# THE ANYOX-MAPLE BAY PROJECT

## VOLCANOGENIC MASSIVE SULPHIDE DEPOSITS IN COASTAL NORTHWESTERN BRITISH COLUMBIA

## EXECUTIVE SUMMARY

***September, 1999***

## PREAMBLE

The information contained in this Executive Summary is confidential. The Executive Summary has been prepared to assist interested parties in making their own assessment of the Company and its mineral properties and does not purport to contain all of the information that a prospective investor may desire. In all cases, interested parties should conduct their own investigation and analyses of the Company, its assets and the information provided in this Executive Summary. Any and all statements, forecasts, projections and estimates contained in this Executive Summary are based on management's current knowledge and no representation or warranty is made as to their accuracy and/or reliability.

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*Note: all amounts are in Canadian dollars, unless otherwise indicated*

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## A. THE COMPANY

The Anyox-Maple Bay Project ("Anyox" or the "Project") is a large, past producing volcanogenic massive sulphide property located in northwest British Columbia. Mine production at Hidden Creek consisted of a recorded smelter production totalling 24 million tons at 5,000 tons per day at a recorded average production grade of 1.57% copper during operation. Included in that total are approximately 120,000 tons of copper–quartz flux ore from the Maple Bay Camp and approximately 60,000 tons of gold quartz flux ore from the Granby Point Mine in the Anyox Camp. The mine grades ranged from 6% to 1% copper averaging 1.5% copper with zinc, gold and silver values.

Anyox is 100% controlled by 18749 Yukon Inc., which is changing its name to Granby Mining Corporation (the "Company"), a private exploration and development firm based in Vancouver.

The Project area has an extensive history of past producing mines, deposits, showings and mineral occurrences involving such major companies as Granby Consolidated Mining, Smelting & Power Company, Cominco and Mitsui as well as a number of junior companies. The Hidden Creek mine operated between 1914 and 1928, and the Maple Bay area was mined at the turn of the century. Between 1937 and 1993 over 60,000 feet of drilling (both surface and underground) as well as over 3,300 feet of drifting was conducted on the Hidden Creek mine area. Since 1985, over $8 million has been spent on the exploration and development of the area.

Drilling shows that large volumes of copper mineralized rock are below and adjacent to previously mined ore. In 1982, Mitsui defined 77 million tons of 0.55% copper mineralized material at Hidden Creek. However, a report prepared for Mitsui and Cominco (the "Mitsui Report) indicated that **there was the potential to define a few hundred million tons of mineralized material within a 1 square kilometre area near the Hidden Creek mine.**

The Company intends to actively explore this area using advanced airborne and ground geophysics to identify and map various ore bearing structures, statistical modelling to assess the ore bearing potential and driving cross cuts and taking bulk samples in the Maple Bay camp area. The Company plans to confirm the deposit types hosting the mineralization between Maple Bay and Hidden Creek.

The Company believes that, through the results of its exploration programs, it can increase the **polymetallic resource potential for the Anyox and Maple Bay areas to 500 million tons of 1% copper equivalent**. Once the resource is defined, the Company will consider IPO's and/or joint ventures with senior resource companies. The Company will draw on the extensive management, and technical experience of its management, advisory and consulting teams to support the programs.

The Company is seeking to raise $4 million for Phase I of a $14 million program to further explore and develop the Anyox Project. Phase II requires the Company to raise $10 million. The financing may take the form of an offering of common shares of the Company or other mutually acceptable arrangement.

## B. ANYOX-MAPLE BAY PROJECT

### 1. THE PROPERTY

The Anyox Project is located in Northwestern British Columbia, 160 kilometres northeast of Prince Rupert. The Project area is about 1,300 square kilometres. The Project currently encompasses the mineral claims covering extensions surrounding the past producer Hidden Creek, Double Ed and Bonanza mines in the Anyox Camp and the past producer Eagle-May Queen and Outsider-Star mines of the Maple Bay camp. Excluded from the current property holdings are 23 Crown Grants covering the Hidden Creek ore bodies, 42 Crown Grants covering the Bonanza and Redwing ore zones and 12 Crown Grants covering the Princes and Outsider vein systems in the Maple Bay camp.

The mineral claims comprising the Project area are free and clear from aboriginal claims. All the claims are 100% controlled (the majority are owned outright and a few are tied up under option agreements) by the Company other than those claims covering a 30 square kilometre area including the Bonanza Mine, which are subject to an option agreement to White Hawk Ventures Inc. To date, White Hawk has spent $150,000 of the $2,150,000 required under the option agreement to earn a 45% participating interest in the claims within that area. The monies are to be spent under the direction of the Company.

All of the mineral claims are subject to a one (1%) percent net smelter return. There presently is no significant infrastructure except for two camps which are comprised of a number of older model Atco trailers. Also, there is a year round camp with a caretaker, which is situated on the Anyox slagheap, where True Grit Ltd., a Los Angeles private company, is extracting abrasives.

The terrain is moderately rough with normal northern coastal vegetation. Access to the property is by helicopter, float equipped aircraft from Terrace or Prince Rupert or boat from Prince Rupert. The flight time by helicopter is approximately 60 minutes from Terrace. The nearest road access is at Kitsault, 25 kilometres to the east at the head of Alice Arm.

### 2. GEOLOGY

**Anyox Mining Camps**

The Anyox Project lies within the Burniston Range of the Coast Mountains of British Columbia. It is firmly established that the volcanogenic massive sulphide deposits of the Anyox camp are Besshi-type occurrences. The Besshi type of deposit, exemplified by high-grade (2-4% copper) economic deposits, results from sea floor rifting and hydrothermal activity, which leaches metals from basalt and re-deposits them adjacent to sea floor vents. Although small deposits on the property such as the Double Ed are found within ocean floor basalts, the largest deposits (the Hidden Creek Mine and the Bonanza Mine) are sediment hosted and occur as Besshi type deposits at or very near the top of the volcanic pile at the contact between the pillow basalt and overlying sediments. (See Appendix A for other Besshi type deposits.)

The general geology of the Project consists of Jurassic volcanic and sedimentary rock units of lower to upper greenschist facies within the late Cretaceous to early Tertiary Coast Plutonic

Complex which is in turn intruded by Oligocene or younger dykes. Several phases of folding have deformed the Jurassic succession. Hydrothermal alteration of host lithologies occurs within and adjacent to mineralized ore bodies and provides excellent criteria for the location of new ore deposits.

The mineralogy of the massive sulphides is simple consisting of chalcopyrite and sphalerite with minor gold and silver. Gangue sulphides include pyrite and pyrrhotite. Other gangue minerals include magnetite, titanomagnetite, illimanite, quartz, calcite, epidote, chlorite, sericite, biotite, actinolite, tremolite and hornblende. Ore grades range from 0.7% to 4.5% copper and from 0.5% to 5.6% zinc with silver, gold and occasional cobalt values. The implications of the mineralogy corroborate the geophysic and geologic evidence affirming that the area is a Besshi type mineralized system but the extent of the system remains unknown. For further information, the reader may wish to review the report dated January 31, 1989 by C. Marcotte M. Sc., J. Goutier M. Sc., and Dr. J.S. Fox Ph., D., P. Eng., of the Mineral Exploration Research Institute ("MERI"). The MERI report in its conclusions and recommendations states that:

> *"The massive sulphide mineralization at Hidden Creek is clearly volcanogenic, located at the top of a basaltic volcanic sequence, associated with a thick sequence of iron-rich chemical and chemical-tuffaceous sediment, and is similar to deposits found in the vicinity of the Besshi mine in Japan, in the Sulitjelma district of Norway, and elsewhere (e.g., Fox, 1984; Fox et al., 1988). A comparison can be drawn between the Anyox sulphides, and those of the metallogenetically and temporally analogous Windy Craggy deposit, 500 km to the north (Smith and Fox, 1989; MacIntyre, 1986). Because of these similarities, the Anyox ground is considered to have potential not only for further unexploited copper (zinc-silver) mineralization, but for stratiform gold mineralization of the type currently being explored at Windy Craggy (i.e., 9.2 grams of gold per tonne and 1.21% copper over a down hole distance of 61.2 metres in Windy Craggy DDH 83-14). This potential is suggested by the presence of gold enrichment towards the hanging walls of the No. 1 and 5 zones at Hidden Creek, at a stratigraphic location and with an inferred relationship with carbonate rocks that conforms with the Windy Craggy model, and with recent observations on the northeast Pacific ocean floor (Hannington and Scott, 1987).*
>
> *The original syngenetic mineralization at Anyox is capped by siliclastic turbiditic sedimentary rocks, which were deposited in a deep marine environment. Multiphase deformation that affected the Anyox region has imposed a structural control on the morphology of these sulphide lenses.*
>
> *Our analysis has significantly refined our knowledge of the structure of the Anyox property, and has led not only to an explanation for the lack of success in recent drill campaigns, but to the definition of new drill targets..."*

**Maple Bay Mining Camp**

With respect to the Maple Bay camp, located on the western side of the Burniston range (15 kilometres west of the Anyox camp), copper, gold, and silver mineralization occurs in

structurally controlled steep-dipping quartz sulphide veins of economic dimensions. Speculation as to the possible relationships between the Maple Bay and Anyox camps has intensified with the recent governmental reviews of the geology between the camps. It now appears that the Maple Bay geology may represent a more intensely altered and deformed phase of the geologic events at Anyox, with structural remobilization possibly resulting in the transport and emplacement of the quartz and sulphide mineralization as vein and wall rock disseminations. The central core of the Maple Bay camp is comprised of much older mafic (364 million years) rocks representing different target types of mineral deposits.

Based on the 1995 work, to date, the western two-thirds of the Anyox pendant is composed of a moderately metamorphosed and moderately to strongly deformed sequence of rapidly alternating thin-bedded mafic tuffs and interbedded clastic sediments. Marble units are minor but important components of the stratigraphic succession, and the sequence is intruded in many places by conformable, sill-like bodies of medium to coarse-grained diorite.

D.J. Alldrick and Z.M.S. Mawani, British Columbia Geological Survey, J.K. Mortensen, Department of Earth and Ocean Sciences, The University of British Columbia, and F. Childe, Mineral Deposits Research Unit, The University of British Columbia state in their 1995 Report on Deposit Studies in the Stewart District as follows:

> *"The age and correlative stratigraphy of the rocks of the Anyox pendant are two enduring mysteries of Cordilleran geology. Grove (1986) correlated the rocks near the Anyox mine with Lower Jurassic Hazelton Group strata, based on visual similarities. The same strata have been interpreted as Upper Triassic Kunga Group equivalent rocks, based on visual and chemical similarities with the type rocks on the Queen Charlotte Islands (Sharp, 1980). Alldrick (1986a) and Alldrick et al (1990) suggested a Late Triassic age based on lead isotope ratios from the stratabound sygnetic sulphide deposits at Anyox. Smith (1993) concluded that these rocks could be Early to Middle Jurassic correlatives of the Spider Peak Formation of the Methow Terrane, based on similar trace element chemistry and Sm-Nd systematics. Grove (1986) suggests the rocks in the western two-thirds of the pendant are strongly deformed and strongly metamorphosed equivalents of the ore-hosting strata at the Anyox mine. However, the geology in the Maple Bay area is significantly different from that established in the Anyox mine area and the stratigraphy cannon be directly correlated between these parts of the pendant. Another possibility is that Maple Bay rocks are distal, more sedimentary equivalents to the more proximal Anyox volcanic pile, but a sample from one of the diorite sills cropping our near Mount Clashmore in the middle of the pendant produced a Late Devonian age (364 Ma). At this early stage in the study, the rocks in the western two-thirds of the pendant are regarded as a strongly metamorphosed Devonian or older volcano-sedimentary sequence overlain in the eastern third of the pendant by the weakly metamorphosed Upper Triassic pillow lava, chert and turbidite succession which hosts the exhalative orebodies of the Anyox mining camp.*
>
> *Rock types at Maple Bay include massive and bedded, fine and coarse basaltic ash tuffs, mafic volcanic siltstones and sandstones, dark grey turbidites, black carbonaceous mudstones with fine pyritic laminae and white to bluish grey limestone. No macrofossils or icrofossils have been found in any of these rocks. Outcrops are sparse and no stratigraphic column has been compiled. All*

*evidence indicates that the entire Maple Bay succession has been subaqueously deposited, but no pillowed flows were noted and none have been reported by earlier workers.*

*These rocks are intruded by massive, black aphanitic to fine-grained dioritic dikes or sills, foliated hornblende granodiorite dikes, and by massive greeenish grey microdiorite dikes and massive coarse-grained alaskite dikes.*

*Strata in the Maple Bay area strike 147$^0$ to 190$^0$ and dip 53$^0$ to 77$^0$ eastward. Foliation is preserved in some lithologies, but is absent in most intrusive rocks. Measured foliation is subparallel to bedding in most exposures. This similarity in attitude is significant because early studies in the Maple Bay area concluded that the veins were emplaced parallel to formation. The Outside vein examined in this study is parallel to bedding, and therefore vein formation may predate deformation.*

*There is no evidence to support an interpretation of broad, regional-sale zones of cataclastic deformation (Grove, 1986). Metamorphic grade is lower greenschist to lower amphibolite grade in most of the area examined. Uphill from Swamp Point, biotite hornfels has been overprinted on some well-bedded basaltic tuffs adjacent to younger dike phases."*

**Project Area**

The unification of the two exploration areas (Anyox and Maple Bay) coupled with the application of modern three dimensional airborne geophysical computer modeling incorporating known mineralized signature areas, multi-element petrographic and chemical analytical techniques will provide far greater definition than has been previously available and will lead to the discovery of additional mineralization both around and between the two camps.

In summary, one of the ideal settings for the development of additional deposits is near or preferably at the basalt/sediment contact where chert development and alteration can be observed along with sulphide mineralization. This contact is known to exist in the camp areas and along extensions of these deposits, which remain high priority targets for the development of mineable copper, zinc, gold and silver reserves. However, many more such contact area deposits potentially exist below surface between the Anyox and Maple Bay mining camps concurrent with known Besshi type deposits and other ore bearing models for the area. It is in this context that a large upside potential exists for hundreds of millions of tonnes of ore above and beyond current resources. An outline of various Geological Models that might have possible economic implications for the Anyox Project appears in Appendix E.

Good potential exists for significant improvement of the mineralized reserves within the Maple Bay camp through the proposed geophysical program as much difficulty was experienced in prior efforts to map and locate the vein extensions because of the rugged terrain.

## 3. PREVIOUS EXPLORATION

The Anyox Project hosts a number of past producing mines, deposits, showings and occurrences in both the Anyox and Maple Bay camps:

## Anyox Camp-Hidden Creek Deposits

In 1910, the Hidden Creek mine was developed by Granby Consolidated Mining, Smelting and Power Company (having no relation to the present Granby Mining Company) and the smelter was put into operation in 1914. Direct smelting ore was mined until 1925 when the mill was completed. After 1928, additional ore came from the Bonanza Mine via tram. On August 1, 1935, the mine closed due to severely depressed metal prices, and was purchased by Cominco on October 25, 1935. All useable equipment was salvaged by Cominco and transported to Trail, British Columbia.

When Cominco acquired the Granby property, it was decided that the best chances for new ore lay outside the immediate mine area, at other points on or close to the basalt/sediment contact. The 1937 surface drilling campaign was originally laid out to test the greenstone area west of the No.3 ore body. This program, which consisted of 12,072 feet of surface drilling in ten holes, intersected fair amounts of copper mineralization. In 1938, the upper parts of the mine were re-opened and 7,795 feet of underground drilling and 3,326 feet of drifting and crosscutting on four levels was completed. No continuity could be established for the occasional sections of slightly higher grade intersections and the general average was too low to be of economic interest at that time due to continuing low copper prices.

In 1939, upon the completion of the exploration program described above, it was recognized that the broad geological picture accepted up until that time was incorrect. The ore bodies, rather than being contact replacement bodies around the margins of an intrusive greenstone mass, were structurally controlled deposits at or near an extrusive greenstone contact with younger argillite. The possibility of the ore bodies being controlled by folding and faulting was the new model adopted for interpretation of the deposits.

From 1942 to 1944, Ventures Ltd. completed a small amount of surface drilling immediately west of the glory holes at Hidden Creek and to the southwest of the mine where sulphide boulders were found. The Ventures engineer believed that about 20 million tons of 0.40% copper could exist In the two areas.

Cominco undertook a detailed geological study from 1950 to 1952, based on the geologically conceptual importance of structure in controlling the ore zones. The Double Ed and Eden discoveries were made by prospector Al Freize in 1952 west and northwest of the Anyox camp.

Cominco undertook a comprehensive study of old Granby data during this period. Some detailed mapping was done in the mine area and in the area extending southwesterly towards Falls Creek. Local areas near the contact were covered by an EM survey. A small amount of diamond drilling was completed in two separate areas in 1952 including an inferred favourable structure in the Cedar Quartz area and in the Granby anomaly area.

Exploration from 1953 to 1955 on the Anyox mining camp area included detailed mapping, about 24,000 feet of surface drilling, and EM work and aerial photography on the Double Ed and Eden deposits. The program revealed a picture of folding in the argillite, which was assumed to reflect local favourable structures at the underlying argillite/greenstone contact. Correlation was shown in some cases between assumed favourable structures and EM anomalies. Mapping suggested that cross folding may be important in localizing ore bodies. Drilling extended known ore shoots over a vertical extent of about 300 metres expanding the Double Ed deposit. The deposit is open in all directions including at depth.

From 1959 to 1960, a low-level adit and crosscut were driven to facilitate 14,224 feet of deep drilling of the Double Ed ore body. At the conclusion of that work, reserves stood at 1,350,000 tons of indicated and 825,000 tons of inferred ore grading 1.3% copper for the Double Ed. Geological mapping, geochemistry, geophysics and drilling continued in the Hidden Creek and Bonanza areas of the Anyox camp.

In 1981, sixteen drill holes and a helicopter-borne Questor INPUT EM survey were completed in the vicinity of the Hidden Creek Mine by the Cominco-Mitsui joint venture. The drilling led to the identification of several new mineralized zones under the No.1 ore body. Erratic values ranging from 0.4% to 2.0% copper over drill lengths of between 6 metres to 24 metres were intersected. Two other mineralized intersections were obtained to the north of the old mine workings that returned 24.1 metres grading 0.3% copper in hole 82-8 and 6.1 metres grading 2.5% copper, 0.5% zinc, 100.4 grams per tonne silver and 1.8 grams per tonne gold in hole 82-9.

Work by Mitsui included a review and compilation of the old data (See Summary Report dated January 20, 1982 prepared by Tatsuya Takeda, P.Eng., for Mitsui and Cominco (the "Mitsui Report")). As a result, the Mitsui Report estimated remaining ore reserves at Hidden Creek to be 77 million tonnes grading 0.55% copper equivalent. The Mitsui Report also concluded that a few hundred million tons of mineralized material of unknown grade exists in an area measuring about one square kilometre adjacent and west of the old glory hole in the Hidden Creek Mine area. Accordingly, the Mitsui Report stated that a systematic drilling program for the direct evaluation of this mineralized area could be initiated without completing indirect exploration methods such as geophysical and geochemical surveys.

After reviewing the reserve data prepared by Mitsui, Cominco decided to digitize the available data and attempt to calculate its own reserve for the Hidden Creek deposit. Potential reserves for the Hidden Creek area, calculated to a maximum depth of 200 feet, are estimated to be 50 million tons grading 0.60% copper using a peripheral cut-off grade of 0.2% copper. In 1987, Cominco compiled sections and plans of the Hidden Creek deposits in order to analyze the potential for further ore at depth. This work focused mainly on the #1 and #5 ore bodies.

A report was prepared on the Anyox camp for Cominco Ltd. dated April 28, 1987 by M.J. Osatenko and D. Rhodes (the "87 Report"). The 87 Report identifies zinc potential as follows:

> *"...The N.W. Bonanza target is an extension of the mineralization from the Bonanza mine with the best intersection, from the pre Cominco drilling, consisting of 13 feet of 1.9% copper..... A 7 foot thick horizon of bedded pyrite and sphalerite that forms the tip of the Bonanza deposit suggests possibilities for significant zinc values in this deposit not recorded in production figures. This type of potential may also exist at the Hidden Creek mine as zinc values are recorded in some of the old drill holes (80 feet of 7% zinc in one hole). Granby did not recover zinc, as its value was too low. In addition to the four main targets numerous other base metal, rock geochemical anomalies are present that might indicate potential ore at depth."*

In 1988, a structural analysis of the Hidden Creek Mine area was completed on January 31, 1989 by C. Marcotte M. Sc., J. Goutier M. Sc., and Dr. J.S. Fox Ph., D., P. Eng., of the Mineral Exploration Research Institute ("MERI"). Four phases of deformation were identified. The first one is the strongest and involves thrusting and strong asymmetric folding. The later phases

created open superposed cross folds and normal fault displacements in the mine area. In addition, Cominco and Prospectors Airways Limited completed a program of line cutting, geological mapping, and diamond drilling. A helicopter-borne magnetic/electromagnetic/VLF survey by Aerodat was completed over the area for Cominco in 1988 using 200 metres line spacing. Aerodat identified 25 geophysical targets for follow up. The area around the Hidden Creek Mine was found to have the best EM anomalies.

In 1990, Cominco sold its interest in the Anyox camp to Moss Management and Boston Financial Corporation acquired the option of Prospectors Airways. Glanville Management was retained by Boston Financial Corporation to review and update a preliminary economic analysis of the Anyox camp and to make recommendations. They concluded that a substantial mineral inventory was present of which about 12 to 15 million tons is open-pit mineable at a stripping ratio of 2:1 and a copper grade of 0.70% to 0.75% with better than historical average grades of gold and zinc.

In 1992, Beacon Hill Consultants completed a preliminary evaluation of the Hidden Creek Mine (the "Beacon Hill Report"). This investigation indicated that an open pit mining operation with a conventional mill located adjacent to the open pit could be utilized to recover a portion of the remaining ore reserves from this mine. Beacon Hill concluded that the indicated mineable reserve in the portion examined was 26,700,000 tons grading 1.08% copper, 0.005 ounces of gold and 0.30 ounces of silver per ton. The Beacon Hill Report stated in its report that:

> *"... There is potential for the location of additional significant geological reserves if exploration is completed in a methodical manner. It can be concluded that the Anyox property is one of high merit with the potential of not only becoming a near-term producer, but also having the advantage of exploration potential for the discovery of significant additional reserves."*

In the fall of 1992, Taiga Consultants Ltd. under J. W. Davis and C. H. Aussant, undertook an exploration program within the Anyox camp property on behalf of TVI Copper. The objective of this exploration was to review existing copper occurrences with particular attention to occurrences located in the vicinity of the Hidden Creek Mine area. Geophysical work, geochemical sampling and mapping were completed. Development drilling consisted of 11 drill holes totalling 1,400 metres designed to increase confidence in the indicated open-pit reserves as outlined by Beacon Hill Consultants and to obtain samples for geochemical testing. The results from this drilling were reported in the assessment report number 23,582 [B.C. Government Mine File] filed by Taiga In November, 1999, as inconclusive due to severe winter operational problems and technical drilling problems.

On March 15, 1993, TVI Copper Inc. issued a Press Release that stated the following in respect of the drill program:

> *"... Hole 93-D10:*
>
> *This hole was abandoned in mineralization 425 feet short of its planned depth due to drilling problems.*
>
> *Hole 93-D11:*
>
> *This hole was abandoned 300 feet short of its planned depth. As a consequence, it did not reach a zone consisting of 200 feet of 5.96% copper which was expected based on previous drill results.*

*As can be seen problems were encountered in the drilling of many of the definition drill holes. It appears that the rock in close proximity to the old Hidden Creek mine workings has been severely fractured. Blasting and subsequent collapse of the old mine workings resulted in lost circulation problems which prevented further penetration of the mineralization zones. In order to fully evaluate indicated reserves at the Hidden Creek mine it will be necessary to complete additional definition drill holes. We are presently assessing the situation with a view to determine whether there is another way to drill the holes to get the required information..."*

*"This property remains, in our opinion, one of the best undeveloped copper deposits in western Canada, and with the planned future work on the property TVI is confident that a viable economic deposit can be achieved."*

Three of the remaining drill holes (93-E-6, 9, 15) tested alteration and known copper mineralization on the east side of the Hidden Creek zone. This drilling intersected a wide zone containing minor to 0.5% chalcopyrite, the best intersection being 32 feet grading 0.19% copper. The Pulse EM survey indicated the fracture-filling structure continues along strike and down dip. The drilling and geophysical data indicate these holes penetrated a stringer zone beneath a potential massive sulphide ore body.

It is believed by the Company and some of its advisors that the drilling completed by TVI was not thoroughly planned and therefore missed targets along the northeast-southwest trending structure that exists between the Hidden Creek and Bonanza Deposits. The Company and its advisors believe that advanced ground and airborne geophysics will define the previously missed targets on the originally drilled sites along the northeast and northwest trending structure that exists between the Hidden Creek and the Bonanza deposits.

Over $8 million has been spent on exploration and development of the Anyox Project since 1985.

## Maple Bay Camp

Maple Bay has a long exploration history; one of the earliest mineral claims in the region was staked in 1896. The exploration and mining history for the area is summarized in Appendix C. In addition to geological studies carried out by companies, studies by government geologists who have reported on this mining camp include those by Cloutier (1922, 1924), Dolmage (1922), Mandy (1933, 1936), Hanson (1935) and Grove (1970). Regional mapping of the Maple Bay portion of the Anyox pendant was started in 1995 by D.J. Alldrick and Z.M.S. Mawani of the British Columbia Geological Survey.

### *Maple Bay Mineral Deposits*

D.J. Alldrick and Z.M.S. Mawani, British Columbia Geological Survey, J.K. Mortensen, Department of Earth and Ocean Sciences, The University of British Columbia, and F. Childe, Mineral Deposits Research Unit, The University of British Columbia state in their 1995 Report on Deposit Studies in the Stewart District as follows:

*".... The Maple Bay area produced copper together with quartz for smelter flux plus minor amounts of recoverable gold and silver. Reserves have been calculated for all these commodities. Production was only achieved from the deposits close to tidewater, although the best (copper) grades and reserves have been reported from deposits at higher elevations.*

*Fifteen individual veins have been located at Maple Bay. Twelve of these are grouped into three main vein systems: Outsider-Star, Eagle-May Queen and Princess-Anaconda. These consist of a strong main vein with a set of satellite veins running parallel to and locally across the strike of the main vein. Veins have sinuous, lenticular forms. They are typically hosted in argillite and sometimes altered andesite near the contacts of diorite intrusions. The intrusive contact is marked by silicified argillite cut by spurs of the diorite dike.*

*The Maple Bay ore bodies are quartz veins along brittle fracture zones. The veins generally consist of broken country rock that has been cemented by quartz and sulphides.*

*In places bands of sparsely mineralized or barren silicified argillite occur as horses in the veins. All veins carry chalcopyrite except the Friday vein, which is pure quartz and a potential source of high-quality silica. Veins are typically composed of massive quartz with disseminations and local massive pods, shoots and bands of chalcopyrite and pyrrhotite. Pyrite is minor and only trace amounts of sphalerite and galena have been reported. Some sulphide-rich veins are banded and there are local areas of brecciation within the veins.*

*The veins and vein systems (identified in the figure forming Appendix D) will be reviewed in order from northwest to southeast.*

*The Friday vein is 4 to 5 metres wide and is exposed over a strike length of 50 metres. It strikes 170$^0$ degrees with a near-vertical dip. The quartz is relatively pure and the occurrence is only 500 metres from the shore. Consequently, this vein represents the best quality silica source in the Maple Bay area. Quartz is coarse grained and mainly milky white. Minor reddish brown staining occurs along fractures and some rusty weathering zones are present locally. Well formed prismatic quartz crystals line voids. Only trace amounts of sulphide minerals are present, but some siltstone inclusions occur along the western edge of the vein.*

*The Outsider-Star vein system lies at a much lower elevation than the other two systems. From 1906 to 1908 the Outsider vein was mined for copper. Ore was direct-shipped to the Brown-Alaska Company Limited smelter at Hadley, Alaska. The Star and Outsider veins were mined for smelter flux in 1916 and from 1924 to 1926 respectively. Overall, 138,854 tonnes were mined at a grade of 1.84% copper and 72% silica. For most of this production, the primary requirement was silica flux for the Anyox smelter, so copper grades were not optimized.*

*The Outsider vein was developed from eight adits and the Star adit accessed the Star vein at a lower elevation. The Star vein may be a more southern, lower-elevation continuation of the Outsider vein, or it may be a parallel structure.*

*These alternatives were recognised 90 years ago and have not yet been resolved.*

*The Outsider vein strikes 030$^0$ and dips 50$^0$ east and has been traced on surface for 920 metres, ranging from 0.6 to 6.5 metres in width. The vein has been developed and stoped for the southernmost 610 metres mined over a vertical interval of 150 metres. Copper grades ranged between 2 and 4 percent.*

*The lowest access from surface is the 900-foot level, but a winze allowed drifting on the 800-foot level. The combination of local topography and the attitude of the Outsider vein make it a difficult target to drill from surface in order to test its extension below the old workings. Consequently in 1972 an adit was driven on the 600-foot level to develop ore between that level and the old workings above. Three hundred metres of drifting was completed towards the vein, but failed to intersect it.*

*The footwall of the Outsider vein is a band of silicified argillite a few metres thick; this unit is in contact with the vein for most of its known length and depth. On the west side of (below) the silicified argillite is an argillite unit averaging 15 metres thick. The hanging wall of the vein is a metamorphosed mafic tuff or "hornblende schist". A diabase dike follows the northern part of the vein and crosses from side to side along its length. These intrusive relationships indicate that the dike is post-ore.*

*The Outsider vein consists mainly of massive to granular, milky white quartz with minor scattered country rock inclusions. Ore shoots above 900-foot level comprise banded fine-grained grey to white quartz with minor to accessory amounts of granular, fine-grained chalcopyrite and pyrrhotite. Pyrite is minor, galena and sphalerite are rare. Gold and silver grades are consistently low. Ore shoots averaged 2.5 to 3.7 metres wide and were localized in wide vein sections marked by inflections or kinks in the main vein trend. Only minor sulphide mineralization was found where veins narrowed.*

*The Star vein extends for 680 metres along strike with widths ranging from 0.5 to 1.8 metres. The Star adit development work started in 1916, with the portal collared at 115 metres elevation on the east bank of Roberson Creek. In 1917, 4845 tonnes of quartz ore from the Star adit, grading 2.8% copper, was shipped to the smelter at Anyox for silica-rich flux. Tracks and machinery were removed in September, 1917. Additional drifting in 1956 extended the tunnel to 250 metres in length.*

*The United vein is about 6 metres wide. It crops out for a distance of 75 metres and strikes 050$^0$ degrees, dipping 40$^0$ to 60$^0$ northwest. The Comstock vein is located 730 metres northeast of Maple Bay where it is exposed on a resistant knob on the west bank of Comstock Creek, at the southern end of the Maple Bay Crown-granted claim (L. 2881). The vein is over 10 metres wide here and composed of granular milky white quartz with up to 10% disseminated chalcopyrite and minor disseminated pyrite. Bands or seams of chlorite are also distributed through the vein. This quartz body is significant because it may represent the southwestward continuation of the United vein, indicating a*

*possible combined strike length of 750 metres. In 1931, five holes were reportedly drilled on the adjacent Comstock claim, intersecting narrow sulphide bands, but there is no documented showing on this claim; the drill site may have been the nearby outcrop of the Comstock vein.*

*The Eagle-May Queen vein system is the highest grade, widest, and most continuous of the three vein systems in the Maple Bay area. Although it may be the best deposit in terms of size and continuity, it is also the least accessible. The vein strikes northeast, dips 800 southeast, and has been traced on surface for over 1000 metres between elevations of 730 metres and 1220 metres. Trenching over this length shows that the mineralization is intermittent but locally strong; the average grade of samples from the six best trench exposures along a 500 metre interval was 4.07% copper over an average width of 2.16 metres.*

*At its southernmost end, on the Eagle claim, the Eagle-May Queen system consists of three narrow veins. These merge northwards into a single vein with outcrop exposures ranging between 2.1 to 3.7 metres wide. At 700 metres elevation, a short crosscut tunnel intersects the vein where it is 7.6 metres wide; assays across this section ranged from 1 to 3.5% copper. Four short diamond-drill holes were completed in 1923. These intersections, combined with trench assays, were used to calculate the Eagle-May Queen reserve figures [See Section 5].*

*The Princess-Anaconda vein system is the weakest of the three. However, it is more accessible than the larger Eagle-May Queen system. Host rock to the veins is described as chlorite-biotite schist and hornblendite. Veins consist of milky white, sugary quartz with pods, streaks and specks of fine-grained sulphides, as well as scattered chlorite seams. The veins are commonly crudely banded and usually vuggy. The sulphide minerals include chalcopyrite, pyrrhotite and minor pyrite, which form spongy masses in the quartz vein. As at the Outsider vein, sulphide and copper concentrations appear to be related to bulges or dilatant zones in the veins.*

*The Thistle-Rose vein crops out at 640 metres elevation, strikes 350$^0$ and dips steeply to the west. It is exposed over a length of 150 metres, ranging from 5 to 7.5 metres wide. The average assay from three trench samples across the vein is 3.4% copper. The main quart vein carries minor pyrrhotite and chalcopyrite, with a 0.5-metre sulphide-rich band on the hanging wall margin. The 1875-level adit was collared 30 metres below the vein outcrop in 1916, and driven for 53 metres where it intersected a metre-wide barren quartz vein. Although the attitudes of the two veins are quite different, the Thistle-Rose vein is on trend with the southwestward projection of the Eagle-May Queen vein, and might represent a continuation of this major structure.*

*The Anaconda vein has a strike length of 300 metres; maximum width is 2.6 metres. Sixteen drill holes tested this vein; eight intersections averaged 5.53% copper over 0.55 metre. Surface trenches along the drilled section averaged 1.79% copper over 1.9 metres.*

*The Princess vein strikes northeast and dips southeast. It is exposed as four vein segments: the Princess Alice, Princess May, Princess Alexandria and Gertie veins, with a total extent of 2.1 kilometres. These vein sections are characterized by irregular pinching and swelling along their length, forming pods up to 7.6 metres wide composed almost entirely of vuggy white quartz with erratic knots and lenses of coarse-grained pyrite, pyrrhotite and chalcopyrite. The Princess Alice vein crops out at 1220 metres elevation and extends for 300 metres. The Princess May has also been traced for 300 metres by trenching. The Princess Alexandria segment only reaches widths of 2.4 metres. There are no descriptions of the Gertie vein and it was not examined this season.*

*The Princess vein has been evaluated by extensive surface trenching, diamond drilling and underground drifting on two levels. In late 1969, it was explored by a 135-metre drift at the 2400-foot level. In 1970, the 1875-level adit under the Thistle vein was extended another 460 metres, intersecting both the Anaconda and Princess veins. The 1875 crosscut proved that the Princess vein is nearly vertical, and persists over a vertical interval of 180 metres, from the 2400-level to the 1800-level. Where intersected in the adit it is 2.5 metres wide and averages 2.49% copper. Resampling in 1971 returned 3.10% copper over 2.5 metres. A drift along the vein for 9 metres at this location showed the vein narrowing to 0.6 metre, which assayed 3.44% copper. From 1955 to 1957, eleven drill holes were completed on the Princess vein. Intersections were narrow above the 2400-level, but below this level three drill holes give an average grade of 2.27% copper over 1.55 metres. The average grade of all surface trenches in the drilled area was 2.06% copper over 2.3 metres width.*

*The Lizzie vein was drill-tested in 1956; no results have been reported.*

*The East Blue Bell and West Blue Bell veins crop out 100 metres apart on a cliff-top 1375 metres southeast of Maple Bay, at 460 metres elevation. The quartz veins range from 0.3 to 1.5 metres wide and are mineralized with chalcopyrite and some pyrite. The east vein has a strike length of 230 metres; the west vein is exposed in outcrop for 100 metres. Both veins strike 010° and dip 45° east. They have been tested by two adits. The longest adit, collared 46 metres below the outcrop of the veins and driven for 110 metres, failed to intersect either of them."*

## 4. PREVIOUS PRODUCTION

**Anyox Camp - Hidden Creek Mine**

The Hidden Creek Mine was operated from 1914 to 1935 on ten levels, from 630 feet above sea level to 150 feet below sea level. There was no appreciable development below the -130 foot level. Prior to shutdown in 1935, mining procedures extensively damaged the mine system. Access is now restricted to surface exposures in the glory holes and to limited mine workings. Total ore production from the mine was 24,010,235 tons averaging 1.57% copper. At the end of operations, the ore grade was 1.05% copper. The slag pile from the smelter averaged about 1% zinc and 0.2 to 0.4% copper. Zinc was not recovered.

The following tonnages and grades were produced from the No.1 to 8 ore bodies during the Granby operation:

**Tonnage Shipped from 1914 to 1935**

| Body | Vertical Range | Tons Shipped | % Copper |
|---|---|---|---|
| 1 | 750' to -535' Level | 9,898,538 | 1.548 |
| 2 | 800' to 150' Level | 6,921,586 | 1.480 |
| 3 | 700' to -130' Level | 3,192,505 | 1.144 |
| 4 | 700' to 530' Level | 463,632 | 1.117 |
| 5 | 800' to -130' Level | 2,922,900 | 2.267 |
| 6 | 500' to -130' Level | 535,345 | 2.192 |
| 8 | 300' to 150' Level | 9,945 | 0.685 |
| Slide | Surface | 65,784 | 1.130 |
| **TOTAL/AVERAGE GRADE** | | **24,010,235** | **1.567** |

Eight massive cupriferous sulphide bodies comprising the Hidden Creek deposit over a strike length of 1.5 kilometres, are known to extend to depths in excess of 500 metres. The previously exploited bodies vary in plunge from sub-vertical (the No. 6 zone) to moderately westward (the No. 1 and 5 zones). The No.1, 4, 5, and 6 ore bodies are located at the interface between footwall basaltic flows and hanging wall turbiditic sedimentary rocks, and are intimately associated with cherty chemical sediments.

The No.5 ore body reportedly carried higher values in precious metals and zinc than the other ore bodies, with the zinc content probably grading between 1% and 2%. The No.7 ore body, which was not exploited, is known only from five drill holes. These indicate a reserve of 150,000 tons grading 0.46% copper.

Based on Granby drilling (1910-1935), Cominco drilling in 1937 and Cominco/Mitsui drilling in 1982, large volumes of copper mineralized rock are known to occur below and peripheral to the ores previously mined. In 1984, an inferred mineral potential of 50,000,000 tons of 0.6% copper was calculated by Cominco for the Hidden Creek deposits. About one-third of this inferred potential is mineable by open-pit methods at grades of about 0.7% copper with reasonable stripping ratios. The continuity of both significant sulphides with low-grade copper and the ore host rocks to depth leaves open tho possibility of higher grade copper lenses below the limits of previous development and exploration, i.e., about 300 to 600 metres below surface.

From an exploration perspective, additional copper reserves could be established by drilling the depth extension of the No.3 and No.6 ore zones. Further exploration in the vicinity of No.8 zone, using contemporary ground geophysics, could also result in the discovery and mapping of significant reserve of ore-grade material.

Limited previous drilling by Cominco on the depth extenslon of the No.3 zone (also referred to the Hidden Creek 2 area) encountered broad zones of low grade (<1%) copper along with narrower high-grade (>1%) copper intervals. The potential of discovering an additional reserve of 5 million tons may exist in this area.

The No.6 ore zone, while small, is relatively high-grade (2%-3% copper). This zone has not been fully drilled off, and as such, has the potential for the discovery of high-grade reserves both at depth and along strike. This ore zone is a prime candidate for ground geophysics.

### Anyox Camp - Bonanza Mine

The Bonanza Mine, 3 kilometres southwest of Hidden Creek Mine operated from 1929 to 1935 producing 714,192 tons averaging 2.5% copper with 0.006 ounces of gold per ton, 0.5 ounces of silver per ton and unrecorded but significant zinc values. The ore was shipped by aerial tram to Anyox. The ore was removed using a flat dip open stope method and was mined until it pinched and turned downwards at the metabasalt/argillite contact. At closure, 11,708 tons of 1.76 % copper, 0.0047 ounces per ton gold and 0.40 ounces per ton silver were estimated to remain in the Bonanza Mine.

The Bonanza deposit consists of a flattened pipe-like lens. The ore body strike length was 750 metres, thickness up to 40 metres and width up to 120 metres. The deposit is cut by several dyke swarms and intruded by Tertiary intrusives near the north end. The ore terminated at the north end by a fairly steep normal fault, which has apparently dropped any extension of the ore body to greater depths. Movement of this fault is uncertain; however, the fault may have a minimum displacement of 300 metres vertically.

The high (150 metres) and very steep slopes on the north side of Bonanza Creek render impossible any shallow surface drill testing of the northern extension of the Benanza deposit beyond the fault. The future exploration potential of the Bonanza Mine is in locating the fault extension of the ore body. This would require additional helicopter supported drilling north of the mine area.

### Maple Bay Mines

The reader is referred to the discussion of the various veins in the prior Section 3.

## 5. CURRENT RESERVES / RESOURCE

### Anyox Reserves

| Reserves | Resource | Ore Grade | | |
|---|---|---|---|---|
| Mine Name | Ore Tons | Copper | Zinc | Description/Exploration Potential |
| Hidden Creek | 50,000,000[1] | 0.6% | | The continuity of both significant sulphides with low-grade copper and the ore host rocks to depth leaves open the possibility of higher grade copper lenses below the limits of previous development and exploration, i.e., about 1,000 to 2,000 feet below surface. |
| Bonanza | 11,708[2] | 1.76% | | Gold and silver mineralization present. The ore zone terminates to the north due to faulting. The |

[1] Inferred mineral potential

| | | | | ore body may have been displaced vertically by 300 metres. |
|---|---|---|---|---|
| **Mine Name** | **Ore Tons** | **Copper** | **Zinc** | **Description/Exploration Potential** |
| **Deposits** | | | | |
| Double Ed | 1,355,000[3]<br>825,000[4] | 1.3%<br>1.3% | 0.6%<br>0.6% | Consists of massive sulphide bodies that form layers and lenses. Deposit is open to depth along opposite limbs of a steeply plunging fold. |
| Eden | 135,000[3]<br>40,000[3] | 1.3%<br>1.9% | 1.3%<br>2.9% | Consists of two lenses that are 15 metres apart. Negligible possibilities for extension. |
| Redwing | 181,440[2] | 2% | 2.7% | Includes 0.035 ounces per ton gold and 2.5 ounces per ton silver. Deposit represents a high priority area for new reserve development outside of the Hidden Creek area. |
| **Showings** | | | | |
| Sax | | 1% | | Copper occurs in a 3 foot wide bed. |
| North Hidden Creek | | 2.5% | 0.5% | Located in hole 82-9 along with 0.05 ounces of gold per ton and 2.9 ounces of silver per ton. There is a very strong conductor that shows a close spatial coincidence with the surface projection of the mineralized intersection. |

**Maple Bay Reserves**

| **Reserves** | **Resource** | **Ore Grade** | | |
|---|---|---|---|---|
| **Name** | **Ore Tons** | **Copper** | **Zinc** | **Description/Exploration Potential** |
| Outsider - Star | 181,450 | 1.5% | - | The vein system extends over 920 metres, variable width from 0.6 to 6.5 metres; massive to granular quartz carrying chalcopyrite, pyrrhotite , galena and sphalerite with low precious metals content |
| Eagle - May Queen | 473,506 [3]<br>535,189[1] | 1.7%<br>1.4% | | Vein quartz system has been traced over 1000 metres, striking 030 degrees, sub-parallel to the regional structures, dipping 80 degrees southeast; widths average 2.16 metres |

## 6. EXPLORATION POTENTIAL

The Company believes that the ideal setting for the development of additional deposits is near or preferably at the basalt/sediment contact where chert development and alteration can be observed along with sulphide mineralization. These areas exist in abundance along the contact extensions of known deposits with known reserves including specifically Hidden Creek, Bonanza and Maple Bay but not excluding Double Ed, Eden, Redwing and the numerous showings and occurrences in between (see Appendix B). The prospect of more massive sulphides being present in the subsurface close to the favourable basalt/sediment contact is very high and has

[2] Probable reserve
[3] Drill indicated resource
[4] Drill inferred resource

received negligible testing between 150 and 1,000 metres below surface (Alldrick et al; EMPR, BC, 1985, #215,216). In terms of grade, while overall historic copper grades are low, the stated deposits and their extensions contain grades of by-product zinc and precious metals that are of significant interest. For example, the Bonanza Mine produced copper, gold and silver and contained significant quantities of zinc (at the time, no attempt was made to recover the zinc). The 1982 intersection drilled by Cominco and Mitsui north of the Hidden Creek glory holes averaged 2.5% copper, 0.5% zinc, 0.05 ounces of gold per ton and 2.9 ounces of silver per ton over a drill length of 20 feet.

Previous geophysical evaluations of the Anyox and Maple Bay host rocks have been hampered by the high incidence of graphitic shear zones, leading to a large number of geophysical non-productive anomalies. Improvements in computers and remote sensing hardware and more sophisticated software programs for data processing have permitted the development of enhanced imaging to depths of up to 600 metres. These advances, coupled with the existence of over twenty known mineralized locations within the Project area that can serve as response models, provides an unusually high confidence level in assessing information to be generated by the proposed geophysical program. This confidence level will translate into more cost effective diamond drilling follow-up.

Intensive petrographical evaluation of the various mineral and lithographic sequences, using modern age dating technologies and cross-indexing of trace metal occurrences will be used to provide definitive age dating and subsequent correlation of the east and west lithologies of the Project Area.

The Company's goal is to increase the polymetallic resources of the Anyox Project to 500 million tonnes, with a copper equivalent grade of 1.0% or better. This will be achieved, in part, by integrating the Maple Bay and Anyox geological structures using new advances in airborne and ground geophysics. The presently estimated time frame for completion of these goals is three years. The exploration budget proposed for the Phase I first year is $4 million (See section "C" for Phase I year one program details). Programs for years two and three are contingent on year one results. The total expenditure in expected to be approximately $14 million.

## 7. AREA PLAY

The Company controls almost 1,300 square kilometres of mineral claims in the area. Several major world class mining companies have expressed interest in participating in exploring the area.

## 8. ENVIRONMENTAL ASPECTS

With respect to environmental issues, the Beacon Hill Reports states that:

> *"A preliminary environmental review was completed on the Hidden Creek Property. This review indicated one main area of concern on the property and a second one adjacent to the property, near the old Anyox mill foundations. The environmental concern on the property emanates from leaching in the old workings as a result of precipitation falling into the glory holes, percolating through broken rock, then flowing into the watershed via the old portals.*

*Current acid rock drainage from this area, which discharges to Hidden Creek, is low pH (3.0 to 4.0) and high in metals, particularly cadmium, copper, iron, lead, and zinc. This discharge has been ongoing for some 59 years and has had a significant impact on Hidden Creek and Granby Bay. Hidden Creek, between the point of discharge and the mouth, is acutely toxic to rainbow trout and is unsuitable for fish or even the most tolerant of aquatic species. Metal levels in sediments, mussels, and rockweed in Granby Bar are significantly higher that found elsewhere in Hastings or Alice arms.*

*The second area of concern is the location near the old mill foundation where mill product/tailings were deposited during mining operation in the 1930s.*

*It appears that the most practical way to improve the environmental conditions in the area is to recommence mining and to finance the necessary mitigation measures from the cash flows of the operation. Discussions with B.C. Government environmental representatives have indicated that this concept may be acceptable. Thus, if the development of the mine includes plans for the long-term control of acid rock drainage and mitigates some of the present environmental concerns, there should be no hindrances to the permitting of a mine development at the Hidden Creek Property; these considerations may, in fact, assist in achieving early approval."*

Klohn-Crippen, independent consulting engineers with specialization in environmental management, has been retained by the Company on an ongoing basis to organize the environmental reviews.

## 9. GEOPHYSICAL TARGETS-ANYOX AND MAPLE BAY

Grant Hendrickson of Delta Geoscience Ltd. states in a memo to the Company that the Company should focus on the following geophysical programs:

***"Anyox***

*The two main deposit types, massive to semi-massive sulphide stratabound deposits and irregular stockwork type deposits, will require very different geophysical techniques.*

*Electromagnetic techniques are well suited to the detection of deeply buried zones, massive to semi-massive sulphide, but would not detect the very significant irregular stockwork type deposits observed at Hidden Creek.*

*The airborne and ground EM programs recommended ... will be designed to detect the typical massive to semi-massive stratabound deposits of Hidden Creek and Bonanza Creek, both along strike and downdip. It's important to note that Takeda in his 1981 report introduced the concept of parallel ore horizons within the greenstone belt over an apparent stratigraphic interval of 700 metres. The airborne data will give us extensive electromagnetic coverage of the property to depths of 250 metres, whereas the initial intensive ground EM*

*surveys will focus on the prime geology in the immediate Hidden Creek and Bonanza Creek area.*

*The ground Induced Polarization and Resistivity surveys will concentrate on defining the stockwork type mineralization discussed seriously in Takeda's report. In the report, Takeda noted the irregular stockwork type of mineralization occurs in small fractures formed after the deformation, mylonization and weak thermal metamorphism of the greenstone host. Accordingly, he concluded that the stockwork type of mineralization seen at Hidden Creek must have formed after the metallogenic period that created the stratabound massive sulphide deposits and that the stockwork zones show similarity to porphyry copper deposits.*

*It is possible that this similarity to porphyry deposits is due to extensive remobilization of sulphide mineralization. It's also possible that there has been some overlapping or telescoping of the stringer zones associated with the parallel ore horizons discussed earlier.*

*It's important to note at this point that the Takeda report concludes that the irregular stockwork type of mineralization is extensively distributed in the greenstone belt and has remained largely untested. Minor drilling programs subsequent to Takeda's report have been relatively unsuccessful, probably in large part due to insufficient geophysical data. It appears that only 5 km in total of shallow I.P. have ever been completed at Anyox. The key is to define a major expansion of the area containing the known reserves of approximately 60 million tons grading 0.5 to 0.6 copper.*

*Defining the areal extent of stockwork type of mineralization may also help in defining the prime areas where we might expect massive sulphide zones at depth. This is important since the deep ground EM will be the most expensive work per kilometre of data.*

***Maple Bay***

*The extensive copper/gold vein mineralization known at Maple Bay needs evaluating with a geophysical system capable of high horizontal resolution to map the extent and relationship between the sulphide rich quartz veins, while at the same time maintaining a large depth of investigation to explore for the source of the significant vein mineralization. The recommended Induced Polarization and Resistivity program is well suited to this task. The airborne EM program will assist particularly if (a) there are larger zones of massive sulphide mineralization remobilized into shear zones, and (b) stratiform/stratabound massive sulphide mineralization occurs in significant quantities."*

## C. ANYOX-MAPLE BAY PROGRAM & BUDGET

The Company is seeking $4,000,000 to complete Phase I exploration on the Anyox Project and for working capital. The major components of the Phase I or year one program includes the following:

1. Completion of high sensitivity magnetic, radiometric, electromagnetic and VLF airborne helicopter surveys and ground geophysics coupled with GPS controlled air photo coverage of selected portions of the entire 1,300 square kilometre study area at a scale of 1:50,000 with colour filtration and full digitized recovery for integration with common scale data base.

2. Drilling of an initial 5,000 feet of BQ core in the first year on areas of known resources for confirmation and acquisition of additional mineralogical and metallurgical information.

3. Completion of reconnaissance mapping for those portions of the areas where remote sensing indicates anomalous indicators; detailed geological examination will be executed on existing zones of mineralization and potential extensions, both on surface and underground in prior workings; complete petrological evaluations will be completed on all representative rock suites and mineral occurrences to evaluate age formation history, trace metal assemblages and economic significance.

4. Conducting ground geophysical, geochemical and environmental surveys.

5. Acquisition of basic data, maps, photos, plans, prior drill logs, survey data; the digitization of all data to a common data base and preparation of common scale maps for further data acquisition and presentation.

6. Refurbishment of two base camps; establishment of all-weather supply docks; establishment of base camp helicopter pads; purchase of supply and ambulance boat, electrical generators, fuel depot, bulldozer, sanitary fields, furnishings, office supplies, communication equipment and all terrain vehicles.

The budget for the entire Phase I program is detailed as follows:

| | |
|---|---|
| Field work | $850,000 |
| Drilling | 750,000 |
| Infrastructure | 500,000 |
| Airborne survey | 450,000 |
| Consultants, studies, etc. | 340,000 |
| Data, filings, fees | 200,000 |
| Field administration | 150,000 |
| Legal and accounting | 100,000 |
| Working capital, contingency & fees | 660,000 |
| | $4,000,000 |

## D. MANAGEMENT

### 1. Management of Granby Mining Corporation:

**Steve Buchan, President,** has been an entrepreneur and prospector involved in resource development, mining exploration, venture capital financing and real estate development for the past 25 years. He is also the Founder, President and Director of Hidden Rock Drilling Ltd.

Mr. Buchan attended the University of British Columbia and did his undergraduate studies in Commerce, Sociology and Philosophy.

**Norman Axten, Director,** is the Managing Director and founder of Mobius Trust Company Limited ("Mobius") located in Nevis. Mobius provides a wide range of services including fiduciary, agency services, investment, portfolio management and liaison with other professionals in regard to international tax, estate planning and investment matters.

Mr. Axten has been a senior executive with Royal Trust Company and has been the chief executive officer of an international law firm with offices in Calgary, Ottawa, London, New York and Hong Kong.

He was also the president and founder of Antex Consulting Limited, a company engaged in a wide range of business and professional projects including the purchase of an oil company, law firm mergers, international negotiations and in the closing of the Amoco takeover of Dome Petroleum.

Mr. Axten and Mobius have developed proprietary planning techniques for United States citizens and will launch its own family of mutual funds in 1999. His staff are specialists in banking, the formation and administration of trusts and foreign corporations, and investment matters.

### 2. Management/Technical/Advisory Committee

**Richard Burke, Chairman of the Management/Technical/Advisory Committee,** is the President of Burke Sharwood & Company Ltd., a corporate advisory and investment banking firm catering to middle market companies. Prior to Burke Sharwood, Mr. Burke worked as a senior executive for various investment, manufacturing and resource companies including Canlan Investment Corporation, Bartrac Holdings, Canadian Enterprise Development Corporation and Abbey Blinds. He also held management positions at Macmillan Bloedel, Wire Rope Industries of Canada, and Grand Forks Sawmills. In 1968, he co-founded National Homes of British Columbia.

Mr. Burke received a Master of Business Administration from Stanford and a Bachelor of Applied Science in Forest Engineering from the University of British Columbia. He is a Registered Professional Engineer in the Province of British Columbia.

**Malcolm Fraser,** a private consultant since 1988, has directed and managed project reviews/exploration for precious, non-ferrous and industrial minerals in British Columbia, Chile, China, Alaska and the United States. From 1986 to 1988, he was the Vice-President of exploration for Ingot Exploration where he managed 13 exploration joint venture projects. Prior

to that, Mr. Fraser held various senior positions with a number of companies including Mountain Minerals, Beech and Partners, Noranda, Amdex Mining, Cyprus Mines, and Eastern Copper Mines. He also practised law at Baker, Mackenzie from 1966 to 1969.

Mr. Fraser received a Bachelor of Laws from Osgoode Hall, a Master of Arts in Economic Geology from Harvard University and a Bachelor of Science in Geological Engineering from Queens University.

**Lu Manning,** is currently on the board of directors for FM Resources, Genco Resources, Canmine Resources, Cusac Gold and Mongolia Gold Resources. In total, he has over 45 years of mining experience, the last 30 of which have been as a mining consultant based in British Columbia. He has operated underground mines and run small open pit operations for Barrier Reef Resources, Dolly Varden Minerals, Tera Mining and Exploration and Pronto Uranium Mining.

Mr. Manning received a Bachelor of Applied Science in Mining from the University of British Columbia.

**Rodney Samuels,** has been in mining operations for over 30 years. Currently, he is the Vice President of Operations and Development at Standard Mining Corporation and Broadlands Resources. Prior to that he was the Director of Metallurgy for Trillion Resources and a Project Manager for Viceroy Resources and Greenstone Resources. From 1968 to 1993, Mr. Samuels worked in operations management positions or as an operations consultant for a number of companies in British Columbia, Yukon, Ontario, California and Mexico.

He is a registered Assayer and received a Diploma of Technology in Chemical and Metallurgical Option from the British Columbia Institute of Technology.

### 3. Consultants

**G. H. Giroux,** has been providing geological services to the exploration and mining industry since 1975. For the past 20 years he has been involved in geostatistical resource/reserve studies for both major and junior mining companies on a wide range of deposit types. Some of the exploration and mining companies/institutions that have employed his services include Barrick Gold, Outokumpu, Westmin, the United Nations, Imperial Metals, F.M.C. Gold, Phelps Dodge, Teck Exploration, HRC Development, Taseko Mines, Prism Resources, El Condor Resources, Jordex Resources, Rae Gold, Princeton Mining, Pegasus Gold, CDE Chilean Mining, Eldorado, TVI Pacific, Misty Mountain Gold, Sutton Resources and Bema Gold.

Mr. Giroux received a Bachelor of Applied Science degree and a Master of Applied Science in Geological Engineering from the University of British Columbia.

**Grant Hendrickson,** has been involved in exploration and development work for precious metals, base metals, uranium, diamonds, shallow gas deposits and tar sands. In 1986, he established Delta Geoscience Ltd., which conducted geophysical work throughout Canada, the United States and Mexico. Prior to that, Mr. Hendrickson was a geophysicist for Kidd Creek Mines, Elf Aquitaine and Geoterrex.

He received a Bachelor of Science degree in Geophysics and Geology from the University of British Columbia and has received professional registration with the Association of Professional Engineers and Geoscientists of British Columbia.

**Jan Klein,** is a geophysical consultant with 34 years of experience in mineral exploration. He retired in early 1998 from Cominco Ltd., where he was Chief Geophysicist. Prior to working with Cominco, Mr. Klein was employed by Scintrex Ltd. a major manufacturer of geophysical equipment. He participated in the development of new equipment and field methodologies. He obtained his exploration experience in the Americas, Europe, Africa, Asia and Australia and was involved in the detection of several mineral deposits.

Mr. Klein received a Master in Mining Engineering Degree with Honors in Exploration from the Technical University of Delft, Netherlands and is a member of numerous Professional Societies and is a registered Professional Engineer and Geoscientist.

**Bernard Kremer,** is the President of T.H.E.M. Geophysics, which designs and builds new geophysical systems for mining exploration. His firm's most recent project commissioned by Falconbridge, Cominco and Inco is to construct a powerful time domain helicopter borne system for mountain use. Mr. Kremer has been involved in geophysical work for 35 years.

**Jim Laker**, is the **Senior Consultant for Granby Mining Corporation** and will co-ordinate work towards producing a bankable feasibility study over the next three years.

Mr. Laker is Vice-President, Project Management for Klohn-Crippen Consultants. Mr. Laker has over 30 years of broad experience in heavy industrial plant development experience in North and South America. He has been responsible for design and construction management for a wide range of projects which includes a 40,000tpd copper mill expansion, a turnkey fixed price contract for an oil recovery plant, a $160 million mine and mill expansion, as well as feasibility studies and designs of a copper mine/mill complex, uranium mine and processing plant. His recent experience has been in administration of a 200 person multidisciplinary consulting division of H.A. Simons where he was responsible for the activities of the division. With Klohn-Crippen, he is responsible for the development of projects, including mining and major civil projects.

Mr. Laker earned a B.A. Sc. in Civil Engineering from the University of British Columbia and is a Registered Professional Engineer in British Columbia, Alberta and Newfoundland.

**Brad Marchant,** is a specialist in mineral processing and biohydrometallurgy research, development and operations. He is the co-founder and a director of Triton Mining and a principal and director of Biomet Mining. His exploration and mining experience of 22 years includes plant operations, process consulting, business/technology development and marketing and project management with companies/institutions such as Equity Silver Mines, Placer Development, the Royal School of Mines and Wabush Mines.

Mr. Marchant received a Bachelor of Science in Biochemistry and a Masters of Applied Science in Mining and Mineral Process Engineering from the University of New Brunswick.

**Dr. Joe Montgomery**, is the President of Montgomery Consultants Limited which has been providing mining exploration, property evaluation, property development, syndication management, ore reserve estimation and computer applications in the mining industry since 1968. Montgomery Consultants Limited has been providing its services to many major and junior

mining companies, the Canadian Federal Government, Provincial Governments, and the United Nations. During this time, Dr. Montgomery was the Vice President-Geology for NIM Management Ltd. responsible for doing property evaluations for dispensing $600 million of exploration funds. Dr. Montgomery has authored over 300 Engineering reports for clients for submission to various regulatory bodies, and has conducted numerous reviews for financial institutions considering investments into mining projects.

Dr. Montgomery received a B.Sc. in Geology from the University of British Columbia, a M.Sc. in Geology from The University of British Columbia, and a Ph.D. in Geology from Queens University (Ontario) and The University of British Columbia in 1967.

**Steve Quin,** P.Geo., is a graduate in mining geology from the Royal School of Mines, UK, and has 20 years experience in exploration, mining and corporate affairs. Mr. Quin is Executive Vice President and Director of Miramar Mining Corporation and Northern Orion Explorations Ltd, TSE listed mining and exploration companies. He has been with Miramar through its formation, growth and recent reorganization and is responsible for corporate development, investor relations and exploration and is a key member of management. Prior to joining Miramar, Mr. Quin was involved in the exploration of grass-roots through advanced projects in the Americas and Europe, with a focus on precious and base metals as well as on industrial minerals. Mr. Quin's experience includes several years exploration on base metal projects in British Columbia and overseas, including two field seasons spent in the Anyox area and involvement in the exploration of the world class Windy-Craggy copper deposit. Mr. Quin is also an independent director of Polymet Mining Corporation.

**Dieter Schindelhauer,** has 38 years of extensive technical and administrative background in industry and commerce in areas of operations management, general administration, plant and machinery maintenance, process/quality controls and manufacturing techniques. He is currently the President of Orlon Resources and Chalice Mining. He has held various technical and managerial positions at companies such as Industrial Minerals, Noranda, Canadian Western Pipe Mills and Volkswagen Company. Mr. Schindelhauer completed the Diploma Course Canadian Business Law from the UBC Extension Department. He holds a Professional membership in the Canadian Institute of Management and was the Education Chairman for the Education Chapter and Program Director. Mr. Schindelhauer also received a Bachelor of Commerce Business Diploma form UBC Extension Department that was sponsored by the Canadian Institute of Management.

## E. ADDITIONAL INFORMATION AND FOLLOW-UP

Additional information about the Company will be made available to interested parties, upon request.

Interested parties may arrange interviews with management and site visits through IBK Capital Corp. Parties who do not wish to proceed to the due diligence phase are hereby requested to return the attached materials to IBK Capital Corp.

## Appendix A
## Besshi Type Deposits

| Deposit | Age | Tonnes (millions) | Copper % | Zinc % | Cobalt % | Gold (g/tonne) | Silver (g/tonne) |
|---|---|---|---|---|---|---|---|
| **Japan (Sanbagawa Belt)** | | | | | | | |
| Besshi | Upper Paleozoic | 33.0 | 2.6 | | 0.05 | 0.7 | 20.6 |
| Shirataki | Upper Paleozoic | 5.5 | 1.3 | | | | |
| Limori | Upper Paleozoic | 2.8 | 1.3 | | | | |
| Hitachi | Upper Paleozoic | 33.0 | 1.5 | 1.1 | | | |
| Sazare | Upper Paleozoic | 5.5 | 1.6 | | | | |
| **Norway (Trondheim Region)** | | | | | | | |
| Killingdal | Ordovician | 3.0 | 1.9 | 5.9 | | 0.9 | 23.0 |
| Tverfjell | Ordovician | 19.0 | 1.0 | 1.2 | | | 13.0 |
| Norde Gruve | Ordovician | 2.5 | 1.3 | 3.2 | | | |
| Hersjo | Ordovician | 3.2 | 1.4 | 1.4 | | | |
| Folidal | Ordovician | 3.0 | 1.5 | 3.0 | | | |
| **Finland (Outokumpu Region)** | | | | | | | |
| Kerretti | Lower Proterozoic | 31.0 | 3.5 | 0.5 | 0.12 | 1.0 | 10.3 |
| Luikoniahti | Lower Proterozoic | 3.7 | 2.6 | 0.8 | 0.13 | | |
| Vuonos | Lower Proterozoic | 6.6 | 2.1 | 1.2 | 0.11 | | 37.7 |
| **Southwest Africa (Matchless Belt)** | | | | | | | |
| Matchless | Upper Proterozoic | 5.0 | 1.5 | | | | |
| Otjihase | Upper Proterozoic | 16.5 | 2.2 | 0.8 | 0.02 | 0.7 | 6.9 |
| **U.S.A. (Blue Ridge Belt)** | | | | | | | |
| Burra Burra | Upper Proterozoic | 21.0 | 1.6 | | | | |
| London | Upper Proterozoic | 1.8 | 1.8 | | | 0.3 | 3.4 |
| Ore Knob | Upper Proterozoic | 2.0 | 2.2 | | | | |
| Cherokea | Upper Proterozoic | 77.0 | 0.7 | 0.5 | | | |
| **Canada** | | | | | | | |
| Goldstream | Eocambrian | 3.5 | 4.5 | 3.1 | | | 24.0 |
| Sherridan | Lower Proterozoic | 8.5 | 2.5 | 2.8 | | 0.7 | 34.3 |
| Windy Craggy | Triassic | 210.0 | 1.6 | | 0.09 | 0.2 | 3.6 |
| Anyox • | Jurrasic (possible) | 500.0 | 0.8 | 0.5 | 0.01 | 0.1 | 10.0 |

• Best estimate of Geological potential using various geological models.

## Appendix B
## Other Mineralized Occurrences and Geophysical Targets

| Name | Description |
|---|---|
| **Occurrences** | |
| Gamma Area | 1% copper intersected in numerous closely spaced drill holes along lengths of 3 to 10 metres. The Gamma area is believed to have the best potential for development of new reserves outside the Hidden Creek Mine area. It is believed that there is excellent potential for developing a significant copper deposit in this area comparable in size to those know at the Hidden Creek Mine. |
| West Shear Zone | Surface hole drilling show extensive low grade copper mineralization. |
| N.W. Bonanza | The N.W. Bonanza target is an extension of the mineralization from the Bonanza Mine north of the 200-foot level adit. Drilling indicates a northward trending, shallowly dipping trough of biotitic pyroclastics that carries 1.2% copper. This trough is at least 200 feet wide (similar to the main mine), about 16 feet thick, and open to the north. Possibilities for significant zinc values not recorded in production exist. |
| **Geological/Geophysical Targets** | |
| Granby Anomaly | Two parallel anomalies in this area. Three vertical holes intersected the underlying argillite/metabasalt contact. |
| Mayflower Area | Drilling encountered metabasalt/argillite contact. |
| Cedar Quartz Area | East-plunging anticlinal feature with associated footwall and hanging wall alteration zones are similar to the Hidden Creek Mine area. Copper and sulphur rock geochemical anomalies in the hosting chert unit and an untested EM conductor (2,500 feet long) along the metabasalt/argillite contact are of interest. In places the overburden is highly limonitic indicating the presence of massive sulphides. |
| Bonanza Extension Area | The Bonanza ore zone lies within a biotite-chlorite-actinolite-quartz schist unit some 100 m below the metabasalt/sediment contact. The schist is exposed for 1,250 feet in Bonanza Creek, with some sulphides apparent throughout; however, the ore zone proper occurs as a 250-foot-wide zone in the middle of the schist exposure. The ore body pinches out to the south and is faulted off to the north. |
| Redlight Area | Quartz veinlets and veins (containing disseminated pyrrhotite, pyrite, sphalerite, and chalcopyrite) occur in an area of bleached argillite measuring about 2,000 x 1,700 feet. These quartz veinlets are similar to those seen in the hanging wall argillites at the Hidden Creek Mine and may represent a leakage halo from massive sulphides at depth. Drilling did not reach the metabasalt/sediment contact after drilling 871 metres of sediments. |
| Contact Anomaly Area | A strong EM anomaly occurs along the inferred position of the metabasalt/sediment contact between the Cedar Quartz showing and Lower Dam Lake. Owing to the lack of outcrop, no interpretation of its possible relationship to structure can be made. The anomaly is cut off sharply at the lake by faulting and does not extend into the area underlain by argillite on the west side. The anomaly is again picked up toward the north along the displaced extension of the contact on the west side of the lake. This conductor may be due to graphitic material in the argillite or massive sulphides at or near the contact but unlike most anomalies related to graphitic argillite, this one is very-persistent, and the indicated position did not shift when tested from a number of transmitter positions. Accordingly, this anomaly is thought to have somewhat more merit than most of the others. |

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|---|---|
| Bonanza South Area | Geological mapping has shown a red biotitic tuff that contains pyrite, pyrrhotite, and chalcopyrite (about 1,200 ppm copper). Trace zinc and lead values are anomalous and compare favourably to the values found in the peripheral parts of the Bonanza Mine. It is possible that this horizon may correlate with the mineralized horizon at the south end of the Bonanza Mine, which thins to less than 10 feet thick (still with some +1% copper) but does not die out. |
| Hidden Creek 1 Area | Target lies along the basalt/argillite contact about 1,000 feet west of the 2/3 pit. Footwall basalts are highly chloritized, veined by quartz, and carry widespread pyrite, pyrrhotite, and chalcopyrite. Rock geochemical values are strongly anomalous for copper with spotty lead and zinc anomalies. The chert unit is at least 8 feet thick and contains pyrite, pyrrhotite, chalcopyrite (960 ppm oopper), and red biotite. Hanging wall argillite are veined by quartz thet contains disseminated pyrite and chalcopyrite. This target exhibits all the features of alteration and geochemistry that are indicative of mineralization in the Hidden Creek Mine area. There is sufficient room for a 1/5 deposit (11 millions tons grading 1.9% copper). No holes have tested this area which may represent the northern extension of the Gamma zone. |
| Hidden Creek 2 Area | Located along the west side of the 2/3 pit, drilling and underground work by Cominco indicate 20 million tons of low-grade mineralization (0.46% copper) in a steeply dipping zone. This mineralization is open to depth and along strike to the south. It is intriguing that within the low-grade zone is a higher grade area (about 1% copper) that offers potential for more than 5 million tons if the zone shows good continuity with depth. This zone may be continuous with the 1% copper intersections obtained from the Gamma area (1,000 feet to the south-southeast). |
| Hidden Creek 3 Area | Located 2,500 feet north-northeast of the Hidden Creek Mine, drilling (holes C-19, 20, 21) by Cominco intersected the basalt/argillite contact but failed to encounter significant mineralization. However, the thickness of the cherty and basaltic pyroclastic horizon is similar in all three holes, but only in hole C-21 is sericite abundant. Geological mapping and major element geochemistry at the Hidden Creek Mine has indicated that sericite in cherts is only abundant near bedded massive sulphides (i.e., less than 1,000 feet from significant mineralization). The trace metal content from the cherty horizon in hole C-21 is anomalous for copper and lead (the same as the Hidden Creek Mine area). This could indicate a new vent area. |
| Mac 1 Area | Chloritized basaltic pyroclastics (often with interbedded chert) contain widespread disseminated chalcopyrite, pyrrhotite, and pyrite. These units strike to the northeast (dip SO' W) and are from 30 to 100 feet thick. Locally, +1% copper occurs in a 3-foet wide bed at the Sax showing and in a 6-inch bed 3,500 feet to the north of the Sax showing. Vertical-loop EM covered the Sax showing area, but no conductors were located. Rock geochemical copper values in cherts and basaltic pyroclastics north of the Sax mineralizatien show strong anomalies, but the favourable association of lead and zinc anomalies is lacking. But, it is still recommended that these horizons north to the Eden showing be examined and mapped, since Grove (1986) has reported massive sulphide boulders in the area unlike those found at the Eden property which indicates a more local source of the boulders. |
| Mac 3 Area | The main contact is tightly folded with footwall basalts showing possibly anomalous copper values similar to those found in the peripheral areas of the Hidden Creek Mine. Alteration is patchy in the basalts and includes weak quartz veining and chloritization. Basaltic pyroclastics are present and consist of tuffs and agglomerates with pods, lenses, and layers of chert. Minor amounts of pyrrhotite, pyrite, and chalcopyrite occur in both the cherts and basaltic pyroclastics and account for the possibly anomalous copper values (no lead or zinc anomalies in the rocks). No EM surveys have been done on this target. |
| Bonanza South 2 Area | Anomalous lead values are found in a 1,000 x 500 foot area of unaltered pillow basalts (copper and zinc background values) infer a mineralized horizon at depth. |
| Bonanza South 3 Area | Cherts and basaltic pyroclastics along the basalt/argillite contact in this area are anomalous for copper. No cherty material between pillows or anomalous copper values have been identified thus far. |

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|---|---|
| Bonanza South 4 Area | Target occurs along the basalt/argillite contact south of the Bonanza Mine. Cherts in this area are anomalous for copper, but the footwall basalts are unaltered and contain no rock anomalies for copper. It is interesting that this area is 300 feet stratigraphically above the south end of the Bonanza Mine and it is possible that the anomalous copper values represent mobilization of copper from the mine. However, a dispersion halo from a mineralized centre under the Bonanza syncline cannot be ruled out. |
| Double Ed South Area | Of interest is a basaltic pyroclastic unit (500 x 500 feet) containing fragments of basalt (9 x 2 inches) with a few scattered anomalous copper values. |
| Double Ed West Area | Of interest is a 100-foot-thick basaltic pyroclastic horizon that contains pyrrhotite and chalcopyrite (520 parts per million copper). Footwall basalts contain cherty pods between the pillows (with up to 1,700 ppm copper) and quartz veins. |
| Upper Dam Lake Area | Moderate quartz veining occurs in footwall basalts with one possibly anomalous copper value. |
| Knob Hill | There is said to be a magnetic high over this copper showing. |
| **Quartz Vein Occurrences** | |
| Black Bear | Quarts vein 12 feet wide containing a minor amount of molybdenite traced for 500 feet. Quartz gashes and stringers are exposed over a considerable width. |
| Deadwood | This metabasalt hosted shear zone strikes north and has been traced for 1,500 feet. The zone contains quartz stringers and sparsely disseminated chalcopyrite and pyrrhotite. |
| Quartz | A quartz vein 18 feet wide lies in argillite and parallels the bedding of the sediments for 2,000 feet. It consists of milky quartz, generally barren but locally containing minor pyrrhotite, chalcopyrite, and other sulphides. |
| Golskeish Quarry | This deposit was mined for several years, as a supply of quartz flux for the smelter at Anyox. Production began in 1919 and continued to 1930. Total production was 50,890 tons yielding 4,831 ounces of gold and 26,443 ounces of silver. The deposit is a quartz vein about 6 feet wide in argillite. The quartz is milky white and is sparsely mineralized with pyrite, sphalerite, galena, arsenopyrite, and other sulphides. |
| Ground Hog Quarry | Located on the south side of the head of Granby Bay is a quartz vein about 8 feet wide occurring in argillite. The vein is mineralized with pyrite and sphalerite, and contains gold and silver values. |
| Goldleaf | The mineral occurrence consists of quartz veins ranging from a few centimetres to one metre wide, sparsely mineralized with patches of galena, sphalerite, chalcopyrite and pyrrhotite. 5 tons yielded 7 ounces of gold and 2 ounces of silver. |
| Granby Point/ Reserve Quarry | At Granby Point, quartz veins in argillite were mined for flux by Granby. Total production was 62,040 tons yielding 5,795 ounces of gold, 196,260 ounces of silver, 174 pounds of copper, and 949 pounds of lead. |
| Larcom Island Quartz Quarry | Quartz veins have been noted, but no geological description of the occurrence is available. |

| | |
|---|---|
| Molly Mack | The main mineralized showing is at sea level west of Frank Point and immediately south of the contact between the Coast Intrusions and the sedimentary rocks to the north. South and west of the showing, leucocratic quartz monzonite porphyries of the Coast Intrusions form low ridges and weather to a uniform near-white. Phenocrysts (2 mm) of anhedral glassy quartz and euhedral feldspars make up most of the rock, with muscovite as the dominant mafic mineral. Sedimentary rocks in the area have been metamorphosed to a blotite-quartz hornfels and are cut by numerous 1-foot-wide sills of fine-grained quartz monzonite near the contact. The main zone of molybdenite mineralization is confined to a small area of biotite-rich granite within the quartz monzonite porphyries. The granite (consisting essentially of anhedral quartz, subhedral perthitic potash feldspar, and coarse flakes of biotite) contains irregular inclusions of hornfelsed sediments and is cut by lenses of quartz monzonite porphyry and fine-grained felsite dykes. Coarse-grained molybdenite mineralization within this zone occurs along the biotite cleavages and near the margins of 1-foot-wide quartz veins and lenses. The zone is oriented in a north-south direction and measures 4 x 10 feet. A chip sample from the zone assayed 12.7% MoS, with trace amounts of copper and lead. A few specks of molybdenite were noted in the intrusive rocks to the north and south of the main showing. |
| Molly May - East, West, and South | Molybdenite mineralization occurs within quartz monzonite porphyries. No geological description is available, but the area appears similar to the Molly Mack. |

## Appendix C

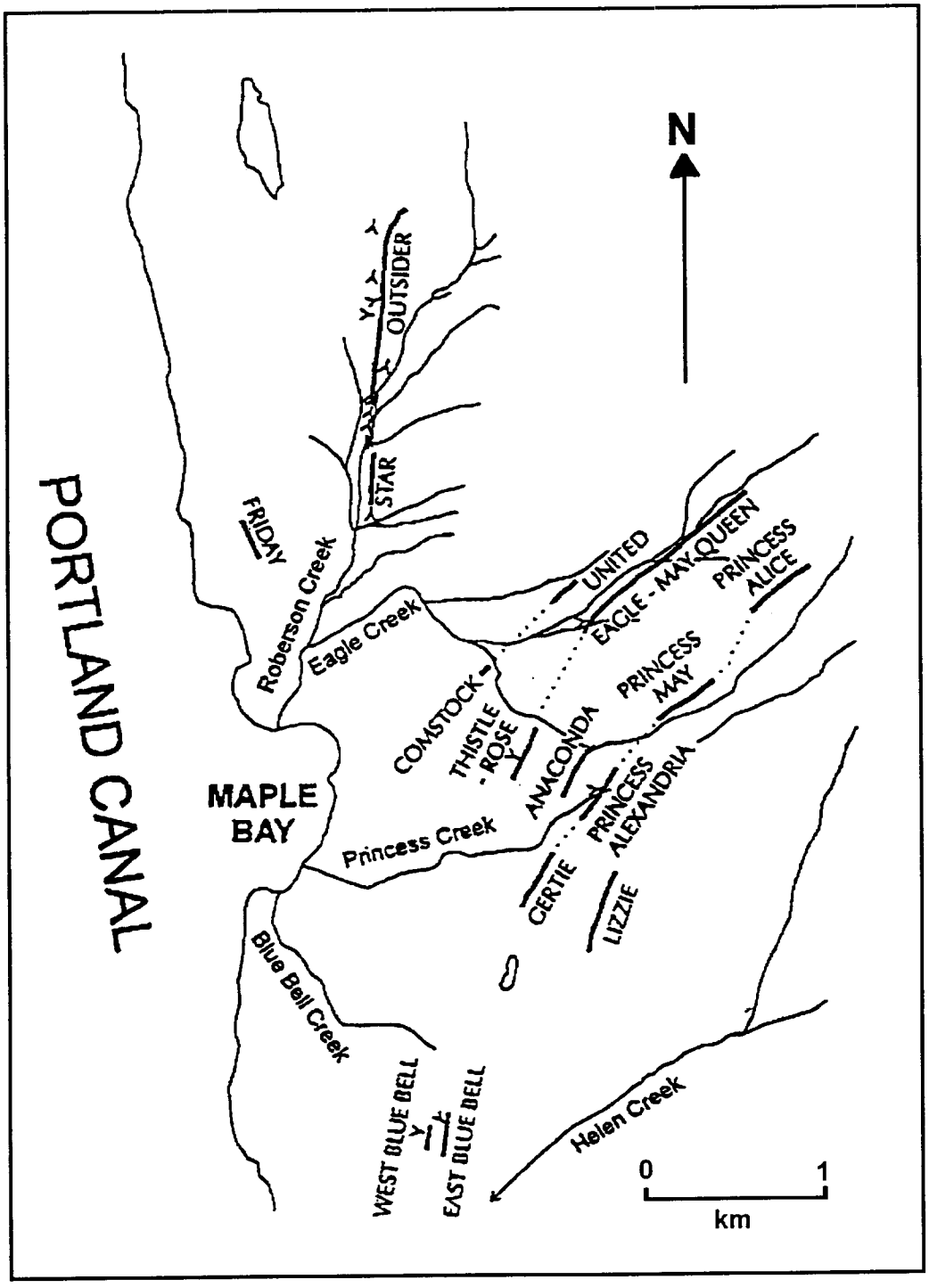
### EXPLORATION AND PRODUCTION HISTORY AT THE MAPLE BAY MINING CAMP

| YEAR | EVENT |
|---|---|
| 1896 | Blue Bell claims staked at Maple Bay by Lieutenant Mosier of the US Navy. |
| 1899 | Claims not worked. Dropped and restaked by John Flewin of Port Simpson. |
| 1899 | Eagle claim staked by missionary Collinson, then combined with Blue Bell into the Bluebell claim group. |
| 1900 | John Flewin staked the Comstock group, south of the Bluebell group. |
| 1902 | Flewin located a vein assaying 2-15% Cu and $30 Au/ton (51.43 g/t). |
| 1902 | Collinson and Noble made several discoveries nearby. |
| 1903 | Portland Canal Co. optioned 3 claim groups (18 Claims) and worked on these in 1903 and 1904. |
| 1904 | On the Copper King claims the Maple Bay (later Outsider) vein is traced for 700 m. Trenched and sampled every 30 metres. |
| 1905 | Brown-Alaska options Copper King group, drives several prospect tunnels and raises between levels. |
| 1905 | Brown-Alaska later options Blue Bell claim group. |
| 1906-07 | Brown-Alaska produces 226,757 kg Cu (14,514 @ 2.9% Cu). Outsider vein is traced across 7 claims. |
| 1907 | Copper King claim group is Crown-granted. |
| 1907 | On the Eagle claim group, a quartz vein 2.0-3.7 metres wide is exposed and traced for 460 metres. |
| 1907 | On Blue Bell claim, a tunnel is drifted on the vein for 15 metres. A second cross-cut tunnel is driven 46 metres below the first. |
| 1907 | Ownership of Outsider claim group transferred to Martin Waldson & Assoc. of Spokane after Brown-Alaska fails. |
| 1913 | Star claim Crown-granted. |
| 1913 | Granby Consolidated Mining and Smelting Company options all claim groups in the Maple Bay area. |
| 1915 | Princess and Comstock claim groups Crown-granted. |
| 1916 | Adit driven on Outsider vein for 215 metres, 4,536 t of silica flux material shipped to Anyox. Limited diamond drilling. |
| 1916 | Tunnel on Star claim driven 107 metres. Railway constructed for 220 metres to connect to 215 metre wharf structure. |
| 1916 | Thistle claim tested with an exploratory adit, then option dropped. |
| 1916 | Limestone quarry at Swamp Point in production at 3,630 tonnes per month. |
| 1917 | Lower adit at Outsider extended 100 metres. |
| 1917 | Swamp Point producing 4,175 tonnes per month, access to Reserve Quarry inland is completed. |
| 1918 | 912 Level tunnel driven 230 metres on Outsider vein. |
| 1918 | Granby drops option and dismantles plant and facilities. |
| 1918 | Prospecting, trenching and tunneling on the Eagle, May Queen, Princess, Anaconda and Blue Bell veins. |
| 1919 | 137,200 t limestone quarried at Swamp Point. |
| 1922 | Granby renews option on Outsider mine and produces until 1928. Veins followed underground for 600 metres. |

| | |
|---|---|
| 1923 | Start of a 2-year, 760 metre drilling program on the Eagle vein. Reserve estimate based on these results. |
| 1926 | Outsider produces 31,095 t ore yielding 459,981 kg Cu. |
| 1922-26 | From 1922-1926 mine produced 87,080 ore yielding 1,542,240 kg Cu, 2,022 g Au, 143,074 g Ag. |
| 1955 | Start of a 2-year diamond-drilling program on the Princess and Anaconda veins: 26 holes, 1960 metres. |
| 1956 | Star adit extended to 75 metres. Diamond drilling totalled 37 metres in three holes. |
| 1969 | Princess vein drifting for 133 metres on the 2,400 level. |
| 1970 | A 490 m crosscut adit was driven through the Thistle. Anaconda and Princess veins. |
| 1971 | Road constructed from Maple Bay to the lower portal (920 Level) of the Outsider mine. 100 metres of U/G development. |
| 1972 | The new 600 level adit is collared in a cliff above Roberson Creek and driven for 300 metres to connect with the down-dip continuation of the Outsider vein. Not intersected. |
| 1974 | Outsider vein tested with 85 metres of underground development on the 1295 level. |

## Appendix D

## MAP OF MAJOR VEINS AT MAPLE BAY MINING CAMP



## Appendix E

## ANYOX & MAPLE BAY

## GEOLOGICAL MODELS

### I. Subaerial and Submarine massive sulphides (VMS).

1. Hidden Creek
   15 volcanogenic massive sulphide lenses in seven (7) deposits within the Anyox pendant.

2. Anyox seven (7) deposits, 215-218 million years age possible Karmutsen

3. Besshi, Kuroko (Eskay, Windy Craggy, Cypress)

### II. Porphyry and Related Deposits

1. Porphyry Moly, Moly & Gold (Silver)

2. Porphyry gold silver

3. Pseudoporphyry (Granitoid ore deposits)

### III. Epithermal & Mesothermal Vein Deposits

### IV. Magmatic Deposits