Copper Fox Metals Inc.

Schaft Creek Project: Archaeology Baseline Study

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SCHAFT CREEK PROJECT:
Archaeology Baseline Study

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Prepared for:

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Executive Summary

Executive Summary

This report presents the interim results of the Archaeological Impact Assessment (AIA) and Archaeological Baseline Study[1] for portions of Copper Fox Metals Inc.'s (Copper Fox) proposed Schaft Creek Project in the vicinity of Mount LaCasse between Schaft and Mess creeks, just west of Mount Edziza Provincial Park. Please note that this is does not constitute a final HCA permit report for this Project. A final permit report will be prepared after all fieldwork and analysis has been completed. The AIA was carried out under Heritage Conservation Act (HCA) Permit 2006-223, issued by the Archaeology Branch, Ministry of Tourism, Culture and the Arts, which sought to undertake an assessment of the proposed open pit mine, various mining facilities, ancillary buildings, and mine site roads, and to assess access corridors and a power line route.

The primary objectives of the study were to: (1) identify and evaluate any archaeological sites located within and adjacent to the impact zone of the proposed developments, and (2) identify and assess possible impacts of the proposed developments on any identified archaeological sites.

The Tahltan Nation has identified several archaeological issues they consider to be important. During this assessment special attention was given to those issues. This included examining high altitude areas for archaeological sites, and examining any areas of Karst topography within the proposed development areas for the presence of caves or rock shelters. Additionally, archaeological features such as cache pits, rock piles and cairns were also sought and during shovel testing soils were examined for tephra (or volcanic ash layers).

In total 3091 shovel tests were conducted and a total of 51 archaeological sites were identified in the Project area (two of these were previously recorded). No significant architectural or paleontological sites were identified during the baseline study. As such architectural and paleontological sites are not discussed in the baseline report. In addition, 43 historic or recent land use features were identified during the baseline study fieldwork. All of these sites date to the 20th century, and as such they are not protected by the HCA. Management recommendations can be found in the final report for HCA permit 2006-223 and in the Effects Assessment for the Project.

[1] This report deals exclusively with archaeology. Separate baseline reports for the Schaft Creek Project have been produced on traditional use (Callison and Creyke2008) and current land and resource use (Rescan 2010a). This study was not designed to address issues of traditional Aboriginal use and does not constitute a traditional use study.

Acknowledgements

Acknowledgements

This report was prepared by Rescan Tahltan Environmental Consultants on behalf of Copper Fox Metals Inc. We would like to thank the Tahltan Nation for the opportunity to work within their asserted traditional territory and to Al Mackie of the Archaeological Branch for his assistance with the Schaft Creek Project.

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Glossary and Abbreviations

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AIA	Archaeological Impact Assessment
AOA	Archaeological Overview Assessment
Archaeology Branch	Archaeology Branch, British Columbia Ministry of Tourism, Culture and the Arts
asl	above sea level
B.P.	Years before present
CMTs	Culturally modified trees
HBC	Hudson's Bay Company
HCA	*Heritage Conservation Act*
PFR	Preliminary Field Reconnaissance
the Project	the proposed Schaft Creek Project
RAAD	the Remote Access to Archaeological Data online application
RTEC	Rescan Tahltan Environmental Consultants
RBCM	Royal British Columbia Museum
TCC	Tahltan Central Council
THREAT	Tahltan Heritage and Environmental Assessment Team
XRF	X-Ray Fluorescence

1. Introduction

1. Introduction

This report presents the interim results of the archaeological baseline study for Copper Fox Metals Inc.'s (Copper Fox) proposed Schaft Creek Project (the Project). Please note that this is does not constitute a final HCA permit report for this Project. A final permit report will be prepared after all fieldwork and analysis has been completed The Project is located in northwestern British Columbia, west of the Mount Edziza Provincial Park, and approximately 70 km south-south west of Telegraph Creek. The Project falls within the asserted traditional territory of the Tahltan Nation, comprised of the Tahltan Indian Band and Iskut First Nation.

Since 2006, Rescan Tahltan Environmental Consultants (RTEC) has undertaken archaeological investigations of the Project, including an Archaeological Impact Assessment (AIA) for the Project. The AIA was conducted in accordance *Heritage Conservation Act* (HCA) Heritage Inspection Permit 2006-223, issued by the Archaeology Branch, Ministry of Tourism, Culture and the Arts, and with the *British Columbia Archaeological Impact Assessment Guidelines* (Archaeology Branch 1998). The AIA fieldwork took place during the 2006, 2007, and 2008 field seasons. No fieldwork was conducted in 2009.

The primary objectives of the AIA were to: (1) identify and evaluate any archaeological sites located within and adjacent to the impact zone of the proposed developments, (2) identify and assess possible impacts of the proposed developments on any identified archaeological sites, (3) provide recommendations regarding the need and appropriate scope of further archaeological studies prior to the initiation of any proposed developments, and (4) recommend viable alternatives for managing adverse impacts.

This study deals exclusively with archaeological sites protected by the HCA. The HCA protects all archaeological sites which predate 1846. This includes as-yet unrecorded sites and archaeological materials from disturbed contexts. Burial sites and rock arts sites are protected regardless of age. While some historic materials are reported in the archaeology baseline study, for more comprehensive information on land use the reader is directed to separate baseline reports on traditional use (Callison and Creyke 2008), as well as current land and resource use, including trap lines (RTEC 2010a) which have been prepared for the Project. The archaeology baseline study was not designed to address issues of traditional Aboriginal use and does not constitute a traditional use study. This report was written without prejudice to issues of Aboriginal rights and/or title.

1.1 PROJECT SUMMARY

Copper Fox Metals Inc. is a Canadian mineral exploration and development company focused on developing the Schaft Creek deposit located in northwestern British Columbia, approximately 60 km south of the village of Telegraph Creek (Figure 1.1-1). The Schaft Creek deposit was discovered in 1957 and has since been investigated by prospecting, geological mapping, geophysical surveys as well as diamond and percussion drilling. The deposit is situated within the upper source regions of Schaft Creek, which drains northerly into Mess Creek and onwards into the Stikine River. The Stikine River is an international river that crosses the US/Canadian border near Wrangell, Alaska. The Schaft Creek deposit is a polymetallic (copper-gold-silver-molybdenum) deposit located in the Liard District of north-western British Columbia (Latitude 57° 22′ 42″; Longitude 130°, 58′ 48.9″). The property is comprised of 40 mineral claims covering an area totalling approximately 20,932 ha within the Cassiar Iskut-Stikine Land and Resource Management Plan (Figure 1.1-2).

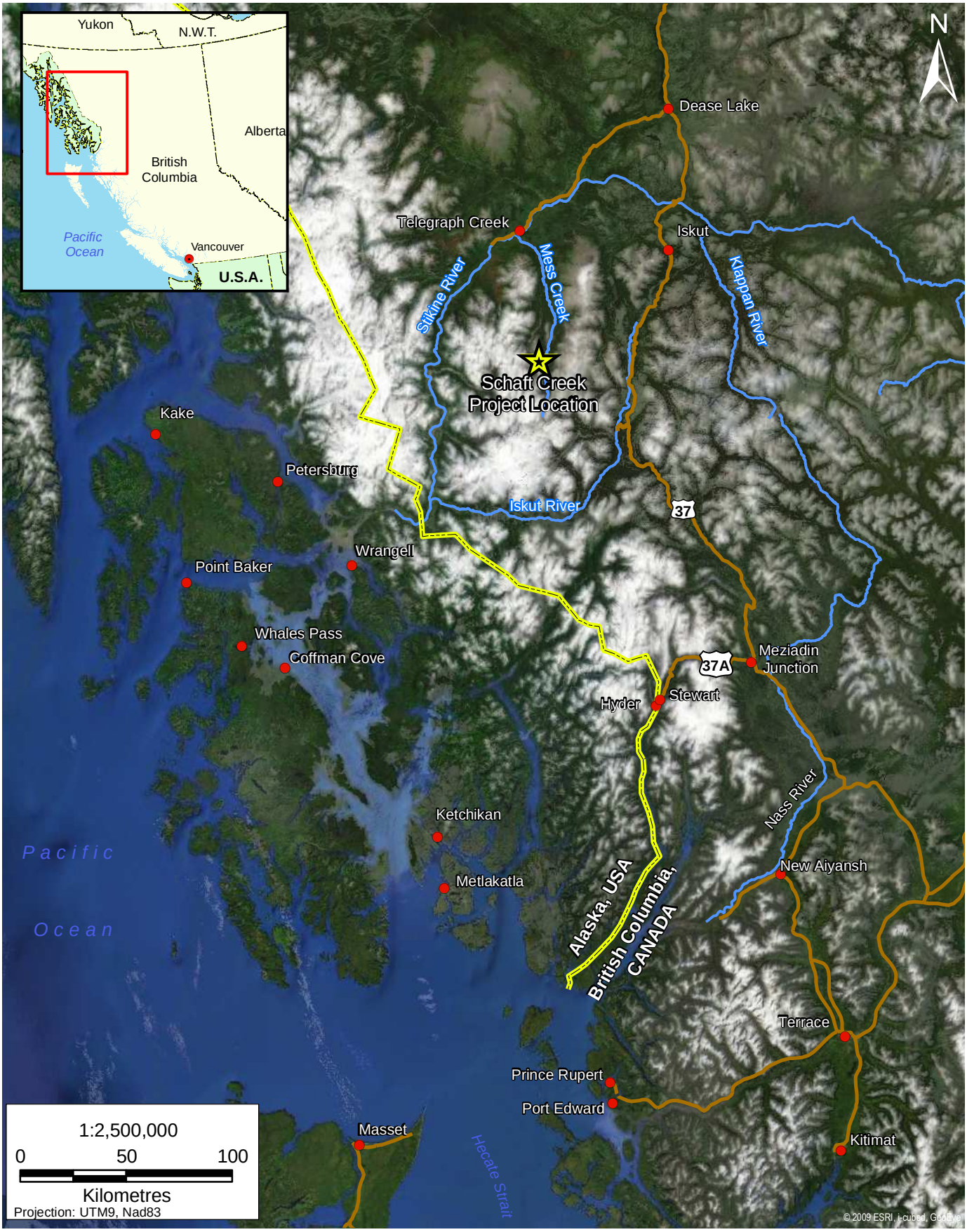
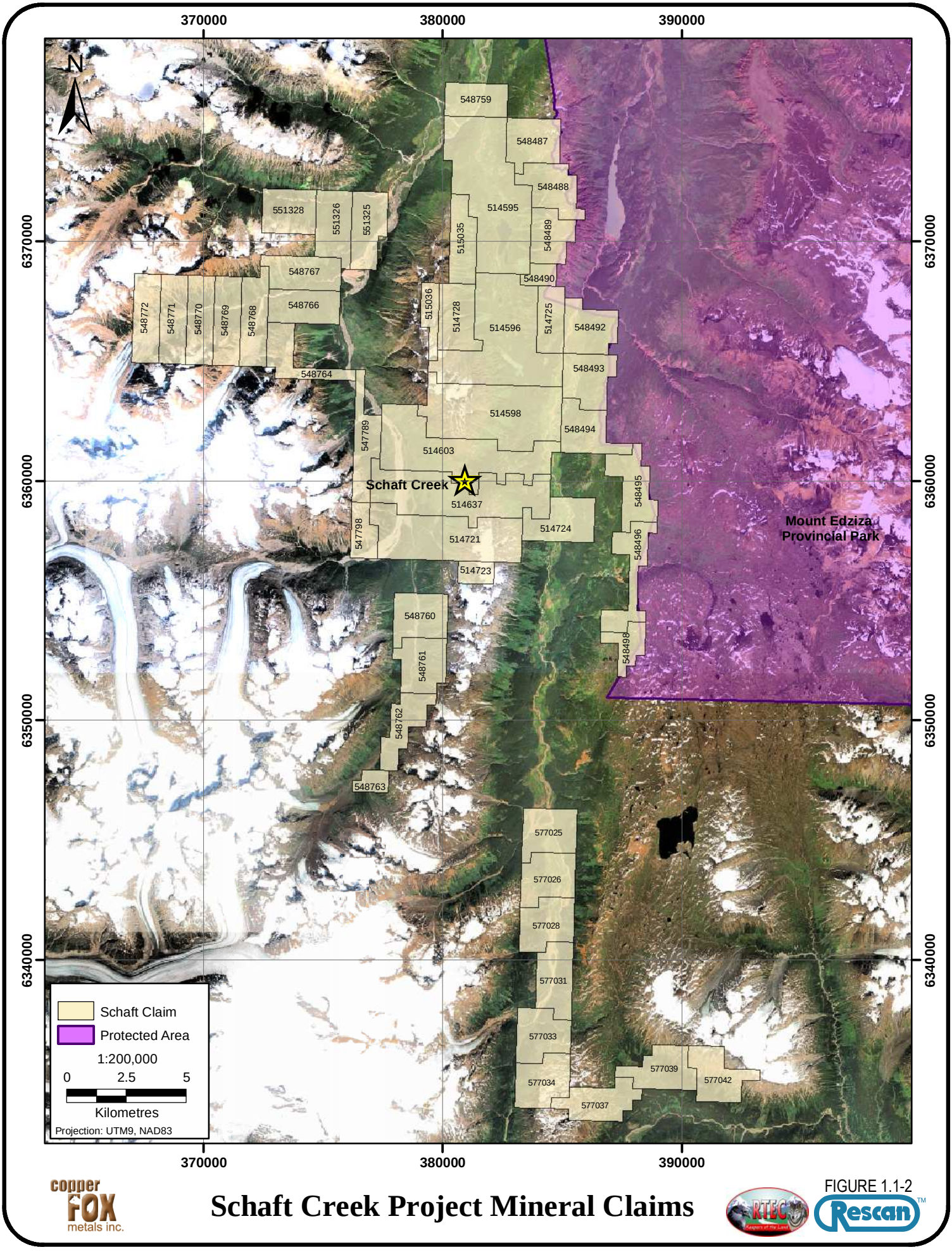


FIGURE 1.1-1

Location Map for Schaft Creek Project



Schaft Creek Project Mineral Claims

FIGURE 1.1-2

The Schaft Creek Project is located within the traditional territory of the Tahltan Nation. Copper Fox has been in discussions with the Tahltan Central Council (TCC) and the Tahltan Heritage Resources Environmental Assessment Team (THREAT) since initiating exploration activities in 2005. Copper Fox will continue to work together with the Tahltan Nation as work on the Schaft Creek Project continues.

The Schaft Creek Project entered the British Columbia EA process in August 2006. Although a formal federal decision has not yet been made, the Project will likely require federal approval as per the *Canadian Environmental Assessment Act*. Copper Fox has targeted the third quarter 2010 for submission of their Schaft Creek EA Application.

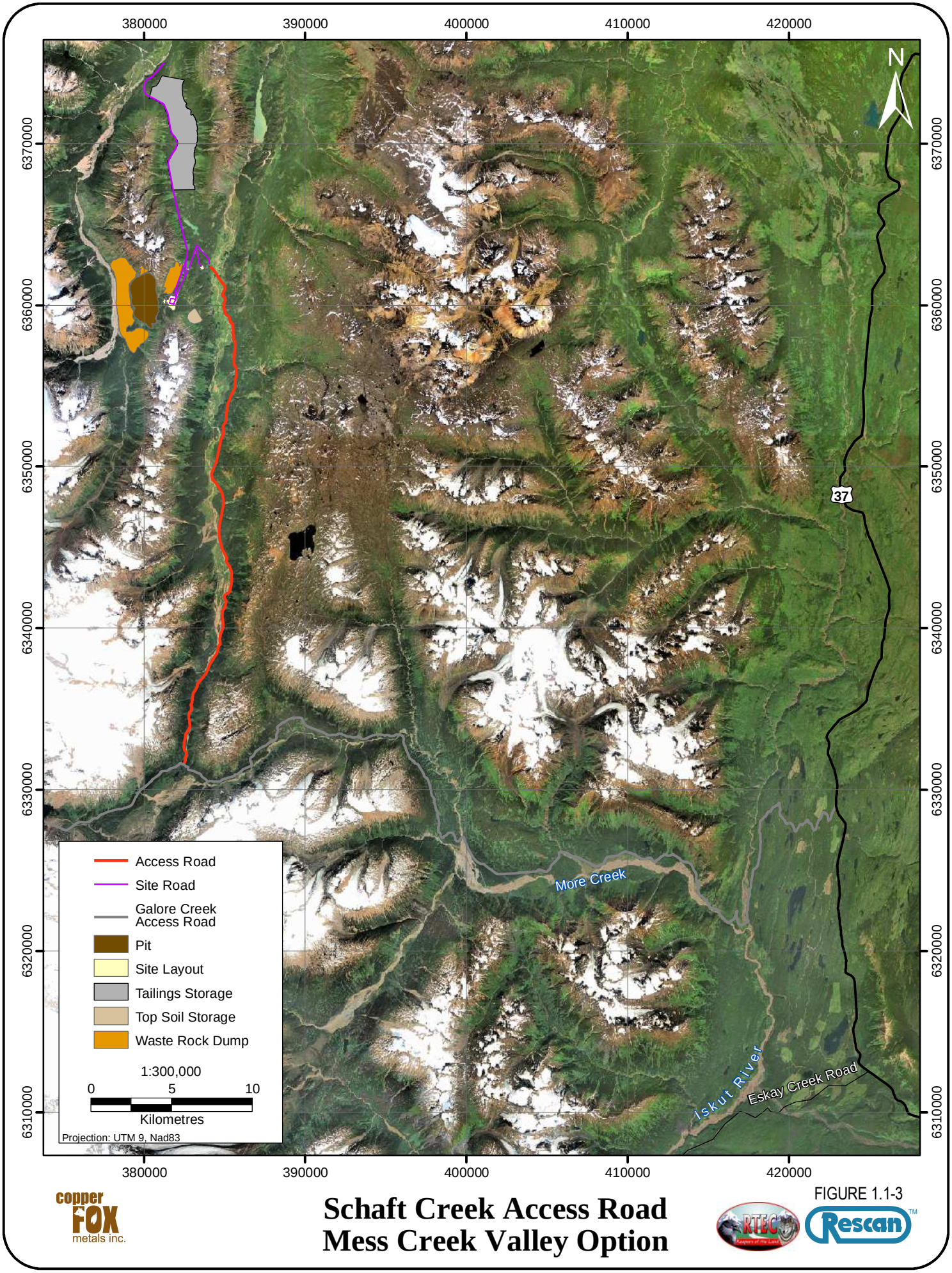
The current mine plan would see ore mined from an open pit at a rate of 100,000 tonnes per day. The mine plan includes 812 million tonnes of Measured and Indicated Mineable resources providing for an estimated 23 year mine life. The Project is estimated to generate up to 2,100 jobs during the construction phase and approximately 700 permanent jobs during mine operations.

The deposit will be mined with large truck/shovel operations and typical drill and blast techniques. The ore will be crushed, milled and filtered on site to produce separate copper and molybdenum concentrates. The Process Plant will include a typical comminution circuit (Semi-Autogenous Mill, Ball Mill and Pebble Crusher) followed by a flotation circuit and a copper circuit with thickener, filtration and concentrate load-out and transportation. The Process Plant includes a designated molybdenum circuit with thickener, filtration, drying and bagging. A tailings thickener and water reclaim system will be used to recycle process water. The circuit will have a design capacity of 108,700 tonnes per day and a nominal capacity of 100,000 tonnes per day (36,000,000 tonnes per year). Approximately 293,000 tonnes of concentrates will be produced each year, which will be transported via truck to the port of Stewart, B.C, for onward shipping to markets.

Copper Fox will construct an access road to the mine site (Schaft Creek Access Road; Schaft Road) to the 65.1 kilometer point (65.1km) of the Galore Creek Access Road (Galore Road). The Schaft Road will cover a distance of 39.5 km from the Galore Road to the Schaft mine site (Figure 1.1-3). Both the Galore and Schaft roads will be gravel roads with six meter wide driving surface. Pullouts and radio controls will be used to manage two-way traffic on the road. The Schaft Road will be a private road used to service the Schaft Creek mine.

The Galore Road is a fully permitted multi-use road; B.C. MOF Special Use Permit (S24637). The Galore Road is being constructed by Galore Creek Mining Corporation. Currently, Galore Creek Mining is only planning to construct the Galore Road to 40km while they review the current Galore Creek Project for which the road was to service. Copper Fox will engage Galore Creek Mining with respect to the completion of the Galore Road, and if necessary, arrange to transfer the MOF Special Use Permit to Copper Fox as the Schaft Creek Project advances.

The Galore Road connects to Highway 37 near Bob Quinn Lake. The total road distance from the Schaft mine site to Highway 37 is 105 km. The majority of the 39.5 km Schaft Road is within the Mess Creek watershed. In order to avoid geohazards along the Mess Creek valley, the Schaft Road will cross Mess Creek twice (Figure 1.1-3). Mess Creek is considered navigable per Transportation Canada criteria.



copper FOX metals inc.

Schaft Creek Access Road
Mess Creek Valley Option

FIGURE 1.1-3

RTEC Rescan™

After crossing Mess Creek at the north end of the Schaft Road (32.5 km), the route rises up the side of Mount LaCasse crossing Shift Creek (10 m bridge) and Big B Creek (10 m bridge). The route terminates at Snipe Lake (39.5km). Conventional 30-tonne trucks will be used to transport concentrate from the mine site to the Bob Quinn area along the Schaft and Galore roads. From Bob Quinn to Stewart, conventional B-train commercial truck haulage can then be utilized along Highway 37 and 37A. There will be 30 concentrate trucks along this route over a 24 hour period, seven days per week.

Electrical power to the mine site will be provided via a 138 kV transmission line, extending from Bob Quinn Lake to the Project along the proposed corridor for the Galore and Schaft roads. The proposed transmission line assumes that electrical power will be supplied from British Columbia Transmission Corporation's (BCTC) proposed new 287 kV Northwest Transmission Line from a point near Bob Quinn Lake.

The Schaft Pit will encompass an area of 4.9 km^2 at the end of the mine life (Figure 1.1-4). The Pit will extend 330 m below the current elevation (520 m asl). An ore stockpile and crusher will be located between the Pit and Schaft Creek. Crushed ore will be conveyed to the Plant site on the saddle just east of the Pit. Tailings from the Process Plant will be piped to the Skeeter Tailings Storage Facility (TSF) as a slurry (55% solids).

Over the life of the mine the Project will generate over 812 million tonnes of tailings, which will be managed in the Skeeter TSF. The TSF will not span the low relief watershed divide between Skeeter and Start watersheds. The Skeeter TSF will require three embankments to contain the tailings generated over the life of the mine (Figure 1.1-5). Based on average climatic conditions, the TSF will have a positive water balance. Discharge from the TSF will be to Skeeter Creek.

The Project will generate an estimated 1,547 million tonnes of waste rock. Waste rock dumps are proposed around the perimeter of the Schaft Pit, with the majority of the material being placed on the east side of Schaft Creek (Figure 1.1-4). The current plan assumes the waste rock will be non-acid generating and will not leach metals at or near neutral pH. The plan is subject to change as work progresses on the metal leaching and acid rock drainage program.

The Project will be a fly-in, fly-out operation, and a new airfield capable of handling a Boeing 737 will be constructed to the east of the Pit. The preliminary design includes a 1,600 m compacted gravel landing strip, terminal building, fuelling facilities, small maintenance facility and control and lighting systems.

A permanent camp will be constructed to support approximately 700 employees. Other facilities include a truck shop, warehouse, administration, maintenance laboratory, explosive storage, water treatment facilities and potable water storage.

1.2 POTENTIAL IMPACTS TO ARCHAEOLOGICAL SITES

Developments that involve the movement, excavation or disturbance of soils have the potential to impact archaeological materials, if present. Activities which may impact archaeological sites are expected to include the clearing and grading of roads and power line right-of-ways, clearing, grading and excavation for foundations and footings for buildings, earth moving and blasting during mine construction and the flooding of tailings management facilities.

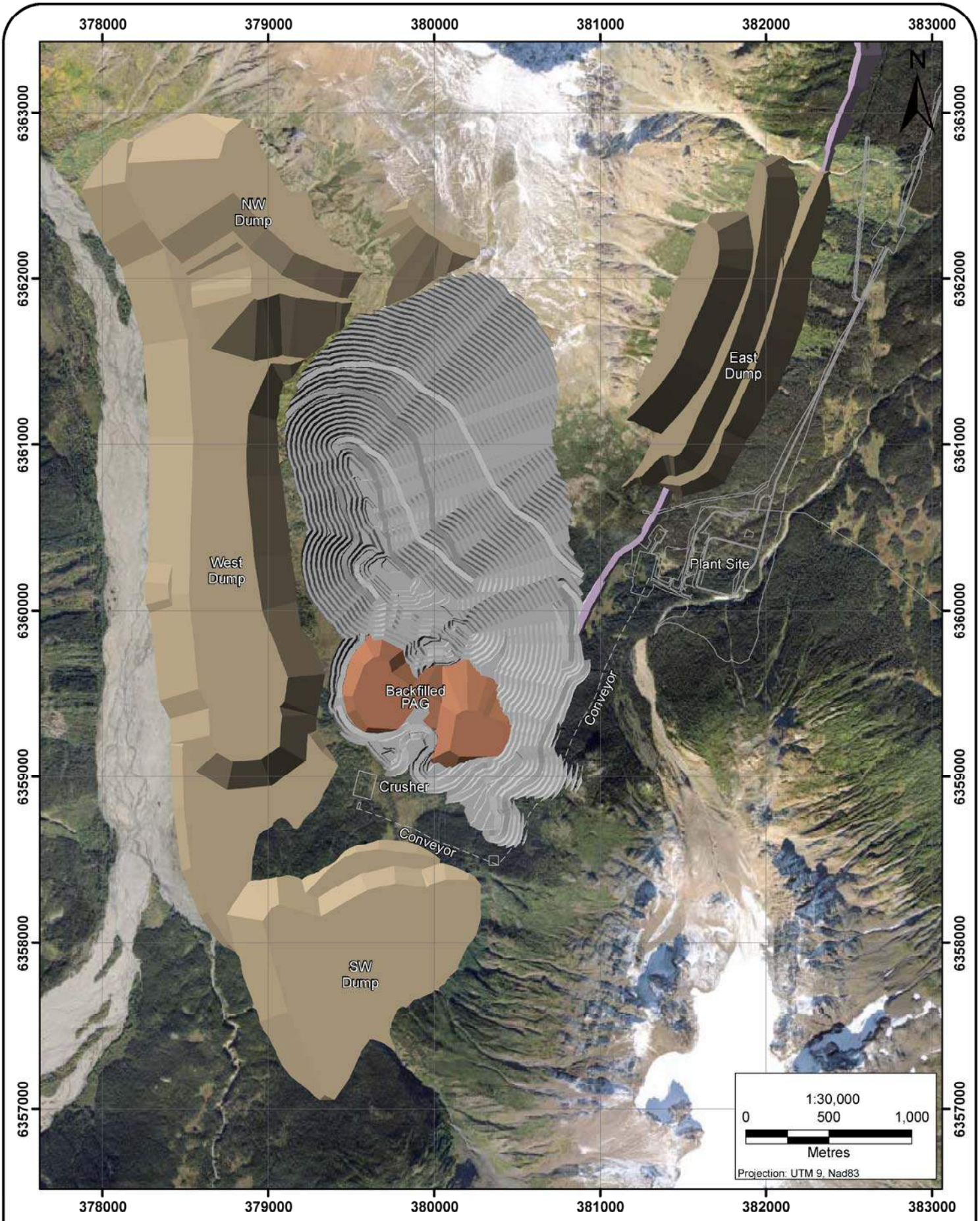


FIGURE 1.1-4

Schaft Creek Project Mine Site

1.2.1 First Nations Communication

A copy of the HCA Heritage Inspection Permit application for this Project was forwarded to the Tahltan for their review and comments on June 6, 2006. On July 23, 2006 HCA Heritage Inspection Permit 2006-223 was issued and a copy was sent to the Tahltan Nation. RTEC also forwarded copies of the permit application and the issued permit to the Tahltan Central Council and Vera Asp. In October 2006, several meetings were had with Camille Callison, TCC Heritage Manager and Vera Asp, Tahltan Heritage Resources Environmental Assessment Team (THREAT) committee member to review the findings of the 2006 field season, as well as the Archaeological Chance Find Procedure (ACFP) for the Project. On October 10, 2006 a copy of the draft ACFP was sent to Camille Callison for review. On October 11, 2006 Lisa Seip met with Vera Asp to discuss the results of the field work and proposed ACFP. Lisa Seip met with Camille Callison on October 20, 2006, in Dease Lake and on October 27, 2006 in Vancouver to discuss the ACFP. The final version of the ACFP was issued in 2007. In 2007 and 2008, trip reports were submitted to Camille Callison detailing the findings of the field visits to the Project.

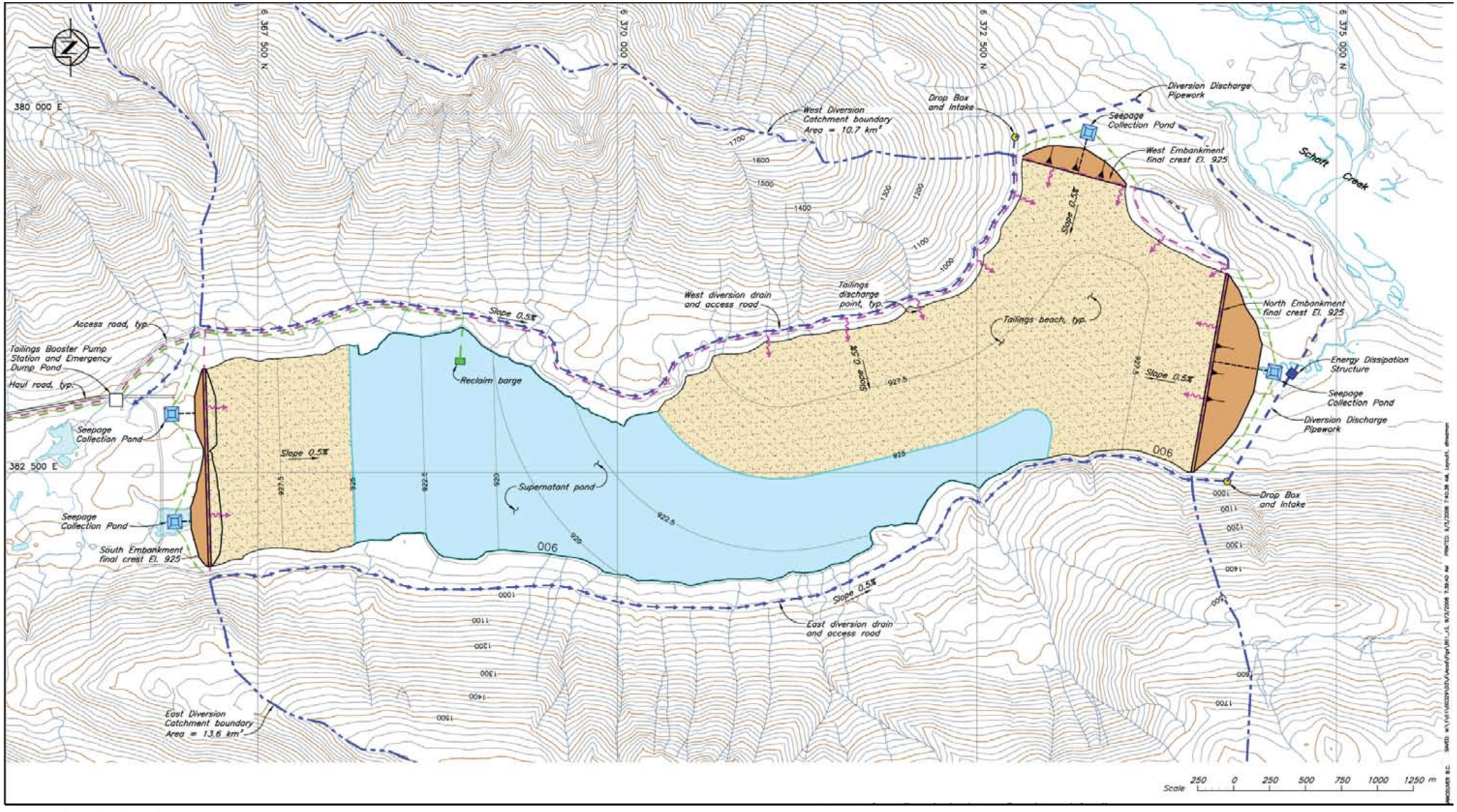
On June 2, 2008 Tahltan Heritage Permit 2008-003 was issued for the Project. Camille Callison conducted site visits on June 28 and July 18, 2008. Members of the Tahltan participated in the field investigations for the Project. Upon completion of this study, a copy of the final AIA report will be sent to the Archaeology Branch and the Tahltan.

1.2.2 Summary of Significant Tahltan Archaeology Issues

The Tahltan consider a number of archaeological issues, described in this section, to be significant. Evidence from the archaeological record suggests that British Columbia has been occupied for at least 10,000 years (Fladmark et al., 1988). The area around Mount Edziza (*Ah-zeeth-zaa)* is one of the largest obsidian sources in Canada. These sources are located less than 20 km east of the Project area. Native people have been traveling to Mount Edziza for thousands of years to collect high quality volcanic glass for use in tool production. Obsidian from Mount Edziza can be found in the archaeological record of southeastern Alaska, the Yukon, and British Columbia (Carlson 1994; Lee 2001; Cook 1995; Van Dyke and Jackson 1981), suggesting that obsidian from this source was widely traded.

Five of the most significant Tahltan archaeology issues that have been identified (Asp 2006) are:

- ancient continental movement of obsidian from present-day *Ah-zeeth-zaa* – Mount Edziza;
- cairns or "rock piles";
- tephra layers (volcanic ash layers);
- rock cliff or cave shelters; and
- ice patch archaeology and climate change.



Source: Knight Piésold Consulting

Note: This layout represents the tailings storage facility in the final years of operation prior to closure. Several years before the end of operations and closure, the tailings deposition pattern will be modified to relocate the supernatant pond towards the north of the facility, where a permanent spillway will be constructed in the west abutment of the North Embankment.

FIGURE 1.1-5

Schaft Creek Project - Skeeter Tailings Storage Facility

2. Project Area Background

2. Project Area Background

This section provides details pertaining to the environmental setting, cultural setting, regional history and previous archaeological investigations.

2.1 ENVIRONMENTAL SETTING

The following section presents a summary of past and present environmental conditions in the Project area. More detailed information on the environmental setting can be found in the discipline-specific baseline studies conducted for the Project.

2.1.1 Physiographic Setting

The Project is located within the Coast Mountains of northwestern British Columbia, near the transition between the rugged and heavily glaciated Boundary Ranges to the west, and the interior plateaus of the Tahltan Highlands to the east (Brown et al. 1996, Holland 1976). Elevations in the Project area range from approximately 700 m asl along the Mess Creek valley floor to 2,100 masl at the summit of Mount LaCasse. The surficial geology exhibits a range of surficial materials, including colluvium, morainal, glaciofuvial, fluvial, and volcanic deposits. Bedrock outcrops are common along valley walls, and along the valley bottoms, expressed as hills and ridges (RTEC 2010b).

The mine property itself is situated within the Schaft Creek watershed which drains north into Mess Creek. Other Project components are situated in the Skeeter Lake and Mess Creek watersheds. Mess Creek drains northerly into the Stikine River near Telegraph Creek. Schaft Creek flows as a series of braided channels through a creek bed of glacial till, while the braided channels of Mess Creek run though a mosaic of wetlands and ponds.

2.1.2 Glaciation and Climate Change

The Project area falls within the Canadian Cordillera physiographic region which underwent significant glaciations between 80,000 to 12,000 years ago, during the Wisconsinian glacial stage (Clague 1989, Mathews 1989). The Cordilleran ice sheet varied in thickness, but was thinner towards its western margin. Observations from the Mount Edziza region, immediately east of the Project area, suggest that during the late Wisconsinian, areas above approximately 1,500 m asl were likely exposed above the ice sheet and were ice-free nunataks. However, these nunataks would likely have been relatively barren and inhospitable terrain for humans (Fladmark 1985, 2001; Miller 1976). The Cordilleran ice sheet receded rapidly during the late Pleistocene and early Holocene epochs. By 9,500 years ago the extent of the remaining glaciers was likely similar to present day; however, their size likely fluctuated during the Holocene in response to climatic changes (Ryder and Clague 1989).

Climatic conditions during the early Holocene, prior to 8,000 B.P., were cooler and drier than present and pioneer plant species were likely those adapted to this environment, such as lodgepole pine, shrubs, and willow (Clague 1989). A warming trend between 8,000 and approximately 4,000 B.P. caused further glacial retreat and subalpine parklands expanded into higher elevations (Fladmark 1985, 2001). The Neoglacial Period, beginning around 4,000 B.P. in the Stikine-Iskut region (Ryder 1987), saw increasing snowfall and average temperatures drop to 3 degrees Celsius below present day. This resulted in a significant advance of the glaciers to the east and west of the Stikine River. Near the Iskut-Ningunsaw confluence, a well-preserved caribou antler dating to approximately

3,760 B.P. was recovered from a receding snow patch (Ryder 1987). This area is not within the present winter range of caribou due to the high snowfall, and Ryder suggests that increasing snowfall at this time (ca. 4,000 B.P.) buried the antler in the snowpack for the duration of the Neoglacial period, and resulted in the abandoning of the Iskut-Ningunsaw region as winter range in favour of drier uplands to the north and northeast (1987).

After a brief, warm interstade, ca. 900-1,300 B.P., the cooling trend resumed, culminating with the "Little Ice Age" (Fladmark 2001, Miller 1976). The expansive Scud Glacier, a high rugged ice field that divides the Schaft Creek valley and the Stikine River valley, reached its maximum size in the early 20th century, but has receded so rapidly in the past 100 years that today it is smaller than at any time in the past 4,000 years (Ryder 1987).

2.1.3 Holocene Volcanism

The Project is located immediately west of the Mount Edziza Volcanic Complex in the Stikine Volcanic Belt (Souther 1992). The Mount Edziza Volcanic Complex is one of the largest areas of Holocene volcanic activity in Canada, and includes both Mount Edziza and the Spectrum Range and their surrounding plateaus. The volcanic complex has produced both passive basaltic lava flows, and explosive eruptions of silica-rich trachytic and rhyolitic lava (Geological Survey of Canada 2009, Fladmark 1985, Souther 1992). Thick deposits of tephra have been reported over wide areas (Fladmark 1985, Souther 1992).

Volcanic activity at the Mount Edziza Volcanic Complex began during the Miocene epoch (Souther 1992). Multiple flows date to the late Holocene with the most recent activity being within the past 2000 years. Fladmark (1985) suggests that most of the Holocene activity occurred during the late Hypsothermal and Neoglacial periods. Sources of obsidian (volcanic glass) at Mount Edziza are primarily associated with rhyolitic lava flows found at ca. 1,800-1,900 m asl. The two primary quarries exploited during prehistory are located on the west flank of Goat Mountain and, to a lesser extent, at Cocoa Crater (Fladmark 1985).

The closest lava flows to the Project area are part of the Big Raven Formation atop the escarpment forming the east side of Mess Creek valley (Souther 1992). In particular, the Mess Lake lava field and Ash Pit (both east of Mess Lake), and Nahta Cone at the source of Nahta Creek, are young volcanic centres dating to the Holocene. Several thermal springs are located in the Mess Creek valley west of these centres. These include the Mess Lake hot springs, located at the southeast corner of Mess Lake, and the Mess Creek hot springs, located 7 km south of Mess Lake on west side of Mess Creek valley (approximately 500 m north of the where the proposed Schaft Project access road crosses the valley floor). Souther observed decreasing flow from Mess Lake hot springs over several visits between 1965 and 1983, by which time the pools had dried up and discharge from the vent was much reduced (1992). Although the springs were not revisited during the baseline study, it is likely that they are no longer active (Geological Survey of Canada 2009). An association between the Mess Lake hot springs and Mess Creek hot springs, and the most recent areas of volcanic activity in the Mount Edziza Volcanic Complex, is considered likely due to their proximity (Geological Survey of Canada 2009).

2.1.4 Biogeoclimatic Zones

The climate and vegetation of the Project area is characterized by its position at the transition from coastal to continental regimes. The Project area is primarily within two biogeoclimatic zones: Englemann Spruce-Subalpine Fir (ESSF) below approximately 1,400 m asl, and Alpine Tundra (AT) above 1,400 m asl. Just north of the Project area, within the Mess Creek valley, two additional

biogeoclimatic zones were identified during the ecosystem mapping baseline studies for the Project: Boreal White and Black Spruce (BWBS), and Spruce-Willow-Birch (SWB). For descriptions of the BWBS and SWB zones, and for additional information on the regional climate and vegetation, refer to the Vegetation and Ecosystem Mapping (RTEC 2010c) and Meteorology and Air Quality (RTEC 2010d) baseline studies prepared for the Project.

The majority of the Project area is found in the Englemann Spruce-Subalpine Fir (ESSF) biogeoclimatic zone. The climate in this zone is cold, moist and snowy, and is characterized by continuous forest cover at the lower and mid elevations and subalpine parkland at the higher elevations. Common trees found in the zone are often Englemann spruce and subalpine fir and occasionally mountain hemlock and amabilis fir. Vegetation found in heaths and meadows include a number of mountain heathers, hellebore, alpine lupine and paintbrush. Avalanche tracks are common in this zone, the vegetation in such locations often consisting of tall, dense shrubs, such as alder, cow parsnip, bunchberry, ferns and stinging nettles. Devil's club, brambles, moss and a number of berry species are found in wetter areas of this zone. Wildlife commonly found throughout the year includes moose, mule deer and mountain goat. Additionally, seasonal distributions of elk, bighorn sheep, white-tailed deer, grizzly bear and black bear are common. Other wildlife and bird species include marten, fisher, wolverine, squirrels, spruce and blue grouse, owls, woodpeckers, finches, nutcraches and wrens (Meidinger and Pojar 1991: 224-236).

Smaller portions of the Project area are within the Alpine Tundra (AT) biogeoclimatic zone. The climate in this zone is cold and windy; therefore the vegetation that does grow consists of low growing shrubs, grasses, herbs, lichens, and moss with a lack of trees, except at lower elevations of the zone. Trees that do grow in the lower elevations are often stunted and scattered and can include species such as Englemann or white spruce, subalpine fir and mountain hemlock. Shrubs common in the zone consist of dwarf species of willow and birch, kinnikinnick, mountain heather, and white mountain-avens. Additionally, some berries grow in the zone including crowberry, bog blueberry, bearberry, and lingonberry. A wide variety of alpine grasses are found in drier and higher elevations of this zone. Herb species, which are often found in meadows in the zone, include arctic lupine, Indian hellebore, paintbrush and cow-parsnip. There are several wildlife species well adapted to the harsh climate of this zone which include mountain goat, ptarmigan, gyrfalcon, marmot and black and grizzly bear. Several other species found in the zone during the summer months include bighorn sheep, and black tailed and mule deer (Meidinger and Pojar 1991: 264-274).

2.2 CULTURAL SETTING

2.2.1 Previous Ethnographic Research

The Project area is within the asserted traditional territory of the Tahltan Nation. Ethnographers have been collecting ethnographic information in the region for the last 100 years. Emmons (1911) noted that the Tahltan, in pre-historic times, led a semi-sedentary way of life, travelling in small mobile hunting camps for part of the year and spending time in larger multifamily villages for the remainder of the year. The Tahltan are Athapaskan speakers and speak a dialect of the Tahltan-Kaska-Tagish language.

Hunting camps, generally consisting of two or three families, would travel together, setting up camp in favourable areas and hunting in the surrounding area until the available resources had been depleted. Such hunting camps could be moved several times over the course of the fall and winter, depending on the availability of the resources in particular areas. With the advent of the fur trade,

hunting patterns changed to focus more on furbearing animals, with furs being stockpiled during the fall and winter which would be traded at the end of the season. Following European contact, shelters changed from lean-to or tent-like structures to more European-style log cabins or canvas tents when travelling (Emmons 1911).

When winter hunting came to an end in the spring, the Tahltan people would make their way to their summer fishing grounds, along the Stikine River and its tributaries, for the salmon run, beginning by mid-June. They would remain there until autumn, at which time social functions and celebrations would occur, often towards the end of the fishing season (Emmons 1911).

Caribou were a greatly valued species, although other smaller animals were hunted and trapped by the Tahltan (Emmons 1911). Other species included moose, mountain goats, black and grizzly bear, marmots, ground hog/squirrel, rabbits, beaver, porcupine, lynx, wolf, coyote, red fox, river otter, marten, fisher, weasel, mink, and wolverine. Grouse, ptarmigan and migratory birds also held a high economic value for the Tahltan (Albright 1984). Fish, both freshwater and anadromous, were eaten fresh in the summer and dried for use in the winter. The majority of fishing locations were along the Stikine and its tributaries, generally between the Tuya and Tahltan rivers, where the terrain allowed for camps to assemble (Emmons 1911; Friesen 1985).

Plant resources were also of importance and were used as a source of food, medicine and raw materials used for many purposes. More than eighty species of edible plants can be found in the Tahltan traditional territory (Albright 1984). Additional detailed ethnographic information is available in Emmons (1911), Hodge (1912), Jenness (1927), Morice (1893), Thorman (n.d.), Teit (1906, 1912, 1956), MacLachlan (1981), Franst (1995, 1996, 1997), Friesen (1985), Albright (1980, 1982, 1983,1984), White (1913), Thompson (2007), Stikine School District #87 (2000), Iskut First Nation et al. (2003), and McIlwraith (2007).

2.3 REGIONAL HISTORY

2.3.1 Early European Exploration

Samuel Black's journal of his journey into the Stikine valley in 1824 represents the earliest documentation of contact between Europeans and First Nations in this region (Black 1955). He noted that, upon his arrival in the region, there was already evidence of early fur trading activities. It is widely accepted that George Vancouver was in the Stikine Plateau area in 1793 to 1799 and made the first contact in the area, however it is possible that Russian fur traders actually arrived in the area as early as 1729 (Sadouski 1975). Fur trading activities continued in the region throughout the 1800s and it has been suggested that Aboriginal peoples, including the Stikine Tlingit, Tahltan, Kaska and Sekani, came to the region to fish and trade (Campbell 1958).

2.3.2 Fur Trade and Gold Rush

Gold rush activities began in the Stikine River valley in 1861. Sporadic gold prospecting activities continued through the late 1860s and early 1870s. By 1874, the Cassiar mining rush saw a large influx of people into the area (Emmons 1911; McLachlan 1981). Following the discovery of gold in the Klondike in 1896, more people travelled to the Yukon through the Stikine River valley, making it a primary access route along which several settlements developed, namely Glenora and Telegraph Creek (Miller 2004). As a result of the growing population in the Yukon, a more efficient method of communication needed to be established. This resulted in the construction of a telegraph line which was built between 1866 and 1901.

Prospecting exploration, including geophysical, geochemical and drilling exploration, has been conducted in the Project area since the early 1960s. Detailed assessment reports for exploration in the area are available in Mark (1970), Hallof and Goudie (1973), Mackie (1974), Betmanis (1978), Ostensoe et al. (2004), McCandlish (2005), Luckman (2005), and Fischer (2005). Also see Section 2.3.4 for additional information relating to historic mineral exploration within the Project area.

2.3.3 Trails

Brief descriptions of trails found in the region are outlined in this section. Archaeological sites in northwest British Columbia are often found in association with trails (cf. Friesen 1985). A relatively comprehensive source of information on regional trails was compiled as part of the Archaeological Overview Assessment (AOA) for the Cassiar-Iskut-Stikine LRMP (Millennia Research 1998). The AOA includes a literature review that identifies the routes of numerous historically and ethnographically documented Aboriginal trails. Because few of these trails have been recently ground truthed, their locations are now considered approximate. Many trails documented in the region are no longer identifiable due to disuse, erosion, or regrowth of vegetation, and in some cases modern highways and roads were built overtop of the older existing trails.

Ethnographies describe Tahltan subsistence strategy as semi-sedentary, moving from the summer fishing villages on the Stikine River to upland fall and winter hunting grounds on the surrounding plateaus (see Section 2.2.1). As many of the watercourses in the region were dangerous to navigate, trail systems were an integral part of the Tahltan seasonal round, providing access to seasonally available resources such as obsidian from Mount Edziza, salmon along the Stikine River, caribou hunting areas and berry patches. Trails were also the primary means of facilitating trade between the Tahltan and their neighbouring groups (Teit 1906, 1956, Emmons 1911, Albright 1984), and the Mount Edziza area was a likely hub in a wide regional prehistoric transportation and communication network (Fladmark 1985).

2.3.3.1 Stikine/Telegraph Creek Trail

The closest documented trail to the Project is the Stikine Trail (MacDonald and Cove 1987), alternatively known as the "Telegraph Creek Trail" (Millennia Research 1998). The Stikine Trail started at Cranberry Junction where it joined the Kitwankul Grease Trail, which ran from Grease Harbour, at the mouth of the Nass River, to the Skeena River near Kitwanga.

The Stikine Trail then travelled north up the Bell-Irving River (a similar route to Highway 37), then crossed west over the Edziza-Spectrum Range through Bourgeaux Valley and Raspberry Pass. The trail entered the Mess Creek valley near its confluence with Raspberry Creek, approximately 15 km northeast of the Project, and continued north to Telegraph Creek (MacDonald and Cove 1987). At Raspberry Pass it is a 4 km hike from the trail to the main Mount Edziza obsidian quarry at Goat Mountain (Fladmark 1985).

The Stikine Trail was likely one of the primary trade routes in northwest British Columbia; in prehistoric times for accessing obsidian from Mount Edziza, and in the historic period for moving trade goods to and from the Russian settlement of Fort Dionysus, at the mouth of the Stikine River (MacDonald and Cove 1987). The portions of the Stikine Trail north of the Bell-Irving River were probably later followed by the historic telegraph trail that was initially surveyed, but not built, in the 1860s by the Western Union Telegraph Co. In 1867, James Schaft surveyed a route for the telegraph line for the Western Union Telegraph Co, through the region, after which Schaft Creek is named (Sterritt et al. 1998). With the start of the Klondike Gold Rush in 1897, the project was revived by the Dominion Government and

the Dominion Yukon Telegraph Line was completed between Quesnel and Dawson City. Some of the maintenance cabins as well as portions of the telegraph trail still exist today, although they are in generally poor condition.

2.3.3.2 Hyland Post/Caribou Hide Trail

Another important trail, the Hyland Post Trail (alternatively known as "Indian Trail", "Police Trail", "Government Trail", or "Caribou Hide Trail") runs east from Telegraph Creek, past Buckley Lake, to Hyland Post (Friesen 1983, 1985; ILMB 2000; Millennia Research 1998). This is essentially an old ethnographically documented trail, a portion of which that was upgraded in the 1920s by the Hyland brothers of Telegraph Creek when they established a fur trading post ("Hyland Post"), near the confluence of the Spatsizi and Dawson rivers (Friesen 1985, Millennia Research 1998). Beyond Hyland Post the trail continues southeast to the old Aboriginal settlements at Metsantan and Caribou Hide, then eastward to Fort Graham, Fort Ware and the Peace River (Friesen 1985, Millennia Research 1998). This trail was part of a significant east-west Aboriginal travel/trade route that connected the Pacific Ocean (via the Stikine River at Telegraph Creek) to the Peace River in the Mackenzie River watershed.

A portion of this trail was likely followed by provincial mineralogist William Fleet Robertson in 1912, as he departed Telegraph Creek for the Groundhog coalfields in the Mount Klappan area. Robertson described the trail as running from Telegraph Creek along the south side of the Stikine River, to the "1st South Fork of the Stikine" and "valley of Mestua" (Mess Creek), then east past Buckley Lake. At the Klappan River, Robertson turned off the Hyland Post Trail and followed a different trail south towards Hazelton (Robertson 1913).

Archaeological investigations by Friesen (1983, 1985) identified a positive relationship between archaeological site distribution and the route of the Hyland Post Trail. Most of the sites identified by Friesen contained obsidian, nine samples of which were sourced using X-Ray Florescence (XRF). Not unexpectedly, eight were sourced to Flows 2 and 3 at Mount Edziza, located approximately 215 km west of the sites. However, at site HiSv-5 a translucent blue coloured obsidian sample that was recovered in direct association with charcoal dated to 655±165 B.P., was sourced to Anahim Peak, approximately 550 km south, in the Chilcotin region of BC (Friesen 1985). The distribution of Mount Edziza obsidian at archaeological sites along these trails and beyond (Carlson 1994, MacDonald and Cove 1987), and the presence of Anahim Peak obsidian at site HiSv-5 on the Hyland Post Trail (Friesen 1985), reinforces the importance of these trails for long distance travel and trade.

2.3.3.3 Mess Creek Valley

The routes of the Stikine and Hyland Post trails indicate that the lower Mess Creek valley was an important travel corridor to access the Spatsizi Plateau and Upper Nass and Skeena watersheds. Ten archaeological sites have been identified in the upper Mess Creek valley and the traditional use study for the Project Area (Callison and Creyke 2008) identifies several "extremely sensitive travel corridors" within Mess Creek valley.

In addition, a historic blazed trail was recorded during assessments for the Galore Creek Project at the junction of the Mess and More watersheds, near where the Schaft Creek Project access road meets the Galore Creek Project access road (Seip et al 2008). The location and direction of the trail suggest that it could have continued north up Mess Creek. One blazed tree was dated to approximately 80 years; however, it is not known if the trail is related to historic activities such as mining.

2.3.4 Historic Mining Exploration at Schaft Creek

Copper and molybdenum was first discovered in the Schaft Creek area in 1956 by prospector Nick Bird (Conley 1970). Bird was employed by BIK Syndicate, a consortium managed by Silver Standard Mines Ltd. who undertook prospecting and claim staking in 1957 and 1959. Early exploration included surface hand trenching of about 3,000 lineal feet at 100-foot intervals on the southwest face of Mount LaCasse at approximately 1,300 m asl (BC DoM 1960). Staff at the Schaft Creek Camp in 2006 indicated that the southwest face of Mount LaCasse was intentionally burned in the 1950's by prospectors. Although this has not been confirmed, the area does show signs of a forest fire. The southwest face of Mount LaCasse has numerous charred deadfall trees and varies from dense re-growth vegetation (consistent with a forest fire circa 1950s) to barren and eroding slopes in other areas (see Section 4.1).

No intensive exploration of the property was undertaken until 1966 when Hecla Operating Company began an exploration program (Conley 1970). Between 1966 and 1977, Hecla operations included an extensive drilling program, construction of drill pad access roads, trenching, and line cutting for geophysical surveys. Evidence of these early exploration activities is still visible on the landscape, in particular, the road construction, trenching with tractors, and line cutting and associated blazed trees. A description of Hecla's exploration program during the 1971 season reports that:

> Following line-cutting, 20.1 miles of induced polarization surveys and magnetic surveys were completed in the Schaft Creek area; 68.9 line-miles of geological, geochemical, and magnetic surveys were completed in the Start Lake-Skeeter Lake area. On the newly staked claims in the northern part of the property, 64 line-miles were cut and surveyed by geological, geochemical, and magnetic methods (BC DoMPR 1972:40).

Similar levels of exploration activity by Hecla were reported for other years (e.g. BC DoMPR 1969, BC DoMPR 1971) and, in total, hundreds of kilometres of line were cut, thousands of metres of trenching were dug by tractor, and tens of thousands of metres of core was drilled during this period. In addition, during the 1968 field season, members of Hecla's field crew were engaged, to some extent, in artifact collecting:

> During the season the project crew collected a large number of obsidian arrow and spear heads from the north side of the saddle area above the drill sites. The artifacts are generally a greenish-black volcanic glass. The collection site appears to lie mainly above the uppermost moraine in open ground. The obsidian looks like that found in a small quarry near Edziza Peak. The upper moraine has not been dated and so far anthropological details are not known (BC DoMPR 1969:41).

Many of the archaeological sites recorded by RTEC during this baseline study conducted from 2006-2008 contained a historic component related to mineral exploration activity. In particular, the location of sites HiTr-3 to HiTr-7 and HiTr-37 closely match the description of the 1968 collection site. The relative paucity of formed tools at these sites, compared to debitage, and the ease of spotting obsidian in surface exposures causes some concern that artifact collecting may have been a widespread pastime by early exploration crews; although the extent to which this occurred beyond the 1968 field season, and in other parts of the Project area, is not known.

Hecla also undertook preliminary engineering studies into the development of an open pit copper-gold-molybdenum mine at the property. The mine access road to the Schaft property that was

proposed in 1970 followed Raspberry Pass to Highway 37, through the modern boundaries of Mount Edziza Provincial Park (Conley 1970). Work on the property ceased in 1977 and it was sold to Teck Corporation. Teck undertook additional exploration and engineering work through the 1980s; however, the property was essentially "on hold" from 1993 until Copper Fox Metals Inc. acquired it in 2004 (MEMPR 2008).

2.4 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

This section describes previous archaeological investigations that have been undertaken in the vicinity of the Project, focusing on Knut Fladmark's research on Mount Edziza and the recent investigations for the Galore Creek Project. References to additional studies from the broader region are also discussed.

2.4.1 Research in the Stikine-Iskut Region

Prior to this baseline study for the Project no archaeological studies had been conducted in the Schaft Creek or the upper Mess Creek valleys. However, several geologists had long shown an interest in the region's prehistory. Forrest A. Kerr of the Canada Geological Survey reported several rock cairns and arrowheads during a geological survey of the Stikine River (Kerr 1948), and Jack Souther, a volcanologist with the Geological Survey of Canada, identified obsidian artifacts during field research in the Mount Edziza Volcanic Complex in the 1950s to 1980s (Souther 1970).

One of the first archaeological investigations in the Stikine-Iskut region was Jason Smith's excavations at sites in the Telegraph Creek area in the late 1960s. Smiths's work established a rudimentary cultural chronology that included the identification of distinctive types of microblade technology, known as the Ice Mountain Microblade Industry (Smith 1969, 1970, 1971). However, until an increase in research during the late 1970s to 1980s, the prehistory of the region remained poorly understood.

In 1978, an archaeological survey of the Stikine River between the Chutine and Tanzilla rivers resulted in the identification of hundreds of sites (French 1980). In the early 1980's, Sylvia Albright undertook an ethnoarchaeological study examining the archaeological visibility of traditional subsistence strategies and resource use patterns of the Tahltan (Albright 1980, 1982, 1984), and David Friesen conducted an archaeological survey along the Hyland Post Trail (Friesen 1983, 1985). The earliest archaeological resource management investigations in the region were studies undertaken for the proposed Stikine/Iskut Hydro-Electric Development, which consisted primarily of surveys and some limited test excavations (Magne 1982; Warner and Magne 1983; Wilson et al. 1981).

More recent archaeological investigations in the region include: Balcom (1986), Bussey (1985, 1987, 2005), Engisch and Bible (2009), Engisch et al. (2008), Ham (1988), Rousseau (1990), Seip (Forthcoming), Seip and McKnight (2009), Seip et al. (2009, 2010, Forthcoming), Simonsen (1986, 2002a, 2002b, 2002c), Simonsen and Diaz (2004, 2005), Simonsen and Mitchell (2007). The archaeological potential model created for the Cassiar-Iskut-Stikine Land and Resource Management Plan does not cover the Project area (Millennia Research 1998).

2.4.2 Archaeological Research at Mount Edziza

The closest previous archaeological study to the Project was conducted in 1977 and 1981 within Mount Edziza Provincial Park (Fladmark 1984, 1985). The Mount Edziza area was already known to geologists as a source of obsidian that had been exploited prehistorically (Souther 1970, also see Section 2.3.4). Fladmark's investigations focused on identifying obsidian sources and collecting samples for XRF study. At present, Simon Fraser University's XRF Laboratory has identified 10 distinct

obsidians within the Mount Edziza Volcanic Complex and subsequent studies have identified Flow 3 at Goat Mountain, as the most intensively exploited obsidian source in British Columbia (Godfrey-Smith 1985).

Field surveys focused on Artifact, Bourgeaux and Raspberry valleys, and at Goat Mountain, and resulted in the identification of 115 prehistoric archaeological sites. Most of the sites were categorized as flaking stations or camps. One historic site, a telegraph line cabin in Bourgeaux Valley, was also recorded (Fladmark 1985).

Excavations were conducted at two multi-component sites: HiTp-1 and HiTp-63 (Fladmark 1985). At HiTp-63 (the "Grizzly Run Site"), two stratified components were dated. Component 2 is primarily a lithic manufacturing component, including microblades and bifaces, dating to ca. 4,870 B.P. ± 120 years. This component is the earliest dated occupation in the Mount Edziza region. Component 1 is a multifunction "camp" component with a diversity of tool types dating to ca. 3,000 to 4,000 B.P. The HiTp-1 ("Wet Creek Site") was the richest site recorded by Fladmark in terms of artifacts (n=204). A microblade component ("Area 2" occupation) is presumed to predate 4,000 B.P., although the occupation strata itself was not subject to radiocarbon dating. The biface component ("House 1" occupation) spanned from a main occupation ca. 2,850 B.P. ±160 years, to as recent as ca. 600 ± 80 years ago. A single ground-slate point characteristic of Northwest Coast cultures was recovered at "House 1" amongst the bifaces and is interpreted as representing a coastal (Tlingit, Tsimshian, or Tset'saut) influence.

2.4.3 Archaeological Research for the Galore Creek Project

The Galore Creek Project is located south of the Schaft Creek Project, in the Galore Creek, More Creek, Sphaler Creek, Porcupine River and Iskut River valleys. A total of twenty-nine archaeological sites have been recorded in the Galore Creek Project area (Hall and Prager 2006; Seip et al. 2010, Seip et al. forthcoming). Three of these sites were recorded in the Mess Creek area and twenty-two of them were recorded near the confluence of the Iskut River and More Creek.

3. Methodology

3. Methodology

This baseline study consisted of several components including background research, evaluation of archaeological site potential, field investigations, and analysis and reporting.

3.1 BACKGROUND RESEARCH

Background information was reviewed for the Project area and the surrounding region prior to the field assessment. Documentary data, including publicly available ethnographic, historic, and archaeological studies, reports and records were reviewed and considered. Topographic and biophysical information for the Project area was reviewed prior to the field assessment, including the review of aerial photos, National Topographic Series maps from 1:50,000 to 1:250,000, TRIM maps, and development plan maps. Publically available traditional use reports were reviewed, including the *Tahltan Use Study of the Shaft Creek Project Area* produced for the Project by the Tahltan Central Council (Callison and Creyke 2008).

3.2 ARCHAEOLOGICAL SITE POTENTIAL

The archaeological potential of the areas examined was assessed based on the following factors: proximity to water sources, slope, aspect, food resource values (i.e., ungulate ranges, fish), forest cover, local knowledge, proximity to previously recorded sites, proximity to relict water courses, the possible use of the area being assessed as a travel corridor (especially where trails ford streams), and the presence of micro-environmental features that tend to be associated with the presence of archaeological sites such as terraces, small rises in topography such as hillocks and knolls, and elevated areas adjacent to water sources and breaks in slopes. Factors thought to constrain archaeological potential include: unbroken slope, steep or rough terrain, poorly-drained ground, and massive disturbance areas such as avalanche chutes.

To address the five archaeological issues raised by the Tahltan (see Section 1.3.1), special efforts were made to examine high altitude areas (especially along glacial margins and within passes) for surficial finds. Particular attention was focused on glacier margins to search for caribou dung patches as well as locations where trails ford streams. In addition, any areas of karst topography within the proposed development areas were examined for the presence of caves and rock shelters.

3.3 FIELD METHODS

This study was conducted in accordance with the field methods outlined in the application for HCA Heritage Inspection Permit 2006-223 and the *British Columbia Archaeological Impact Assessment Guidelines* (Archaeology Branch 1998). In 2006, field work was conducted from September 21 to 28. In 2007, fieldwork was conducted on the following dates: June 12-13 and 19-21, July 4-7, August 20-30, September 28, and October 11-16. In 2008, field work was conducted on the following dates: June 4-11 and 25-30, July 14-25, and September 15-28.

3.3.1 Survey Design

The archaeological survey design described below was used to identify archaeological resources within the proposed development area. Surveys focused on those areas identified as having moderate or higher potential for the presence of archaeological resources during overview

assessments and included a stratified sampling strategy of no less than 10% of those areas identified as having low potential.

Pedestrian survey of those areas of the proposed development identified as having potential for the presence of archaeological resources was conducted. Examination consisted of a combination of systematic and judgmentally selected pedestrian survey traverses. For those areas of the proposed access road selected for examination the pedestrian survey followed the ROW with crew members spaced at approximately 7.5 m intervals, depending upon terrain and visibility constraints. For all other developments, systematic survey traverses followed compass bearings and/or flagged boundaries, with crew members spaced at 5-20 m intervals, depending upon terrain and visibility constraints as well as the assessed archaeological potential of the area being examined. Additional judgmentally selected survey routes followed spatially restricted topographic features when considered appropriate.

Ground surfaces were examined for trails, structures, artifacts, depressions, and other evidence of past human settlement and land use. Tree throws were also examined visually for such evidence. Standing trees, fallen logs and stumps were examined for cultural modification. Bedrock exposures and boulders were inspected for pictographs and petroglyphs as well as for the possible presence of seams of flakable lithic raw materials. Talus slopes, caves, or rock crevices within the proposed development area were examined for the presence of burials or other cultural materials. In most cases, artifacts identified on the surface during the pedestrian survey were recorded and collected. In the case of extensive lithic scatters, diagnostic artifacts and formed tools were recorded in reference to a local datum and collected.

All archaeological sites identified were recorded in field notes, photographed and mapped by hip chain and compass. GPS coordinates were taken and the location of all sites has been plotted on development plan and NTS maps. All archaeological sites have been recorded on B.C. Archaeological Site Inventory forms and entered into the Provincial Heritage Register Database.

3.3.2 Shovel and Evaluative Testing Design and Methodology

Shovel testing took place in those areas identified during the in-field assessment as having potential for buried archaeological remains (i.e., on remnant river terraces, on prominent knolls, near trails where they ford streams, and on benches along the banks of tributary streams, etc.). Shovel testing was also carried out in order to determine the vertical and horizontal extent of any identified deposits, and to identify the nature, composition, and integrity of any sub-surface deposits. The number and location of shovel tests was judgmentally determined on a case by case basis for all landforms. Shovel tests penetrated both "A" and "B" soil horizons depending on the nature of the sediment accumulation and continued until unweathered "C" horizon sediments or bedrock was encountered. Shovel tests were approximately 30 x 30 cm in size. Backdirt from all tests was examined manually or screened through 6 mm mesh. When a site was identified, shovel testing was conducted in 5 m intervals emanating from the initial positive shovel test until at least two negative shovel tests are completed in cardinal directions relative to the landform where possible. Additional shovel tests were conducted in order to ensure complete coverage of the landform and/or area on which the site is situated. Testing continued until the full boundaries of the site were determined. Both positive and negative shovel tests were sequentially numbered and recorded with the location of each shovel test being plotted on a site map. Descriptions of the matrices in positive and negative shovel tests were recorded in field notes. Artifacts and other materials encountered in shovel tests and all surface finds were collected. The extent of sites containing discontinuous buried archaeological deposits was

determined with reference to both the distribution of identified archaeological materials and the extent of associated landforms and areas of potential.

3.4 SITE SIGNIFICANCE EVALUATION METHODOLOGY

The significance of the sites recorded during the study was determined using the checklist of criteria for site evaluation in the *British Columbia Archaeological Impact Assessment Guidelines* (Archaeology Branch 1998). The scientific, public, ethnic, economic, and historic (if applicable) significance of each site identified was addressed when possible.

3.5 IMPACT IDENTIFICATION AND ASSESSMENT

The potential impact of the development plans on archaeological sites was assessed in reference to Appendix F of the *British Columbia Archaeological Impact Assessment Guidelines* (Archaeology Branch 1998). Detailed management plans have been made, with management options including site avoidance or some form of data recovery if sites are in unavoidable conflict, depending on the anticipated severity of impact and the assessed significance of the site.

3.6 METHODS AND TECHNIQUE OF ARTIFACT ANALYSIS

All collected artifacts were catalogued, described and compared to existing regional typologies. Formed tools were described as to shape, raw material, and manufacturing attributes. Appropriate metric attributes of artifacts were recorded when warranted. Lithic debitage has been quantified and classified according to raw material, stage of manufacture, and technological attributes. Sites received descriptive and functional interpretations where possible based on a typological and comparative analysis of observed artifacts and features. Analysis focussed on a culture-historical framework and the functional and seasonal use of a site.

3.7 CURATION

As per the conditions of HCA permit 2006-223, subsequent to the completion of the final report, all artifacts and cultural material collected, and a copy of the report will be sent to the Royal British Columbia Museum in Victoria, BC.

4. Results

4. Results

The following section describes the results of the baseline study and AIA for the Schaft Creek Project. This study examined the Project footprint, as proposed as of September 2008. Proposed drill site locations and other developments related to mineral exploration activities were also examined. In total, 3,091 shovel tests were conducted. Fifty-one archaeological sites (including 2 previously recorded) and 43 historic sites were identified.

For the purposes of this report, the Project will be discussed as five geographic assessment areas: (1) Schaft Creek valley and Mount LaCasse; (2) Mess Creek valley; (3) Skeeter Lake valley; (4) Hickman Creek valley; and (5) and an unnamed glacial valley (Sections 4.1 to 4.5). Additionally, the drilling and exploration program areas that were assessed throughout the Project area are discussed (Section 4.6).

4.1 SCHAFT CREEK VALLEY AND MOUNT LACASSE – MINE SITE AND ANCILLARY DEVELOPMENTS

The east side the Schaft Creek valley and west side of Mount LaCasse is the focus of the proposed mine development. This area contains the proposed pit, rock storage areas, the Project camp and support infrastructure and roads (Figure 1.1-4; Plate 4.1-1).

The area between the existing Schaft Camp, located along east floodplain of Schaft Creek and Mount LaCasse has been heavily disturbed by mineral exploration since the 1950s, primarily from drill pad, and access road construction. Additionally, there is evidence that a forest fire burned through the area. Much of the slope is now exposed, lacking vegetation, and is subject to erosion (Plate 4.1-1).

A saddle between Mount LaCasse and another unnamed peak to the south is a natural corridor between the Schaft Creek and Mess Creek valleys. Snipe Lake and large marshes are located within the saddle and generally drain east towards Mess Creek. The saddle area is densely forested with subalpine fir and an understory of alder and willow. Above the treeline (ca. 1,200 m asl) the south flank of Mount LaCasse is a steep slope interrupted by small bedrock outcrops, with discontinuous patches of dense, shrubby or stunted subalpine fir.

The Schaft Creek-Mount LaCasse area was subject to pedestrian survey and a total of 1,068 shovel tests and 9 evaluative units were conducted. Additionally, numerous tree throws and surface exposures were examined. In particular, large segments of the existing access road network were inspected for exposed cultural material.

Fourteen archaeological sites were recorded on the east side the Schaft Creek valley and west side of Mount LaCasse: HiTr-2, HiTr-3, HiTr-4, HiTr-5, HiTr-6, HiTr-7, HiTr-29, HiTr-37, HiTr-39, HiTs-2, HiTs-3, HiTs-4, HiTs-5, and HiTs-6. Of these sites, six are located in the subalpine on the south face of Mount LaCasse above the saddle area, three are located west of the saddle, near Snipe Lake, and the remaining five sites are located below the saddle, on the east side of Schaft Creek valley. In addition, five historic and recent land use features were observed in this portion of the Project area, two of which are associated with archaeological sites: HF-14, HF-15, HF-23, HiTs-6, HiTr-7.

Plate 4.1-1. Looking east at drill pads and service roads within the proposed mine pit, on the west face of the Mount LaCasse saddle.

4.2 MESS CREEK VALLEY – MINE ACCESS ROAD

Mess Creek is located within a 100 km long north-south trending valley that runs from the Stikine River in the north to More Creek in the south. The proposed Project access road is approximately 40 km long, and runs south through Mess Creek valley to More Creek where it would join the Galore Creek Project access road (Figure 1.1-3). The road alignment along Mess Creek follows the east side of the valley for most of its length; however, in places, several other route options under consideration were assessed.

Mess Creek drains north into the Stikine River, and the portion of the valley traversed by the proposed road drops in elevation from 1,000 m asl from its headwaters near More Creek, to 700 m asl where the road crosses Mess Creek valley, and travels west towards the mine. Lower Mess Creek is within a broad valley composed of meandering braided creek channels surrounded by lush wetlands. The east valley wall is generally steep, and in some places has sheer escarpments with little traversable ground along the toe of the slope. Occasional bedrock outcrops jut out from the valley wall and several large "bedrock islands" are located within the valley floor (Plate 4.2-1). The topography and vegetation of the valley changes markedly approximately 15 km north of More Creek, where a significant unnamed tributary feeds into Mess Creek from the mountain range to the west. Upstream of this point, the southernmost 15 km of Mess Creek valley narrows and the creek becomes a small gorge with steep bedrock exposures on either side (Plate 4.2-2).

Plate 4.2-1. Looking north down Mess Creek valley. An unnamed mountain (background, photo right) divides Skeeter Lake valley (left) from Mess Creek valley (right).

Plate 4.2-2. Southern portion of Mess Creek valley, looking north at the outlet of South Mess Lake.

The mine access road alignment and associated gravel quarries were subject to pedestrian survey, and a total of 513 shovel tests were conducted. Due to topographic constraints within the valley, areas of high potential are generally found on microtopographic features such as terraces or knolls providing a vantage point over the valley.

Fourteen archaeological sites have been recorded within the Mess Creek valley. Twelve of these sites were recorded during the course of this study: HgTr-2, HhTr-1, HhTr-2, HiTr-10, HiTr-11, HiTr-13, HiTr-14, HiTr-15, HiTr-16, HiTr-24, HiTr-32, and HiTr-34. Four of these sites are situated east of Mount LaCasse on top of escarpments that overlook the valley, while the remaining eight sites are located within the valley itself. Two archaeological sites, HgTr-3 and HgTr-4, were recorded under HCA Heritage Inspection Permit 2006-230 during assessments conducted for the Galore Creek Project. In addition, 16 historic and recent land use features were observed within the Mess Creek valley, 4 of which are associated with archaeological sites: HF-4, HF-5, HF-6, HF-7, HF-8, HF-9, HF-16, HF-17, HF-18, HF-22, HF-25, HF-29, HhTr-2, HiTr-11, HiTr-13, and HiTr-16.

An alternative road route previously under consideration was a Tahltan Highland route that utilizes the Arctic Lake Plateau. This alignment ran south following the alpine plateaus east of the Mess Creek valley. This route is no longer under consideration and no field work for this route was conducted as part of the baseline study. However, based on a literature and map review it is assessed as having very high archaeological potential due to its proximity to the obsidian quarries near Goat Mountain and other archaeological sites (see Fladmark 1985).

4.3 SKEETER LAKE VALLEY – TAILINGS IMPOUNDMENT OPTION 'A'

The proposed Tailings Impoundment Option 'A' is located in the Skeeter Lake valley (Figure 1.1-5). The valley is approximately 10 km long, and bounded to the west by Mount LaCasse and to the east by an unnamed mountain (Plate 4.3-1). At 800 m asl, the Skeeter Lake valley is substantially higher than both the Schaft Creek and Mess Creek valleys (both ca. 700 m asl). Skeeter Lake itself drains north into Schaft Creek via small streams, while south of Start Lake the valley drains southeast to Mess Creek.

Mineral exploration has been undertaken in the Skeeter Lake valley since at least the 1960s. The most obvious disturbance is the construction of a tractor trail or access road along the west side of the valley, connecting the north end of the valley to Schaft Creek Camp. The road was overgrown when baseline studies commenced in 2006, but was reactivated during the summer of 2008. The valley has also been extensively prospected and numerous cut lines with blazes related to geophysical surveys were observed.

The valley is U-shaped and varies from level, swampy lowlands doted with small ponds, to a rolling topography with prominent bedrock hills and ridges. Vegetation is variable with spruce and stunted pine common within wetlands, sub alpine fir along the valley walls, and some cottonwoods present near the alluvial fan at the north end of Start Lake.

Skeeter Lake valley was subject to pedestrian survey, and a total of 1,201 shovel tests and 2 evaluative units were conducted. Additionally, numerous tree throws and surface exposures were examined. The majority of the overgrown access road into the valley was assessed prior to being reactivated.

Twenty one archaeological sites were recorded within this area: HiTr-1, HiTr-8, HiTr-9, HiTr-12, HiTr-17, HiTr-18, HiTr-19, HiTr-20, HiTr-21, HiTr-22, HiTr-23, HiTr-25, HiTr-26, HiTr-27, HiTr-28, HiTr-30, HiTr-31, HiTr-33, HiTr-35, HiTr-36, and HiTr-38. Of these sites, 19 are located within Skeeter Lake valley, from Start Lake north to Schaft Creek, while the remaining two sites were identified in alpine and subalpine

areas on the unnamed mountain that divides the Skeeter Lake valley (west) from Mess Creek valley (east). In addition, 21 historic and recent land use features were observed within the Skeeter Lake valley, eight of which are associated with archaeological sites: HF-1, HF-2, HF-3, HF-11, HF-12, HF-13, HF-19, HF-20, HF-21, HF-24, HF-26, HF-27, HF-28, HiTr-8, HiTr-9, HiTr-12, HiTr-20, HiTr-21, HiTr-23, HiTr-25, and HiTr-31.

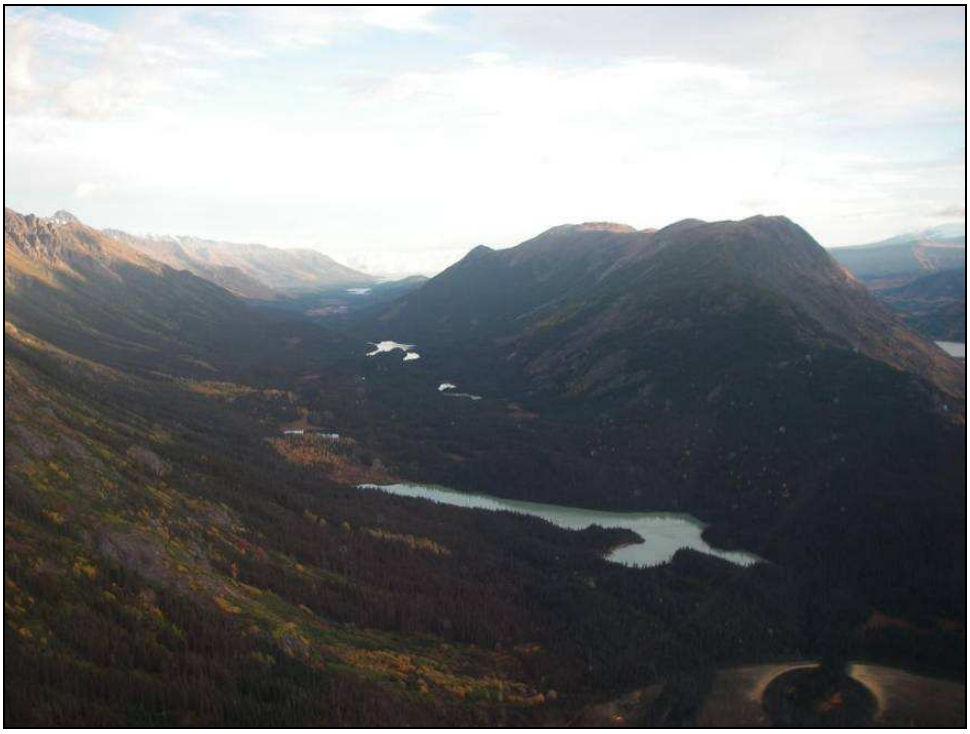


Plate 4.3-1. Skeeter Lake valley, looking north. The southern tailings dam for Option A would be built between Start Lake (foreground) and Skeeter Lake (background). Mess Lake is also visible in the background (photo right).

4.4 HICKMAN CREEK VALLEY – TAILINGS IMPOUNDMENT OPTION 'B'

Tailings Impoundment Option 'B' is located in the Hickman Creek valley, a glacially-fed drainage that flows north into Schaft Creek. Hickman valley is relatively inhospitable and is essentially a "dead end" with the valley terminating at a proglacial lake surrounded by rugged, glaciated mountain ranges. Unlike the Skeeter Lake or Mess Creek valleys, it would not have served as a travel corridor of any importance. The terrain within the valley is predominantly sloped and uneven with dense subalpine fir forest along the valley walls and buckbrush willow over gravels along the creek bed and floodplain (Plate 4.4-1).

Portions of the Project footprint in this area were subject to pedestrian survey, and a total of 223 shovel tests were conducted. Additionally, numerous surface exposures were examined. The survey focused on low terraces along the creek and occasional small rock outcrops and bluffs. One archaeological site, HhTs-1, was recorded on the west side of Hickman Creek, mid-way along the valley. In addition, one historic and recent land use feature was recorded on the east side of the Hickman Creek valley (F-10)

Tailings Impoundment Option 'B' is not currently under consideration and baseline work was not completed for this area.

Plate 4.4-1. View north from the southern end of the Hickman Creek valley.

4.5 UNNAMED GLACIAL VALLEY – TAILINGS IMPOUNDMENT OPTION 'C'

Tailings Impoundment Option 'C' is located north of Mount Hoole within an unnamed glacial valley. The valley drains east into Schaft Creek, and like the Hickman Creek valley, it is a "dead end" that is not a useful travel corridor. The head of the valley is U-shaped with a broad gravel creek bed and floodplain, and dense subalpine fir along the lower valley walls (Plate 4.5-1). Near its confluence with Schaft Creek, the creek becomes a deeply incised gorge, bounded by rock bluffs and level, open pine-forested plateaus.

Tailings Impoundment Option 'C' was assessed by low slow helicopter flyover and pedestrian survey was conducted along portions of the proposed dam. A total of 86 shovel tests were conducted and numerous surface exposures were examined. One archaeological site, HiTs-1, was recorded north of the unnamed creek, near its confluence with Schaft Creek. Tailings Impoundment Option 'C' is not currently under consideration and baseline work was not completed for this area.

4.6 2006 TO 2008 EXPLORATION PROGRAM ASSESSMENTS

In addition to assessment of the Project footprint, archaeological assessments were conducted for proposed components of Copper Fox's 2006 to 2008 exploration program for the Project. This included 76 drill pads, 135 test pits, and associated access roads. These were primarily located within the proposed mine pit and in the Skeeter Lake valley. In addition, the overgrown Skeeter Lake valley road was assessed prior to being re-opened and 20 helipads to support baseline and engineering studies along the proposed mine access road were assessed.

Plate 4.5-1. Looking west, upstream towards the head of the unnamed glacial valley.

Archaeological sites identified during the exploration program assessments were previously noted within the geographically appropriate assessment areas in Sections 4.1 to 4.5, and will not be discussed separately here.

5. Description of Identified Heritage Concerns

5. Description of Identified Heritage Concerns

5.1 ARCHAEOLOGICAL SITES

A total of 51 archaeological sites have been identified in the Project area (Table 5.1-1). The sites were found at elevations ranging from valley bottoms to the high alpine. All of the sites are obsidian lithic scatters, ranging from single artifact finds to larger sites with numerous artifacts and debitage (waste chips created when making stone tools). Nine artifacts were sent for XRF analysis, which confirmed that nearby Mount Edziza was the source of the obsidian.

Table 5.1-1. Archaeological Sites

Archaeological Site	General Location	Description
HgTr-2	Mess Creek Valley	Lithic Scatter
HgTr-3	Mess Creek Valley	Lithic Scatter
HgTr-4	Mess Creek Valley	Lithic Scatter
HhTr-1	Mess Creek Valley	Lithic Scatter
HhTr-2	Mess Creek Valley	Lithic Scatter
HhTs-1	Hickman Creek Valley	Lithic Scatter
HiTr-1	Skeeter Lake Valley	Lithic Scatter
HiTr-2	Snipe Lake	Lithic Scatter
HiTr-3	Mount LaCasse	Lithic Scatter
HiTr-4	Mount LaCasse	Lithic Scatter
HiTr-5	Mount LaCasse	Lithic Scatter
HiTr-6	Mount LaCasse	Lithic Scatter
HiTr-7	Mount LaCasse	Lithic Scatter
HiTr-8	Start Lake	Lithic Scatter
HiTr-9	Skeeter Lake Valley	Lithic Scatter
HiTr-10	Mount LaCasse	Lithic Scatter
HiTr-11	Mount LaCasse	Lithic Scatter
HiTr-12	Skeeter Lake Valley	Lithic Scatter
HiTr-13	Mess Creek Valley	Lithic Scatter
HiTr-14	Mess Creek Valley	Lithic Scatter
HiTr-15	Mess Creek Valley	Lithic Scatter
HiTr-16	Mess Creek Valley	Lithic Scatter
HiTr-17	Mess Creek Valley	Lithic Scatter
HiTr-18	Alpine between Mess and Skeeter valleys	Lithic Scatter
HiTr-19	Skeeter Lake Valley	Lithic Scatter
HiTr-20	Skeeter Lake Valley	Lithic Scatter
HiTr-21	Skeeter Lake Valley	Lithic Scatter
HiTr-22	Skeeter Lake Valley	Lithic Scatter
HiTr-23	Skeeter Lake Valley	Lithic Scatter
HiTr-24	Mount LaCasse	Lithic Scatter
HiTr-25	Skeeter Lake Valley	Lithic Scatter

(continued)

Table 5.1-1. Archaeological Sites (completed)

Archaeological Site	General Location	Description
HiTr-26	Skeeter Lake Valley	Lithic Scatter
HiTr-27	Skeeter Lake Valley	Lithic Scatter
HiTr-28	Skeeter Lake Valley	Lithic Scatter
HiTr-29	Snipe Lake	Lithic Scatter
HiTr-30	Sub-alpine between Mess and Skeeter valleys	Lithic Scatter
HiTr-31	Skeeter Lake Valley	Lithic Scatter
HiTr-32	Mess Creek Valley	Lithic Scatter
HiTr-33	Skeeter Lake Valley	Lithic Scatter
HiTr-34	Mess Creek Valley	Lithic Scatter
HiTr-35	Skeeter Lake Valley	Lithic Scatter
HiTr-36	Skeeter Lake Valley	Lithic Scatter
HiTr-37	Mount LaCasse	Lithic Scatter
HiTr-38	Skeeter Lake Valley	Lithic Scatter
HiTr-39	Snipe Lake	Lithic Scatter
HiTs-1	Schaft Creek Valley	Lithic Scatter
HiTs-2	Schaft Creek Valley	Lithic Scatter
HiTs-3	Schaft Creek Valley	Lithic Scatter
HiTs-4	Schaft Creek Valley	Lithic Scatter
HiTs-5	Schaft Creek Valley	Lithic Scatter
HiTs-6	Schaft Creek Valley	Lithic Scatter

5.2 HISTORIC AND RECENT LAND USE FEATURES

A total of 43 historic and recent land use features were identified during the baseline study (Table 5.2-1). All of these features date to the 20th century and are related to mining exploration during the 1960-1980s primarily by Hecla and Teck (see Section 2.3.4), and trapping activity (likely by the late Ken Cottrell). These sites are not protected by the HCA and will not be discussed beyond this section.

Please note that Table 5.2-1 is not intended to provide a comprehensive list of all historic and land use features in the Project area. For additional information regarding land use in the Project area please refer to the *Schaft Creek Project Land and Resource Use Baseline* (RTEC 2010a).

The trails described in Table 5.2-1 are interpreted as being recent historic features associated with the extensive mineral exploration in the area since the 1950s (see Section 2.3.3). Mr. Cottrell the registered trap line owner for this area, held this tenure for over 30 years, since 1976, and trapped it consistently over this period. Mr. Cottrell resided year-round in a cabin on the south end of Mess Lake, and maintained seasonal use of cabins at Jonny Lake and south of Skeeter Lake (RTEC 2010a). He was also employed by Copper Fox as a caretaker at their exploration camp.

Table 5.2-1. Historic and Recent Land Use Features Recorded During Baseline Study

Historic Feature ID[†]	Cultural Feature(s)	Description
HF-1	Cabin	A collapsed log cabin and historic debris.
HF-2	Cabin	Standing log cabin approximately 3 m x 4 m.
HF-3	Camp	Historic debris, wood platform and trail running north-south.
HF-4	CMT	Three blazed trees, the oldest scar dated to 43 ± 5 years.
HF-5	CMT	Recent historic blazed trees.
HF-6	CMT	Recent historic blazed trees.
HF-7	CMT	Recent historic blazed trees associated with cut lines.
HF-8	CMT	Recent historic blazed trees.
HF-9	CMT	Recent historic blazed trees (dated to approximately 30 years old).
HF-10	CMT	Sawed, delimbed, and blazed trees.
HF-11	CMT	Historic blazed tree.
HF-12	CMT	Blazed tree with metal tool marks.
HF-13	CMT	Recent historic blazed trees.
HF-14	Mining	Recent mineral exploration (ca. 1990). Rock pile made by McElhaney surveyors, oil can, well head.
HF-15	Mining	Old mining camp. Food containers, ladder, pots, pans, stove and stumps.
HF-16	Trail	Approximately 100 m of historic trail.
HF-17	Trail	North-south trail .
HF-18	Trail	Several recent mining related trails.
HF-19	Trail	North-south trail. Evidence of use of trail by game (mountain goat).
HF-20	Trail	Approximately 200 m of trail on shore of Skeeter Lake.
HF-21	Trail	Historic trail and blazed trees relating to mining activity.
HF-22	Trail	Historic trail and 64 blazed trees, oldest dated to 80 ± 5 years.
HF-23	Trail	Historic trail/cut line with several sawed stumps.
HF-24	Trail	A north-south trail/cut line with blazed, bucked and delimbed trees.
HF-25	Trail	Historic blazed trail.
HF-26	Trail	A north-south trail/cut line with recent blazes.
HF-27	Trail	Historic blazed trail with small recent ground depressions.
HF-28	Trail	Historic blazed trail.
HF- 29	Traps	Metal wire snare and sawed stumps.
HhTr-2	Mining	Old mining camp (ca. 1970s), with several foundations for cabins or tents, core boxes, oil cans and other debris.
HiTr-6	Camp	Piece of trap, recent fire pit, and sawed trees.
HiTr-7	Trail	Historic trail through site. Evidence of use of trail by game.
HiTr-8	Camp	Exploration camp. Four tent/structure foundations and historic debris.
HiTr-9	Mining	Historic (ca. 1980s) mining camp.
HiTr-11	Trail	Historic trail through site.
HiTr-12	CMT	Recent historic blazed trees.
HiTr-13	Traps	Two traps chained together, blazed trees, delimbed pines and metal debris.
HiTr-16	Trail	Lean-to shelter with plastic tarp and fire pit, stumps and delimbed trees.
HiTr-21	Trail	Historic blazed trail.
HiTr-20	Camp	Recent camp (post-1950s) with historic debris and a fire pit.
HiTr-23	Camp	Camp with a fire pit and sawed trees.
HiTr-25	CMT	One historic axe-chopped and one blazed pine.
HiTr-31	Trail	North-south historic blazed trail/cut line.

[†] *Archaeological sites with a historic or recent component are listed by their Borden designations.*

Due to the relatively recent historic use of these trails and their documented relationship to exploration and trapping activities, it was not possible to determine if any of these may have followed existing trails. However, we assume that prehistorically there may have been numerous trails in the area. Locating physical evidence of prehistoric trails in this geologically active area is problematic. Additionally, ethnographically the Tahltan would have utilized the upper river valleys, creeks, and lakes during the winter months (Albright 1984) when this area would have had a heavy snow pack; travelling during the winter season when the ground was frozen would have left little or no trail furrow.

Fifteen of the historic features are associated with or in close proximity to archaeological sites and many of these sites exhibit some evidence of disturbance from historic activity. In cases where sites had excellent natural exposures (primarily sites HhTr-2, HiTr-16, HiTs-6, HiTr-7, HiTr-8, HiTr-9, HiTr-12, HiTr-13, HiTr-20, HiTr-21, HiTr-23, HiTr-25, HiTr-31) the absence of any formed tools is notable (see Section 3.2.4 for information on historic artifact collecting in the Project area).

6. Discussion and Summary

6. Discussion and Summary

Prior to this study no archaeological sites had been recorded in the Project area. In total 49 archaeological sites and 43 historic sites were recorded during this study, and an additional 2 archaeological sites were recorded in the Mess Creek valley during assessments conducted for HCA Heritage Inspection Permit 2006-230.

All of the artifacts recovered from the archaeological sites are made of obsidian, which is to be expected considering the close proximity of the project to the obsidian source. While it was assumed that the obsidian was from Mount Edziza, nine artifacts were sent for XRF analysis to confirm this. The sites recorded range from single artifact finds to large lithic scatters. Sites were found in elevations ranging from valley bottoms to high alpine.

Obsidian from Mount Edziza was already an item of long distance trade on the northern-northwest coast by 9,500 to 9,000 years B.P. (Ackerman 1996:126) and obsidian from this source continued to be widely distributed into the protohistoric period. Geographically Mount Edziza is considered to be located in a geographical communication crossroads due to the area's access to the major river systems in the region which flow into three different seas (the Bering Strait, the Arctic Ocean and the Pacific Ocean) (Fladmark 1985). The location of the obsidian source in this central area may have played a significant role in the prehistoric occupation of the region.

Much of the Project area has been subject to historic forest fires which may have contaminated any potential samples (e.g. charcoal, bone) for radio carbon dating, so no samples were collected. It is likely that the sites in the area may range in date from 9,500 to the protohistoric period. Incipient stemmed points, similar to the one recovered from HiTr-39, are poorly dated. However, similar kinds of points have been dated in northern and southern interior Plateau sites within the last 4,000 years (Fladmark 1985:166).

Many of the sites recorded contain evidence of microblade technology. The Northwest Coast Microblade Tradition is documented as early as 10,000 years B.P. in both southeast Alaska (Ackerman 1992, Davis 1989, Dixon 2008, and Okada et al. 1992) and in northern British Columbia (Carlson 1990, Carlson and Dalla 1996, and Matson and Coupland 1995). In this area a microblade industry was flourishing by 4900 years B.P. However by 4,000 to 3,000 B.P., it was not a major component in local tool kits (Fladmark 1985:195). The Microblade Tradition appears to have come down the coast and up the river valleys and may have been derived from "earlier cultures occupying the coastal fringes and river valleys of Beringia" (Carlson 1990:68).

Fladmark (1985) suggests that prehistoric use of the Mount Edziza area was less intense during the Neoglacial Period (3,000 to 150 B.P.) when glaciers and snowpack would have been larger than during the Hypsothermal Period (8,000 to 3,000 B.P.). Occupation of this area during the mid-late Holocene (ca. 4,000 B.P. to 200 B.P.) may have been limited to small hunting parties during the snow-free summer months. However, the area may have been more intensively used during the early-mid Holocene when the climate was warmer and drier.

The traditional use report for the Project indicates that numerous wide travel corridors exist in the area (Callison and Creyke 2008). While these general "travel corridors" suggest that trails may be located in the general area of the valley, it is likely that the valley bottoms themselves were not the actual trail

route, rather upland subalpine areas may have been the easier option. Travel that may have been done during the winter months using snowshoes or following frozen streams would leave little trace archaeologically. During the field survey no evidence of prehistoric trails were identified. The absence of any evidence of prehistoric trails is not surprising, given that trails quickly become overgrown with disuse and the terrain along valley bottoms in the Project area is generally covered with dense vegetation and subject to avalanches and flooding during spring freshet.

The archaeological investigations conducted for the Project to-date have significantly increased our knowledge of the prehistoric use of this area where previously there had been little archaeological work conducted. While many of the sites contained small amounts of material, their spatial distribution provide us with an understanding of the use of the prehistoric cultural landscape. Some of these sites may provide us with valuable clues about the early migration of people into British Columbia.

7. Closure

7. Closure

This interim report was prepared by Rescan Tahltan Environmental Consultants on behalf of Copper Fox Metals and for the use of the Archaeology Branch. Any use, reliance, or decisions made by third parties based on this report are the sole responsibility of such third parties. This study was not designed to address issues of traditional Aboriginal use and does not constitute a traditional use study. This report was written without prejudice to issues of Aboriginal rights and/or title.

We trust that the information contained in this report is sufficient for your present needs.

Sincerely,

Rescan Tahltan Environmental Consultants Ltd.

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Senior Archaeologist

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