Silver Hart Property
2010 Mine Production Application
And Project Description

YESAB Executive Committee Application

By:
CMC Metals Ltd

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Executive Summary

CMC Metals Ltd. (CMC) is submitting this Executive Committee (ExCom) Project proposal based on recommendations from the Designated Officer's (DO) review of the Silver Hart Project Application (YESAB Project 2007-0206). Due to the size of the project parameters, the initial application met the requirements for a Designated Office review. Based on the DO recommendations, CMC is continuing the application review as recommended. This ExCom submission is essentially identical to the previous DO application with the advantage of addressing several of the concerns brought forward by stakeholders during the DO review.

The Silver Hart property has been explored since 1947 and advanced to the stage that the property warrants a mine development. The Silver Hart Property, is located in south central Yukon between the Meister River and the Oake Lake/Oake Creek watersheds. The property lies within the Omineca physiographic belt of the Yukon Territory and is part of the Rancheria District of northeastern BC and southeastern Yukon that contains numerous silver-rich vein and replacement style deposits. The general underlying geology is described as Paleozoic sedimentary rocks of the Cassiar Platform on the east, in contact with Cretaceous Plutonic rocks of the Cassiar Batholith to the west. Access to the property is by a well developed public road from the Alaska Highway and passes through the CMC claims.

CMC acquired the property in 2005 and has actively explored the property each year. Past operators had trenched several showings, including the TM and S zones, on the property and developed a network of exploration trails. CMC has advanced the understanding of the property to the stage that it is economic to develop a mine and mill to concentrate the ore minerals of interest. CMC is proposing to develop a seasonal mine to extract 20,000 tonnes per year, a waste rock site, a crushing circuit to crush the run-of-mine ore, an 80 tonne per day mineral processing mill to concentrate the minerals for transportation, a tailings impoundment, 20 man trailer camp, diesel generating facilities to provide electrical power, and a fuel storage area. The area was previously disturbed by the past operator's and left a significant amount of residual reclamation. During the exploration of the site CMC has progressively started reclaiming area's that are not needed for further exploration or development on a voluntary basis. The location of the major development components were selected to utilize disturbed areas as a

priority basis. Total development spatial foot print is 4.26 hectares, which 0.89 hectares are new disturbance. CMC is proposing a five year project that include a four month pre-construction phase, a four month infrastructure development, four month commissioning phase, three years mining/milling phase, and one year decommissioning and closure. Timing for the initial pre-construction and infrastructure phase is scheduled for the early summer of 2010. Pre-construction and infrastructure development requires warmer temperatures to conduct terrestrial civil earth works and concrete foundations. Delays in assessment reviews and permitting will significantly increase the cost of the development through having to deal with winter construction, increased IDC costs and the risk of pre-fabricating mill facilities at another site.

Climate change and energy efficiency considerations have been incorporated into the project design through two key areas. First, the mill building facilities incorporates several design features that takes advantage of the solar heat gain by the positioning of the structure, colour of the external skin, and wall insulation to minimize required heating energy. Translucent panels are incorporated to provide natural lighting within the building during daylight hours and to reduce the required lighting energy. For fuel efficiency, three diesel gensets of varing size (600kW, 350kW, 150kW) have been selected to allow the most effective utilization of the gensets generation power curve. This will allow the gensets better match the required generation at the gensets peak operating points. This will significantly reduce the fuel consumption versus having a single unit running below the peak operating point with a lower fuel energy conversion.

Project design and approach incorporate a number of plans to ensure public safety and to minimize environmental impacts. These will include corporate policies and procedures for employees to follow for operational conduct, Health and Safety protocols, Environmental Monitoring Plans (EMP), Adaptive Management Plans (AMP), Emergency Response Plans (ERP), and Decommissioning and Closure Plans. Input from Regulators, and interested stakeholders will dictate the final development of the plans for the project. CMC is committed to meeting all regulatory requirements set by the Yukon Territorial and Federal Governments.

All developments will have socio-economic and environmental impacts. The Silver Hart project occurs on a previously disturbed site and is being approach with the goal to

minimize the environmental foot print and environmental inputs. Water use is minimized by recycling tailings water and utilizing drainage from the past operator's adit. The surface mining component of the operation will mine to the adit level and will eliminate the future drainage from the adit which will provide a positive long term impact. Any process water that may need to be released will first be treated to ensure complianace with MMER and licensing requirements under the Water Licence. Other positive socioeconomic impacts will be training of staff for the operation of the mill facilities from the local communities of Watson Lake, Teslin, and Whitehorse. Due to project being a small mine scenario, it is prudent to develop the labour pool as close to the operation as practical. Corporately, CMC encourages the practice of drawing from the local communities to entrench positive socioeconomic and environmental values that mesh with the community values. During operational phase, positive economic benefits will occur through increased employment, mineral royalties, purchase of materials and supplies, and increased local contractor utilization. Potential negative impacts include increased surface water siltation at newly disturbed areas, increased traffic frequency on public roads, potential for construction and operational accidents, increased potential for fuel and chemical spills, increased potential of catastrophic failure of a tailings dam and the temporary removal of access around the mining/milling area due to public safety concerns. Based on the EMP, AMP, ERP and Closure Plans, the negative impacts can be managed, mitigated, and minimized.

From the initial ownership of the Silver Hart property, CMC has kept the Liard First Nations and Teslin First nations informed of our activities in their Traditional Territory as we conducted exploration programs. As we progressed toward the development phase, additional meetings with Liard First Nations Land Resources Manager, and Teslin Chief and Council occurred to scope out potential impacts of a mine development that will require addressing during the development submissions. Once the initial project description and application was ready for submission for the DO review, an Open House was held in Watson Lake and personal invitations sent to the Liard Chief and Council to attend and for a personal overview of the project on May 15th, 2007. On May 16th, 2007, CMC meet with the Teslin Chief and Council to review the project description. Both First Nations groups had similar feed back. This included concerns associated with the potential of increased recreational hunting and fishing due to the public access route being upgraded for mine use, and the potential opportunity for First Nations people and contractors being retained for the construction and operational phase of the project. The

public access road is not part of this application. However it was addressed in the Class III Exploration Permitting and CMC decided that not all of the access route will be upgraded, eliminating the ability of any new potential recreational hunting and fishing traffic. With respect to hiring First Nations persons for the project development and operations, training of local people will be provided for suitable candidates. Training will not be for site specific functions alone but will also include development of skills that will be transferable to other future work opportunities.

Based on the limited environmental foot print of the proposed operation and its facilities, that the development occurring is at a previously disturbed site, the significant amount of baseline information to work with and expand on during all phases of the project, and the positive socioeconomic benefits to both the local communities, CMC is committed to progressing the Silver Hart project through to the completion of the Closure Plans.

1.0 Proponent Information

CMC Metals Ltd. (CMC) is a public mining company trading on the TSX Venture Stock Exchange, and is focused on the development of advance staged mineral properties. CMC searches for high grade precious and base metal properties that are sufficient in size to meet their economic criteria plus demonstrate the ability to minimize environmental foot print. For a property to be considered for development, the property must be sustainable financially, environmentally, and socially. Currently CMC has three properties that are being evaluated for development - two are located in the Yukon Territory (see Figure 1). CMC is a relatively new company, being listed n the TSX Venture in 2005. It was initially started for the purpose of developing the Silver Hart property. The corporate Board of Director's have a vast exposure to the mining industry and the CEO/President of the company has over 27 years as a mining engineer, assessing, permitting and developing mine projects. For more corporate information see www.cmcmetals.ca.

With respect to proponent contact information, the following provides several means of contacting people involved on the project submission:

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Donald Wedman, P.Eng.
CEO/President
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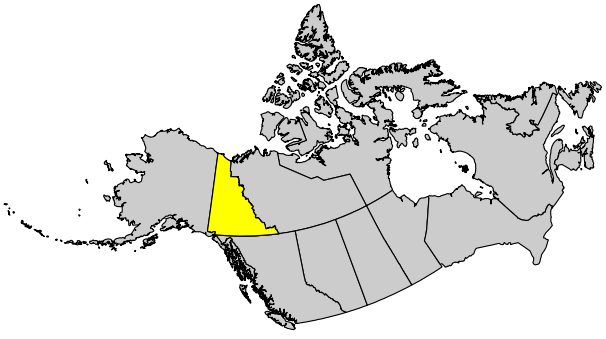

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CMC METALS LTD. PROPERTY

Drawn By: HD	**Figure 1**
Checked By: PI	Date: Nov. 2006

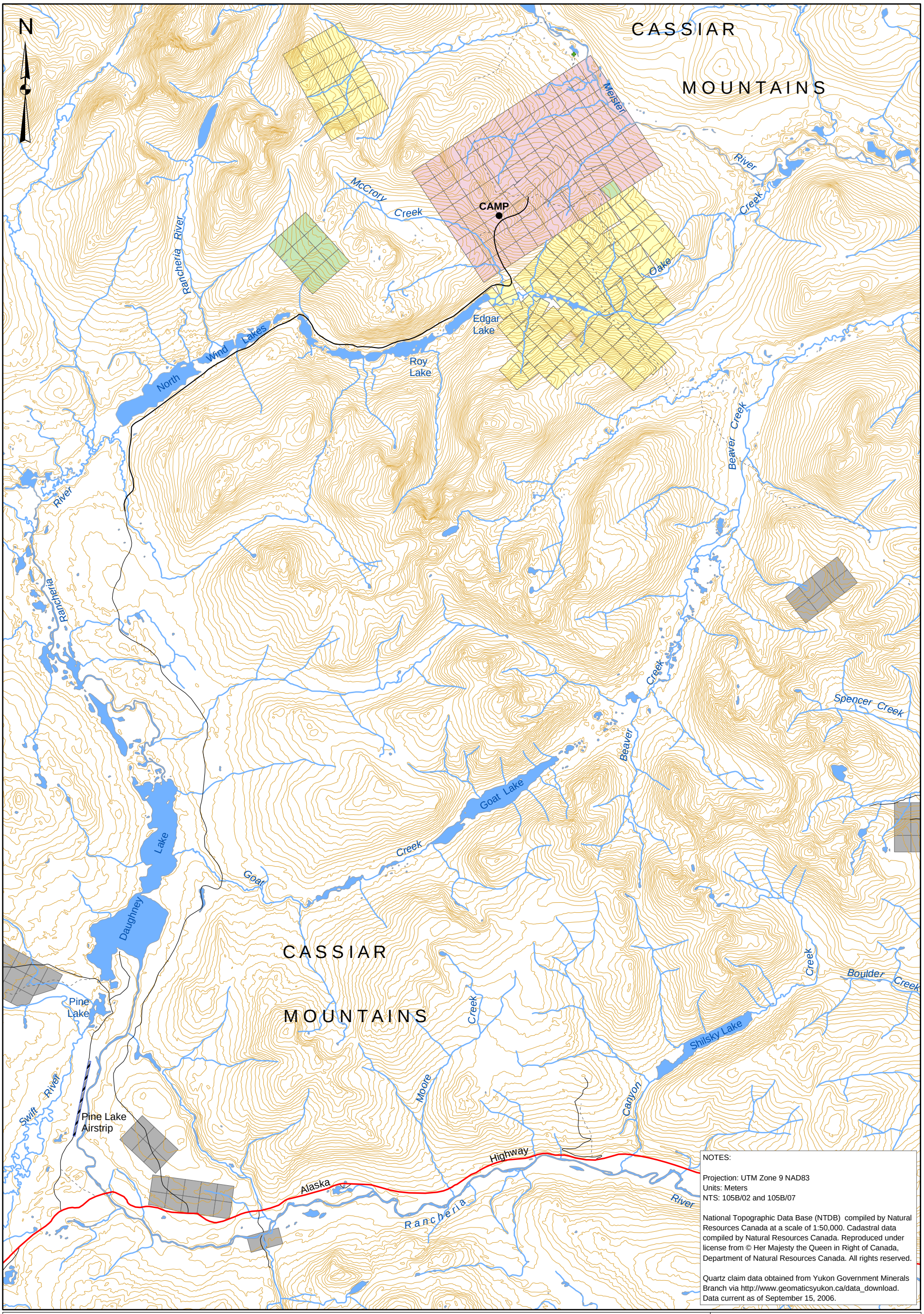
Our File: D:\Project\AllProjects\CMC_Metals\gis\mxd\YESAB_Fall06\Fig1_GenLoc.mxd

2.0 Project Background

2.1 Project Location and History

The CMC Silver Property, also known as the Silver Hart Property, is located in south central Yukon between the Meister River and the Oake Lake/Oake Creek watersheds. The property is located near the headwaters of the Rancheria River but outside of this watershed (see Figures 1 and 2).

The Silver Hart Property is a previously discovered precious metals deposit that has seen a number of advanced exploration programs since it was initially discovered. The deposit is a silver, lead, and zinc mineralization, with minor values of tungsten, copper and molybdenum. Documents indicate that the area was first staked as early as 1947 (Bastille Claims owned by Great Northern ECL) but there are no records of any work being undertaken until the area was re-staked in 1971 by Wolf Lake Joint Venture. Following this re-staking some test pits and mapping was undertaken. The area was once again re-staked in 1980 and named the CMC claims. In 1981 the claims were acquired by McCrory Holdings (Yukon) Ltd., after which more test pits were dug and rock-chip samples obtained. These samples indicated high levels of silver, lead, and zinc. In 1982 the CMC claims were optioned by BRX Mining and Petroleum Ltd. who carried out an airborne geophysical survey, ground VLF/EM and drilled 196.9 m in two holes. T. McCrory and B. Preston discovered two additional zones of silver-lead-zinc mineralization in 1983 and 1984. Analyses from one of the zones attracted the interest of Shakwak Exploration Company Limited and Silver Hart Mines Ltd. A 1985 exploration program focused on testing the continuity along strike and down dip of the silver-lead-zinc veins in the two surface zones, zone F and T. The program included surface geological mapping, preliminary grid geophysical (VLF) and geochemical surveys, bulldozer trenching, as well as the completion of 50 diamond drill holes. During the winter of 1985-86, underground exploration was conducted in the T zone, just above an elevation of 4,600 feet (1402 m). Trackless mining methods were used with openings on haulages of approximately 12-16 ft (3.6-4.9 m) wide by 10 ft (3 m) high. Slusher drifts and raises were approximately 5 ft (1.5 m) wide by 7 ft (2.1 m) high. Approximately 2,208 ft (673 m) of openings were driven.



NOTES:

Projection: UTM Zone 9 NAD83
Units: Meters
NTS: 105B/02 and 105B/07

National Topographic Data Base (NTDB) compiled by Natural Resources Canada at a scale of 1:50,000. Cadastral data compiled by Natural Resources Canada. Reproduced under license from © Her Majesty the Queen in Right of Canada, Department of Natural Resources Canada. All rights reserved.

Quartz claim data obtained from Yukon Government Minerals Branch via http://www.geomaticsyukon.ca/data_download. Data current as of September 15, 2006.

Legend

- Road
- Limited-Use Road
- Trail
- Contour
- Water Course
- Water Body

Quartz Claims
Claim Owner, Status

- , Expired
- Archer, Cathro & Associates, Active
- CMC Metals Ltd., Active
- Other Quartz Claims

Scale:

1:100,000

0 500 1,000 2,000 3,000 4,000 5,000 6,000 m

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Figure 2

Area Overview

Drawn by: HD	Checked by: PI

Date: November 2006

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In 2005 CMC bought the property and conducted a due diligence exploration program to confirm the past geological data. Recently in 2006 to 2009, CMC continued to gather additional information by way of diamond drilling, trenching and geochemical surveys. Reclamation of past site operators camp facilities, closure of the adit opening and upgrading of the access road on the claims also occurred during this time.

2.2 Current Assessment History

The following is a dated list of events in the assessment and permit application process undertaken by CMC Metals Ltd for the current mine development project at the Silver Hart Property:

The following is Schedule 3 (3(a)) of the Yukon Environmental and Socioeconomic Act Assessable Activities, Exceptions and Executive Committee Projects Regulations which shows the triggers for projects to be submitted to the Executive Committee for quartz mining activities:

> *3. Construction, decommissioning or abandonment of*
> *(a) a metal mine, other than a gold mine, with an ore production capacity of 1500 t/day or more;*

As such this project does not meet the trigger and was submitted to the YESAB Watson Lake District Office for DO level screening. Below is a table of dates and activities or actions as they relate to the YESAB District Office level screening process. All documents pertaining to this process can be found on the YESAB Online Registry (http://yesab.ca/registry).

Table 1. Assessment Process to Date

Action/Activity	Date
Initial meeting with regulatory and assessment personnel to describe project	October 26, 2006
Submission of project proposal to YESAB Watson Lake District Office	October 26, 2007
Information request from YESAB Watson Lake DO	November 7, 2007
Meeting with YESAB DO to discuss information request	November 22, 2007
Response to information request submitted to YESAB Watson Lake DO	December 21, 2007
Notice that Supplementary Information Deficient from YESAB Watson Lake DO	December 28, 2007
Response to Supplementary Information Deficient to YESAB Watson Lake DO	June 20, 2008
Notice that Supplementary Information Deficient from YESAB Watson Lake DO	June 25, 2008

Response to Supplementary Information Deficient to YESAB Watson Lake DO	July 25, 2008
Notice that Supplementary Information Deficient from YESAB Watson Lake DO	July 28, 2008
Response to Supplementary Information Deficient to YESAB Watson Lake DO	August 20, 2008
Project Deemed Complete - Evaluation stage begun	August 25, 2008
Seeking Views and Information Stage begun (with first scheduled extension automatically included)	September 3, 2008
Second Extension to Seeking Views and Information Stage	October 8, 2008
Information request from YESAB Watson Lake DO	October 17, 2008
Response to information request submitted to YESAB Watson Lake DO	November 11, 2008
Meeting with YESAB DO to discuss project status	November 11, 2008
Supplementary information deemed deficient, project withdrawn from YESAB process based on Section 67 of the YESAA DO Rules	November 13, 2008
Letter to proponent from YESAB Watson Lake DO that, based on points raised by the Yukon Government, project cannot be deemed withdrawn by YESAB DO at this stage as the DO rules are subordinate to the YESAA, assessment begun	November 27, 2008
Project referred by YESAB Watson Lake DO to YESAB Executive Committee based on Section 56.(1)(d) of the YESAA	December 11, 2008
Evaluation Report released by YESAB Watson Lake DO	December 19, 2008
Planning meeting with YESAB Head Office, Environment Canada, Yukon Government Environment and Energy Mines and Resources Department	March 24, 2009

2.3 Required Authorizations and Regulatory Approvals

This project will require the following authorizations and approvals to move into the production phase:

- Yukon Environmental and Socioeconomic Assessment Act assessment
- Quartz Mining Licence
- Yukon Water Use Licence (Type B)

2.4 Geology

2.4.1 Regional Geology

The Silver Hart Property lies within the Omineca physiographic belt of the Yukon Territory. The property is a part of the Rancheria District of northeastern BC and southeastern Yukon that contains numerous silver-rich vein and replacement style deposits. The general underlying geology is described as Paleozoic sedimentary rocks

of the Cassiar Platform on the east, in contact with Cretaceous Plutonic rocks of the Cassiar Batholith to the west. The overall trend of the contact is roughly northwest, as is the trend of the Cassiar Fault to the west. The Cretaceous Cassiar Batholith, Marker Lake Batholith, and Meister Lake Stock are predominantly granite, but range in composition from quartz diorite, through trontjemite, granodiorite, to quartz monzonite. The Paleozoic sediments consist of interbedded wakes, arenites, quartz arenites (quartzite), and derived metamorphosed equivalents, such as mica schists, quartzofeldspathic gneisses, schists and quartzite (Amukum and Lowey, 1986).

The mafic and felsic dykes are considered to be spatially and temporally associated with late Cretaceous and early Tertiary faults and mineralization (Amukum and Lowey, 1986). Green “andesite” dykes are found throughout the mineral district and appear to be related to faulting that hosts silver-bearing veins (Read, 1987). The dominant structural features of the area are large regionally continuous, northwest-trending, transcurrent faults that are likely superimposed on the major regional faults, and considered to postdate arc-continent collision of early Mesozoic time (Tempelman-Kluit, 1979).

2.4.2 Property Geology

The Silver Hart Property covers a portion of the contact zone between the Cretaceous Cassiar Batholith and Lower Cambrian Atan Group sediments of the Cassiar Platform. Sediments are unsubdivided carbonate rocks and interbedded quartz rich clastic rocks with derived schists and gneisses. Amukum and Lowey (1986), and Read (1987), describe the Silver Hart Property Geology as follows:

> The northwest-trending contact of the granodiorite of the Cassiar Batholith to the west, with metasediments to the east, is very irregular. Some contacts may be intrusive, but many are fault-related. However, faults trending northeast (grid north) appear to contain blocks of metasediments in a graben-like configuration.
>
> As indicated by the limestone beds, the remnant bedding of the sediments strikes obliquely across the mine grid in approximately a true north direction and dips to the east. It is displaced across the No.1 Vein system with an apparent left-hand movement, which more likely is a dip displacement across a normal fault. This is supported by 1985 drill holes through the fault, and K Zone deeper holes drilling into granodiorite in the footwall.

2.4.3 Deposit Geology and Mineralization

The Silver Hart Property is a vein hosted Ag-Zn-Pb+/-Cu mineral system. Although there is evidence for skarn mineralization in the Silver Hart Property area, the dominant mineral occurrences are of the low sulphidation epithermal type. Lindgren (1933) has classified a number of precious metal, base metal, mercury, and stibnite deposits as epithermal deposits and suggests they formed from the discharge of hydrothermal fluids from a magmatic source at low temperatures (<200°C). However, a more generally accepted classification of an epithermal deposit is a precious metal deposit, which forms from meteoric waters with temperatures between 200°C and 300°C (Sillitoe, 1987). White and Hedenquist (1990) note that epithermal deposits are found in a variety of geological environments, in which the type of epithermal deposit is defined by various combinations of igneous, tectonic and structural settings. On a worldwide scale, most epithermal deposits occur in Tertiary volcanic rocks associated with subduction zones at plate boundaries. They were once thought to occur exclusively in rocks that are Tertiary in age but exploration and research has lead to the discovery of deposits in a variety of magmatic environments. Older epithermal deposits are likely less common due to the effects of erosion or metamorphism (Sillitoe, 1987). Sillitoe (1987) provides a brief description of the similarities and differences of adularia-sericite (low sulphidation) type or acid-sulphate (high sulphidation) type deposits:

> The two types of deposits appear to form under similar pressure-temperature conditions but in different geological and geochemical environments in ancient geothermal systems. The acid-sulphate type deposit forms in root zones of volcanic domes from acid waters that contain residual magmatic volatiles. The adulariasericite type deposit forms in a geothermal system where surficial waters mix with deeper, heated saline waters in a lateral flow regime, high above and probably offset from a heat source at depth; neutral to weakly acidic, alkali chloride waters are dominant.

The Silver Hart Property system exhibits silicification, propylitic, argillic and sericitic alteration along with the presence of pyrite, chalcopyrite, base metal sulphides, tetrahedrite and sulfosalts, which are commonly found in adularia-sericite type deposits. The propylitic and sericitic alteration proximal to veins found on the Silver Hart Property supports an adulariasericite type of deposit. (Smith, 1988).

Many descriptions of the mineralization at the CMC claims have been written, Smith (1988) summarizes the mineralization on the Silver Hart Property as follows:

> In general, the veins (T, F and S) all lie near the contact of the sedimentary rocks and the Cassiar Batholith. To date only the T vein/fault is filled in part with one of the andesite dykes. The veins all strike close to the same direction where drilled and sampled, and wall rock alteration in the granitic rocks is epithermal in style with replacement mineralization and manganese flooding in the sedimentary host rocks. The mineralization is of the epithermal type. The hanging wall alteration consists of varying degrees of claying proximal to the vein, sericite as the next outer shell and finally weak to intense propylitic alteration as the outer-most shell of alteration. A distinctive feature of this alteration is the pervasive flooding of the hanging wall rock with manganese wad such that the veined areas can be easily located during prospecting. In areas of sedimentary rocks hosting the veins, there are very wide patches of black gossan surrounding the vein and local replacement zones of sphalerite and galena with low silver content.
>
> The `T' vein strikes N55° to 60°E and dips from 40° to 80°NW. It consists of intensely fractured, oxidized and silicified breccia of argillically altered granodiorite, with at least 5 stages of quartz and/or sulfide filling in right lateral shears. Metallic minerals present in the vein are: sphalerite, galena, chalcopyrite, tetrahedrite (freibergite), pyrite, pyrargyrite, arsenopyrite, covellite, chalcocite, smithsonite and hematite. Accessory minerals are; quartz, calcite, dolomite, and manganese rich carbonates.
>
> The `T zone from about sections 9900 to 9700 consists of a series of fault splays all to the west (hanging wall) of the main fault. These splay faults contain massive sulfides or grey quartz fillings. Based on cross-cutting relations there are about 5 ages of filling with the youngest (most western) having the most visible grey freibergite filling, and the next two older zones having the most galena. The early quartz fillings and the quartz zones associated with the galena all contain very fine grained grey sulfides similar to the silver bearing quartz zone at the trench.

Additional geological characterization is included as part of the Waste Rock Management Plan.

2.5 Current Site Conditions

The Silver Hart Property itself is centered on a low peak in the Cassiar Mountains between the Caribou Lake and Meister River drainage to the north and the Edgar Lake and Oake Creek drainage to the south and east, which subsequently drains north into the Meister River (see Figure 2). The majority of the deposit, and the initial area to be mined, is on the south facing slope within the Edgar Lake and Oake Creek drainage. The deposit is located near or above tree line above the valley floors on either side. Current planning has all mine infrastructure constructed above the valley bottom near the tree line.

3.0 Project Scope

CMC is planning to develop an open pit mine and milling facilities at the Silver Hart Property. The Silver Hart Property contains a high grade silver, lead, zinc deposit located towards the center of the 21.7km^2 CMC claim block, in south central Yukon, 132 km west of Watson Lake on the Alaska Highway (see Figure 2). The site is accessed through an existing 43 km access road (see Figure 2). Current production plans are for the mining of 63,213 tonnes in the area known as the TM zone and the off shoot S zone. This is expected to provide approximately 3 years of production. Mining will be seasonal at approximately 150 days per year and the 80 tonnes per day mill will be a year-round milling operation. To place this in context the mill production will be approximately 2.5% of the Minto Mine's operation. Exploration to better understand the reserves and determine the potential of adjacent ore-bodies began in 2005 and continued through to and including 2009. Historical and current drilling totals over 9,000 m of diamond drilled core.

3.1 Project Alternatives

The current project is presented as a balanced project that includes consideration to environmental, social and, economic inputs that provide the greats benefit overall. Alternatives considered included direct shipment ore with mine development only versus mine and milling, utilization of the underground workings to underground mine versus surface and underground mining, and the potential to not develop the site at all versus investing into another advanced stage project. However, due the configuration of the geological structure, the mineral values, the degree that the property has been advanced to date, the socioeconomic environment within the Yukon Territory, geopolitical regimes and the positive financial value, it is the opinion of CMC Metals that the current proposed project is the best overall approach.

3.2 Environmental Assessment and Regulatory Approvals

- YESAA Screening;

Once the project has been screened under YESAA by the Executive Committee project specifics as described herein will require the following:

- Waters Act Type B Water Use Licence for the use of water for milling (< 100 tonnes per day is a Type B - Schedule 7 YWR); and
- Quartz Mining Licence for production.

Existing Approvals currently in place:

- Land Use Permit - minor road upgrading will be required (applied for as part of the Class III Exploration permit); and
- Mining Land Use Class III Exploration permit (exploration is on ongoing).

3.3 Project Activities

Principle activities:

- Mining and milling of ore;
- Open pit mine;
- Deposit of tailings;
- Waste rock storage;
- Use of water for milling and camp; and
- Ancillary facilities.

Temporal Scope:

- 4 month construction project;
- 4 month commissioning;
- 3 year mining/milling;
- 1 year closure; and
- Total: 5 years.

Spatial Scope:

The spatial scope of the project is the McCrory Creek and upper Oake Creek drainages (see Figure 3).

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Legend

- Weather Station
- Water Quality Station
- Trail
- Limited-Use Road
- Contour
- Water Course
- Environmental Assessment Project Spatial Boundary
- Infrastructure

Quartz Claims
Claim Owner, Status

- Expired
- Archer, Cathro & Associates, Active
- CMC Metals Ltd., Active

Caribou Lake
CMC-01
CMC-10
Landing
CMC-02
Meister River
CMC-03
CMC-03A
CMC-04
CMC-05
CMC-06
Proposed Waste Dump Area
CMC-WX
TM Pit
CMC-U2
McCrory Creek
CMC-11
Facilities
CMC-M1
Tailings Pond
Oake Creek
CMC-U1
CMC-M2
CMC-OC2
CMC-OC3
CMC-07
Edgar Lake
Roy Lake
Beaver Creek

NOTES:

Projection: UTM Zone 9 NAD83
Units: Meters
NTS: 105B/07

National Topographic Data Base (NTDB) compiled by Natural Resources Canada at a scale of 1:50,000. Cadastral data compiled by Natural Resources Canada. Reproduced under license from © Her Majesty the Queen in Right of Canada, Department of Natural Resources Canada. All rights reserved.

Quartz claim data obtained from Yukon Government Minerals Branch via http://www.geomaticsyukon.ca/data_download. Data current as of September 15, 2006.

Figure 3

Site Overview

Scale:
1:50,000
0 250 500 1,000 1,500 2,000 m

ACCESS Consulting Group

Drawn by: HD | Checked by: PI

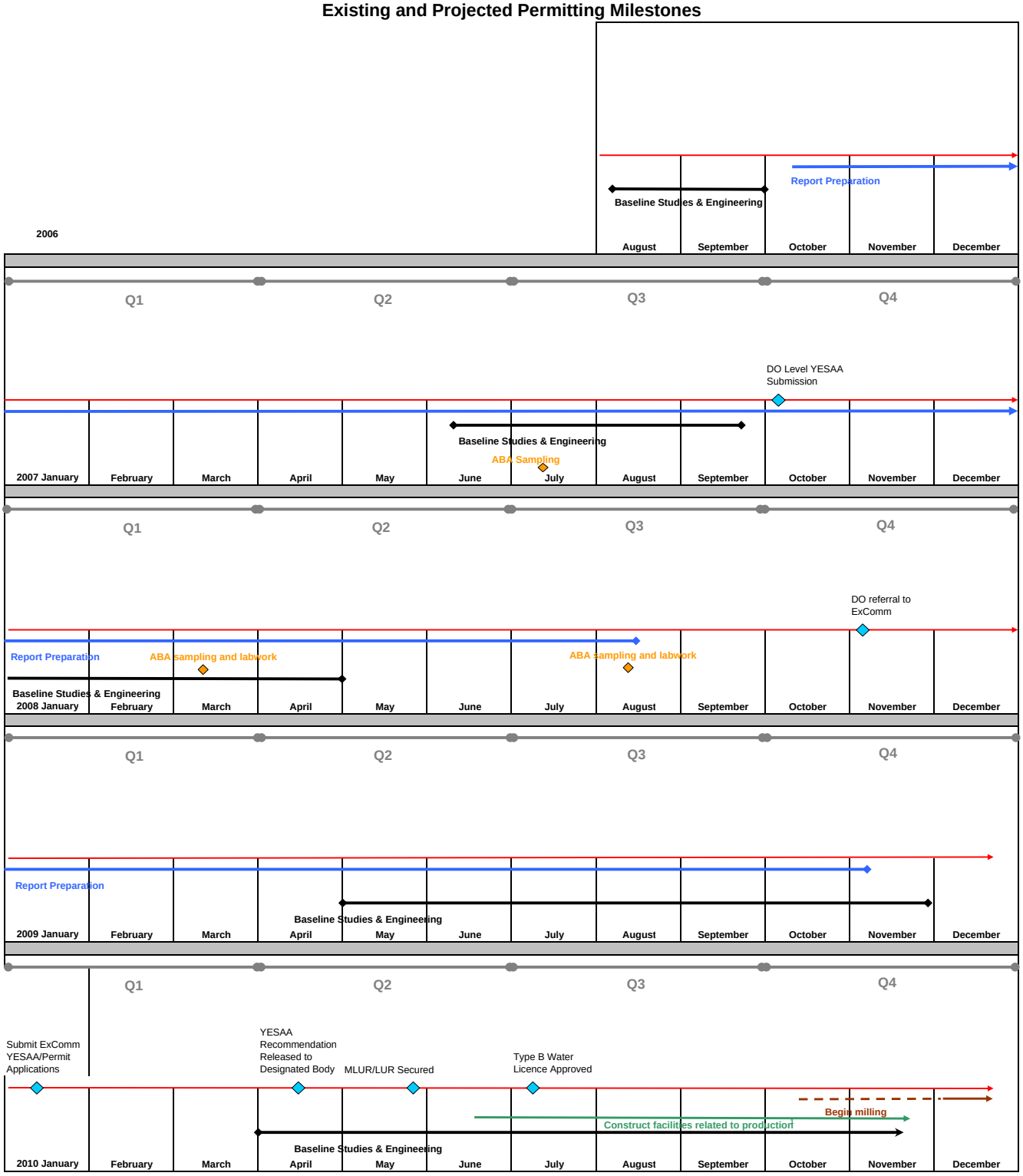
Date: November 2006

Our File: D:\Project\AllProjects\CMC_Metals\gis\mxd\YESAB_Fall06\Fig3_SiteOverview.mxd

Figure 3 Site Overview

3.4 Project Schedule

CMC Property
Existing and Projected Permitting Milestones



4.0 Summary of Proposed Development

4.1 Construction

All construction activities will be supervised or reviewed prior to construction by a certified engineer. Dam construction will follow the most recent standards (2007 as of the writing of this document) as described by the Canadian Dam Association and will be approved by a certified engineer. As-built drawings will be provided to the Yukon Water Board as a part of the Water Licence application.

The CMC Metals corporate Health and Safety protocols include training standards and will be a part of the standard operating procedures on the Silver Hart Project. A Spill Response Plan for the site is included in Appendix A. The framework for an Adaptive Management Plan is included in Appendix I and this will be followed throughout the construction phase whenever applicable.

4.2 Access/Transportation

Access to the Silver Hart Mine site is via a 43 km public access road that heads north of the Alaska Highway at kilometer 1116.4, near Rancheria. Although the access road is utilized seasonally by recreational hunting and fishing, the increased traffic due to the movement of personnel, materials and supplies, shouldn't impact the recreational use of the area. Movement of materials, supplies, fuel, and concentrate will be coordinated with the turn-around scheduling of personnel to reduce the frequency of conflicting traffic on the access road. Safety signage will be installed to warn the public of potential heavy equipment utilizing the road.

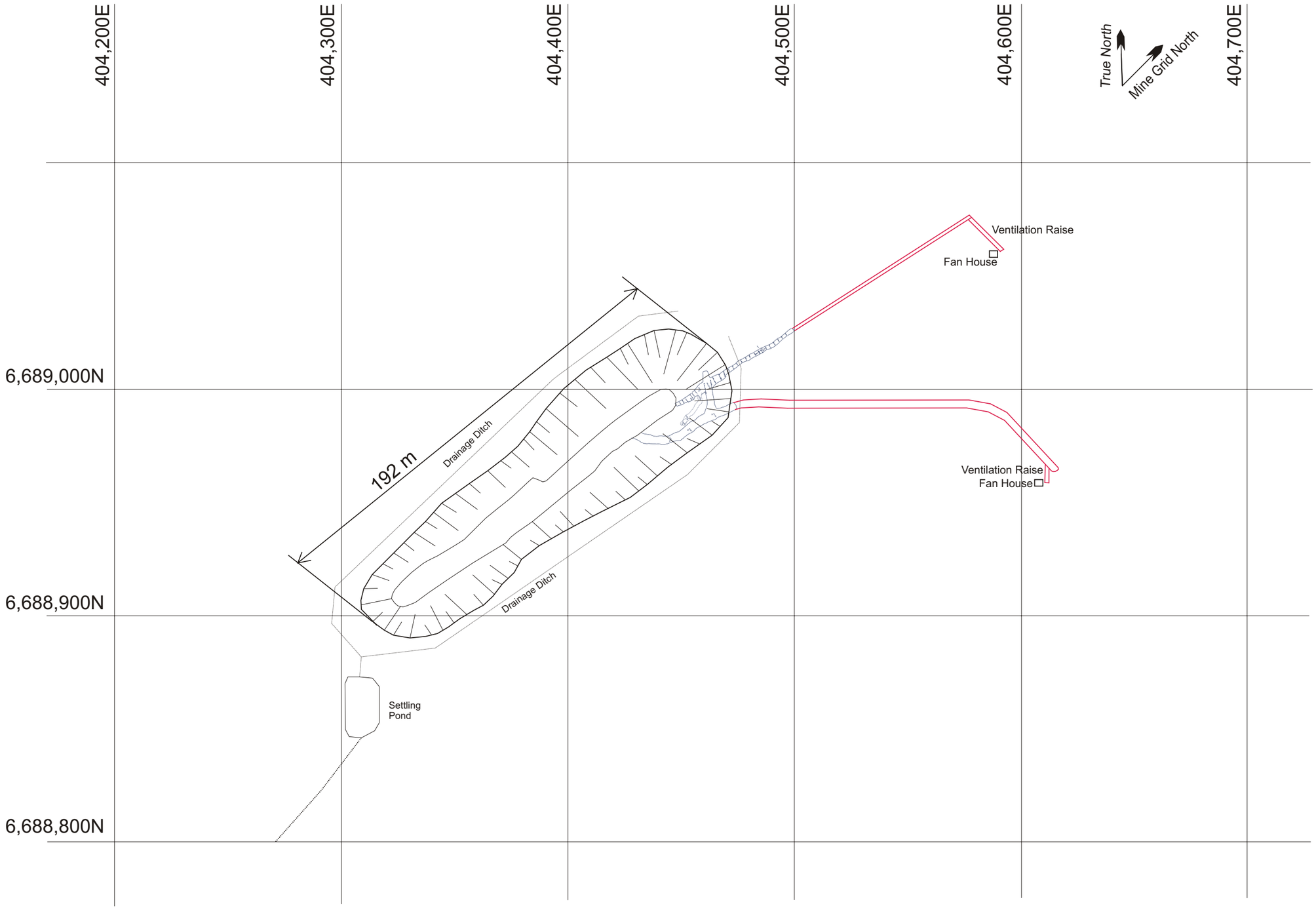
4.3 Mining

Based on the geological setting, and configuration, mining of the TM zone area is best suited for a combination of surface open pit and underground mining. Total pit dimensions are estimated to be 192 m long by 57 m wide and a maximum pit depth of

50 m (see Figures 4-1 to 4-4). The systematic mining approach consists of prestripping organic duff, stripping the unconsolidated overburden, excavating waste rock, and removal of the ore down to the 1400 m (4,600 ft) elevation. The final pit floor will coincide with the current underground workings and will have exposed openings on the north and south ends of the pit. Once the pit is completed the underground portion of the ore will be recovered by standard narrow vein stope mining methods. All run-of-mine ore will be crushed and stockpiled for mill processing over the year. Figures 4-1, 4-2, 4-3, and 4-4 demonstrate the general layout of the mine components.

4.3.1 Prestrip Organics

The Silver Hart Property has seen extensive surface disturbance from past owners. Unfortunately the organic duff material had not been stockpiled for future reclamation of the site. Therefore, there is no duff material that is available for salvage in the TM pit area. Mill site and tailings pond disturbance areas will be cleared and organic duff salvaged for reclamation work. All organic duff material stockpiles will be placed in a suitable location to minimize erosion loss and documented for future recovery.



CMC Metals Ltd.

Figure 4-4
Underground Development Workings

May/2007	Scale 1:100	DW/AW

404,200E

404,300E

404,400E

404,500E

6,689,000N

Overburden Removal

A’

9940

9820

9700

9565

A

Section A-A’

Original Ground Level

Pit Access Road

U/G Workings

U/G Workings

6,688,900N

Horizontal Scale

5m
10m
15m

Scale

10 20 30 40 50

CMC Metals Ltd.

Figure 4-3
TM Final Pit Plan Yr 2

March 22, 2007		DW

404,200E

404,300E

404,400E

404,500E

6,689,000N

6,688,900N

Overburden Removal

Bench 4

Bench 3

Bench 2

9940

9820

9700

9565

A

A’

Original Ground Level

Bench 4

Bench 3

Bench 2

Section A-A’

Scale

10 20 30 40 50

CMC Metals Ltd.

Figure 4-2
TM Pit Plan Yr1

March 15,2007		DW

404,200E

404,300E

404,400E

404,500E

6,689,000N

6,688,900N

Overburden Removal

57 m

192 m

Current Excavation

Overburden Strip Boundary

Current Trench Boundary

Water Well Location

Scale

10 20 30 40 50 m

CMC Metals Ltd.

Figure 4-1
TM Pit Plan Current Excavation Yr 0

March 15,2007		DW

4.3.2 Overburden Stripping

During the progressive development of the pit, the unconsolidated overburden material will be prestripped to expose the bedrock. During the first two years a total of 44,100 bank cubic meters (bcm's) will be removed to allow the waste rock and ore removal. The overburden consists of silty clay with cobbles and the occasional glacial bolder. The unconsolidated overburden has demonstrated the capability of natural propagation of shrubs since the mid-eighties. As the overburden is stripped to expose the rock interface, it will be used as road base material, tailings dam construction and mill site grade elevation material. The overburden material can be recovered at the decommissioning stage to provide unconsolidated material to assist in the recontouring of the site and allow for natural propagation of shrubs on the exposed rock benches, waste dump and tailings pond capping. It was observed that the exposed overburden tends to not be well draining and the lower TM depression in the overburden maintains water throughout the summer months. Therefore, based on visual observations, the overburden material is suitable to be used for road base construction, mill site grading, construction of the containment berm for the fueling site, and for tailing pond dam and liner bed material. Table 2 (Overburden Material Placement) shows the anticipated volume removed and the placement of the overburden material.

Table 2. Overburden Material Placement - Volume in Bank Cubic Meters (bcm)

Source	Removal	Placement
TM Pit Stripping	44100	
Road Base Fill		800
Mill Site Grade Fill		6600
Tailings Dam Fill		30700
Tailings Pond Liner Fill		5800
Fuel Containment Berm		200
Totals	44100	44100

4.3.3 Open Pit and Underground Development Program

The current mine design is a combination of open pit mining and underground operation. The plan calls for an open pit of approximately 192 m by 57 m and a maximum depth of approximately 50 m. The open pit mining will continue until the floor elevation reaches 1,400 m elevation. The open pit will expose the existing underground workings, allowing the existing underground workings to be used to access the deeper covered ore veins in the S zone, to the east and the continuation of the TM zone ore veins striking to the northeast. A small amount of underground development will be required to access the ore veins and development of stopes. The underground mining will follow a typical narrow vein cut and fill method. Figure 4-4 (Underground Development Workings) demonstrates the current underground workings and the proposed workings. Small 3 cyd LHD diesel scoops will tram the ore to the surface where articulated haul trucks will transport the ore to the mill site area. Jackleg drills will be used to drill and blast the underground 3 m by 3 m development drifts. Stope on-vein ore mucking will be conducted by hand in the narrow vein ore bodies and by electric or air slushers for the wider (+1.0 m width) veins. Stope waste will be moved with electric or air slushers. Any excess stope waste that cannot be disposed of underground will be removed to the waste rock site. All new development drifting will be at least a negative 2 percent decline to allow underground workings to flood at the end of the project life.

4.3.4 Ore Extraction

The ore zone in the TM pit is associated with a fault shear that has allowed replacement mineralization to occur. Most of the ore can be excavated with a hydraulic excavator and not require ripping or blasting. Based on the geological sampling, the ore vein varies in width from 0.61 m to 2.73 m over the length of the proposed pit. Average vein width for the TM pit is 1.27 m grading 1,099 gm/mt silver, 3.55 % lead, and 3.86 % zinc based on current and historical geological data. To minimize dilution, an excavator with a 0.60 m wide bucket will remove the ore and load directly into 30 tonne articulated haul trucks. As the pit is successively mined, the footwall of the vein develops the footwall of the pit. The excavator will remove the ore in 5.0 m lifts and side cast the waste until the waste removal benching proceeds. The following section, 4.2.4 describes the waste rock removal process.

Once the ore lift is excavated, the next sequence of waste benching will proceed. The waste removal will be in 5.0 m lifts. Every second waste lift will coincide with the highwall bench development. Highwall bench dimensions will be 5.0 m wide and a height of 10.0 m. The ore and waste sequence will continue until the pit floor is reached, coinciding with the current underground workings at the 1400 m elevation. To ensure that the underground workings do not compromise the safety of the workers or equipment, as the pit floor approaches to within 10.0 m, the waste rock will be drilled and blasted for a controlled collapse of the underground workings. This will allow the pit excavation to proceed in a controlled manner.

A pit access road will be constructed on the highwall side of the pit. A maximum grade of 10 percent will be cut into the benches to allow access to the lower bench levels. A 1.0 m safety berm, on the pit side of the road will be constructed and each pit turning point will have an emergency run-away. Figures 4-1 to 4-3 are a series of plans demonstrating the pit limits and progressing bench plans for the TM pit development.

Once the open pit is completed, the pit floor will at the same elevation as the current underground workings and will have an exposed opening on the northeast and south footwalls. The exposed underground openings will be utilized to expand the underground workings to recover in-place ore veins from the TM and S zone. The underground workings will use the current developed workings in the TM zone, plus will extend the main drift 125 m to the east to allow the S zone ore to be mined. Narrow vein stope mining techniques will be used to recover the ore. Development drifts will be standard 3.0 m by 3.0 m openings. Stope openings will be 1.2 m by 2.4 m and will follow the vein structure over the 120 m strike length. Stope development will be by typical drill and blast techniques and with pneumatic jack hammers. Rubber tire load-haul-dump vehicles (LHDs) will be used to haul the ore to the portal opening where it will be loaded into a dump truck to be transported to the crushing area. Figure 4-4 shows the pre-stope underground development.

All ore removed will be trucked to the mill site area 150 m east of the pit, where it will be crushed and stockpiled for mill processing. All surface run-off will be directed around all physical workings (mill area, open pit, waste rock site, etc.) to settling ponds through the use of diversion ditches and berms. This will allow suspended solids to settle out and as a point for monitoring water quality (Figure 5). Mining will be conducted from late spring to early fall. Based on an annual production of 20,000 tonnes per year, this will allow ore

from the TM zone to be extracted over a three year period. Other exposed mineralized surface outcrops will be evaluated for the purpose of replenishing the depletion of the TM zone ore and could lengthen the operational life of the mine.

4.3.5 Technical Data for Proposed Mining Methods

The following Tables 3 and 4 list the design criteria for the proposed mining methods to be used at the mine site. Mine parameters were based on the current geological rock types and structures identified by surface and underground geological mapping, diamond drill holes and surface trenching.

Table 3. Surface Mine Criteria

Item	Design Criteria
Minimum Mining Width	0.60 m
Minimum Cut-off Grade	100 gm/tonne Silver
Maximum Pit Depth	50 m
Highwall Bench Width	5.0 m
Highwall Bench Height	10.0 m
Haulage Road Grade	10 percent
Method of Waste Rock Fracturing	Ripping and/or Blasting
Pit Strip Ratio	4.2 to 1
TM Pit Recoverable Tonnage	36,150 tonnes
Total Waste Rock Removed	152,047 bcm's

403,700E 403,800E 403,900E 404,000E 404,100E 404,200E 404,300E 404,400E 404,500E 404,600E 404,700E

UTM NAD 83, Zone 9

6,689,100N
6,689,000N
6,688,900N
6,688,800N
6,688,700N
6,688,600N
6,688,500N

9800N, 9000E

TM Pit
Ore Tonnage: 36,150 Tonnes
Average Grade: Silver 1099 gm/mt
Lead 3.55 %
Zinc 3.86 %
Waste Rock: 152,047 bcm
Overburden: 25,371 bcm
Strip Ratio: 4.91 bcm/ tonne

N

Run-of-Mine Ore Pile
Min. 1600 tonnes
Max. 20,000 tonnes

Mobile Crusher/ Stacker
Pad Area

9800N, 10,000E

12.5mm Crushed Ore Pile
Min. 1600 tonnes
Max. 20,000 tonnes

Mill Facilities
Area- 1.00 Ha

Camp Facilities

Refueling Site

9300N, 9500E

U/G Workings

Settling Pond

Drainage Ditch

Rock Dump
205,000 LCM
Area- 1.28 Ha

Settling Pond

Drainage Ditch

Tailings Water Line

Emergency Spillway

Decant Culvert

Settling Pond

Drainage Ditch

Tailings Pond
Capacity- 39,500 m^3
Area- 0.89 Ha

CMC 28
CMC 36
CMC 68
CMC 61

Claim Block
Drainage Ditch
Tailings/Water Decant Lines

SCALE
10 20 30 40 50m

CMC Metals Ltd.

Figure 5
General Project Layout Plan

July 2007		DW

Table 4. Underground Mine Criteria

Item	Design Criteria
Development Drift Openings	3.0m X 3.0m
Stope Openings	1.2m X 2.4m
Development Drift Decline	-2.00%
Excavation Method	Drill and Blast
Ore Tramming Method	Diesel LHD
Ventilation Method	2- 1.0m High Volume Fans
Waste Rock Disposal	U/G or at the Waste Dump
Minimum Vein Width	.08 m
Minimum Dilution Grade	100 gm/tonne Silver
Total Recoverable Ore	27,063 tonnes

4.4 Waste Management

4.4.1 Waste Rock Management

Primary waste rock is expected to be granodiorites and altered granodiorites. Based on surface exposed waste rock, waste can be dozer ripped to facilitate removal. However, to provide reasonable excavation of the waste with an excavator, it is anticipated that a minor amount of blasting of the rock will be required to “fluff” or fracture the waste for removal. Drilling and blasting on a 5.0 m by 5.0 m grid spacing will provide sufficient fracturing of the waste rock. Explosive type to be used is ANFO at a powder factor of 0.23 kg/tonne. All waste drilling and blasting will be conducted by contractor services and eliminate the necessity to establish a powder magazine on site. A total of 152,047 bcm’s (395,322 tonnes) will require removal for the total TM pit. All waste rock will be evaluated to determine if it would be NAG or PAG waste rock. PAG waste rock will be separated and disposed at a separate area at the waste rock site located 150 m to the southwest. The PAG waste rock will have sufficient lining and cover to prevent the infilteration and potential development of acid leaching. Figure 6 (Waste Rock Site Design) demonstrates the waste site design criteria and area required. Based on a swell factor of 1.4 and a compaction factor of 1.10, the waste rock generated would be

193,514 loose cubic meters (lcm's). Progressive capping of the waste rock site with suitable clay overburden from the north highwall overburden stripping material will be used to cap the waste site to minimize the infiltration of water.

There is no infrastructure or natural structures within 500 m of the waste rock site. A run-on, run-off drainage ditch will perimeter the waste rock site and collect the water in a settling pond located in the south east corner of the waste rock dump site. This will allow any developed siltation to settle out. Outflow of the settling pond and treatment systems, as required, will be to a natural surface drainage field to allow the flow to enter the subsurface. Water samples will be collected and tested for suspended solids and metals from this outflow point. Upon closure the waste rock site will be capped and decommissioned as described in the Conceptual Decommissioning Plan in Appendix P.

Based on the proposed mine development a total of 152,047 bcm's of waste rock will be removed from the TM pit and the TM/S underground workings. All excess waste rock will be stockpiled at the waste rock site located at the current waste rock site (see Figure 5). The rock types associated with the waste will be granodiorites, and andesite dyke material. Table 5 (Waste Rock Site Design Criteria) lists the parameters used in the development of the Waste Rock site. The waste rock site is within a previously disturbed area with available unconsolidated overburden for capping and lining the waste area. Foundation for the waste rock storage site is competent granodiorites and schists. A minimum of 1 meter of compacted fill will be placed over any exposed rock outcrops.

All organic vegetation and duff will be removed and stockpiled for reclamation of the waste rock site. The majority of the area has been previously disturbed with little reclaimable duff available. Natural revegatation has started on the disturbed area, and demonstrates the natural abilities for the unconsolidated material to start grass, shrub, and willow propagation naturally at the site.

Table 5. Waste Rock Site Design Criteria

Item	Design Criteria
Rock Angle of Repose	35 Degrees
Natural Foundation Grade	18 Percent

Maximum Dump Height	25 m
Maximum Dump Length	145 m
Maximum Dump Width	105 m
Dump Area	1.28 Ha
Designed Capacity	205,000 LCM

A more detailed description of the waste rock management is included in Waste Rock Management Plan included in the June 2008 *Additional Info for Yukon Environmental and Socio-Economic Assessment Board* in Appendix M.

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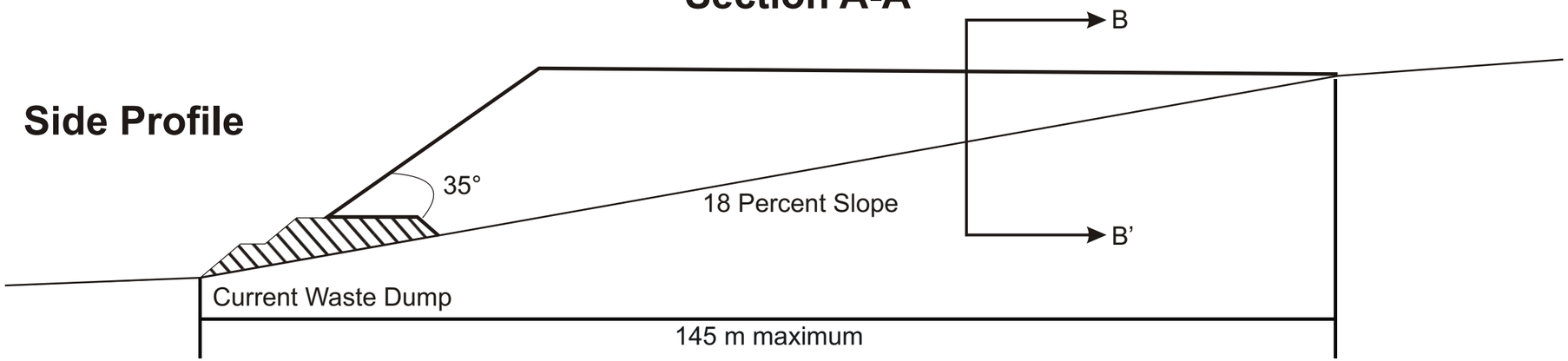
4.4.4.2 Acid Rock Drainage and Metals Leachate Characteristics

Geochemical analysis of the ore and host rock was undertaken in two phases. Initially CMC Metals sampled and tested waste rock and an ore sample for acid-base accounting (ABA), net acid generating (NAG) testing and leachate extraction. Tailings from the ore sample locked cycle test were evaluated and tested with a 20 week Kinetic Testing program to model worst case scenario potential ARD of the tailings. Based on the primary and secondary processing of the ore to recover the sulphide minerals, the final tailings grade would be substantially lower in sulphides compared to the higher grade metallurgical test sample that was used for the kinetic testing (39.5 gm/tonne silver, 0.958% zinc, and 0.104% lead (dry) estimated metal balance versus 695 gm/tonne silver, 0.11% zinc, and 03.00% lead (dry) Metallurgical test of high grade response tailings) and was confirmed by the SGS Lakefield Laboratories kinetic testing. The study concluded that " *ABA testing of the hangingwall (TM-HW-01, TM-HW-02) and tailings (TM Zone LCT) suggest uncertain acid generation potentials based on the Net NP values and low carbonate concentrations: however, the low sulphide concentrations indicate that acid generation from these samples is highly unlikely to occur. Similarly, although ABA testing of the footwall sample (TM-FW-01) indicated the potential for acid generation, the low sulphide concentration suggests that this sample is also unlikely to generate acidity. This unlikely acid generation designation was confirmed by the near neutral final pH values reported after aggressive oxidation of these samples during NAG testing.*

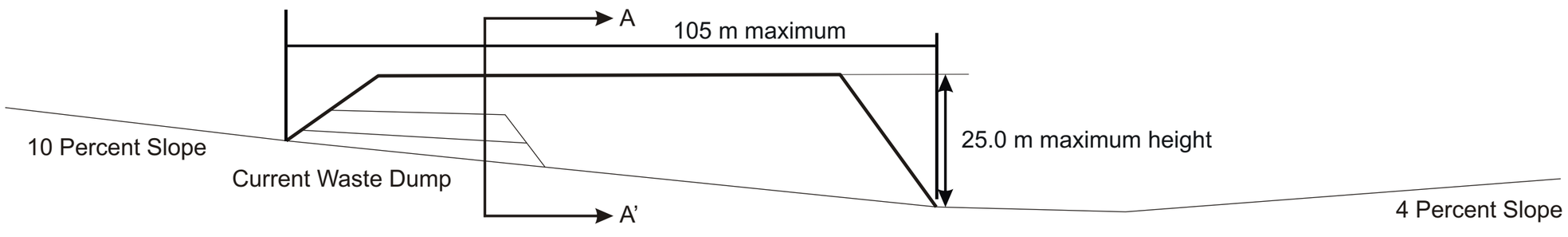
The TM Zone LCT humidity cell leachates maintained near neutral pH values and reported progressively decreasing concentrations of sulphate throughout the 20 week test period. Low levels of alkalinity were observed in the weekly leachates and free acidity was not released. All controlled parameters reported at concentrations well within the limits dictated by MMER. The second phase involved 67 samples collected from exploration diamond drill hole sample pulps. All samples were analysed for 37 elements and ABA testing was undertaken on a subset of these. A complete discussion to the rock characteristics is included in Appendix M.

North

Section A-A’



Section B-B’



Waste Rock Angle of Repose - 35 Degrees
Capacity - 205,000 LCM
Area - 1.28 Ha

CMC Metals Ltd.

Figure 6
Waste Site Design

Apr./2007	Scale: NTS	DW/AW

4.4.2 Camp Waste

Waste paper, plastic, and kitchen refuse will be bagged and removed weekly to a designated public landfill site such Swift River or Watson Lake as permitted. All garbage, including kitchen waste, will be kept in a container(s) that prevents access by bears and other wildlife, until properly disposed of in accordance with the Solid Waste Regulation. Kitchen waste will be burned daily to reduce odours that might attract wildlife and be burned by forced air or fuel fired incineration. A metal container that is bear proof will hold the solid kitchen wastes and minimize the potential of bear confrontations. Camp sewage wastes will be disposed of in the existing camp septic field, that was constructed for the original 35 man trailer camp.

4.4.3 Contaminated Soils

While every step will be made to prevent spills from occurring should any spills happen the contaminated soils or special waste generated will be excavated and moved to a permitted land treatment facility or other permitted disposal site, following the *Yukon Environment Act Contaminated Sites Regulation* and *Protocols For the Contaminated Sites Regulation under the Environment Act*.

4.5 Mill Operations and Tailings Management

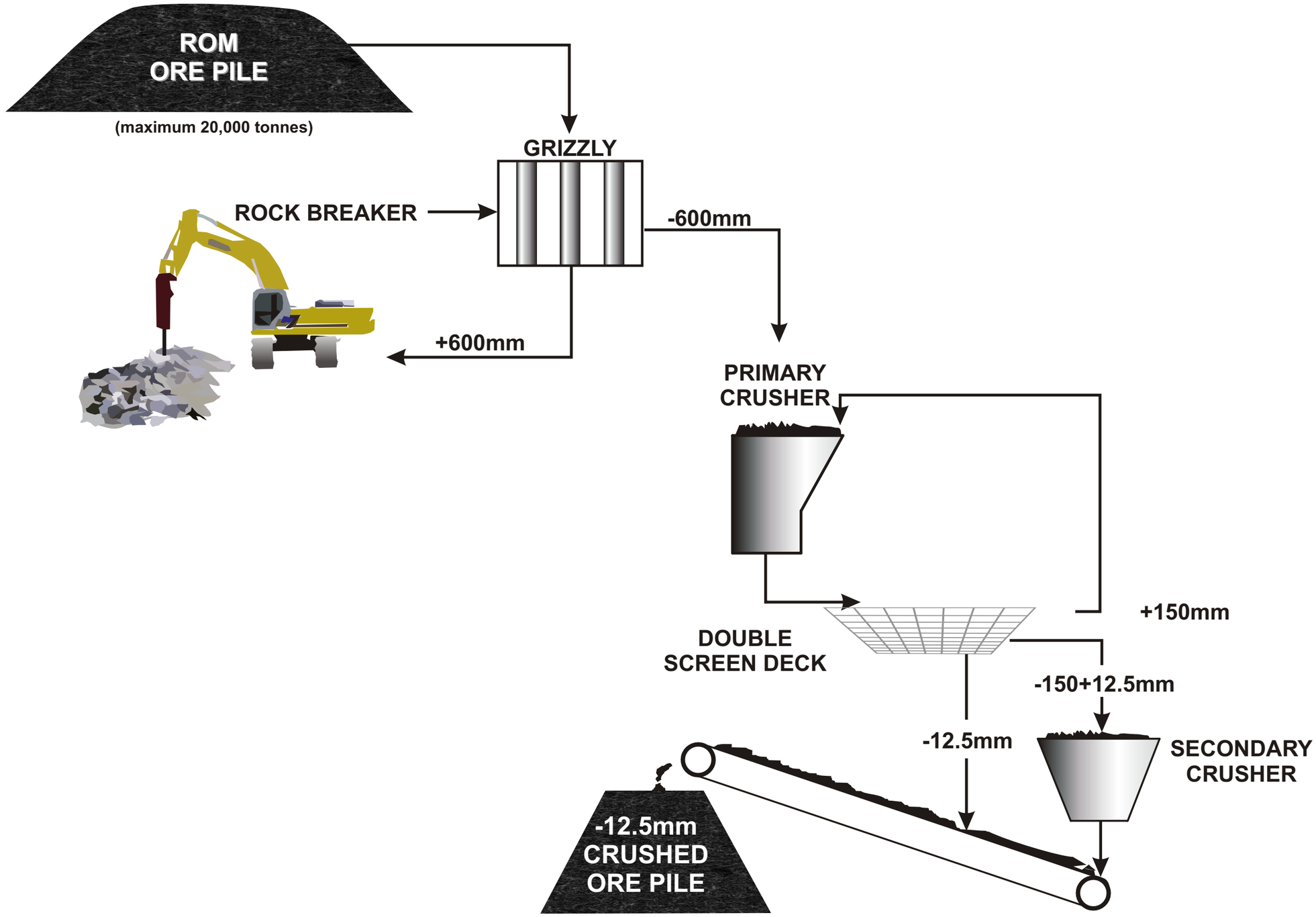
4.5.1 Mill Operations

The mill site facilities will include both crushing and concentration of the raw ore. The crushing process involves crushing the raw ore through a series of crushers until a feed product of <12.5 mm material is achieved for the ball mill feed. The crushing process will start with the raw ore stockpile fed over a grizzly to separate the oversized raw feed for further breakage with a pneumatic hammer and the undersize material that is directly fed into the primary jaw crusher. A closed circuit primary jaw crusher will reduce the raw ore to a minimum size of <75 mm. The product from the jaw crusher will then be fed over a vibrating screen deck to screen fines (<12.5 mm) to bypass the secondary crusher. Oversize screenings will be fed into the secondary cone crusher to crush the ore to -12.5 mm size. Due to the crushing process occurring on a seasonal basis with mining, all -12.5 mm crushed product will be stockpiled on a lined and bermed storage

area. The ore storage area will utilize an impermeable geotextile or poly liner to prevent potential crushed ore losses with the surrounding stockpile compacted pad. The crushed ore will also have a temporary cover with tarps to minimize moisture infiltration into the crushed ore stockpile. Figure 7 (Crusher Circuit Layout) demonstrates a typical crushing circuit layout for the mill site area.

For the concentration processing of the crushed ore, a ball mill will grind the crushed ore to a particle size of 100 mesh (150 microns). A screw classifier will classify the material to ensure a proper grind is achieved. Oversized material will be recirculated back to the ball mill for further grinding. The undersized material will be pumped to conditioner tanks to be conditioned with industry standard reagents to prepare for the floatation recovery of silver, lead, and zinc. Table 6 lists the reagents and conditioners proposed by the SGS Lakefield Metallurgical study for the concentration process and the estimated amount consumed annually.

The primary flotation rougher will first concentrate the sulfide ores in two flotation cells; a second rougher circuit will concentrate the oxide portion of the ores. A cleaner flotation circuit will upgrade the rougher concentrate to a grade that meets the requirements for shipment to a smelter and refiner.



CMC Metals Ltd.

Figure 7
Crusher Circuit Layout

May/2007	Scale n/a	DW

All concentrates will be dewatered with a filter press and dried to less than 10 percent moisture. Concentrates will then be loaded into 1.5 tonne polywoven ore bags for shipment to various smelters depending on the concentrate type and grade. Estimated mill head grades with mining dilution are 1099 gm/tonne silver, 3.86% zinc, and 3.55% lead. Annual concentrate production is estimate to be 1,644.6 tonnes, grading 42.0% lead, 36.2% zinc and 12,924 gm/tonne silver. Based on the SGS Lakefield Laboratories Ltd. metallurgical test results, metal recoveries from the raw ore are 96.7% silver, 97.3% lead, and 77.6% zinc. Figure 8 (Mill Flow Diagram) is a typical flow diagram for the concentration mill being proposed.

Table 6. Milling Reagents and Conditioners - Concentration (grams per tonne)

	Circuit Reagents						
	Na2CO3	Lime	A31	SIPX	NaHS	407	MIBC
Grind	1500						
PbS Condition			31				
PbS Rougher 1				10			10
PbS Rougher 2			40	20			10
PbO Condition		1885					
PbO Rougher 1	2855			40	1000	60	
PbO Rougher 2				40	1000	60	
PbO Rougher 3				40		60	
Subtotal	4355	1885	71	150	2000	180	20
Annual Consumption (tonnes)	87.1	37.7	1.4	3.0	40.0	3.6	0.4

-12.5mm CRUSHED ORE PILE

80 MTPD

122.0 m^3/D

6' x 8' BALL

CYCLONE

-100 MESH

+100 MESH

FLOATATION

Ag/Pb/Zn CONCENTRATE

FLOATATION TAILINGS

THICKENER TANK

FILTER PRESS

DRYER

TAILINGS POND

DECANT WATER 77.2 m^3/D

WATER WELL 44.8 m^3/D

CONCENTRATE BINS

Ag/Pb/Zn CONCENTRATE BAGGING

Ag/Pb/Zn CONCENTRATE STORAGE FOR SHIPPING

CMC Metals Ltd.

Figure 8
Mill Flow Diagram

May, 2009	Scale: NTS	DW/AW

4.5.2 Materials Balance

Figure 9 (Mill Materials and Water Balance) shows a schematic materials and water balance for the proposed project. A detailed materials and water balance is incorporated in the Lorax Hydrological study (page 3-5, Figure 3-3) that itemized the material and water inputs and outputs from the project. The Lorax study is attached as appendix K.

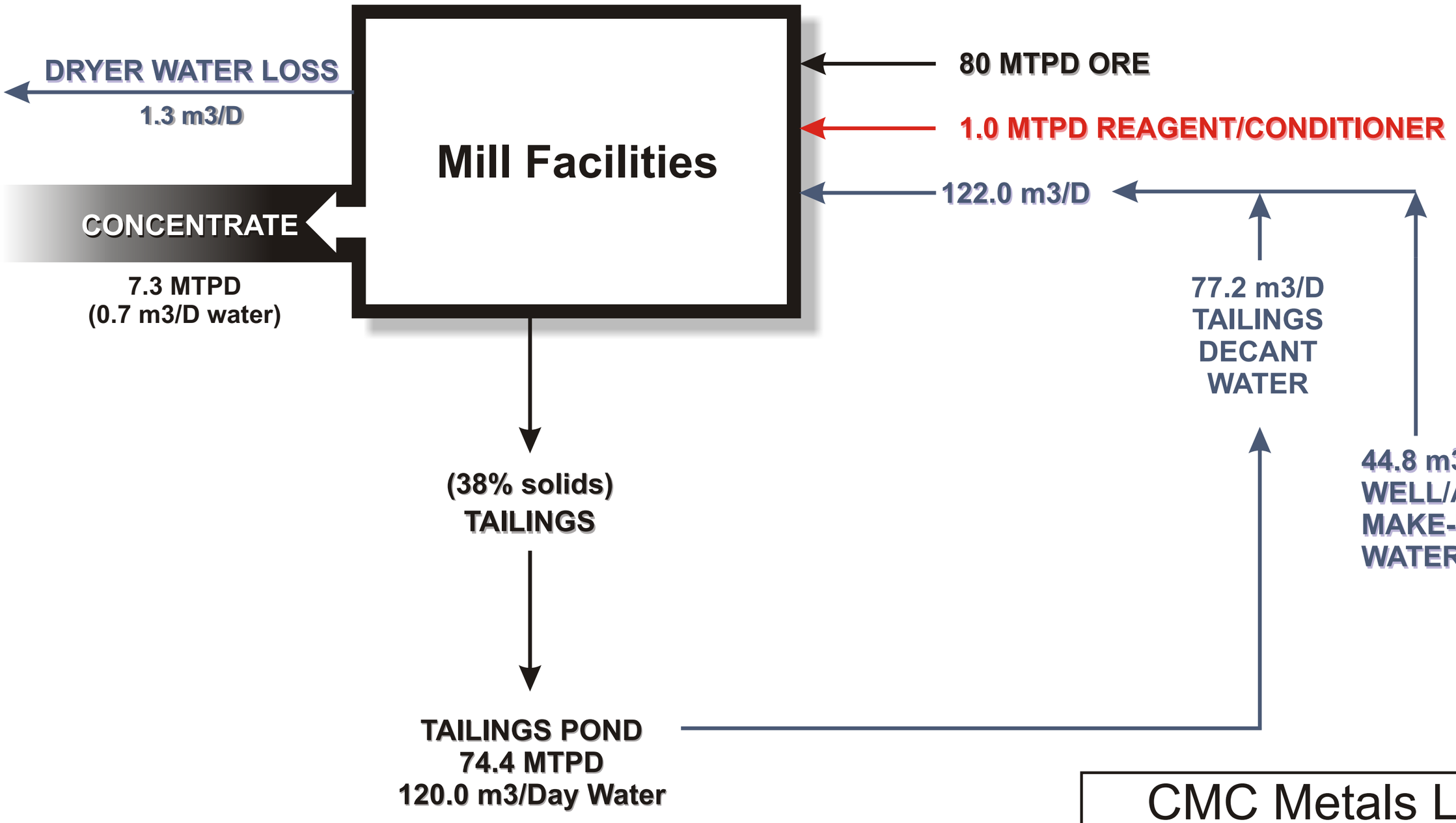
4.5.3 Personnel

Milling will be conducted on a year round basis with two 12 hour shifts per day, with a work rotation of 14 days on, 14 days off. Table 7 (Manpower Requirements) outlines the anticipated manpower schedule required for the milling process. Both mining and transportation of the concentrate will be on a contract basis. Priority for employment will be from the Teslin and Watson Lake communities when possible, then from within the Yukon, and then from outside the Territory. Upon commissioning of the mill, standard operating health and safety and environmental protocols will be undertaken to maximize the value of the manpower and environmental resources.

Table 7. Manpower Requirements

Management	Days On	Days Off	Number Per Shift	Number of Shifts	Number of Rotations	Total Required
Mine/Mill Manager	5	2	1	1	1	1
Grade Control Technologist	14	14	1	2	2	4
Subtotal-						5
Mill Positions						
Mill Maintenance	14	14	1	1	2	2
Mill Labours	14	14	2	2	2	8
Equipment Operators	14	14	1	2	2	4
Subtotal-						14
Support Positions						
Cook/Medic	14	14	1	2	2	4
General Camp Maintenance	14	14	1	1	2	2
Subtotal-						6
Totals-						25
Mine Positions*						
Mine Supervisor/ Mechanic	5	2	1	1	1	1
Excavator Operator	5	2	1	1	1	1
Truck Operator	5	2	2	1	1	2
Crusher Operator	5	2	2	1	1	2

* Seasonal contractor services



CMC Metals Ltd.

Figure 9
Mill Materials and Water Balance

May/2007	Scale: N/A	DW/AW

4.5.4 Tailings Management

Based on current metallurgical tests performed by SGS Lakefield Laboratories Ltd. and the detailed mine dilution analysis, 91.8 percent of the ore by weight is residual tailings. Current recoverable ore in the TM zone area for the surface and underground mining to the 1400 m level is estimated to be 63,213 tonnes with an average grade of 1099 gm/tonne silver, 3.86% zinc, and 3.55% lead. Estimated tailings produced will be 58,030 tonnes or 24,589 m^3 of solidified tailings volume. Average tailings grade (dry) is estimated to be 39.5 gm/tonne silver, 0.958% zinc, and 0.104% lead. The proposed tailings pond has a potential volume capacity of 39,500 m^3. The tailings pond will utilize the additional capacity for adit water retention, settling capacity, and for any additional resources that may be discovered and processed.

The tailings berm construction is a typical tailings retention type dam constructed from overburden fill with a coarse rock center core. First the brush and vegetative mat material is removed from the tailings area in preparation of the retention berm construction. The vegetative duff is stockpiled for reclaiming the tailings pond at the decommissioning phase of the site. A 1.5 m high coarse rock drainage core is placed at the center of the berm to assist in the elimination of any potential hydrostatic pressure build-up. Overburden fill that is removed from the TM pit boundary and at the surrounding tailings pond area, is placed in 0.30 m lifts on both side of the center coarse rock fill. Successive 0.30 m lifts will continue until the first 1.5 m coarse rock level is reached. Another 1.5 m coarse rock core lift is placed and the overburden placement sequence is repeated. A geosynthetic liner is placed over the tailings storage area to minimize the potential of exfiltration and seepage from the tailings material. Protective bedding material is installed above and below the liner to prevent punctures. The downstream and upstream faces of the tailings dam will have a minimum 1.0 m coarse rock fill to eliminate the potential of erosion effects (a decant culvert and a return tailings water line will be installed to allow for the reuse of the tailings water for the milling process). A 0.50 m freeboard level is maintained to eliminate topping of the berm and erosion from wave action. The tailings pond design criteria are outlined in Table 8. At the decommissioning of the tailings pond an overburden cap will be installed to minimize water infiltration into the tailings material and provide a base for the replacement of the vegetative mat material. Required area for the tailings berm and pond is 0.89 hectares.

Figure 10 (Tailings Dam Cross Section) demonstrates the construction cross section of the tailings dam.

A drainage ditch is located to the north of the pond area to direct any run-on flow into a downstream settling pond. A water decant system is installed to allow reuse of the tailings water for the milling process. This will assist in minimizing the amount of make-up water required to process the ore through the facilities. For extreme percipatation events, an overflow drainage ditch is located on the north corner of the berm to allow a controlled spill during the event of an excessive rain fall. An emergency settling pond will hold the tailings water for the interim extreme precipitation event till the flow can be pumped back to the tailings pond. All outflow from the filter drainage zone and emergency spillage is directed to a settling pond to allow retention time for sediments to settle. Outflow from the settling pond will be visually monitored on a weekly basis and quarterly water samples taken for analysis of Total Dissolved Solids, Total Suspended Solids, turbidity, hardness, pH, conductivity, and total and dissolved metals.

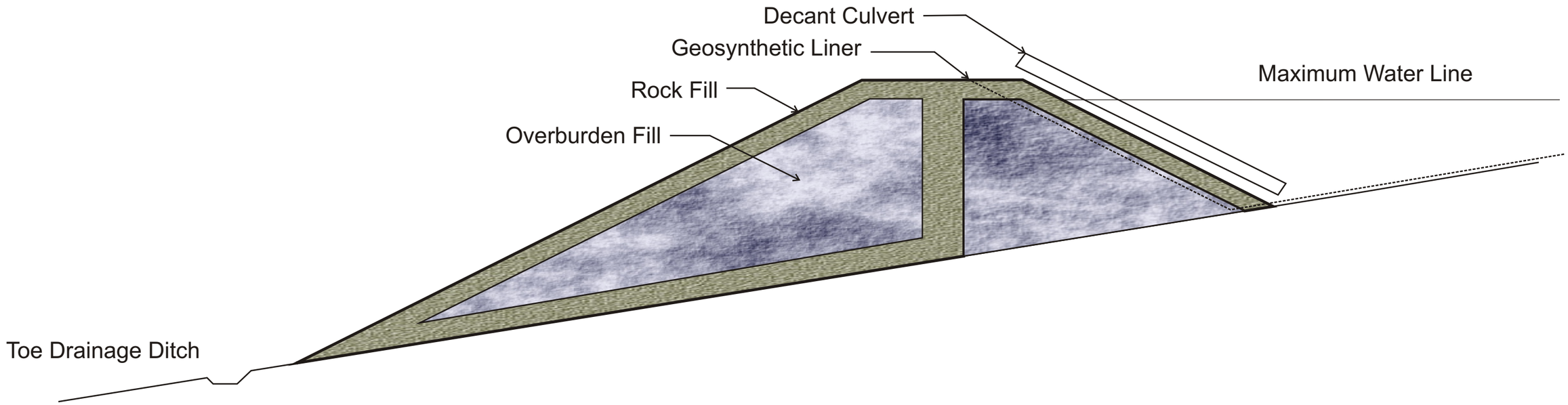
Table 8. Tailings Pond Design Criteria

Item	Design Criteria	
Maximum Dam Height	7.0	m
Crest Width	4.0	m
Crest Length	175.3	m
Downstream Slope	2:1	
Upstream Slope	2:1	
Rock Core Width	1.0	m
Number of Toe Drains	6	
Slope Face Rock Cover	1.0	m

There is no record of permafrost being encountered at this site to date during drill pad construction, and trail development since 2005. In addition, random soil temperatures were gathered throughout the project area. No areas were identified as potential permafrost areas. Neither is there evidence that areas exposed in construction and clearing activities on the property by previous operators exposed permafrost as there is

no clear evidence of slumping as a result of permafrost exposure and melt. All of the proposed facilities except for the tailings pond are on ground that has been previously cleared, during the period of activity in the 1980's. This long-term exposure has likely resulted in the melting of any near surface permafrost if it existed. CMC Metals will undertake geotechnical studies of the area of the tailings pond and waste rock pile to ensure the suitability of the ground prior to construction and to determine what steps must be taken to deal with adverse conditions in the unlikely event that they are encountered.

The tailings dam will be designed by a certified engineer experienced in the area of dam design and construction. The dam construction, operation, maintenance and surveillance will follow the Canadian Dam Association *Dam Safety Guidelines* (2007 or newer should more recent guidelines become available). The design will incorporate safety factors for seismic and flood events and thus the likelihood of a dam failure is low. Proper maintenance, operation, and surveillance of the dam will further reduce the risk of dam failure and will also provide CMC an early warning should an area of concern arise. This will allow CMC to respond and prevent any dam failures. The Adaptive Management Plan will include dam surveillance and set response triggers and action plans.



Maximum Crest Height- 7.0 m
Freeboard- 0.5 m
Maximum Water level- 6.5 m
Crest Width- 4.0 m
Crest Length- 175.3 m
Upstream and Downstream Slopes- 2:1
Minimum Coarse Rock Core- 1.0 m
Tailings Capacity- 39,500 m^3
Tailings Area- 0.89 Ha

CMC Metals Ltd.

Figure 10
Tailings Berm Cross Section

August 7,2007	Scale: NTS	DW

4.6 Summary of Project Water Use and Water Management

A Water Balance study was undertaken by Lorax Environmental that describes the hydrologic system in the area of the Silver Hart Property, the site water balance, and an investigation into water treatment including predictions and operation and post-operation water treatment requirements and options. This report details the specific water uses of the calculated effluent production anticipated for the Silver Hart project based on current data. Additional testing will be conducted as recommended by the Lorax report for the characterization of the tailings effluent. The Lorax report is included in Appendix K.

4.6.1 Camp Water Use

A water well has been reactivated and can be used for camp non-potable water use and for any excess water requirements of the mill. There is a small amount of water flowing from the existing decommissioned adit area and the current plan is for this water to be used, where practical, in the milling process along with water flow from the tailings decant. Any water requirements above this will be drawn from the water well. Water use requirements for personnel are estimated to be 200 L per day per person for drinking, washroom use, showering, laundry and kitchen use. Therefore, depending on the crew size onsite, the estimated water consumption for personal use is 5.0 m^3/day during construction, 4.0 m^3/day during mining/milling, and 2.6 m^3/day during milling. In addition to the personal water consumption, make-up water for the mill will consume an estimated 13 m^3/day of well water when a static state in recycled tailings water is reached. Depending on the suitability of the well water for potable water uses potable water may be trucked to the site from the nearest available source and held in a cistern as required. Bottled (19.8 L) potable water stands will also be available at locations for drinking water. The water well will be located as close to the camp as feasible. The total non-reclaimed water to be used will be approximately 18 m^3/day during operation, with a contingency of 20%, the total camp water use is approximately 23 m^3/day.

4.6.2 Spillways

Emergency overflow spillways will be provided for the tailings pond to prevent uncontrolled overtopping of embankments. The tailings spillways will be sized to pass

the peak flow from a 100 yr return period storm. Embankment crest elevations will be determined by adding 500 mm of freeboard to the maximum routed water elevation.

4.6.3 Diversion Channels

Surface water diversion channels will be provided around key project facilities to divert natural runoff water away from the structures, these channels are shown in Figure 3-1 of Appendix K. The channels will be designed with 250 mm freeboard above the peak flows from a 1 in 200 year wet year event. Diversion channels will be consistent with the design hydraulic capacity of the structure and will be based on the maximum flow velocities expected in the local channel.

4.6.4 Sediment Control

Sedimentation below the tailings pond, waste dumps and plant site will be controlled with conventional settling ponds. The settling ponds will be sized to remove inflowing suspended sediments down to fine silt sizes for events up to a 10 year return period 24 hour duration storm. Emergency spillways will be provided for the tailings reservoir as described in Section 4.6.2.

4.6.5 Mine Dewatering

The existing adit is a positive incline and has water flowing from the decommissioned adit. Based on recent measurments over the past 6 months, flow rates vary from a low of 0.0L/s up to nearly 1.0L/s. This will nearly cover the milling make-up water requirements for most of the year and any excess during the higher flow periods will be diverted to the tailings pond. Any additional water requirements at the mill facilities can be supplied by the tailings water and well.

4.6.6 Water Disposal

Analysis of the water flowing from the existing adit has shown zinc, arsenic, and cadmium levels in exceedance of the CCME guidelines (Appendix E). This water goes subsurface near the adit and travels above and below ground for 500 m to the nearest

watercourse, McCrory Creek. Analysis of the water in McCrory Creek upstream and downstream of the general flow direction from the adit flow (stations CMC-M1 and CMC-M2 respectively) showed no trend of increase in these metals levels downstream of the point where the adit flow would join McCrory Creek. Adit water discharge has been going since the mid-80's and hasn't produced a measurable change to the water quality of McCrory Creek. A large portion of the adit flow is expected to be used in the milling process. Appendix K contains a discussion of the water treatment studies undertaken and the recommended treatment options for water prior to discharge. Post-treatment discharge will be located in the same path as the current adit discharge to minimize erosional impacts.

4.6.7 Water Treatment and Discharge Water Quality

The Silver Hart property contains an incline adit that is freely draining water from the underground workings since the mid-80's from past operator's. This water has been shown to be high in a number of metals. When compared to the Metal Mining Effluent Regulations zinc exceeds the maximum allowable levels. This water is currently draining from the adit and travelling down the southwest facing slope towards McCrory Creek.

It is expected that water discharged from the milling process will also show exceedances of the MMER allowable levels and thus, should it need to be discharged from the tailings pond, treatment will be required as described in Appendix K.

Treatability testing of the adit water has been undertaken to determine what type of treatment will be required should the tailings impoundment prove insufficient to hold both the tailings and any excess water. A detailed discussion of this study is included in Appendix K. Any excess water requirements for milling will be made up from the tailings impoundment area or the water well, as required. During operations, the outflow from the adit and water well use will be monitored for site water balance accounting.

An environmental monitoring plan is provided as a framework to monitor and mitigate environmental situations when identified and is included in Appendix L.

4.7 Facilities

To minimize onsite construction, the mill facilities will be prefabricated in modular units off site and will be transported to the site for installation. This will reduce the construction and commissioning time required and minimize the decommissioning time as the mill is modular.

4.7.1 Temporary Camp

A temporary camp will not be required during the construction phase. A maximum of 25 people may be on site at any time during development and construction of the initial mine and mill facilities. The construction crew will utilize the current camp facilities that are available for use.

4.7.2 Mill Site Camp Infrastructure

The camp facility could house a maximum of 25 people. During the mining/milling operation phase a crew of 19 will be on site. A crew of only 13 is required during the winter milling operations. The mill camp facilities will include bunkhouse units, a washroom and shower facilities, a drying unit for wet clothing, kitchen and dinning facilities, a recreation room, and a separate office/First Aid unit. Other infrastructure associated with the camp facilities includes a fresh water cistern,and the existing raw sewage septic field.

4.7.3 Mill and Ancillary Facilities

The proposed mill and ancillary facilities will include the mill building to house the ball mill, flotation circuits, filter press, a concentrate dryer, concentrate bins, tailings thickener, a generator units, a materials storage shed, an equipment maintenance building, and a refueling area. The camp facilities were mobilized to the site in 2007 in modular units. A camp inspection was coordinated with Government of Yukon, Building Safety, and commissioned in 2008.

4.7.4 Fuel/Chemical Storage

Diesel, gas, and propane fuels will be used at the project. Appropriate primary containment measures in the form of above ground doubled walled storage tanks with a lined and bermed storage area will be constructed. Secondary containment in the form of a lined and bermed area will provide containment of a minimum of 110% of the maximum possible stored fuel volume. Propane fuel will be used as the primary fuel for heating the camp facilities and as a fuel source for supplemental area heating. The 1000 gallon propane tanks will be refilled or replaced as required. Reagents and conditioner chemicals for the mineral concentration process will have a separate ventilated storage area within the mill building. A collection sump and a minimum containment of 110% of the stored volume will ensure any potential spills will be contained.

4.7.5 Emergency Spill Response Plan

A *Fuel Spill Contingency and Emergency Response Plan* is attached to this report as Appendix A. The plan outlines procedures to be followed in the event of a petroleum product spill during all phases of the project. Safety procedures for personnel and proper equipment usage during such operations are discussed within this plan. All contractors and staff will be trained in the *Fuel Spill Emergency Response Plan*. All heavy equipment repairs will occur at the maintenance building which will have a geotextile liner under the entire area to minimize potential fuel spills entering the subsurface.

4.8 Property Access and Security

Access to the site is through an existing 43 km public road from kilometer 1116.4 on the Alaska Highway. The roadway is used for recreational use, sports fishing, and access for trappers and hunters. One seasonal recreational cabin (Gerald Hudson) is also accessed from this road. A separate application for a Class III Exploration Permit for a 5-year period (LQ 00213) covers the access road upgrades and reinstallation of the culverts and stream crossings. Discussions with Water Resources have indicated there

is no requirement for a water use licence for these installations based on water licence thresholds in the *Waters Regulations* of the *Waters Act*. Fisheries and Oceans Canada have been contacted and all operations are following Operational Statements (pers. comm.. Paul Christensen). A gate will be installed on the CMC quartz claims to control access to the site for public safety and signage will be erected for traffic control.

4.9 Transportation

With the proposed development, an increase in traffic frequency will occur during development and operational phases of the project. Based on the onsite infrastructure components being constructed, it is estimated that there will be increase traffic on the highway and access road of approximately 300 trips during construction phase for moving labour, freight, fuel, and materials and supplies. The majority of the traffic is lighter vehicles with a 5 tonne or less capacity.

During the operational phase, labour will be transported from the highway to the project site to minimize vehicle traffic on the public access road. This will reduce the frequency of traffic and the increased risk of conflict use of the access road with public use. Frequency estimates of increased traffic on the highway for moving concentrate, materials and supplies, fuel, and heavy equipment with transport haulers greater than 5 tonnes are estimated to be 105 trips per year. Lighter traffic less than 5 tonnes would include labour driving to the pick-up location, materials and supplies and miscellaneous freight would be in the order of 580 trips per year or an average of less than two trips per day. The increased traffic frequency will not impact the current highway or access road intended use and would not require any major up-grades. Saftey signage will caution the public of potential truck traffic on the access road.

5.0 Characterization of the Environment

5.1 Terrestrial Environment

5.1.1 Topography and Soils

The site lies within the Pelly Mountains ecoregion. The following is a general description of the Pelly Mountains ecoregion:

> "Permafrost is sporadically distributed. Dystric and Eutric Brunisols are codominant in the ecoregion. Dystric Brunisols are associated with coarse igneous rocks at higher elevation. Plateau areas with sandy loam morainal parent materials are associated with Eutric Brunisols. Turbic Cryosolic soils are found in alpine areas and in some imperfectly to poorly drained sites." (Environment Canada, 2005)

Relief on the CMC claims is 660 m, from the low point of 1,000 m along the Meister River to a high point of 1,660 m on the northeast corner. The site is within the Cassiar Mountains along a ridge running southeast through the Silver Hart Property, dividing it into two topographical areas. The southern third of the Silver Hart Property is south facing slopes upon which all of the proposed facilities will be constructed. The northern two-thirds consist of more gentle sloping north faces. The tree line is at an elevation of 1450 m to 1,500 m. The proposed milling site has an elevation of approximately 1,440 m.

The waste rock storage areas, the tailings pond, and the mill facilities will all have protective liners to minimize releases. The mill facilities will be on a constructed concrete foundation and pad and a non-porous geomembrane will line the waste rock facility and tailings pond. Mill facilities will be on a compacted fill and the waste rock and tailings area will be on a compacted fill, and liner over a bedrock foundation.

5.1.2 Acid Rock Drainage and Metals Leachate

Overall the waste ARDML testing showed enrichment of the waste rock with metals, primarily zinc, lead and silver. Some slightly elevated levels of arsenic were seen in a few samples. Paste pH values of waste rock in the samples tested are all in the neutral

to slightly alkaline range, indicating no readily soluble acidic products. Calcium was shown to be low in most samples while the NP:AP ratio in most samples was 3 but some testing showed results of less than 1 NP:AP. During the waste excavation process, rock characterization will determine if the rock is NAG or PAG. If determined to be PAG, the waste will be stored at a separate waste cell that will be lined and covered to minimize the potential of ARD. A more detailed discussion of the geochemical analysis is included in Appendix M.

5.1.4.2 Initial Phase ML/ARD Assessment: Geological Sampling

A second series of samples for ARD testing was undertaken in July 2007, as well as treatability testing of the tailings effluent and adit discharge. Results of the finalized ARD testing concluded that "*ABA testing of the hangingwall (TM-HW-01, TM-HW-02) and tailings (TM Zone LCT) suggest uncertain acid generation potentials based on the Net NP values and low carbonate concentrations: however, the low sulphide concentrations indicate that acid generation from these samples is highly unlikely to occur. Similarly, although ABA testing of the footwall sample (TM-FW-01) indicated the potential for acid generation, the low sulphide concentration suggests that this sample is also unlikely to generate acidity. This unlikely acid generation designation was confirmed by the near neutral final pH values reported after aggressive oxidation of these samples during NAG testing.*

The TM Zone LCT humidity cell leachates maintained near neutral pH values and reported progressively decreasing concentrations of sulphate throughout the 20 week test period. Low levels of alkalinity were observed in the weekly leachates and free acidity was not released. All controlled parameters reported at concentrations well within the limits dictated by MMER." It should be noted that the tailings material tested was from a metallurgical test of a high grade sample that was over seven times the average estimated mill head grade and produced a tailings material that is much higher in sulphides than would be expected from the mill processing. Even with the higher grade tailings, it was concluded that the tailings would not likely be acid producing.

5.1.3 Analytical Results

Appendix B provides the results from the finalized ARD testing.

5.1.4 Vegetation

The following information on vegetation at the Silver Hart Property results from field observations taken at the site in September 2006 by an independent Vegetation Specialist (Stu Withers). A map delineating primary vegetation types within the project area is shown in Figure 11 and the original results of the survey are included in Appendix C.

The project area lies within the Pelly Mountains Ecoregion. Alpine fir forests dominate most of the area. Alpine fir occurs as both open and closed canopy forests and as a krummholz growth form on areas with increased exposure at higher elevations.

The primary vegetation types within the project area are described as follows:

5.1.4.2 Closed Alpine Fir

This closed canopy forest is dominated by alpine fir with the occasional presence of white spruce. The canopy height ranges from 8 to 10 m. Lodgepole pine is found colonizing disturbed sites. The understorey layers are poorly developed with relatively few shrub and forb species. Feather mosses (*Hylocomium splendens* and *Pleurozium schreberi*) form extensive ground carpets.

This closed alpine fir forest is successionally stable and is found at mid-elevations (lowest elevations within the area surveyed).

CMC Metals Ltd. Property

CMC METALS LTD

Legend

- Trail
- Limited-Use Road
- Contour
- Water Course
- Water Body

Quartz Claims
Claim Owner, Status

- Expired
- Archer, Cathro & Associates, Active
- CMC Metals Ltd., Active

Vegetation

- AS Alpine Shrub
- AFd Dwarf Alpine Fir
- AFo Open Alpine Fir
- AFc Closed Alpine Fir

Caribou Lake
Meister River
McCrory Creek
Oake Creek
Edgar Lake
Roy Lake
Beaver Creek
CAMP
AFc
AFd
AFo
AS

Projection: UTM Zone 9 NAD83
Units: Meters
NTS: 105B/07

Vegetation identified by Stu Withers, S.P Withers Consulting, Whitehorse, Yukon.

Quartz claim data obtained from Yukon Government Minerals Branch via http://www.geomaticsyukon.ca/data_download. Data current as of September 15, 2006.

Figure 11

Area Overview

Scale: 1:50,000

0 250 500 1,000 1,500 2,000 m

ACCESS CONSULTING GROUP

Drawn by: HD | Checked by: PI

Date: November 2006

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5.1.4.2 Open Alpine Fir

Alpine fir dominates this open canopy forest. White spruce occurs occasionally. The shrub layer (primarily dwarf birch) is well developed. The ground cover is mostly feather moss and a variety of herbaceous species. Lichen (mostly *Cladina* spp.) occurs on the open, drier areas.

This vegetation type occurs on the project area's well-drained upland slopes. These open alpine fir stands are climax within their elevational range.

5.1.4.2 Dwarf Alpine Fir

Growth forms of dwarf alpine fir is variable, ranging from prostrate and twisted krummholz thickets to low-stature, upright individuals. Other shrub and herb species are poorly represented. The ground cover is feather mosses, liverworts and lichens (principally *Cladina* spp.)

Within the projects area, this successionally stable vegetation type occurs on higher subalpine elevations, frequently on exposed, windswept ridges.

5.1.4.2 Alpine Shrub

The alpine dwarf shrub vegetation community consists of a variety of alpine shrub and herb species. Isolated stunted trees (alpine fir, white spruce and lodgepole pine) are found in a few sheltered areas. The ground cover is a discontinuous carpet of lichens (primarily *Cladina* spp., *Cetraria* spp. and *Stereocaulon* spp.).

This alpine shrub vegetation type occurs on the project area's highest, most exposed ridges.

5.1.4.2 Vegetation Densities

The total area investigated in the vegetation survey is about 1949 ha. The area for each of the four primary vegetation types observed is shown in the following table.

Table 9. Vegetation Types

Primary Vegetation Type	Area (Total ~ ha)
Closed Alpine Fir	623.3
Open Alpine Fir	956.8
Dwarf Alpine Fir	194.8
Alpine Shrub	173.7
Total	1948.6.

5.1.4.2 Vascular Plant Species

Of the vascular plant species catalogued during the September 2006 survey, only one species (*Rubus pedatus*) is considered to be rare in the Yukon. This was the third recorded observation of this species in the territory. *Rubus pedatus* was observed in the Dwarf Alpine Fir vegetation zone.

A list of vascular plant species observed during the September 2006 survey is included in Appendix C. This is not an exhaustive inventory of plant species expected in this area.

5.1.5 Wildlife

Based on the Wildlife Key Area Inventory Program produced by the Yukon Government Department of Environment, the Silver Hart Property is within a mountain goat wildlife key area (WKA) for year-round functions as it is in the upland area favoured by these animals. On the northern edge of the Silver Hart Property is a key wildlife area for beaver, following the Meister River from Caribou Lake. The access road, which travels north from the Alaska Highway alongside Daughney Lake and the Rancheria River before turning northeast and running alongside Northwind, Roy, and Edgar Lakes. Within this area, along the Rancheria River and the Northwind Lakes a beaver WKA is also noted.

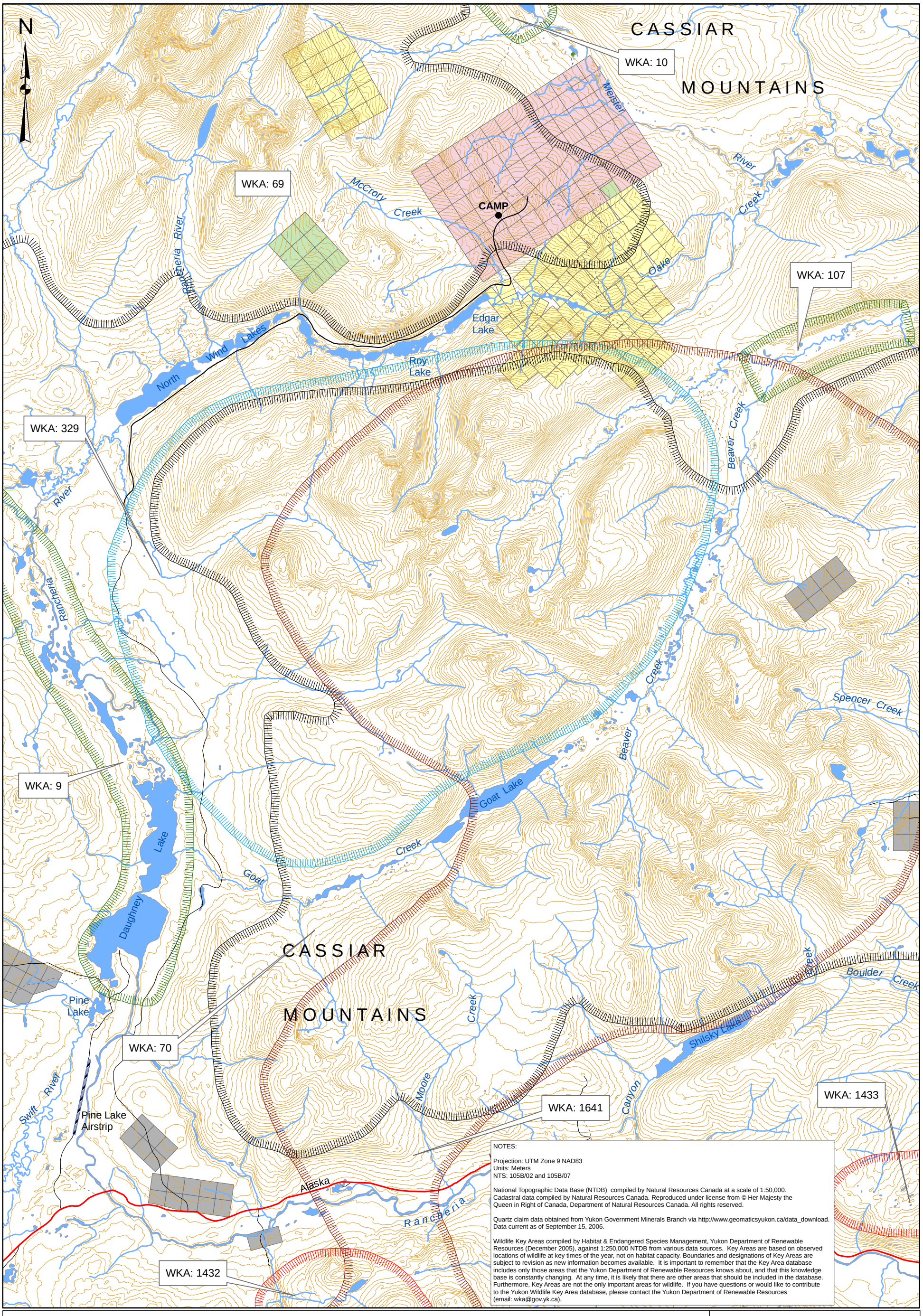
Outside the Silver Hart Property and immediate project area but of note are a number of WKA to the south of the Silver Hart Property and east of the access road. These include areas used by thinhorn sheep, mountain goats, and woodland caribou (probably the

Wolf Lake Caribou herd). Discussions with the Regional Biologist for the Southern Lakes Region indicate that the area may be used by a number of different woodland caribou herds (pers. comm., Rob Florkiewicz, 2006).

The entire access road and project area is within a single Game Management Zone (GMZ), # 1028, but the Meister River is the boundary between this zone and GMZ #1027 which should be noted as a nearby second GMZ. Figure 12 shows the Game Management Zones and Wildlife Key Areas in the area of the Silver Hart Property.

A post-rut moose and caribou survey of the area was undertaken in early December 2006 by an independent wildlife biologist (Grant Lortie) to track any early winter movement of moose and other large animals in the area. The results of this survey are included in Appendix D. No moose or large mammal tracks were observed on the Silver Hart Property but a few moose and moose sign were observed on the northern side of the Meister River and in a valley to the west of the Silver Hart Property. Figure 13 shows the animals and animal tracks observed during the survey.

Ongoing monitoring of large mammals throughout the duration of the project will be documented and reported annually in annual operational reports.



NOTES:

Projection: UTM Zone 9 NAD83
Units: Meters
NTS: 105B/02 and 105B/07

National Topographic Data Base (NTDB) compiled by Natural Resources Canada at a scale of 1:50,000. Cadastral data compiled by Natural Resources Canada. Reproduced under license from © Her Majesty the Queen in Right of Canada, Department of Natural Resources Canada. All rights reserved.

Quartz claim data obtained from Yukon Government Minerals Branch via http://www.geomaticsyukon.ca/data_download. Data current as of September 15, 2006.

Wildlife Key Areas compiled by Habitat & Endangered Species Management, Yukon Department of Renewable Resources (December 2005), against 1:250,000 NTDB from various data sources. Key Areas are based on observed locations of wildlife at key times of the year, not on habitat capacity. Boundaries and designations of Key Areas are subject to revision as new information becomes available. It is important to remember that the Key Area database includes only those areas that the Yukon Department of Renewable Resources knows about, and that this knowledge base is constantly changing. At any time, it is likely that there are other areas that should be included in the database. Furthermore, Key Areas are not the only important areas for wildlife. If you have questions or would like to contribute to the Yukon Wildlife Key Area database, please contact the Yukon Department of Renewable Resources (email: wka@gov.yk.ca).

Legend

- Road
- Limited-Use Road
- Trail
- Contour
- Water Course
- Water Body

Quartz Claims
Claim Owner, Status

- , Expired
- Archer, Cathro & Associates, Active
- CMC Metals Ltd., Active
- Other Quartz Claims

Wildlife Key Area

- Beaver
- Golden Eagle
- Mountain Goat
- Thinhorn Sheep
- Woodland Caribou

Scale:
1:100,000
0 500 1,000 2,000 3,000 4,000 m

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ACCESS Consulting Group

CMC METALS LTD. PROPERTY

Figure 12

Wildlife Key Areas

Drawn by: HD	Checked by: PI

Date: November 2006

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CMC METALS LTD. PROPERTY

CMC METALS LTD

Legend

- Trail
- Limited-Use Road
- Contour
- Water Course
- Mill Site
- Area Impacted by Fire
- Proposed Waste Dump Area

Surveyed Features

- Moose Sighting
- Moose Track
- Otter Track
- Weather Station
- Other Surveyed Point
- Flight Line

Quartz Claims
Claim Owner, Status

- Expired
- Archer, Cathro & Associates, Active
- CMC Metals Ltd., Active

Sab Lake
East Blank Creek
1998 Fire
Caribou Lake
Meister River
1965 Fire
CAMP
McCrory Creek
Oake Creek
Edgar Lake
Roy Lake
North Wind Lake
Beaver Creek
START

Waypoint: 01010
402958 mE
6698392 mN

Waypoint: 0055
406241 mE
6698008 mN
Elevation: 1520m

Waypoint: 0033
409897 mE
6695313 mN
Elevation: 1221m

Waypoint: 0044
407832 mE
6696631 mN
Elevation: 1433m

Waypoint: 0066
409363 mE
6693605 mN
Elevation: 1218m

Waypoint: 0022
412662 mE
6694825 mN
Elevation: 1162m

Waypoint: 0077
404001 mE
6689362 mN
Elevation: 1480m

Waypoint: 0088
400432 mE
6689920 mN
Elevation: 1465m

Waypoint: 0099
395330 mE
6687705 mN
Elevation: 1316m

Waypoint: 0011
403902 mE
6685970 mN
Elevation: 1287m

Waypoint: 01111
391107 mE
6680101 mN
Elevation: 1061m

NOTES:

Projection: UTM Zone 9 NAD83
Units: Meters
NTS: 105B/07 and 105B/02

Quartz claim data obtained from Yukon Government Minerals Branch via http://www.geomaticsyukon.ca/data_download. Data current as of September 15, 2006.

Moose Survey and Wildlife Sightings surveyed by Grant Lortie, Whitehorse, Yukon, December 8, 2006

Figure 13

Moose Survey Results December 2006

Scale:

0 500 1,000 2,000 3,000 4,000 m

ACCESS CONSULTING GROUP

Drawn by: HD | Checked by: PI

Date: December 2006

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5.2 Aquatic Environment

5.2.1 Site Hydrology

Stream flows in the Yukon are generally characterized by peak flows in the spring and low flows in the winter with 1-2 peak summer precipitation events. Maximum discharges typically occur during the spring as the result of snow melt or rain-on-snow events, with flows gradually decreasing following the disappearance of snow. Sizeable flood events may also occur in the late summer due to intense rainstorms. The smallest discharges of the year occur in mid-winter. Ice develops on all rivers and many streams freeze entirely, reducing their winter flows to zero.

Streams in the environmental study area include: the Meister River, Oake Creek, McCrory Creek, and approximately five unnamed creeks.

A fall water quality field program undertaken by Access Consulting Group (ACG) in 2006, 2007, and CMC Metals in 2009 included stream flow measurements gathered using flow velocity meters at stations along McCrory Creek, Oake Creek, the Meister River and five unnamed creeks that drain the Silver Hart Property (see Appendix Q).

A weather station was established on site in September 2006 that is recording a number of parameters including air temperature, wind speed and direction, and precipitation. These factors can help refine the understanding of the site water balance. Data available is included in Appendix H. The tailings pond has a small uphill catchment area of less than 1 km^2, and with the use of upslope diversion ditches, the amount of additional water input into the tailings area, beyond that from the milling and mine dewatering, will be small. Precipitation from the end of September 2006 to the end of August 2007 shows the site to have received slightly more rainfall than either of the nearest Environment Canada weather stations with a calculated climate normal from 1971-2000 (Teslin A and Watson Lake). This may be as a result of unusually heavy precipitation in June and July 2007 or orthographic effects.

A more detailed discussion of the site hydrology is included in Appendix K.

5.2.2 Surface Water Quality

In 2006, ACG developed a network of 15 Water Quality Stations (WQS) (see Figure 3) based on station locations established in previous monitoring programs in the 1980's. These stations have been physically marked on the ground and GPS referenced for ease of data management and mapping. The total number of stations was reduced to 6 in 2007 because the stations removed were deemed to have little relevancy to this project. In 2009 the stations were refined further to only include the 5 stations applicable to the project described in this document. Each station is described in Table 10 and shown in photos in Appendix E. The locations were chosen to capture existing baseline conditions upstream and downstream from the Silver Hart Property and to replicate existing water quality stations established in previous baseline studies to make possible the comparison of existing data with data collected for this project. These stations were established with the intention that they continue to be used by company personnel through the production life of the mine, to post closure monitoring. At each Environmental Monitoring Station (EMS), ACG has collected water samples and sediment samples from the stream for analysis of various physiochemical parameters, conducted measurement flows, and characterized the stream substrate and riparian habitat. The laboratory test results and summary tables are included in Appendix B. The baseline water quality data to date indicates that some metals were found in slightly elevated concentrations at various locations when compared to the CCME guidelines. These metals include arsenic, cadmium, and zinc from the adit outflow, aluminum in McCrory Creek, and pH in Oake Creek. The natural pH value is only slightly beyond the acceptable range as is common at many areas in the Yukon. The aluminum value likewise is also only slightly beyond the acceptable range. The cadmium, zinc, and arsenic values are all noteworthy natural exceedances. These exceedances could be caused by a number of factors but the most likely is that weathering of areas of heavy mineralization has resulted in the transport of dissolved metals through the watercourses. The elevated values of many metals in the adit water is likely a result of the exposure of the main ore body to groundwater and the surfacing of this groundwater at the location of the existing decommissioned adit. In 2009, a sample of the ground water from the existing well demonstrated that the groundwater at the project area is naturally elevated in iron, arsenic, cadmium, and zinc that exceed CCME guidelines.

Table 10. Environmental Monitoring Stations

EMS*	SITE DESCRIPTION	Northing	Easting
CMC-07	Mouth of Oake Creek at Edgar Lake	6686763	403918
CMC-11	Adit just south of camp	6688769	404126
CMC-M1	McCrory Creek upstream from unnamed tributary to the south	6688350	403628
CMC-M2	McCrory Creek upstream from Edgar Lake confluence;	6687110	404215
CMC-OC2	Oake Creek, downstream from McCrory Creek and Edgar Lake	6686894	404668

5.2.3 Hydrogeology

As previously stated the existing incline adit is producing a small amount of water. Bucket flow measurements of the adit measuring 100 percent of the flow have been taken on a number of occasions. Permanent closure of the adit was conducted in August 2009 as part of CMC's voluntary environmental clean-up with respect to the Class III Exploration Permit. Since the closure, the average bucket flow measurements demonstrated an average flow of 0.86 L/s. Measurements were taken by Environment Canada in October 2008 with a calculated flow rate of 4.4 L/s by "measuring the depth and width of the channel and measuring the velocity of the water over a 1m length three times" (Miller, December 2008 Silver Hart Mine October 2008 Field Visit). Visual estimates of 0.4m^3/s (400L/s) were made by Yukon Environment in August 2008 (Kettley/Paslawski September 2008, Silver Hart Mine Field Notes). While these measurements and estimates vary widely, the most empirical of these are those obtained by Access Consulting Group and CMC Metals in which the entire flow was captured using a graduated bucket and timed and thus should be considered to be the most reliable. Much of this water will be used in the milling process and any excess will be disposed of in the tailings pond.

During the reestablishment of the on site well, a ground water level measurement was taken. It was found that the current level coincided with the same level as the current underground workings. Based on the location of the planned open pit area, water is not expected to be encountered until the final pit floor levels of mining. The pit may require some dewatering during high percipatation events. Water removed from the pit will be used in the milling process when possible and any remaining water will be used in dust

control or placed in the tailings area for treatment or evaporation. A more complete picture of the site hydrogeology is included in Appendix K.

5.2.4 Fishery Investigations

The Meister River watershed is a tributary to the Liard River and is part of a known fish-bearing watershed that contains a number of species of fish.

5.2.4.2 Fishery Investigations

Fish and fish habitat investigations were undertaken by R&D Environmental on September 21- 23, 2006 at nine sites within the area of the CMC claims. Sites included CMC-01, CMC-03, CMC-03A, CMC-05, CMC-06, CMC-07, CMC-10, CMC-M2, CMC-OC2 and CMC-OC3 (Figure 3). Several additional sites were visited during the survey in order to collect water and sediment samples but were not sampled for fish as they were either not deemed as potential fish habitat due to a limited amount of flow at the site (CMC-11, CMC-U1, CMC-U2), or sampling occurred on the same system close to the site (CMC-04, CMC-M1). Visual observations for fish however were made at all sites.

A second survey was undertaken in August 21-23, 2007 with sampling occurring at the same sites sampled in September 2006 except for CMC-05. One additional site, CMC-M1 was sampled during 2007.

5.2.4.2 Methods

Gee traps, using prepared Yukon River origin chinook salmon roe and commercial bait (frozen herring) as an attractant, were set at various sites throughout the study area during the 2006 and 2007 surveys. Traps were set for a nominal 24 hour soak. Up to four traps were set at each site.

Where stream/river conditions allowed certain sites during the 2007 survey were electrofished using a Smith/Root back-back electrofishing unit. Conductivity was measured at each site and was used to determine the settings used on the electrofishing unit.

Angling, using spin casting gear was conducted at CMC-01 on the Meister River and at CMC 03A on Oake Creek.

Beach seining, using a beach seine net (12 metre length x 2 metre depth) with 1/8" mesh was conducted at two sites, CMC-01 and CMC-07 during the 2007 survey.

All fish captured were identified, and enumerated before release. Some individuals were measured for fork or total length.

In-situ water quality measurements were conducted for temperature and conductivity, dissolved oxygen (D.O.), and pH. D.O. and pH were measured using Oxyguard meters. Water and sediment samples were collected at each site and sent to a water analysis lab for analysis. Water flows were also determined at most of the sites during the fisheries surveys.

5.2.4.2 Fish Sampling Results

Sampling during the 2006 survey within the Meister River and Oake Creek watersheds resulted in the capture of only 1 fish, a Long-nose sucker (*Catastomas catastomas*). This fish was captured at CMC-07, at the outlet of Edgar Lake. Numerous slimy sculpins (*Cottus cognatus*) and other small unidentified species were observed but not captured in the Meister River during the sampling period.

In the 2007 sampling period 5 species of fish were captured in the Meister River, including lake trout (*Salvelinus namaycush*), bull trout *(Salvelinus confluentus*), Arctic grayling (*Thymallus arcticus*), Mountain whitefish (*Prosopium williamsoni*) and slimy sculpin.

A total of 3 species of fish were captured in the Oake Creek system in 2007 including slimy sculpin, Long-nose sucker and burbot (*Lota lota*).

In all 7 species of fish were captured during sampling in 2006 and 2007.

No fish were captured or observed during the 2006 and 2007 surveys in McCrory Creek or in any of the unnamed tributaries that were sampled that flow into the Meister River.

5.2.4.2 Discussion and Recommendations

Based on the results of the 2007 sampling program and anecdotal knowledge it is known that substantial fish populations inhabit the Meister River drainage. Because of this knowledge extensive and/or intensive sampling was not conducted at sample sites along the Meister River and Oake Creek Drainage. Observations for spawning fish and or habitat use did not reveal any activity or signs of spawning activity at the sites examined.

Certain sample locations (CMC-02, CMC-11, CMC-U1) were not deemed as suitable fish habitat due to low water flow rates and/or volume of wetted habitat available to fish.

Fish were not captured or observed in tributaries of Meister River (CMC-10, CMC-03, CMC-03A or in McCrory Creek (CMC-M2) which is a tributary of Oake Creek. Habitat at these sites appears to be suitable for fish. Although these tributaries cascade down off the side of the surrounding mountains to the Meister River and Oake Creek there are no significant barriers to fish migration downstream of the sample sites (the cascades however may limit upstream migration of smaller fish) except on the tributary that flows into the Meister River at CMC-01 (near the outlet of Caribou Lake). On this tributary a fish barrier (waterfall) was observed, during aerial reconnaissance, about 500 metres upstream of its confluence with the Meister River.

5.2.5 Stream Sediments

Stream sediments were collected from each EMS assessed during the two water quality surveys in 2006 and a single water quality survey in 2007. A composite sample from three locations from each EMS was collected when possible and sent to Norwest Labs for analysis. At some sites substrate type in the sampling area prevented sediment sampling. The results of these sediments sample tests are included in Appendix E. The stream sediments show naturally high levels of a number of metals throughout the area, some metals found to exceed the Interim Sediment Quality Guidelines (ISQG) and, less frequently, to exceed the higher Probable Effect Level (PEL). Of the seven metals with guidelines, only mercury was not found in excess of the ISQG and only cadmium and copper were found in excess of the ISQG but not the PEL. The remaining parameters (arsenic, chromium, lead, and zinc) were all found in excess of the PEL at one or more

EMS. These exceedances indicate that weathering of mineralized areas upstream of the locations has resulted in naturally high levels of a number of metals.

5.3 Atmospheric Environment

5.3.1 Climate

The climate in the Pelly Mountains Ecoregion is cold and semiarid with a mean annual temperature of –3.0 °C. The summer mean temperature is 10.5°C and the winter mean for the ecoregion is –17.5°C. Mean annual precipitation ranges from 500 mm – 1000 mm, varying with elevation (Environment Canada, 2005). The nearest Environment Canada Weather Station is located at Teslin, approximately 110km away. Environment Canada Climate normals for Teslin indicate an average annual rainfall of 203.7mm and an average annual snowfall of 148.2 cm. Another Station at Watson Lake (approximately 125km away) shows an average annual rainfall of 510.3mm and an average annual snowfall of 329.9 cm. A meteorological station was installed at the site in September 2006. This station collects data on rainfall, air temperature, soil temperature, barometric pressure, wind speed, solar radiation, and relative humidity. Preliminary data shows climate parameters similar to the Watson Lake Environment Canada Weather Station. A data summary is included in Appendix H.

5.4 Human Environment

5.4.1 Land Use and Land Tenure

The property falls within the lands designated as the traditional territory of the Kaska Dena First Nation and borders the officially recognized traditional territory of the Teslin Tlingit Council. During meeting with the Teslin Tlingit Council government CMC Metals was told that the area of the project is within the actual traditional territories of the Teslin Tlingit Council and the Teslin Tlingit Council is currently discussing the classification of this land as their traditional territorial with the appropriate territorial and federal government representatives.

A Teslin Regional Land Use Plan Commission was appointed in August 2001 but as of the completion of this report there is no current land use plan in place that includes this area.

CMC owns 116 claims in the project area within the Meister River watershed. Southeast of the CMC claims are 125 adjacent claims owned by Archer Cathro and Associates Ltd. (Archer Cathro). To the northwest of the CMC claims are 24 claims also owned by Archer Cathro (Figure 3). The existing public access route passes through two trapping concessions; registered trapline # 348 and # 346. The Silver Hart Property is located on registered traplines # 347 and # 346 The outfitting concession is # 20. CMC is in the process of coordinating with the owners of these trapping and outfitting concessions regarding the impact of the project on these activities. We will discuss with the trappers and outfitters if there is any potential operational protocols to implement to minimize conflicts with their concessions. According to Yukon Government Traditional Territory maps the project study area is within the Liard First Nation Traditional Territory, and the access road borders both the Teslin Tlingit First Nation and the Liard First Nation. Hunting and recreational fishing does occur in the Meister River watershed and the Upper Rancheria watershed. These activities should not be impacted by the project. Figure 14 shows the current land uses in the area.

5.4.2 Heritage Resources and Archaeology

C. Thomas of Thomas Heritage Consulting was contracted to conduct a detailed evaluation of heritage resources and archaeological sites in the project area in September 2006. No known heritage resources were found. Please refer to Appendix F for the complete report.

N

CASSIAR MOUNTAINS

LFN R-147B

Game Zone ID: 1027

Single Trap ID: 347

Meister River

McCrory Creek

CAMP

Rancheria River

Single Trap ID: 346

Edgar Lake

Oake Creek

TTC S-74B1

Roy Lake

TTC S-77B1

North Wind Lakes

Beaver Creek

Game Zone ID: 1025

River

TTC S-140B1

Rancheria

TTC S-142B1

Game Zone ID: 1028

Spencer Creek

Beaver Creek

Game Zone ID: 1026

TTC S-75B1

Goat Lake

Single Trap ID: 345

TTC S-139B1

Daughney Lake

Disposition 105B01-021

Goat Creek

Single Trap ID: 348

Disposition 105B02-002

Agricultural Disposition 920198

TTC S-141B1

LFN R-76A

Boulder Creek

Pine Lake

CASSIAR MOUNTAINS

Creek

TTC R-17A

TTC S-76B1

Swift River

Moore Creek

Canyon

Pine Lake Airstrip

Disposition 105B02-018

Disposition 105B02-024

Highway

Alaska

Rancheria River

Disposition 105B02-013

Game Zone ID: 1029

NOTES:

Projection: UTM Zone 9 NAD83
Units: Meters
NTS: 105B/02 and 105B/07

Quartz claim data obtained from Yukon Government Minerals Branch via http://www.geomaticsyukon.ca/data_download. Data current as of September 15, 2006.

Cadastral data downloaded from ftp://ftpyukoncccm.nrcan.gc.ca/, data current as of November 7, 2006.

Land disposition and agricultural disposition data acquired from Yukon Government Energy Mines and Resources Lands Branch via http://www.geomaticsyukon.ca/data_download. Data current as of November 3, 2006.

Unrecorded First Nation settlement land data obtained from Department of Indian and Northern Affairs.
Outfitting Concession data downloaded (July 2005) from Geomatics Yukon website:
http://environmentyukon.gov.yk.ca/geomatics/envydata.html
Source: Geomatics, Environment, Yukon Government

Game Management Area data downloaded (July 2005) from Geomatics Yukon website:
http://environmentyukon.gov.yk.ca/geomatics/envydata.html
Source: Geomatics, Environment, Yukon Government

Registered Trapping Concession data downloaded (August 2005) from Geomatics Yukon website:
http://environmentyukon.gov.yk.ca/geomatics/envydata.html
Source: Geomatics, Environment, Yukon Government

Legend

- Road
- Limited-Use Road
- Trail
- Contour
- Water Course
- Water Body
- Trapping Concessions
- Game Management Zones

Quartz Claims

Claim Owner, Status

- Expired
- Archer, Cathro & Associates, Active
- CMC Metals Ltd., Active
- Other Quartz Claims

Land Use

- Cadastral Parcel
- Land Disposition
- Agricultural Disposition
- First Nation Settlement Land
- First Nation Settlement Land - Unrecorded

Scale: 1:100,000

0 500 1,000 2,000 3,000 4,000 m

CMC METALS LTD

ACCESS Consulting Group

CMC METALS LTD. PROPERTY

Figure 14

Land Use

Drawn by: HD | Checked by: PI

Date: November 2006

Our File: D:\Project\AllProjects\CMC_Metals\gis\mxd\YESAB_Fall06\Fig14_LandUse.mxd

5.4.3 Socioeconomic Conditions

The Village of Teslin is approximately 120 km west of the project site and the Town of Watson Lake is approximately 80 km east southeast of the project site. The proposed project lies within the Liard First Nation Traditional Territory. Notifications of the project was distributed throughout Teslin and Watson Lake as well as to interested parties in Whitehorse. A meeting with the Lands and Resources Manager of the Liard First Nation Government indicated that the major concern was protection of the woodland caribou that use the area as a migration pathway. A meeting with the Liard First Nation Government was planned for early May, late May, and early June 2007, but was postponed each time at the request of the Liard First Nation Government. On May 1st, 2008 CMC Metals Ltd. met with Chief Liard McMillan and other representatives of the Liard First Nation Development Corporation to discuss and get feedback on the proposed project. A meeting with the Teslin Tlingit Council Government was held on the 16th of May 2007.

There will be approximately 25 people employed during the construction of the mine/mill facilities, approximately 32 during the active mining and milling portion, and during the winter milling 25 people will be employed. As mining will be undertaken on a seasonal basis and milling will be year-round, the number of people employed during the winter months will be reduced. CMC will promote the hiring of qualified local personnel including members of the Liard and Teslin Tlingit First Nations. The following information on the communities of Teslin and Watson Lake was taken from the 2004 Edition of Yukon Community Profiles complied by the Government of Yukon and Yukon Chamber of Commerce (http://yukoncommunities.yk.ca).

The economy in Teslin includes traditional subsistence activities, tourism, and territorial government highway, forestry, and social services. The major employer is the TTC. Tourism activities include accommodation, food services, transportation services, cultural activities, and outfitting and guiding services. Tle-nax Tawei Inc., the economic development arm of the TTC, promotes tourism, outfitting, and a sawmill in the area.

Teslin is 183 km from the City of Whitehorse, which are connected by the Alaska Highway. A 1,700 m gravel all season runway is located in Teslin. Float plane access is also available from Teslin Lake. The TTC offer social services that include social

counselors, a community health representative, community education liaison coordinator, and youth worker.

Watson Lake sits at the junction of the Alaska Highway, the Robert Campbell Highway to the central Yukon, and the Stewart-Cassiar Highway from central British Columbia. Watson Lake is 455 km to the southeast of Whitehorse, connected by the Alaska Highway. An airport is located 13 km from the town and the town has float plane access from Watson Lake. A small hospital and health clinic operate in Watson Lake and there are volunteer fire and ambulance services.

Watson Lake had a population of approximately 1,500 people in 2004 (the last year of information provided) that has fluctuated over the years. Watson Lake has a diversified economy, in part because it is the regional service and business centre for the southeastern Yukon. Primary industries occasionally increase the local economic activity including some forestry and mining and energy exploration. Watson Lake also plays a role as a transportation hub for northern tourism and shipping to Whitehorse and Alaska.

The Silver Hart project is expected to provide some economic stimulus to the region in the form of jobs, contract work, and product purchases. This is of particular importance to the region with the announced closure of the Cantung mine, and important employer in the Watson lake region. The project will also provide some training and career development opportunities for local employees and contractors. There are also significant tax revenues to be gained from the operation of the Silver Hart Mine to YTG and Federal Government through royalties, corporate and personal income taxes.

6.0 Consultation

To date CMC has had several meetings with the Assistant Lands Manager of Liard First Nation, a meeting with Chief Liard McMillan and a number of meetings with the Liard First Nation Development Corporation to discuss the project. Also, a public Open House presentation was conducted in Watson Lake on May 15th, 2007 to update and clarify the project. A personal invitation to the Liard First Nation Chief and Council was issued for the Open House. The Open House included forms and an informal discussion setting to allow for public comment.

The following day, May 16th, 2007, a meeting with a number of members of the Government of the Teslin Tlingit Council occurred to give an overview of the project and to solicit feedback. Feedback on the project consisted of concern that the woodland caribou migration not be impacted plus assurances that the public access route isn't upgraded to the extent that additional recreational hunting is increased. The second comment was a request for CMC to continue the open dialog over the project lifespan. More meetings will be scheduled with both the Liard First Nation and the Teslin Tlingit Council as the process moves forward. Additional public input and consultation will be made available through the Yukon Environmental and Socioeconomic Assessment Board (YESAB) and Water Use Licence application processes. Project information posters have been developed to provide project overview and details on pertinent aspects of the environmental studies and impact assessment conducted to date. Poster components include:

Project information posters have been developed to provide project overview and details on pertinent aspects of the environmental studies and impact assessment conducted to date. Poster components include:

- Area Overview;
- Project Overview;
- Project Timeline;
- Environmental Cultural Studies;
- The Mining/Milling Process;
- Recognition of Rights, Title and Interest;
- Promotion of First Nation growth and Business Relations; and

- Increase community relations.

Regular and open consultation will occur throughout the life of the project, including information sharing and site tours organized for community and First Nations leaders.

There was extensive distribution of the initial project description during the YESAB DO assessment process of 2007-2008 that has resulted in a greater public awareness of the project.

Table 11 lists all the meetings held with First Nation Governments and the public to review and update the project progress.

Notifications of the project will be distributed throughout Teslin and Watson Lake as well as to interested parties in Whitehorse. A meeting with the Lands and Resources Manager of the Liard First Nation Government indicated that the only major concern was protection of the woodland caribou that use the area as a migration pathway.

Table 11. Consultation Undertaken to Date

7.0 Potential Environmental and Socioeconomic Effects and Proposed Mitigation

7.1 Summary of Potential Environmental and Socioeconomic Effects

This section identifies potential environmental and socioeconomic effects that may be associated with the project, and proposes mitigation measures to eliminate or minimize these potential effects.

Table 12 provides a summary of the assessment of potential environmental effects, a listing of mitigation measures, and a determination of the significance of the potential effects. The valued ecosystem and cultural components that were evaluated for potential environmental effects include: atmospheric, topography, soils, surface water quality and hydrology, groundwater hydrology, aquatic resources including fisheries resources, benthic invertebrates, wildlife and habitat, vegetation, land use capability, and, socio-economic effects including public health and safety. The geographical boundaries considered in the environmental analysis of this summary are the McCrory Creek and Oake Creek watersheds.

Table 12 Summary of the Assessment of Potential Environmental Effects Resulting from the Proposed CMC Silver Project

Parameters	Potential Environmental Effect	Mitigation	Significance of Effects							Significant	Confidence
			Duration	Geographic Extent	Magnitude	Reversibility	Ecological Context	Economic & Social Context	Overall Rating	(Y/N)	
Atmospheric	fugitive dust - access roads fugitive dust - pit and facilities areas vehicle/equipment emissions	road watering watering proper maintenance	Very Low	Low	Low	High	Low	Low	Low	**N**	
Topography	road cuts - access roads facility area cuts open pit area	recontoured and revegetated upon closure recontoured and revegetated upon closure recontoured and revegetated upon closure	Low	Low	Low	High High Low	Low	Low	Low	**N**	
Soils (including permafrost)	stripping and erosion of soils - access roads stripping and erosion of soils - facilities area stripping and erosion of soils - open pit	stockpiling of overburden for cover/revegetation, prevent erosion stockpiling of overburden for cover/revegetation, prevent erosion recontoured and revegetated upon completion of project	Low	Low	Low	Low	Low	Low	Low	**N**	
Surface Water Hydrology	stream crossings - access roads camp and mill - water use	upgrade existing bridge crossings and culverts minimize use, use groundwater and adit flow	Very Low	Low	Low	High	Low	Low	Low	**N**	
Surface Water Quality	sediments - access road sediments - construction and operation infiltration of metals with recharge to Meister River surface waste waters	no instream construction, maintain vegetation buffer zones no instream construction, maintain vegetation buffer zones segregation of ARD waste on lined pad construction of septic field	Low	Very Low	Low	High	Medium	Medium	Low - Medium	**N**	
Groundwater Hydrology	water use - mill and camp Lowering water table	water recycling, adit flow use in milling process water recycling, adit flow use in milling process	Low	Very Low	Low	High	Medium	Low	Low - Medium	**N**	
Water Quality **Fisheries Habitat loss**	sediments - access roads sediments metals decrease in surface flows during milling	minimize instream construction, maintain vegetation buffer zones minimize instream construction, maintain vegetation buffer zones segregation of ARD waste on lined pad, no discharge to surface water from tailings area water recycling, monitor surface flows	Very Low	Very Low	Low	High	Medium	Medium	Low - Medium	**N**	
Benthic Macro invertebrates	sediments - access road sediments - construction and operation metals - operation decrease in surface flows	minimize instream construction, maintain vegetation buffer zones minimize instream construction, maintain vegetation buffer zones segregation of ARD waste on lined pad, no discharge to surface water water recycling, monitor surface flows	Very Low	Very Low	Very Low	High	Low	Low	Low	**N**	
Periphyton	sediments - access road sediments metals decrease in surface flows	minimize instream construction, maintain vegetation buffer zones minimize instream construction, maintain vegetation buffer zones segregation of ARD waste on lined pad, no discharge to surface water water recycling, monitor surface flows	Very Low	Very Low	Very Low	High	Low	Low	Low	**N**	
Wildlife	Direct habitat loss Indirect habitat loss, avoidance, habitat fragmentation Harassment Hunting & poaching pressure Road kills	revegetating revegetating no wildlife harrassment policy on-site no hunting policy, no firearms policy, access management posted speed limits and wildlife crossings, access management	Low	Low	Medium	Medium	Medium	Medium	Medium	**N**	
Vegetation	Removal of vegetation - access roads Removal of vegetation - construction	revegetating after closure revegetating after closure	Low	Low	Low	High	Low	Low	Low	**N**	
Land Capability & Historic Use Trapping Traditional/Cultural Use	 Decrease in wildlife populations, decrease trapping success Decrease in access to wildlife and cultural pursuits	 provide access and revegetation provide access and revegetation	Low	Low	Low	High	Low	Medium	Low - Medium	**N**	
Socioeconomic Effects Local community Human Health & Safety (Accidents)	 Increase positive and negative local social effects Effects of health/livelihood/community	 community communication and consultation Health & safety plans, EMS, Training, Monitoring	Low	Low	Low	Medium	Medium	Medium	Low - Medium	**N**	

7.2 Summary of Potential Environmental and Socioeconomic Effects and Proposed Mitigation

All field activities will be guided by a Field Operations Manual, which will include:

- A summary of legislative obligations;
- Copies of all permits and licenses;
- Emergency contact numbers;
- An Emergency Spill Response Plan;
- An Environmental Management Plan; and
- Any other applicable information (such as Fisheries and Oceans Canada Operational Statements).

CMC commits to practices that meet or exceed all terms and conditions of pertinent licenses, permits, and authorizations.

A Fuel Spill Contingency and Emergency Response Plan, provided in Appendix A, outlines response protocols for petroleum product spills. The purpose of this plan is to minimize effects of environmental disturbances and the resultant hazard to people, aquatic systems, and wildlife. Special mitigative measures for the project development area including containment structures, response equipment, and the presence of trained spills-response personnel will be instituted to minimize the possibility of contamination of watersheds adjacent to these facilities. All employees working at the site will be familiar with the Fuel Spill Contingency Plan. Employees will understand the potentially hazardous situations that spills can create to the health and safety of workers and the environment. They will understand their responsibilities as employees to prevent, identify, report, and appropriately deal with a spill. The plan will be available for viewing by all employees and the company will advise employees of revisions or changes to the plan.

To prevent accidents and malfunctions and their associated impacts on the environment, CMC will make best effort to:

- Provide suitable and operational monitoring and emergency equipment, including fuel spill response equipment;
- Ensure proper handling and storage of fuels and hazardous substances;

- Implement safe fuel transfer procedures;
- Install suitable and operational safety devices on explosive gases;
- Maintain proper and routine servicing of all equipment and vehicles;
- Provide suitable safety and environmental training to site personnel, including manuals and plans;
- Employ qualified supervisory personnel to monitor operations;
- Follow all safety, environmental protection, and emergency response procedures; and
- Establish a high order of preparedness in the event a spill occurs by implementing and following, in the event of a spill, the Fuel Spill Contingency Plan. Spills will be immediately reported to the Spill Report Line.

7.2.1 Terrestrial Environment

To protect the terrestrial habitat, CMC will make best effort to:

- Minimize the project footprint;
- Use existing infrastructure (exploration trails, staging areas, public access road and airstrip) to minimize disturbances;
- Instruct equipment operators not to disturb ground unnecessarily;
- Implement procedures, if fire hazards exist in the area during operations, to prevent inadvertent fires;
- Implement and follow, in the event of a spill, a Fuel Spill Contingency Plan. Spills will be immediately reported to the Spill Report Line; and
- Reclaim new site disturbance by recontouring and revegetating; and
- Implement the ARD/ML management plan as required.

7.2.2 Wildlife

To protect wildlife, CMC will undertake:

- A “no hunting” policy. The policy will be strictly enforced for company and contractors' employees while working within the project development area;

- A “no firearms” policy. Firearms will be banned from company and contractor controlled operations except as authorized for protection of employee’s safety while in the field;
- A “no wildlife harassment” policy. This policy will encompass no wildlife feeding, employee wildlife education, and wildlife avoidance. The policy will be strictly enforced for company and contractors' employees while working within the project area, and include provisions for:
- Prohibiting the personal use by employees of non-company or contractor all terrain vehicles (ATV’s) and the after hour use of company or contractor recreational vehicles for non-company activity within the project area;
- Ensuring that employees comply with Government of Yukon policy with respect to bear management and bear education programs; and
- Enforcing waste management at camp and work sites.

7.2.3 Aquatic Environment

The completeness of the baseline data and potential concerns over discharge water quality have been identified through the previous YESAB DO review process as being areas of concern. As such CMC Metals has committed to, and is currently undertaking continued baseline water quality studies. CMC Metals is also committed to construct a water treatment system for project discharges if required based on MMER standards from the project area and CCME standards at the defined control monitoring site (CMC-M2). Appendix K describes water treatment approach, if required, that would ensure the above standards are met. CMC Metals are also committed to continuing the research of tailings effluent by Kinetic testing additional average grade samples for the evaluation of water treatment requirements during operational phase and if post mining treatment is required.

To protect aquatic resources, CMC will:

- Operate in accordance with applicable Fisheries and Oceans Canada Operational Statements;
- Implement and follow, in the event of a spill, the Fuel Spill Contingency Plan. Spills will be immediately reported to the Spill Report Line;

- Monitor and treat any wastewater prior to release if necessary;
- Maintain no disposal of waste materials, wastewater, or drilling fluids directly into watercourses in a manner than may result in seepage into watercourses;
- Segregate waste to control and prevent metals from the operation from circulating through the environment;
- Store liquid fuels and oils in a closed system during transportation and on site. No fuels will be stored within 100 m of a watercourse;
- Test and monitor ice conditions and follow appropriate construction and vehicle operation procedures on winter access; and
- Undertake the monitoring discussed in the Adaptive Management Plan framework and the Environmental Monitoring Plan included in Appendix L.

7.2.4 Noise

During the construction and operational phases mobile and semi-mobile equipment will be utilized that will produce noise. All equipment that will be used will be equipped with standard sound attenuation equipment to minimize noise pollution. Prior to in-pit blasting, a wildlife visual survey of 1 km around the blast area will be conducted to ensure that wildlife is not affected by the noise of the blast. Increased traffic frequency on the public road will increase noise frequency cycles, but will be minimal based on the estimated traffic frequency.

7.2.5 Air Quality

The air quality impacts of this operation are expected to be minimal as it is a small operation in a remote area.

To protect air quality, CMC will make best effort to:

- Ensure equipment is in good working order in compliance with the energy intensity policy;
- Provide suitable and operational monitoring equipment;
- Follow all safety, environmental, and emergency response procedures; and
- Employ qualified supervisory personnel and providing suitable safety and environmental training to site personnel.

7.2.6 Managing Accidents and Malfunctions

CMC will endeavor to minimize the potential for accidents by emphasizing proper safety training and a detailed safety monitoring program that will assess safety practices and equipment maintenance frequently throughout the life of the project. The Spill Plan included in Appendix A will be utilized throughout the life of the project and updated or modified as required. CMC has an existing company safety policy that will be applied to the Silver Hart project.

7.2.7 Decommissioning

CMC will meet the following objectives in the spirit of the Yukon Government Mine Reclamation and Closure Policy:

- Manage the mine site in an environmentally sound manner and reclaim it to meet the principles stated in the Yukon Government Mine Reclamation and Closure Policy,
- Protect public and environmental health and safety by ensure that any potential discharges during mine operation and following mine closure will be managed to prevent harm to the receiving environment or to the public;
- Periodically update the Decommissioning and Closure plan with the approval of the regulatory authorities to reflect results of new information; and
- Return the mine site to a viable and, if practical, self sustaining ecosystem

A decommissioning plan is attached as Appendix P. This plan will be updated and expanded prior to operation to incorporate feedback from the regulatory authorities and information that has been learned on-site during the construction phases. The scope and intensity of decommissioning activities for the project will be determined directly by the success of the continuing exploration programs. Should results from subsequent exploration expand the known deposit estimates from the current evaluated resources, thereby leading the proponent to prepare for further mine development and production, decommissioning of infrastructure and associated reclamation of lands associated with these project elements would not be carried out following the completion of the initially proposed mining and production activities. If, however, the situation upon completion of

the proposed mining leads CMC to discontinue further exploration and development at the site, the company will implement the following decommissioning program at the site. The following activities are intended to meet Operating Conditions related to final decommissioning and the following closure objectives:

- Leave the site clean following project completion;
- Remove hazardous materials and petroleum products including items from previous work such as tanks and storage buckets; and
- Re-contour major cuts and side slopes, prevent long-term erosion/slumping and promote successful revegetation of disturbed areas.

The decommissioning goal will be to return the site as close as possible to its pre-program condition. To ensure slope stability and erosion control, the following Best Management Practices will be integrated into the final decommissioning activities:

- Capping the tailings pond with overburden and any reserved topsoil and reseeding with a native species;
- Re-contouring/re-sloping of disturbed areas to a 2.5:1 slope should be achievable in most locations, with contouring aimed at matching natural topography;
- Runoff control measures such as slope drains, cross drains or rock-lined ditches will be employed where feasible (during the project where possible, otherwise during decommissioning activities) to minimize the requirements for more expensive and less effective erosion and sediment control by diverting runoff and decreasing flow velocities;
- Long slopes (>15 m high) will be benched and slopes will be roughened mechanically across contour to discourage rill-and-gully type erosion and to provide growing sites for revegetation;
- Where possible, topsoil from disturbed areas will be stockpiled for use in preparing reclaimed areas for re-establishment of vegetation;
- Where native vegetation is not expected to re-establish naturally, an appropriate native seed mixture and fertilizing regime will be selected and applied;
- Periodic monitoring of the run-off and erosion control measures will be conducted, and if failing in sensitive areas, sediment control measures (silt

fences, check dams, straw dikes) may be employed and monitored to prevent sediment transport into streams;

- Sediment control measures will be instituted in areas of high run-off/sediment transport potential to avoid downstream sedimentation (this may include sump/silt trap construction or use of slash windrows and natural vegetation buffers); and
- Systematic approach to decommissioning (progressive reclamation)

In addition to progressive cleanup during each phase of the operations, the following measures will be employed with respect to cleanliness and waste disposal upon the decision to permanently forego further exploration/development at the site being taken:

- All machinery, materials, fuel drums, used hydrocarbons, and metal waste will be removed from the site including items on site previous to the advanced exploration program;
- All non-combustible solid camp waste will be backhauled to a public landfill Waste Facility;
- Compacted areas will be loosened and prepared for revegetation measures if necessary;
- Fire hazard will be reduced by burning slash piles in accordance with a valid Burning Permit; and
- Wildlife hazards (barbed wire, glass or plastic debris) will be removed.

A detailed decommissioning and reclamation plan will be completed and submitted for approval within the first year of production.

7.2.8 Post Closure Management

To ensure that there are no long-term effects from the project and remediation activities have been successful, CMC will make best efforts to:

- Undertake mine planning to incorporate progressive reclamation;

- Provide short and long term slope stabilization and erosion control on linear and nonlinear disturbances;
- Ensure the long-term chemical stability of residual mining components and their effects on water quality draining the property;
- Ensure the long-term physical stability of key structures such as the waste dumps and the diversion and drainage ditches;
- Work towards a walk-away closure scenario for most or all mine components;
- Ensure site safety and controlled access;
- Monitor areas affected by the project and reclamation success;
- Conduct site visits by company, Government of Yukon, and First Nations representatives to assess mitigation implementation and success;
- Compliance monitoring;
- Periodic inspection of structures; and
- Annual reporting.

7.3 Cumulative Effects

Cumulative effects refer to those effects on the environment that result from effects of a project when combined with those of other past, existing, and imminent projects and activities. To address cumulative effects, a project's activities must be considered in context to actual or potential impacts on the environment from other sources. The approximate spatial boundaries for assessing cumulative effects are the same as the boundaries proposed for the environmental assessment study area, which are based on the potential geographic extent of effect. The geographic boundary for the project site has been identified as the area bound by Oake Creek to the south, McCrory Creek to the west and the Meister River to the north.

The cumulative assessment included the following:

- Identify environmental effects from the project's activities;
- Identify other likely projects or activities that would occur in the study area during the CMC Mine/Mill production program, and assess linkages and cumulative effects from other potential projects or activities with project related effects;

- Consider mitigation measures and evaluate significance of cumulative effects; and
- Summarize findings of cumulative effects assessment.

With an understanding of the potential environmental effects resulting from the project, interactions with any likely projects or activities that would occur during the CMC mine production program have been considered. The CMC mine production program is located in a relatively remote area and other regional activities are limited. The current activities in the region include:

- Quartz mining exploration;
- Traditional land uses;
- Subsistence and recreational harvesting of wildlife and fisheries;
- Trapping (two traplines);
- Outfitting (one outfitter); and
- Other: In addition to considering current land uses, which may cumulatively interact with the project, consideration was also given to interactions, based on future land use activities. Upon review of the current land use activities, the potential future land use activities were identified as possible further mineral exploration and exploitation.

However, the likelihood of these other activities being undertaken is not known and no known authorizations are in place for these activities. An adjacent Archer Cathro property has seen some exploration in recent years but there are no known development plans. This property is almost entirely in the Oake Creek drainage also, thus potential effects on the watershed from this project could increase the cumulative impacts.

The potential cumulative impacts from the above mentioned activities are considered to be insignificant. Mitigation of the impacts of the development on these activities is planned and therefore there is little potential for cumulative effects.

7.4 Previous Environmental Assessments

The Silver Hart site is a previously disturbed site that has residual environmental impacts. Previous environmental assessments undertaken of the site include Phase I and Phase II Environmental Site Assessments by Environmental Services, Public Works and Government Services Canada for the Action on Waste Program, Indian and Northern Affairs Canada. The Phase I report was completed in 1996 and the Phase II report was released in 1997 entitled *Phase II Environmental Site Assessment of the Silver Hart Mine Site*. This assessment was conducted to:

"a) identify potential environmental and human health risks associated with the present condition of the mine site, and
b) provide recommendations and preliminary cost estimates for remediation of those risks."

The results of this report indicated a need for further testing of moderately acid generating waste rock disposal area and a water monitoring program to be undertaken every five years. No results from the proposed follow-up water monitoring program from the BWC reports have been made available. The items of environmental concern noted include above ground fuel storage tanks, some contaminated soil in the area of the existing Quonset shop, and 19 drums of fuel. Recommendations to remove or remediate all of these items of environmental concern, and a number of health and safety concerns have been undertaken and CMC has dealt with or is in the process of dealing with these items on a voluntary basis. To date, CMC Metals has removed the past operator's and other exploration companies waste fuel drums, disposed and replaced the trailer camp, removed majority of loose debris from the site, started the dismantling of dilapidated structures, and provided a permanent closure of the portal.

7.5 Environmental Monitoring Plans

A Monitoring Program describing the proposed environmental, geotechnical, and operational monitoring requirements for the project will be developed. A continuation of the existing baseline studies, as undertaken by Access Consulting Group in 2006 and

2007 will form a portion of the Environmental Monitoring Plan. Environmental and physical monitoring programs are required at all stages of development, operation and decommissioning. These programs are designed to monitor the following:

- The effectiveness of component design;
- Mitigation success;
- Potential impacts to the receiving environment;
- Improve CMC's understanding of local environment to in turn improve operational and decommissioning activities;
- Collect long-term data for additional baseline conditions; and
- Ensure compliance with licence, permit and regulatory conditions.

CMC has also created and Adaptive Management Plan framework (Appendix I) that will provide for assessment of mitigation measures and their effectiveness, and guide the orderly implementation of responses. The AMP provides a range of possible responses to use as a guide to respond to specific environmental conditions encountered. CMC will use the information provided in the AMP and adapt the appropriate response from the AMP framework provided.

8.0 References

Amukun, S.E. and Lowey, G.W., (1986) Geology of the Sab Lake map area (105B/7), Rancheria District, Southeast Yukon. Open file Report: 1987-1.

Candiotti de Los Rios, H., Noble, D.C. and McKee, E.H., (1990) Geologic Setting and Epithermal Silver Veins of the Arcata District, Southern Peru, Economic Geology, vol 85, pages 1473-1490.

Energy, Mines & Resources, Government of Yukon; (2006) Yukon Mine Site Reclamation and Closure Policy for New Mines.

Environment Canada (2005). Online URL:
http://www.ec.gc.ca/soer-ree/english/framework/nardesc/Region.cfm?region=178

Environment Canada (2005). Online URL:
http://www.climate.weatheroffice.ec.gc.ca/climate_normals/results_e.html?Province=YT%20%20&StationName=&SearchType=&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=1610&

Harter, A. (1986) Silver Hart Mines Ltd. Reports Results, Silver Hart Mines Ltd. News Release 1986-07-31.

Klohn Leonoff (1987). Geotechnical Report Hart Silver Property for Silver Hart Mines.

Lee, G.C., (1999) Geophysical Survey, CMC Claims (Including G.L. Fractional Claims) Lindgren, W. (1933) Mineral Deposits: 4th Edition, McGraw-Hill Book Company, Inc., New York, 930 p.

Read, W.S. (1987) Report on 1986 Exploration Program, Hart Silver Project, Silver Hart Mines Limited.

Read, W.S. (1987) Geochemical Report on the CMC Mineral Claims, for Silver Hart Mines Limited.

Read, W.S. (2004) Letter Report on the Current Condition of Facilities at CMC Mineral Claims, for Bellevue Capital Corp.

Sillitoe, R.H. (1987) Comparative Anatomy of Volcanic-Hosted Epithermal Deposits: Acid-Sulfate and Adularia – Sericite Types Economic Geology, vol 82, pages 1-26.

The Silver Institute (2006). Online URL:
http://www.silverinstitute.org/supply/production.php.

Smith, F.M. (1988) Report on the Reserve Estimate, Hart Project, Watson Lake Mining District, Edar Lake, Yukon.

Tempelman-Kluit, D.J. (1979). Transported cataclasite, ophiolite and granodiorite in Yukon: evidence of arc-continent collision. Geological Survey of Canada, Paper 79– 14.

Watson, K.W., (1986) Silver-lead-zinc deposits of the Keno Hill – Galena Hill area, central Yukon; in Yukon Geology, Vol. 1; Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 83-88.

White, N.C. and Hedenquist, J.W. (1990) Epithermal Environments and Styles of Mineralization: Variations and their Causes, Guidelines for Exploration, Journal of Geochemical Exploration, vol 36, pages 445-474.

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