

BC Geological Survey
Assessment Report
34309

Golden Goose Property

Technical Report for Work Performed on Claim between 1 July 2012 and 15 November 2012

Tumaco Group

Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Technical - Prospecting and Geological

TOTAL COST: \$10,542.61

AUTHOR(S): Alexander Hirtz, Benjamin Firmston **SIGNATURE(S):** _____

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): _____ **YEAR OF WORK:** 2012

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): _____

PROPERTY NAME: Golden Goose

CLAIM NAME(S) (on which the work was done): Golden Goose, Tenure 1000802

COMMODITIES SOUGHT: Au, Ag,Cu, Pb, Zn

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 082ESE097

MINING DIVISION: Greenwood **NTS/BCGS:** NTS 082E01E, BCGS 082E009

LATITUDE: 49 ° 6 ' 16.7N " **LONGITUDE:** 118 ° 12 ' 16.2W " (at centre of work)

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PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):
Gold Skarn, Copper Skarn, Nelson Intrusive, Mount Roberts Formation

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: EMPR ASS RPT 2371, 3054

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	_____	_____	_____
Photo interpretation	_____	_____	_____
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	_____	_____	_____
Electromagnetic	_____	_____	_____
Induced Polarization	_____	_____	_____
Radiometric	_____	_____	_____
Seismic	_____	_____	_____
Other	_____	_____	_____
Airborne		_____	_____
GEOCHEMICAL (number of samples analysed for...)			
Soil	_____	_____	_____
Silt	_____	_____	_____
Rock	_____	_____	_____
Other	_____	_____	_____
DRILLING (total metres; number of holes, size)			
Core	_____	_____	_____
Non-core	_____	_____	_____
RELATED TECHNICAL			
Sampling/assaying	0.13 Sq. Km	21	\$10,542.61
Petrographic	_____	_____	_____
Mineralographic	_____	_____	_____
Metallurgic	_____	_____	_____
PROSPECTING (scale, area)		_____	_____
PREPARATORY / PHYSICAL			
Line/grid (kilometres)	_____	_____	_____
Topographic/Photogrammetric (scale, area)	_____	_____	_____
Legal surveys (scale, area)	_____	_____	_____
Road, local access (kilometres)/trail	_____	_____	_____
Trench (metres)	_____	_____	_____
Underground dev. (metres)	_____	_____	_____
Other	_____	_____	_____
		TOTAL COST:	\$10,542.61

Contents

Table of Contents	4
Introduction	5
Map 1	7
Map 2	8
Maps 3a and 3b.....	10
Map 3c	11
Map 4	13
Property Location and Access.....	15
Map 5	16
Physiography, Climate and Infrastructure	17
Regional Geology	18
Types of Potential Economic Ore Deposits	22
Technical Data and Interpretation	26
Map 6a	30
Map 6b	31
Map 7	32
Map 8	33
Sample Results	34
Recommendations	36
Cost Statement	38
Author Qualification.....	40
References	41
Software Used.....	43

Introduction

This report outlines technical work performed on the Golden Goose Claim (Tenure #1000802) in the Christina Skarn Belt, currently held by the Tumaco Group. The Golden Goose target may be classified as a gold-copper skarn associated with massive pyrrhotite and magnetite with open pit potential. It is located near the southeast shore of Christina Lake in the Greenwood Mining Division of British Columbia.

During the late 19th century, a major mining boom occurred in Southern British Columbia's Boundary, Okanagan, Similkameen, and Kootenay districts. Dozens of mining towns popped up; the gold and silver rush produced more ore than in California in the same period. Some of these populated areas have become ghost towns, others have flourished into tourist attractions, while most have vanished in the wilderness. Famous mines like Phoenix, the Union Mine, the Mother Lode, the Blue Bell Mine and hundreds more are now closed, while companies which have made their wealth in these areas, like Cominco, are now big producers elsewhere (See Map 1).

Thousands of miners were drawn to the Kootenays in search of El Dorado to load their mules with high grade ore, mainly gold, silver and copper, which had to be transported by train to nearby smelters.

Currently, most of these famous historic mining districts are blanketed by myriad claims, but the immensity of the Kootenay territory still allows for the discovery of potential large area plays—particularly for lower grade ore which was not attractive in the past. Now, the combination of high metal prices, improved access, and advanced detection technology opens up a whole new horizon of lucrative possibilities.

In the past three decades, most companies have moved to exploring in poorer countries, where other world class deposits have been discovered. However, they almost invariably encounter complex political and social problems, putting their investments in great risk.

The Tumaco Group has considered it convenient to explore the mining potential in the Kootenay district in areas that appear to have been temporarily attractive to prospectors in the past and remain open ground for prospection in the present (See Map 2).

350000

400000

Map 1 Boundary District Historic Mining Features

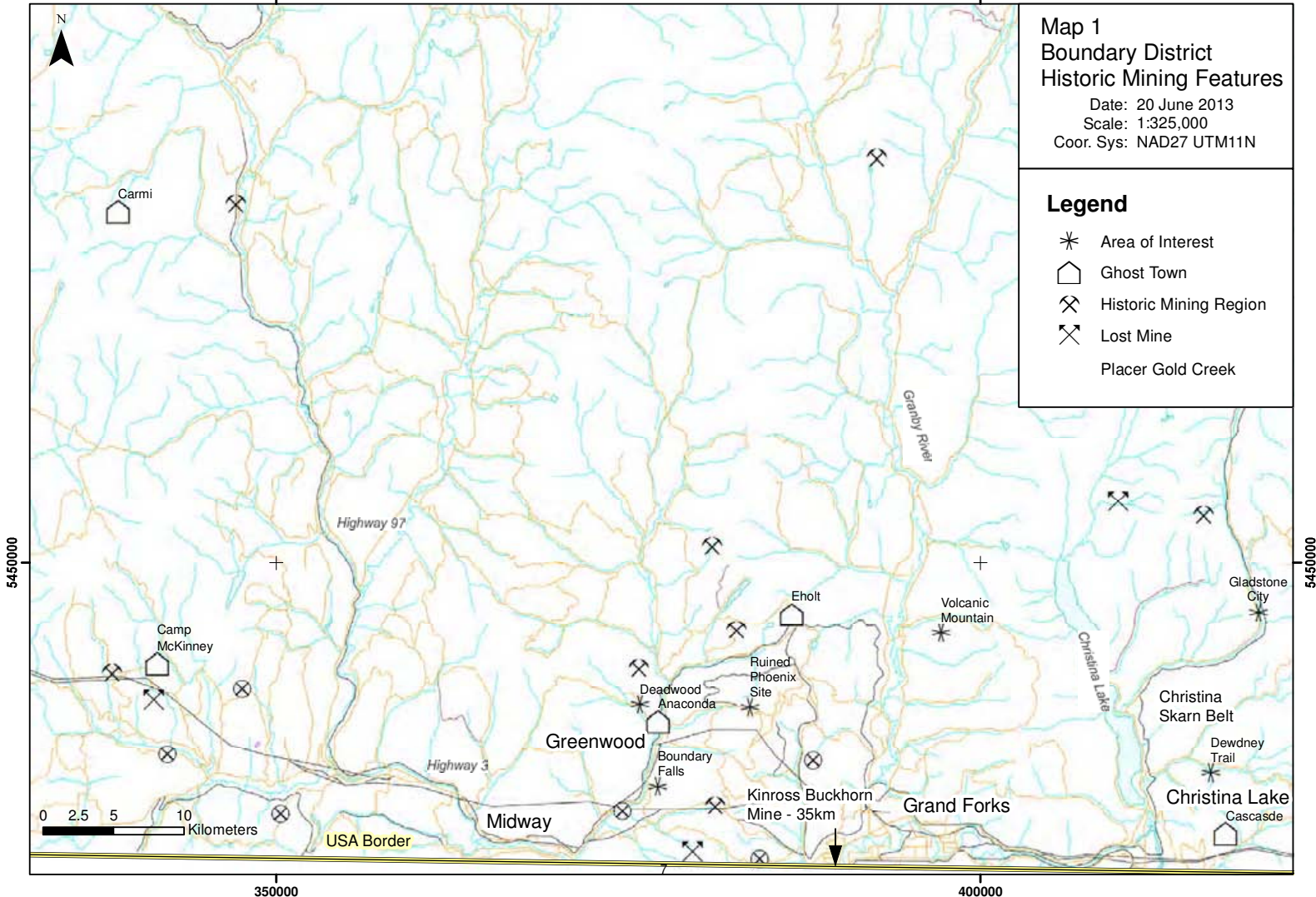
Date: 20 June 2013

Scale: 1:325,000

Coord. Sys: NAD27 UTM11N

Legend

- * Area of Interest
- Ghost Town
- ⌵ Historic Mining Region
- ⌵ Lost Mine
- Placer Gold Creek



350000

400000

5450000

5450000

0 2.5 5 10
Kilometers

USA Border

Midway

Greenwood

Eholt

Volcanic Mountain

Gladstone City

Christina Skarn Belt

Dewdney Trail

Christina Lake

Cascade

Kinross Buckhorn Mine - 35km

Grand Forks

Highway 97

Highway 3

Granby River

Christina Lake

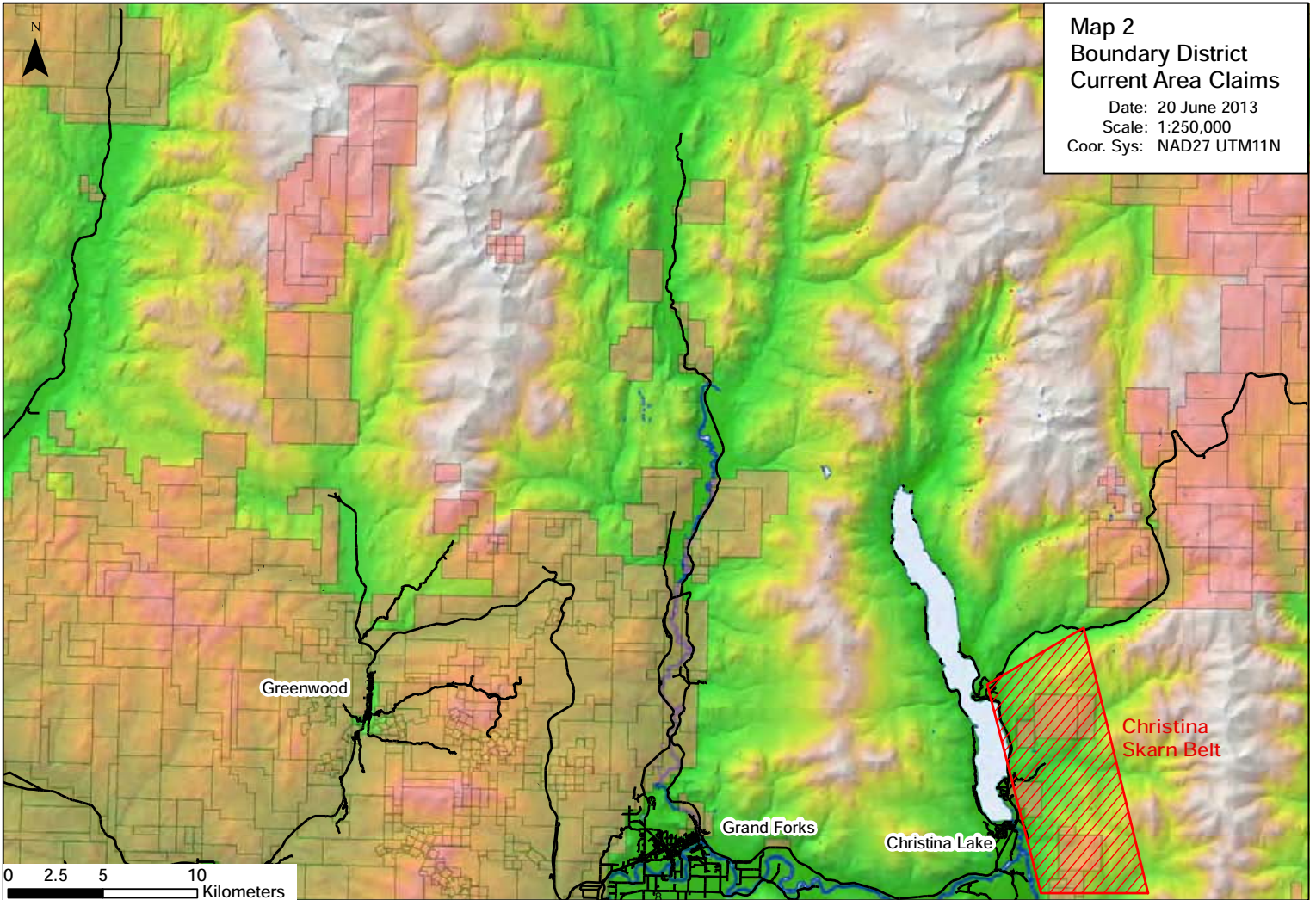
Carmi

Camp McKinney

Deadwood

Ruined Phoenix Site

Boundary Falls

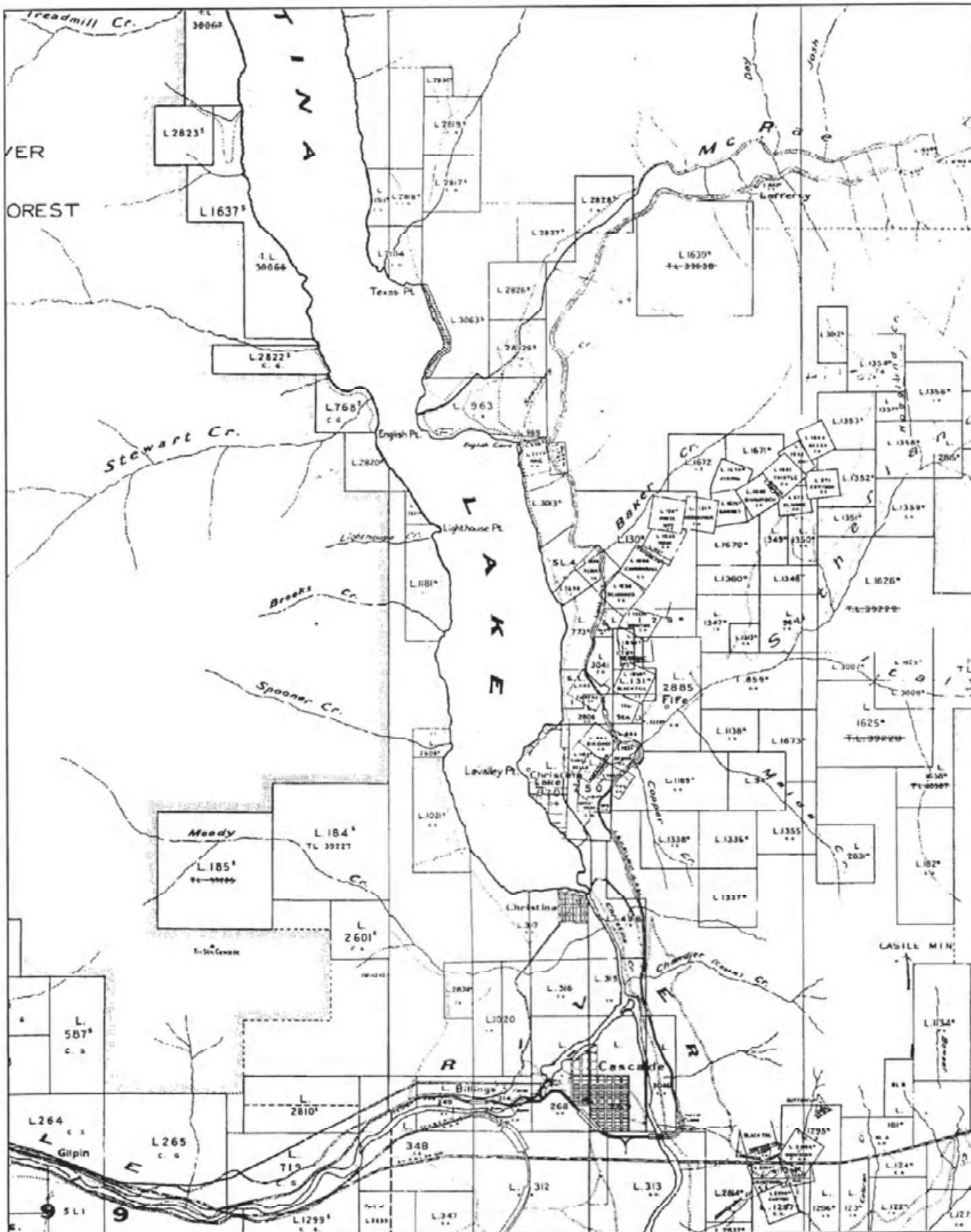


Tumaco Group chose to examine the eastern flank of Christina Lake, where the geologic setting is very favourable for skarn deposits. Between Christina Lake and the Columbia River to the east are mountain ranges mainly composed of granodiorite and quartz diorite intrusives. The greatest skarn discoveries were made at the contact on the east flank of these intrusives with sedimentary calcarious sediments around Rossland, Trail and Castlegar, where the whole district is currently blanketed with claims. On the contrary, there are almost no claims on the western flank of these intrusives, even though at the turn of the century many hundreds of claims covered this belt (See Maps 3a, 3b, and 3c).

Maps 3a and 3b
Historic Claims in Christina Skarn Belt
1900s



Map 3c
Historic Claims in Christina Skarn Belt
1900s



The Tumaco Group made several reconnaissance trips around the forestry roads in this area, investigating historic claims and taking samples for analysis.

As mentioned, old claim maps from the turn of the century show abundant claims all along this belt, particularly bordering the drainages of streams. However, with the exception of some small exploratory workings, no major mine had developed.

A cursory prospection along this belt indicates a pervasive contact metamorphism where the calc sediments have been altered to hornfels flooded with silica and disseminated pyrite. A closer look at historic information indicates a number of showings related to skarns listed from north to south: the Big Iron, Beech, Crackerjack, Iron Mountain, Elmore, Garnet, Cannonball, Alma, the Fife Limestone, the Fife Mine, Castle Mountain Nickel, Mastodon, Mammoth, etc. With the exception of the chrome-nickel targets on Castle Mountain, all these mineralized showings are related to various types of skarns (See Map 4).

410000

415000

420000



5445000

5445000

5440000

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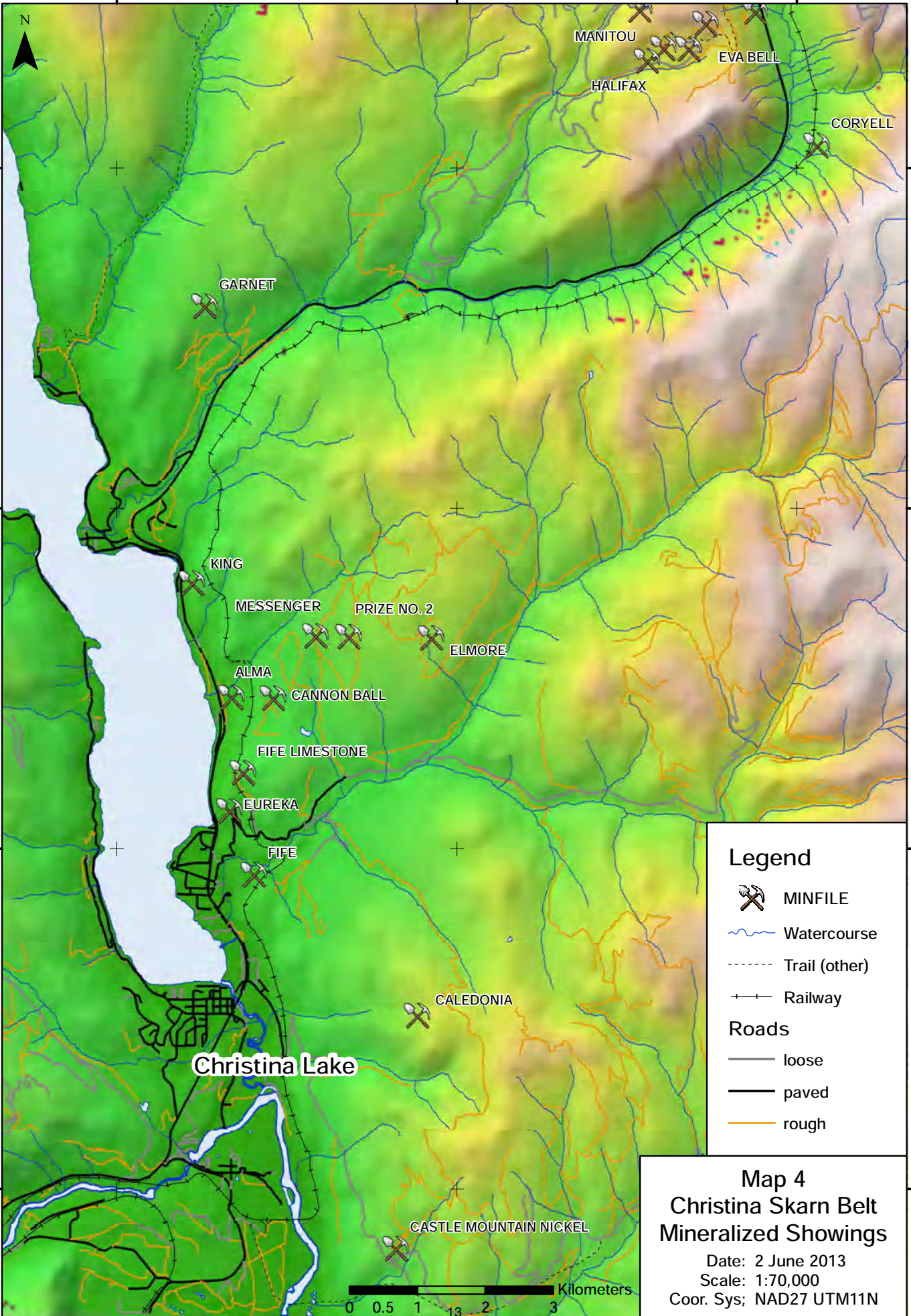
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



410000

415000

420000



Legend

-  MINFILE
-  Watercourse
-  Trail (other)
-  Railway
- Roads**
-  loose
-  paved
-  rough

Map 4
Christina Skarn Belt
Mineralized Showings

Date: 2 June 2013
 Scale: 1:70,000
 Coord. Sys; NAD27 UTM11N



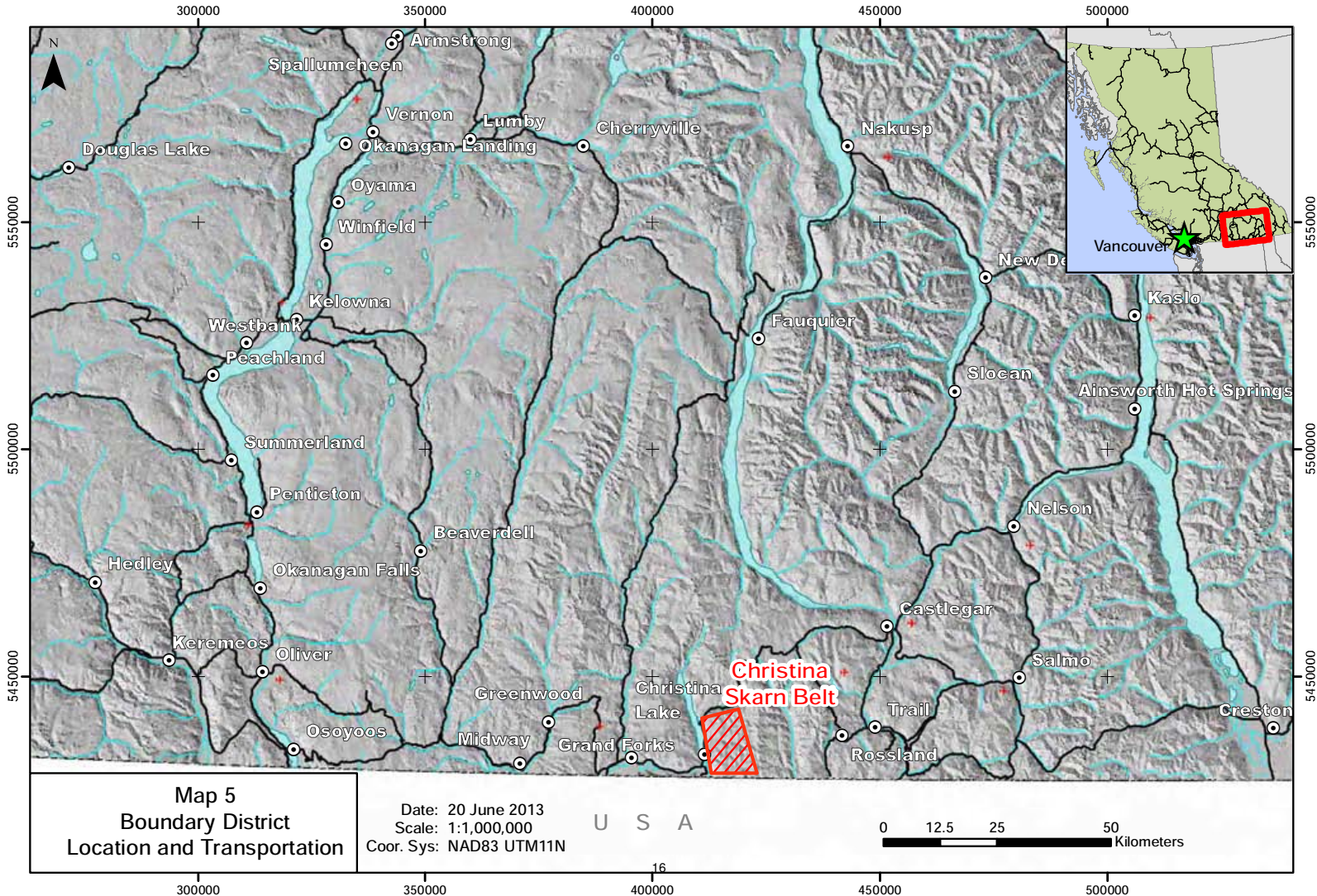
In 1970 an option agreement was signed between Imperial Oil Enterprises Ltd. and Boundary Exploration Ltd. The option covered 106 contiguous claims and three crown grants (approximately 5000 acres), about one mile from the east shore of the Christina Lake, covering the potential targets for copper skarns. The exploration program consisted of 47 miles of cut lines, 1200 soil samples, 422 stream sediment samples and a 40 kilometer ground magnetometer survey. The program resulted in very favourable recommendations to follow-up with more exploration. However, further work never developed at the time, likely because of the depressed market in copper prices. The exploration report's conclusion points out the possibilities for skarn-type ore bodies, and it also indicates the possibility of large-scale copper porphyries in the intrusives (Scott & Sommerville, 1970; Kermeen, 1970).

The work executed by Imperial Oil does not discuss any of the old workings like the Fife Mine. The report only contains references in their geology map to scattered showings of outcrops with pyrite or chalcopyrite. In our scouting along this belt, we have encountered various mining works of trenches, shafts, and tunnels. However, these discoveries do not necessarily match the description of the old workings found in the literature. It should be noted that these workings are mostly over a century old; what may have been major operations then, are now almost entirely concealed by a hundred years of forestry growth.

Property Location and Access

The Christina Skarn Belt (and Golden Goose Claim) is located on the eastern side of Christina Lake, between McRae Creek in the north and Chandler Creek in the south.

The town of Christina Lake is located at the southern tip of the lake, 26 km east of Grand Forks on B.C. Highway 3. The highway continues northward following the eastern shore of Christina Lake and turns east at McRae Creek, continuing on to Castlegar and Nelson. The former Highway 3, which followed the historic gold rush era Dewdney Trail from Christina Lake to Rossland, is still accessible via Santa Rosa road at Christina Lake. Southwards from the lake, the old Dewdney Trail cuts the southern end of the Christina Skarn Belt along Chandler Creek. Canadian Pacific Railway, now part of the Trans Canada Trail, passes through the middle of the skarn belt. Numerous logging roads crisscross the belt, facilitating access to most of the targets (See Map 5).



Map 5
Boundary District
Location and Transportation

Date: 20 June 2013
 Scale: 1:1,000,000
 Coord. Sys: NAD83 UTM11N

U S A



Physiography, Climate and Infrastructure

The Christina Skarn Belt is located in a gently contoured tree-covered, mountainous region with areas of locally steep topography. Relief varies from 450m above sea level at Christina Lake to a maximum of 1300m atop Castle Mountain. The belt is drained by Baker, Sutherland and Chandler Creeks and their tributaries. Bedrock is obscured by overburden over perhaps 90% of the belt. In the valleys and lower parts of slopes the overburden probably includes glacial debris up to several tens of feet thick.

Vegetation consists of thick secondary growth forest, with dense undergrowth. The forest is mixed, with cedar, larch, spruce, pine and fir all present. Recent logging has resulted in a number of large clear cuts.

The climate is moderately dry, with hot summers and only minor rainfall. Snowfall is typically in the order of 2.5 - 3 metres annually, and the property is generally snow free from early May to mid-November. Water is available for drilling from nearby creeks or from several small ponds.

Infrastructure is very accessible from the nearby towns of Christina Lake, Grand Forks, Trail (Teck-Cominco Smelter), Rossland, Castlegar and Nelson. The properties are also less than 10km from the highway USA border crossing at Cascade/Laurier.

Regional Geology

The Christina Skarn Belt is situated within the Boundary District of southern British Columbia and northern Washington State in the Grand Forks Map Sheet (082E/01). The following geological description is largely borrowed from Caron (2003 and 2005).

The Boundary District is a highly mineralized area straddling the Canada-USA border and including the Republic, Belcher, Rossland and Greenwood Mining Camps. The Boundary District has total gold production exceeding 8 million ounces (Schroeter et al, 1989; Hoy and Dunne, 2001; Lasmanis, 1996). The majority of this production has been from the Republic and Rossland areas. At Republic, about 2.5 million ounces of gold, at an average grade of more than 17 g/t Au, has been produced from epithermal veins (Lasmanis, 1996). In the Rossland Camp, 2.8 million ounces of gold at an average grade of 16 g/t Au was mined from massive pyrrhotite-pyrite-chalcopyrite veins (Hoy and Dunne, 2001). Recent exploration in the Boundary District has resulted in the discovery of a number of new deposits. During the period 1990-2001, Echo Bay Mines produced a combined total of 1.07 million ounces gold from six of these deposits (Echo Bay Mines Annual Reports, 2001 & 2002). Kinross Gold Corp. purchased the Buckhorn mine in 2003, which began production in October 2008, and produced 27,036 gold equivalent ounces at an average cost of \$344 per ounce in 2008.

The Boundary District is situated within Quesnellia, a terrane which accreted to North America during the mid-Jurassic. Proterozoic to Paleozoic North American basement rocks are exposed in the Kettle and Okanogan metamorphic core complexes. These core complexes were uplifted during the Eocene, and are separated from the younger overlying rocks by low-angle normal (detachment) faults. The distribution of these younger rocks is largely controlled by a series of faults, including both Jurassic thrust faults (related to the accretionary event), and Tertiary extensional and detachment faults.

The oldest of the accreted rocks in the district are late Paleozoic volcanics and sediments. In the southern and central parts of the district, these rocks are separated into the Knob Hill and overlying Attwood Groups. Rocks of the Knob Hill Group are of dominantly volcanic affinity, and consist mainly of chert, greenstone and related intrusives, and serpentinite. The serpentinite bodies of the Knob Hill Group represent part of a disrupted ophiolite suite which have since been structurally emplaced along Jurassic thrust faults. Commonly, these serpentinite bodies have undergone Fe-carbonate alteration to listwanite, as a result of the thrusting event. Serpentinite is also commonly remobilised along later structures. Unconformably overlying the Knob Hill rocks are sediments and volcanics (largely argillite, siltstone, limestone and andesite) of the late Paleozoic Attwood Group. The Paleozoic rocks are unconformably overlain by the Triassic Brooklyn Formation, represented largely by limestone, clastic sediments and pyroclastics. Both the skarn deposits and the gold-bearing volcanogenic magnetite-sulfide deposits in the district are hosted within the Triassic rocks. In the western part of the district, the Permo-Triassic rocks are undifferentiated and grouped together as the Anarchist Group, while in the east (Rossland area) the Triassic section is largely missing and the Carboniferous-Permian sequence is referred to as the Mount Roberts Formation. The Mount Roberts Formation is comprised of greywacke, greenstone, limestone and paragneiss. Hoy and Dunne (1997) note that in northern Washington, early Triassic rocks of similar lithologies are included within the Mount Roberts Formation.

Volcanic rocks overlying the Triassic Brooklyn Formation in the Greenwood, Danville and Chesaw areas may be part of the Brooklyn Formation, or may belong to the younger Jurassic Rossland Group. In the Rossland area, the lower Jurassic Rossland Group is comprised of a thick sequence of intermediate to mafic volcanic rocks and associated coarse to fine clastic rocks. The Rossland Group hosts a variety of styles of mineralization, including the auriferous massive pyrrhotite veins at Rossland, alkalic copper-gold porphyries, gold-copper skarns and shear related mineralization (Hoy and Dunne, 1997).

At least four separate intrusive events are known regionally to cut the above sequence, including the Jurassic-aged alkalic intrusives (i.e. Lexington porphyry, Rossland monzonite, Sappho alkalic complex), Triassic microdiorite (i.e. Brooklyn microdiorite, Josh Creek diorite), Cretaceous-Jurassic Nelson intrusives, and Eocene Coryell (and Scatter Creek) dykes and stocks.

In the Greenwood area, Fyles (1990) has shown that the pre-Tertiary rocks form a series of thrust slices, which lie above a basement high grade metamorphic complex. A total of at least five thrust slices are recognised, all dipping gently to the north, and marked in many places by bodies of serpentine. There is a strong spatial association between Jurassic thrust faults and gold mineralization in the area.

Eocene sediments and volcanics unconformably overlie the older rocks. The oldest of the Tertiary rocks are conglomerate and arkosic and tuffaceous sediments of the Eocene Kettle River Formation. These sediments are overlain by andesitic to trachytic lavas of the Eocene Marron Formation, and locally by rhyolite flows and tuffs, such as in the Franklin Camp. The Marron volcanics are in turn unconformably overlain by lahars and volcanics of the Eocene Klondike Mountain Formation. Epithermal gold mineralization, related to Eocene structural activity, has been an important source of gold in the Boundary District.

The known gold deposits within the Boundary District can be broadly classified into six deposit types, including skarn deposits, gold (+ silver, lead, zinc) veins, epithermal gold deposits, Jurassic alkalic intrusives with associated copper, gold, silver and/or PGE mineralization, gold mineralization associated with serpentinite, and gold-bearing volcanogenic magnetite-sulfide deposits (i.e. Lamfoot-type) (Caron, 2005).

A granodiorite just east the town of Christina Lake, inferred to be part of the Nelson suite, is cut and offset by two of the thrust faults, and a small granitic plug just north of the Washington border, also correlated with the Nelson suite, appears to be truncated by two splays of the southern thrust fault. The thrust faults are generally truncated by Eocene Coryell intrusive rocks, providing an upper age limit to faulting. However, in the very southeastern part of the map area, the most eastern thrust fault produces minor shearing and alteration in the Coryell batholith. As offset of the Coryell was not noted, it is probable that this represents only minor reactivation along the older thrust fault.

The Kettle River fault is not well exposed to the west of the Christina Skarn Belt. Throughout most of its length its trace is beneath Christina Lake or covered in overburden south of the Town of Christina Lake. Farther south in northern Washington, the fault separates amphibolite- grade rocks of the Kettle complex (the southern extension of the Grand Forks complex) from lower metamorphic grade rocks to the east (Cheney, 1980). Northeast of Christina Lake, Preto (1970) placed the fault at the contact of high grade gneissic rocks with Nelson granitic rocks. However, Parrish et al. (1988) place the fault farther east, thereby including foliated and metamorphosed rocks that are correlated with the Nelson granite in the Grand Forks Complex (Hoy and Jackman).

Types of Potential Economic Ore Deposits

The Christina Skarn Belt lies between the Rossland area in the east and the Greenwood area in the west. Exploration in the Republic District of northern Washington, southwest of Christina Lake, has led to the discovery of several copper-gold skarns and epithermal gold deposits, and recent prospecting northeast of Christina Lake has also identified several epithermal gold targets that appear to be related to Eocene Coryell intrusive rocks. Both the Rossland and Greenwood camps are historical gold producers that are currently undergoing renewed interest and exploration, as is the Franklin gold camp northwest of Christina Lake and in Burnt Basin, northeast of Christina Lake. The Tumaco Group has focused to the east of Christina Lake, in part due to the similarities in styles of mineralization, lithologies and structures that characterize the Rossland and Greenwood camps, and the Republic district. Numerous zones of mineralization are known to occur within the Christina Skarn Belt, as shown on Map No. 4. The known showings belong to eight main styles of mineralization, described as follows:

1) Auriferous massive sulfide mineralization

Stratigraphically controlled massive pyrrhotite-pyrite lenses occur in limey meta-sediments of the Mount Roberts Formation. Within these rocks, a number of small, highly silicified lenses of sulfide ore containing good gold values are known to occur. Several massive sulphide occurrences in meta-sediments just north of Sunderland Creek, east of Christina Lake, have similarities to the massive sulphide veins at Rossland. Preliminary investigation of these suggests that they are structurally controlled and related to a mafic intrusion, and have skarn envelopes and a mineralogy dominated by pyrrhotite, chalcopyrite and magnetite, which correlates with the major discoveries at Rossland.

2) Copper-Gold skarns

In the Christina Skarn Belt, the main target for this type of mineralization is located in the Elmore Showing. The Tumaco Group has recently identified the following potential economic gold skarns: the Fife Mine (Golden Goose), the Cannonball, and certain outcrops in the Elmore property. Gold –Copper skarns have been the most important type of mineral deposits in the Omineca Belt, with the famous mines Phoenix, Motherlode, Emma, B.C., Oro Denoro, Queen Victoria, Second Relief, Dividend, and Lakeview, among many others.

3) Magnetite-Pyrrhotite Pb-Zn-Ag Mineralization

Massive to disseminated galena, sphalerite, magnetite and pyrrhotite mineralization is associated with limestone and banded limey argillaceous hornfels sediments of the Mount Roberts Formation. Lenses of mineralization are frequently associated with contacts between the sediments and dykes or sills of Coryell syenite, and ore zones are said to be difficult to follow due to the presence of numerous dykes. Limited garnet and garnet-epidote skarns are present.

4) Iron Skarns

Several iron skarns and iron heads are reported in the Christina Skarn Belt and its surroundings. The main objective to study these iron skarns in more detail is their potential for economic gold plus copper, silver and magnetite as by-products, considering the current metal market prices, which, of course, were of little economic interest in the previous century.

5) Au-Ag Quartz Veins

Fissure type gold-bearing quartz veins occur near the contact with the large body of Nelson granodiorite, as well as within the intrusion. Several structural panels of Elise metavolcanic rocks in the Christina Skarn Belt are similar to host rocks of many of the Rossland veins, which enhances the

potential for Rossland- type veins. The veins contain minor sulfides, including pyrite, galena, sphalerite and minor chalcopyrite.

6) Epithermal Gold Deposits

Some recent exploration, particularly north and east of the Christina Skarn Belt, has focused on epithermal-style mineralization. This is due, in part, to the successful exploitation by Echo Bay Mines (now Kinross Gold Corp.) of the K-2 gold deposit in the Republic Graben in northern Washington State and to the recent successful drill results from the Emanuel Creek deposit. These are structurally controlled low- sulphidation epithermal gold deposits that appear to be related to an unconformity at the top of the Eocene Sanpoil Formation.

Similar north-trending structures extend into southern British Columbia and have been the focus of considerable exploration. Epithermal style gold mineralization is recognized in the Franklin gold camp, located along the Granby Fault northwest of the Christina Skarn Belt. Farther west, the Dusty Mac and Vault deposits, both low-sulphidation epithermal deposits, are within the White Lake basin along the north-trending Okanagan fault system. North of Christina Lake, in the Lower Arrow Lake area, prospecting has focused on north-trending structures and on Eocene age intrusive and volcanic rocks and has led to the discovery of several new occurrences with characteristics typical of epithermal gold mineralization.

A new thrust belt has been identified east of Christina Lake that is probably related to thrust faulting that has been documented at the Rossland and Greenwood camps. The thrust faults in the Christina Lake area locally extend through Eocene Coryell rocks resulting in zones of widespread sericite-silica alteration and dispersed pyrite mineralization. This Eocene reactivation of earlier faults, associated hydrothermal activity, and Coryell host has similarities to epithermal mineralization that is currently being investigated at Lower Arrow Lake (Kootenay Gold Corp.). Hence, it is suggested that the large

exposures of Coryell intrusive rock to the north, generally considered a barren host for mineralization, warrant further prospecting and exploration (Hoy, T. and Jackaman, W., 2005).

7) Copper-Gold porphyries

The most important copper anomalies in stream sediments discovered by Imperial Oil are located in the Nelson granodiorite and in the Josh Creek diorite; considering that the values are highly anomalous over the length of the "M" tributary to Baker Creek, it is more likely the source is a copper porphyry rather than copper veins, an opinion shared in the report by Imperial Oil (Scott & Sommerville, 1970; Kermeen, 1970).

Technical Data and Interpretation

The Tumaco Group undertook several days prospecting along the logging trails and the C.P.R. railway in the summer and autumn of 2012. Several old mining works, trenches, shafts and small tunnels were located, where selected samples were taken from outcrops and dumps. These selected samples were sent to ALS Labs in Vancouver for the respective assays attached in the appendix.

The Fife Mine (Golden Goose) is located about a mile west of the village of Christina Lake. In 1911 a tunnel was driven into the mountain and produced 27 tonnes of ore, 93 grams of gold and 1134 kilograms copper. The main tunnel driven totaled 244 metres; side drifts and crosscuts, 91 metres; shafting and winze, 87 metres; stations, 15 metres; shaft from surface to first crosscut, 23 metres; drift at this point, 10 metres; tunnel No. 1, 21 metres. One small stope was then developed, from which 181 tonnes of ore were mined. Several ore shoots have been encountered showing ore of good grade, the average of their shipping product being 4 per cent copper and from \$3 to \$6 in gold and silver. The best values in gold have been obtained from the deepest workings, where at times it has run as high as \$12 per tonne (Minister of Mines Annual Report 1910). In 1911, 1524 metres of diamond drilling were completed. On at least one occasion since 1910 the workings have been partly cleaned out and rehabilitated. In the summer of 1953, Miners Western Limited cleaned out the old adit and drove around some badly caved ground to connect with the old workings. The new connecting drift is 42.6 metres long (see historic Maps 6a and 6b).

The main tunnel has since collapsed at the entrance. In Tunnel 1 the Tumaco Group took selected rock samples from outcrops around the main entrance of an exploration tunnel (see Photos 1 and 2) and from dumps around several small shafts (see Photos 3 and 4). The rocks consisted of mineralized hornfels with abundant pyrrhotite, pyrite, magnetite and chalcopyrite. Assays run as high as 8.25 ppm Au, 4.04% Cu, and 67.2 ppm Ag.



Photo 1



Photo 2



Photo 3



Photo 4

Maps 7 and 8 show (respectively) gold and copper assays, the best of which run GF12 with 5.51 ppm Au and 2.53% Cu; DD03 with 2.46 ppm Au and 2.55% Cu; GG06 with 7.55 ppm Au and 3.57% Cu; GF018 with 8.25 ppm Au and 3.82% Cu; GF020 with 2.81 ppm Au and 1.9% Cu; GF035 with 2.08 ppm Au and 2.40% Cu (see Photo 5).

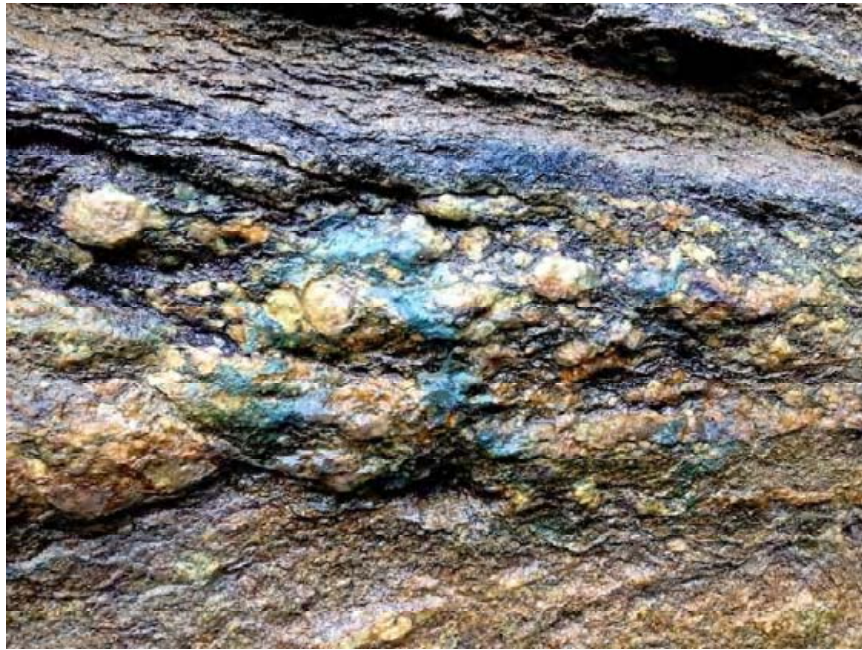
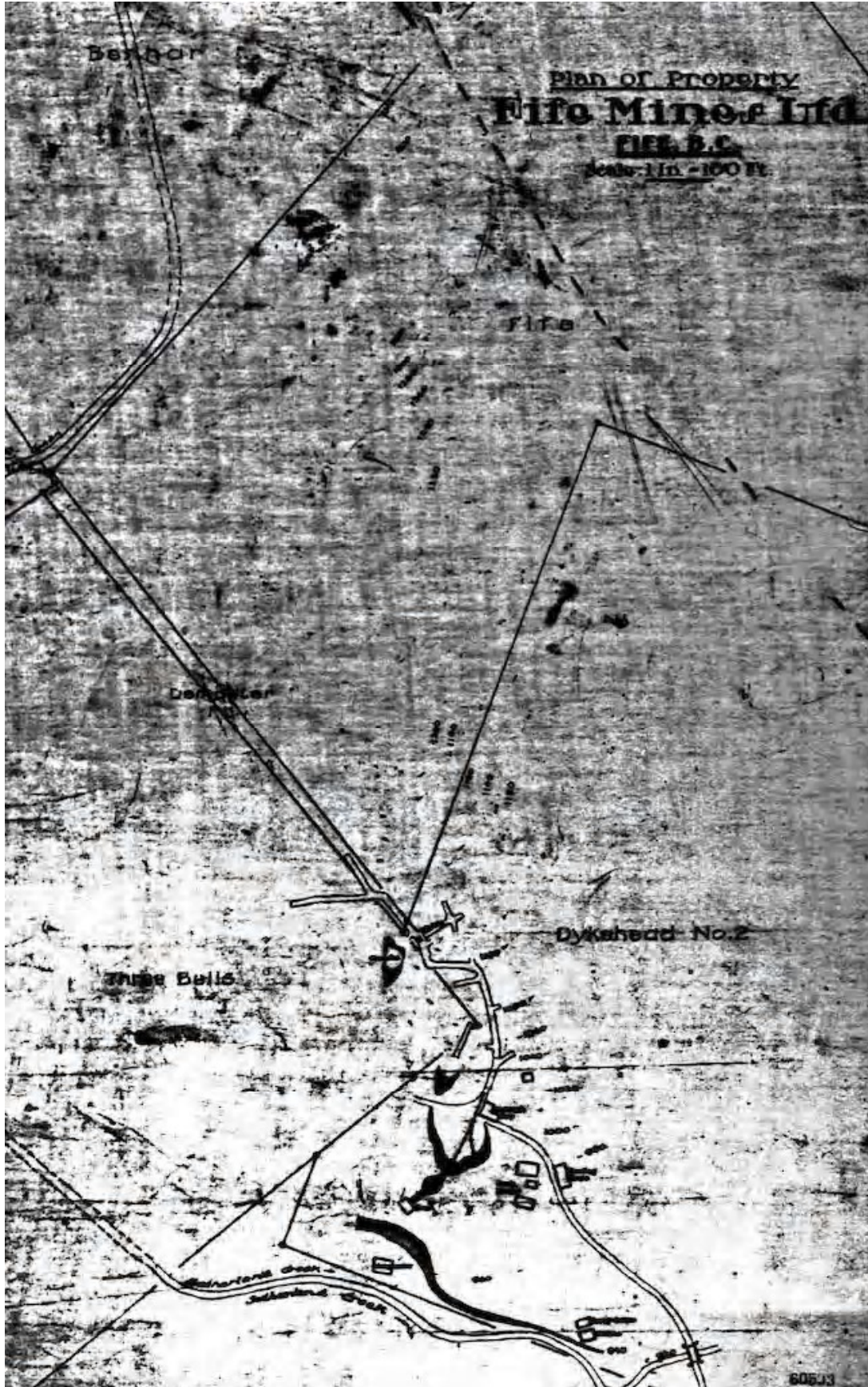


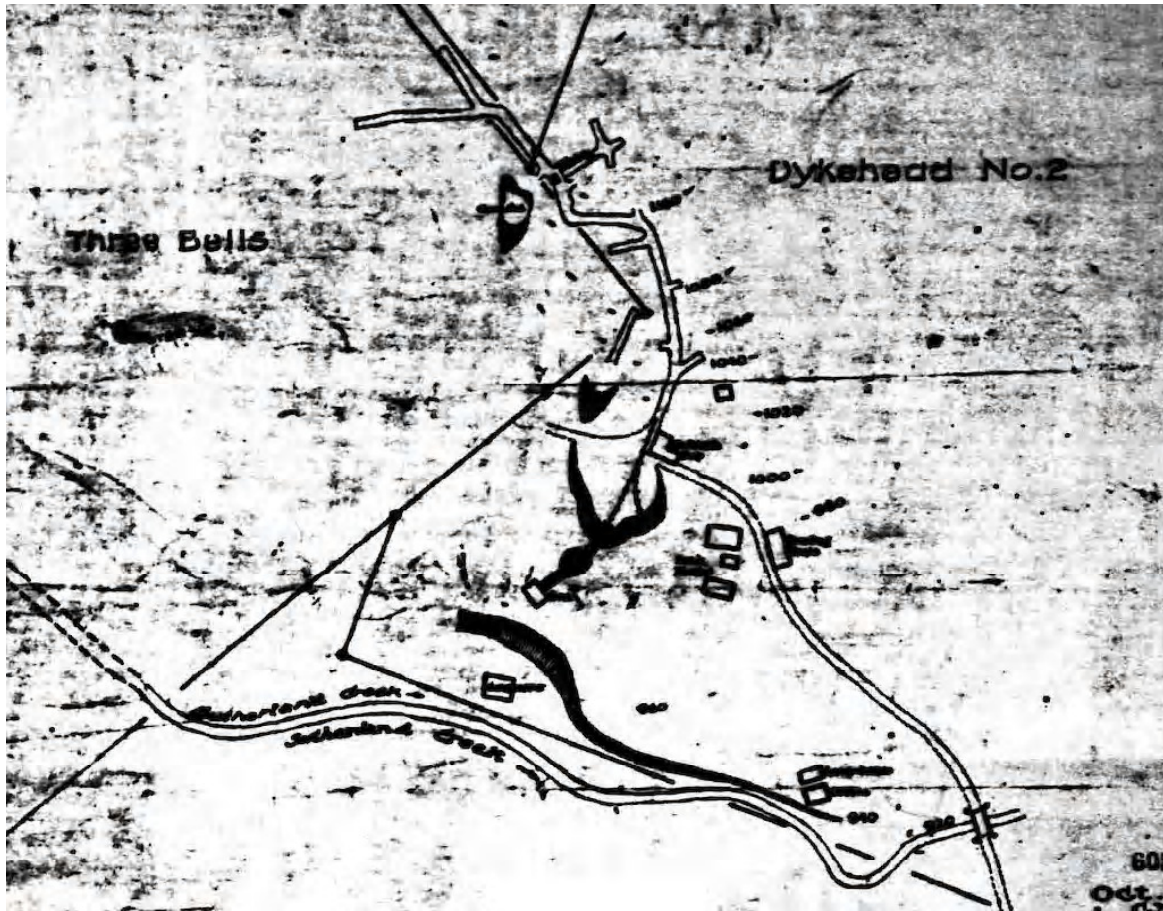
Photo 5

From the various selected chip samples which were grouped by the main sulphides, there is clearly a direct relationship between the gold, chalcopyrite and pyrrhotite. With geophysics, the associated presence of the magnetic component of the pyrrhotite could outline new drill targets in the mineralized skarn belt.

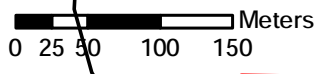
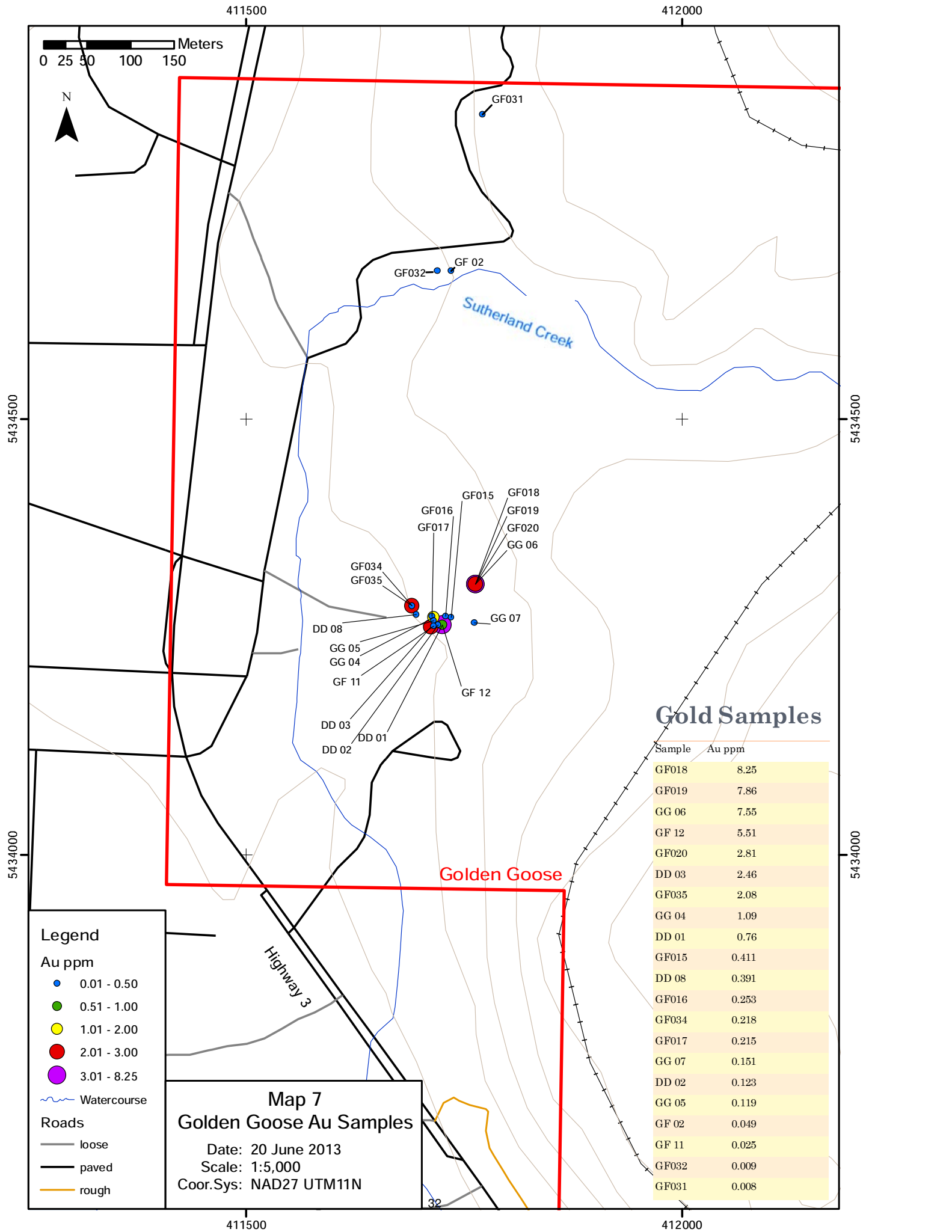
According to the Fife Mine Report of 1910, the best values for gold ran as high as \$12 per ton, an equivalent of 18 gpt Au—\$1000 ore at current market price—and were found in the deepest workings. All the tailings of the Fife Mine have since been transported away for use as the platforms of a nearby sawmill and a building at the town of Christina Lake. Therefore, the Tumaco Group could not locate good representative samples from these historic workings.

Map 6a
Historic Working at
Golden Goose
1900s





Map 6b
Historic Working at
Golden Goose - Detail
1900s



5434500

5434500

5434000

5434000

411500

412000

411500

412000

Legend

Au ppm

- 0.01 - 0.50
- 0.51 - 1.00
- 1.01 - 2.00
- 2.01 - 3.00
- 3.01 - 8.25

Watercourse

Watercourse

Roads

- loose
- paved
- rough

Map 7
Golden Goose Au Samples

Date: 20 June 2013
 Scale: 1:5,000
 Coord. Sys: NAD27 UTM11N

Gold Samples

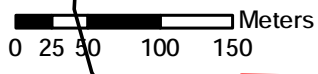
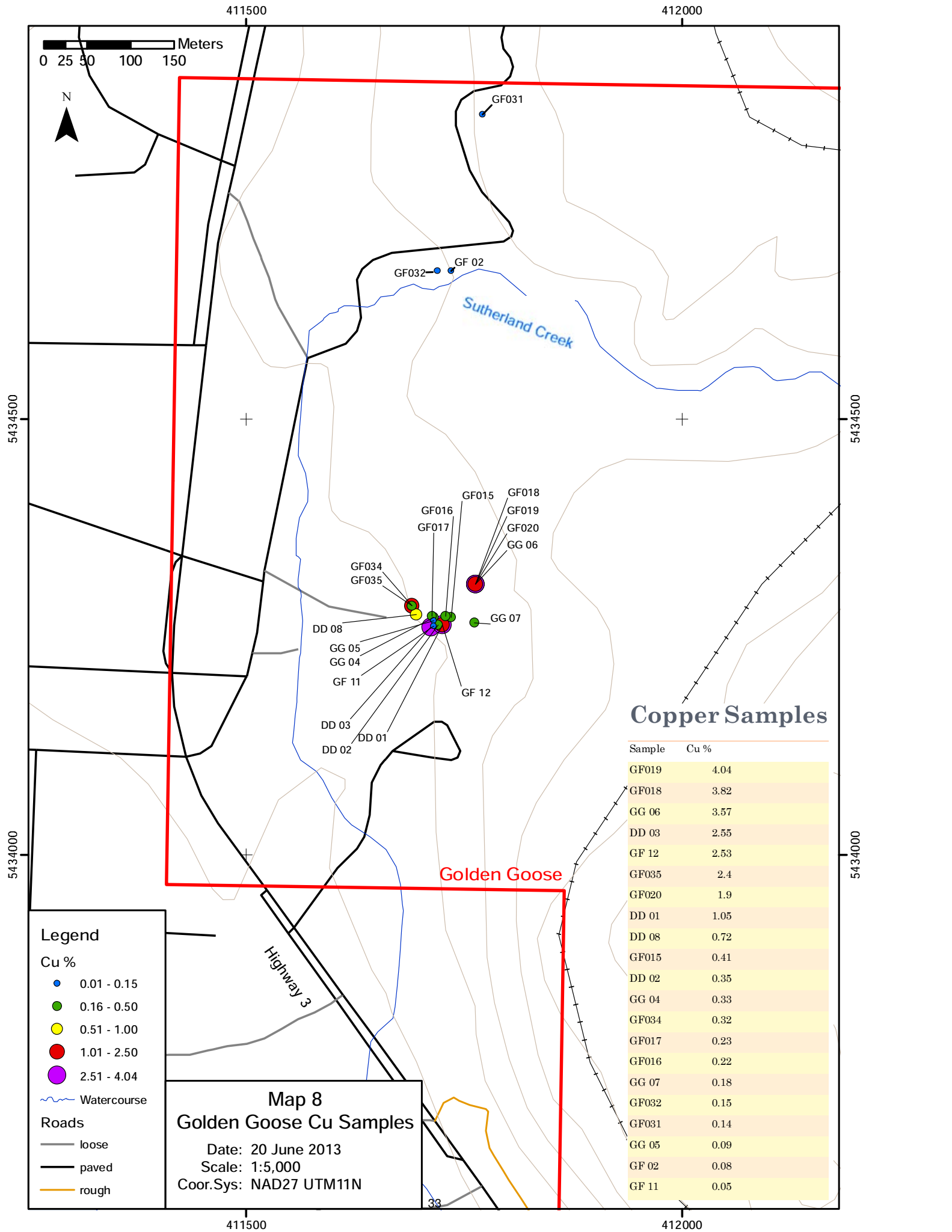
Sample	Au ppm
GF018	8.25
GF019	7.86
GG 06	7.55
GF 12	5.51
GF020	2.81
DD 03	2.46
GF035	2.08
GG 04	1.09
DD 01	0.76
GF015	0.411
DD 08	0.391
GF016	0.253
GF034	0.218
GF017	0.215
GG 07	0.151
DD 02	0.123
GG 05	0.119
GF 02	0.049
GF 11	0.025
GF032	0.009
GF031	0.008

Golden Goose

Highway 3

Sutherland Creek

32



5434500

5434500

5434000

5434000

411500

412000

411500

412000

Legend

Cu %

- 0.01 - 0.15
- 0.16 - 0.50
- 0.51 - 1.00
- 1.01 - 2.50
- 2.51 - 4.04

Watercourse

Watercourse

Roads

- loose
- paved
- rough

Map 8
Golden Goose Cu Samples

Date: 20 June 2013
 Scale: 1:5,000
 Coord. Sys: NAD27 UTM11N

Copper Samples

Sample	Cu %
GF019	4.04
GF018	3.82
GG 06	3.57
DD 03	2.55
GF 12	2.53
GF035	2.4
GF020	1.9
DD 01	1.05
DD 08	0.72
GF015	0.41
DD 02	0.35
GG 04	0.33
GF034	0.32
GF017	0.23
GF016	0.22
GG 07	0.18
GF032	0.15
GF031	0.14
GG 05	0.09
GF 02	0.08
GF 11	0.05

Golden Goose

Highway 3

Sutherland Creek

Sample Results

Sample	Concession	Easting	Northing	Description	Au ppm	Ag ppm	Cu ppm	Fe %	Pb ppm	Zn ppm
DD 01	Golden Goose	411728	5434482	Composite chip samples from dump of main shaft 50m above Tunnel 1 of fife Mine; abundant pyrrhotite, magnetite, pyrite and some chalcopyrite	0.76	17.8	10450	18.2	2	151
DD 02	Golden Goose	411723	5434482	Composite chips from dump of small shaft 45m above Tunnel 1; pyrite, pyrrhotite and chalcopyrite	0.123	4.5	3490	18.4	4	43
DD 03	Golden Goose	411715	5434480	Vertical hanging wall of trench 40m above Tunnel 1; chip composite of narrow shale beds with pyrite, quartz veinlets, copper oxides; vertical bedding parallel to sample DD 2	2.46	48.9	25500	7.75	5	246
DD 08	Golden Goose	411698	5434494	Sellected chips in shale from dump main shaft; pyrite, some chalcopyrite	0.391	9.6	7160	13.2	1	73
GF 02	Golden Goose	411738	5434889	Cliff on eastern side Southerland Creek, silica flooded hornfels, quartz veining, disseminated pyrite, mineral spring,100m south of sample GF031 taken from road cut.	0.049	1.2	827	7.04	5	25
GF 11	Golden Goose	411718	5434481	Fresh road cut 15m south of Tunnel 1 of Fife Mine, hornfels with disseminated pyrite, chip composite	0.025	1	545	4.4	4	20
GF 12	Golden Goose	411728	5434482	Composite selected rocks from 3 dumps 50m above and east of Tunnel 1 of fife Mine; abundant pyrite & pyrrhotite	5.51	39.8	25300	10.95	7	210
GF015	Golden Goose	411738	5434491	Composite chip samples 20m inside tunnel from fracture zones, biotite schist, glauconitic mudstone, some pyrite & quartz.	0.411	8.6	4080	10.9	1	51
GF016	Golden Goose	411732	5434492	Composite chip samples along walls of aparent fault 15m inside Tunnel, silicified hornfels (lime mudstone), disseminated pyrite and bornite?	0.253	6.9	2170	7.59	2	6.8
GF017	Golden Goose	411716	5434492	Loose big breccia block with quartz veins and pyrite outside of Tunnel 1.	0.215	4.3	2300	18.5	2	14
GF018	Golden Goose	411766	5434529	Composite chip samples from small shaft (point 6) of friable coarse grained sandstone with abundant pyrite and chalcopyrite, same place sample GG 06.	8.25	63	38200	6.81	2	277

GF019	Golden Goose	411766	5434529	Composite chip samples of solid silicified hornfels with abundant pyrite, chalcocopyrite and epidote, same dump (point 6)	7.86	67.2	40400	7.69	3	442
GF020	Golden Goose	411766	5434529	Composite chip samples of quartz veins with pyrite, chalcocopyrite & malachite staining, same dump (point 6)	2.81	29.6	19000	4.3	3	232
GF031	Golden Goose	411577	5434853	Composite chip samples along western side of fresh road cut 100m north from Sutherland Creek or 1000m north from fife Mine; selected material from silicified hornfels with quartz veins, epidote, abundant pyrite and iron staining	0.008	2	1410	12.65	4	15
GF032	Golden Goose	411722	5434889	Composite chip samples on road cut around road bed 15m east of sample GF02; hornfels with abundant pyrite	0.009	4	1480	17	7	28
GF034	Golden Goose	411693	5434504	Composite samples from remainder of dump of main tunnel of fife Mine; silicified hornfels with massive pyrrhotite, bornite and some chalcocopyrite	0.218	3.9	3190	22.4	1	36
GF035	Golden Goose	411693	5434504	Composite samples from remainder of dump main tunnel of fife Mine; shale and mudstones, quartz veinlets, pyrite, pyrrhotite and chalcocopyrite	2.08	35.8	24000	9.97	1	299
GG 04	Golden Goose	411718	5434491	Composite chips in narrow beds of shale outcrop entrance of Tunnel 1; pyrite, chalcocopyrite and azurite	1.09	12.6	3310	13.35	1	59
GG 05	Golden Goose	411718	5434487	chips along 8m road cut next to entrance Tunnel; weathered shale with abundant iron oxides	0.119	3.8	854	17.4	5	33
GG 06	Golden Goose	411766	5434529	Composite chips from dump small shaft (point 6) 20m north of main shaft; hornfels with abundant pyrite & some chalcocopyrite	7.55	65.7	35700	6.69	1	265
GG 07	Golden Goose	411765	5434485	Composite chips from dump 30m south of main shaft and 30m and structurally above road cut sample GF 11.	0.151	5.8	1815	7.75	7	55

Recommendations

There is no question that the Christina Skarn Belt is underexplored and that this belt may conceal important economic ore bodies, particularly gold-copper skarns, silver-lead-zinc skarns and possibly copper-gold massive sulphides and porphyries. The mineralized areas re-discovered by the Tumaco Group in old mining works or related mineralized outcrops are to be considered only as windows or flags for the potential discovery of possible large scale hidden ore bodies in the Christina Skarn Belt.

Considering that most of the belt is covered by overburden, to visually locate these targets is nearly impossible. The current advantage for the discovery of these ore bodies in the Christina Skarn Belt are the new sophisticated geophysical tools, because most of the targets are associated to massive magnetite, pyrrhotite and pyrite. These ore bodies may be located with magnetics, conductivity, resistivity and IP, which at the same time will also outline the contacts between the meta-sediments and the intrusives.

1) A detailed geologic map should be drawn, based on the outcrops mainly located along the C.P.R. railroad, the paved highways, the logging roads and outcrops along the creeks. This outcrop map can be combined with the existing magnetic maps to delineate the contacts of the various formations and improve on the geology maps made by Imperial Oil.

2) Scout drilling should be undertaken around known mineralized targets, like the Fife Mine (Golden Goose) or the Cannonball mine.

3) Geophysical survey should be undertaken over these targets, with detailed magnetics, conductivity, resistivity and IP including down-hole geophysics.

4) Encountered mineralization should be correlated between the drill data and geophysical data to improve on the geophysics and discover additional or greater ore bodies in the Christina Skarn Belt.

5) Drill the new targets outlined by geophysics in the remainder of the belt.

6) A closely spaced soil grid should be sampled in areas where the main mineral appears to be high grade arsenopyrite with gold association (for example, the Cannonball mine). In these cases, arsenic would be an excellent pathfinder.

Cost Statement

The cost of the exploration program has been broken into three components: Geology, GIS, and Sample Analysis. Due to the nature of the work, samples from other non-adjacent claims were submitted concurrently with samples from this technical work program. As such, laboratory invoices show more samples than are accounted for in this report. For cost purposes, the percentage of samples taken at Golden Goose property was used in the determination of value spent on this work program. For example, ALS invoice # VA12136051 totals 13 samples, only three of which (23%) were taken at Golden Goose. Therefore 23% of the invoiced amount is directly attributable to this technical work program.

Geologist Alexander Hirtz

- Preparation work—previous assessment report research, sample planning (1 day)
- Onsite exploration, prospecting and sample selection, site photography (3 days)
- Sample preparation (1 day)
- Assay analysis and geological interpretation (2 days)
- Technical report (2 days)

Total Geology Work: 9 Days * \$800 = \$7200

GIS Technologist Benjamin Firmston

- Research and compilation of existing maps from assessment reports (1 day)
 - Georeferencing scanned maps
- Digitizing historic maps
- Six digital maps accompanying the report (3 days)
 - 1 Boundary District Historic mining
 - 2 Boundary district current claims
 - 4 Christina Skarn Belt mineralized showings
 - 5 Christina Skarn Belt current claims
 - 8 Golden Goose samples
- Report compilation and formatting (2 Days)

Total GIS Work: 6 days * \$400 = \$2400

Sample Analysis

Invoice	Golden Goose	Total Samples	Golden Goose percentage	Total Cost	Applicable cost
VA12136051	3	13	23.07692308	582.87	134.5085
VA12276606	8	19	42.10526316	876.6	369.0947
VA12278953	2	5	40	249.92	99.968
VA12153752	8	15	53.33333333	635.7	339.04
Total					4 .

Technical Work totals:

GIS Work	\$2400
Geology Work	\$7200
Sample Analysis	\$942.61
Totals	\$10,542.61

Author Qualification

Ing. Alexander Hirtz holds a Geology Engineering Degree from Colorado School of Mines.

Present Activity

- o Transandes Servicios Mineros S.A., Quito-Ecuador, president, 2005-present
- o Ferrocom. S.A., Paraguay
- o Penschaw Peru, 20010-present
- o Tumaco Group, British Columbia, 2012 – Present

A handwritten signature in black ink, appearing to read "Alexander Hirtz". The signature is written in a cursive style with a large, sweeping underline.

Benjamin Firmston has a Certificate in Geographic Information Systems awarded by SAIT in 2009;

he also has a Diploma in Professional Writing awarded by MacEwan University in 2010.

A handwritten signature in black ink, appearing to read "Ben Firmston". The signature is written in a cursive style with a large, sweeping underline.

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082ESE097 (Five Mine); 082ESE093 (Alma, Cannonball); 082ESE238 (Five Limestone); 082ESE091 (Castle Mountain Nickel, Madstodon, Mammoth, Dominion, Pan, Canyon, Chromex Nickel).

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Software Used

The following software packages and services were used in the preparation of this report:

- Adobe Illustrator CS3
- ArcGIS 10
- BC Mineral Titles Online Map Viewer
- iMapBC
- Microsoft Office Suite 10 (Word, Excel)