

The background of the document is a full-page photograph of a mountainous landscape. In the foreground, there is a dense forest of evergreen trees. A winding lake or river flows through the middle of the valley. The mountains in the background are rugged, with some snow patches visible on their slopes. The sky is blue with light clouds.

Silver Hart Property 2007 Mine Production Application And Project Description (revised)

**Prepared for:
CMC Metals Ltd**

**Prepared by:
Access Consulting Group**

December 2007

TABLE OF CONTENTS

1.0	CORPORATE PROFILE.....	1
2.0	PROJECT BACKGROUND.....	3
2.1	PROJECT LOCATION AND HISTORY	3
2.2	GEOLOGY	5
2.2.1	Regional Geology	5
2.2.2	Property Geology.....	6
2.2.3	Deposit Geology and Mineralization.....	6
2.3	CURRENT SITE CONDITIONS	8
3.0	PROJECT SCOPE.....	9
3.1	ENVIRONMENTAL ASSESSMENT AND REGULATORY APPROVALS	9
3.2	PROJECT ACTIVITIES.....	10
3.3	PROJECT SCHEDULE.....	10
3.4	ADDITIONAL REPORTS AND PLANS.....	12
4.0	SUMMARY OF PROPOSED DEVELOPMENT	13
4.1	MINING	13
4.1.1	Prestrip Organics	13
4.1.2	Overburden Stripping.....	18
4.1.3	Open Pit and Underground Development Program.....	19
4.1.4	Ore Extraction	19
4.1.5	Technical Data for Proposed Mining Methods.....	21
4.2	WASTE MANAGEMENT	23
4.2.1	Waste Rock Management	23
4.2.2	Camp Waste	26
4.2.3	Contaminated Soils.....	26
4.3	MILL OPERATIONS AND TAILINGS MANAGEMENT	26
4.3.1	Mill Operations	26
4.3.2	Materials Balance	31
4.3.3	Personnel.....	31
4.3.4	Tailings Management.....	34
4.4	SUMMARY OF PROJECT WATER USE AND WATER MANAGEMENT	37
4.4.1	Water Use	37
4.4.2	Spillways	40
4.4.3	Diversion Channels.....	40
4.4.4	Sediment Control	40
4.4.5	Mine Dewatering.....	40
4.4.6	Water Disposal.....	41
4.5	FACILITIES	41
4.5.1	Temporary Camp.....	41
4.5.2	Mill Site Camp Infrastructure	42
4.5.3	Mill and Ancillary Facilities.....	42
4.5.4	Fuel Storage	42
4.5.5	Emergency Spill Response Plan	43
4.6	PROPERTY ACCESS AND SECURITY	43
5.0	CHARACTERIZATION OF THE ENVIRONMENT.....	44
5.1	TERRESTRIAL ENVIRONMENT	44
5.1.1	Acid Rock Drainage and Metals Leachate.....	44
5.1.4.2	Initial Phase ML/ARD Assessment: Geological Sampling	45
5.1.4.2	Analytical Results	45
5.1.2	Topography and Soils.....	45

5.1.3	Vegetation.....	46
5.1.4.2	Closed Alpine Fir	46
5.1.4.2	Open Alpine Fir.....	48
5.1.4.2	Dwarf Alpine Fir	48
5.1.4.2	Alpine Shrub	48
5.1.4.2	Vegetation Densities.....	48
5.1.4.2	Vascular Plant Species.....	49
5.1.4	Wildlife	49
5.2	AQUATIC ENVIRONMENT.....	53
5.2.1	Site Hydrology.....	53
5.2.2	Surface Water Quality.....	54
5.2.3	Hydrogeology.....	55
5.2.4	Fishery Investigations	56
5.2.4.2	Fishery Investigations	56
5.2.4.2	Methods.....	56
5.2.4.2	Fish Sampling Results	57
5.2.4.2	Discussion and Recommendations	57
5.2.5	Stream Sediments	58
5.3	ATMOSPHERIC ENVIRONMENT	59
5.3.1	Climate	59
5.4	HUMAN ENVIRONMENT	59
5.4.1	Land Use and Land Tenure	59
5.4.2	Heritage Resources and Archaeology	60
5.4.3	Socioeconomic Conditions	62
6.0	CONSULTATION.....	64
7.0	POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC EFFECTS AND PROPOSED MITIGATION.....	65
7.1	SUMMARY OF POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC EFFECTS	65
7.2	SUMMARY OF POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC EFFECTS AND PROPOSED MITIGATION	67
7.2.1	Terrestrial Environment.....	68
7.2.2	Wildlife	68
7.2.3	Aquatic Environment.....	69
7.2.4	Atmospheric Environment.....	70
7.2.5	Decommissioning.....	70
7.2.6	Post Closure Management	72
7.3	CUMULATIVE ENVIRONMENTAL EFFECTS	73
7.4	PREVIOUS ENVIRONMENTAL ASSESSMENTS	74
7.5	ENVIRONMENTAL MONITORING PLANS.....	75
8.0	REFERENCES.....	76
9.0	LIMITATIONS AND ACKNOWLEDGEMENTS/CLOSURE.....	78

LIST OF TABLES

Table 1 Overburden Material Placement - Volume in Bank Cubic Meters (bcm)	18
Table 2 Surface Mine Criteria	21
Table 3 Underground Mine Criteria.....	23
Table 4 Waste Rock Site Design Criteria	24
Table 5 Milling Reagents and Conditioners - Concentration (gm.tonne)	29
Table 6 Manpower Requirements	32
Table 7 Tailings Pond Design Criteria	35
Table 8 Water Consumption (m³/day).....	37
Table 9 Average Precipitation	38
Table 10 Daily Precipitation Extremes	39
Table 11 Vegetation Types	49
Table 12 Environmental Monitoring Stations	55
Table 13 Significance of Impacts	66

LIST OF FIGURES

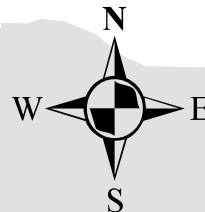
Figure 1 General Location Map	2
Figure 2 Area Overview	4
Figure 3 Site Overview	11
Figure 4-1: TM Pit Plan Overburden Removal	14
Figure 4-2: TM Pit Plan Overburden Removal	15
Figure 4-3: TM Pit Plan Final Pit Plan	16
Figure 4-4: TM Pit Plan Underground Development Workings	17
Figure 5: Site Layout	22
Figure 6: Waste Site Design	25
Figure 7 Crusher Circuit Layout	28
Figure 8 Mill Flow Diagram	30
Figure 9 Mill Materials Balance	33
Figure 10 Tailings Berm Cross Section	36
Figure 11 Silver Hart Property Vegetation	47
Figure 12 Key Wildlife Areas and Game Management Zones	51
Figure 13 Moose Post-Rut Survey Results	52
Figure 14 Land Use	61

LIST OF APPENDICES

Appendix A	Emergency Spill Response Plan
Appendix B	Acid Rock Drainage and Metals Leachate Testing Results
Appendix C	Vegetation Survey Results
Appendix D	Moose and Caribou Post-Rut Survey
Appendix E	Water and Sediment Quality Testing Results
Appendix F	Heritage Assessment
Appendix G	Klohn Leonoff Geotechnical Study (1987)
Appendix H	Silver Hart Weather Station Summary
Appendix I	Project Timeline
Appendix J	Yukon Water Board Information Sheet

1.0 Corporate Profile

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 four properties that are being evaluated for development - three are located in the Yukon Territory (see Figure 1). For more information see www.cmcmetals.ca.

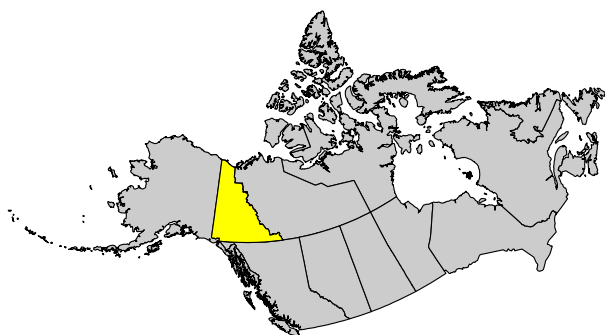
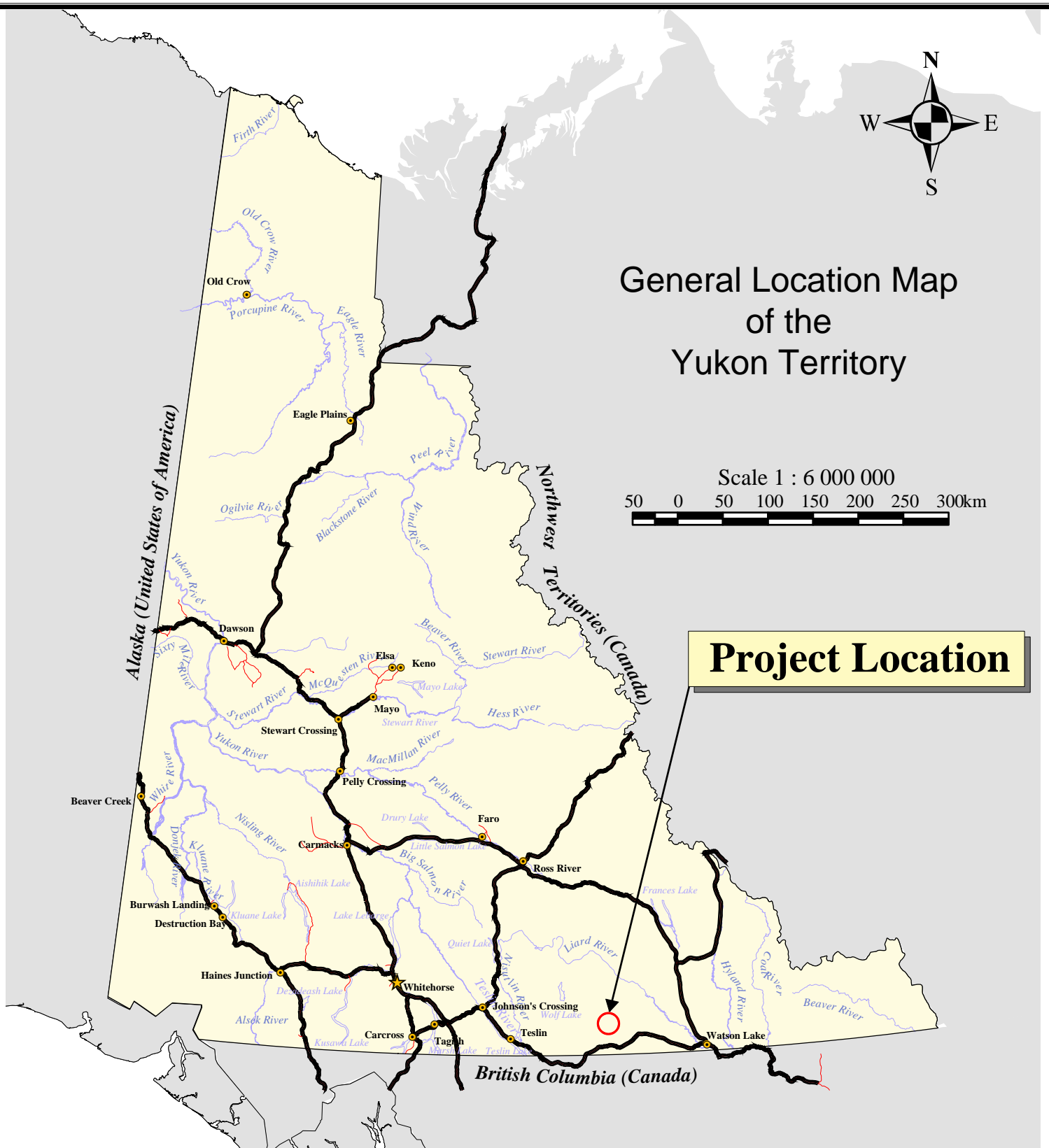


General Location Map of the Yukon Territory

Scale 1 : 6 000 000

50 0 50 100 150 200 250 300km

Project Location



CMC
METALS LTD



**CMC METALS LTD.
PROPERTY**

Drawn By: HD

Figure 1

Checked By: PI

Date: Nov. 2006

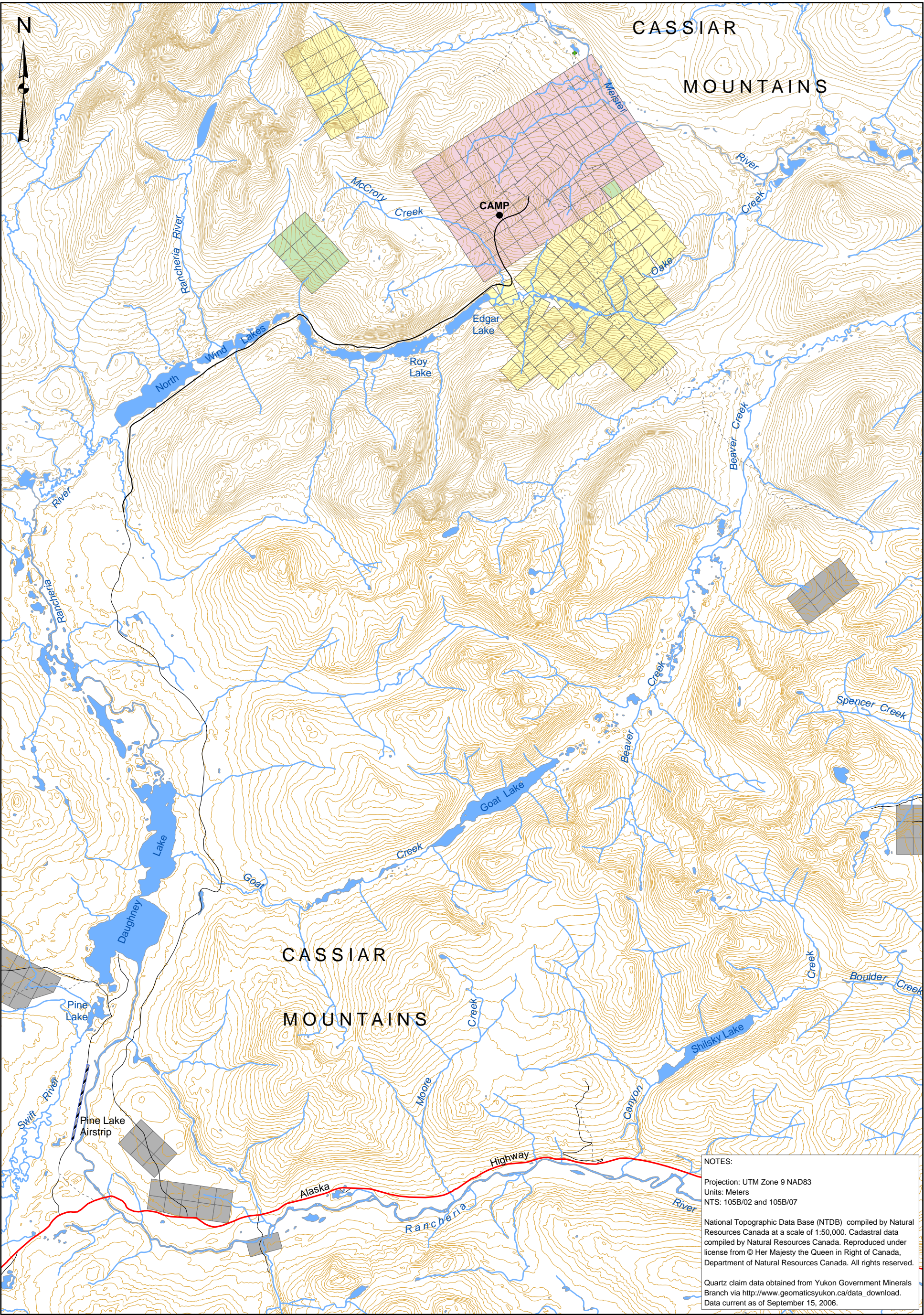
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2.0 Project Background

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 Shaktwak 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

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

Legend

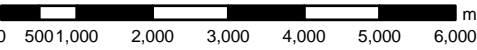
- Road
- Limited-Use Road
- Trail
- Contour
- Water Course
- Water Body

Quartz Claims

Claim Owner, Status

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

Scale: 1:100,000



**CMC METALS LTD.
PROPERTY**

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 and 2007, 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 Geology

2.2.1 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 trondjemite, granodiorite, to quartz monzonite. The Paleozoic sediments consist of interbedded waxes, 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).

2.2.2 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.

2.2.3 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.

2.3 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 21.7km² 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. Exploration to better understand the reserves and determine the potential of adjacent ore-bodies began in 2005 and continued in 2006 and 2007. Historical and current drilling totals 7,963 m of diamond drilled core. Current plans are for exploration to continue within the claim block to determine the potential for an expansion of the operational life of the development.

3.1 Environmental Assessment and Regulatory Approvals

- YESAA Designated Office (DO) Screening;

Once the project has been screened under YESAA and the Designated Office 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.

3.2 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:

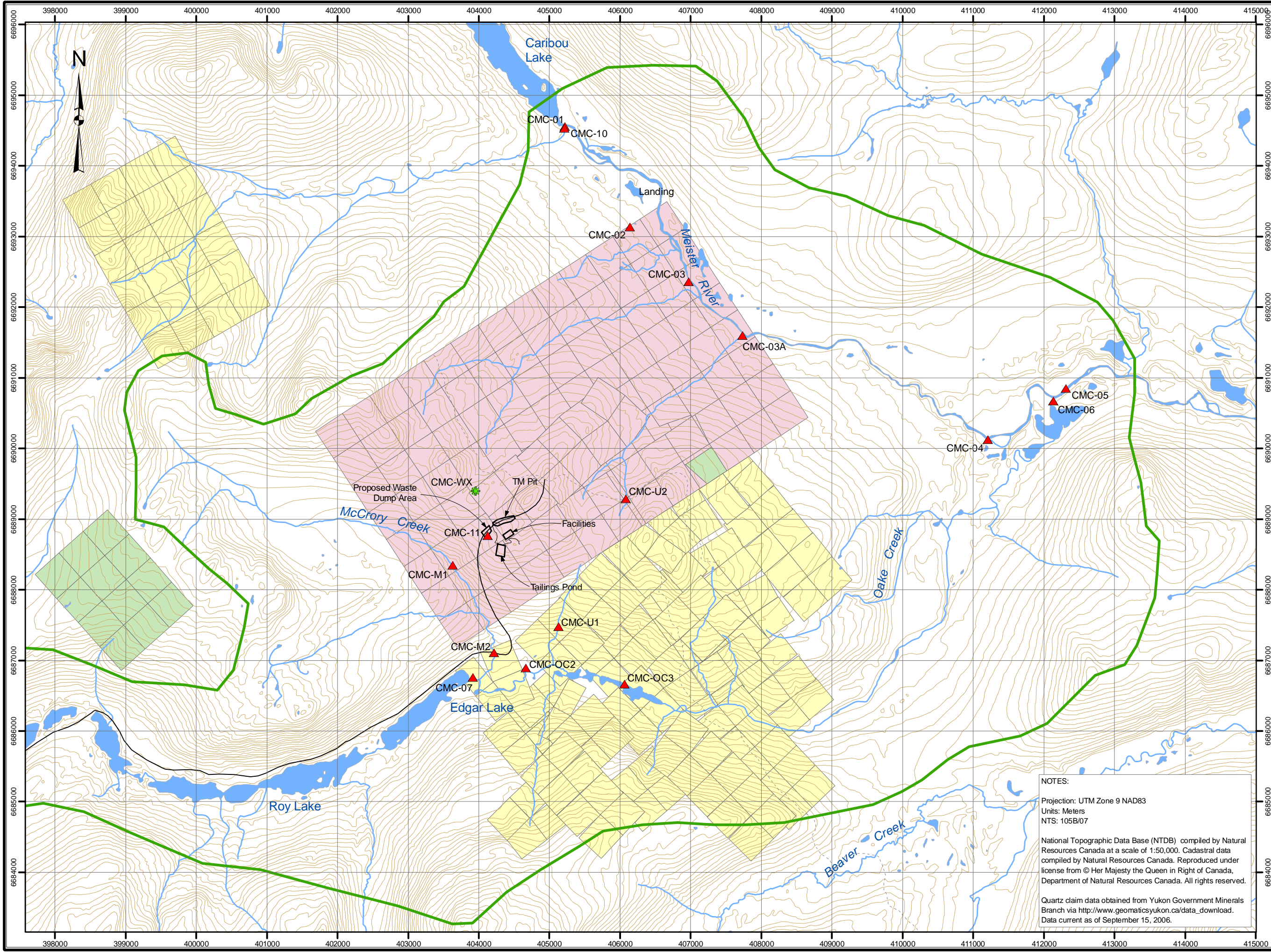
- 4 month construction project;
- 3 year mining/milling; and
- 1 year closure.
- Total: 5 years.

Spatial Scope:

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

3.3 Project Schedule

Exploration is continuing on-site and more resources may be discovered during the planned life of the mine. Should exploration indicate an increase in the viable resources allowing for an increase or extension of the operation, any legislative requirements for additional permits or approvals will be met. Appendix I contains an estimated timeline for the permitting and development of the project.



CMC METALS LTD. PROPERTY

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

Figure 3

Site Overview

Scale: 1:50,000

Drawn by: HD

Checked by: PI

Date: November 2006

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NOTES:

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

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

Additional Reports and Plans

The following plans and reports will be submitted in support of the application as required:

- ARD Management Plan (see Section 5.1.2);
- Environmental Monitoring Plan (see Section 5.2);
- Detailed Decommissioning and Reclamation Plan (see Section 7.2.5);
- Waste Rock Management Plan (see Section 4.2.4); and
- Environmental Impacts and Mitigation (see Section 7).

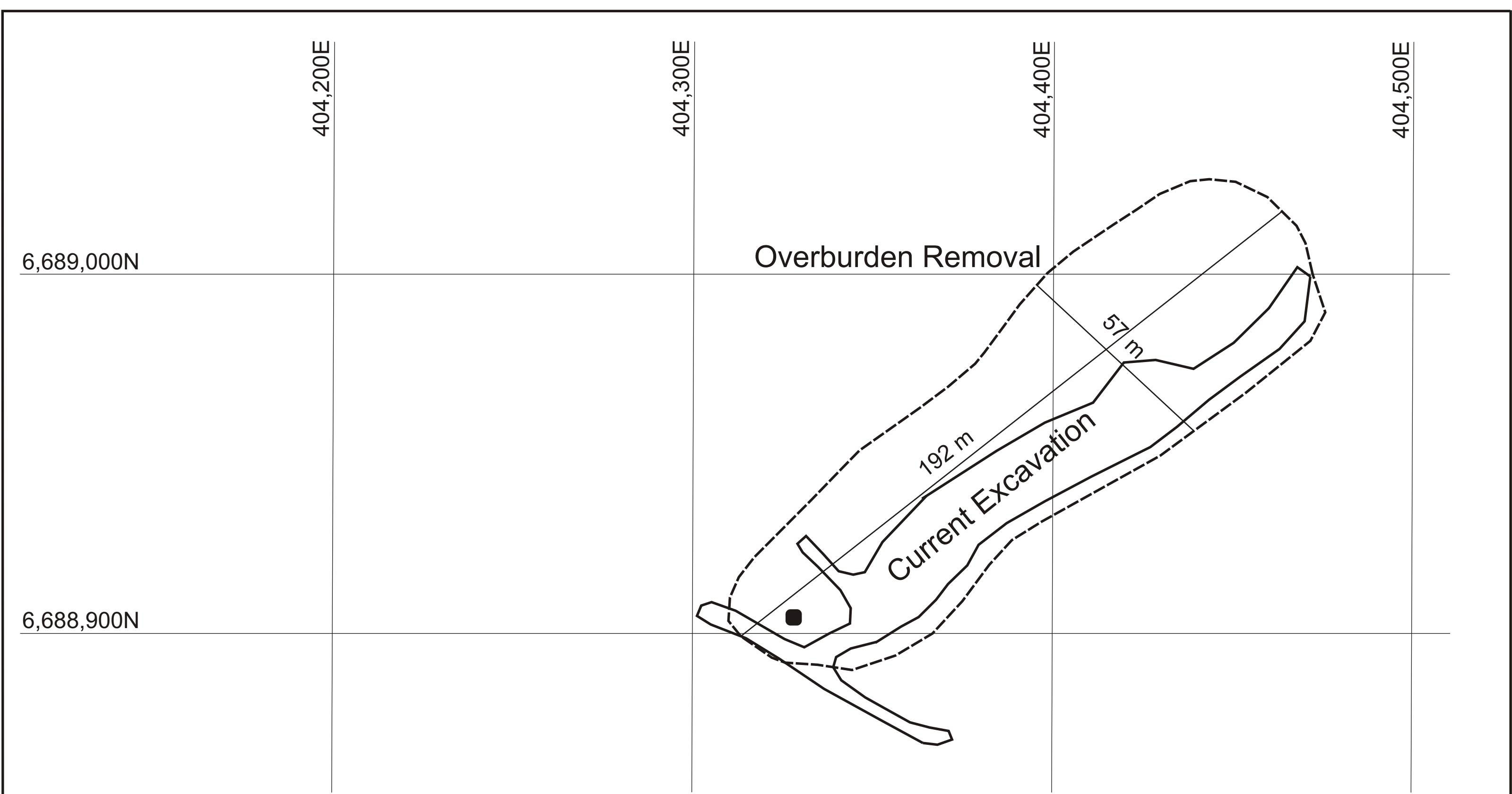
4.0 Summary of Proposed Development

4.1 Mining

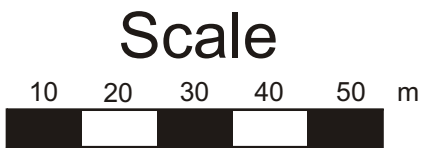
CMC determined that based on the geological setting, configuration and determined grades, mining of the TM zone area is best suited for a combination of surface open pit mining and underground mining. Total pit dimensions are estimated to be 192 m long by 57 m wide and a maximum pit depth of 50 m (see 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.

4.1.1 Prestrip Organics

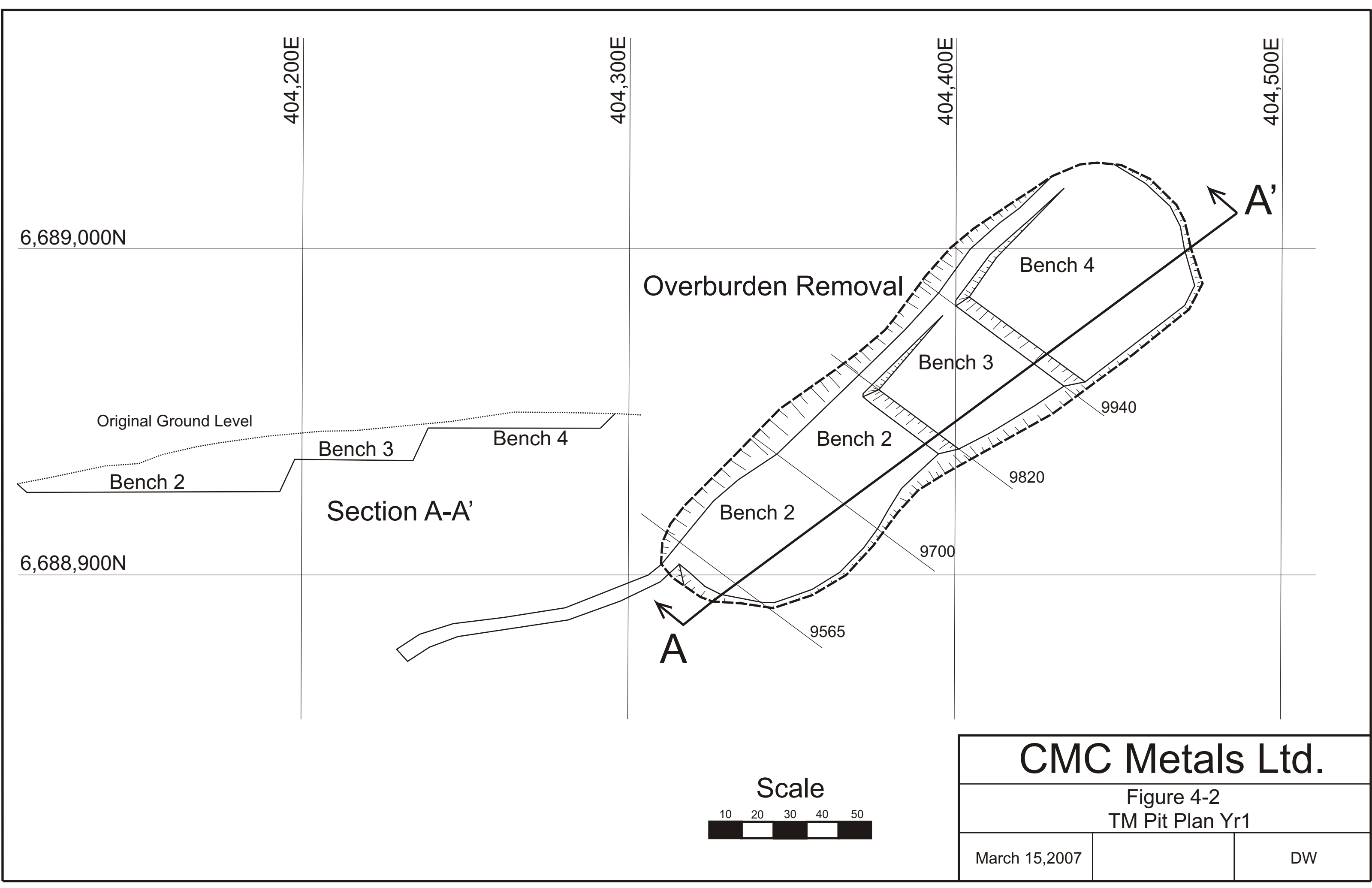
The Silver Hart Property has seen extensive surface disturbance from past owners. Unfortunately the organic duff material had not been stockpiled for future reclamation of the site. Therefore, there is no duff material that is available for salvage in the TM pit area. Mill site and tailings pond disturbance 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.



- Overburden Strip Boundary
- Current Trench Boundary
- Water Well Location



CMC Metals Ltd.		
Figure 4-1 TM Pit Plan Current Excavation Yr 0		
March 15,2007		DW

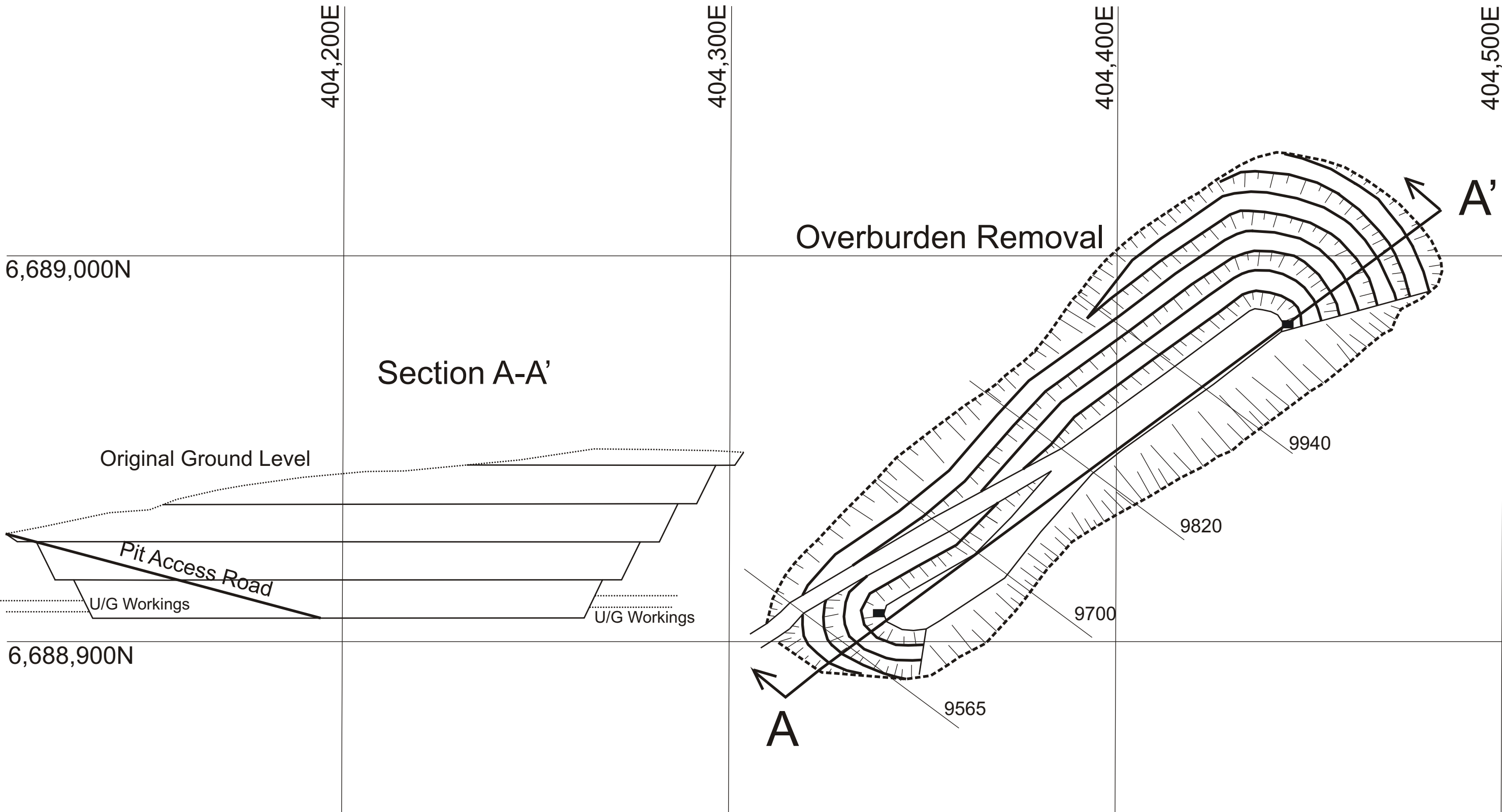


CMC Metals Ltd.

Figure 4-2
TM Pit Plan Yr1

March 15,2007

DW



Horizontal
Scale



Scale

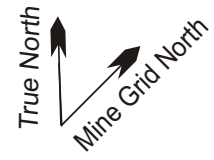
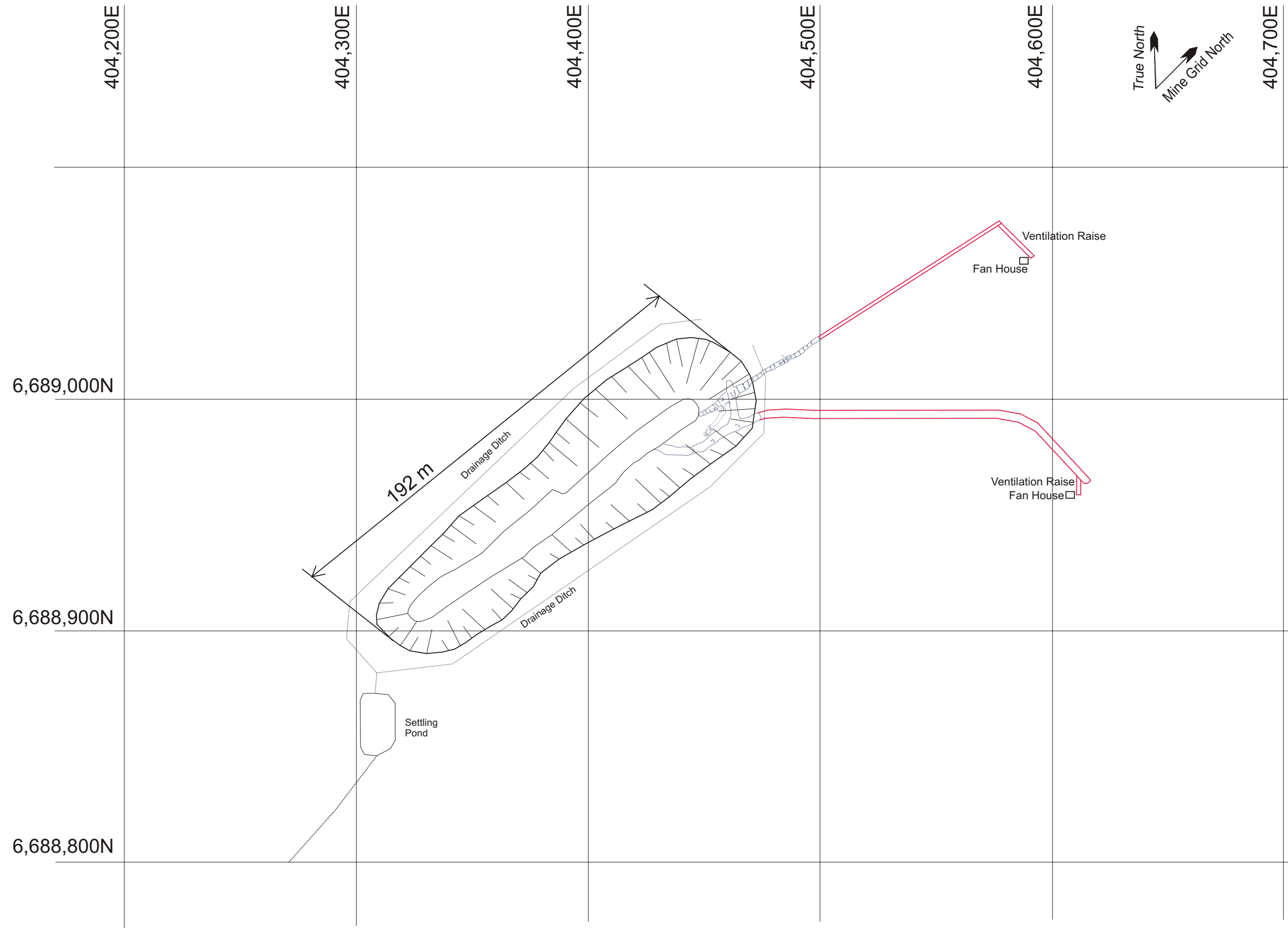


CMC Metals Ltd.

Figure 4-3
TM Final Pit Plan Yr 2

March 22, 2007

DW



— New U/G Development Workings

CMC Metals Ltd.		
Figure 4-4 Underground Development Workings		
May/2007	Scale 1:100	DW/AW

4.1.2 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 m (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, 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 1 (Overburden Material Placement) shows the anticipated volume removed and the placement of the overburden material.

Table 1 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

4.1.3 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. This open pit will tie into the existing underground workings. The existing underground workings will provide access to 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 incline to allow underground workings to flood at the end of the project life.

As a precautionary measure to mitigate potential metals leaching, a 1 m lift of crushed limestone will be placed in the floor of the pit plus backfilling of the south underground opening. This will provide additional buffering for any flow that drains from the pit through the south adit opening.

4.1.4 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. 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 coincide with 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, rock dump, etc.) to settling ponds through the use or 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.

4.1.5 Technical Data for Proposed Mining Methods

The following Tables 2 and 3 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 2 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

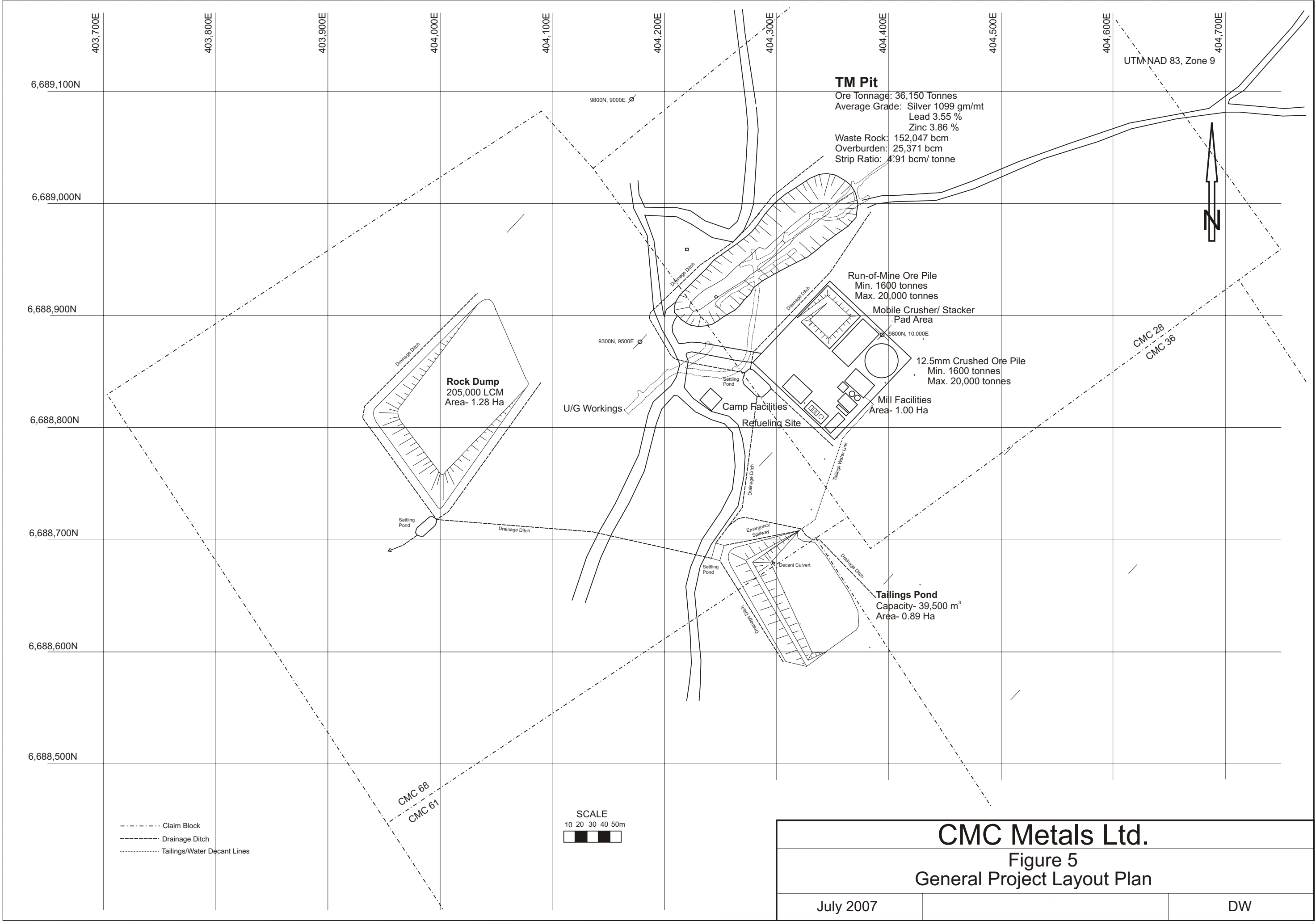


Table 3 Underground Mine Criteria

Item	Design Criteria
Development Drift Openings	3.0m X 3.0m
Stope Openings	1.2m X 2.4m
Development Drift Incline	-2.00%
Excavation Method	Drill and Blast
Ore Trimming 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

4.2 Waste Management

4.2.1 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 disposed at the waste rock site located 150 m to the southwest. 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 m (lcm’s). At the decommissioning stage of the project, reclaimed overburden material will be used to cap the waste site to minimize the infiltration of water from the waste site.

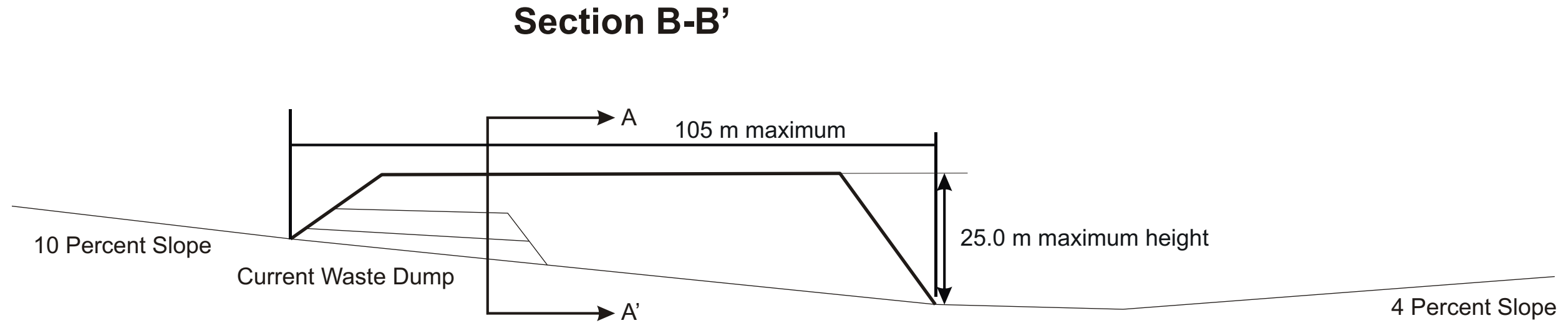
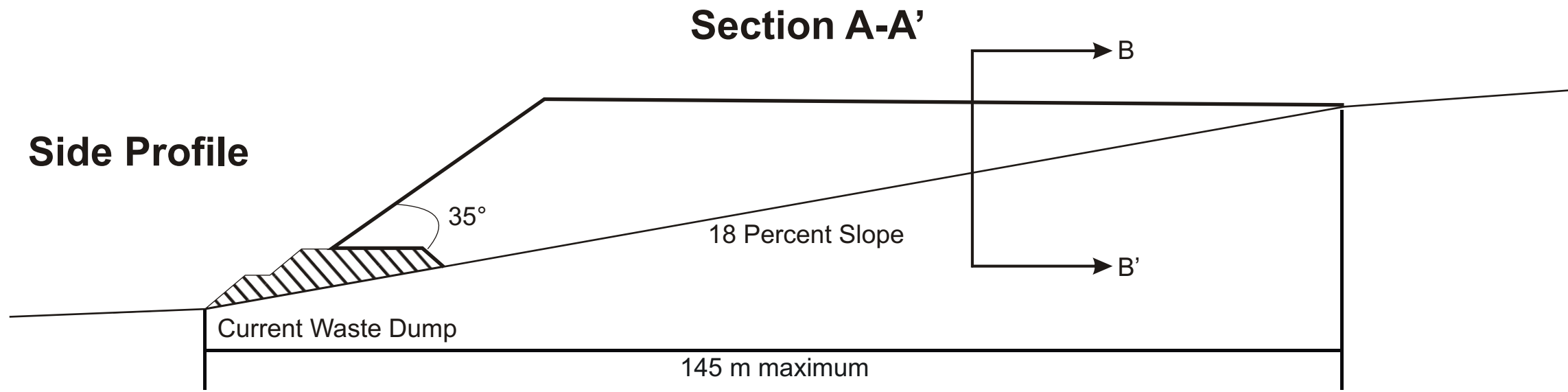
There is no infrastructure or natural structures within 500 m of the waste rock site. A run-on, run-off drainage ditch will perimeter the waste rock site and collect the water in a settling pond located in the south east corner of the waste rock dump site. This will allow any developed siltation to settle out. Outflow of the settling pond 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.

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 4 (Waste Rock Site Design Criteria) lists the parameters used in the development of the Waste Rock site. The waste rock site is within an area of extensive bedrock outcropping and shallow unconsolidated overburden and surface soils. This bedrock provides a stabile foundation for the waste rock storage site.

Table 4 Waste Rock Site Design Criteria

Item	Design Criteria
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

North



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

4.2.2 Camp Waste

Waste paper, plastic, and kitchen refuse will be bagged and removed weekly to a designated public landfill site such as Swift River or Watson Lake as permitted. Camp wastes will be disposed of in a permitted septic field to be constructed in 2008. This septic field will be in the area of the camp, the exact location to be determined based on a study by an engineer familiar with sewage disposal facility design and construction in northern climates. If a study of soil suitability indicates that this is not possible a septic holding tank will be installed. This tank will be pumped by a contractor pumper truck and disposed of the solid waste at the nearest raw sewage disposal site. Gray water (washhouse sink, shower, kitchen water) will be held in a sump and allowed to infiltrate and evaporate.

4.2.3 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*.

4.3 Mill Operations and Tailings Management

4.3.1 Mill Operations

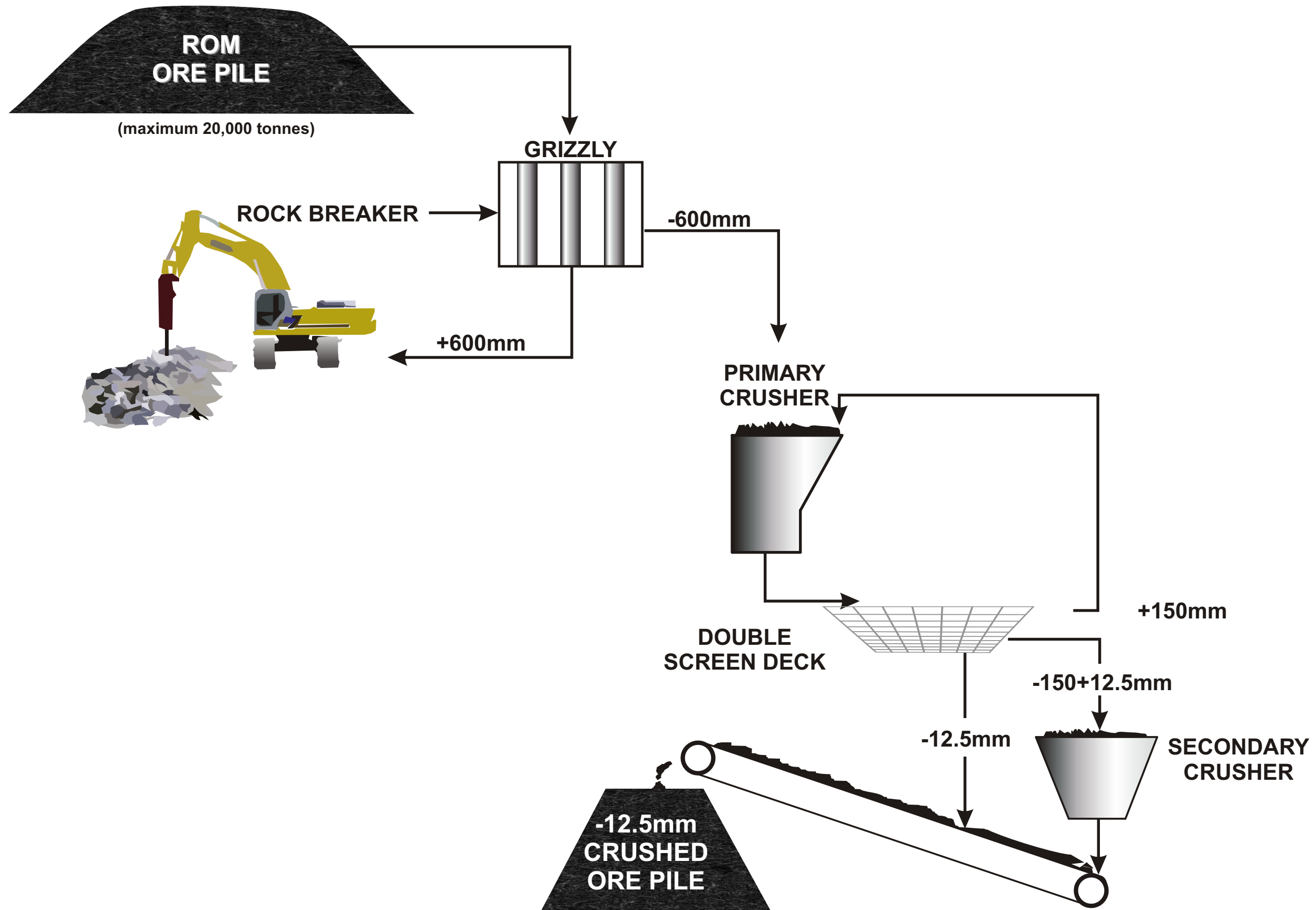
The mill site facilities will include both comminution and concentration of the raw ore. The comminution process involves crushing the raw ore through a series of crushers until a feed product of <12.5 mm material is achieved for the ball mill feed. The comminution process will start with the raw ore stockpile feeding over a grizzly separator with 600 mm bar spacing to separate oversize material before feeding into the primary jaw crusher. A primary jaw crusher will reduce the raw ore to a minimum size of <150 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 then be fed into the secondary crusher to crush the ore to -12.5 mm size. Due to the

comminution 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 contamination of the surrounding soils and groundwater. The crushed ore will also be covered with tarps to minimize moisture infiltration into the crushed ore stockpile. Figure 7 (Crusher Circuit Layout) demonstrates a typical comminution layout for the mill site area.

For the concentration processing of the crushed ore, a ball mill will grind the crushed raw ore to a particle size of 100 mesh (150 microns). A hydrocyclone will classify the material to ensure proper grinding. Oversized material will be recirculated back to the ball mill for further grinding. The undersized material will be conditioned with industry standard reagents to prepare for the floatation recovery of silver, lead, and zinc. Table 5 lists the reagents and conditioners used in the concentration process and the estimated amount consumed based on metallurgical testing.

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. Silver/lead flotation concentrates are further processed to extract the majority of the silver into a silver electrolyte.

The silver electrolyte is passed through an electrowinning (EW) cell to remove the silver. The 99.9 percent pure silver is removed from the EW cell plates and melted in a melt pot to pour silver ingots or left as sheets for shipping to a refinery. The refiner will further upgrade the silver content to 99.99 percent silver to meet commodity market grade for sales.



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Figure 7
Crusher Circuit Layout

May/2007

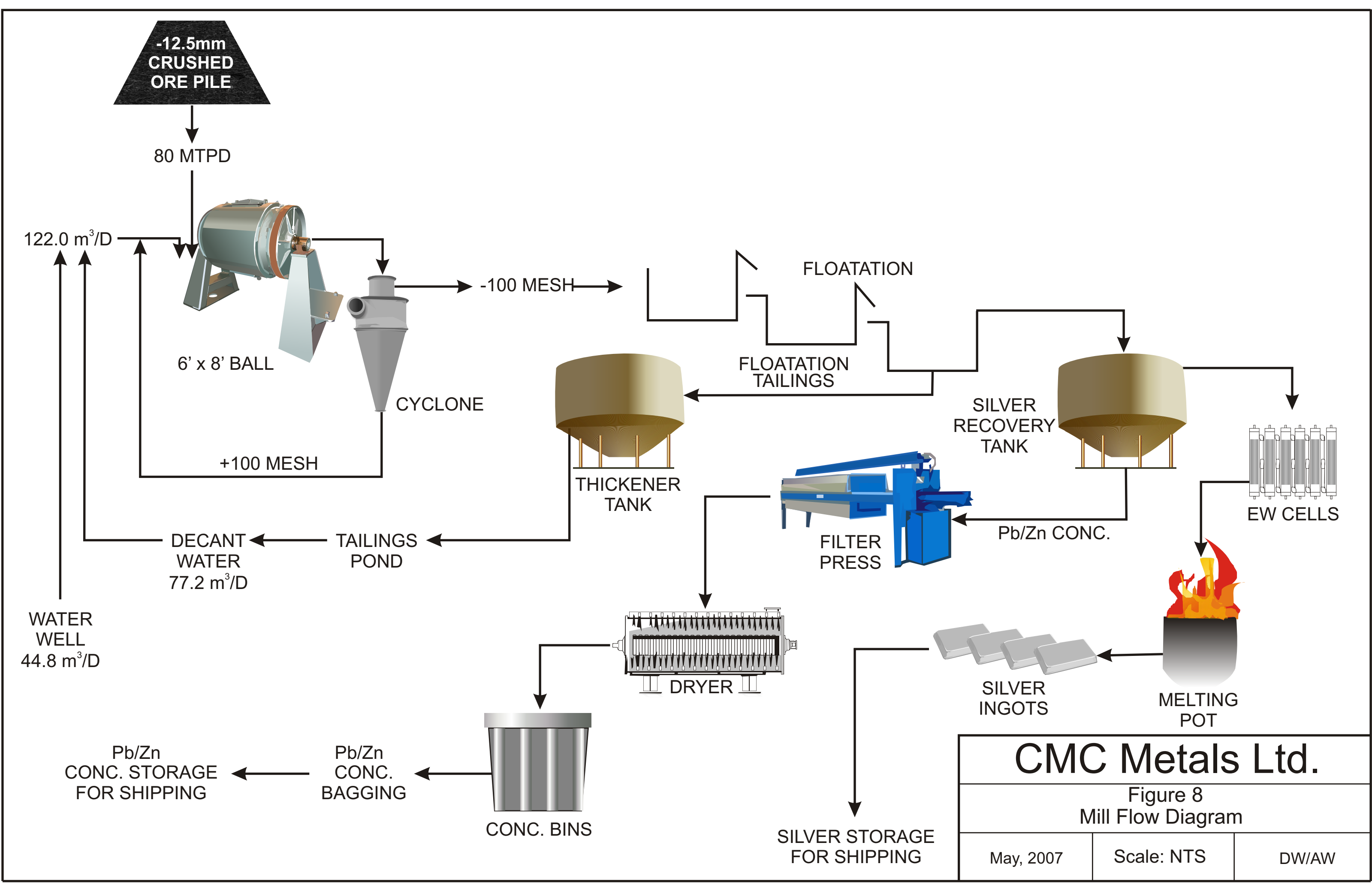
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DW

All concentrates will be dewatered with a filter press and dried to less than 10 percent moisture. Concentrates will then be loaded into 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 20,235 kg of silver ingots at 99.9% silver, 827.4 tonnes of lead/zinc/silver sulphide concentrate grading 52.0% lead, 44.8% zinc and 1025 gm/tonne silver, and 800.6 tonnes of lead/zinc/silver oxide concentrate grading 32.3% lead, 30.9% zinc and 270 gm/tonne silver. Based on the SGS Lakefield Laboratories Ltd. metallurgical test results, metal recoveries from the raw ore are 96.9% silver, 97.0% lead, and 80.0% zinc. Figure 8 (Mill Flow Diagram) is a typical flow diagram for the concentration mill being proposed.

Table 5 Milling Reagents and Conditioners - Concentration (gm.tonne)

	Circuit Reagents						
	Na ₂ CO ₃	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



4.3.2 Materials Balance

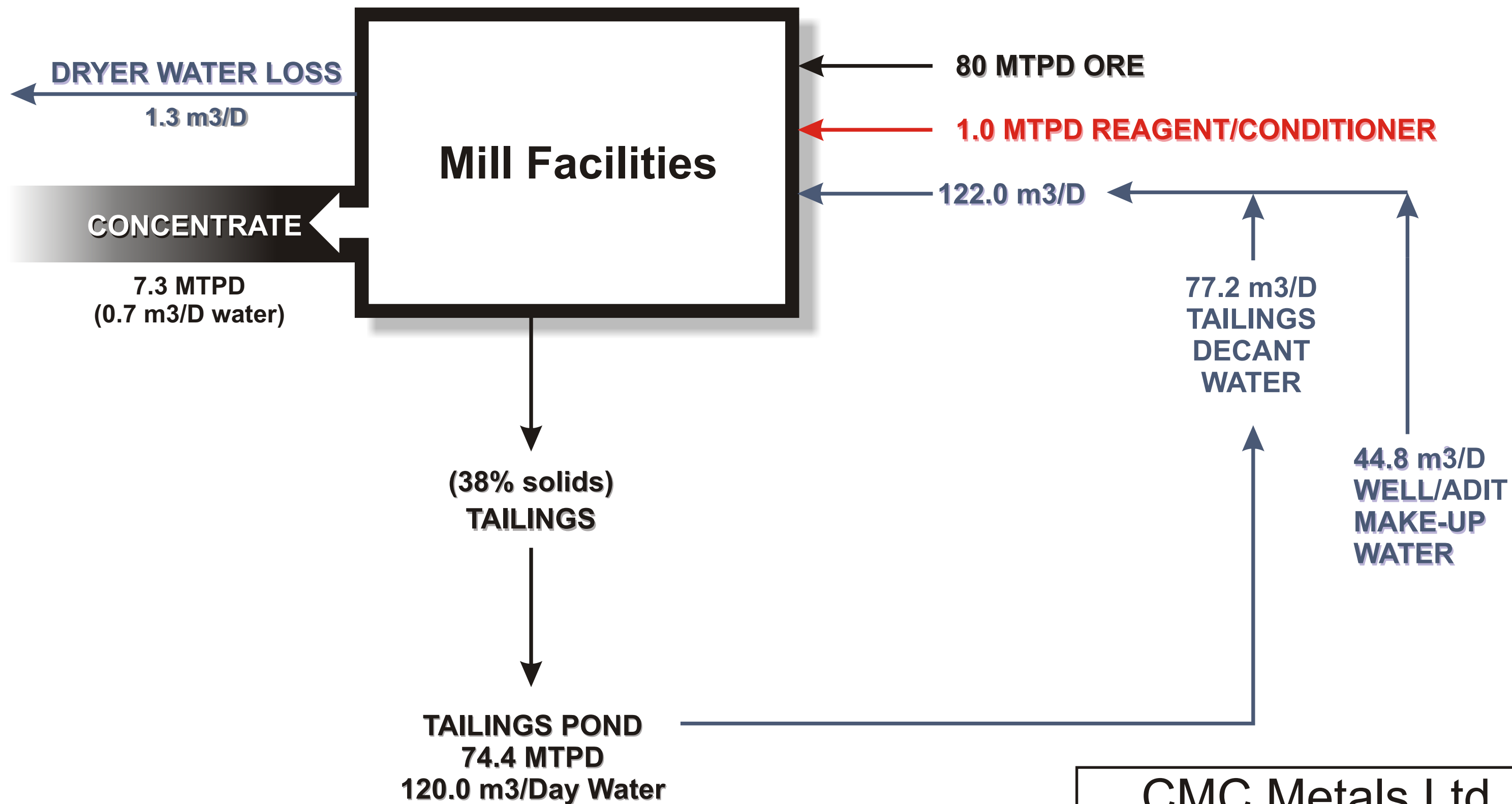
Figure 9 (Mill Materials and Water Balance) shows the mill materials and water balance for the proposed mill facilities.

4.3.3 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 6 (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 first 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 resources.

Table 6 Manpower Requirements

	Days On	Days Off	Number Per Shift	Number of Shifts	Number of Rotations	Total Required
Management						
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



CMC Metals Ltd.

Figure 9
Mill Materials and Water Balance

May/2007

Scale: N/A

DW/AW

4.3.4 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 m³ of solidified tailings volume. Average tailings grade estimated to be 37 gm/tonne silver, 0.84% zinc, and 0.12% lead. The proposed tailings pond has a potential volume capacity of 39,500 m³. 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.

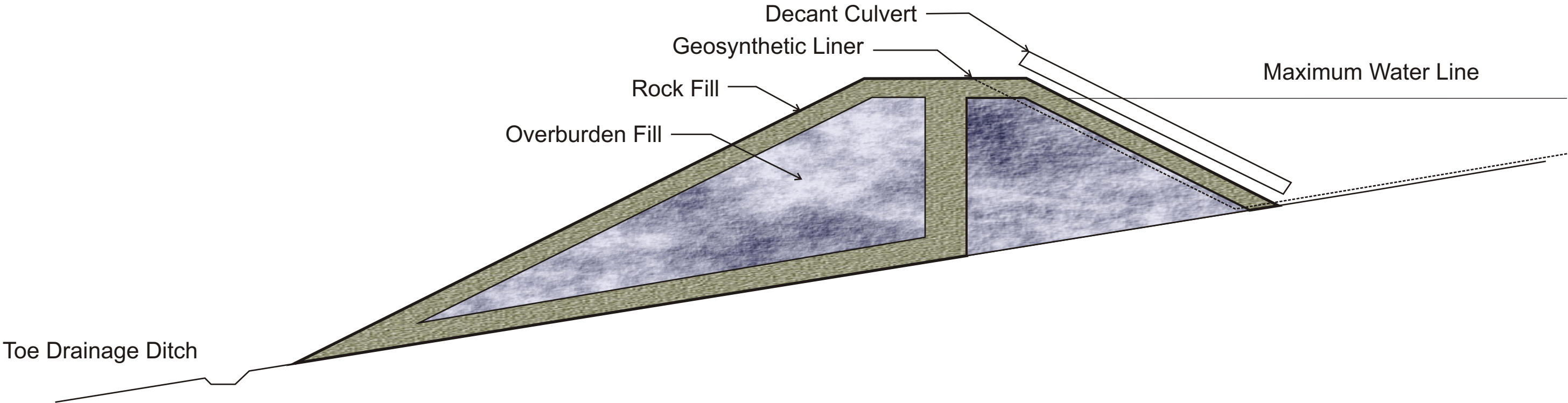
The tailings berm construction is a typical tailings retention type dam constructed from overburden fill with a coarse rock center core. First the brush and vegetative mat material is removed from the tailings area in preparation of the retention berm construction. The vegetative duff is stockpiled for 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 sand 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 7. 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 emergency water spillage, 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. 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 7 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



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 m³
Tailings Area- 0.89 Ha

CMC Metals Ltd.		
Figure 10 Tailings Berm Cross Section		
August 7,2007	Scale: NTS	DW

4.4 Summary of Project Water Use and Water Management

4.4.1 Water Use

A water well will be drilled for camp water use and for any excess water requirements of the mill. There is currently a small amount of water flowing from the existing adit 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 to be drilled in 2008. 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 m³/day during construction, 4.0 m³/day during mining/milling, and 2.6 m³/day during milling. In addition to the personal water consumption, make-up water for the mill will consume an estimated 44.8 m³/day when a static state in recycled tailings water is reached. Table 8 (Water Consumption) lists the water requirements over the project life. Potable water will be trucked to the site from the nearest available source of potable water 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 in the vicinity of the camp if possible. For consideration of the water use licence the total water to be used will be approximately 48.8m³/day, with an emergency additional 20% is approximately 60m³/day.

Table 8 Water Consumption (m³/day)

Item	Source	Consumption
Well/Adit Water	48.8	
Tailings Decant Water	77.2	
Potable Water	0.1	
Concentrate Dryer Evaporation		1.3
Tailings Retained Water		42.8
Tailings Decant Water		77.2
Concentrate Retained Moisture		0.7
Potable Water		0.1
Camp Facilities		4.0
Subtotal-	126.1	126.1