degree of study is required of the proponent in order to determine the residual effects of the project described in step number 3? 5. Over what period of time will the EAO measure the environmental effect and the mitigation measures proposed by the proponent? 6. What independent data will be EOA rely upon? 7. After the residual effect of the project have been determined, what data will be required of the proponent in order to determine the cumulative effect described in step number 6? 8. What will be the source of information required for step 5 in the process, and in particular, will there be detailed data of the current particulate and toxic elements in Kamloops airshed, caused by automobiles, home heating and by light and heavy industry currently located in this community? 10. In determining the "residual cumulative effects" described in step 9 in the process, will the mitigation measures be the same as those described in step number 2? 11. If the mitigation measures used in step 2 and step 8 are the same, what are the criteria used by the EAO to ensure that the mitigation measures are not weighted twice? 12. Having regard to current status of the application (not yet quantified or submitted) over what period of time will the assessment continue? 13. Will all interested members of public be given an opportunity to participate in this process? 14. If not, why not and who will be consulted? 15. When assessing direct and indirect effects as described in step 1, will indirect effects include reduced property values and lifestyle issues? 16. If so, what objective measures of value will be utilized?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
414	130	28-Feb-12	Rob Wycherley	Kamloops, BC	Environment Valued Component: Assessment of Potential Effects On page 9 of the Booklet, it is stated that the Application/EIS will identify and analyze and describe potential effects resulting from the project construction operation decommissioning and closure. 1. Does this mean that these important elements are dependent upon information provided solely by the proponent? 2. If so, what steps will be taken by the EAO to ensure that the data provided is complete and accurate? 3. Who are the "qualified professionals" who will collect the data? 4. By whom will be qualified professionals be employed? 5. Over what period of time will they collect data to support the assessment? 6. Will the data be collected over a sufficient period of time to predict the effects of the mine in all seasons and in all weather conditions? 7. If the qualified professionals will be seeking knowledge from "potentially affected First Nations", will they also be seeking information and consultation with potentially affected members of the community of Kamloops, given the much closer proximity to the mine site, of that population group? 8. If not, will the EAO and/or the CEA Agency require that potentially affected members of the Kamloops community be consulted in a manner equal to, or greater than, the consultation accorded to members of affected First Nations? 9. If there will not be consultations with members of the Kamloops community, why not, having regard to their constitutionally entrenched rights to be treated equally, as articulated in section 15 of the Canadian Charter of Rights and Freedoms? 10. Will the provincial and federal governments consider such consultations and if so, at what stage in the assessment?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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415	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>2.4 FEDERAL SCOPE OF THE PROPOSED PROJECT</p> <p>1. Please confirm in writing, that in respect of supervision, inspection, protection and recourse to legal remedies, KGMH and Abacus will be held, at a minimum, to standards as strong as those articulated in the Canada –Chile Agreement on Environmental Cooperation and without limiting the generality of the forgoing, to Articles 3, 4, 5, 6 and 7, which assure the right to legal recourse for damages caused by mining activity?</p> <p>2. If standards as strong as those articulated in the Canada-Chile Agreement are not contemplated as a mechanism for protection of the health, safety and recourse to legal remedies by the citizens of Kamloops, please provide details of the level of protection that will be provided and the manner in which compensation will be assured.</p>	Project comment	General	n/a	n/a	Comment has been referred to EAO and CEA Agency.	
416	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>2.7 Project Benefits '1.9 ECONOMIC ANALYSIS</p> <p>A pre-tax economic model has been developed by Wardrop from the estimated costs and the open pit production schedule. The base case has an internal rate of return (IRR) of 14.5% and a net present value (NPV) of US\$416 million at an 8% discount rate for the 23-year LOM. The payback of the initial capital is within 7.8 years. Wardrop conducted a logistics study to determine the options available and associated costs for transporting copper concentrates from the project site to a port facility for export and the results were used to the financial model preparation.</p> <p>1. Why was a 10% discount rate not used?</p> <p>2. What would be the NPV of the project if a 10% discount rate is used?</p>	Project comment	General	n/a	n/a	The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR.	
419	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>8. How many of the proponents, environmental assessment officers or consultants retained by the proponents actually reside in the City of Kamloops?</p>	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
421	130	28-Feb-12	Rob Wycherley	Kamloops, BC	<p>3.6 Process Plant and Ore Processing</p> <p>Page 16, SECTION 3.6: States crushing and processing are 7/24/365. Nothing mentioned about frequency of blasting. 3.6 also describes the coarse ore stockpile cover will be a large dome structure.</p> <p>1. There is no mention of frequency of blasting. What will the frequency of blasting be? 2. How is it determined?</p> <p>3. What are the dimensions of the coarse ore stockpile, and what is the dome structure built out of?</p> <p>4. Could specific construction material be specified?</p> <p>3.7 Tailings Management</p> <p>1. What is the TSF constructed out of? 2. What materials are used and how it is constructed?</p>	dAIR comment	Processing facility TSF	n/a	3	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	

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423	130	28-Feb-12	Rob Wycherley	Kamloops, BC	3.11 Explosives Manufacturing and Storage 1.How many tonnes of ANFO and other explosive material will be stored at the Ajax mine? 2.If there is a catastrophic explosion in the explosives storage bunker, what will be the extent of the blast zone?	dAIR comment	explosives storage facility	n/a	3	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	
426	130	28-Feb-12	Rob Wycherley	Kamloops, BC	3.15 POWER SUPPLY The project description does not state who will pay for the proposed transmission line. 1. Will KGHM pay for it, or will BC Hydro simply consider it an extension of the grid, thus requiring the taxpayer to pay for it, as has happened with other mining projects in BC?	dAIR comment	transmission line	n/a	n/a	The proponent will be responsible for the transmission line.	
427	130	28-Feb-12	Rob Wycherley	Kamloops, BC	3.18 Closure and Reclamation 1.How much will the bond be? 2.How is it determined?	dAIR comment	reclamation	n/a	n/a	The reclamation bond amount is typically based on a reclamation plan and associated cost estimate approved by the Ministry of Energy and Mines. Additionally, the owner must deposit an annual security so that, together with the security deposit mentioned above, sufficient funds will be available to complete all permit conditions. Security amounts can be adjusted annually to accommodate mine plan changes, and concomitant reclamation activities."	
428	130	28-Feb-12	Rob Wycherley	Kamloops, BC	3.18.1 Tailings Storage Facility Closure SECTION 3.18.1: TSF Reclamation: Describes the tailings stack will be covered with a "closure dry cover", which is placed over the entire tailings surface area. 1. What is the detailed description of this? 2. It doesn't state it will be covered with top soil. Only the Waste Rock Management Facilities will be graded and covered with topsoil, seeding and mulch (Page 26, SECTION 3.9). Could more information about the closure dry cover be provided? 3. How long will the "closure dry cover last"? 4. Will it require maintenance after a few years?	dAIR comment	TSF	n/a	3	A detailed Project Description will be included in the Application/EIS, including information about the tailings storage facility closure design. Typically dry cover systems are designed to minimize water infiltration, resist wind and water erosion and provide a growth medium for vegetation. Dry covers range from a single layer of earthen material (soil) to several layers of different material types including native soils, geosynthetic materials, inactive tailings and/or waste rock, and organic materials. The dry cover is covered with topsoil and revegetated.	

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435	130	28-Feb-12	Rob Wycherley	Kamloops, BC	11. Given the past failure of Fisheries Canada to protect cod stocks in Newfoundland and salmon stocks in the Pacific, what improved fish management protocols will be utilized to ensure the protection of freshwater fish and the Adams and Thompson River salmon runs? 12. In the event that water supply is reduced during summer months, such that continued drawing of water will be damaging to fish stocks or to the river ecosystem, does the EAO, the CEA Agency or Fisheries Canada have authority to order the mine to cease drawing water from Kamloops Lake until the water levels are replenished? 13. In the event that an order compelling the proposed mine to cease drawing water is issued, will proposed mine still be authorized to conduct mining activities? 14. If so, will the mine be excused from dust suppression during the course of any order? 15. If so, under what published regulations or enactments will the proposed mine be allowed to ignore dust suppression and over what period of time?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
437	130	28-Feb-12	Rob Wycherley	Kamloops, BC	SECTION 7.0 ASSESSMENT OF POTENTIAL ECONOMIC EFFECTS In the right-hand column of the Proposed Ajax Mine Project, under the heading... "Information Sources and Assessment Methods," the proponent describes "economic information that will be collected." The third bullet point under this heading makes reference to one source of this information as being a... "Literature review of similar studies and projects." 2. What literature is being referred to? 3. What communities are being referred to and what information has been learned in this regard? 4. If literature of this kind has not been provided as yet, what follow-up is anticipated to ensure any models relied upon by the proponent, reflect real life circumstances and experience in similar situations?	dAIR comment	General	Economic	7	This information will be provided in the Application/EIS.	
443	130	28-Feb-12	Rob Wycherley	Kamloops, BC	9. Will the increased costs of electrical power production over the life of the mine, be passed on to the mine? 10. In the event that power is sold to the mine, how will B.C. Hydro make up lost revenue, and what increases in public utility rates are projected? 11. Is a copy of the agreement for provision of electrical power, a public document and can it be inspected by interested members of the public? 12. If not, why not? 13. Have any economic studies been undertaken, measuring the projected benefits of the Mine against the projected benefit of the sale of the electrical power at fairmarket value? 14. where is the study and is it available to public viewing? 14. If so, where is the study and is it available to public viewing? 15. If not, why not? 16. Does any similar agreement exist, with regard to the provision of natural gas to the mine at favored rates? 17. If so, I repeat questions 6b. through 6n., modified to seek details expressed in kilojoules or such other unit of measurement as is appropriate to the sale of natural gas.	Project comment	General	n/a	n/a	Section 2.7 of the Application will discuss operating costs of the project. As described in Section 2.7 of the AIR, the discussion will include cost determination process and respective calculation methods. Section 7 of the Application will include an assessment of positive and negative economic effects.	
446	130	28-Feb-12	Rob Wycherley	Kamloops, BC	City of Kamloops Concerns On July 11, 2011, Ms. Jen Fretz, sustainability and environmental services manager for the city of Kamloops, delivered a detailed letter to the EAO, seeking answers to numerous questions and assurances on numerous points, articulated in her 11 page letter. This letter was also delivered to the proponent, MLA Kevin Kreuger, MLA and B.C. Minister of Environment Terry Lake, MP Cathy MacLeod and the Mayor of Kamloops. To date, there has been no reply to Ms. Fretz' letter or to any part of it, from any of the recipients of her letter. 1. If replies have been made, please advise where the replies can be made available to the public and where the models Ms. Fretz requested can be viewed. 3. When can replies be anticipated and will they be made available to the public? 4. The City of Kamloops represents the largest single stakeholder in the mine. Why, when a detailed letter has been in the hands of the proponents, all affected politicians and the EAO for over seven months, have no replies been received or made public? 5. By this letter, I hereby specifically request that each of the requests or concerns articulated in Ms. Fretz' July 11, 2011 letter be answered, and that no further steps in the approval process be taken until after the answers have been made public and been made subject of public comments and hearings. 6. Please confirm that this request will be honored forthwith.	Project comment	General	n/a	n/a	Relevant issues raised by the City of Kamloops are being addressed in the AIR and the Application.	

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462	133	29-Feb-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (76 of 77) [2012-03-06 2:47:31 PM]^</p> <p>Regarding the decision to proceed with the Ajax mine: My concerns regarding the proposed Ajax mine near Kamloops primarily center on health. As a retired nurse educator with 36 years of experience in Kamloops and abroad, I am deeply concerned that I will not be able to continue to reside in Kamloops should the mine proceed due to chronic respiratory problems. More importantly, I am also aware that my daughter and her family currently residing in Pineview Valley will also be adversely affected by poor air and water quality over time. Finally, placing a mine in my back yard will most certainly negatively affect the value of my home. I have deliberately pooled resources in my principal residence for my old age. Any adverse impact on property values in my community will also impact my quality of life in retirement. Putting the public's health at risk for a few highly paid jobs is unconscionable to someone who has spent a career teaching nurses to advocate on behalf of the public's health. May common sense prevail.</p>	Project comment	General	n/a	n/a	Please see the AIR for the studies proposed to assess the effects on environmental, social, and economic Vcs. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
463	133	29-Feb-12	Personal Information Withheld	Kamloops, BC	<p>MP Cathy McLeod Dear Cathy McLeod, As a nurse colleague and one of your son's former teachers in the TRU Nursing Program, I ask that you give thoughtful consideration to the proposed Ajax Mine. I am deeply disturbed by what appears to be a "done deal" – at least that is the perception one could draw from reading the popular press in Kamloops over the past year. I retired from teaching at TRU in 2009 with the intent of staying at the beautiful home my husband and I built on Chancellor Drive in 1995. Given the proposed mine and all of the changes that will no doubt take place in our back yard, staying here is no longer an option for me. I have a chronic respiratory illness and need clean air to survive with any degree of quality of life in my retirement years. More importantly, I am distraught at what a mine in our backyard will mean for my daughter and her family who reside in Pineview Valley. Air and water quality will most certainly be affected over time for many if not all of Kamloops residents particularly those in Aberdeen, Upper Sahali and Pineview Valley. I also understand that Kamloops has something to gain by way of employment for the lucky few who can earn far more than I ever did. As an educator with a doctoral degree and 36 years of teaching experience my gross salary before retirement was a mere \$ 82,000 per year. Now I am also facing the prospect of losing equity in my home. For folks like me, the proposed Ajax mine is nothing short of a disaster. I thank you for taking this into consideration when speaking with MLA Terry Lake, BC Minister of the Environment, who has much power in the decision making process. Please share my concerns with Peter Kent, Federal Minister of the Environment, BC Premier Christy Clark, Prime Minister Stephen Harper, Federal Minister of Health, Leona Aglukkaq, Opposition Critic for Health, Libby Davies and anyone else who is involved in the decision making process regarding Ajax Mine.</p>	Project comment	General	Environmental Economic Social	6 7 8	Please see the AIR for a description of the studies proposed to assess the potential environmental, social, and economic effects of the proposed project.	
465	135	1-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (74 of 77) [2012-03-06 2:47:31 PM]^</p> <p>I have read of many concerns with the proposed mine but one concern of mine I haven't seen raised is looking way further into the future as I think we must. Approving a mine in this location based on the current effects is in my view a big mistake but what concerns me is the very real possibility that after the "supposed 23 year life expectancy" of the mine, what happens then? Look at Highland Valley Copper mine and how many times the life expectancy of that mine been extended presumably increasing the footprint and impact on the surrounding area. If that scenario were to happen at Ajax, an already very intrusive proposition, it would mean more devastation of a beautiful natural environment and the lives of the many who live and enjoy the area. When I raised this question at the recent open house I was told that any extension would be again subject to environmental reviews, the thoroughness of which is hard to predict at this time. I am fairly sure though that any extension would be more likely to get approved just because it is already there. Very concerning.</p>	Project comment	General	Environmental Economic Social	6 7 8	Please see the AIR for a description of the studies proposed to assess the potential environmental, social, and economic effects of the proposed project.	
470	136	1-Mar-12	Personal Information Withheld	Kamloops, BC	How will the diversion of Pederson Creek affect the wildlife, birds, reptiles, amphibians, plants and water quality of the creek?	dAIR comment	Ajax open pit	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	

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483	140	3-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (68 of 77) [2012-03-06 2:47:31 PM]</p> <p>The groundwater and slope stability concerns for parts of Aberdeen are well known. The question of liability for property damage has not been addressed in the draft AIR. The City of Kamloops has indemnified itself from liability through covenants entered into with Aberdeen area homeowners. As a result, the city is protected from liability from any damage to foundations and property even though it approved area development and currently maintains groundwater control works in the area. The validity of the covenants should be re-examined on the basis of potential changes to the conditions under which they were entered due to mining operations. The parties involved in this project proposal include the Federal, Provincial, Regional and Municipal governments, the mining company, consultants and contractors, area developers and the homeowners. I would request an independent legal review of liability apportionment in the event that mining operations are suspected or shown to have changed the physical characteristics of soil and groundwater to the point that property damage occurs. In a worst case scenario, the negative financial costs in damage to housing and valuation could dwarf the promised economic boost touted by the proponent. It is unclear which of the working group agencies is responsible for reviewing the groundwater and slope stability studies carried out by the project consultants. It is important for the public to fully understand their legal rights and risks associated with living under such conditions should the mine proposal proceed.</p>	Project comment	General	n/a	n/a	Comment is referred to the EAO and CEA Agency, as it speaks to the role of the government and working group. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
509	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments.html (1 of 77) [2012-03-06 2:47:31 PM]</p> <p>1. On page 2 in the Booklet the proponent describes the next step in the coordinated process. It states that two documents will be submitted to the two different governmental levels, as follows: b. the Environmental Impact Statement to the federal government. 2. My questions pertaining to this are as follows: a. Are these two documents the same? b. If not, will a copy of each document be delivered to both levels of government? c. If not, why not? d. Will a copy of each document be delivered to the public? e. If so, when will this occur? f. If so, will members of the public have an opportunity to make comments to either level of government during the analysis and preparation of the next stages in the process? g. If copies of each document will not be delivered to the public, why not? h. If valid concerns pertaining to public health, economic considerations or environmental concerns are identified at this stage, will the proponent be required to fully address these before moving on to the next stage? i. If not, why not?</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
510	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>Booklet, Page 3 – Make Sure Your Interests Are Considered 1. At the public information session, I spoke at length with an employee of the BC Ministry of Environment. She advised me that any written questions must be actually answered by the proponent and by the Environmental Assessment Office (the "EAO"). However, page 3 of the booklet simply states that the EAO and the CEA agency will simply "consider written comments." a. What does "consider written comments" mean? b. How will written comments be "considered"? c. Where will the answers be published? d. To what extent will the proponent be required to provide further information to ensure the safety and the lifestyle of the citizens of Kamloops are not negatively affected by the mine? e. By whom? f. What role do the members of the public who have posed the questions play in the process of consideration? g. How and where will the questioner be able to determine the extent to which comments or questions have been considered and acted upon by the EAO?</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
511	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>2. In the 56 page long Knight Piesold Project Description Report, section 9.1 describes the "permitting process" at page 50/56. In that document, baseline studies are described as being complete by October 2011. a. Have the baseline studies been completed as per the project description report? b. If not, why have they not been completed as projected? c. If so, has that information been made available to either the provincial or federal government body reviewing the proposed project? d. If not, when will the study be completed and will the approval process the state pending their provision and analysis? e. Section 9.1 of the Knight Piesold project description report, predicts approval by the provincial government by March 2012. As the actual application has not yet been delivered, what are the revised projections for completion of the approval process?</p>	Project comment	General	n/a	n/a	Please see column "dAIR Rev E Section#."	
512	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>3. The Booklet states, at page 3, that the EAO and CEA Agency will require the proponent to provide responses on "how the proponent has considered the issues and concerns: • Will the proponent be required to provide detailed written answers to issues and concerns raised by the public or simply advise the EAO that they have considered the issues and will answer these in the future? • Will the proponent be precluded from taking the approval or development process forward until such time as written issues and concerns have been considered and answered to the satisfaction of the EAO and the public? If not, why not?</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
513	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>Mine Plan (draft Air/EIS guidelines Section 2.0 and 3.0): 1. In this section, the Booklet states that a mine plan will be provided in "sufficient detail to support the assessment of potential project related effects." My questions in this respect are: a. who determines what constitutes "sufficient detail?" b. To what extent will assessment of these project related effects be measured, and by whom? c. Over what period of time will the assessment take place? d. Throughout the AIR/EIS documentation, the term "mitigate" is used in respect of how the proponent will deal with long term or short term adverse effects. Mitigate simply means "to make less." In terms of dust suppression, noise mitigation and long-term health concerns, what degree of mitigation is required? e. What amount of noise will be permitted and from what point will it be measured? f. Are there specific standards of mitigation which must be met, or must the proponent simply show that the effects being considered have been lessened compared to what they might otherwise have been caused by the project? g. Where are the standards to which the proponent will be held, published?</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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514	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>2. Throughout the proponent documents, Abacus Mining Exploration (AME), states that it will provide most of the expertise in the extraction of minerals in the proposed mine, and KGHM is described as a financing partner. In the event that the presence of the mine causes negative effects, remedies for which must be sought in the courts, the people of Kamloops a right to know whether AME has the resources to pay judgments and whether KMGH is carrying on business in Canada in a manner which will make it subject to the jurisdiction of our courts. To that end, please advise:</p> <p>a. Under which corporate enabling legislation will KGHM operate, provincial or federal? b. Will KGHM continue its incorporated structure into this province? c. Will KGHM and KAM both be required to post bonds with the government to ensure proper reclamation? d. Will KGHM and KAM be required to post bonds with the government to ensure proper compensation in the event that the mining operation result in environmental degradation or damage to property? e. If so, in what amounts and by what process? f. If not, why not? g. Have any individuals (elected officials, ex- elected officials, current or past civil servants) with ties to the federal or provincial government, sought or been offered positions on the Board Directors of KGHM/AJAX or Abacus? h. If so, who and when? i. Have KGHM/AJAX or Abacus provided written prospectuses, statements of intent, financing statements, Appendices to all reports, assays or any other documents in support of the proposal, that have not been disclosed publicly or made available to the public? j. If so, what are these documents, k. where are they located? l. If documents as described in paragraph 2 (i) exist but have not been made available to the public, why have they not been disclosed?</p>	Project comment	General	n/a	n/a	Please see Section 3.18 of the AIR , which states: The BC Mines Act legislates requirements for closure and reclamation bonding. Section 10 of the Mines Act dictates that, as a condition of receiving a permit to commence mining, the owner give a security deposit for mine reclamation and protection of watercourses and cultural heritage resources in the amount and form specified by the Chief Inspector of Mines. The owner must also deposit an annual security to ensure that sufficient funds are available to complete all permit conditions related to reclamation.	
515	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>3. 2.2.2 of the AIR document, components of the mine are described as being entirely or partially within Kamloops city limits:</p> <ul style="list-style-type: none"> • is it possible for these components to be located further away from the city of Kamloops, outside of the city limits? • Why have the EAO and CEA agency not required the proponent to move as far as possible from such a large population? Will the EAO require that the proponent move these components away from the city as described the question immediately above this one? If not, why not 	EAO/CEA Agency Process Comment	General	n/a	n/a	<p>Comment has been referred to the EAO and CEA Agency.</p> <p>Alternative means of carrying out the project will be discussed in Section 17.4 of the Application, as described in Section 17.4 of the current AIR.</p>	
516	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>section 2.2.3 of the AIR:</p> <ul style="list-style-type: none"> • Am I correct that the Afton mine described therein was located some miles from the city of Kamloops, near Cherry Creek? • Ajax East and Ajax pits are the actual location of the proposed mine? • 22 million tons of ore will be mined in each year of the proposed production? • Please advise where the tailings pond or stack and the overburdened piles from the earlier mining operations on the site are located, and advise what their actual size is as compared to the proposed tailings piles and back from the proposed project. 	Project comment	General	n/a	n/a	The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs.	
517	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>8. In section 2.2.3 of the Air document, (page 5/159) it states that that "AME completed an NI 43-101 compliant positive Preliminary Assessment Technical Report on the AJAX property, after a series of successful drill programs from 2005 to 2008." My questions in this regard are:</p> <p>a. over what geographic area were these drill programs conducted? b. How deep were the test holes drilled? c. Where is the drilling core stored? d. Have detailed assays of trace elements that may find their way into air or water been conducted in respect of the drill program cores? e. If not, why not? f. If so, by whom, and what results were determined? g. If these results will not be made public, please explain why, having regard to the enabling legislation and the EAO role in assessing the safety of the project? 9. The proponent has recently released excerpts from and Economic Assessment, which reportedly includes geotechnical data in Appendix F and Environmental data in Appendix H. Is the information in these appendices generated from testing in the drilling program described in section 2.2.3?</p> <p>10. KAM initially stated that this information would be available for public viewing (but not copying) but now reportedly states it will not will not release this data or allow it to be inspected (because it is proprietary). This is despite the proponent stating in AIR Section 3.3 (page 13/159) that "Geotechnical data will be presented in sufficient detail to use as a basis for water quality effects. Will the EAO compel the proponent to make this information available to the public, to properly determine the effect on health caused by trace elements and by mine chemicals used during the life of the mine?"</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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519	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Booklet, Page 7 – Provincial and Federal Scope of the Environmental Assessment (referring to draft Air/EIS guidelines Section 2.3 and 2.4) 1. At the recent public information session, I spoke with an employee of the environmental assessment office. I raised the concern that the British Columbia environmental assessment office did not have staffing or the funding to properly review the proponent's proposals or to properly monitor or and force compliance with provincial or federal restrictions in the event the mine is approved. In this respect, I cited the British Columbia auditor general's report focusing upon the BC EAO. I was assured by the ministry employee, that the provincial EAO has had its budget increased and that proper review and enforcement were now within the capacity of the EAO. My questions in this respect are: Under what legislative enactment or order in Council was the budget and staffing of the provincial EAO increased? When did this occur? Since the auditor general's report was issued, please advise by what amount was the annual budget of the EAO increased? Have they increased budgetary amounts actually been delivered to the EAO? If not, why not? When will this be done? How many additional staff have been hired by the provincial EAO since the auditor general's report was issued? What training and environmental compliance background do all staff employees of the EAO possess? How many of them will be staffed in Kamloops during the assessment process? In the event that the mine is approved, how many of these employees will be permanently residing in Kamloops? Given the extremely close proximity of the proposed mine to a major population center, in the event of ongoing noncompliance in mitigation of noise, thus or threats to human health, will the EAO have authority to compel KAM to immediately cease production until the health or nuisance issues have been properly addressed? k. If not, why not? If not, what provincial or federal agency has the authority to do so? Has the EAO or the CEA Agency prepared new testing protocols for the proposed mine, given the proximity to the city of Kamloops? If not, why not?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
520	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Air/EIS guidelines Section 5.0 and 5.1 <ul style="list-style-type: none"> In the event that a residual effect (such as noise or dust) cannot be "eliminated or reduced" will the proponent still be allowed to carry on mining activity? In the event that noise can be reduced to a standard satisfactory to the EAO, what will be the source of the standard which must be met? page 8 of the Booklet, says that the EAO will "assess interactions with other past, present and future project effects." What does this phrase mean? is the EAO currently engaged in measuring noise, dust, dust cloud foot print from the nearby Highland Valley Copper Mine, in order to gain actual readings against which to measure the proponent's modeling processes? If not, why not? Is the EAO currently studying any other large copper gold mine near large population centers to determine the effect of those mines upon lifestyle, health and property values? which communities, which mines and what data has been compiled, against which to measure the proponent's model predictions? If not, why not? Is the EAO reliant entirely upon models projecting dust clouds, dust contents and cumulative noise? why is the EAO not insisting upon real-world data against which to measure models? six factors used for evaluating the significance of adverse effects of the proposed mine: what criteria are used to determine whether the effects from mining operations are low magnitude or high magnitude? What published criteria will be utilized to measure the magnitude of effects? this data is provided by the proponent, what means will be used by the EAO to determine whether the data is accurate and complete? In respect of determining the probability that adverse effects will occur if the mine is approved, I repeat my questions posed in respect of magnitude geographic extent - how is "local extent" and "regional extent" defined? In the sixth listed factor for evaluating significance of adverse affect, under the heading "Context", the author refers to the ability of the environment to accept change and its resilience to imposed stresses. Has the resilience of population bodies to imposed stresses been studied? If not, why not? 	dAIR comment	General	Effects Assessment	5	This information will be provided in the Application/EIS, including, where applicable and relevant, any information from operating mines near urban centres. Please see column "dAIR Rev E Section#" Comment has been referred to EAO and CEA Agency.	
521	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Air/EIS guidelines Section 5.1: At page 8A in the Booklet, a nine step algorithm for assessment of environmental effects has been set out <ul style="list-style-type: none"> is the proponent still at step number one, in determining (and reporting) the environmental effects of the proposed project? Will this information be included in the actual application? Will the mitigation measures in step number 2 also be included in the application tendered by the proponent? If so, what degree of study is required of the proponent in order to determine the residual effects of the project described in step number 3? Over what period of time will the EAO measure the environmental effect and the mitigation measures proposed by the proponent? After the residual effect of the project have been determined, what data will be required of the proponent in order to determine the cumulative effect described in step number 6? What will be the source of information required for step 5 in the process, and in particular, will there be detailed data of the current particulate and toxic elements in Kamloops airshed, caused by automobiles, home heating and by light and heavy industry currently located in this community? If not, why not? In determining the "residual cumulative effects" described in step 9 in the algorithm, will the mitigation measures be the same as those described in step number 2? Having regard to current status of the application ... over what period of time will the assessment continue? Will all interested members of public be given an opportunity to participate in this process? When assessing direct and indirect effects as described in step 1, will indirect effects include reduced property values and lifestyle issues? If so, what objective measures of value will be utilized? If not, why not? 	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
522	147	5-Mar-12	Kevin Cowan	Kamloops, BC	Air/EIS guidelines Section 6.0 On page 9 of the Booklet, it is stated that the Application/EIS will identify and analyze and describe potential effects resulting from the project construction, operation, decommissioning and closure. Does this mean that these important elements are dependent upon information provided solely by the proponent? • what steps will be taken by the EAO to ensure that the data provided is complete and accurate? <ul style="list-style-type: none"> who are the "qualified professionals" who will collect the data? By whom will be qualified professionals be employed? Over what period of time will they collect data to support the assessment? Will the data be collected over a sufficient period of time to predict the effects of the mine in all seasons and in all weather conditions? If the qualified professionals will be seeking knowledge from "potentially affected First Nations", will they also be seeking information and consultation with potentially affected members of the community of Kamloops? If not, will the EAO and/or the CEA Agency require that potentially affected members of the Kamloops community be consulted in a manner equal to, or greater than, the consultation accorded to members of affected First Nations? If there will not be consultations with members of the Kamloops community, why not, having regard to their constitutionally entrenched rights to be treated equally, as articulated in section 15 of the Canadian Charter of Rights and Freedoms? Will the provincial and federal governments consider such consultations and if so, at what stage in the assessment? If not, why not? 	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
523	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<ul style="list-style-type: none"> Figure 6.1.1 shows only one climate station being referred to ... Why are no other climate station being utilized to provide a more accurate baseline? Will the EAO require the proponent to provide a more comprehensive dataset to ascertain where the climatic conditions are likely to spread the dust footprint? If not, why not? section 6.1.4 What industry profiles will be utilized for comparison? figure 6.4 – 1 Why are there no hydrology sites located north of mine, to assess the effect of surface water that may drain into the city of Kamloops? section 6.1.7 - KAM commits to provide a summary of potential residual effects, a summary of potential cumulative effect and discussion of significance of these - why will the EAO accept a summary when the proximity to a large population base requires detail and accuracy at the preliminary stages? Given the potential for economic, lifestyle and health effects if the mine is approved, will the EAO and the CEA Agency require more than summaries in the case of this mine? If not, why not? 	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency. Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	

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524	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>11. Water withdrawals from Kamloops Lake My questions pertaining to this are as follows: used by the mine each year: is this similar to the volume of water currently being used by the Highland Valley Copper Mine and drawn from the Thompson River? If hydrometric stations have been installed, where are they located? Will new or different hydrometric stations be utilized to monitor the use of water by the proponent? If they exist, what are these measurements and how much depth have these rivers lost as a result? What is the projected loss of steps and flow in the Thompson and Fraser Rivers if the proponent begins drawing water from Kamloops Lake?</p> <ul style="list-style-type: none"> • Have studies been done pertaining to freshwater fish in the Thompson and Fraser Rivers and the effect that the mine will impact upon water temperatures and oxygen levels? If not, why have studies of this kind not been undertaken as part of the assessment process? These studies are to be undertaken, who will undertake the studies? • If any studies at this nature are undertaken, what role will the EAO and the CEA Agency play in ensuring that the data is accurate and complete? what improved fish management protocols will be utilized to ensure the protection of freshwater fish and the Adams and Thompson River salmon runs? In the event that salmon stocks are negatively affected, will the CEA Agency and/or the Canadian Department of fisheries consider the potential effect of the mine on large ocean predators such as the now endangered orca (killer whale)? • In the event that water supply is reduced during summer months, such that continued drawing of water will be damaging to fish stocks or to the river ecosystem, does the EAO, the CEA Agency or Fisheries Canada have authority to order the mine to cease drawing water from Kamloops Lake until the water levels are replenished? In the event that an order compelling the proposed mine to cease drawing water is issued, will proposed mine still be authorized to conduct mining activities? If so, will the mine be excused from dust suppression during the course of any order? If so, under what published regulations or enactments will the proposed mine be allowed to ignore dust suppression and over what period of time? 	EAO/CEA Agency Process Comment	General	n/a	n/a	<p>Comment has been referred to the EAO and CEA Agency.</p> <p>The NI 43-101 Technical Report is publicly available; the results of any relevant studies conducted in support of the Feasibility Study will be included in the EA. Baseline studies and how they will be utilized, along with modelling, will be used to predict potential mine implications on Kamloops Lake, Jacko Lake, Peterson Creek, and fisheries resources. Mitigation measures and follow up and monitoring programs will be presented in the Application/EIS to address any potential impacts.</p>	
530	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>29. In the event that adjacent property owners experience a drop in their property values that are attributed to the mine operations, will there be any legal rights to compensation under the law of negligence; nuisance or such civil remedies for damage as may be available under the Mines Act? 30. If so, what scheme of compensation do the proponent, the EAO and the CEA Agency understand to apply? 31. Will be proponents be required to post a bond to compensate homeowners in the event they are able to prove a diminishment of property value? 32. Will affected property owners have the right to seek injunctive relief against the mine in the event that the mine operations damage house foundations or other structural aspects of their homes?</p> <p>33. Please confirm in writing, that in respect of supervision, inspection, protection and recourse to legal remedies, KGMH and Abacus will be held, at a minimum, to standards as strong as those articulated in the Canada –Chile Agreement on Environmental Cooperation ...34. If standards as comprehensive as those articulated in the Canada-Chile Agreement are not contemplated as a mechanism for protection of the health, safety and recourse to legal remedies by the citizens of Kamloops, please provide details of the level of protection that will be provided and the manner in which compensation will be assured, if necessary?</p> <p>35. The AIR document describes Canada/British Columbia agreement on environmental standards. Where is this document published?</p>	Project comment	General	n/a	n/a	<p>Comment is referred to the EAO and CEA Agency. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.</p>	
537	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>7.8.2 infrastructure I take this to include the BC Hydro electrical grid and the effect of the proposed mine on the availability of and cost of electrical power ... 23. Smart meters are being introduced to better manage the losses being incurred by B.C. Hydro and I have concerns that the people of our community are being forced to subsidize the cost of electrical power for KAM, and assuming that the mine will use power at or below the actual cost of production, my questions are: Is it correct to state that the Mine, assuming it is approved, has negotiated the provision of electrical power from B.C. Hydro at approximately 1/3 of the cost charged to residential consumers?</p> <ul style="list-style-type: none"> • what is the actual cost of electrical power projected to be charged to the mine, expressed in kilowatt hours? Is it correct that the mine will receive power, subsidized by the rate paying citizens of British Columbia, at approximately \$32 million dollars a year LESS than it costs to produce? If this figure is wrong, what is the correct figure of this electrical subsidy? Was the electrical subsidy known and agreed to at the time that the proponents completed their economic feasibility study? If so, how does this rate of electrical charge compare with other large industrial users of electrical power in British Columbia? When and with whom was any agreement for cheap electrical power negotiated and what documents were provided to B.C. Hydro and /or the provincial government in support of this agreement? What is the current cost of generation of this electrical power, expressed in kilowatt hours? • How many kilowatt hours of electrical power is projected to be used by the mine each year of its projected operation? • Is a copy of the agreement for provision of electrical power, a public document and can it be inspected by interested members of the public? what is the value of lost revenue to B.C. Hydro, expressed in dollars, annually AND over the projected life of the mine? Will the increased costs of electrical power production over the life of the mine, be passed on to the mine? In the event that power is sold to the mine, how will B.C. Hydro make up lost revenue, and what increases in public utility rates are projected? Is a copy of the agreement for provision of electrical power, continued ... a public document and can it be inspected by interested members of the public? If not, why not? • Have any economic studies been undertaken, measuring the projected benefits of the Mine against the projected benefit of the sale of the electrical power at fair market value? If so, where is the study and is it available to public viewing? If not, why not? • Does any similar agreement exist, with regard to the provision of natural gas to the mine at favored rates? If so, I repeat questions 6b. through 6n., modified to seek details expressed in kilojoules or such other unit of measurement as is appropriate to the sale of natural gas. 	Project comment	General	n/a	n/a	<p>The Application/EIS will include details regarding government incentives/subsidies.</p> <p>Please see column "dAIR Rev E Section#."</p>	
538	147	5-Mar-12	Kevin Cowan	Kamloops, BC	<p>6. On page 14 of the Booklet, reference is made, in the last bullet point on the lefthand column, to "interviews with potentially affected landowners." My questions in this regard are: who are the potential landowners? How were they identified, and by whom?. Is there an economic or pecuniary threshold which must be shown in order for the potential landowners to be heard on the issues? If so, what is it and who determined this threshold? What is the purpose to which the proponent proposes to put economic information that will be collected?. What conclusions are expected to be drawn from this information, and by whom? If the conclusions are drawn by the proponent, what steps will the EAO or the CEA Agency take to ensure that these conclusions are accurate and reflect the view of all interested parties? Will an individual or group of individuals be free to seek standing before the EAO and CEA Agency to ask questions and make suggestions in this regard? If so, at what stage in the process will individuals be invited to make representations in this regard? If individuals are not invited to make representations, what is the basis for denying them this opportunity before any approvals are granted?. As homeowners in the adjacent neighbourhood, will my wife and I and any of our concerned neighbours be given standing as potentially affected landowners? If so, how do we go about ensuring we are granted this status? If not, why not?</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	<p>Comment has been referred to the EAO and CEA Agency.</p>	

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539	147	5-Mar-12	Kevin Cowan	Kamloops, BC	7. At page 14 of the Booklet, in the right-hand column, under the heading... "Information Sources and Assessment Methods," the proponent describes "economic information that will be collected." The third bullet point under this heading makes reference to one source of this information as being... "Literature review of similar studies and projects." My questions in this respect are: What literature is being referred to? What communities are being referred to and what information has been learned in this regard? If literature of this kind has not been provided as yet, what follow-up is anticipated to ensure any models relied upon by the proponent, reflect real life circumstances and experience in similar situations? 8. In the second column on page 14 of the Booklet, the proponent states that the information collected "will be analyzed" and goes on to state that "measures will be identified by the proponent to avoid or mitigate for potential adverse effects..." My questions in this respect, are as follows: Who will analyze this information? At what stage in the process will be information be analyzed? How will the methods of analysis and the sources of information be reported to the EAO? Where the proponent states, on page 14 of the booklet, that measures will be identified by the proponent to avoid or mitigate potential effects, what standards will be required of the proponent to ensure that the mitigation is appropriate and workable? What standards will be required of the proponent by the EAO to ensure that any mitigation standards agreed to will be met by the proponent?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency. Please see the AIR for a description of the studies proposed to assess the effects of the proposed project on the identified concerns. The results of these studies, including any literature surveys, will be presented in the Application/EIS.	
540	147	5-Mar-12	Kevin Cowan	Kamloops, BC	9. On page 14 of the Booklet, under the heading "Next Steps," the proponent states that once the air guidelines is approved by the EAO and the CEA Agency, that the proponent must then collect all information and prepare an application for further review. My questions in this regard are: When must this be done? Who will play a role in the analysis of this further application? What role will the public be allowed to take in this process?. Who will be involved in the "discussion of the effectiveness of proposed measures" described immediately above the heading "Next Steps?"	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
543	147	5-Mar-12	Kevin Cowan	Kamloops, BC	3. On July 11, 2011, Ms. Jen Fretz ...delivered a detailed letter to the EAO, seeking answers to numerous questions and assurances on numerous points. If replies have been made, please advise where the replies can be made available to the public and where the models Ms. Fretz requested can be viewed. If there have been no replies to Ms. Fretz' letter to date, why have replies not been made? When can replies to Ms. Fretz' letter be anticipated and will they be made available to the public? The City of Kamloops represents the largest single stakeholder in the mine. Why, when a detailed letter has been in the hands of the proponents, all affected politicians and the EAO for over seven months, have no replies been received or made public? 8. By this letter, I hereby specifically request that each of the requests or concerns articulated in Ms. Fretz' (City of Kamloops) July 11, 2011 letter be answered, and that no further steps in the approval process be taken until after the answers have been made public and been made subject of public comments and hearings. 9. Please confirm that this request will be honored forthwith.	Project comment	General	n/a	n/a	Relevant issues raised by the City of Kamloops are being addressed in the AIR and the Application.	
564	151	7-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (67 of 69)[2012-03-14 4:29:55 PM]^ I fear for the future of our species, what happened to thinking of future generations? What has happened to treating the earth like we depend on it? maybe when you run out of gas and you cant have your food shipped to you will you realize you cant eat your profits or copper. how can you that guarantee that the site will be properly looked after for the 500 years it is supposed to take to remediate the land? I invite you all to move into the old pit when they are done mining it enjoy your future, swine.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
568	155	7-Mar-12	Marg Larsen	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (65 of 69)[2012-03-14 4:29:55 PM]^ I wonder if for once the people that are in power will listen to us the voters and forget about the almighty dollar and think about our health and well being for a change!!!! I doubt it very much!!!	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
581	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	Proponent Description: Why is the proponent's environmental compliance record not included in 2.1 of the Proponent Description?	dAIR comment	General	n/a	11	The Application/EIS will discuss the proponent's Environmental Management Policy and Environmental Management System. Please see the AIR for a description of the proponent's environmental, health and safety policy to be presented in the Application.	
582	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	Project Location: • I was not able to find at the public meeting nor in the documentation provided to the public that the lands are all within the ALR – Why is this being withheld from the public? i.e. not noted in 2.2 Project description, 2.6 Project Land Use Why were there no scale maps or topographical models of the proposed mine infrastructure to the city of Kamloops and in particular residential and schools at the public meetings nor in Section 2.2.2 Project description? This is a major oversight noted by many residents at the open house i.e. how is the public and business supposed to comment when key information is excluded. • How is this to be corrected so the public and business can review the potential impacts? Will the proponent be required to hold additional open house where a full and fair disclosure of the mining operation to the proximity of Kamloops will be provided including weather modeling on the maps? i.e. in 3.8.1 Project needs to include description of top elevation of North Waste Rock Management Facility as may end up being higher than the top of hill (elevation also missing) adjacent to Pine View subdivision – as inferred by a representative at the public meetings.	dAIR comment	General	n/a	n/a	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."	

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590	158	8-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> How will the small pond that will be infilled by NWD and likely used by wildlife as a watering source be compensated for and how will wildlife get water in the high use ungulate area. How will you keep waterfowl out of the pit water where they may pick up metals and concentrate then fly to other areas where hunters may harvest them and get exposed to the metals. Ungulates will be drawn to the pit for water and the berm will only likely trap them into the pit rather than prevent them from getting in.. will the pit be fenced? 	dAIR comment	Ajax open pit	Environmental Health	6 10	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS. A HHERA will be included in the section on health effects.	
600	159	8-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (56 of 69) [2012-03-14 4:29:55 PM]^</p> <p>I applaud the EAO decision to extend the public input period from 60 to 75 days given serious, irreversible implications regarding the Ajax mine and its close proximity to Kamloops. Thank you for providing this user-friendly forum for all to read and respond to the hundreds of relevant questions and comments posted.</p>	Project comment	General	n/a	n/a	Contextual statement	
601	160	9-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (56 of 69) [2012-03-14 4:29:55 PM]^</p> <p>If this project is approved, what responsibilities will the proponent accept in the event of any damage to buildings or other property, including water wells, septic tanks & fields, solar panels, fencing, etc. or contamination of water supply, grasslands or any locally grown produce, caused by blasting vibration, dust outfall, flyrock, or water seepage? For your information the Homeowners Insurance Policy does not cover: "loss or damage caused by: --landslide or any other earth movement; --settling, expansion, contraction, moving, bulging, buckling or cracking, except resulting damage to building glass" Will the proponent agree, in writing, to compensate property owners for any damage caused by the mining operation?</p>	Project comment	General	n/a	n/a	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
602	161	9-Mar-12	Ray Maxfield	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (55 of 69) [2012-03-14 4:29:55 PM]^</p> <p>My wife and I are against the Ajax Mine for many reasons. The proximity to our city is shocking. Half of the mine property is within our City Boundary. Unbelievable that our Mayor and Council say nothing. We moved to Kamloops and raise our kids in the Lifestyle Kamloops gives us. Our investment in our house will be down the drain. Yes we live in Pineview Valley. The air we breathe will be contaminated with toxins. Hopefully you will release that information so we can educate ourselves. 2 elementary schools are within 2 K's of the Property. We don't want to leave a legacy of a Open Pit mining town for our grandchildren and for their children.</p>	Project comment	General	n/a	n/a	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	

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609	163	10-Mar-12	Personal Information Withheld	Kamloops, BC	• How will the diversion of Pederson Creek affect the wildlife, birds, reptiles, amphibians, plants and water quality of the creek?	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
618	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	7. When will "Production Blasting" differences from the documented test blast study of Feb. 2011, sound, ground vibration and air over pressure be demonstrated and documented? Will this be required prior to the EAO final review of same?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
621	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	15. What Studies document the sustainability of the introduced Burrowing Owl population, the raptor population, the Beaver population and other birds and wildlife common to the Goose Lake Road environment and its educational benefits when impacted by the Mine site and waste rock production?	dAIR comment	waste rock management facilities	Environmental	6	The results of wildlife surveys within the project area will be reported in the Application/EIS. The Application will include the assessment of potential effects of the Project on wildlife VC, mitigation strategies proposed and assessment of residual effects. The Application will include a list of references consulted as supporting documentation. The Application will assess project effects on land and resource use in terms of or how the project fits within community and regional land use plans.	
638	166	11-Mar-12	Sharon Antoniak	Knutsford, BC	23. What measures will be put in place by the B.C. Government to hold the proponent accountable and to continue monitoring individuals who are not mine employees but are residing in noise sensitive areas?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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641	169	12-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (35 of 69)^</p> <p>I have concerns about air quality, tourism, our community's ability to attract clean industry, our community's potential to attract professionals such as physicians, and our community's growth potential should the proposed mine become a reality. We need a more thorough assessment process than the one currently proposed. A great deal is at stake!</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	<p>Comment has been referred to the EAO and CEA Agency.</p> <p>Please see the AIR for a description of the studies proposed to assess the potential effects of the project on the biophysical, social, and economic environment.</p>	
645	172	12-Mar-12	Personal Information Withheld	Knutsford, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (31 of 69)^</p> <p>There are many provincially Red-listed and Blue-listed, and SARA (federal Species At Risk Act) Schedule 1 Endangered, Threatened and Special Concern mammals, migratory birds, raptors and amphibians listed in the AIR/EIS that have been confirmed inhabiting the proposed project area. SARA makes it an offence in sections 32 and 33 to: kill, harm, harass, capture or take an individual of a listed species that is extirpated, endangered or threatened; possess, collect, buy, sell or trade an individual of a listed species that is extirpated, endangered or threatened, or its part or derivative; damage or destroy the residence of one or more individuals of a listed endangered or threatened species or of a listed extirpated species if a recovery strategy has recommended its reintroduction. The Act also requires that recovery strategies, action plans and management plans be developed for all listed species. British Columbia has such recovery strategies in place.</p> <p>1) What role will the EAO and the CEA Agency play to enforce the regulations? 2) What studies have been done to show endangered grassland species survival when removed from area of residence? What were the results of these studies? 3) Who will be the qualified professionals to make determinations about mitigation for these endangered species? Who will they be employed by? What will be the time period they will collect the data to support their assessment? 4) What mitigation can be taken that will not cause extirpation or eradication of the endangered species? 5) What measures will the proponent take that their activity will not jeopardize the survival or recovery of the species? 6) What measures will be taken by the proponent to minimize the impact of the activity on the species or its critical habitat or the residences of its individuals. 7) What criteria will be used to determine if the resident endangered species and their habitat is expendable? Who would make this determination? 8) What will be the consequences for the proponent if they are permitted to implement mitigation measures that result in the extirpation or eradication of the endangered species?</p>	dAIR comment	General	Environmental	6	<p>The potential effects of the Project on SARA-listed species and provincially-listed species will be described in the Project Application, as well as mitigation measures and residual effects, consistent with the requirements of the Species at Risk Act. The Application/EIS will also report the results of wildlife surveys done for the Project. At this time "critical habitat", as defined by SARA, has not been identified in Recovery Plans for any SARA-listed species within the Project area.</p>	
646	173	12-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (30 of 69)[2012-03-14 4:29:55 PM]^</p> <p>My main concerns regarding the mine are regarding proper study of the cultural and social impacts of the mine development. I believe that the proponent must submit a viewshed analysis (simple GIS operation) of the final size and location of all tailings deposits and other earthworks. They should then ensure that the tailings are not visible from the Coquihalla Highway and from housing developments within the City.</p> <p>Finally, in terms of economic impacts, a Community Character Assessment including an analysis of where job growth has occurred in the last 10 years in Kamloops must be taken into account. Then, lost job opportunities due to negative impacts on those sectors must be addressed via a "jobs at risk analysis". The degree to which the mine may create a negative image of Kamloops for potential employees of these sectors needs to be addressed by survey. Kamloops has recently experienced postindustrial growth. The impacts of a potential "brain drain" within educational and health sectors due to return to a more industrial culture can not justifiably be ignored.</p> <p>The proponent must use an unbiased method in order to assess the social and cultural implications of mine development. "Opinion leader" interviews are definitely not sufficient nor appropriate. Random surveys with the public or within the sectors mentioned above are preferable. Best practices would include conducting consensus conferences which involve workshops for randomly selected citizens that educate participants via presentations from the proponent and experts, then surveys of the participants are conducted. Thank you for reading.</p>	dAIR comment	General	Environmental	6	<p>(1) Comments in this category are within the current scope of our assessment that are being addressed within a specific VC. (2) Employment trends in other occupational sectors and post-secondary enrollment will also be considered, in addition to commentary on the potential for a negative perception of the City resulting from the Project. (3) Standard qualitative assessment methodologies, including key person interviews and existing literature, will be used to assess social and cultural implications.</p>	
658	175	12-Mar-12	K Goodall	Kamloops, BC	<p>I will state my deep disappointment that the proponent has not been required to release a 3D scale model of the project and how it will relate to our city – I believe that many people do not really comprehend the true footprint and physical impact the mine will have on Kamloops.</p>	Project comment	General	n/a	n/a	<p>General statement.</p> <p>The Application will include annotated figures with the most current base mapping available to illustrate project components. A reference scale will be provided on each figure to allow readers to approximate distances to any area of interest shown on the figure. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.</p>	

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659	175	12-Mar-12	K Goodall	Kamloops, BC	I realize the BCEAO has recently added to their staff but with the current political climate suspect that the office remains woefully underfunded. How will the BCEAO oversee Ajax? Will the investigation process continue to be complaints driven? Will we have a full time staff member in town to manage the project site? What will their qualifications be? What type of enforcement will be in place to ensure that Ajax meets or exceeds minimum environmental practices? Will Ajax be penalized if it does not conform? Will these penalties be large enough to deter management from repeating the infraction? Last but not least – Who, if anyone has the authority to force a shutdown of operations if Ajax chooses to ignore regulations and will they use it? I look forward to a comprehensive response to the above questions.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
667	178	13-Mar-12	Personal Information Withheld	Kamloops, BC	Restoration of the site. In fact there will be little attempt at restoring the site despite what Ajax's publicity says. The waste piles will be seeded but, from a discussion I had with an Ajax expert at the open house, there will be no attempt to return a majority of the site to it's present condition. Of course there is no possible way for man to try to replace what nature has provided, especially if cost is a consideration.	dAIR comment	reclamation	n/a	n/a	General statement.	
669	178	13-Mar-12	Personal Information Withheld	Kamloops, BC	And lastly I am concerned about the perception that the BC Government has given their support to this operation before it has been approved by the BC and Federal environmental assessment process. BC Hydro has already committed itself to discounted electrical power for Ajax. As an arm of the BC Government, BC Hydro's support is the Province's support. Our government should be staying neutral until all procedures have been followed.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
670	179	13-Mar-12	Cara Humphreys and Mark Coupe	Aberdeen, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 69)[2012-03-14 4:29:55 PM]^</p> <p>As seven year residents of Aberdeen, we are writing to ask some questions and to express our myriad of concerns regarding the proposed Ajax mine. Our home is close, about 1.5 kms, to the proposed East Waste Rock facility. We are "white collar" professionals, neither of us is employed by heavy industry, and we will not personally benefit financially from the activities associated with the mine. Though we have some concerns regarding the environmental impact of the mining activities, the bulk of our concern about this particular project is about the possible negative impact on our health, home, community and family. We enjoy living in this community. However, regardless of the assurances offered by the mining company, we will not live this close to a big industrial project; we will move from our home if the proposed mine is approved. Based on our own research efforts, there is a paucity of data to allay these concerns and too many unknown variables with regards to human health when a large mining operation is in such close proximity. What is known, is that any increase in airborne particulate matter has a negative impact on human health; there is no known "safe" level of particulate. Unless "mitigation" means there will be absolutely no ill effect, it is more than we are willing to tolerate. While every project of this nature should be closely scrutinized, this project is unprecedented in Canada due to both its very close proximity to a city of our size and dense urban developments. We believe this justifies particular and special attention.</p>	Project comment	General	n/a	n/a	Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
681	181	14-Mar-12	Richard Holmes	Aberdeen, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (22 of 23) [2012-03-26 3:53:56 PM]^</p> <p>The Provincial and/or Federal governments of Canada should require a commitment from Ajax mine to take responsibility for all external costs resulting from mine operations before approving those operations. External costs would include road deterioration, ground tremors, noise, air and dust pollution. With each of these external costs, a baseline level is required to establish levels before the mine begins operations. Acceptable increases in those levels need to be established and any increases above those acceptable levels would require mitigation to be paid for by the mine. Unless the mine agrees to be legally bound by such an agreement, it should not be allowed to proceed in the planned location.</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
682	182	14-Mar-12	Mike Dedels	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (22 of 23) [2012-03-26 3:53:56 PM]^</p> <p>We need a physical model of this project so the citizens of Kamloops can truly see what is being proposed. For a project worth billions this is a small thing to ask. NOW, not after it is approved.</p>	Project comment	General	n/a	n/a	Please see the project website for a 3D visual representation of the project, work is being completed on a stationary physical model and an interactive computer based model.	

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691	189	15-Mar-12	Personal Information Withheld		<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (17 of 23)[2012-03-26 3:53:56 PM]^</p> <p>I am writing to take a stand against the proposed Ajax Mine in the city of Kamloops. I believe there should not be a mine so close to such a large city population and that that mine does not fit with the vision for the City and all the work done by city planners in recent years to create a focus on academics, on culture and on sports. I am concerned about the noise from blasting that will disturb the people of Aberdeen (I do not live there). I am concerned about the metals that will be carried in the dust created by the mine and inhaled by much of the population, possibly creating respiratory problems. I am concerned about the loss of lakes and of grasslands and the wildlife this will displace. I am concerned about the huge amount of electric power it will require to run this mine. I am concerned about the water that will be drained from existing rivers, lakes and creeks for use in the mining process, and that the disposal of the used water will cause pollution of the water shed and subsequently the Thompson River, one of the worlds major salmon runs. I am distressed that our three levels of government seem to be looking at the short-term gains of such a project and avoiding the consequences that we will face when they are no longer in office.</p>	Project comment	General	Environmental Economic Social Heritage Health	6 7 8 9 10	Please see the AIR for a description of the studies proposed to assess the potential effects of the project on the biophysical, social, and economic environment.	
693	191	16-Mar-12	Bill Harman	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (15 of 23)[2012-03-26 3:53:56 PM]^</p> <p>I attended the open house on the proposed Ajax mine, saw the scope of what was planned regarding waste rock, dust, chemical leaching, ground water contamination, and thought how could this even get to be proposed on the edge of the city. The Ajax people could not or would not tell me what kind of chemicals will be leaching into the ground, eventually to the water table and Thompson River. I asked the woman near the display board about Jacko Lake , a small lake, that is heavily fished, 15 minutes from town, I said the dust would kill the fish in 3 - 5 years and I didn't get an argument. I found out later that they originally had planned to drain it. The prevailing winds from the south west will carry fine dust over 1/2 of Kamloops. Spraying water on the concentrate piles only stops 1/2 the dust. The quality of living in Aberdeen and Pineview Valley will be degraded due to the 24/7 operation of blasting (vibration) bright lights, trucks, crushers, loaders, etc. If this goes ahead there will be irreversible damage to the ground, ground water , Thompson River, Kamloops Lake, Jacko Lake ,and the Air Shed.</p>	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS. A conceptual reclamation plan will be presented in the Application/EIS as outlined in the dAIR.	
694	192	17-Mar-12	Sandi Mikuse	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (15 of 23)[2012-03-26 3:53:56 PM]^</p> <p>I am opposed to the Ajax mine. I am in favour of protecting our environment and the health of the people in our community. Some say they are willing to sacrifice these things for a few jobs....but what's the point of having a job if you are too sick to go to it? Does anyone ever think of that?! Let's try to make Kamloops healthier and more beautiful, not less so!</p>	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
695	193	17-Mar-12	Ed Biderdorf	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (15 of 23)[2012-03-26 3:53:56 PM]^</p> <p>I am totally opposed to the Ajax mine. This proposed mine is too close to the city of Kamloops. The risk of air shed, water and ground contamination is too great.</p>	Project comment	General	Environmental	6	Please see the AIR for a description of the studies proposed to assess the potential environmental, social, and economic effects of the proposed project.	
696	194	17-Mar-12	Tyler Mann	Aberdeen, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (15 of 23)[2012-03-26 3:53:56 PM]^</p> <p>This mine is simply too close to Kamloops. I think it should be moved further from the city limits. There is nothing wrong with mining, but, it should be done a reasonable distance from major towns. I was born in Kamloops and have lived here for 33 years. Please do not destroy a part of my city out of greed.</p>	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
698	195	17-Mar-12	Personal Information Withheld	Kamloops, BC	<p>• When is Ajax going to present their required 3D model of the mine?</p>	Project comment	General	n/a	n/a	Please see the project website for a visual representation of the project. Out of scope of the AIR/EIS Guidelines. A 3D model is provided by for public viewing at the KGHM Ajax Office in Kamloops.	

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702	196	17-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (12 of 23) [2012-03-26 3:53:56 PM]^</p> <p>I reside in Kamloops and own a couple of non-related business's, and with that said, as they are non-related, I would like to say that I am in favor of the Ajax/KGGM - Abacus mine becoming a reality for Kamloops. Keep in mind that Richard Boyce representing the Steelworkers union and 1000 miners out at the HVC in Logan Lake, has publicly stated some things in a recently published news article in the Kamloops Daily newspaper, as follows :</p> <p>Appeared in the March 12th, 2012 edition - titled : Union Leader Attacks Opposition to Ajax Mine Here's a quote from that article ;</p> <p>" Many mine activists are citing potential health hazards from rock dust at the mine south of Kamloops. But Boyce said based on the record of Highland Valley Copper, there is no link between any disease and employment at the mine "</p> <p>I 100 percent agree with his comments, as I know of two long term truck drivers working out at HVC for 20 plus years directly in the dust, and in fact they state that this dust must be wiped off their personal vehicles, after a shift. These guys have absolutely no ill side effects related to dust, from their long term employment out at HVC.</p> <p>Therefore this dust issue and any negative effects is far overblown in my opinion, especially when Richard Boyce, a senior Kamloops union leader, representing 1,000 employees at HVC, states this. He is in a position to 100 per cent know these facts, at HVC .</p> <p>I also believe that if the Ajax / KGGM - Abacus Mine becomes a reality for the Kamloops economy that the housing values may well go quite another way, that's not yet mentioned, as follows : These jobs, some 400 being offered initially are high paying jobs. Keeping this in mind then, could not the houses nearest this new mine, go up in their value, as another possibility ?</p> <p>After all, those new highly paid employees could well afford to buy homes nearest their new employer to avoid the need for carpooling and travelling longer distances. Not only that, the time saved in travel would certainly be an attractant to reside, as close as possible.</p> <p>These homes nearest this new mine could then well become a hot commodity for sale, and experience an increase from their current value, not a decrease, which is only one side of the story.</p> <p>I had attended the 2 day informational put on by Ajax/KGGM mine in February and found it to be very professionally done, with management experts and scientific experts plus environmentalists experts their, to answer any questions .</p> <p>I was impressed and therefore after talking with Jim Excel - AME President / Ceo, and Jim Whittaker - Project Management, that the Ajax / KGGM mine is doing everything that was asked of them as corporate professionals .</p> <p>So therefore, I am in favor that the Ajax/KGGM - Abacus Mine goes forward and becomes an economic boom for Kamloops, BC .</p>	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
703	197	17-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (12 of 23) [2012-03-26 3:53:56 PM]^</p> <p>The proponent is not being held accountable already. Where is the 3D model of this huge project. A picture is worth a thousand words and despite the descriptions, many people remain unaware of the size of this monster or the impact it will have on the community, being the size of South and North Kamloops combined. It takes about a month to make one yet after several months the proponent has still not produced it. The public input period should be further extended until the proponent produces the 3D model. When people are asked for input they should have a clear picture of what the project will look like. Also, how can you accurately express concerns about dust and air quality when you have no assay results of the rock. Even if the proponent wishes to withhold the copper/gold content, we still should have access to the heavy metal content of the rock to give educated input. Extend the deadline for public input until the proponent comes up with the required goods.</p>	EAO/CEA Agency Process Comment	General	n/a	3	Comment has been referred to the EAO and CEA Agency. Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGGM Ajax Office in Kamloops.	
714	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	10. What will the mining proponent leave behind as permanent contributions to the social, cultural, environmental and economic life of Kamloops? What process will be in place to ensure potential promises are kept?	Project comment	General	Economic Social	7 8	Commitments made in the form of mitigation and monitoring will be outlined in various licences and authorizations required following regulatory approval.	
718	199	19-Mar-12	Mike and Penny Gilker	Kamloops, BC	14. If the mine proceeds and the proponent is not compliant to guidelines set be an independent body for noise, vibration, a light, water and air quality, what legal avenues do the residents and City of Kamloops have to ensure compliance?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS guidelines. Comment has been referred to EAO and CEA Agency.	
719	200	19-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (9 of 23) [2012-03-26 3:53:56 PM]^</p> <p>We are writing an additional letter today as further review of the draft AIR noted a change of the project layout from the original provided by the proponent which does not appear to be included for assessment.</p> <p>As shown on figure 2.2.1 of the draft AIR it is noted that 4 new ore stockpiles have been added to the project layout. Limited reference on these stockpiles is noted in section 3.8.2 on page 26 of the draft AIR. Considering there is limited information and they appear to be significant in size and location to residential communities, additional information needs to be available to access any negative effects they may create.</p> <p>We suggest the same information that will be made available for the waste rock storage facilities as shown in paragraph 3.8.1 on page 25 be made available for the ore stockpiles plus information on height, width, and type and makeup of the material which will be stored in these locations. We would also expect these stockpiles be shown in the 3D model for visual impact analysis.</p>	dAIR comment	stockpiles	n/a	n/a	The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs. A 3D physical model is available for public viewing at the KGGM Ajax Office in Kamloops.	

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720	201	19-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (8 of 23) [2012-03-26 3:53:56 PM]^ What is this announcement in the Daily news about "Polish mining giant KGHM will announce within weeks it is fully committing to the Ajax project."? You have not finished the Environmental Assessment Review but they are announcing this? Have you been laying to us all along?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
726	204	20-Mar-12	Personal Information Withheld	Kamloops, BC	• Why was this area not shown on maps at the recent Open House? (Neither is it shown in the green "Fact Book" recently distributed to 24,000 homes) The AIR document 'on line' does not include any maps, especially Figure 2.2-1 which defines the stockpile area. In fact, one cannot have a great deal of confidence in the process when important details such as this very large addition are left off the maps, & that includes the map positioned at the door at the time of the February Open House (in error or intentional?) Also missing were geographical features that more easily identify the location for the benefit of those not aware of the proposed project's close proximity to the City's schools & residential areas, namely, the City boundary, Goose Lake road, Hwy 5-Merritt/Princeton. In addition the project location is incorrect - it is NOT southWEST of the junction of the TCHwy & Coquihalla Hwy-that is the location of the 'old Afton mine' mine(now New Gold)-The Ajax project is southEAST of the Hwy junction	dAIR comment	stockpiles	n/a	n/a	The Application/EIS will provide mapping of the general arrangement overlain on the most current basemap available. The city boundary will be shown on in relation to the mine components and infrastructure. The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs.	
733	209	21-Mar-12	Lora S	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (49 of 61) [2012-03-29 4:08:06 PM]^ Please include the following questions to be answered in the draft Application Information Requirements regarding the proposed copper mine development by the Proponent, KGHM Ajax Mine Inc. ("KAM") in Kamloops, British Columbia. 1. Provide a 3-dimensional model of the proposed Ajax Mine site which also shows the distance from the proposed Ajax Mine site up to and including a 12 kilometre radius (the distance from Highland Valley Copper to Logan Lake, BC), in 1 kilometre increments, showing the location of the following: a. Tournament Capital Centre/Thompson Rivers University; b. Kamloops City Hall; c. McArthur Island; d. Kamloops Airport; e. All Kamloops subdivision which fall within the 12 kilometre radius, i.e.: Aberdeen, Sahali, Dufferin, Bachelor Heights, Rose Hill, Valleyview, Dallas, South Shore, Westsyde, etc.; f. Pacific Way Elementary School; g. Aberdeen Elementary School; h. Dufferin Elementary School; i. McGowan Park Elementary School; and j. Juniper Ridge Elementary School	dAIR comment	General	n/a	n/a	The AIR will be revised to indicate that the proponent has provided a 3D model available for public viewing.	
735	209	21-Mar-12	Lora S	Kamloops, BC	5. Determined what health effects diesel fuel, machinery exhaust and chemicals used in the mining process will have on the citizens of Kamloops.	dAIR comment	General	Health	10	Human health will be assessed in the Application/EIS.	
738	209	21-Mar-12	Lora S	Kamloops, BC	9. Where will the power lines be located to power the mine? Are these power lines high-tension power lines? If so, what health effects will these power lines have on the residents who will be living close to the lines?	dAIR comment	transmission line	Health	10	The location of all project components and mitigation measures will be detailed in the Application/EIS. There is little evidence that electric fields at the intensities associated with power lines directly impact human health therefore no studies are proposed for inclusion in the Application/EIS.	

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743	210	21-Mar-12	Jason Turner	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (48 of 61) [2012-03-29 4:08:06 PM]^</p> <p>I attended the AJAX open house and reviewed the various information displays regarding light, noise, vibration, air quality (i.e. dust and chemical dispersants) and water quality. The displays stated models would be run to simulate the effects of light, noise, vibrations, air and water quality resulting from the proposed mining activities. It is my understanding the information derived from these models will be used to support the mine's EA application. I asked one of AJAX's consultants where the base line information would come from to support and run these models, his answer was...from the EPA, South American mining operations and various other sources. This is a concern to me, especially when I discussed the consultants answer with a representative from Natural Resources Canada, attending this open house, and she used the term "Hypothetical Data". My questions are as follows. 1- 'How will Federal and Provincial Scientists responsible for reviewing this information make informed and validated decisions on behalf of the public and the environment when hypothetical data is used to run these models?' 2- 'How will models supported by hypothetical data conclude if the aforementioned effects will or will not have a negative impact on nearby residents?' 3- 'How will the hypothetical data, models and results be shared with the public and what venue does the public have to review and comment on the results from these models?'</p>	EAO/CEA Agency Process Comment	General	n/a	n/a		Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	
745	212	22-Mar-12	Kevin Buxton	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (34 of 61) [2012-03-29 4:08:06 PM]^</p> <p>Note: all comments reference the document "Summary of the Draft AIR/ Environmental Impact Statement Guidelines" as prepared by the CEAA.</p> <p>Section 2.0 - Project Overview</p> <ul style="list-style-type: none"> Bullet 1 - the proponent should include additional information on the consultants and other professionals (as defined by legislation or otherwise) engaged by the proponent: a description of each profession used, work performed or services/advice provided by each consultant/professional, and the relevant legislation and professional body standards of conduct used to govern the profession. Describe the process for reporting/investigating instances of professional misconduct. Bullet 5 - The proponent must specifically describe any goals/plans that will be affected and/or made materially unattainable by the Project. 	Project comment	General	n/a	2	This information will be included in the Application/EIS. Please see column "dAIR Rev E Section#."		
746	212	22-Mar-12	Kevin Buxton	Kamloops, BC	<p>Section 3.0 - Detailed Project Description</p> <ul style="list-style-type: none"> Proponent must describe possible changes to the mineral resource estimate and scope/size of the project if commodity prices (copper and gold) significantly increase beyond levels forecasted in the feasibility document (\$2.50 USD/lb). Describe several scenarios based on different hypothetical prices of copper (for example, current price of \$3.80 USD/lb, March 2011 price of \$4.50 USD/lb, and possible future prices of \$5.00 USD/lb, \$7.00 USD/lb, and \$10.00 USD/lb). Describe changes to project duration, production capacity, pit size/shape, waste rock pile size/location/ shape/, tailings storage facility, and on air quality effects. 	Project comment	General	n/a	n/a	Any change to the size and scope of the project is outside the scope of the current EA. Such changes may be subject to additional EA or other regulatory approvals, depending on the nature and magnitude of the change.		
749	212	22-Mar-12	Kevin Buxton	Kamloops, BC	<ul style="list-style-type: none"> The description of the closure and reclamation plan must include any predicted changes to the size and scope of the project due to increased metal prices, as described above. 	Project comment	General	n/a	n/a	Any change to the size and scope of the project is outside the scope of the current EA.		
750	212	22-Mar-12	Kevin Buxton	Kamloops, BC	<p>Section 4 - Assessment Process</p> <ul style="list-style-type: none"> Bullet 2 - the proponent must provide specific evidence to support any claims of issues being addressed. 	Project comment	General	n/a	n/a	Acknowledged.		

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755	212	22-Mar-12	Kevin Buxton	Kamloops, BC	Section 6.0 - Assessment of Potential Environmental Effects • Bullet 1 - the proponent must provide a description of any and all other potential valued component that may have been considered for, but were not included in, the final list (Table 5.1). This would include items not required by legislation or not to this point specified by any stakeholders. The proponent must provide rationale for why each potential valued component was not included.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency. The Application will include a discussion of accepted EA methodology. The results of background studies for each VC will be presented, as well as a rationale and justification for the selection of the chosen VCs.	
757	212	22-Mar-12	Kevin Buxton	Kamloops, BC	• Bullet 7 - proposed measures to mitigate potential cumulative effects must account for any increases in project size/scope due to increased metal prices, as described previously under Section 3.0	Project comment	General	n/a	n/a	Any change to the size and scope of the project is outside the scope of the current EA. Such changes may be subject to additional EA or other regulatory approvals, depending on the nature and magnitude of the change.	
763	212	22-Mar-12	Kevin Buxton	Kamloops, BC	Part D - Federal Information Requirements Section 17.0 - Federal Environmental Assessment Requirements • The proponent must not limit discussion of alternative means of carrying out the project to those that are economically feasible based on ore prices projected by the feasibility document. All alternative methods should be discussed and the mineral price/mineral resource estimate required to make each method economically feasible should be specified.	Project comment	General	n/a	n/a	Please see the Canadian Environmental Assessment Agency website for their operational policy Statement indicating that alternatives assessments include those that are technically and economically feasible.	
764	213	22-Mar-12	Richard Holmes	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (34 of 61)[2012-03-29 4:08:06 PM]^ Does the vein of ore that Ajax proposes to mine, extend for miles south and east of Kamloops? If so, is the main advantage of locating the mine close to Kamloops to make available to the mine infrastructure (roads, power and water supply), that others have paid for?	Project comment	General	n/a	n/a	The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR.	
765	214	22-Mar-12	Richard Holmes	Aberdeen, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (34 of 61)[2012-03-29 4:08:06 PM]^ the EAO establish maximum allowable external costs (road deterioration, flooding, air and groundwater pollution) for the Ajax mine?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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766	215	22-Mar-12	Christina Mader	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (34 of 61)[2012-03-29 4:08:06 PM]^ Mines leave behind a mess and walk away. What is the plan to have the proposed Ajax Mine area RESTORED TO ITS FORMER STATE? A pile of rocks left behind won't do. A lake filled w/sludge won't do. A big hole in the ground won't do. Temporary storage (23 years max.) of earth and stones dug up and stored are okay. But to do some superficial pushing around of dirt and rocks will not suffice. The topsoil needs to be replaced and seeded w/native vegetation. Petersen Crk., Jocko & Inks Lk. restored. I hope there will be a public oversight committee, I'd like to be on it. If the proposal goes ahead that is.	Project comment	General	n/a	n/a	Please see the AIR for an outline of the information that will be included in the Application pertaining to reclamation, specifically where it states that the Application will include an outline of the end land use objectives, taking into consideration the recommendation of Ministry of Energy and Mines (MEM) that the reclamation program be aimed at ecological restoration of naturally occurring grassland communities.	
767	216	22-Mar-12	Robert Gamble	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (31 of 61)[2012-03-29 4:08:06 PM]^ All our actions (personally and otherwise) should be based on the practice "common good". The common good is a notion that originated over two thousand years ago in the writings of Plato, Aristotle, Theano and Cicero. The common good consists primarily of having our government work in a manner that benefits all people equally. No one should be directly hurt because of the mine. For example if the Kamloopsians living in the Aberdeen area (or any home owner in the City) suffer a loss of property value, that loss should be covered by the mine owners. Those with respiratory issue shouldn't be made to suffer. No one should be out of pocket or suffer in any manner now or in the future. It goes further. If there are health costs arising from the mine, these costs should not be on the shoulder of the Province. The list goes on-and-on. Often these projects starts with a ton of promises but the good will is quickly forgotten. Regulatory agencies will never shut the operation down once it has started. Economics quickly trump any common good. Ministerial operating permits become common place. Clean Up I couldn't help but notice at the recent two day open house in Kamloops none of the countless displays had any measurements/scales. I was very disappointed that none of the maps/displays gave any indication of the size of the project. It wasn't until an Environment Canada employee tracked down someone from the mine I got a few guarded answers. It was only by hounding this person was I able to discover how massive the project would be. For example the pit itself will be 450 metres deep, a 40 storey building! Could never find out how many square miles/km the project was going to encompass. I felt this information was being deliberately held back. As mention attempting to ferret out the size of the project wasn't easy. Clean up is the elephant in the room Ajax wants to downplay. The long and the short of it is this, after 27 years of production the mine goes away and we are left with the mess. There will be a hole in the ground 1/2 kilometre deep and 2 1/2 kilometres wide and tailing mounds in the neighbourhood of 150 metres high left behind spread over countless miles/km. This scar will be there until this little blue ball flying through space we call home burns out	Project comment	General	n/a	n/a	General statement.	
768	216	22-Mar-12	Robert Gamble	Kamloops, BC	At the open house I asked the Ajax person couldn't the proposed mine at least push the tailings back into the hole and cover with the overburden. You know let's give mother nature a fighting chance. There would still be a hole but not nearly as deep. Apparently that was a stupid question to ask. Ajax says it would cost too much. This aspect of the project is most disturbing. Twenty-five years isn't all that long in the scheme of things. And for a price, common good could be achieved. But the legacy the mine wants to leave behind will be there as long as we inhabit the earth. The impact on Kamloops will last for centuries. It will not go away. This isn't a case of building the mine and the community will follow. No field of dreams here. Kamloopsians have every right to expect when the mine leaves (and they always do), the community will be as it was. Hopefully the time as passed when companies (and individuals) can come into our backyard, defile the place and take the profits and run. A condition for approval should be all tailings be placed back in the pit, lakes rebuilt and the over burden replaced. Granted, there will still be a hole in the ground but if it is properly sculptured nature will bail us once again. Not prefect. If the mine claims it can't do it, then leave the copper in the ground. It isn't going anywhere and it wouldn't spoil.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
769	217	22-Mar-12	Jarrod Goddard	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (31 of 61)[2012-03-29 4:08:06 PM]^ Why have we still not seen a 3D map of the entire mine area, in relation to the City of Kamloops? Too many residents are unaware of the size and scale of this mine, and in order for Kamloops residents to have a decent understanding of the mine a complete 3D scale model of the mine tailings storage, waste rock management, and other key structures of the mine must be created and put on display for the public to see.	Project comment	General	n/a	n/a	The Application will include annotated figures with the most current base mapping available to illustrate project components. A reference scale will be provided on each figure to allow readers to approximate distances to any area of interest shown on the figure. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	

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773	220	23-Mar-12	Jordan Lawrence	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (28 of 61)[2012-03-29 4:08:06 PM]^ I live in Aberdeen with my husband, two year old and four month old daughters. We moved to this beautiful, quiet, residential neighborhood from Vancouver to have a better quality of life for us and our children. My questions are as follows:	Project comment	General	n/a	n/a	Contextual statement The contextual statements have been included to allow the public to find their comment in the final table in cases where the names of the submitters are withheld.	
775	220	23-Mar-12	Jordan Lawrence	Kamloops, BC	Can I be guaranteed that my family's health will not be adversely affected by the mine?	dAIR comment	General	Health	10	Human health will be assessed in the Application/EIS.	
776	220	23-Mar-12	Jordan Lawrence	Kamloops, BC	Can I be guaranteed that the water, soil, and air that make up my environment will not be polluted in any way?	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
779	220	23-Mar-12	Jordan Lawrence	Kamloops, BC	If the answer to any of these questions is no, then I strongly oppose the proposed Ajax project.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
781	222	23-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (25 of 61)[2012-03-29 4:08:06 PM]^ The proponent's consultant for social impact assessment was in Kamloops and indicated his surprise there would be resistance to another industrial operation when Kamloops is already an industrial city. My surprise is that someone with such an obvious bias regarding the City's image would expect his findings regarding social/economic impact to be credible. We have worked hard to create a balanced economy and present our citizens with a range of employment opportunities including 2000 jobs at the university and 75 new Telus jobs. This consultant's obvious (and erroneous) assumptions about our community will result in biased conclusions with respect to the impact on residents here who value a lifestyle quite different from that of the "industrial city" referred to. I would not believe anything this consultant delivers by way of analysis. I suggest the proponent find another consultant or the Environment Assessment Office hires an independent and UNBIASED consultant to critique the proponent's socio economic impact analysis.	Project comment	General	n/a	n/a	Qualified professionals will be retained by the proponent to conduct unbiased and stringent assessments. The Application/EIS will be reviewed by experts from both the federal and provincial governments, as members of the technical working group, and by the general public.	
785	223	23-Mar-12	Personal Information Withheld	Kamloops, BC	Wildlife habitat, fish habitat, and local group involvement: the mine should work very closely with local clubs like the Kamloops Naturalist Club, the Burrowing Owls Society of British Columbia, the BC Grasslands Conservation Counsel, the BC Wildlife Federation, Kamloops Stockman's Association, and the BC Cattleman's Association. These local groups have worked well together in the past to make and maintain habitat and lifestyle for the future. Their expertise is very valuable.	dAIR comment	General	n/a	n/a	The Application will include the Public Consultation Plan developed and implemented by the proponent.	
787	224	23-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (24 of 61)[2012-03-29 4:08:06 PM]^ There is much more land staked in the area of the proposed Ajax Mine. The proponent has already announced intentions to "intensify" activities in the Ajax area in the future and to me that means mining extending into the other staked areas. The certificate to Ajax should prohibit processing of ore from other future mine sites as it will add to the already mammoth tailings storage facility and potentially to the huge waste rock facilities as well. The public deserves to know how big the giant in their midst is going to be	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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803	228	24-Mar-12	Christina Mader	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (9 of 61)[2012-03-29 4:08:06 PM]^ A proposed park instead of proposed Ajax Mine #1 and A proposed park instead of proposed Ajax Mine #2. Please find attached photos taken in the Jocko Lk, Inks Lk area over the past few years. These show a variety of activities in the area that in the opinion of Kamloops residents and visitors ought to be a park. Not, as proposed, a mine. Activities take place at various times throughout the year; there is much wildlife documented by others which use the area extensively; the purpose of showing the outhouse at Jocko Lk parking ... is to point out that outhouses are only in places where a lot of people go. Thank you for your consideration so that future generations can also enjoy this area. Again, it merits being preserved as a park not desecrated by a mine and related mining activities.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
804	229	25-Mar-12	Leblanc Sahai	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (9 of 61)[2012-03-29 4:08:06 PM]^ I am strongly opposed to the Ajax mine coming to Kamloops. I fear it is another example of Big corporations paying scientist to give them the results they want to hear and a government that is all too eager to claim the title of economic growth heroes. Common sense tells me this mine is too close and comes with a cost too great for our community and surrounding environment.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
805	230	25-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (8 of 61)[2012-03-29 4:08:06 PM]^ Most residents are not opposed to mining in general, but are opposed to the Ajax project due to its proximity to residential areas. They have expressed many concerns regarding dust, noise, and negative impacts to health, safety, the environment, and our quality of life. I will focus my comments here to the assessment process. I believe the process is not fair nor adequate for residents of Kamloops and area. The proponent hires consultants to study and present it's proposal. There is a clear bias in that this is the business and livelihood of those being paid by the proponent. They present their technical reports (which the average public does not understand) and which favour the proponent, to the impartial group or panel. Who represents the interests and concerns of the public???? In the interests of fairness and balance, governments(s) should provide funding and opportunity for paid consultants representing the public to review, question, and (if necessary) challenge the proponents studies and recommendations. To ensure public accountability, all such presentations should be open to the public and media. There is something seriously wrong with a process in 2012 that would allow a massive, dirty and ugly open pit mine to develop and operate in the backyard of a modern city such as Kamloops. There are many longterm negative impacts, including to health and safety. The only assurance the proponent gives is to study and attempt to mitigate these impacts. Ladies and gentlemen of the panel - How would you feel if an Ajax mine was imposed onto your quiet and comfortable neighbourhood??	EAO/CEA Agency Process Comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
808	233	25-Mar-12	Bill Motiuk	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (5 of 61)[2012-03-29 4:08:06 PM]^ I hope that the Environmental Assessment Office will view the well orchestrated opposition to the proposed Ajax mine with a wary eye as it is on par with the half truths, blended truths and rampant repetition of no basis in truth by the pr firm hired by those who promoted a false reason at the US senate hearings as a just reason to invade Iraq. The tears and hand wringing on the senate floor of "babies being taken out of incubators and thrown on the floor" contributed to the decision to go to war. That it was all a lie did not matter once a decision was made. No one was held accountable for their behavior nor the consequences of their behaviour. Such appears to be happening here. The potential mine is being cast as a work of mass destruction. The environment is being degraded, grasslands will fall into ruin, dust in this dustbowl of a city will cause irreparable harm, noise will be unbearable, the sky will no longer be as dark as it once was, property values will plummet, and we will all be marked as coming from or living in a dirty little mining town and our way of life as we know it will end. Well for about 23 years anyway. Why? Because a well organized rabid few tell us it will. No facts. Just feelings. Just opinions. Just a wish to impose their misguided beliefs on others that can see the prosperity the mine will bring to our area. We in Kamloops are being presented with the rare opportunity to over a relatively short period of time, possibly within my remaining years, to eliminate our accumulated debt well in excess of 100 million dollars. Debt that every taxpayer is paying interest on every year. This is debt that we can take off the backs of current and the next generation of taxpayers. This can be our legacy gift to those to follow. There our those in our midst who could improve their lot in life with a well paying job. One would have to be morally bankrupt to deny someone that opportunity as a merchant of unsubstantiated doom. Some facts to consider. One, Kamloops already has a mine within the city limits, namely the extraction of limestone behind LaFarge which will continue until that mountain disappears or the need for concrete used in every house and building, (even those of the anti-mining contingent) ceases. continued ... Two, the Heron family who once owned a huge ranch house around where Aberdeen Mall now stands had an estimated herd of 10,000 sheep. When these sheep were taken to on their summer migration to higher elevations, the herders would sprinkle grass seed on their backs in the morning so the sheep could seed the country side as they were relocated. In all probability the grasslands that the mine opposes are bent on saving is that same timothy grass that was spread by the migrating sheep from another era. Three, had there not been a sawmill in Kamloops was in its' infancy we could well have had housing where we have Riverside Park today. The point that should be taken is that what we have today evolves from what came before. The mine will confer positives which will benefit us now and it will provide benefits in the future not yet foreseen. Cast an eye on the future if you will, a long look into the future. That monstrous hole in the ground could be viewed with despair or a blessing. As this city grows we are going to be faced with an enormous problem with waste disposal. but through luck, an ore body in our midst and foresight, a decision to approve the extraction of that ore, we would have a landfill site which would serve this city's needs for decades if not centuries. Once we are near the end of its' lifespan the tailing can top it up, it can be reseeded and the landscape can revert to its' prior status. Hundreds of years from now all will be as it was and many generations will have shared the benefit of our foresight.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
811	236	25-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (3 of 61)[2012-03-29 4:08:06 PM]^ Is KGHM prepared to post a bond or give a written guarantee covering compensation for any damages caused to private property, as a result of any mining process? My 'Homeowners' insurance policy states it does not cover such things as earth movement, cracking, settling, expansion, contraction, moving, buckling, etc. It is my understanding there is no insurance policy that will cover such events.	Project comment	General	n/a	n/a	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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816	239	25-Mar-12	Personal Information Withheld	Knutsford, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 61)[2012-03-29 4:08:06 PM]^ AIR - 17.14--Please explain in more detail - "Benefits to Canadians-Modifications made to project design in order to address potential environmental effects can result in indirect benefits...Such benefits can include access to wilderness areas for recreation" -- How would it be possible when this proposed project would totally destroy the entire recreational area for ever?	EAO/CEA Agency Process Comment	General	n/a	n/a	This text was recommended for inclusion by the CEA Agency . This text will be revised based on direction from the CEA Agency.	
818	241	26-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 37) [2012-03-29 4:02:53 PM]^ Page 38 of the dAIR mentions how each of the over 40 proposed Valued Components (VC) may be pertinent to one or more of the five assessment categories • By whose decision and by what standard is assessment category pertinence to a VC determined? • Grouping VC's into particular assessment categories up front suggests a degree of pre-determination and ranking as to the type of data to be collected and it's relative importance. A subtle distinction perhaps but would the EAO agree that the approach as presented in Table 5.1 – 1 should be reversed? That the VC's should be simply listed on their own merit with each one screened under the five assessment categories? No bias introduced as a result. The VC's grouped under the economic category are almost entirely positive in support of the project. In a fair, unbiased, and COMPREHENSIVE review exercise in full cost accounting, should not all of the VC's be given at least the appearance of equal consideration as to potential positive AND negative economic effects? Some valued components should not be relegated to secondary economic status from the start. Should not the economic summary table on page 108 be populated with all predicted positive and negative quantitative economic effects from all VC's? • Will the proponent collect quantitative economic data on VC's they've currently slotted into the social, heritage and health categories? • How real estate may or may not be affected is described in the dAIR as being determined through a review of similar studies/projects and consideration of different factors that influence real estate pricing. Those studies/projects may provide some interesting information and there are no doubt examples where either gains or losses are found throughout the world depending on site specific factors. However, none of those "other places" in the world are truly representative of our local conditions and community values. It is interesting to note that the two examples given of factors influencing real estate pricing are positive economic influences. A full list of study factors is not provided in the dAIR. Will the proponent provide a full list of real estate related factors under study in the dAIR to demonstrate their commitment to this VC? • Apparently, from the open house, the consultants know these survey methods to be the best available to answer such questions yet the proponent does not commit to carry them out in the dAIR. Why not? ...continued ... • Carrying out the assessment to the gold standard should be considered the cost of doing business. • Will the proponent be required to carry out contingent valuation and hedonic modeling as predictive tools in the areas mentioned previously in my comments? If no, why not?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
819	241	26-Mar-12	Personal Information Withheld	Kamloops, BC	• Do EAO staff or government agency working group members have sufficient expertise to critically review and guide the consultants work in all of the assessment categories as they may pertain to each of the VC's? • If not properly equipped to carry out this function, will the EAO arrange for appropriate 3rd party consulting services? • If no, why not? Again, does sufficient expertise exist among the government working group members to even ask that such work be carried out or will the proponent be permitted to do whatever they wish? If not currently provided, will this expertise be provided through the EAO to properly audit the study methodologies and interpretation of results? If no, why not?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
821	243	26-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (4 of 37) [2012-03-29 4:02:53 PM]^ A Compensation Program Should Start in Year One I wish to suggest that an early starting and continuous compensation program would be far more effective than an end-of-project compensation program if the Ajax mine is approved. I attended the open house and have heard many opinions. I have an industrial background and was born in Kamloops. This huge industrial development will permanently rebrand Kamloops as a mining city. It will reduce the quality of life for those of us who enjoy being able to access the outdoors in all four directions. Few cities have this selling point. In 20 years, the mine will have 400 employees wondering if their jobs will end as originally planned. There will be an even larger number of direct supplier jobs and indirect jobs at risk. There will be a huge and irresistible pressure to expand the mind beyond the original large boundaries and to drain nearby lakes. The 50-yearold Highland Valley Copper operation is a good role model for what will happen. I think there needs to be an easy-to-communicate deal on environmental and social compensation between society and a multinational corporation. Investors are being offered good profits from the extraction of a non-renewable resource that is owned by the Canadian public. There should be visible benefits every year for Kamloops residents. Many foreign and multinational corporations will not see any reason to do any more than the minimum required by the local government. Government bodies deciding on the original terms and conditions for the mining operation are the guardians of the public interest in this matter. I wish them well in their challenging task. There should be a requirement for tangible and visible improvements every year to our outdoor environment that our politicians and ordinary citizens can point to. This should start in year one. I would like to see a requirement for a mechanism for the mining company to work with interested and qualified local parties to address fragile aspects of our local environment as one aspect of the ...continued ... compensation for the large and very visible industrial activities that are being proposed. In other words, society tolerates some very visible industrial activities concentrated in one large nearby area in return for significant and important improvements in the remainder of our local environment. An environmental and social win-win could be great publicity for the mining industry, senior levels of government and even for Kamloops. In summary, a compensation program that starts in year one will be far more effective and valuable than compensation that has to wait many decades until the mine has finally closed.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
822	244	26-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (6 of 37) [2012-03-29 4:02:53 PM]^ Firstly, I send thanks to my Kamloops neighbours who have so eloquently written their concerns about this proposal. While I appreciate and understand the views of those who are excited about the prospect of new jobs in this region, I share the concerns of many regarding the impact of the Ajax Mine on the quality of our air, our water, and our lives. I wonder whether the potential risks of land degradation, toxic water contamination, and air pollution together comprise a price too high for this temporary economic benefit. I have chosen to live in this community for a variety of reasons. It supports an active and healthy lifestyle, there is a wealth of natural beauty and there is space to enjoy an abundance of outdoor adventures. I spend most of my leisure time outside, grow my own vegetables and commute by walking and biking whenever I can. In the nine years I have lived here, I have grown to love this great city and its wonderful people. Prior to the mine proposal, I had planned to stay here for many more years. However, this project and the uncertainty regarding the risk of pollutants may very well change that. I fear that other professionals will also consider leaving, or choosing other communities over one with an open pit mine in its backyard. I hope that the questions listed in all comments will be taken seriously and will receive detailed responses.	Project comment	General	n/a	n/a	General statement.	
826	245	26-Mar-12	Personal Information Withheld	Kamloops, BC	a parting comment: the nearby residents purchased their property to enjoy quality of life, which includes minimum noise, natural light, no toxic dust, and a relatively serene environment. The Ajax Mine, if allowed, will simply obey the law and take us to allowable maximum noise, maximum toxic waste, maximum dust, including heavy metals. This mine should simply not be allowed. It is too close to the city and its 85,000+ residents. It threatens our health and our environmental resources. In even seriously contemplating it, we are acting like a third world country, where development is paramount. This is not about survival; this is about quality of life and sustainability.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	

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830	246	26-Mar-12	Joanne	Kamloops, BC	Were the AJAX proposal further from city limits along the same vein of ore, not threatening aquifers like Peterson Creek, not proposing to use single lane rural roads as highways for large trucks laden with heavy loads, and not directly impacting commonly enjoyed recreational areas like Stump Lake and Edith Lake, we would not be opposed to this development. We are aware that industrial investment and resource extraction are necessary for economic growth. However, there is a reason that mines of this scale are generally not situated within city limits or within 2km of residential areas and schools - the cost to human health is just too high. The AJAX team are not long time residents of this community. They are neither invested in the wellbeing of the citizens and wildlife who do live in and around this community, nor the wellbeing of the environment. Why are the financial interests of foreign owners being given higher priority than the health and environmental concerns of citizens when there are adjustments (infrastructure investment in road access to a real highway for the mine trucks, alternate location of mine further away from residential areas and outside of city limits) that could be made as part of the cost of doing business? Sadly, the benefits of the current proposal will be reaped by the corporation for the 23 year life span of the mine, while the costs will be borne by the citizens of Kamloops for generations to come.	Project comment	General	n/a	n/a	General statement.	
837	250	26-Mar-12	Hugh Jordan	Kamloops, BC	5. Further exploration: the maps of the exploration area that Ajax is also promoting ...cover a massively larger area ...further exploration is planned for the area southeast of the current proposed area, in the neighbourhood of Edith Lake. What larger excavation awaits us in the future if this project is approved?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
839	250	26-Mar-12	Hugh Jordan	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (12 of 37) [2012-03-29 4:02:53 PM]^ 2 How will regulations and environmental limits be enforced? In normal mine locations away from large populations fines might be adequate, but not in the Ajax situation. Is the province prepared to immediately shut down the mine if the promised controls don't work and the dust containing toxic minerals blows into the Kamloops airshed?	Project comment	General	n/a	n/a	referred to EAO and CEA Agency.	
840	250	26-Mar-12	Hugh Jordan	Kamloops, BC	3 I am very distressed at the secrecy by Ajax, the with-holding of important information including the list of minerals. Rumour is that the information is being with-held until after the question period. Is that true?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
841	250	26-Mar-12	Hugh Jordan	Kamloops, BC	4 The whole evaluation process has been contemptuous of the people of Kamloops, especially the Kent decision to not do a full Federal Government environmental assessment. Our politicians have all avoided any participation in the evaluation process. Why are our politicians hiding? Just what do they have to hide? Why are they not participating in the process?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
842	250	26-Mar-12	Hugh Jordan	Kamloops, BC	5 Is the provincial government or federal government prepared to pay the people of Kamloops for damages caused by the mine, the result of flaws in the evaluation? 6 Since both the Federal Government and the Provincial Government profess to believe in the free market, why are they interfering with the free market with their huge electricity subsidies, and their extra tax breaks, such as allowing a 133% tax deduction on start up costs. What else is in the "incentive bag" for Ajax?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
843	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (13 of 37) [2012-03-29 4:02:53 PM]^ Introductory Remarks The Ajax proposal represents the single biggest land use decision confronting the city and surrounding area in recent decades and is arguably the most significant land use "game changer" ever proposed in terms of environmental, economic, and social impacts. Mines or comparable massive industrial projects are typically not developed in close proximity to residential areas unless the founding of the community is tied to that specific industry where in effect the community is created solely to service the mine construction and operation. The proposed Ajax mine represents a monumental industrial intrusion into an existing community. Coming to grips with the resulting conflicts that result in the placement of a major mining operation within a community of 85,000 must be fundamental to the mission of AIR/EIS Guidelines. This should require deviation from other review processes where the mining location is more distant from an existing community. The focus of these comments pertain to non-environmental issues which are categorized as social effects in the AIR/EIS Guidelines. While science based environmental impact analysis is absolutely critical to the decision making, analysis of the social effects should not take a back seat. The compatibility of the Ajax proposal with community values and vision for the future as expressed in the Kamloops Official Community Plan and Sustainability Plan should carry significant weight in the project evaluation.	Project comment	General	Economic	7	Please see the AIR for a description of the studies that will be conducted to assess the potential effects of the proposed project on social indicators. Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	
844	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	Land Use: The desire to avoid land use conflicts is evident in the location of recently developed mining communities like Logan Lake and Tumbler Ridge that are situated well away from mining operations (although municipal boundaries may be extended to include the mine for tax purposes).	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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851	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	Ajax Proposal Communications The two dimensional plan provided by the applicant is grossly inadequate at expressing project scale. Asking for public comment and input without a comprehensive representation of project scale is not conducive to meaningful public input. The only three dimensional imaging available has been provided voluntarily by concerned citizens which raises the question of accuracy. The proponent would be far better off providing ample representation at the outset of the approval process so as to avoid possible misrepresentation and provide the public with a meaningful presentation package to better facilitate comments.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
852	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	Sustainability Thinking: It is common practice and often a requirement of local government approval process to present elements of a proposed land development project that are considered environmentally responsible. While extensive work and documentation is being applied to off site environmental impacts, more information in layman's terms regarding how the plant operation is designed to minimize impacts (i.e.. water and energy consumption) is warranted.	Project comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
854	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	The federal government raises broader environmental impacts under the heading of "Effects Of The Environment On The Project" in the draft application information requirements report. This small reference raises a huge question about the global consequences of a massive resource extraction project. Aside from local landscape devastation, what are the impacts on a more regional and global scale (i.e.. carbon emissions) and how are these being addressed. The application of an ecological footprint analysis would prove very useful in terms of the public understanding of the ecological capacity to support the end consumption of the mine product. A global perspective is warranted and both the provincial and federal government have a responsibility to champion this issue.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
855	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	The urban location of the proposed mine brings into play a myriad of complications and conflicts that may result in a rejected application. However, the location also represents a unique opportunity to take on the challenge of integrating a copper/gold mine with a city of 85,000.	Project comment	General	n/a	n/a	General statement.	
856	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	"If we are to accomplish the objectives of the environmental movement to create a culture that can exist in perpetuity and in harmony with the ecological system that supports us we must re-imagine and re-design everything we do." (Bruce Mau, Canadian designer). In more concrete terms, is it possible to think of the proposed Ajax lands as a industrial complex that ultimately is a closed loop system where one factory's waste becomes another's sustenance. Could the future complex provide energy for the city. Could 400 jobs be retained beyond the mine operation.	Project comment	General	n/a	n/a	General statement. The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR.	
857	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	Public Input Process: The proposed mining activities fall outside the jurisdiction of local government bylaws and policies. Local governments are asking that bylaws, community plans, and policy documents be considered but there are no legal requirements. Without local or regional government participation there is no opportunity for the influence of local governance to serve as arbitrator for conflicting points of view raised by citizens. Most people are not comfortable with expressing opinions in a public setting, can be overwhelmed at public open houses with technical information overload, or are not willing to get engaged in what is a very complicated approval process dictated by government outside of the community. Our local politicians are silent, and municipal and regional district staff can only ask questions. The general public voice on such an important issue is restricted to orchestrated venues of comment and a continuous dribble of for and against letters to the local paper. There is no opportunity for a common expression of community sentiment to be gathered. While legal process requires no public approval, a democratic process that allows the community to have it's collective say should be mandatory where massive mining or other industrial proposals fall within urban centers. Even if non-binding, the results of an informal vote would at least provide the local and provincial politicians with guidance as to the attitude of their constituency. Typically, referendums happen when major capital expenditures are required for community infrastructure or recreational/cultural projects. The community decides if the money should be spent. In this case, the natural capital of the 261 hectare site within the city and TNRD is being designated exclusively for mineral extraction and precludes the use, or non-use, of the property for other purposes (i.e.. recreation, conservation, residential, industrial, institutional). The natural capital of the area is being extinguished without formal consent representing the people most impacted. This is wrong. Local governments are forced to take an on-the-fence position and all the onus is placed on the provincial and federal review process to make the right decisions. The community as a whole should have a say, either for or against the proposal, and the results should influence decision-making. Area citizens should be asked if they support the Ajax proposal as the collective self determination of the community should be a key criteria for determining proposal approval. Regardless of viewpoint or degree of consensus, a platform that allows the community to have its say would bring a more democratic voice to the debate.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
858	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	1) Southwest Kamloops Industrial Area Plan: If the mine proceeds, the city in collaboration with the mine and other industrial stakeholders (i.e.. Kinder Morgan, Northern Trailer) should prepare an overall plan for existing and future industrial activities in the southwest sector that addresses land use conflicts, infrastructure requirements and other essential planning elements as well as provide a long range plan that will facilitate spin-off industries and business's. The area plan would be incorporated into an updated Kamloops Official Community Plan anticipated to happen within the next couple of years.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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859	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	2) Alternative Mine Plan: Assuming that on and off-site environmental impact issues are successfully resolved, (i.e. noise, dust, lighting, groundwater) and that the majority of local and area citizens support the proposal, the mine should only proceed on the basis of a modified layout plan that will reduce visual impacts, reduce the visible mine operation footprint, and leave adjacent lands to the west between the Coquihalla and Lac Le Jeune Road available for future use. In addition, Lac Le Jeune Road should not be used as a haul road and instead a linkage to the Coquihalla should be established using Inks Lake Road.	dAIR comment	General	n/a	n/a	The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR.	
860	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	3) Sustainability Plan: As part of the approval process, the applicant should be required to provide a sustainability plan that effectively communicates to the public that the mine construction, operation, and reclamation has incorporated environmentally responsible measures of the highest order.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
861	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	4) Mine Proposal Presentation Materials: As part of the approval process, the applicant should be required to provide a comprehensive visual representation of the project including table top model, computer imaging, sections, elevations, etc. that illustrate the scale of the proposed mine in relation to the adjoining community and natural landscape.	Project comment	General	n/a	n/a	referred to EAO and CEA Agency.	
862	251	26-Mar-12	Personal Information Withheld	Kamloops, BC	5) Public Referendum: As part of the approval process, an on-line community referendum asking Kamloops and surrounding area residents if they support or oppose the mining proposal should be held with the results recognized in the decision making process. The referendum would take place after the upcoming round of public meetings where the applicant is providing information responding to the AIR/EIS guidelines. The non binding referendum would be planned and executed by Thompson Rivers University with funding support provided by the BC Environmental Assessment Office and Canadian Environmental Assessment Agency.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
871	252	26-Mar-12	Paula Pick	Knutsford, BC	• Since the proposed mine will be so close to an upscale residential neighborhood, a lot more work has to be done to relieve homeowners' anxiety.	Project comment	General	Social	8	A HHERA will be included in the Application/EIS. Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	
872	252	26-Mar-12	Paula Pick	Knutsford, BC	• Will the mine be compensating the City for damage done to the existing wells and piezometers?	Project comment	General	n/a	n/a	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
876	252	26-Mar-12	Paula Pick	Knutsford, BC	8.2 Community Health and well-being • The City of Kamloops through Ms. Jen Fretz sent a letter to the EAO with a list of questions. I would like to see these questions and concerns addressed and made public. Will this be done?	dAIR comment	General	n/a	n/a	The issues identified in the letter from the City of Kamloops have been addressed through the Technical Working Group, of which the city is a member.	

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896	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> The effects on wildlife, including birds, mammals and important insects (such as bees) should include surveys done proximate to existing mines in similar areas such as Afton and Highland Valley Copper to see how these mines have and maybe have not alienated these populations proximate to mine (within 2 km and at 10 and 20 km away for example). Is there a difference in density with distance? 	dAIR comment	General	Environmental	6	The reclamation and monitoring reports from similar projects will be reviewed as part of the assessment. However, it is very difficult to distinguish effects on wildlife due to the mining projects from effects due to other stressors such as weather, timber harvest, the pine beetle epidemic, increases in road density, urban development, et cetera.	
897	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> The economic benefits and impacts must be assessed with respect to where they are felt. The distance between the location of the impacts and where the profits of the operation are located must be considered when reviewing social economic impacts to the community around the project. The level of scrutiny applied to a project's integrity must also consider the distance between these two communities. 	dAIR comment	General	Economic	7	The regional and local study areas for social and economic effects are provided on Figure 7.1-1 of the dAIR and will be discussed in detail in the Application/EIS.	
898	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> To be fair and transparent to the community in which this project is to occur, the analysis of potential impacts to our democratic system should include the following: changes to local, provincial and federal regulations that could have an effect on this project made from the first inception of this project should be detailed in the environmental assessment, i.e., are the requirements more stringent for this mine application or less stringent compared to other mines that have gone through the process prior to the inception of the project; the value of corporate donations (from every present and historic company associated with this project) made to any local institutions, community project, municipal project or local government, provincial or federal political party should be determined and included in the assessment; the value of personal donations made by employees and owners of the above to the above should also be researched and included in the assessment; and judgment made upon those making the donations should be reserved, however this information should be made public to indicate potential impacts to our democratic institutions. 	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
899	256	26-Mar-12	Personal Information Withheld	Kamloops, BC	<ul style="list-style-type: none"> Finally, the environmental assessment and proposed mitigation measure need to be assessed against the historical and present ethical performance of the mining companies (and all their branch or alias companies and world wide projects). The bottom line is that the wording of the proposed mitigation measures in the assessment can only be acceptable to the extent of the historical ethical behaviour of the proponent. Also consider the following: the ethical performance of the proponent during the process. Did the proponent hold back any information during the process that would have biased the public against the project, or have affected the positions of professionals who put their integrity on the line to defend the project; the anticipated performance with respect to implementation of closure plans at other locations, then the security deposit required for closure needs to be adjusted accordingly to cover closure costs. 	Project comment	General	n/a	n/a	referred to EAO and CEA Agency.	
900	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>¹http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (1 of 93)¹</p> <p>The majority of the comments in this submission are duplicates of those of 28 Feb 2012 by Rob Wycherley the 27 March 2012 submission by Lori and Mike Maloney, therefore the questions/comments below are only those which were not captured by the previous submissions:</p> <p>Attached is the submission from the Kamloops Area Preservation Association for the proposed Ajax Copper-Gold Mine. Given our experience with the environmental assessment process for the Ajax project to date, KAPA wishes to take this opportunity to suggest an amendment to the B.C. Environmental Assessment Act and Regulations regarding the disclosure of baseline environmental and geological data by a proponent.</p> <p>In the case of the Ajax project, the only substantive information about the project that the proponent has submitted, without request, to the BC EAO was the Project Description, submitted on February 25, 2011. Due to requests by KAPA, the proponent finally agreed to submit a copy of the Orica Blast Report on January 24, 2012, and a copy of the Feasibility Study for the project on February 14, 2012. In total, these reports probably represent only a small proportion of the total information the proponent has in its possession about the project. According to the Feasibility Study (page 20- 1): "Environmental studies were initiated for the Ajax Project in 2006, including ground and surface water quality and quantity, climatology, fish and fish habitat, wildlife, and vegetation studies."</p> <p>Much of the baseline environmental and geological information for the project likely is contained in Appendix C 'Mining' and Appendix H 'Environmental' listed in the Feasibility Study. The Feasibility Study states that these appendices are "available at the Abacus Mining & Exploration Corp. Vancouver Office." In order to understand the nature of the project and to craft questions about the project for the environmental assessment, KAPA requested that the Feasibility Study Appendices be made available for public viewing at the KGHM Ajax Office in Kamloops. A set of Appendices was apparently delivered to the Kamloops Office for this purpose, but the proponent decided to deem all information in the Appendices as "proprietary" and ... continued ... therefore decided not to allow the public to view this information.</p> <p>It has now been thirteen months since the rather general Project Description was submitted. In this time frame, two public meeting and comment periods have been held: the first in June of 2011, and the second in February 2012. Despite the lengthy period of time the proponent has been compiling baseline data, during and prior to these public comment periods, very little, if any, baseline environmental and geological data was presented to the public at these meetings. One of the proponent partners, Abacus Mining & Exploration Corporation, did submit a 28 element mineral analysis assessment report for the project to the B.C. Ministry of Energy and Mines, but this report was submitted for exploration regulations purposes, and not to the environmental assessment process. In addition, it is unlikely that a 28 element analysis can provide the detailed assay information that KAPA believes is required to rigorously assess the possible health and environmental impacts of a proposed mine that is located within 1.6km to the edge of the City of Kamloops, a population of about 90000 people (including the adjacent Tk'emlups First Nation lands).</p>	Project comment	General	n/a	n/a	referred to EAO and CEA Agency.	
901	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	<p>In summary, even though baseline environmental information has been collected by the proponent since 2006, the public has been invited to attend public meetings where virtually none of this information has been disclosed, and has also been invited to submit questions to the proponent and government agencies without the benefit of being able to review the baseline information. To provide meaningful public participation in the EA process, KAPA therefore believes that the BC government should amend the BC Environmental Assessment Act and Regulations to require that mining projects that are reviewable under this legislation submit specific baseline environmental and geological data as part of the Project Description.</p> <p>Complying with this amendment should not be onerous for the mining industry. A retired executive with a senior mining company informed KAPA last year that it was standard practice for his company to collect 4 years of baseline data before submitting a project for approval. Nearly all major mines take years, even decades, to develop, from the exploration stage to construction and operation. A major phase of the development process is the feasibility study, done for financing purposes. Such studies take several years. Part of a feasibility study is an environmental component. Therefore, for nearly all mine developments, it is likely that several years of environmental baseline data already has been compiled before the project is submitted to the EA agencies. The suggested amendment may seem like an added piece of "red tape" but in reality, most mine developers should have already collected this baseline data, during the detailed drilling, engineering and feasibility study phase of mine development. If they haven't done so during these phases, they should not be allowed to submit a project for assessment until an acceptable set of baseline data is compiled.</p> <p>Prescribing the baseline data requirements for water, air, and terrestrial parameters for application purposes should not be a difficult administrative task. This prescription should not extend to the interpretation of such data.</p> <p>It is a daunting task for a volunteer community organization like KAPA to perform a meaningful review of a major mine proposal, but the task becomes almost impossible when access to crucial measurements made by the mine is not provided in a timely manner. It is in the best interests of the people of Kamloops and area that full disclosure is made of all relevant baseline data already held by the proponent.</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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902	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	2.6 Project Land Use On page 8 of the AIR/EIS it is stated: "Identification of future developments which are reasonably foreseeable and sufficiently certain to proceed." 1. Do future developments include other mineral deposits in the "historic Afton Mining Camp?" 2. If so, where are these deposits located?	dAIR comment	General	n/a	n/a	Future developments will include other mineral deposits which are reasonably foreseeable and sufficiently certain to proceed, as stated.	
903	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	2.7 Project Benefits There is no commitment by the proponent to identify and measure the project costs to the Kamloops region. Out-migration by people who believe they will not benefit, but may suffer, from the impacts of the mine is very likely. This out-migration could have significant effects on health services if a large number of doctors leave Kamloops, for example. Kamloops may also be perceived to be a less attractive retirement community, with consequences for businesses and community organizations that rely on support from retired people.	dAIR comment	General	Economic Social	7 8	The scope of the assessment will include a consideration of economic diversification. Potential effects related to health and other services (including business and community organizations), with consideration of community demographics, will be examined.	
904	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	1. The proponent should provide a matrix describing the benefits and costs that will accrue to different socio-economic groups in the Kamloops region.	dAIR comment	General	Economic	7	The assessment of economic effects will reflect current methodological standards. Quantitative data will be used when available, supplemented by qualitative sources. A broad range of socio-economic effects will be examined but will not be broken down into differential effects associated with various socio-economic groups in the Kamloops region.	
915	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	3.18 Closure and Reclamation 1. When considering the impact of the proposed mine (should it be approved) will the government require the establishment of a compensation fund to be used to cover adverse socio-economic impacts caused by the mine. This fund would cover such things as (but not limited to): - environmental damage to water flows or pollution leaked into Peterson Creek, Kamloops Lake and the Thompson River. - health effects. The mine is certain to release quantities of dust into the air which will be blown over Kamloops. Dust causes respiratory diseases. - the costs of air monitoring on a continuing basis both of the Kamloops air shed in general, and of monitors at schools, hospital, seniors residences etc. - damage to the infrastructure of Kamloops. This could be significant given the existing water and land slippage problems in Aberdeen. - declines in real property values. There is already scholarly evidence that the closer residential properties are to a surface mine site (e.g. open pit) the greater the decline in property value.	Project comment	General	n/a	n/a	referred to EAO and CEA Agency. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
916	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	3.18.1 Tailings Storage Facility Closure 5. There is no reference to plans to enclose this mine site with a fence. Such a fence is critical to ensuring the safety of people, cattle and wildlife.	dAIR comment	TSF	n/a	3	A detailed Project Description will be included in the Application/EIS, including information about the site security measures.	

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924	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	3. Given the past failure of Fisheries Canada to protect cod stocks off Newfoundland and salmon stocks off the B.C. Coast, what improved fish management protocols will be utilized to ensure the protection of freshwater fish and the Adams and Thompson River salmon runs? 4. In the event that water supply is reduced during summer months, such that continued drawing of water will be damaging to fish stocks or to the river ecosystem, does the EAO, the CEA Agency or Fisheries Canada have authority to order the mine to cease drawing water from Kamloops Lake until the water levels are replenished? 5. In the event that an order compelling the proposed mine to cease drawing water is issued, will the proposed mine still be authorized to conduct mining activities? 6. If so, will the mine be excused from using water for dust suppression during the course of any order? 7. If so, under what published regulations or enactments will the proposed mine be allowed to ignore dust suppression and over what period of time?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
925	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	6.15 Forests and Vegetation The proposed Ajax mine will generate aerosol particles, which when wetted at humidities below 100% will form haze, and when the humidities are 100% the aerosol particles will serve as nuclei for fog droplets(see Section 6.1). All three categories of particles will move with the wind. When the wind is from the SE, S, SW or W these particles will move downwind towards the forest on the ridge above Aberdeen. Both dry deposition of aerosols and wet deposition of haze and fog droplets will take place on the foliage of the trees and other vegetation and will move into the residential area of upper Aberdeen. As previous studies in Canada have shown (Schemenauer, 1986; Schemenauer et al., 1995) when the pH of the fog droplets is very acidic or the concentrations of major ions are high there can be acute damage to foliage and chronic changes to soil chemistry that in turn negatively affect the health of trees. Schemenauer and Cereceda (1992) also looked at major ions and trace elements including heavy metals, in aerosols and fog droplets, at a site near an abandoned iron mine in Chile. They found elevated levels of some heavy metals in the dry deposition and in the fog water. [References provided] 1. What measurements have been made and/or are planned to be made to monitor the health of the forests outside of the proposed mine property (in all directions) in order to detect possible negative impacts of the mine on the forests and other vegetation? 2. What measurement programs will be instituted to measure the chemistry of rain, snow and fog before and after the mine is constructed? 3. What would the impact be of the death of the forest above Aberdeen on soil erosion, surface and subsurface runoff, cost in lost timber, and aesthetics? 4. What mitigation plan is in place to preserve the health of the forest above Aberdeen	dAIR comment	General	Environmental	6	A Human Health and Environmental Risk Assessment (HHERA) will be included in the Application/EIS. If the Ajax project receives regulatory approval the number, placement, and specifications of the meteorological monitoring program will be dictated by the BC Ministry of Environment in the 'Monitoring and Reporting' clause of the Air Permit. Potential interactions between the project and atmospheric indicators will be identified: all indicators shown to be affected by the project will be assessed in the Application/EIS.	
939	257	26-Mar-12	Kamloops Area Preservation Association	Kamloops, BC	In the July 11, 2011 letter from the City of Kamloops, the following questions were asked. The depth and substance of these questions have not been sufficiently reflected in the draft AIR/EIS Guidelines: 1. What are the health impacts to residents within the vicinity of the proposed mine?	dAIR comment	General	Health	10	Human health will be assessed in the Application/EIS.	
980	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will there ever be a 3d model of the mine at it's maximum predicted life span?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
982	259	27-Mar-12	Personal Information Withheld	Kamloops, BC	Where is the unrefined ore being shipped to and how will it get there?	dAIR comment	concentrate transport	n/a	3	This information will be included in the Application/EIS.	

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983	260	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (13 of 77)[2012-03-29 3:57:49 PM]^</p> <p>Having lived in northern and southern cities in western Canada, small, large, highly urbanized, isolated, agricultural, and industrial, I appreciate the quality of life that a city like Kamloops has to offer. I believe many other young professionals feel the same and that is why we are drawn to Kamloops, and also why we stay. I'm concerned about how this mine will impact the quality of my life in Kamloops. I enjoy a number of outdoor activities including hiking, kayaking and viewing wildlife and native vegetation near my home. How will these activities change once an open pit mine is in operation? I know I will not be kayaking at Jacko Lake. I live in Aberdeen. I'm very concerned about the safety and value of my home. How will the regular activity at an open pit mine impact the slope stability and ground water patterns where I live? The life of the open pit mine changes over time. Will changes in commodity prices shorten or extend the life of this mine? Will these changes leave room to alter the decommissioning and restoration plans of the mine site? I do not support the proposed Ajax mine. I'm concerned that the majority of the people I know in this city clearly oppose this development while those who support the mine are not residents of Kamloops.</p>	Project comment	General	Economic Social	7 8	The EA will include an examination of potential effects on resource use and recreational activities. Changes in commodity prices in the context of mine life will not be included in the scope of the EA. Decommissioning and restoration plans will reflect the anticipated Project schedule as outlined in the dAIR.	
986	263	27-Mar-12	Personal Information Withheld	Knutsford, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (12 of 77)[2012-03-29 3:57:49 PM]^ We would like to know WHO the BC Environmental Assessment people are. At the 'show' put on last June, the woman who spoke said, "We are a private body..." No one seemed to catch that. we tried and tried to research the history of this supposed protection agency and every search led me back, under the umbrella of the province but we know these people are not really government agents or employees. Wake up people. We need answers to these kinds of questions. WE WANT TO KNOW WHO THEY ARE! We went to a Residential Tenancy Branch Hearing at the courthouse. The mediator representing the BC RTB turned out to be hired in Victoria. He was a family and divorce mediator who didn't even know the Tenancy Act (Law). It was a joke. It's high time this comes out in the open. For all we know the EAO are average joes with no special training, perhaps hired to get them off welfare or as some make work project. We need more. How can we be expected to trust them to make decisions on our behalf if we don't know if and how well trained they are to make them. KGHM is just looking for an easy deal. Working a mine here is like having life handed to them on a silver platter. They can have nice homes, all the amenities while they are away from their families working. Including a good climate. What more could they want.</p>	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
987	264	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (11 of 77)[2012-03-29 3:57:49 PM]^</p> <p>AIR--2.2.1-Proponent-Statement is follows: "KGHM Ajax Mining Inc. is a joint venture company between KGHM Polska Miedz SA & Abacus Mining & Exploration Corp. (AME)...It has engaged in mineral exploration in the Province with its primary focus being the deposits associated with the Ajax project...The Ajax project will largely be developed using expertise from AME"</p> <p>--Where in BC did AME engage in mineral exploration before Kamloops</p> <p>--If AME has not been involved in any previous project then why should Kamloops be the 'GUINEA PIG' development, with the distinct possibility of adversely impacting thousands of residents, wiping out several productive ranches, thousands of acres of prime grassland, & leaving a legacy of total destruction for ever.</p> <p>--Why not practise on one of the many mineral resource areas that exist far away in bush land where there will be very little direct impact on people, destroying their right to peaceful enjoyment of their own property.</p>	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
988	265	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (11 of 77)[2012-03-29 3:57:49 PM]^</p> <p>We are concerned about the amount of dust that will be deposited or circulating in the air in the upper Aberdeen neighbourhood. We would like to know how much dust if possible will be in the air. We are also concerned about the amount of light at night that will emanate from the mine and how it will lighten up the Aberdeen neighbourhood and the plan to keep it to a minimum. We are additionally concerned about the sightlines from the Aberdeen community and do not want to see any evidence of mine operations from Aberdeen and ideally from the rest of Kamloops. Last, we are concerned about the amount of noise generated by mining operations (blasting, crushing, vehicle traffic) that will be heard in the Aberdeen area and how that will be eliminated or mitigated. We would like to see studies that will show or provide answers to what the effects there will be and how the mine will eliminate the impacts from the issues mentioned above.</p>	Project comment	General	Social Health	8 10	These issues will be addressed in the Application/EIS.	
994	267	27-Mar-12	Pierrette Beaton	Kamloops, BC	<p>We chose to live in upper Sahali which enjoys winds from the southwest most days and thus we would not be downwind of the pulp mill, but it would now put us directly downwind of the mine. Downwind of significant dust, dust which will have heavy metals in it. I have a community garden in this area where I grow organically a lot of the food we eat. This too will be subject to the dust fallout. Will you be doing testing of soils in the Kamloops area before the mine goes in, and regularly after the mine is in operation, and will you then inform the public regularly about the contaminants accumulating in their soil. For many years now I have been riding my bike from my home, south onto Goose Lake road, Long Lake road and Lac Le Jeune road several times a week. It is a beautiful, peaceful place to ride. The change of the seasons, the wildflowers, the wildlife I see and hear will be lost. I will not be able to go there anymore. We will have to leave this community if the mine goes ahead. This community will have significant difficulty attracting new physicians if there is a mine in the city. Yes, there will be mining jobs, but the professionals who have a choice about the kind of city they want to live in will definitely be much harder to come by. We would not have come here if there had been a mine at that time. I have met and interviewed numerous physician families as they were deciding whether to come live and work in this community, and a mine will make it a VERY hard sell.</p>	Project comment	General	n/a	n/a	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	
1002	268	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (7 of 77)[2012-03-29 3:57:49 PM]^</p> <p>It is difficult to believe that Ajax would strive to impose this massive open-pit project onto the doorstep of prominent Kamloops residential areas. It is even more unbelievable that our senior governments would consider approving it. I join the majority of Kamloops residents in opposing the Ajax proposal, primarily because it is too big and too close. Concerns and questions are too numerous to list, but some disturbing factors:</p>	Project comment	General	n/a	n/a	Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	

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1003	268	27-Mar-12	Personal Information Withheld	Kamloops, BC	1) Ajax has not been a good corporate citizen. Despite promises to be open and transparent in their dealings with the public, it has been anything but. They refuse to provide copies of study results; instead invite the public to view their selected material in their office.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1004	268	27-Mar-12	Personal Information Withheld	Kamloops, BC	2) City of Kamloops wrote a multipage letter listing numerous concerns and questions many months ago - Ajax has not responded. The city even wrote to the Terry Lake (MLA and Minister) to seek his assistance. Today, media reports that the city has again written to Ajax enquiring where is the long-promised 3D scaled model of the project??	Project comment	General	n/a	n/a	The issues identified in the letter from the City of Kamloops have been addressed through the Technical Working Group, of which the city is a member. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
1005	268	27-Mar-12	Personal Information Withheld	Kamloops, BC	3) Because residents had trouble interpreting Ajax initial materials, Ajax promised to provide that 3D scaled model to residents many months ago. The Open House and Comment period has come and gone - still no 3D model for residents to properly assess the project. Ajax should be required to re-convene the Open House and Comments period AFTER the 3D model is made available.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
1016	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (3 of 77) [2012-03-29 3:57:49 PM]^ Following are my questions concerning the proposed Ajax Mine development near Kamloops, BC. 1. If mining activity produces unhealthy conditions for the people living in the area, what will happen to stop the unhealthy activity?	dAIR comment	General	Health	10	Human health will be assessed in the Application/EIS.	
1019	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	4. What price per kilowatt of electricity will Ajax pay to BC Hydro? 5. Who will pay for the new hydro transmission line to the site?	Project comment	transmission line	Economic	7	This information will be provided in the Application/EIS. The proponent will pay for the proposed power line.	
1028	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	14. What monitoring of mine workers and nearby children's blood, urine, and hair analysis will occur if the mine is approved?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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1029	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	15. When will the City of Kamloops receive a reply to their letter of July 11, 2011 authored by Jen Fretz?	Project comment	General	n/a	n/a	The issues identified in the letter from the City of Kamloops have been addressed through the Technical Working Group, of which the city is a member.	
1031	271	27-Mar-12	Personal Information Withheld	Kamloops, BC	17. How will the proponent convince the citizens of Kamloops that there will be no detrimental health impacts from the mining activity, including noise, vibration, dust, groundwater contamination, etc.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1035	272	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (2 of 77) [2012-03-29 3:57:49 PM]^ Issues surrounding groundwater and drinking water quality have the potential to affect large numbers of Kamloops residents well into the future, beyond any proposed closing dates, and cannot be minimized. I have chosen to confine my remarks to this issue only for reasons of time and brevity, although I have numerous remaining environmental and social concerns regarding a mine project of this size operating in such close proximity to Kamloops schools and homes. BC government documents available on the MOE website indicate that an aquifer of approximately 65 sq.km exists in the Ajax project immediate operations area. It lies to the east, west and north of the pit area showing in the proponent drawings. The proposed Ajax pit encroaches on the south boundary of this aquifer. This aquifer is classified as being of moderate vulnerability and low to moderate productivity (IIIB). According to MOE publications: -moderately vulnerable to contamination from surface sources. B aquifers have limited natural protection against contamination introduced at the ground surface. Degree of natural protection may vary across an aquifer. -existing land uses or future additional developments, that could introduce a contaminant to the land surface, should initiate measures to protect against introducing contaminants.	Project comment	General	n/a	3	General statement. Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	
1040	272	27-Mar-12	Personal Information Withheld	Kamloops, BC	There are several references to Appendix A through L, some of which reference test wells and groundwater conditions. According to the report, "Appendix B through L documents are provided in "Supporting Documents – Ajax Copper/Gold Project –Kamloops, British Columbia, Feasibility Study Technical Report", available at the Abacus Mining & Exploration Corp. Vancouver Office." 18. Why have these results not been made readily available to Kamloops residents together with Appendix A?	Project comment	General	n/a	n/a	This comment is not related to the dAIR. Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	
1042	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html [2012-03-27] (76 of 77)^ I am very concerned about the proposed Ajax open-pit copper/gold mine. My greatest concern is the proximity of this extremely large open-pit mine to the City of Kamloops. I am not opposed to mining ... Just mining within our city boundaries ... this is just too close I have lived in Kamloops all my life, my husband and children were all born here ... This is our home... please do not destroy our home and environment for a few jobs and dollars and force us to move out.	Project comment	General	n/a	n/a	Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	
1046	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	4. How will we be compensated for loss of enjoyment of life and property?	Project comment	General	n/a	n/a	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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1047	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	5. Kamloops is a very windy city ... what toxic metals including heavy metals are contained in the ore/dust? (Provide a comprehensive list with amounts)	dAIR comment	General	Health	10	Potential health effects related to the proposed Project will be discussed in the Application/EIS.	
1048	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	6. What health effects will the chemicals used in the mining process have on the citizens of Kamloops and who will pay for the increased healthcare required?	dAIR comment	General	Health	10	Potential health effects related to the proposed Project will be discussed in the Application/EIS. The issue of healthcare cost is outside the scope of the EA.	
1049	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	7. Will there be crystalline silica (known to cause cancer) contained in the dust?	dAIR comment	General	Health	10	Potential health effects related to the proposed Project will be discussed in the Application/EIS.	
1050	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	8. How will we be compensated by the effects of the mine/industrial dust on homes, property and vehicles which cause corrosion?	Project comment	General	n/a	n/a	The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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1052	273	27-Mar-12	Personal Information Withheld	Kamloops, BC	10. Where will the power lines be located to power the mine? Are these power lines high-tension power lines? what health effects will these power lines have on the residents who will be living close to the lines?	dAIR comment	transmission line	Health	10	The location of all project components and mitigation measures will be detailed in the Application/EIS. There is little evidence that electric fields at the intensities associated with power lines directly impact human health therefore no studies are proposed for inclusion in the Application/EIS.	
1053	274	27-Mar-12	Personal Information Withheld	Kamloops, BC	<p>http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (74 of 77) [2012-03-29 3:57:49 PM]^</p> <p>AIR-2.25-Expansion. Statement: "The anticipated operational phase of the project is 23 years which is contingent on material changes that could arise during the continued exploration work, process refinement, or throughput modification."</p> <p>--Recently there has been mention of a permit application being submitted for an additional area south of Knutsford. Is this what is referred to in the statement above?</p> <p>--Is this an addition to the Ajax proposal, or would it be subjected to its own environmental assessment? Such comments as these, as well as various reports & news releases referring to "future expansion" or exploration potential", give cause for considerable concern.</p> <p>--IS THE AJAX PROPOSAL CONSIDERED AS JUST 'A FOOT IN THE DOOR' ? It would appear that if the Ajax project does become a reality there is a distinct possibility Kamloops could have even more 'open pits' & waste rock piles within its boundaries & in surrounding areas, giving our City the appearance of another Timmins or Sudbury, Ontario. In an excerpt from the March 2009 'Resource World' periodical, Doug Fulcher, Pres/CEO (at that time) is quoted as follows: "In addition to the Ajax area there are several other areas of known mineralization on the 8000+ hectare property that will be developed at a later date, including the Monte Carlo, Rainbow & DM-Audra prospects" (These areas extend northward, further into City limits from the proposed North waste rock dump to the TransCanada/Coquihalla Hwy junction, & from the old Afton mine (now New Gold) eastward to the 'Big Onion' deposit near the Iron Mask industrial area). "We see a New Gold model that exists below the old open pits at Ajax west & east. I think we can expand the open pit as we go to the northeast of our defined resource."</p> <p>--At what point would such proposals for expansion take place?</p> <p>--Would any expansion become part of the Ajax proposal or would it be subject to a completely separate environmental assessment?</p> <p>... continued ...</p> <p>--Would it be after the life of the Ajax project if approved, possibly extending mining operations within the City of Kamloops beyond 30 years to 40 or 50 or more?</p> <p>--Again, IS THE AJAX PROPOSAL CONSIDERED AS 'JUST A FOOT IN THE DOOR'?</p> <p>--We have to ask what kind of a legacy may be left for this City when the dust finally settles?</p>	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1055	275	27-Mar-12	Frances Vyse	Kamloops, BC	The Ajax office has been closed on numerous occasions resulting in frustration for the public wanting to pick up documents or talk to company staff. The staff does have time to talk to many business groups in the city, and to go to TRU to promote project spin-offs, including large sums of money. TRU staff has been told not to engage in discussions about the mine presumably since the university is or will be receiving funding from the company for a variety of projects.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1056	275	27-Mar-12	Frances Vyse	Kamloops, BC	<p>The company was asked by the community advisory committee to prepare a 3D model of their proposed development for the public. They have not done so to date and have not given a satisfactory reason for this simple project not being completed. Absence of such a model can only lead one to assume that the company has chosen to reduce the amount of "extra" information they have to produce and to reduce the public awareness of the real extent and impact the project will have.</p> <p>The quality of maps produced by KGHM Ajax is very sloppy, with inadequate legends on many of them e.g.:</p> <p>-Figure 2.2-1 displays contours that are displaced south by almost 5km – just the first of many errors that should have been obvious to anyone putting together a professional document.</p> <p>-Peterson Creek does not flow into Jacko Lake. It flows through a shallow valley south of the lake and Jacko Creek flows into it.</p> <p>-None show the city boundary, in spite of being asked to make that addition many times.</p>	dAIR comment	General	n/a	n/a	<p>Figure 2.2-1 contours will be corrected. Provincial mapping indicates that Peterson Creek flows into Jacko Lake. Jacko Creek is a tributary of Peterson Creek. The Application/EIS will provide mapping of the general arrangement overlain on the most current basemap available. The city boundary will be shown on in relation to the mine components and infrastructure.</p> <p>The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.</p>	
1061	275	27-Mar-12	Frances Vyse	Kamloops, BC	5. When will the 3D model be ready for viewing? It would be an invaluable tool for people to visualize the size and extent of the project. Even better, the model would represent the landscape as it now exists, with removable pieces for the rock dumps, pit, tailings and buildings. PLEASE make this happen.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	

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1063	275	27-Mar-12	Frances Vyse	Kamloops, BC	2.8- NEW SECTION NEEDED:- "Project Impacts" What is the real impact of this project? A lot more details are needed, at least matching the length of the list of benefits. A few potential impacts: Loss of significant grasslands (grasslands, species, grazing opportunities, etc.) Loss of provincially significant saline ponds (Wallender and Inks) Wildlife habitat loss, corridors and access to winter range cut off over a very wide swath of landscape south of Kamloops Ponderosa pine study area on the south side of Sugarloaf Hill destroyed "Eyesores" left behind: rock piles, compacted ground, monster tailings pile, tailings drainage pond dams Loss of star gazing opportunities Loss of use and enjoyment of the area Impact on Lac Le Jeune residents, Stake Lake Trails, mountain bike, fishing users who access homes, ski trails, roads and lakes along Lac Le Jeune Rd	dAIR comment	General	Environmental Social	6 8	Project impacts will be assessed for each identified Valued Component, as outlined in the dAIR. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1064	275	27-Mar-12	Frances Vyse	Kamloops, BC	3.1.1 Regional Geology Please create a meaningful legend to Figure 3.1-1. The only item listed is "fault". The text on pg.10 is useless without knowing which colour on the map represents what rock.	dAIR comment	General	n/a	n/a	This legend will be corrected as requested.	
1086	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	9. Will there be any agreements made in general or with individuals that would be legally binding and have recourse should agreements not be upheld?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1088	277	27-Mar-12	Kamloops Stockmen's Association	Kamloops, BC	11. Some members of the KSA have the following philosophy: "Humans benefit both from farmers growing food and mines harvesting metals from the earth. Both activities are essential for human existence, growth and development. Food cannot be produced without tools, and tools would be of little use without living humans to use and benefit from them."	Project comment	General	n/a	n/a	General statement.	
1090	278	27-Mar-12	Janice	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (63 of 77) [2012-03-29 3:57:49 PM] [^] I heard that Ajax has already placed infrastructure in the area of the proposed mine. Why? I look at the diagrams and see mass destruction of water routes, some large, some small, but all affecting Kamloops and area in a negative way. We can't replace that. I want to buy a house but I won't right now because if this mine goes through I won't stay in Kamloops for my retirement years. The pollution will be overwhelming. Kamloops has the pulp mill, that's enough of a smelly problem. Lets be fair, it will create jobs, but at what cost? Cost to the environment, our health, our future. I say put it to a vote. Make this a fair decision. And get the government on board for job creation and work search assistance for the population. We are in need of positive solutions, not a 25 year eye sore, health hazard, environmental destroyer!	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1093	279	27-Mar-12	Personal Information Withheld	Knutsford, BC	What will the 'set back' distance be from the base of the rock dump to private property? What will the 'set-back' distance be from the base of the rock dump to the Goose Lake roadright-of-way?	dAIR comment	waste rock management facilities	n/a	3	This information will be included in the Application/EIS.	
1098	280	27-Mar-12	Verne Sundstrom	Kamloops, BC	If the proposed site is selected the proponent should remove the existing top soil prior to the deposition of the tailings material. The existing top soil should be removed and stored so it is available to cover of the tailing upon completion of the project. At the southern end of the tailings area there are several small watercourses that need to be diverted as they currently flow through the tailings area. A TSF west pond is now under consideration and we would suggest a water monitoring station be located at this location to immediately monitor the water quality and quantity both before and after tailings deposition.	Project comment	General	n/a	n/a	Information on site reclamation will be included in the Application/EIS. Details of the water monitoring program will be provided.	
1113	281	27-Mar-12	Personal Information Withheld	Kamloops, BC	[^] http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (57 of 77) [2012-03-29 3:57:49 PM] [^] What studies have been undertaken to apprise residents of long term or residual effects of the yet undisclosed contents of assay report on this site? We should know of possible long term effects in order to make an informed decision around moving from this area sooner rather than later. i.e. Mesothelioma doesn't appear within a few days or weeks or even months of contact with the offending substance. It takes years, sometimes longer than 22-23 years(life of proposed mine) to present in the human body. What will be the recourse then? There is currently a class action lawsuit with regard to deaths from asbestos related mesothelioma. Will the residents of this area have to resort to a similar long, expensive, drawn out action when we experience increases in cancer rate, or other diseases related to exposure to yet undisclosed contents of the proposed mine soils? We want the answers now!	Project comment	General	n/a	n/a	Please see the AIR for a list of studies being undertaken to assess the potential effects of the project on human health. Effects pathways will be included in the Application. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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1120	282	27-Mar-12	Muriel Miller	Aberdeen, BC	7) Has it been addressed what will happen to the Kinder Morgan pipeline? Will it be relocated?	Project comment	General	n/a	n/a	Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1122	282	27-Mar-12	Muriel Miller	Aberdeen, BC	9) The BC Auditor General reported that the province is not meeting the environmental standards set by the Ministry of the Environment. Who will police Ajax if they do not live up to the standards already in place? What recourse will the residence of Kamloops have if the mining process causes problems within the city, i.e. Foundations cracking from vibration, noise above the allowed decibels, water tables changing or other issues Aberdeen resident may experience? Money over wellbeing? Not for me!	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1123	283	27-Mar-12	Dale C Sherstobloff	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (55 of 77) [2012-03-29 3:57:49 PM]^ I am thankful that Ajax is coming to Kamloops. Our city needs companies that create jobs for local residents. So many bankruptcies, people losing their homes or having to travel to other provinces and other countries to work. Its about time we boost our own economy and create jobs for people in Kamloops. This is not the 1800's the mines are responsible and always strive to protect the environment. They have policies and procedures that must be abided by. Health and Safety and the Environment is their main concern.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
1124	284	27-Mar-12	Personal Information Withheld	Knutsford, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (53 of 77) [2012-03-29 3:57:49 PM]^ All I have read lately is an abundance of negativity on the impact that the proposed Ajax Mine will have on the city of Kamloops and surrounding area of Knutsford. So, for the record, I would like to speak in favour of the proposed Ajax Mine Project. In reviewing the comment section, I am surprised to see that the majority of the opposition to the mine is from people that live in the city. They obviously use the Knutsford area for recreation or the odd Sunday drive. I have lived in the Knutsford area, close to the proposed Ajax pit, for approximately 43 years. I have raised a family here and I have no regrets about doing so. The Ajax pit isn't something new. It was previously operated by Teck Cominco. While it was under Teck, I can honestly say that we did not experience any negative impact on our quality of life here in Knutsford. The only evidence that a mine was operating in the area, was when we could hear distant equipment noise, generally on a clear cold night. Blasting was not an issue, nor was dust a problem. In 1976 I began my trade as a Heavy Duty Mechanic. At that time there were 16 students in my class at the then Cariboo College (TRU) and of those 16 students, 8 were hired on by Afton Mine, which was just starting up at that time. Those jobs were good paying jobs, with good benefits, that enabled a number of people to stay in the community, they bought their first homes and raised their families in Kamloops. I was one of the eight that was offered a job, but I had already decided to work up North but I did see what a good influence the mine had on the city of Kamloops when I returned. In my opinion I believe that the Ajax Mine will be a very good employer and a good corporate citizen, they can't afford not to be. There will be great opportunities for young tradespeople where they can make good money and enjoy long term employment. I don't feel all of the environmental concerns that are making the news these days about the mine are warranted. We have Federal and Provincial governments to monitor the mining activities and to ensure that the regulations are being followed. ...continued ... I don't believe we live in a country that will just allow a mine of any kind to go ahead without a concern for the environment and the people that live in and around the mine area. I enjoy the outdoors, fishing etc. in the area where I live, but I know for a fact that there are a number of other fishing lakes, all within a few kilometers of Jocko Lake. It is not in the best interest of the mine to damage fish habitat. It is my understanding that the mine has been in consultation with Fish and Game Clubs and other groups regarding the utilization of Jocko Lake.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
1125	284	27-Mar-12	Personal Information Withheld	Knutsford, BC	The mine is said to have a 23 year life span, one only has to look to the Highland Valley Copper Mine located just outside of Logan Lake BC to see the benefits to that community, and to see that sometimes the life of these mines can be extended, providing more job years and economic development to the region. I understand that we need to feed the world, but lets be realistic, cattle ranching at present is not economically sustainable. Most ranches are subsidized by working off the ranch, engaging in logging operations and even selling off land to help pay for ranch operating costs, which may include cattle feed, and even machinery replacement. The way I see it, most comments are negative about the proximity to the City of Kamloops. The mine location will be about a 10 – 15 minute commute for most employees, just think of the gas they will save with a shorter commute which is actually better for the environment, less gas, less emissions etc. In closing, I don't feel that this mine will impact Kamloops and the surrounding area as much as everyone is saying	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
1127	286	27-Mar-12	Personal Information Withheld	Knutsford, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (53 of 77) [2012-03-29 3:57:49 PM]^ We live very close to the proposed location of the east rock pit. Our concerns are: Our Health - Air pollution, dust, noise, lights, traffic impact.	dAIR comment	waste rock management facilities	Health	10	Human health will be assessed in the Application/EIS. Effects pathways will be included in the Application. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	
1135	288	27-Mar-12	Craig Dedels	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (48 of 77) [2012-03-29 3:57:49 PM]^ My biggest concern with the Ajax mine project consultation process is the fact that the proponent has yet to release a 3D scale model of the site. Many residents of Kamloops are still in the dark about how big this mine could actually be and some may change their opinion on the project when this component is finally released. How has the consultation process been allowed to move forward without a 3D scale model available for public viewing? When I approached John Froese (former KGHM community relations coordinator) in August 2011, he said they could not be certain on the scale without further surveying, but that a model would be released "soon". After waiting for a short time, I made my own rough digital model using size estimates from pamphlets released by KGHM. I provided this model to Mr. Froese and anybody else who requested it, hoping for critiques and clarification that would eventually result in a more accurate representation for all. It's been almost a year since the public was made aware of this project, yet many basic details are still being withheld. This is simply unacceptable. It is time for the proponent to afford a little reassurance and transparency to the city it is so eager to be a part of. Providing us with a 3D scale model of what the proposed mine will actually look like is the first step. I am a recent university graduate with no computer modelling experience. KGHM is one of the largest producers of copper in the world and employs more than 28 000 individuals. Once again, I've provided a few screen shots of my amateur digital mode. KGHM, please encourage one of your talented employees to outshine me. It shouldn't be that hard. (images included in submission)	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	

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1137	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	^ http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (46 of 77) [2012-03-29 3:57:49 PM]^ 1. What will they effects on our families' health be long-term.	dAIR comment	General	Health	10	Human health will be assessed in the Application/EIS.	
1138	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	2. What comparable studies have you done regarding the mine, that can be compared to before and after situations on mines like this?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1140	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	5. if it costs so much for bc hydro , and bc hydro has to outsource the energy. Why is it fair that us citizens have to pay the difference? this is not fair. we should have a say.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1145	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	17. why is this not going to referendum? 18. why are you keeping the population ignorant? 19. why are you allowing 'glossy magazines' to be printed and distributed in the area? 20. why are you allowing AJAX to look like a hero and allow them to sponsor nonprofit organizations in the area?	Project comment	General	n/a	n/a	Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1146	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	22. what wildlife patterns will be affected by this mine?	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	
1148	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	35. why is their a green glow on other mines? 36. will their be a green glow all of the time?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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1150	290	27-Mar-12	Personal Information Withheld	Kamloops, BC	38. where do you plan to headhunt and recruit the \$100,000 paying jobs? Kamloops? Kelowna? Vancouver? Victoria? Calgary? Chile?	Project comment	General	n/a	n/a	Human Resources will be discussed in the Application/EIS. Income will be addressed in the Social and Economic VCs. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1152	291	27-Mar-12	Ken McClelland	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (45 of 77) [2012-03-29 3:57:49 PM]^ I believe by and large that this project should receive approval. However, I would qualify that support by saying that it should receive approval only if the most stringent of environmental criteria are applied to the proponent. Along with this, would be regular at random monitoring on an ongoing basis to ensure that the operators of the mine are meeting those criteria. This monitoring would/should be performed by a nongovernmental at-arms-length agency, such as an engineering firm i.e. Stantec, Golder Associates, CH2MHILL, in other words, no self-policing a la Forestry. The proponent should also be required to post a significant performance bond to put some enforcement teeth in the monitoring process, funds which could arbitrarily be accessed and used if it can and is demonstrated that the proponent is not living up to their end of the bargain.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1153	292	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (43 of 77) [2012-03-29 3:57:49 PM]^ Minor point before I begin. Re Upton Family posting - Lac Le Jeune Road IS considered a highway. It still falls under the jurisdiction of BC Highways – at least until it gets to City of Kamloops limits. It used to be maintained by department of highways. It was around the time the Coq went in (1986) that the Hwy's dept began contracting out maintenance. Until then the road had been maintained by BC Hwys all the way to the Trans Can Hwy (inside City limits). For a time, it was maintained by the contractor TCH. At some [forgotten date], the City of Kamloops took over maintenance within City Limits. Some years ago, Highways resurfaced the road beyond city limits, as far up as Lac Le Jeune and onward, but the lower end was left to C of K to repair etc. The condition of the road within city limits has often been deplorable. Twice per year, spring and autumn, it is patched. Broken parts are replaced. It is rare that any foresight is applied and within 2 months there are new potholes and broken places to dodge as you drive up or down it. In 2011 several pieces were repaved, but the road is again in poor condition. This brings up another point regarding the mine and the road.	Project comment	General	n/a	n/a	General statement.	
1155	292	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	During the construction of the Coq Hwy there were a number of concerns with the hauling of large loads, the speed limits and the fact there are school bus stops en route. Children and bicycles frequent the area near and below the trailer park. Highways responded to complaints immediately and got their trucks to slow down, but it took nearly 3 years before the City investigated and reduced speed limits and posted school bus signs. When they did, one school bus stop sign was installed AFTER the stop location. This indicates little concern for the safety of local residents. C of K's slow response time investigating worried parents' reports about the safety of their children was shameful. Will the mine and the city be bouncing responsibilities back and forth, saying the other is responsible for problems that arise?	Project comment	General	n/a	n/a	Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR.	
1156	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (38 of 77) [2012-03-29 3:57:49 PM]^ The following are our questions and comments with regard to the Application for EAC by KGHM Mining Inc. Ajax Project. Section 2.2.2 Project Location Figure 2-2-1 referred to here, shows a red short dash line from the north, crossing Hwy 5 at apparently exit #366 to Lac La Jeune Rd and continuing south between the North WRMF and the strategic stockpile and past the truck shop and fuel storage area. There is no description on the legend as to what the line represents. No reply was received when I posed my question as to what this line represents by email to KGHM. What does this line represent?	dAIR comment	General	n/a	n/a	The red dashed line running in a north-south direction is the existing Kinder Morgan Pipeline. While this is included in the figure legend, it is not overly clear. This will be rectified in the next revision. The AIR will commit to including in the Application more illustrative and precise mapping. Sections 6 through 10 of the Application will include maps showing proximity to sensitive receptors for VCs.	
1161	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	f. at time of decommission and closure activities, how does KAM propose to ensure any existing court orders for compensation are complied with? And how does KAM plan to ensure any incomplete and/or pending law suits will be honored? Will this be a requirement of the AIR?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	

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1162	293	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	g. has socio economic baseline study been done on the demographics of the surrounding are, in order to facilitate the changes that will be needed in the KamPlan for the area if families with children and/or seniors move away? Will this be required by the AIR? h. what studies will be undertaken by KAM to assess the ongoing effects on the housing, health and wellbeing of the residents, particularly those in the Aberdeen, Knutsford and Pineview Valley of Kamloops, being the closest to the proposed project? Will the AIR require that such studies will be done at least at 3 year intervals? i. when will the results of the studies required under this section and subsequent studies be made public? Will this be set out in the AIR?	dAIR comment	General	Social	8	These issues will be assessed in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1172	297	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (35 of 77) [2012-03-29 3:57:49 PM]^ While I fully appreciate and understand the need for economic growth and job creation in our region, I share concerns expressed by many residents about the potential negative impact the Ajax Mine could have on the air, water and land in Kamloops. With so much at stake, it would seem reasonable to have more extensive environmental studies (at the very least) done - with the results communicated clearly and widely, as I'm not convinced the potential risks of land degradation, toxic water contamination and air pollution outweigh the proposed temporary economic benefits to the community.	Project comment	General	n/a	n/a	General statement.	
1173	298	27-Mar-12	Personal Information Withheld	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (34 of 77) [2012-03-29 3:57:49 PM]^ When the Greenstone Cherry Creek fires happened the forests were destroyed. Without trees to absorb natural water, there was a total shift in the ecology of the area. Ponds were formed where not ponds had been. Plant species changed as did animal species. There was a trailer park at the base of Greenstone that drew their water from a creek and had septic systems. Within a short time the trailer park was forced to close because the water table had risen so high it interfered with septic drainage. Residents were displaced. Anyone familiar with the Aberdeen area will remember the havoc that ensued when the condos on the hillside had their basements flooded. The ground shifted and walls cracked. This would be a continuing problem today had the City not installed wells to pump groundwater out of the area. Not only are there pine killed by disease which will already increase the amount of water run-off in the Aberdeen and Pineview area, the additional mega litres of water pumped from Kamloops lake will be far too much for Pedersen Creek to handle. Any drainage at all will become groundwater capable of destroying the hole hillside. Homes will be destroyed. Is Piesold prepared to put more wells in to reclaim the water? or will city tax payers be stuck with yet another bill. I am a consumer, and although not one of the biggest consumers, I have gold in my teeth and use electronic equipment. Therefore I have to be willing to endure some mining, but this is not the place for it. The people of Kamloops are being taken for a ride. This mine wants to come in and ruin one of the most beautiful areas in the province in trade for an easy job of mine building. Here they will have every amenity, nice homes while they live here and they can turn our town into the filthiest place and walk away. At minimum, they should pay Kamloops 10 years worth of projected profit before they even begin. At the end of the first 10 years they can pay for the remainder. They should be forced, in no uncertain terms to put up bonds far exceeded intended damage. Then, they can buy my home – because I can no longer sell it – and pay my cost of relocation. I will move away and they can do what they please. Kamloops will regret this!	Project comment	General	n/a	n/a	As stated in the AIR, background information presented for each VC will include available traditional ecological or community knowledge.	
1174	299	27-Mar-12	Personal Information Withheld	Lac Le Jeune, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (33 of 77) [2012-03-29 3:57:49 PM]^ I would like to know WHO the BC Environmental Assessment people are. At the 'show' put on last June, the woman who spoke said, "We are a private body...." No one seemed to catch that. I tried and tried to research the history of this supposed protection agency and every search led me back, under the umbrella of the province but I know these people are not government agents or employees. Wake up people. We need answers to these kinds of questions. I WANT TO KNOW WHO THEY ARE! I went to a Residential Tenancy Branch Hearing at the courthouse. The mediator representing the BC RTB turned out to be hired in Victoria. He was a family and divorce mediator who didn't even know the Tenancy Act (Law). It was a joke.	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1180	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	^http://www.eao.gov.bc.ca/pcp/comments/Ajax_Comments_March.html (15 of 77) [2012-03-29 3:57:49 PM]^ Proposed Ajax Mine Project Booklet Page 1 states that two documents will be submitted to the two different governmental levels (Application for Provincial EA certificate and Environmental Impact Statement to the Federal government). 1. Are these two documents the same? 2. If not will a copy of each document be delivered to both levels of government and if not why? 3. Will a copy of each document be delivered to the public and when will it be delivered? 4. If so will the public be able to comment to both levels of government on this document during the analysis and preparation of the next stages in the process? 5. If the copies will not be delivered to the public why is this process not being made transparent and why? 6. If valid concerns pertaining to public health, economic consideration or environmental concerns are discovered at this stage will the proponent be required to fully address these before moving on to the next stage if and if why not?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency. The majority of question/statements in this submission were duplicates of those presented in submission 130	
1181	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Page 3 states the EAO and CEA Agency will be require the proponent to provide responses on how the proponent has considered the issues and concerns 1. What does consider or considered mean? 2. Will a detailed answers be expected of the proponent or simply just advising the agency that they have considered the issues and will address theses in the rest of the process? 3. Will the proponent be stopped at this stage until they have resolved the issues and have provided answerers before they can continue in the process? 4. Will the public be made aware of the issues and concerns and if not why not? 5. If the proponent is not stopped at this stage for issues why are they aloud to go forward with the process?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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1182	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Page 6 states that the mines plan will be provided in sufficient detail to support the assessment of potential project related effects 1. Who determines what is considered sufficient detail? 2. At what stage in the process will the environmental assessment take place? 3. To what extent will assessment of the effects be measured and by whom? 4. Throughout the AIR/EIS documentation the term mitigate is used for dust suppression, noise mitigation and long-term health concerns, to what degree of mitigation is required and who determines and regulates the mitigation? 5. What are mitigation standards and what must be met, is the proponent just suppose to reduce it in some small way to show they have done something but in all actuality the issues remain the same with just a nice word attached to it? 6. What are the standards to which the proponent will be held and who is monitoring this? 7. How are the standards derived and who has set these standards? 8. What is the company's history in adhering to these standards? 9. If the standards are not kept in check are there any financial punishments? 10. What happens to the proponent if they don't maintain the standards?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1183	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Page 14 under the heading "Next Steps," the proponent states that once the air guidelines is approved by the EAO and the CEA Agency that the proponent must then collect all the information and prepare and application for further review. 1. By what date must this take place by? 2. Who will be the analysis of this application? 3. What role will the public be allowed to take in this process? 4. What role will the city of Kamloops be allowed to take in this process? 5. What role will federal and provincial ministries be allowed to take in this process? 6. Who will be involved in the "discussion of the effectiveness of proposed measures"	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1186	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Throughout the proponent documents, Abacus Mining Exploration (AME), states that it will provide most of the expertise in the extraction of minerals in the proposed mine, and KMGH is described as a financing partner. In the event that the presence of the mine causes negative effect, remedies for which must be sought in the courts, the people of Kamloops a right to know whether KAM has the resources to pay judgments or whether KMGH is carrying on business in Canada in a manner which will make it subject to the jurisdiction of our courts. 1. Under which corporation enabling legislation will KMGH operate, federal or provincial? 2. Will KGMH continue its incorporated structure into this province? 3. Will KGMH and KAM both be required to post bonds with the government to ensure proper reclamation? 4. Will KGMH and KAM be required to post bonds with the government to ensure proper compensation in the event that the mining operation result in environmental degradation or damage to property? 5. If so, in what amounts and by what process? 6. If not, why not? 7. Have any individuals (elected officials, ex- elected officials, current or past civil servants) with ties to the federal or provincial government, sought or been offered positions on the Board Directors of KGMH/AJAX or Abacus? 8. If so, who and when? 9. Have KGMH/AJAX or Abacus provided written prospectuses, statements of intent, financing statements, Appendices to all reports, assays or any other documents in support of the proposal, that have not been disclosed publicly or made available to the public? 10. If so, what are these documents and how do we access them? 11. Where are they located? 12. If documents as described in paragraph 2 (i) exist but have not been made available to the public, why have they not been disclosed?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1187	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	B.C. Environmental Assessment Office (AEO) An employee of the B.C. Environmental Assessment Office stated (at the public information session) that the provincial EAO has had its budget increased and that proper review and enforcement were now within the capacity of the EAO. When was this change made? Under what legislative enactment or order in Council was the budget and staffing of the provincial EAO increased? Since the auditor general's report was issued, please detail the amount was the annual budget of the EAO increased? How many additional staff have been hired and in what positions since the auditor general's report was issued? What training and qualifications is expected of all staff employees at each position of the EAO expected to have? How many of them will be staffed in Kamloops during the assessment process? What percentage of the staff in Kamloops will be new hires. If the mine is approved, how many of these employees will be permanently located in Kamloops? Given the extremely close proximity of the proposed mine to a school and residential development, in the event of non compliance in noise or threats to human health, will the EAO have authority to compel KAM to immediately cease production? Will KAM get fines? How many violations will happen before KAM gets a fine? If KAM gets shut down how many violations will have to occur to be shut down? Is there going to be a zero tolerance for violations because it is so close to a several schools and residential properties? If not, why not? If not, what provincial or federal agency has the authority to do so? How often is KAM going to be checked to see if it is working within the confines of their compliant agreement? Will KAM be aware they are being checked to see if they are compliant (i.e. surprise spot checks)?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1188	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Has the New Gold Environmental Monitoring Board done any monitoring since it was established? If so, please provide a summary document of the activities since it was established?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1189	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	If compliance cannot be achieved will the proponent be allowed to carry on mining? What is the standard that the EAO has set for noise? What is the standard that the EAO has set for dust? What is the standard that the EAO has set for arsenic in the air and at what distance from the mine is this set at? What is the standard that the EAO has set for chromium in the air and what distance from the mine is this set at? Will the air be tested at lower levels to see how the inversions impact the air quality and if it is safe for Kamloops residents? If sound has been compliant but the residents are upset about the noise pollution will the EAO look into changing their standards? If the dust is compliant but the residents are upset will the EAO look into changing their standards? Does the EAO work with the community of Kamloops and its residents?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1190	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Is the EAO currently studying any other large copper gold mine near large population centers to determine the effect of those mines upon lifestyle, health and property values? If not, why not? If property values drop in Aberdeen how does the EAO plan to remedy that?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1191	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	If the mine causes significant loss to quality of life for Kamloops residents through air, water, sound and property values who is legally liable? Is the EAO reliant on real world data to project dust clouds, dust contents and noise pollution? If not, why not? What similar mine is the EAO establishing their base model off of?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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1193	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	EAO and CEA (Page 8 states 6 factors are used for evaluating the significance of the effect of the proposed mine) 1. What are the criteria for low magnitude and high magnitude? 2. How was this established? 3. Who will be providing the data that is considered when determining the magnitude of the effect and from where will this be determined? 4. If the data is being provided by the proponent what measures are being taken to verify the data as being correct? 5. Will EAO do their own tests to verify the findings as being credible and if no why not? 6. The best way to do this is to do two studies and compare the results. 7. What span of time will these tests be done during and at what time of year? 8. If the tests do not encompass the entire 4 seasons why not? 9. How many locations will be a part of this evaluation and where are they? 10. Will this be made public and if no why not? 11. What testing methodologies will be utilized in determining the data? 12. If the mine is found to have an adverse effect what is the criteria that would stop the proponent from moving forward? 13. Is it possible to discover issues that would stop the proponent from mining? 14. Will this be transparent with the public and if not why not? 15. Is the proponent still at step number one, in determining the environmental effects of the proposed project? 16. Will this information be included in the actual application and will it be made public? 17. Will the mitigation measures in step number 2 also be included in the application submitted by the proponent and what degree of study is expected in order to determine the effects of the project in step number 3? 18. Over what length of time will the EAO measure the environmental effect and the mitigation measures proposed by the proponent and if less than a year which months will be measured? 19. What independent data will be EOA rely upon? 20. What data will be required of the proponent to determine the cumulative effect in step 6? 21. What will be the source of information required for step 5? 22. In step 5 will there be detailed data of the current particulate and toxic elements in Kamloops airshed, caused by automobiles, home heating and by light and heavy industry currently located in this community and if not why? ...continued ... 23. The "residual cumulative effects" in step 9 will the mitigation measures be the same as those in step 2? 24. If the mitigation measures used in step 2 and 8 are the same what prevents the proponent from using the mitigation measures twice? 25. Over what period of time will the assessment continue, since the client has yet to submit the application? 26. Will all interested members of public and the City Council be able to participate in this process, and if now why not? 27. If No who will be consulted to represent the residents of Kamloops best interest? 28. When assessing direct and indirect in step 1 will indirect effects include reduced property values and lifestyle issues of the Kamloops people and if so how will this be measured	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1194	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Environment (Page 9 identifying and analyzing project construction, operation, decommission and then the closure.) Is the information provided solely by the proponent and how will the EAO ensure it is complete and accurate? 2. Who are the "qualified professionals" who will collect the data and who will be their employer? 3. How long will the data be collected over and if less than a year over which months will this data be collected? 4. If the data is collected less than a year how can the data detail the effects of the mine in all seasons and in all weather conditions? 5. If the qualified professionals will be seeking knowledge from "potentially affected First Nations", will they also be seeking information and consultation with the community of Kamloops because of the closer proximity to the mine? 6. If not, in what scale will Kamloops residents be taken into consideration in relation to the First Nations? 7. If there will not be consultations with members of the Kamloops community, why not, having regard to their constitutionally entrenched rights to be treated equally, as articulated in section 15 of the Canadian Charter of Rights and Freedoms? 8. If Kamloops residents are consulted as is entrenched in our Charter of Rights and Freedoms at what stage of the assessment?	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	
1195	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Federal Scope 1. Please confirm in writing, that in respect of supervision, inspection, protection and recourse to legal remedies, KGMH and Abacus will be held, at a minimum, to standards as strong as those articulated in the Canada -Chile Agreement on Environmental Cooperation and without limiting the generality of the foregoing, to Articles 3, 4,5,6 and 7, which assure the right to legal recourse for damages caused by mining activity? 2. If standards as strong as those articulated in the Canada-Chile Agreement are not contemplated as a mechanism for protection of the health, safety and recourse to legal remedies by the citizens of Kamloops, please provide details of the level of protection that will be provided and the manner in which compensation will be assured.	Project comment	General	n/a	n/a	Comment has been referred to EAO and CEA Agency.	
1199	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	17. How many of the proponents environmental assessment officers or consultants live in Kamloops? 18. If not all live with in Kamloops where are they located?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1202	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	44. What are the dimensions of the coarse ore stockpile? 45. How many tonnes per day of the tailings each will be produced by the rougher regrind and cleaner regrind circuits? 46. What is the TSF constructed out of? 47. What compounds are used and how it is constructed? 48. Will the outer rim of the tailings facility be built up as the tailings are added? 49. If so why?	Project comment	General	n/a	3	This information will be provided in the Application/EIS.	
1209	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	3. If not how do you justify the taxpayer providing this subsidy to a foreign company and how much will this bill cost us? 4. BC Hydro is forced to purchase power at 12.4 cents per kWh because there is not enough power created in BC so what will KGHM be paying per kWh? 5. If this is being subsidized by us the tax payer why? 6. Will this subsidy be made public to how much we are paying per month, per year and if not why not? 7. The Abacus Feasibility study cites the cost of power to the project of 3.5 cents per kWh. If this is the cost of BC Hydro energy to Ajax, why should the taxpayer subsidize the proponent's energy costs? If you take this subsidy and apply it against the tax collected under the BC Mining Act, the subsidy is greater.	Project comment	General	n/a	n/a	The Application/EIS will include details regarding government incentives/subsidies.	
1210	302	27-Mar-12	Lori and Mike Maloney	Kamloops, BC	Closure and Reclamation 1. How much will the bond be? 2. How is this value determined? 3. Will the bond be paid to the residents if they lose their equity they have built up in their homes through reduced sales prices? 4. Will the bond be paid to residents if they acquire cancers or respiratory issues from breathing the particulates in the air? 5. If not what government body or business the mine is operating under is financially responsible? 6. Will the rock piles be removed and have the rocks returned to the hole they came from? 7. Why not? 8. Wouldn't it be better to return Kamloops topography to what it was? 9. If not why not? 10. If the rocks are not removed why would the eye sore be left (as a reminder of the mine as it will not fill in with soil and have trees planted on it one day)? 11. How are these rock piles stabilized so that people or animals don't get hurt? 12. How is the open pit being made safe so that people or animals don't get hurt? 13. The trees that were logged from the site will they be replanted? 14. If not why not? 15. Don't the trees hold the soil in place so that the winds cannot strip the earth of the top soil?	Project comment	General	n/a	n/a	The reclamation bond amount is typically based on a reclamation plan and associated cost estimate approved by the Ministry of Energy and Mines. Effects pathways will be included in the Application. Mitigation and monitoring strategies will be proposed as part of the assessment, as described in the AIR. A conceptual Reclamation and Closure Plan will be included in the Application/EIS. The Application will include discussion of mitigation measures the Proponent will commit to taking to avoid or minimize significant adverse effects.	

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1216	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will there be a constant monitoring system in place as the mine progresses, and a contingency plan put in place if public health and existing infrastructure is threatened?	dAIR comment	General	Health	10	Human health will be assessed in the Application/EIS. Please see the AIR for a description of the environmental management system, including the monitoring and management plans, and follow up programs to be implemented	
1219	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	Will there ever be a 3d model of the mine at it's maximum predicted life span?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
1221	303	27-Mar-12	Personal Information Withheld	Kamloops, BC	Where is the unrefined ore being shipped to and how will it get there?	Project comment	concentrate transport	n/a	3	This information will be provided in the Application/EIS.	
1223	305	4-Apr-12	Kenneth Graf	Kamloops (Aberdeen), BC	08/02/2012. I am a resident of Kamloops since September 2009 and live in the Western Aberdeen area. I attended an earlier open house hosted by KGHM Ajax Mining Inc. and more recently the public forum held on February 6 and 7, 2011. It is also worth mentioning that I did work in mining for 28 years in both North and South America and do have a understanding of mining operations. I have had the opportunity to listen to and read many concerns raised over the proposed Ajax mine over the past several months. Well attending the February 2012 public forum I was very impressed with the level of expertise and detail provided by both the Federal and Provincial Governments in all areas of environmental considerations. This combined with the consultants from private companies focused on water management, slope stabilization, rock mechanics, blasting technology, geology of the ore body as well as management from KGHM Ajax available to discuss operational details of the project provided the public with an opportunity to raise their questions in an open forum with the necessary expertise to answer them. It was also an opportunity to talk to and hear the concerns of other residence of Kamloops. There are a lot of varying opinions on the benefits of and/or against the mine in saying that the public forum did allow open participation for all concerned citizens. I left feeling very confident in the process, detail and transparency of the joint Comprehensive Canadian Environmental Assessment Act. Questions that I have:	Project comment	General	n/a	n/a	General statement.	
1230	305	4-Apr-12	Kenneth Graf	Kamloops (Aberdeen), BC	In closing I am confident in the work being done by all parties involved in the environmental process and feel that all citizens are being given the opportunity to provide their input in an open transparent evaluation of the project. Well done!	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
1242	309	4-Apr-12	Christine Casorso	Kamloops, BC	06/02/2012 I am an extremely concerned citizen of Kamloops BC. My family and I moved here two and a half years ago, to a city we felt was an example of a healthy outdoors community. I am a registered nurse who is employed by RIH and my daughter goes to Pacific Way School in Aberdeen. We bought a house in Aberdeen close to what would be our children's school and abundant green space. We never in our wildest dreams imagined we would be faced with the prospect of an open pit mine within a few kms of our child's school and our home. We would not have purchased here if that was the case, we may in fact have not moved here at all. My husband and I are extremely concerned about the effects this mine will have on our lives here. Here are our concerns:	Project comment	General	n/a	n/a	General statement.	
1246	309	4-Apr-12	Christine Casorso	Kamloops, BC	Who monitors these areas once the mine is in place? How often will they be monitored?	dAIR comment	General	Environmental	6	Monitoring requirements will be outlined in any licences, authorizations and approvals that must be obtained prior to project construction and operation.	

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1250	309	4-Apr-12	Christine Casorso	Kamloops, BC	Has there been studies on the increase in respiratory illness and other illnesses in other cities close to existing mines? How is any increase considered acceptable? Have there been studies done on the increase in the use of medical resources in cities close to mines? Are those increases related to mining near those communities?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1251	309	4-Apr-12	Christine Casorso	Kamloops, BC	Have there been visits to cities next to mines to see the effects they have? What is considered acceptable risk?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1252	309	4-Apr-12	Christine Casorso	Kamloops, BC	We are being asked to risk the health of our families and our economic wellbeing for this mine with very little reassurances that we will be safe. The information on mines I have studied suggests nothing good will come from the mine being positioned this close to the city. I do not want to be a statistic later on once the mine is in production and there are significant issues and we need lawsuits to deal with them. The supposed benefits of this mine cannot compete with the detrimental side effects and long term issues this city will face.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1253	309	4-Apr-12	Christine Casorso	Kamloops, BC	I am afraid the existence of this mine will cause me and my family to consider moving from a city we love and a house and school we love to somewhere else. We have been discussing this already and I am sure we are not the only ones.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1254	309	4-Apr-12	Christine Casorso	Kamloops, BC	So please when you consider this proposal from Ajax, consider that you are asking us to put our faith in an industry that should never exist so close to a city. You are asking us to risk our children's health and safety. How we even got here is baffling there should be protocols in place to ensure these types of industries are not within a cities limits. Ajax gets to leave here in 23 years, their focus is on making money, they are not the ones living here. I wonder if they would even consider living next to a mine?	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1255	310	4-Apr-12	Jennifer, Adaptive Glass		08/02/2012. I am writing in support of Ajax mine. I firmly believe that this project will be good for our community, and that Ajax will be a good neighbour to all Kamloopsians. Aside from the jobs created directly at the mine, the economical spin offs will be vast. My husband owns and operates a mobile glass company. One of the things we do is service heavy equipment, and there is a possibility that we could benefit from the mine personally by replacing glass for them. This is just a small example, but not the only potential company that would benefit from Ajax. One of the other comments tossed around is that Ajax will change Kamloops' perception to a mining town from tournament capital. To that I say Kamloops is a diverse, and unique city, that is more than capable of accepting the mine, and maintaining the prestigious image we currently hold. Simply having a mine in the city does not overshadow everything else. I thank you for your time, and hope that Ajax will be given the opportunity to live up to their word, and prove the nay-sayers wrong!	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
1260	311	4-Apr-12	Leonard Piggin (Kamloops Fly Fishers)	Kamloops, BC	I would also like to state that I'm in favour of the proposal.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
1261	312	4-Apr-12	Donovan Cavers, City Councillor	Kamloops, BC	12/02/2012. Dear EAO representative, I have several common concerns associated with the proposed Ajax mine near Kamloops. I am sure you have been receiving a tremendous number of submissions as the citizens of Kamloops are extremely nervous given the proximity of this project to our community. My personal concerns are the following: <ul style="list-style-type: none"> Given the unique positioning, relative to a dense urban population, does the provincial minister/ministry of health have special approval and/or denial privileges over this mine proposal? 	EAO/CEA Agency Process Comment	General	n/a	n/a	Comment has been referred to the EAO and CEA Agency.	

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1264	312	4-Apr-12	Donovan Cavers, City Councillor	Kamloops, BC	• Where has a mine of this scale been excavated in Canada within 2km of a healthy dense urban population? Did any problems occur?	Project comment	General	n/a	n/a	Where relevant, the Application will include reference to existing mines near urban centres.	
1267	312	4-Apr-12	Donovan Cavers, City Councillor	Kamloops, BC	Our Sustainability & Environmental Services Manager, Jen Fretz, submitted an in-depth list of questions and concerns in July of last year; I am also looking forward to your responses to those questions.	Project comment	General	n/a	n/a	The issues identified in the letter from the City of Kamloops have been addressed through the Technical Working Group, of which the city is a member.	
1273	314	4-Apr-12	Tony Danford		13/02/2012. I would like to know if the impact on air travel to and from Kamloops has been considered in regards to the proposed Ajax mine in Kamloops B.C. As I have noticed that Aircraft depart and arrive in over the Aberdeen area. One of my areas of concern are the blasting and the effects on departing and arriving planes. Is this going to restrict air travel during certain period(s) of day? Will this cause the airlines and general aviation increased fuel consumption etc. for having to avoid the mine site? Will the increased height of the tailings piles above the current level adversely affect air travel and general aviation, by aircraft having to maintain a minimum height above ground on approach and while departing. Or will they have to go around thereby increasing their fuel burn and flight time. Thank your for you consideration on these matters.	Project comment	General	n/a	n/a	Economic diversification has been identified as a VC in the AIR; airline companies serving the Kamloops Airport will be included in the socio-economic impact study. Effects on safety for air travelers and airlines will be assessed.	
1280	317	4-Apr-12	Freya Nygaard		18/02/2012. 1. What methods will Ajax Mining Inc. use to catch and relocate every single animal, including birds and fish, and insects that inhabit the area of the purposed mine location, when local conservation officers cannot even catch the bears here? If the company is successful these creatures, where will they be relocated to? 2. Will Ajax Mining Inc. relocate the local plant and tree life that grows in the area that Ajax Mine and it's corresponding facilities purpose to build upon?	dAIR comment	General	Environmental	6	The Application will include the assessment of potential effects of the Project on wildlife VC, mitigation strategies proposed and assessment of residual effects. Mitigation measures may include relocation of wildlife prior to project development, depending on the species and site conditions. Stockpiling of vegetation will be outlined in the conceptual reclamation plan to be included in the Application/EIS.	

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1281	317	4-Apr-12	Freya Nygaard		3. If any of our locals become sick, due under any circumstances found to be caused by the Ajax Mine and it's operations, such as lung disorders from the toxic dust or poisoning from a chemical leakage into our drinking water, will Ajax Mining Inc. fully compensate those affected? If a large amount of people become ill, will Ajax stop mining in our city? 11. What are the health effects that will following living for a prolonged period of time near a mine site? (Ex. 1.5 kilometres, the distance the mine will be from the city of Kamloops.)	dAIR comment	General	Health	10	Human health will be assessed in the Application/EIS.	
1285	317	4-Apr-12	Freya Nygaard		12. By buying out the property of the Sugarloaf Ranch, how does that support the local ranching businesses near Ajax Mine? Why did the company buy the Sugarloaf Ranch property?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1286	318	4-Apr-12	Personal Information Withheld	Kamloops (Aberdeen), BC	27/02/2012. We are concerned residents of Aberdeen who feel the proximity of the proposed Ajax mine is too close to the residential area. Our concern is noise, dust, visual effects and the probability of increased ground water problems. Aberdeen area has a history of ground water problems and this proposed mine could result in future problems. We also concerned with blasting noise and as our home bedrooms would face the mine area, would our sleep be disturbed on a nightly basis? We are also concerned with the future of Jacko Lake and Petersen Creek and the beautiful rolling grasslands that surround this beautiful area of Kamloops. We feel the proposed mine would be blight to the natural beauty of this area. Where else in Canada is a mine proposed in such close proximity to city (residential) boundaries? Please consider this proposal as detrimental to our beautiful city.	Project comment	General	n/a	n/a	Please see the AIR for the studies proposed to assess the potential impacts of the proposed project on the urban and rural biophysical, social, and economic valued components. Results will be presented in the Application.	
1287	319	4-Apr-12	Jim Young		28/02/2012. I attended the open house in Kamloops earlier this month. I fully support the mine proposal, I trust that the minor concerns over dust, noise and visual can be addressed efficiently in order to allow the development of this project. The city and province need the revenue. My primary concern is the smelter to produce copper should be built here in BC or Kamloops where progressive environmental standards can be implemented which will produce additional jobs, revenue for our province, city etc. Why is this being considered an additional option for this project?	Project comment	processing facility	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
1289	321	4-Apr-12	Carol Madryga	Merritt, BC	02/03/2012. I would like to recommend that we not allow a mine to be developed on this site. These are grasslands that once we lose we can never retrieve them. The site is far too close to housing developments, schools and local areas which people walk, ride bikes and enjoy the environment. Jocko Lake and Inks Lake are very well used recreational sites for fishing, skating, hockey not to mention the numerous waterfowl that inhabit the lake. I think a major mistake would be made by allowing a international company to come in and rape our countryside and ruin the air that we breathe and the flora and fauna that are so vital to the many animals that abide there. It is bad enough having Highland Valley Copper site in our area without ruining another. It doesn't matter how much reclamation is practised, the damage is done for a lifetime. Look at the Yukon for example. Our quality of life can't always be measured by what is in our wallets.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1297	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	As a vested stakeholder in the health and well being of Aberdeen we appreciate the ongoing dialogue regarding input and feedback during the review process. As part of this opportunity we have realized that some further questions have arisen that should also be included in the draft AIR for assessment. They are as follows:	Project comment	General	n/a	n/a	General statement.	

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1298	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	1. Completion of a 3D model. We were extremely disappointed that the model was not available at the open house for people to visualize the scope and potential impacts of the project. This model would have allowed for additional questions and or concerns that could be addressed during this review stage. We would expect that as part of the next open house that a 3D model be produced for public viewing.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	
1302	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	5. In addition to the socioeconomic impacts, there is also the loss of a non-renewable resource and any compensation that will be made for such. The subject of revenue sharing with the local region needs to be addressed to ensure a proper cost benefit analysis to the community can be made.	dAIR comment	General	Economic	7	A cost benefit analysis approach will not be used. Instead, we will be using a socio-economic impact assessment approach. The Application/EIS will discuss estimated annual government revenues from the construction and operation phases of the proposed Project, including local/municipal property taxes and regional district taxes.	
1304	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	7. As part of a macro review of the financial feasibility of the proposed mine the draft AIR does not address the value of incentives the proponents will receive from municipal, provincial and federal governments or crown corporations. A section should be allocated to the disclosure of any and all grants, subsidies, incentives applied for, promised or given to ensure a full understanding and evaluation of the actual viability of the project on its own merits in relation to the adverse effects expected.	dAIR comment	General	Economic	7	The Application/EIS will include details regarding government incentives/subsidies.	
1306	322	4-Apr-12	Personal Information Withheld	Kamloops, BC	Although we have tried to review the entire draft AIR, we give notice that we have not had the opportunity to review and assess all aspects of the AIR given it's size and scope, however a cursory review brings us to the belief that the proponent has done a good job in documenting most of the concerns that people have voiced and is agreeing to assess them. We are sure once the assessments have been completed that there will be additional questions or concerns, we hope that once they are completed and available for review that adequate time frames will be allotted for the review and assessment of the massive amount of material that will be compiled. Aberdeen Highlands Development Corp. looks forward to our continued dialogue. We would appreciate acknowledgment of this letter as we do not have record that our June 11, 2011 letter was received by your office. Should you have any questions or require any clarification of the above please feel free to contact us at 250-828-1676.	Project comment	General	n/a	n/a	Statement of support - Out of Scope of the AIR/EIS Guidelines.	
1307	323	4-Apr-12	Personal Information Withheld		05/03/2012 Main issues: Requesting the proponent be required to provide 3D modelling and mapping for the proposed mine. 2D maps do not give the average citizen the scale or mass of the proposed mine. There should be 3D handouts showing views as follows: driving towards Kamloops on the Coquihalla Hwy, sitting in a boat on Jacko Lake, diving west on Goose Lake Rd, cresting the hill, on foot, from the Aberdeen housing area.	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines. A 3D physical model is available for public viewing at the KGHM Ajax Office in Kamloops.	

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1308	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		<p>11/03/2012. Overarching Comments</p> <p>1. Tailoring Environmental Assessment Process to Urban Setting.</p> <p>This environmental assessment review process is for a resource extraction project, the kind which typically takes place in remote areas. However, in this situation it will be taking place within and adjacent to an urban setting that has a sound economic base. As such, the environmental assessment needs to be tailored to this unique situation. To do this, it is of primary importance to account for the desire of the City of Kamloops' citizens to have this development within their community. This issue is not explicitly tackled in the AIR/EIS Guidelines document (AIR) and needs to be. It is hoped that the environmental assessment process will provide the information that the community is seeking to evaluate. However, missing is the subsequent step whereupon after having time to review all of this information, the citizens are then asked what their vote is as to if they want the mine in their community or not. The close proximity of the development, and its legacy of open pits and towers of wasterock, will change the identity of the City forever. It is very important to include in the decision on significance of this mine, the community's vote. To this end, a vote of the City of Kamloops residents paid for by the proponent should be built into the AIR, with a rigour of oversight similar to a municipal election and the wording approved by the community to ensure the question is very clear and binary (Yes/No).</p> <p>Secondly, to enable the community to make this informed decision, the information generated by the company needs to be provided in terms that the community will readily understand. For example, defining what the current state is (baseline) and then making comparisons to this in familiar terms will be more helpful than solely making projections against likely unfamiliar standards. See comments below under noise for a specific example. Another example is using visuals, which convey a lot of information rapidly. On this subject, where are the 3-dimensional models of the project? There should be a number of them located in readily accessible areas throughout the community.</p>	Project comment	General	n/a	n/a	Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	
1309	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		<p>2. Background information</p> <p>Throughout the document, for various valued components (VC) e.g. surface hydrology, amphibians, Rare and sensitive ecological communities, reptiles, migratory birds, raptors, other birds, non-migratory game-birds, mammals, etc. the document states that background information will include community knowledge relating to the VC "where available". The proponent should avail themselves to gaining this information in a readily accessible and transparent manner. A recommended approach is for the proponent to set-up a well publicized web-site where all of these topics can be announced for consultation well in advance, and knowledgeable parties can then self-identify to the company so that interviews can be undertaken.</p>	dAIR comment	General	Environmental	6	The proponent has been in consultation with local community groups to gain any anecdotal information. KGHM would welcome any additional input - they can be contacted directly at their office in Kamloops or via their website http://www.ajaxmine.ca/ .	
1310	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		<p>3. Justification for Inclusion of Various Species as Part of Animal and Plant VC</p> <p>The document notes "Justification for inclusion will be based on one or more of the following-public or other stakeholder input;" I'd like to see an analysis of the impacts on all of the animals listed within the AIS, plus the following which are not listed but present snowy owls, moose, black bears, bobcats, deer, grouse and blue-birds.</p>	dAIR comment	General	Environmental	6	A variety of wildlife surveys and rare plant surveys have been completed across the study area. Survey results will be reported in the Project Application/EIS.	The use of VCs in environmental assessments is standard practice; common, widespread species are generally not selected as VCs, due to the absence of any measureable endpoint for the assessment.
1311	324	4-Apr-12	Heather Stalberg and Barry Rosenberger		<p>4. Determining Local Study Area Boundaries.</p> <p>For many of the animal VCs, 500 meters around the development site is the local study area. Wouldn't it be more relevant to determine the boundary based on the range of the effect, whether that be dust, increased traffic, noise, to do full accounting? For example, if blasting noise is projected to carry 5 km, shouldn't the local study area be defined as 5 km around the development site?</p>	dAIR comment	General	Environmental	6	Potential effects on environmental parameters will be assessed in Section 6 of the Application/EIS.	The rationale for the size of the study area boundaries will be presented in the Application; these will vary by VC and project interaction effects.
1323	325	4-Apr-12	Paul Handford	Kamloops, BC	<p>12/03/2012 The proposal to operate an open pit heavy metal mine anywhere close to a city is prima facie absurd, and should be rejected a priori. The documented global record of such open pit mines is generally appalling, even in lightly-inhabited regions, with the following included among common consequences:</p> <ul style="list-style-type: none"> • serious degradation of air quality through the projection of very large quantities of toxic fine particulate matter into the atmosphere pursuant upon blasting, • serious contamination of groundwater in similar fashion, commonly with massive downstream impacts on vegetation and animal life, including humans and their livestock. This is a long term problem, often lasting much longer than the active life of a mine. • the mining process demands massive quantities of water for its processing of ores and yet Kamloops is already a water-stressed community within an arid/semi-arid climate regime (it receives less precipitation than Tucson Arizona!) • the short-term and long-term impacts of all this will include direct depression of real-estate values and the probable defection of some substantial fraction of potential student enrolment in Thompson Rivers University, currently an important and growing sector of the local economy as parents opt to send their children to universities that do not sit beneath an invisible cloud of toxic dust. <p>I would strongly urge all authorities to deny this Ajax Mine proposal; though it may offer the prospect of some short pulse of employment and revenue in the region, a such benefits pale into insignificance when compared to the costs that will continue to be paid long after the mine owners and operators are but a distant memory.</p>	Project comment	General	n/a	n/a	Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	

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1324	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	12/03/2012 Overview: 1. Given the fact that the proposed mine will destroy 10 square miles of diverse and productive native grassland, physically impact another two to five square miles, and aesthetically impact an additional 20 square miles of grassland, it is critical that the proponent present a reasoned, researched and believable proposal for compensation of this area. The amount of the security deposit and annual security (section 3.18) must be sufficient to compensate for the full scope of the damage done. Purchasing conservation covenants on several large ranches and other key areas, in addition to enhancements to grasslands that are accessible to the public might be a start.	Project comment	General	Environmental	6	This information will be provided in the Application/EIS.	
1326	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	3. A three dimensional physical map and model showing the area from Michels to Batchelor to Sun Rivers and all of South Kamloops, including west of Rose Hill Road, is a bottom line requirement and should be completed by 30 days past the end of this public consultation period (by April 27, 2012)—our group and many others have been requesting this modeling be completed since June 2011. It must include the boundary of the City of Kamloops and should be of a usable scale, suitable for determining, using a string, the sight zone from various neighbourhoods (section 2.2.5).	Project comment	General	n/a	n/a	A 3D model is available for public viewing.	
1328	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	5. The air quality study (section 6.1) and groundwater study (section 6.5) methodology needs to be endorsed by at least three independent and qualified authorities, to ensure that some of the assumptions made (such as the Ajax assertion that the wind blows towards the development from the City of Kamloops) are appropriately vetted.	Project comment	General	n/a	n/a	The Application/EIS will be submitted to the EAO and CEA Agency for review and approval by the relevant provincial and federal experts. The information will be available for public review and comment.	
1330	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	2.2.5 Environmental Management System and Adaptive Management Approach: As the proponent will be undertaking an adaptive management approach, it is critical that baseline information be collected in as rigorous and transparent a manner as possible prior to the any activity occurring in the site plan area to effectively assess the project's impact. These data should include:	dAIR comment	General	n/a	n/a	This information will be provided in the Application/EIS.	

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1338	326	4-Apr-12	Amber Cowie, Jean Crowe, Don Trethewey	Kamloops, BC	3.4.1 Pioneering Work Proponent must develop a plan to ensure that the pre--production stage of the mine does not interfere with breeding of migratory birds or other sensitive cycles of resident fauna.	dAIR comment	General	Environmental	6	The potential effects of each phase of the Project on wildlife will be described in the Project Application/EIS, as well as mitigation measures and residual effects.	
1372	329	4-Apr-12	Personal Information withheld		7. I would like to ensure that the environmental management plan encompasses invasive species. As mentioned, material will be shipped from Kamloops to Vancouver to Japan. The vehicles (trucks and shipping vessels) used to transport this material are potential vectors of invasive species spread (not only between Kamloops and the Lower mainland but Japan as well).	dAIR comment	concentrate transport	Environmental	6 11	A Wildlife/Vegetation Monitoring Plan will be developed and will include invasive plant management measures.	
1373	329	4-Apr-12	Personal Information withheld		8. I am wondering if the tailing ponds and waste facilities will emit odors. I am concerned that this odour will be carried into our neighborhood.	dAIR comment	TSF waste rock management facilities	Social	8	Potential odours associated with the tailings storage facility or the waste rock management facilities will be discussed in the air quality assessment. Odour would be considered in so far as some of the ambient air quality criteria may be based on odour.	
1385	332	4-Apr-12	Personal Information Withheld		19/03/2012. The proposal to establish the Ajax Copper-Gold Mine on the perimeter of the City of Kamloops is of importance to Kamloops is an extensive operation that will directly impact the city and citizens of Kamloops. The fact that it is located in and next to the City of Kamloops contributes to both the local benefits as well as the potential detrimental impact. Economic development of the region is important for sustainability as a viable community. According to the proposal, the mine will contribute to the economic growth of this region and city for approximately two decades. This is promising, however there are also difficult issues that must also be fully addressed: What is the environmental and health debt that will be born by the citizens of Kamloops and the region? As such, I ask the EAO and CEA to ensure that the assessments of health and environmental impacts have the appropriate prominence in the decision making process. What is also of concern is that current best practices in the mining sector may be insufficient to fully anticipate and mitigate the negative health and environmental ramifications of expanding the mine in such close proximity to the city. Some of these may be irreversible on both an individual and community level.	EAO/CEA Agency Process Comment	General	n/a	n/a	General statement. Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.	

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Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
1390	332	4-Apr-12	Personal Information Withheld		<p>C. Examples of current best practices in the mining sector: I would expect to see that the proposal and environmental assessment incorporate lessons learned based on the review of similar mines in, BC, Canada and other parts of the world. Such tangible examples should be required to inform the process and illustrate existing methodologies, viability of mitigating practices as well as short and long-term benefits and consequences.</p> <ul style="list-style-type: none"> • Is there a requirement for both the company and the environmental assessment to provide concrete examples of similar mines (in similar contexts) that can specifically illustrate the best practices that will be employed? • It is important that there is full disclosure regarding any limitations regarding the mitigation of anticipated impacts. General statements regarding theoretical intentions without the concrete illustration of existing practices and available technologies should be considered insufficient. • In situations where mines are located in close proximity to the population and visible to the city, the assessment needs to incorporate a realistic account of any direct impacts based on existing examples. What is the opportunity cost to this community? 	Project comment	General	n/a	n/a	Examples from existing mines will be provided where relevant.	
1391	332	4-Apr-12	Personal Information Withheld		<p>Conclusion: I am writing as a concerned citizen. I have listened to the discussions and presentations. These have left many unanswered questions. I moved to Kamloops two decades ago and have been impressed with its growth and community spirit. The city has evolved and is now well known for its university, tourism and emphasis on sports and health (the Tournament Capital) in addition to its industrial and agricultural roots. It has much potential to continue to attract clean business and industry. There is need for continued economic stimulus and this proposal to expand a copper and gold mine in such proximity and visibility to the city appears to potentially promise short-term economic growth at the risk of short and long-term health and environmental impacts. As such, I add my voice to those who are asking that the Ajax proposal and environmental assessment extensively and tangibly address the environmental and health impacts. The assessment must be thorough as well as utilize state-of-the-art methodologies to ensure the integrity of the data, conclusions and recommendations. I sincerely thank you for inviting community input.</p>	Project comment	General	n/a	n/a	General statement.	
1392	333	4-Apr-12	Personal Information Withheld		<p>19/03/2012. In regards to the Environmental Assessment that what (is) done for the proposed site of Ajax Mine, I would like to stress the importance of also considering the social environment. I was taught in Environmental Issues that there are multiple pillars to the Environment (social, political, economical, and physical). It appears to me that this Assessment only touches as far as the Physical? Is that incorrect? You are talking about developing in a city, cities which are made up of people, of which are social. Any new introductions into the environment are going to change this social structure. Maybe some get rich, maybe some lose the value of their house, maybe some lose the longevity of their crop land, maybe some lose their lives (seems a little drastic). A proposal such as this positions people against one another, separating people to sides (for or against). If it were to go through, years down the road after the site is developed, people are still gonna remember that Mr. and Mrs. Smith down the road voted yes and that is why their house can no longer sell. When the air quality gets worse than it already is (and I can tell as a walker of the city it is not pleasant) there will be someone to blame. And that blame will divide the people of Kamloops. Those that are For might think that it will but a few more bucks in their pocket, but they are only thinking of themselves here. When someone gets rich, another becomes poor; these developments only increase that gap between us. And when all the money is dried up? Than what? What will we proved that we gained. As a student of Thompson Rivers University, I strongly oppose the Ajax Mine site. Why is it that we are continuously investing money into things that will eventually run dry or deteriorate? Why is it this money is not going into our education, a true provider for the future that will pay off ten fold when you teach a child, or a teenager, or an adult the value of themselves as a individual? Why are we not empowering our youth rather than smogging their eyes? How may children are asked how they feel about this development, should they not be consoled, there are the ones that will be here to clean up the mess aren't they? How shall we explain that rather than built them a new library or preserve a park for them, we built a mine? If this project was to go underway I would be embarrassed to continue my education here, and support any community that is counterproductive such as this. To build a school and then take out the air supply. Down with Ajax Mine!</p>	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1393	334	4-Apr-12	Personal Information Withheld		<p>16/03/2012. I am writing to take a stand AGAINST the proposed Ajax Mine in the city of Kamloops. I believe there should not be a mine site so close to such a large city population and that the mine does not fit with the vision for the City and all the work done by city planners in recent years to create a focus on academics, on culture and on sports. I am concerned about the noise from blasting that will disturb the people of Aberdeen (1 do not live there). I am concerned about the metals that will be carried in the dust created by the mine and inhaled by much of the population, possibly creating respiratory problems. I am concerned about the loss of lakes and of grasslands and the wildlife this will displace. I am concerned about the huge amount of electric power it will require to run this mine. But, most of all, I am concerned about the water that will be drained from existing rivers, lakes and creeks for use in the mining process, and that the disposal of the used water will cause pollution of the water shed and subsequently the Thompson River one of the world's major salmon runs. I am distressed that our three levels of government seem to be looking at the short-term gains of such a project and avoiding the consequences that we will face when they are no longer in office.</p>	Project comment	General	Environmental Social	6 8	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1397	336	4-Apr-12	Personal Information Withheld		<p>3. What proof will Ajax provide to ensure the contamination of groundwater will not affect adjacent wells and fish in our lakes and rivers?</p>	Project comment	General	n/a	n/a	Please see the AIR for a description of the studies proposed as part of the baseline program and the methodology to be used for the effects assessment.	
1398	336	4-Apr-12	Personal Information Withheld		<p>4. What price per kilowatt of electricity will Ajax pay to BC Hydro?</p>	Project comment	General	n/a	n/a	The Application/EIS will include details regarding government incentives/subsidies.	

AJAX PROJECT
AIR/EIS Guidelines Public Comment Tracking Table

Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
1399	336	4-Apr-12	Personal Information Withheld		5. Who will pay for the new hydro transmission line to the site?	Project comment	transmission line	n/a	n/a	The proponent will be responsible for the project transmission line.	
1408	336	4-Apr-12	Personal Information Withheld		14. What monitoring of mine workers and nearby children's blood, urine, and hair analysis will occur if the mine is approved ?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1409	336	4-Apr-12	Personal Information Withheld		15. When will the City of Kamloops receive a reply to their letter of July 11, 2011 authored by Jen Fretz?	Project comment	General	n/a	n/a	The issues identified in the letter from the City of Kamloops have been addressed through the Technical Working Group, of which the city is a member.	
1411	336	4-Apr-12	Personal Information Withheld		17. How will the proponent convince the citizens of Kamloops that there will be no detrimental health impacts from the mining activity, including noise, vibration, dust, groundwater contamination, etc.?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1414	336	4-Apr-12	Personal Information Withheld		20. What comparative studies and precedents of mines in very close proximity to residential areas have been found, and what are the results of those studies, as typically, mines do not built on site housing for their workers for obvious reasons?	Project comment	General	n/a	n/a	Where relevant, the Application will include reference to existing mines near urban centres.	
1431	338	4-Apr-12	Personal Information Withheld	Kamloops	Foreign Ownership: • How much money will KGHM be getting; and how much will the Polish government will be getting from our resources?	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1432	338	4-Apr-12	Personal Information Withheld	Kamloops	What if copper prices go down: • It is a low grade mine, so if the price of copper goes down (and it probably will since it is at an all-time high) will they just leave everything half finished? Does KGHM have any contingency plans in place? Will there be some money set aside for reclamation? • What compensation will the laid-off workers get?	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines. The Reclamation and Closure Plan will include contingencies for premature and short-term closure. Reclamation Bonds are required for the Mines Act Permit.	

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AIR/EIS Guidelines Public Comment Tracking Table

Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
1436	338	4-Apr-12	Personal Information Withheld	Kamloops	4. Contingency Plan: 1. Will there be money set aside for any of the above concerns? Will there be specific amounts to address problems of individual residents, for example cracks in a foundation, or health care costs? Who will administer the money?	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1437	338	4-Apr-12	Personal Information Withheld	Kamloops	Some Closing Comments: If there were First Nations peoples living as close to the mine as those of us in Aberdeen, would there be more resistance, consideration, and consultation? Each of our yards is small, and we don't live off the land to the same extent as the natives do, but many of us have gardens. Is my family as important as an aboriginal one? Also, some people have existing respiratory issues and are at risk of becoming very sick. Are they not at least as important as a threatened species or some fish? I feel that this mine should not proceed, due to the numerous concerns mentioned above (and undoubtedly in other peoples letters), and their cumulative effect on the citizens of Kamloops and surrounding areas.	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1444	339	4-Apr-12	Personal Information Withheld		Sec. 7.7.4 It is stated that the effects assessment of the socioeconomic baseline will be done through a review of similar studies/projects, as well as other factors that can impact real estate prices, etc. What other studies/projects could be considered to be "similar"? Where, in Canada has an open-pit mine proposal of this size and location, actually within the boundary of a City of 86,000 people, been done? Will the AIR require this information be given?	dAIR comment	General	Economic Social	7 8	If available and relevant this information will be included in the Application/EIS. Potential effects pathways between the proposed project and receptors (direct and indirect) will be provided in the Application. The Application will include commitments for the implementation of mitigation measures where linkages are identified between project components or activities. Monitoring strategies will be proposed where residual effects are predicted.	
1448	339	4-Apr-12	Personal Information withheld		f) At time of decommission and closure activities, how does KAM propose to ensure any existing Court Orders for compensation are complied with? And how does KAM plan to ensure any incomplete and/or pending law suits will be honoured? Will this be a requirement of the AIR?	Project comment	General	n/a	n/a	Out of scope of the AIR/EIS Guidelines.	
1453	339	4-Apr-12	Personal Information Withheld		8.2.2 a) What baseline studies have been done to provide the summary of the local and regional community health, when were they done, and by whom. Will this be a requirement of the AIR? b) If existing data obtained from the local Health Authority were used to provide the summary, of local and regional community health, which studies were they, when were they prepared, and by whom? Our recommendation for the AIR is that such studies be required, and that they be required to be published and made public. c) What baseline studies have been done on the respiratory health of the residents of Kamloops and region? When were they done, and by whom? Will the AIR require that such studies be done with regard to respiratory health in particular, and that they be made available to Health practitioners in the community for comment, evaluation and publication?	dAIR comment	General	Health	10	Results of baseline studies will be provided in the Application/EIS.	

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Issue #	Submission #	Date Posted	Name	Location	Comment	Comment type	Project Component	Valued Component(s) (Final)	AIR Section#	Final Comment	Further Information provided in Summary Document (Section)
1457	Duplicate 289	4-Apr-12	Personal Information Withheld		<p>27/03/2012. I have previously co-signed off on a submission re the Ajax AIR on behalf of the Kamloops & District Fish & Game Association, the Kamloops Naturalists Club and the Grasslands Conservation Council of B.C.</p> <p>However, upon a further review of the draft AIR Document, I have noted a potential concern regarding Section 3.18 (particularly subsections 3.18.2 and 3.18.3) that I don't think was previously noted. The procedures described in those subsections are for the waste dumps to remain in situ after the mine's closure whence they will be re-contoured, have topsoil placed on them and then they will be seeded in an attempt to re-vegetate them. The mine pit will simply be left and allowed to fill with water, eventually resulting in a "lake" 500 – plus metres deep adjacent to the existing Jacko Lake (if it is still there).</p> <p>Would it not be more environmentally acceptable to back-fill all of the waste (presumably inert) rock into the mined-out pit at the end of the mine's life? Also, it would seem that the re-establishment of grasslands would likely be more successful if it were done at the former natural grade than on the artificial hills constructed from the waste rock?</p> <p>I would like a statement from the proponent as to why the process I have suggested is not part of their environmental justification for the project.</p>	Project comment	General	n/a	n/a	<p>An alternatives assessment will be included in the Application/EIS.</p> <p>The Application will include an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible, including closure implications of each option, as stated in the AIR.</p>	
1460	342	4-Apr-12	Personal Information Withheld		<p>27/03/2012. I would like to speak against the proposed KGHM Ajax Mine project.</p> <p>I brought my family to Kamloops 20 years ago because of the good-paying jobs and because there is a university (college) here.</p> <p>Kamloops has good range of employment opportunities: it is a regional center for the provincial government ministries; has a regional hospital; a university; a pulp mill; a cement plant; and a strong transportation and warehousing sector and extensive tourist facilities. We are not so lacking in employment opportunities here, that we would want to destroy the quality of life that has allowed Kamloops to flourish for the last 5 decades.</p>	Project comment	General	n/a	n/a	Statement of opposition - Out of Scope of the AIR/EIS Guidelines.	
1468	345	4-Apr-12	Sharon Antoniak		<p>15/03/2012. As concerned stakeholders in regards to the development of the proposed Ajax Mine, you interviewed my family at our home Wed. Feb. 8th 2012. During that time we discussed my concern around the adverse impact of the proposed Ajax Mine on the use of our home and property as it is presently accessed by school children and adults for educational and wellness activities. I did show you photos of activities with the children. I am attaching copies of the letters of support from two of the school principals who felt strongly that our home provided a valued learning opportunity to their communities. Please add this information to my families file of valued components for your socio-economic factors.</p>	Project comment	General	n/a	n/a	<p>General statement.</p> <p>Proponent recognizes the mine's proximity to urban areas, and has incorporated receptors within the LSA and RSA by VC accordingly.</p>	
					<p>Q. Do frogs migrate?</p> <p>A. Frogs migrate when they go between their shallow summer breeding ponds and deeper lakes where they overwinter. Sometimes they have to cross busy roads to do this, which results in many frog deaths during spring and fall migrations.</p> <p>Q. How do frogs time their migration from summer breeding swamps to winter lakes?</p> <p>A. They move during rainy or high humidity days or evenings. Frogs stay out of the deep lakes until they are ready to hibernate, as hungry fish would gladly make a meal out of them. Frogs that arrive early hang out in the vegetation along the shore. Frogs that arrive later, when the weather is colder, swim way out to deep water, ready to begin hibernating.</p> <p>Q. Do frogs hibernate?</p> <p>A. Frogs hibernate to escape the freezing temperatures of winter. Their heartbeats and breathing slow, their body temperature drops to nearly match the outside temperature, and they pass the time in a state of dormancy or torpor. Aquatic frogs hibernate under water and take in oxygen from the water through their skin. They spend most of the winter lying on top of the bottom's mud or partially buried in mud. At times, they may even slowly swim around. Terrestrial frogs, including the spring peeper, normally hibernate on land. Spring peepers, for example, are not adept at digging; instead they find deep holes or cracks in logs or rocks, or simply burrow down in the leaf litter as far as they can. Q. If frogs need to have wet skin, how do they survive during very hot or very dry spells?</p> <p>A. During extensive periods of heat or drought, frogs keep from losing water by digging a burrow in the ground and entering a state of estivation — a period of dormancy or torpor.</p> <p>Q. Why do frogs sun themselves?</p> <p>A. This behavior is called basking. When temperatures are cool, frogs need to bask in sunshine to warm up enough to be able to move. That's because they are coldblooded, which means their body temperature changes with the external temperature.</p> <p>Q. What is a frog's role in the ecosystem?</p> <p>A. Frogs eat insects, small fish, and other small aquatic and terrestrial animals. In turn they provide food for fish, some large insects, snakes, lizards, larger frogs, birds, and small carnivorous and omnivorous mammals.</p>			n/a	n/a		

AJAX PROJECT
AIR/EIS Guidelines, Revision F CAG Comments

Name	Comment	Topic/ Section of AIR	EAO RESPONSE/ DIRECTION / ACTION TAKEN	PROPONENT RESPONSE (WHERE REQUIRED)
CAG	1. Request that the size of the study area be extended to 30km by 30 km for the following VCs: health, air quality, surface/groundwater, fish, and transportation.	Methodology	1. The original study domain was 20km by 20km. This was increased in size to 25km by 25km. Working Group agencies have approved the study area.	
CAG	2. Request for clarification around what is meant by temporal categories, e.g. "post closure."	Methodology	2. Proponent directed to clarify within final AIR/EISG.	Direction noted and addressed in final AIR/EIS Guidelines.
CAG	3. Request for comprehensive analysis of <i>all</i> air particles, not just dust; seeking particle sizes below PM 2.5.	Air Quality	3. Input from the Provincial Ministry of Environment, Environment Canada, Health Canada and Interior Health has confirmed that there will not be an assessment of ultrafine particles smaller than PM 2.5. In order to model ultrafine particle levels from the proposed mine, emission factors would be required for the modelling, and the outputs of the model would need to be compared to ambient levels and ambient objectives. Two challenges arise: A. There are not yet reliable emission factors for ultrafine particles that could be used to determine ambient levels; B. There are no ambient objectives for ultrafine particles. Thus there will not be an assessment on ultrafine particles and their potential impacts to human health. However, the Proponent will include a rationale for not assessing ultrafine particles in the Application.	
CAG	4. Request that study area boundary for air quality be extended to ensure entire City is included (suggested a 30 km by 30 km study area boundary, or moving center point of study area to begin in center of city, as opposed to the project area).	Air Quality	4. The study area boundary is 25km by 25km, based on an updated study area that was intended to be presented in Rev F of the dAIR/ ESIG, but was inadvertently missed.	
CAG	5. Concern expressed related to emissions from idling of mine vehicles.	Air Quality	5. EAO has directed proponent to incorporate emissions from mine vehicle idling into the health effects assessment as per Health Canada guidance.	Direction noted.
CAG	6. Request for justification from proponent regarding elements included in the list of metals in dustfall and total suspended particulate matter for air quality.	Air Quality	6. The Proponent has been directed to include, in the Application, a rationale for substances not selected, such as Uranium. Health Canada and Interior Health will review the rationale and determine if information is acceptable.	Direction noted.
CAG	7. Request that proponent commit to using latest versions of CALMET/ CALPUFF modelling.	Air Quality	7. The versions of the models are defined as CALPUFF Version 6.112, an air quality dispersion model, and CALMET Version 5.8, a diagnostic 3-dimensional meteorological model. These models are developed and have been approved by the Ministry of Environment for this Application.	
CAG	8. Noted that list of locations under cumulative effects is not consistent throughout AIR/ EISG.	Cumulative effects	8. Proponent directed to ensure consistency among all Valued Components with respect to the list of other projects and activities that will be assessed as part of the cumulative effects assessment (section 5.1.6 of AIR/ EISG).	Direction noted.
CAG	9. Request that impact of truck traffic on Lac Le Jeune road is incorporated into the assessment.	Transportation	9. Proponent states: ' <i>Lac Le Jeune Road is intended as an access route to the Project location as described in Section 2.2.2 of the AIR, Rev F. Staff vehicle traffic is proposed to access the mine site via the Copperhead Drive Interchange off Highway 1 and thence along Frontage Road and Lac Le Jeune Road. A new access road between the Coquihalla Highway and Lac La Jeune Road south of the Tailings Storage Facility is proposed for use by commercial, freight, and concentrate trucks providing services to the mine. However, these vehicles will still have to transit along Lac Le Jeune Road for a short distance to connect to the project components situated east of Lac Le Jeune Road. Haul trucks will not be directed on Lac Le Jeune Road, but instead use the overpass when operating between the TSF and Pit.</i> ' Proponent has been directed to ensure this is clear in the AIR/ EISG and that the Traffic Impact Study reflects this.	
CAG	10. Request for assessment of potential impacts of the project on the Coquihalla Highway, including changes in wind patterns, shading, ice condition, snowfall, and dust dispersion on highway travel and maintenance.	Transportation	10. Proponent directed to incorporate.	Potential effects of the Project on the adjacent infrastructure will be assessed where interaction is predicted.
CAG	11. Request that proponent make it clear that Inks Lake Road connector road will be available for public traffic.	Transportation	11. The Proponent has been directed to explicitly state in the Application what roads are being proposed for use by the mine during all stages of the project life-cycle.	Direction noted.
CAG	12. Request that proponent provide additional details related to the traffic impact study and what this would entail.	Transportation	12. More details on Traffic Impact Study forthcoming upon submission of Application. Ministry of Transportation and Infrastructure is working with the proponent on the development of the Traffic Impact Study.	

AJAX PROJECT
AIR/EIS Guidelines, Revision F CAG Comments

Name	Comment	Topic/ Section of AIR	EAO RESPONSE/ DIRECTION / ACTION TAKEN	PROPONENT RESPONSE (WHERE REQUIRED)
CAG	13. Request that proponent identify linkages between Transportation VC and the following VCs: outdoor recreation, ranching, grasslands, heritage (Lac Le Jeune), wildlife.	Transportation	13. Direction provided to proponent to identify potential linkages in the Application.	Direction noted.
CAG	14. Request for rationale for location of explosives storage (why it is proposed to be located across Peterson Creek and Goose Lake road, which would require the construction of a long and wide access road – rather than locating it in the vicinity of the North Waste Rock Facility).	Transportation	14. Proponent reports: 'The explosives storage location was selected in accordance with federal regulations, using the reference Guidelines for Bulk Explosives Facilities Minimum Requirements (Natural Resources Canada, 2010). KGHM will consider the recommendation of EAO to provide a response to CAG outside the context of the AIR/EIS Guidelines finalization.'	
CAG	15. Request that heritage values also consider non-aboriginal heritage and history, e.g. first fishing lodge in area of proposed Project; heritage value of ranching.	Heritage	15. Proponent directed to provide clarity in the Heritage Objects and Sites Valued Components to capture that work will be undertaken to determine if provincial heritage objects or sites exist, and to clarify that they would be part of the assessment if they do exist. This applies to Aboriginal or non-Aboriginal sites and objects. It should also be noted that heritage value is attached to an object or a site, not an activity, as defined in the Heritage Conservation Act.	Direction noted.
CAG	16. Request for greater profile of grasslands in AIR, specifically that grassland be assessed as a separate VC.	Grasslands	16. Separate grasslands VC developed by Ministry of Forests, Lands and Natural Resource Operations with input from CAG.	
CAG	17. Question regarding where the Agricultural Land Reserve (ALR) fits in with the discussion around grasslands.	Grasslands	17. Questions about the ALR should be discussed with the Agricultural Land Commission.	
CAG	18. Request for clarification around reference in the AIR/ EISG to "alternate sites will be discussed" – e.g. can proponent commit to avoid Inks Lake?	Alternative means of undertaking the project	18. The BC environmental assessment process does not assess alternatives to the project, only the project that is being proposed. Alternatives can be discussed as a form of mitigation once results of studies and assessment findings are made available.	
CAG	19. Request for pollinating insects Valued Component to be included in assessment (e.g. butterfly, dragonfly and bee species). Justification: plants are dependent on pollinators and native pollinators are vulnerable to pesticides, particles in dust, etc.	Terrestrial Invertebrates	19. EAO discussed CAG request with Proponent and Ministry of Agriculture representative. EAO also confirmed with Professor Elizabeth Elle of Simon Fraser University that: a. Assessing butterflies is likely appropriate. b. Confirmation that the Western Bumble Bee is in decline. c. "For bees, we don't know enough baseline information to make them a practical target for assessment." d. the area around the proposed Ajax Mine "is not likely to be essential for the recovery of the Western Bumble Bee." The species identified in the final AIR/EISG Terrestrial Invertebrates VC are suitable by EAO.	
CAG	20. Question posed as to why compensation is not explicitly stated as a commitment in the AIR/ EISG, particularly for effects that have a strong likelihood of not being mitigable. Request for commitment from the proponent to include worst case scenario and indicate compensation in dollar amounts.	Compensation	20. Part B (Assessment of Potential Effects, Mitigation measures, and Significance of Residual Effects) states: "The Application will describe additional practicable mitigation measures, including management and compensation plans, which will be implemented to address cumulative effects." This section applies to the assessment of <i>all</i> Valued Components identified in the Application. I.e. compensation is in scope of the EA.	
CAG	21. Request that the visual impact of the blast plume be included in the assessment.	Visual quality	21. Proponent directed to include blast plume.	Blasting (and associated blast plumes, as applicable) will be assessed as a project component/activity; relevant text is added to the AIR, Section 8.4.4.
CAG	22. Request that power line be included in visual impact assessment.	Visual quality	22. Proponent directed to include power lines in visual impact assessment. It is not expected that this will be explicitly stated in the AIR/ EISG as this is one of many components that is being incorporated into the visual impact assessment.	Direction noted.
CAG	23. Request that a list of viewpoints for modelling be expanded, e.g. Highway 5A, Long Lake Road (and any other roads that can be seen from the mine).	Visual quality	23. Direction provided to Proponent to enhance Visual Impacts Valued Component, including adding: · A requirement that all inputs for sight line locations that have been given to the Proponent be listed (including those noted by CAG in Rev F) and the selected sight lines for the assessment be justified with clear rationale, focussing on areas that are likely to be most impacted.	Direction noted.
CAG	24. Request that the visual quality objectives identified in the LRMP be referenced in the AIR/ Application.	Visual quality	24. Direction provided to Proponent to ensure the Visual Quality Objectives for the area (as described in the LRMP) are used as a key input to the Visual Impact Assessment.	Direction noted.

AJAX PROJECT
AIR/EIS Guidelines, Revision F CAG Comments

Name	Comment	Topic/ Section of AIR	EAO RESPONSE/ DIRECTION / ACTION TAKEN	PROPONENT RESPONSE (WHERE REQUIRED)
CAG	25. Request that ranching be a stand-alone VC (ranching has both business-oriented and historical heritage values; the overall value of grasslands to ranching is still not recognized).	Land and Resource Use	25. Grasslands has been directed to be a Valued Component and will be assessed separately from other rare and endangered ecosystems. Proponent directed to ensure linkage between ranching and other Valued Components is made explicit in the Application, including: Business, Heritage, Land and Resource Use, Grasslands. It is not possible to assess a historic heritage value or activity. It is possible to assess heritage objects and heritage sites.	Direction noted.
CAG	26. Question posed regarding what is being used as a baseline for health effects on livestock.	Land and Resource Use	26. Both groundwater and surface water will be evaluated in terms of BC Water Quality Guidelines for livestock (see section 6.3 and 6.5 of AIR/ EISG). Water quality guidelines are environmental benchmarks. They are safe levels of substances for the protection of a given water use, including drinking water, aquatic life, recreation and agriculture. They are developed in order that water quality data can be assessed and site-specific water quality objectives can be prepared.	
CAG	27. Request to address concern related to City of Kamloops changing its community plan due to proposed project and related impacts to location of infrastructure (sewers, water lines, roads, playgrounds, etc.)	Project Land Use	27. EAO defers to City on infrastructure issues. Comments from City on Rev F address some infrastructure concerns. EAO plans to post the memo from the City to the EAO website that outlines their concerns.	Direction noted. Rev F is updated as directed in consultation with the EAO.
CAG	28. Request to assess metal leaching and acid rock drainage potential for chemical constituents listed in the following section using Acid Base Accounting(ABA) and Shake Flask Tests (SFTs) using pulverized samples of rock to be mined (80% -200 mesh for the rock). Rock samples preferably should be collected as composite samples. ABA methodology references include Sobek et al (1978) and Morin (1990). ABA characteristics should include paste pH, total and sulphate sulphur, fizz rating, Standard Sobek Neutralization Potential (NP) and Total Inorganic Carbon (TIC) contents. In order to classify the rock potential to generate net acidity, ABA results should be compared to BC ARD interpretative guidelines as per Price (1997)....Methodology should include use of inductively Coupled Plasma – Mass Spectroscopy (ICP-MS) for metals, and other applicable laboratory methods (Sobek A.,et al 1978). The results interpretation should include comparison to all relevant water quality guidelines and objectives.	Site Geochemistry	28. Ministry of Energy, Mines and Natural Gas advised EAO that the policy, guidelines and prediction manual documents that have been referenced within the AIR/ EISG contain detailed information about appropriate test work for various scenarios; specific details are therefore not required in the AIR/ EISG itself.	
CAG	29. Request that geochemical data be presented in sufficient detail to use as a basis for surface water and groundwater quality impacts from mining dust, air quality impacts, and other environmental effects, including human health effects assessments.	Site Geochemistry	29. The geochemistry section of the Application is focussed on rock geochemistry for understanding metal leaching and acid rock drainage. Effects from the chemistry of dust and subsequent air quality, environmental and human health impacts will be assessed in other sections of the Application.	
CAG	30. Additions to list of fish habitat utilization locations, e.g. Alkali Creek, Edith Lake, Humphrey Creek, Hull Lake, Stake Lake, McConnell Lake, Lac Le Jeune, Wallender Lake, 6 Mile Lake, Morgan Lake, and all wetlands within boundaries of new map 6.-1.	Fish populations and fish habitat	30. Department of Fisheries and Ocean (DFO) advised that the criteria for selecting fish habitat utilization locations is based on the following: whether systems are within the local study area and potentially affected by the mine construction, operations and decommissioning, either directly through habitat impacts or through changes in water quality and quantity (surface and groundwater). Direction provided to proponent to review list of locations provided by CAG and confirm, based on advice from DFO, whether they should be included in the Application.	Humphry Creek and Edith Lake are the only waterbodies requested that are within the LSA. Edith Lake has an irrigation weir which allows stream (Humphrey Creek) flows only during high water or when additional flows are required for irrigation (XXX). None of the other lakes requested meets the criteria provided by DFO - all are outside of the Peterson and Cherry Creek watersheds; 6 Mile Lake, for example, is approximately 90 km northwest of the Project area. Fish habitat utilization of wetlands within the LSA will be assessed.
CAG	31. Additions to list of species present in Kamloops Lake and potentially impacted by the project: carp, Lake trout, brook trout, white lamprey.	Fish populations and fish habitat	31. Key criteria for selecting species are noted in the AIR/ EISG. Species that do not meet the criteria are not included in the assessment. Proponent directed to provide in the Application survey results identifying all species encountered, including timing of survey.	Direction noted, however the species requested for inclusion are not recorded in the provincial Fisheries Information Summary System as being present in Kamloops Lake.
CAG	32. Request that mule deer, white tailed deer, beaver, black bear and coyote be added to assessment of wildlife.	Mammals	32. Key criteria for selecting species are noted in the AIR/ EISG. Species that do not meet the criteria are not included for assessment. Mule Deer is the only species noted by CAG that meets the criteria.	

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AIR/EIS Guidelines, Revision F CAG Comments

Name	Comment	Topic/ Section of AIR	EAO RESPONSE/ DIRECTION / ACTION TAKEN	PROPONENT RESPONSE (WHERE REQUIRED)
CAG	33. Request that the assessment of the potential acute health effects be added, including health indicator data (e.g. hospital admissions, doctor visits).	Health	33. Increase in population and subsequent pressures on services such as health care, emergency services, public transportation, and recreation facilities are assessed under the "Infrastructure, Public Facilities, and Services" Valued Component. Direction provided to proponent to add "health care (including but not limited to access to a family doctor and Royal Inland Hospital) and "emergency services" to the list of pathways identified for this Valued Component.	Direction noted.
CAG	34. Request that section include assessment of impacts from project on access to a wide range of organized recreational activities as well as casual visitors: Stake Lake Cross Country Ski Trails, Ice-Racing at Stake Lake, etc.	Outdoor Recreation	34. A number of outdoor activities across seasons are noted in the AIR/ EISG.	
CAG	35. Request that country foods VC include assessment of urban agriculture.	Country Foods	35. Proponent directed to include specific reference in the AIR/ EISG to users of country foods including backyard and community gardens. As stated in the AIR/ EISG: "the definition of Country Foods will be in accordance with the Health Canada guidance documents as follows: 'Country foods, also known as traditional foods, include those foods trapped, fished, hunted, harvested or grown for subsistence or medicinal purposes, or obtained from recreational activities such as sport fishing and/or game hunting. Country foods do not include foods produced in commercial operations (large farms, greenhouses, etc.).'	Direction noted.
CAG	36. Request that effects on quietness and quiet enjoyment of the area be evaluated.	Noise	36. Request forwarded to the Proponent.	
CAG	37. Numerous proposed changes/ additions to maps	Mapping	37. EAO provided CAG comments related to maps to proponent. Direction is to clarify and make consistent.	Direction noted.
CAG	38. Request that Rush Creek be added to list of baseline characterization of watersheds.	Surface Water Quality	38. Proponent reports: ' <i>The Rush Creek drainage system is ephemeral in nature and therefore has not been included in the baseline water quality program. No defined stream channel has been observed in the project area, although shallow, diffuse, overland flow has been noted during spring freshet. However, the a water quality site in Alkali Creek is downstream of Rush Creek and this site is sampled on a regular basis, when water is present and the data will be incorporated into the water quality model.</i> '	
CAG	39. Request that monitoring stations be added on the "South Thompson River and Kamloops Lake, downstream of the drainage from Peterson, Guerin and Cherry Creeks."	Surface Water Quality	39. Proponent reports: ' <i>The sampling locations established in Peterson Creek and Cherry Creek are situated to assess the baseline water quality in the vicinity of the Project. There is a water quality site on Peterson Creek approximately 3 kilometres downstream of the southeastern extent of the proposed East Waste Rock Storage Facility, and preliminary modelling has indicated that all mine seepage and runoff will be intercepted well upstream of this location. Similarly, the Cherry Creek baseline water quality monitoring site is well downstream of any potential influence from the proposed Project. Additional downstream sites in these creeks introduce variability that is unrelated to the Project area, and will not provide necessary information to assess the effects of the Project on the environment, and as such inclusion of additional downstream sites is not recommended.</i> '	
CAG	40. Request that Thompson River and Guerin Creek watershed be added to list of watersheds noted with respect to quantifying potential changes to surface water quality.	Surface Water Quality	40. Proponent reports: ' <i>Guerin Creek is not within the Peterson Creek watershed and is not anticipated to be impacted by the Project. The influences from the mine site will be captured within the local study area at the currently established baseline surface water quality site.</i> '	

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AIR/EIS Guidelines, Revision F CAG Comments

Name	Comment	Topic/ Section of AIR	EAO RESPONSE/ DIRECTION / ACTION TAKEN	PROPONENT RESPONSE (WHERE REQUIRED)
CAG	41. Request that Petersen, Cherry, Rush, and Guerin Creek watersheds be added to locations of hydrology monitoring stations.	Surface Water Quantity	41. Proponent reports: ' Hydrology monitoring stations are located on Peterson Creek upstream and downstream of Jacko Lake. A hydrology station is located on Alkali Creek downstream of the proposed TSF and upstream of its confluence with Cherry Creek; this station will be used to assess the potential effects of flow reduction on water users in Cherry Creek. Rush Creek is a tributary of Alkali Creek and is ephemeral in nature with no defined channel in the Project area. None of the proposed mine components are situated in the Makao Lake/Guerin Creek watershed and preliminary modelling has indicated that this lake will not receive runoff or seepage from any of the proposed mine facilities, therefore, establishment of an hydrology station in this watershed would not provide additional information to assess the effects of the Project on the environment.'	
CAG	42. Request that "water levels in RSA and Goose Lake" be added to description of site wide water balance.	Surface Water Quantity	42. Proponent reports: ' Water levels and flow rates and/or a combination of these data have been collected for water bodies within the LSA and in some cases within the RSA (larger streams and water bodies). These data will be presented as part of the baseline characterization for the system and, where appropriate and of sufficient quality, are used to develop the site wide water balance. Goose Lake water levels are not considered in the site wide water balance because this lake is up-gradient from the project and outside of the predicted area of project effects to surface water (and groundwater) hydrology. Similarly, water levels for many water bodies that are within the RSA, but are not in the LSA, have not been incorporated or collected because they are beyond the area of anticipated project effect. '	

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Issue of Concern	Comment # Pertinent to Issue (see Table 1)	Total comments received for this Issue	Summary of Concern	Proponent \ Government Response ¹
Air Quality / Dust	1, 2, 3, 4, 5, 9, 10, 12, 13, 14, 15, 17, 19, 20, 21, 23, 24, 26, 29, 33, 34, 37, 38, 41, 43, 46, 48, 49, 50, 52, 54, 55, 56, 57, 62, 64, 65, 66, 67, 70, 72, 74, 75, 81, 83, 84, 85, 89, 90, 91, 95, 96, 98, 99, 100, 104, 106, 107, 108, 110, 111, 112, 113, 114, 117, 118, 121, 124, 125, 126, 130, 131, 132, 134, 137, 138, 139, 140, 142, 143, 144, 145, 147, 148, 149, 150, 151, 152, 154, 155, 157, 159, 160, 161, 162, 164, 167, 168, 173, 174, 175, 176, 177, 178, 180, 181	106	<p>The following issues concerning air quality were identified</p> <p>Health:</p> <ul style="list-style-type: none"> • increases in particulates and effect on people with respiratory illnesses, cancers • emissions from diesel fuel, machinery exhaust and chemicals • health effects of long term exposure (post closure) to tailings dust • health effects of dust from waste rock dumps • toxic dust from settling ponds; metallic ore dust produced from the blasting and crushing operations, ore trucks • effects of radon gas <p>Climate:</p> <ul style="list-style-type: none"> • greenhouse gases • fog <p>Efficacy of mitigation measures:</p> <ul style="list-style-type: none"> • increased air quality impact with weather inversions • amount of dust generated from drilling and blasting in the hot and dry environment • ability to control dust with the strong winds experienced in Kamloops • methods to control dust generated from the open pit, the crushed ore stockpile and the tailings disposal area between November and March • ability to control dust using spraying in the winter when temperatures are below freezing • accidents or malfunctions associated with the water intake system on Kamloops Lake resulting in water shortage for dust control measures <p>Economics:</p> <ul style="list-style-type: none"> • air quality impacts on tourism, investors, athletes <p>Cumulative effects:</p> <ul style="list-style-type: none"> • effect of dust and particulate emissions from the mine on currently impacted air quality from windy, dry and dust-filled area, frequent weather inversions, and emissions from Domtar pulp mill • amount of fine particles and kinds of chemicals that the mine will emit into Kamloops airshed • location of topsoil stockpile for reclamation purposes, since it could be an additional source of dust, especially if deposited in upwind areas of Pineview Valley or Aberdeen 	<p>Assessment of air quality effects will be discussed in Section 10 of the Application Information Requirements (AIR) and in the Application for an Environmental Certificate (Application). Air quality (Particulate matter, (PM₁₀ and PM_{2.5}), and Total suspended particulates) have been identified as Health Valued Components (VC). Dustfall will be assessed as a component of environmental effects.</p> <p>Baseline studies on existing dust levels in the project area were initiated in 2009 and are ongoing.</p> <p>The impact assessment presented in the Application will evaluate the effects of fugitive dust and emissions from machinery and equipment during project construction and operation on human health, the environment, and climate. Mitigation measures and best practices will be discussed in the Application. Special attention will be given to dust control and suppression methods using proven technology. KGHM Ajax plans to cover both ore stockpiles, install dust abatement equipment, and monitor appropriately.</p> <p>Climate was identified as an Environmental VC. The potential effects assessment of the Project on atmospheric levels of greenhouse gases (GHG) will be adapted from methodology presented in "Incorporating Climate Change Considerations in Environmental Assessment: General Guidance for Practitioners" (Federal-Provincial-Territorial Committee on Climate Change and Environmental Assessment 2003) in Section 6 of the AIR and in the Application.</p> <p>A Cumulative Effects Assessment (CEA) will also be conducted for each VC to address concerns surrounding the effects of the mine in concert with existing issues. The CEA will identify residual effects of the mine on air quality that have potential to interact with residual effects of other projects or activities, and assess whether this interaction is likely to result in a significant impact to air quality. The CEA will consider certain and reasonably foreseeable past, present, and future projects and activities. The Application will identify and describe other projects and activities with the potential to interact with the Project, and include a rationale for their inclusion. The Application will describe the methodology for identifying potential interactions between residual project effects and other project activities.</p> <p>Environmental and operational monitoring and management plans will be developed as part of the Environmental Management System (EMS) to ensure that measures and controls are in place to minimise the potential for environmental degradation during all phases of Project development. The identification of potential accidents and malfunctions are an integral part of the EMS, along with avoidance, mitigation and control techniques.</p>

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Air Quality / Dust continued			<p>Specific information was requested regarding:</p> <ul style="list-style-type: none"> • The CEAA and the EAA need to determine if there will be crystalline silica contained in the dust from the KAM project. Crystalline silica is a basic component of soil, sand, granite, and many other minerals. ... It also needs to be determined what effects diesel fuel, machinery exhaust and chemicals used in the mining process will have on the citizens of Kamloops. • dust suppression plans • the systems that would be put in place if dust from the mine became an issue for neighbouring residential areas • increase in particulates on the ability of people with respiratory illnesses to go out and exercise in the city 	<p>Specific responses:</p> <ul style="list-style-type: none"> • As the commenter notes, silica is prevalent in sand and rock; the composition of rocks are broadly categorized as felsic (high in silica), intermediate, or mafic (low in silica). The majority of the rocks at Ajax, such as diorites, are of intermediate composition. Dust and emissions will be assessed as part of the human health effects assessment presented in the Application, with specific attention to the potential for silicosis. • The Application will outline the mitigation and monitoring measures proposed for dust suppression, including plans for minimizing dust generation and transport during the winter months • The Application will outline adaptive management measures that the Proponent will consider if monitoring programs indicate that mitigation measures are not functioning as predicted • The Application will discuss particulate emissions from project operation on the air quality health index • The Application will provide information on the amount and chemical composition of particulates that will be emitted during project operation
Noise	1, 3, 4, 5, 8, 9, 12, 13, 14, 20, 21, 24, 33, 37, 41, 43, 46, 48, 54, 56, 57, 65, 66, 75, 81, 84, 85, 90, 91, 92, 94, 98, 110, 111, 112, 113, 125, 126, 130, 131, 137, 138, 139, 141, 142, 143, 144, 150, 151, 154, 155, 157, 159, 161, 162, 163, 167, 168, 172, 174, 176, 177, 178	63	<p>Continuous generation of noise from crushing, blasting, and haul trucks on site and increased traffic along public roads, and the effects on:</p> <ul style="list-style-type: none"> • quality of life for nearby residents (peacefulness) • recreation users • health (stress leading to sociological problems) • businesses (cattle ranching) • organized sports • wildlife • pets • property values. <p>Cumulative effects:</p> <ul style="list-style-type: none"> • elevated noise levels from removal of pine beetle killed trees that act as a sound barrier/buffer <p>Specific information requested included:</p> <ul style="list-style-type: none"> • brochure/survey information package be distributed to Kamloops residents regarding proximity, noise levels, operating hours, footprint, etc. • distance that noise levels from the trucks, crushers, shovels and drills in the open pit would carry • How many times per day would blasting occur? During what hours would blasting occur? Where would the warning signal be located? 	<p>Noise and vibration have been identified as Health VC in consideration of public concerns. Assessment of noise and vibration effects on human health will be discussed in Section 10 of the Application.</p> <p>A sound level assessment was initiated in the project area in 2011.</p> <p>The Application will identify and analyze potential adverse effects resulting from the proposed mine on sound levels. The analysis will include effects of construction, operation and decommissioning and closure activities, and describe measures the Proponent will commit to undertaking to mitigate any potential adverse effects.</p> <p>Specific responses:</p> <ul style="list-style-type: none"> • The Proponent has opened an office in downtown Kamloops for the purpose of providing information to the public • The sound level assessment will include information on sound levels emitted from operation of mine vehicles and equipment and the attenuation factor of the sound levels over varying terrain and under variable wind speed and direction

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Issue of Concern	Comment # Pertinent to Issue (see Table 1)	Total comments received for this Issue	Summary of Concern	Proponent \ Government Response ¹
Vibration	12, 21, 33, 56, 57, 81, 82, 90, 96, 97, 101, 105, 110, 117, 126, 130, 131, 132, 138, 139, 144, 145, 155, 159, 163, 167, 168, 174, 176, 178	30	<p>Potential impacts of vibration from blasting and mine operation were identified as:</p> <ul style="list-style-type: none"> • risk to structural integrity of buildings and homes due to the unstable structure of the soil • health and well-being of nearby residents • property damage (houses, cisterns, septic tanks) occurring as a result of project construction and operations • landslides or slope failures in the Aberdeen area due to existing instability • mortality of fish and other aquatic life in Jacko lake • rupture of the Kinder Morgan pipeline resulting in spills or leakage to surrounding environment • source of compensation for home and property damage 	<p>Noise and vibration have been identified as Health VC. Assessment of noise and vibration effects on human health will be discussed in Section 10 of the Application.</p> <p>Geology, Landforms and Soils were identified as Environmental VC. The potential effects assessment of the Project will be discussed in Section 6 of the AIR and Application and will include:</p> <ul style="list-style-type: none"> • effects of blasting on rock fracturing, pitwall and slope stability; • project effects on landforms and soil erosion, and • effects of the Project on geohazards, <p>Remedial actions that will be implemented, and monitoring or management procedures to confirm the accuracy of the predictions and to reflect effectiveness of remedial measures, will be included in the Application.</p> <p>The Application will identify and analyze potential adverse effects resulting from the proposed mine on surrounding terrain, neighbouring properties and infrastructure, aquatic life, and the health and well-being of nearby residents.</p> <p>The analysis will include effects of construction, operation and decommissioning and closure activities, and describe measures the Proponent will commit to undertaking to mitigate any potential adverse effects.</p>
Light pollution	24, 84, 113, 130, 138, 156, 162, 167, 168	9	<p>Light pollution was noted as an issue for four reasons:</p> <ul style="list-style-type: none"> • interference with astronomical research • energy waste through excessive or uncontrolled lighting • impacts on birds and other biological systems, including vegetation and insects • aesthetics 	<p>Dark sky \ shading has been included as a Social VC in the AIR, based on feedback received during the public comment period and consultation with stakeholders.</p> <p>Measures will be taken throughout the life of the mine to ensure that lighting will be only at the level required for mine operations to be conducted safely and securely.</p> <p>Lighting alternatives and light fixtures to minimize light pollution will be discussed in the Application to address identified concerns.</p> <p>Quality of darkness before and during mine operations will be assessed and discussed in the Application.</p>

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Fish & Fish Habitat	4, 5, 11, 20, 24, 37, 40, 41, 47, 66, 76, 90, 91, 106, 107, 108, 110, 114, 117, 124, 126, 130, 135, 142, 143, 144, 145, 147, 154, 159, 177, 182	32	<p>Effects on fish and fish habitat were identified as follows:</p> <p>Habitat loss/alteration</p> <ul style="list-style-type: none"> • Jacko Lake arm • potential draining of Jacko Lake, impacting both lake and water source of Peterson Creek • Peterson Creek diversion – inability to replicate existing fish habitat • water withdrawal from Kamloops Lake causing altered flow regime, higher water temperatures • riparian loss <p>Fish mortality</p> <ul style="list-style-type: none"> • water quality impacts from runoff and creek diversion flowing through old waste rock dump • bioaccumulation of toxic substances • blasting and vibration effects on fish in Jacko Lake <p>Cumulative effects</p> <ul style="list-style-type: none"> • Peterson Creek water quality and habitat condition was identified as being severely impacted by existing alterations and water withdrawal, affecting fish and other aquatic organisms • Kamloops Lake water levels and water quality currently affected by water licence withdrawals for irrigation, mining, city water impacts on migrating fish stocks in the Thompson River 	<p>Fish populations and fish habitat have been included in the AIR as environmental VC. Potential effects and mitigation measures will be discussed in Section 6 of the Application.</p> <p>Aquatic studies were initiated in the project area in 2007. The objectives of the study were to document fish presence/absence, abundance, and distribution in the Project area, quantify available habitat at fish sample sites, and establish baseline metal loadings in fish tissue. In addition, benthic invertebrate sampling was conducted in order to characterize and determine the overall health of the benthic communities.</p> <p>The Application will include an impact assessment of direct and indirect mine-related effects on fish and fish habitat in the Peterson Creek and Cherry Creek watersheds.</p> <p>A Cumulative Effects Assessment (CEA) will also be conducted. The CEA will identify residual effects of the mine that could potentially interact with residual effects of other projects or activities, such as water diversions for irrigation and city use, and assess whether this interaction is likely to result in a significant impact to fish and fish habitat.</p>
Surface water quality	1, 4, 5, 11, 13, 15, 17, 23, 24, 29, 37, 38, 41, 43, 49, 50, 56, 57, 63, 65, 72, 74, 76, 81, 83, 84, 85, 89, 90, 92, 99, 100, 106, 107, 108, 110, 112, 113, 125, 126, 131, 134, 138, 140, 142, 144, 145, 147, 148, 149, 151, 152, 155, 157, 159, 161, 162, 164, 167, 171, 172, 174, 180, 181, 182	65	<p>The following issues related to surface water quality were identified in the public comments:</p> <ul style="list-style-type: none"> • effects of Peterson Creek diversion on water quality, with subsequent effects on downstream water licence holders, recreations site users, and salmon runs in the Thompson River • chemicals used in mine operations seeping or released into Peterson Creek watershed • use of Inks Lake as a storage and process water pond • effects of effluent discharge from open pit following mine closure on irrigation water and human health over the long term • water withdrawal from Kamloops Lake affecting water quality in the Thompson River during low water periods • TSF runoff on downstream water users during operation and following closure • water quality impacts from Rush Creek draining, flowing, or leaching through the tailings pond onto ranch hayfields or Jacko Lake • pollution in Kamloops Lake from water intake • Acid mine runoff and alkaline mine runoff, blasting residues, dissolved minerals • impacts from oil spills during relocation of the Kinder Morgan pipeline to accommodate the mine location • rupture of Kinder Morgan pipeline during operation from blasting, digging, hauling, and crushing, etc. 	<p>Surface water quality has been included in the AIR as both an environmental VC and as a human health VC. Potential effects and mitigation measures will be discussed in Sections 6 and 10 of the Application. The Application will describe the approach to identification and analysis of potential project effects. Assessment of effects on a VC will include consideration of direct effects from project components or activities, and effects arising from direct effects on other VC (indirect effects) on the selected VC for each project phase (construction, operation, and decommissioning).</p> <p>The surface water sampling program was initiated in 2008 and is ongoing. The Application will provide an evaluation of potential effects associated with mine development. A surface and groundwater model will integrate results of the Metal Leaching/Acid Rock Drainage (ML/ARD) prediction work, baseline water quality, hydrology, and water balance information to develop water quality predictions for the effects assessment. The results of the effects assessment will be used to prescribe any materials handling procedures, mitigation, and management requirements for the project.</p> <p>An analytical or numerical seepage model of the TSF will identify areas of</p>

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			<p>Cumulative effects:</p> <ul style="list-style-type: none"> • Peterson Creek Watershed was identified as the highest risk small watershed in the region due to existing urban development, mining, agriculture, water licences • Existing water quality impacts in Kamloops Lake from the pulp mill • Water shortage - Kamloops residents being asked to conserve water <p>Specific information requested included:</p> <ul style="list-style-type: none"> • Chemicals that will be used in ore processing 	<p>potential seepage and total seepage along the periphery of the impoundment.</p> <p>Environmental and operational monitoring and management plans will be developed as part of the Environmental Management System (EMS) to ensure that measures and controls are in place to minimise the potential for environmental degradation during all phases of Project development. The effects of accidents and malfunctions are an integral part of the EMS.</p> <p>The CEA will identify the residual effects of the Project with the potential to interact with the residual effects of other projects or activities, and assess whether this interaction is likely to result in a greater impact to the identified VC. The Application will describe the methodology for identifying potential interactions between residual project effects and other project activities, describe additional practicable mitigation measures, including management and compensation plans, and include analysis of the significance of the overall residual cumulative effects.</p> <p>The following response is provided to the question of types of chemicals that will be used in processing of the ore:</p> <ul style="list-style-type: none"> • The ore will be crushed in a series of crushers to reduce the particle size for further processing. The process of concentrating includes both wet grinding of the ore to further reduce the particle size so the metal particles are liberated, and then separation of the metal bearing constituents by the flotation method. In the flotation process, the ground rock and water slurry is mixed with various chemical reagents (potassium amyl xanthate, methyl iso butyl carbonal, lime), which coat the copper particles

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Issue of Concern	Comment # Pertinent to Issue (see Table 1)	Total comments received for this Issue	Summary of Concern	Proponent \ Government Response ¹
Surface water quantity	2, 4, 5, 15, 24, 30, 38, 41, 43, 44, 49, 50, 57, 76, 83, 85, 88, 89, 90, 93, 99, 100, 104, 108, 110, 113, 125, 126, 130, 138, 140, 144, 147, 160, 161, 162, 167, 180, 182	39	<p>The following issues related to surface water quantity were identified in the public comments:</p> <ul style="list-style-type: none"> • volume of water that will be required from Kamloops Lake for processing and dust control • source of potable water • impacts of water withdrawal from Kamloops Lake on marina development plans, tourism, existing water licence holders, and downstream communities • uncertainty/inability to predict geological failure of the pit wall, resulting in draining of Jacko Lake • priority rights for water use in times of water shortage <p>Cumulative effects:</p> <ul style="list-style-type: none"> • impacts of climate change/global warming on water levels 	<p>Surface water quantity has been identified as an environmental VC and is included in Section 6 of the AIR and Application.</p> <p>Effects of blasting on rock fracturing, pitwall and slope stability will be included in the potential effects of the project on the geology, landforms and soils VC in Section 6 of the Application.</p> <p>Jacko Lake has been identified as a social VC in Section 8 of the AIR. Project and cumulative effects on the use and enjoyment of Jacko Lake will be discussed in Section 8 of the Application.</p> <p>Hydrology stations were installed around the mine site in 2008. Hydrological assessments will be a compilation of baseline hydrology and climate data and long-term data from regional stations.</p> <p>The Application will describe expected changes in surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the Project. A site water balance will characterize water levels, inflows and outflows from water management infrastructure such as the tailings storage facility, and reuse and reclaim water requirements for mine processes. The Application will also identify mitigation strategies to minimize the effects of Project development on the regional hydrological regime.</p> <p>A Cumulative Effects Assessment (CEA) will assess residual effects of the mine that could potentially interact with residual effects of other projects or activities, such as water diversions, and assess whether this interaction is likely to result in a significant impact to fish and fish habitat. The effects of climate change will also be considered.</p>

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Issue of Concern	Comment # Pertinent to Issue (see Table 1)	Total comments received for this Issue	Summary of Concern	Proponent \ Government Response ¹
Groundwater Quality	1, 4, 13, 15, 23, 24, 29, 38, 42, 49, 56, 90, 91, 97, 99, 108, 110, 113, 131, 138, 140, 144, 145, 147, 148, 151, 159, 161, 163, 167, 175, 176	32	<p>Concerns noted on groundwater quality were:</p> <ul style="list-style-type: none"> • effects of ground compression from the weight of the TSF on ground water quality • leaching of liquid and chemicals used in ore processing from the TSF into the local groundwater • impacts of contaminated groundwater on Kamloops Lake water quality • effects of acid rock drainage / metal leaching 	<p>Groundwater quality has been identified as an environmental VC and is included in Section 6 of the AIR and Application. It will also be included in the AIR and Application as a component of the human health VC effects assessment.</p> <p>The ground water sampling program was initiated in 2008 and is ongoing.</p> <p>The Application will provide an evaluation of potential effects associated with mine development, operations and closure on groundwater quality.</p> <p>A groundwater model will integrate results of the Metal Leaching/Acid Rock Drainage (ML/ARD) prediction work, baseline water quality, hydrology, and water balance information to develop water quality predictions for the effects assessment. The results of the effects assessment will be used to prescribe any materials handling procedures, mitigation, and management requirements for the project.</p> <p>An analytical or numerical seepage model of the TSF will identify areas of potential seepage and total seepage along the periphery of the impoundment.</p>
Groundwater Quantity	13, 15, 16, 38, 42, 49, 70, 82, 89, 90, 91, 93, 96, 97, 99, 104, 108, 110, 113, 125, 140, 144, 145, 147, 148, 159, 160, 163, 167, 174	30	<p>Concerns identified regarding project impacts on groundwater quantity were closely related to terrain and soil stability:</p> <ul style="list-style-type: none"> • groundwater pressure from upslope development and open pit blasting exacerbating existing groundwater and stability issues in the Aberdeen subdivision • release of process water extracted from Kamloops Lake into surface and groundwater affecting near Aberdeen • effects of ground compression from the weight of the tailings on groundwater flow 	<p>Groundwater quantity has been identified as an environmental VC and is included in Section 6 of the AIR and Application.</p> <p>The ground water monitoring program was initiated in 2008 and is ongoing.</p> <p>The Application will include a characterization of the existing groundwater regime to assess potential impacts, mitigation measures, monitoring and contingency planning as mine planning proceeds.</p> <p>A hydrogeological assessment will include characterization of the bulk hydraulic conductivity for overburden and bedrock materials and rate and direction of groundwater flow and its potential effect on groundwater quantity.</p>

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Wildlife	4, 5, 9, 11, 13, 14, 20, 23, 24, 38, 41, 45, 49, 52, 65, 66, 69, 73, 84, 85, 88, 90, 91, 102, 106, 108, 110, 114, 116, 124, 125, 126, 135, 137, 140, 141, 142, 145, 150, 151, 154, 157, 159, 161, 163, 169, 171, 172, 174, 176, 179	51	<p>The primary wildlife concerns were as follows:</p> <p>Open pit and processing facility:</p> <ul style="list-style-type: none"> • effects of noise (blasting, crushing, mine traffic) within and outside the mine footprint • mortality from access to open pit and mine works • increased wildlife mortality from traffic collisions, construction and blasting • effects of light pollution on wildlife and insect species <p>Peterson Creek diversion</p> <ul style="list-style-type: none"> • loss of wetland habitat <p>Inks Lake, Wallender Lake and unnamed alkali ponds:</p> <ul style="list-style-type: none"> • loss of water source for wildlife • loss of habitat for waterfowl and other non-game species • loss of ungulate grazing areas around Inks Lake <p>TSF</p> <ul style="list-style-type: none"> • loss of migratory corridor for mule deer, white tailed deer, moose and other wildlife that travel between summer (Lac Le Jeune, Hull Mountain) and winter ranges (Iron Mask, Sugarloaf Mountain, Coal Hill and Kenna Cartwright Park) • loss of mule deer spring and fall range • effects of fugitive dust and metals uptake in vegetation and wildlife • effect of mining activity on forage production or quality, especially around TSF <p>Transmission line:</p> <ul style="list-style-type: none"> • spread of noxious weeds • collision of raptors <p>Wildlife displacement:</p> <ul style="list-style-type: none"> • wildlife numbers and movement should be studied prior to operation • mitigation (wildlife fencing, compensation for damages) for effects from displaced wildlife on neighbouring ranchers and homes • bear – human interactions from habitat destruction forcing more bears into urban areas 	<p>Rare plants and Rare and Sensitive Ecological Communities have been identified as VC in the AIR based on feedback received during consultation activities and liaison with federal and provincial agencies. Taxa of concern in the following groups have also been identified as VC in the AIR:</p> <ul style="list-style-type: none"> • Terrestrial Invertebrates • Amphibians and Reptiles • Migratory Birds • Raptors • Non-migratory Gamebirds • Mammals <p>The effects assessment, including project impacts and mitigation measures as well as cumulative impacts, will be presented in section 6 of the Application.</p> <p>Baseline wildlife and vegetation studies were initiated in 2007 and are ongoing. The wildlife assessment presented in the Application will identify and analyze potential adverse effects resulting from the proposed Project. It will include effects of construction, operation and decommissioning and closure activities. Where project activities/disturbances associated with construction and operations are likely to cause a negative impact, mitigation strategies will be identified. Potential strategies that would be recommended could include minor adjustments of project footprints to avoid particular sensitive habitats, specification of vegetation clearing schedules, garbage management, noxious weed control, and dust management. The potential effectiveness of each strategy will be discussed. Mitigation strategies will include proven methods, Best Management Practices (BMPs), legislative requirements (provincial and federal Acts) and species-specific recovery strategies (where available). In addition to mitigating potential impacts, opportunities for site restoration (and reclamation) and enhancement will be explored to help offset potential losses and improve biodiversity.</p>
Grasslands / Ecosystems	1, 5, 11, 12, 13, 14, 17, 23, 24, 27, 29, 36, 44, 59, 62, 63, 65, 66, 72, 73, 83, 84, 85, 87, 88, 90, 99, 101, 102, 108, 110, 111, 113, 116, 124, 126, 129, 130, 135, 137, 140, 142, 143, 147, 154, 155, 157, 159, 161, 162,	56	<p>Grasslands:</p> <ul style="list-style-type: none"> • permanent loss of sensitive ecosystem • habitat loss for badger, Burrowing Owl, grouse and other indigenous and endangered species • inability of reclamation to reproduce grasslands following closure • dust contamination of grasslands outside of the project footprint • invasive weeds will have detrimental effects on ranchers and grasslands in the area <p>Wetlands</p> <ul style="list-style-type: none"> • loss of wetland habitat from Peterson Creek diversion 	<p>Grasslands and wetlands will be considered under the environmental VC defined as 'rare and sensitive ecological communities' and will be discussed in section 6 of the Application. In addition, rock outcrops and old growth forests will also be assessed in this category.</p> <p>Effects of the mine on rare and sensitive ecological communities will be assessed in the Application.</p> <p>The assessment will identify and analyze potential adverse effects</p>

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Issue of Concern	Comment # Pertinent to Issue (see Table 1)	Total comments received for this Issue	Summary of Concern	Proponent \ Government Response ¹
	163, 166, 168, 169, 171, 177		<ul style="list-style-type: none"> • ecological consequences of the destruction of Inks Lake • loss of waterfowl habitat in Jacko Lake 	<p>resulting from the proposed Project. It will include effects of construction, operation and decommissioning and closure activities. Where project activities/disturbances associated with construction and operations are likely to cause a negative impact mitigation strategies will be identified, where possible. Opportunities for site restoration (and reclamation) and enhancement will be explored to help offset potential losses and improve biodiversity.</p>
Aesthetics	1, 5, 9, 12, 18, 27, 38, 40, 44, 46, 70, 72, 78, 85, 91, 100, 103, 106, 110, 113, 116, 117, 121, 130, 131, 137, 142, 150, 151, 154, 159, 162, 167, 171, 176	35	<p>The size and location of the waste rock management facilities and tailings storage facility in proximity to Kamloops were identified as an aesthetic concern, primarily in relation to the effects on tourism:</p> <ul style="list-style-type: none"> • visual impact of an open pit mining operation in close proximity to the city, affecting future growth opportunities in other sectors, including tourism • visual impact on residents quality of life • impact on recreational activities that the city is trying to encourage 	<p>Visual Impact / Aesthetic Features have been defined as social VC in the AIR; effects will be assessed in Section 8 of the Application.</p> <p>Aesthetics of the mine will be considered in the Application under the Economic and Social Effects Assessment.</p> <p>Examples of aesthetic impacts on tourism could take into consideration contract and business opportunities, employment opportunities, labour income generated, local unemployment rate and trend, and employment and economic diversification.</p>
Human Health / Safety / Well-being	2, 4, 12, 13, 15, 18, 21, 22, 24, 26, 29, 34, 37, 39, 43, 44, 48, 49, 50, 53, 54, 55, 58, 60, 63, 65, 70, 74, 75, 78, 81, 83, 84, 85, 86, 89, 90, 91, 92, 99, 101, 104, 108, 109, 110, 113, 118, 121, 124, 130, 131, 137, 138, 139, 140, 142, 144, 147, 149, 152, 154, 155, 157, 158, 159, 161, 162, 163, 167, 169, 171, 173, 175, 176, 177, 180,	76	<p>Well-being</p> <ul style="list-style-type: none"> • tradeoff between jobs and tax revenue versus quality of life • general stress • electromagnetic radiation from high voltage power lines • compensation for neighbouring residents who suffer loss of sleep from mine operations <p>Cumulative effects</p> <ul style="list-style-type: none"> • existing poor air quality on human health • increased logging traffic and risk of accidents along Lac Le Jeune Road and Meadow Creek Road from harvesting of pine beetle killed trees 	<p>Air quality, water quality, noise and vibration, health education, and healthy living have been identified as health VC in the AIR and will be assessed in Section 10 of the Application.</p> <p>Human health, safety, and well-being will be considered in the Application under the Health, Economic, and Social Effects Assessments. The Application will present background information on air and water quality in the local and regional air shed and watershed, and identify and analyze potential adverse effects resulting from the proposed Project. The effects of noise and vibration will also be presented in the Health, Effects Assessment. The Application will also describe mitigation measures the Proponent will commit to undertaking to minimize potential adverse effects.</p> <p>Traffic volumes and patterns will be characterized in the project region and assessed with the anticipated project related activities around the mine site and concentrate transportation route.</p> <p>Safety risks associated with storage of explosives, accidents and malfunctions (including spills of deleterious substances), dust, and access to the pit after closure will be described.</p> <p>Potential project effects associated with concerns related to electromagnetic fields of transmission line operation will be considered, including review of current literature and research.</p>

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				A Cumulative Effects Assessment (CEA) will be conducted, considering residual effects of the mine that could potentially interact with residual effects of other projects or activities in the region, and assess whether this interaction is likely to result in a significant impact to human health, safety and well-being.
Recreation	3, 4, 20, 36, 40, 41, 47, 60, 76, 84, 104, 113, 114, 117, 118, 124, 126, 129, 132, 141, 145, 154, 155, 156, 159, 162, 171, 177, 180	29	<p>The main recreational activities that would be affected by the mine were identified as fishing in Jacko Lake, hiking, birding, and snowshoeing.</p> <p>The following issues or concerns were expressed within the comments:</p> <ul style="list-style-type: none"> • loss of enjoyment from fishing in close proximity to industrial development (noise pollution) • destruction of a fertile part of Jacko Lake favoured by fly fishermen. • effects of daily blasting on bedrock potentially leading to draining of Jacko Lake, affecting fishing. • noise levels affecting public enjoyment • loss of recreational activities in grasslands • elimination of Inks Lake hiking, biking, hockey and snowshoeing through creation of process water pond • increased mine related traffic on Lac Le Jeune Road, currently used by local residents and tourists to access recreational areas around the project site impeding quick access to recreational areas • elimination of the recreational use of Inks Lake Road • hazard created by explosives trucks crossing Goose Lake Road, currently used by cyclists, motor bikers, joggers, hikers, dog walkers • loss of public access to Jacko Lake for fishing and other recreational activities • water quality impacts in Peterson Creek and downstream into the Thompson River, affecting swimming areas in Pioneer Park and Riverside Park • impacts on bird species that use Jacko Lake riparian areas affecting bird watchers • impact of loss of wildlife on people's enjoyment of the area 	<p>Indirect effects of the proposed Project on public concerns related to recreation will be addressed through assessment of several VC proposed in the AIR, including:</p> <ul style="list-style-type: none"> • Surface water quality; surface water quantity; fish populations and fish habitat; hydrogeology; rare and sensitive ecological communities; mammals; raptors; gamebirds (Environment VC) • Noise and vibration (Health VC) • Jacko Lake; visual impact / aesthetic features; land and resource use; public facilities and services, including transportation (Social VC) <p>The Application will include a description of existing recreational areas and activities in the Kamloops region, with a focus on the features at and adjacent to the proposed mine site and along the Peterson Creek watershed. The effects assessment will consider the findings of hydrology, noise, dust, vibration, water quality, fisheries and traffic studies, in relation to recreational usage and values found through the stakeholder interview process. Where adverse effects are identified, the proponent will identify possible mitigation measures and/or monitoring activities to address them.</p>
Tourism/Investment	3, 5, 10, 12, 23, 27, 36, 38, 40, 50, 54, 58, 61, 64, 65, 66, 72, 73, 76, 85, 91, 100, 104, 106, 108, 111, 124, 126, 129, 132, 141, 145, 146, 159, 161, 177, 180	37	<p>Tourism</p> <ul style="list-style-type: none"> • increased mine related traffic on Lac Le Jeune Road, currently used by local residents and tourists to access recreational areas around the project site – safety hazard from increased risk of accidents, impediment to accessing recreational areas quickly • visual impact of an open pit mining operation in close proximity to the city, affecting future growth opportunities in other sectors, including tourism • TSF adjacent to Coquihalla Highway deterring tourists from stopping in town • loss of growth for the city from people who are attracted to the area for recreational opportunities <p>Investment</p> <ul style="list-style-type: none"> • loss of property values as a result of damages resulting from ground instability, dust, 	<p>Indirect effects of the proposed Project on public concerns related to tourism and investment will be addressed through assessment of several VC proposed in the AIR, including:</p> <ul style="list-style-type: none"> • Air quality; hydrogeology; geology, landforms and soils (Environment VC) • Income; employment; business; cost of living; housing; infrastructure; economic diversification (economic vc) • Noise and vibration (Health VC) • Visual impact / aesthetic features, land and resource use, public facilities and services, including transportation; community health and well-being (Social VC) <p>Consideration of potential adverse effects on property values, tourism</p>

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Issue of Concern	Comment # Pertinent to Issue (see Table 1)	Total comments received for this Issue	Summary of Concern	Proponent \ Government Response ¹
			<p>noise</p> <ul style="list-style-type: none"> • drop on housing prices due to proximity of the mine (diminished equity, personal investment) • reduced air quality on the Kamloops marketing image as the tournament capital of Canada • presence of mine affecting city expansion from tourism opportunities, higher education institutions, and civic recreational facilities • city investment in infrastructure to attract tourism impacted by mine • shipping of primary resources offshore for processing • needed foreign investment and resource development in BC interior <p>Specific information was requested regarding:</p> <ul style="list-style-type: none"> • Whether the company would provide compensation for property damage (vibration, water damage) incurred as a result of mine operations, since these are not covered by homeowners insurance. 	<p>and on the community's image will be completed in the Application. The assessment will include review of relevant experiences in places where industrial developments have located in the vicinity of an urban centre and stakeholder interviews with representatives of the local real estate and tourism sectors.</p>
Economy / Employment	18, 24, 44, 46, 58, 61, 64, 65, 75, 83, 91, 92, 101, 103, 104, 109, 111, 119, 124, 126, 129, 132, 133, 141, 144, 146, 159, 161, 163, 180	30	<p>The following concerns were expressed regarding effects of the project on the local economy and employment:</p> <ul style="list-style-type: none"> • viability of the project if the price of copper falls • need for specialized skills in the mine would result in hiring outside of the region • loss of jobs in tourism, ranching, civil servants, and new industries that would locate elsewhere because of the mine • increased medical costs from health concerns • loss of economic and social potential of Kamloops from reputation as an industrial town, people moving away from Kamloops because of the mine • short term scope of the assessment – short term mine jobs compared to long terms tourism and service jobs; short term economic benefit (jobs, tax revenue, etc.) compared to economic cost of the mine (health costs, environmental clean-up, lost property values in Aberdeen, lost tourism from fishing lakes, etc.) • loss of tourism and economic benefit from people who are attracted to the area for recreational opportunities • loss of approximately 5000 angler-days per year from Jacko Lake, which translates into approximately \$500,000 being injected into the provincial economy • wage levels for skilled mine workers compared to those in tourism-related sectors • sourcing supplies from businesses located in Kamloops and area, paying taxes to the city of Kamloops and the province 	<p>The following Economic VC have been identified in the AIR for inclusion in the Application:</p> <ul style="list-style-type: none"> • Labour force • Education and training • Income • Employment • Business • Cost of living • Housing • Infrastructure • Economic Diversification <p>The Application will include a baseline economic profile of the Kamloops region.</p> <p>The assessment of potential effects will examine direct impacts on the local economy of jobs in the construction and operations phases, direct impacts of sourcing and supply in the Kamloops area, and indirect spending of workers in the area. The effects section would also consider the contributions of the mine to municipal taxes and consider how the proposed project will interact with other economic activity in the region.</p> <p>A Cumulative Effects Assessment (CEA) will be conducted, considering residual effects of the mine that could potentially interact with residual effects of other projects or activities, such as existing industrial, commercial and residential activities in the region, and assess whether this interaction is likely to result in a significant impact to the economy/employment. Considerations will be in the tourism and forestry</p>

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Land and Resource Use	1, 4, 8, 9, 10, 12, 13, 14, 15, 18, 20, 21, 24, 25, 29, 36, 37, 39, 40, 43, 44, 46, 49, 50, 51, 52, 54, 55, 56, 58, 59, 60, 61, 62, 65, 66, 74, 75, 77, 78, 83, 84, 85, 92, 98, 99, 100, 101, 102, 105, 106, 107, 108, 110, 113, 115, 116, 120, 130, 131, 133, 134, 136, 138, 140, 141, 143, 145, 147, 149, 150, 152, 153, 154, 155, 157, 158, 159, 160, 163, 164, 166, 167, 168, 170, 171, 172, 173, 174, 175, 176, 180,	92	<p>Concerns regarding land and resource use fell into two categories:</p> <p>City of Kamloops expansion:</p> <ul style="list-style-type: none"> • ability of the city to expand south of Aberdeen • expansion of mine beyond what is proposed in the Project Description (Monte Carlo, Rainbow & DM/Audra prospects, ore body below Jacko Lake) • location of the mine in an area considered more desirable for future home development <p>Agriculture</p> <ul style="list-style-type: none"> • lowering of water table impacts on agriculture, ranchers • impact on ALR loss of agricultural land and loss of way of life • water quality impacts (surface and groundwater contamination) on irrigation water • cumulative impacts on water levels from irrigation, water used by the city of Kamloops, mining, etc. on Thompson River fish stocks • dust from TSF drifting onto hay and grass lands, affecting the health of livestock, and forage production and quality and compromising the quality of feed • wildlife avoidance of project area leading to larger numbers of deer feeding on adjacent hay fields and grass in the summer and stored feed in the winter 	<p>sectors.</p> <p>Land and resource use has been identified as a Social VC in the AIR. Indirect effects of the proposed Project on public concerns related to land and resource use will be addressed through assessment of additional VC proposed in the AIR, including:</p> <ul style="list-style-type: none"> • Surface water quality; surface water quantity; hydrogeology; rare and sensitive ecological communities; mammals; raptors; gamebirds (Environment VC) • Air quality (Health VC) • Culture, Jacko Lake; visual impact / aesthetic features; land and resource use; public facilities and services, including transportation (Social VC) <p>Effects of the project on water quality and quantity, air quality, and wildlife will be assessed in the Application. The assessment will address how the proposed Project fits in with the short, medium and long-term planning strategy for Kamloops.</p> <p>A Cumulative Effects Assessment (CEA) will also be conducted to identify residual effects of the mine that could potentially interact with residual effects of other projects or activities and assess whether this interaction is likely to result in a significant impact to water, air, wildlife and subsequent effects on land and resource use.</p> <p>Socio-cultural implications arising from loss of agricultural activities will be examined drawing on stakeholder interviews with potentially affected landowners.</p>
Infrastructure	13, 14, 22, 39, 40, 49, 60, 108, 118, 124, 126, 130, 131, 133, 138, 145, 158, 177, 180	19	<p>Potential impacts on existing infrastructure were primarily related to an increase in mine-related traffic on area roads, and the current condition of the roads.</p> <p>Traffic/Roadways</p> <ul style="list-style-type: none"> • Lac Le Jeune Road not designed or suitable to be a transportation corridor for mining or hauling trucks - narrow and winding with limited passing opportunities, requiring passing lanes and road realignments • increased mine related traffic on Lac Le Jeune Road, currently used by local residents and tourists to access recreational areas around the project site –increased risk of accidents, impediment to accessing recreational areas quickly • ore transportation along a school bus route and four parks • cumulative impacts of logging trucks and mining trucks on Lac Le Jeune Road – deteriorating road condition, maintenance cost increases • spring weight restrictions (up to 2 months) affecting ore transport • limited visibility from the mine access road to Lac Le Jeune Road • snow clearing along Lac Le Jeune Road • use of alternate transport route - Inks Lake Road to interchange on Highway 5 • increased heavy truck traffic on the Coquihalla Highway increasing wear and tear on 	<p>Infrastructure has been identified as an Economic VC, and public facilities and services, including transportation, have been identified as Social VC in the AIR. Healthy living and air quality have been identified as Health VC; the Application will assess community health care issues associated with the proposed Project.</p> <p>The Application will present a baseline of current traffic patterns on roads at, and adjacent to, the proposed mine site, and along the proposed concentrate shipping corridor. The effects assessment will consider the number and frequency of concentrate trucks leaving and arriving at the site, and any other shipment of material, including waste. Frequency and volume of commuter traffic to and from the site will also be addressed, with consideration of increased traffic within residential areas close to the site. KGHM Ajax will load, weigh and transport all concentrate as per Ministry of Transportation’s seasonal road restrictions.</p> <p>A baseline of the capacity utilization of current and projected healthcare facilities will be presented in the Application. The baseline will be used to assess potential implications of project-related increases in health service</p>

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			<p>the road surface</p> <ul style="list-style-type: none"> • Goose Lake Road used extensively by residents, cyclists, motor bikers, joggers, hikers, dog walkers, etc. • Congested and uncontrolled intersection between Copper Head Drive and Versatile Drive affected by mine suppliers accessing property via Kamloops <p>Health care</p> <ul style="list-style-type: none"> • increased cost to the community from increased respiratory problems, allergies from air quality and water quality contamination <p>Sewage and waste</p> <ul style="list-style-type: none"> • garbage and sewage disposal • mine sewage treatment 	<p>requirements. If required, relevant mitigation measures will be identified.</p> <p>Capacity utilization of sewage and waste facilities will be assessed in relation to project requirements.</p> <p>A Cumulative Effects Assessment (CEA) will also be conducted to identify residual effects of the mine that could potentially interact with residual effects of other projects or activities and assess whether this interaction is likely to result in a significant impact to infrastructure.</p>
Terrain / Soil Stability	5, 34, 39, 48, 56, 70, 75, 76, 77, 79, 80, 82, 89, 90, 93, 101, 105, 108, 109, 110, 125, 140, 144, 148, 152, 159, 163, 164, 167, 174, 175, 176, 181	33	<p>Issues related to terrain and soil stability focused on:</p> <ul style="list-style-type: none"> • effects of blasting, excavation on existing unstable soil and subsequent effects on landscape, city, and residents; risk of landslides due to blasting • change in groundwater flow and movement affecting already unstable ground in Aberdeen and Pineview Valley • stability of berm and waste rock management facilities and effects to surroundings 	<p>Geology, landforms and soils have been identified as Environmental VC in the AIR and will also be included in the assessment of health, economic, and social VC considered in the Application.</p> <p>The Application will include characterization of the regional and study area geology, including interpretation of aquifer and aquitard locations in the study area and characterization of the bulk hydraulic conductivity for overburden and bedrock materials. The effects assessment will include an estimate of the rate and direction of groundwater flow.</p>
Comment noted in the public record			<p>The following comments did not identify specific issues for inclusion in the effects assessment:</p> <ul style="list-style-type: none"> • The mine will receive a subsidy for power usage • Longer period for public input is required, with greater publication of details. • Brochure/survey information package should be distributed to Kamloops residents regarding proximity, noise levels, operating hours, footprint, etc. • concern that a 300' berm surrounding the rock pit would interfere with solar and wind power in residence adjacent to mine • Public open house venue was too small, question period was too short, and government agencies ran out of handouts. • Andrew Pooler, Executive Vice President and Operating Officer, was not on hand June 16th to answer questions, such as his ability to manage a project of this magnitude. • Support for the project • Environmental impacts from resource extraction in Canada but economic opportunities created elsewhere • Reference to mining project in Mexico being owned by the same company as the Ajax Project. • Inadequate monitoring and enforcement by government regulators following mine approvals • The role of the City of Kamloops in the decision making process; issue of municipal zoning 	<p><i>EAO Response: The EAO required an extra public comment period held earlier than usual in the environmental assessment process for the proposed Ajax Project in order to consider public input on the scope of the environmental assessment and to harmonize with the federal review process. Additional opportunities for public input will be available in the form of future public comment periods and information sessions and will be advertised in advance. Information and key documents, including Working Group meeting summaries, public issue tracking tables, the Application Information Requirements, and the proponent's Application for an environmental assessment certificate will be posted on the EAO website as the review progresses.</i></p> <p><i>The EAO and CEA Agency are working with local governments and the proponent to identify the most effective means for providing notice of upcoming opportunities for public input re: issues and concerns.</i></p> <p><i>In response to the level of interest and the number of people who attended the first open house on June 16, 2011, the EAO and CEAA will be working with the proponent to provide a larger space and provide a longer time period for questions and answers at future information sessions. The EAO and EA Agency always endeavour to estimate how many handouts to bring to open houses and information sessions to the</i></p>

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Issue of Concern	Comment # Pertinent to Issue (see Table 1)	Total comments received for this Issue	Summary of Concern	Proponent \ Government Response ¹
			<ul style="list-style-type: none"> An aerial display/map/photo of the proposed mine site, including the ranches, neighbourhoods and highways for a five km corridor around the area, be made available to all concerned parties and displayed at further public meetings What kind of plan is in place to allow the Province to charge KGHM/Abacus/Ajax with the costs of firefighting and the loss of homes and infrastructure in the event of a fire originating from the proposed mine site? 	<p><i>best of their abilities. Although there were not enough handouts at the June 16th open houses, the EAO announced at the open house that additional copies would be sent to the Kamloops Library and North Kamloops Library following the meeting.</i></p> <p><i>The City of Kamloops will be responsible for any zoning or permit applications for the proposed project that are under its jurisdiction. The City of Kamloops is also a member of the Working Group for the environmental assessment and will provide advice related to its mandate.</i></p> <p>A three dimensional model of the proposed Project in relation to the surrounding area will be on display at subsequent public information sessions as a result of feedback received from the public and the working group.</p>
Comment noted in the public record, continued			<p>Specific questions directed to the proponent were as follows:</p> <ul style="list-style-type: none"> It was stated last night that consultations are ongoing with both the Kamloops and Skeetchestn Indian Bands. If so, why weren't they at the meeting to indicate their support (or not) of the project? Now that Ajax has acquired the old Afton Mine Site and tailings pond, who is responsible for the proper reclamation of this property? And who sets the standards for this reclamation Will the company operate at the internationally accepted standards of ISO 14001? Will it seek ISO 14001 certification? If and when the mine commences operation, exploration for additional ore bodies nearby will likely be ongoing. What will happen to Jacko Lake if more ore is discovered underneath it? Will it also be sacrificed and drained? In regards to the sludge tailings they propose to use, where else in Canada is this technology being used at this time and how successful is it? 	<p>The following responses are provided to the specific questions:</p> <ul style="list-style-type: none"> The Canadian Environmental Assessment Agency (CEA Agency) and the BC Environmental Assessment Office (EAO) held a public open house on June 16, 2011, to take comments from the public on the proposed Project and its potential effects to ensure that these issues are identified for consideration in the environmental assessment. The purpose of the open house was not to seek support from the Secwepemc Nation. As of April 2011, KGHM Ajax Mining Inc. owns the old Afton buildings and tailings facility. Reclamation is governed under an existing Reclamation Permit issued by the BC Ministry of Energy and Mines. The Proponent will make a decision regarding ISO certification during the construction and operational phases of the project. KGHM Ajax has planned and engineered the Ajax Project to preserve and not interfere with the recreational uses of Jacko Lake. There are no plans to extend the ore body at this time. The high density tailings deposition method proposed for the Ajax Project is being used at the following locations in Canada: <ul style="list-style-type: none"> Gordcorp's Musselwhite Mine, Ontario Nunavik Mine, Quebec Fortune Metals Nico Project, NWT

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NOTE:
1. GOVERNMENT RESPONSE SHOWN IN ITALICS

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
0	23/12/2011	ISSUED FOR IMFORMATION	SCE	RCB	RCB

TABLE 2
KGHM AJAX MINING INC.
AJAX PROJECT
SUMMARY OF PUBLIC ISSUES AND RESPONSE
PUBLIC COMMENT PERIOD JUNE 8 TO JULY 11, 2011