PROPERTY EVALUATION REPORT

Destiny Bay Properties

(Valparaiso/Government Workings)

"HOT" Group of Claims

NTS 82 F/7

latitude 49°25' Longitude 116°43'

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,811
NO.

Prepared for

CUSTOM MINING INC.

#860 - 175 2nd Avenue

Kamloops, British Columbia

by

A.S. GREENE, P. GEOL.

Kootenay Bay, British Columbia

November 12, 1981

TABLE OF CONTENTS

TABLE OF CONTENTS (cont'd)

TABLE OF CONTENTS (cont'd)

SUMMARY

The Valparaiso Government Workings exploited a mineralized zone containing gold, silver and tungsten ore. Development took place intermittently from 1900 to 1934 and from 1953 to 1956. Numerous other showings and workings occur in a similar geological setting in the property area.

A moderate to steep dipping compound fault controls mineralization in the Valparaiso/Government Workings area. This fracture zone, approximately 2.5 meters wide has been traced northward from the Valparaiso Adit for approximately 1.6 km, continuing northward, apparently steepening slightly with depth. Quartz veins were found at intervals along strike to 1000 meters north of the Valparaiso Adit. The fault structure has been traced on surface from the 4300 foot elevation to the 3000 foot elevation, a depth of 1300 feet (400 m). The mineralized quartz vein and associated sulphides have been traced underground horizontally for about 1500 feet (450 m) and can be assumed to extend to a minimum 700 foot (220 m) depth (with possible pinch and swell however).

Mineralization at the workings occurred in two main stages: the first consisted of epithermal quartz deposition which carried gold and silver values and minor galena, sphalerite and chalcopyrite; the second was a high temperature stage and comprises pyrite, arsenopyrite and wolframite with good gold and silver values.

In the underground workings, over a distance of 690 feet (210 m), the grade averages .21 oz Au per ton/2.5 oz Ag per ton (8.75 g Au per tonne/104.2 g Ag per tonne) over an average sample width of 5.2 feet (1.6 m). The mineralization observed in underground sampling lies within an oxidized and leached zone which extends to between the 200 foot to 400 foot (estimated) levels.

SUMMARY (cont'd)

Beyond the lower limit of the leached zone a zone of secondary enrichment may occur. Primary mineralization values at deeper levels should display a better continuity of grade as well as enhancement of values when compared to near surface values.

A Phase 1 drilling program currently underway will verify and may increase the in situ indicated ore reserves determined from underground sample assay results of other workers spot verified by the writer. These reserves are presently estimated at 41,500 tons or 37,700 tonnes (over a length of 690 feet or 210 meters to the 100 foot level) at a grade of .21 oz Au per ton/ 2.5 oz Ag per ton or 8.75 g Au per tonne/104.2 g Ag per tonne.

If the results of Phase 1 drilling are encouraging, Phase 2 exploration (drifting and underground drilling) to deeper levels should commence.

INTRODUCTION

The Valparaiso/Government Workings area was examined by the writer in August, September and October, 1981, at the request of J.D. Mawhinney of Custom Mining Inc. The study by the writer consisted of inspecting surface, near-surface and underground geological features, character sampling in the mine area and of mill concentrate found at the mill site, and channel sampling in the underground workings. Upon geological examination and evaluation, drill sites were located, surveyed and prepared.

General description and geological reconnaissance covering the Hot groups of claims is outlined in a report by the writer compiled in July, 1981 for J.D. Mawhinney. Detailed examination and sampling of the Hope of Discovery workings (in the Hot H group of claims), German Basin workings (in the Trixie group in the Hot C group of claims), Imperial workings (in the Hot F group of claims) and the Lost Mine Workings (in the Hot E and F group of claims), as well as general reconnaissance and sampling of quartz vein exposures in the Hot D,E,F groups of claims was done in October, 1981.

The following report is a compilation of personal field observations and results, and records and reports of other parties, and the B.C. Department of Mines, Energy and Resources. References are listed in the bibliography.

PROPERTY

The following mineral leases and claims are held on behalf of Custom Mining Inc. by J.D. Mawhinney.

Crown Granted Claims

Lots 4907 and 4908 (optioned to J.D. Mawhinney from Matthew Pritchard)

Lot 3798 (owned by Custom Mining Inc.)

Lot 3797 (purchased by J.D. Mawhinney from Rob Pearson)

Mineral Leases (Reverted Crown Grants)

Lots 4911 and 4912 (purchased by J.D. Mawhinney from Earl Wilson)

Lots 3870 and 3871 (purchased by J.D. Mawhinney from Alfred Knudslien)

Located Claim Groups

The following groups have been purchased from Husky Development Ltd. by Custom Mining Inc.:

HOT, 1143(8) - 20 claims
HOT A, 1144(8) - 20 claims
HOT B, 1145(8) - 20 claims
HOT C, 1146 (8) - 20 claims
HOT D, 1161(8) - 18 claims

not included

The following groups are held by J.D. Mawhinney:

HOT E, - 6 claims (recorded July 15, 1981)

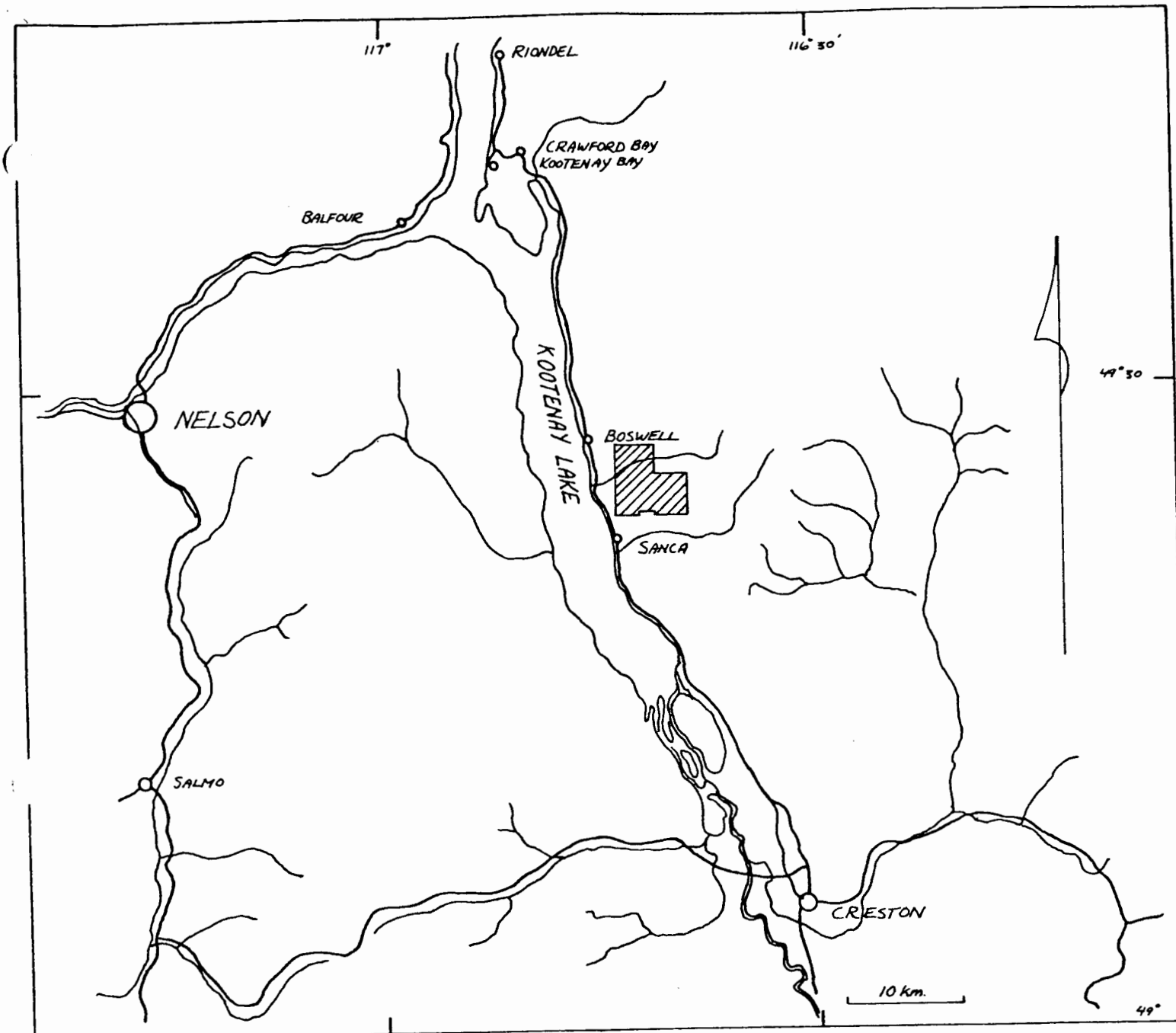
HOT F, - 15 claims (recorded July 15, 1981)

HOT G, - 15 claims (recorded September , 1981)

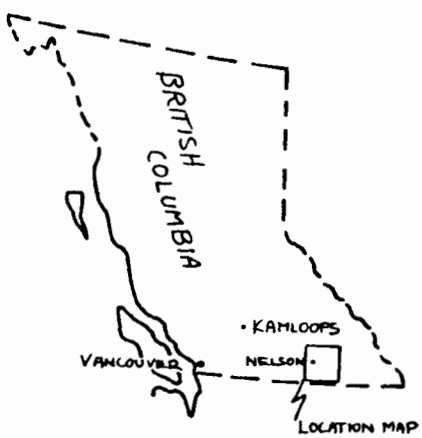
HOT H, - 18 claims (recorded September , 1981)

Hot J. - 18 claims (" Nov. 1981

Trixie Claims (optioned to J.D. Mawhinney by Norman Bainbridge)



CUSTOM MINING INC.



LOCATION MAP

1: 500 000

"HOT" CLAIM GROUP

GOVERNMENT/VALPARAISO WORKINGS

NELSON M.D. B.C.

LOCATION AND ACCESS

(Latitude 49°25'N; Longitude 116°43'W)

The property is in the Nelson Mining Division approximately 40 km north-northwest of Creston, B.C. east of Columbia Point on Kootenay Lake and south of Akokli Creek. The old mine, plant and buildings at the Valparaiso/Government Workings are situated 755 m above Kootenay Lake at approximately 4300 feet (1290 m) elevation.

Access is excellent. A recently built forestry access road (average grade of 10%) leaving Highway 3A east of Columbia Point rises to approximately the 990 m elevation where it joins the old mine road at approximately 4.5 km distance. The moderately to steeply graded mine road (average 20%) leads in 1.6 km to the old mine site. With improvement, the present mine road can accommodate tandem-axle vehicles in dry weather. A road is presently being constructed which will lead to the workings area at a grade of no more than 10%. The forestry access road can handle tractor-trailers.

A large area approximately 1 km north and 1.5 km northwest of the old mine site has been recently logged. Consequently good logging access roads are numerous. These roads could be extended 1 to 1.5 km towards the Government/ Valparaiso Workings or access portals at intervals at any elevation from 990 m to approximately 1525 m. Road access to future development and exploration sites can be constructed at anticipated grades of 10% or less.

The nearest rail point is at Sirdar, 30 km distance south of the old mine site. The Trail smelter is approximately 150 km distance by road.

CLIMATE, TOPOGRAPHY AND LOCAL RESOURCES

Climate

In the old mine area, climate is temperate. Summers are moderately dry and warm. Snowfall accumulation varies widely from winter to winter but is rarely greater than one meter. Annual precipitation is light to moderate.

Topography

The old mine area lies on a west-southwest facing mountain slope of 20° to 40°. While poorly sorted gravels and rock debris cover the ground below the old mine site up to an elevation of about 3000', frequent steep thinly covered and exposed rock outcrops and overgrown or timbered talus slopes occur adjacent to, above and below the workings. The old mine building sites have been built on a series of constructed cut and fill benches.

Water

Intermittent streams from which small quantities of water can be obtained occur in the vicinity of the old mine. These sources, however, are either inadequate for development work or are claimed by Water Licenses. Previous operators obtained water from Two and Half Mile Creek, 4 km to the north, brought to the old mine site via 3 inch plastic pipe. 2.5 km of this pipe has been removed by logging road construction. Since the Two and Half Mile Creek is known to have a consistent year round flow, this stream can likely provide water for any further mine development by means of pump and pipeline. Sufficient water for drilling is available from a small creek 220 m southeast of the old headframe.

Power

A power line (rated 2200 volts) extends from the transmission line on Highway 3A to the old mine site and appears to be in good condition. To become operational, the terminus needs only to be refitted with transformers and the power line right-of-way re-slashed. The power line is owned and maintained by West Kootenay Power Ltd. from whom power can be contracted.

HISTORY AND PREVIOUS WORK

History

The history of the Valparaiso/Government Workings area as described by A.F. Reeve (1964), corroborated by research by the writer, is as follows:

1898 - A claim was staked on the Imperial vein.

1900 - The Valparaiso Gold Mining Company acquired 7 claims in vicinity of the present workings and drove the Valparaiso cross-cut adit 200' east to the vein.

1901 - The Imperial and Valparaiso were closed due to litigation.

1919 - Imperial Mines Ltd. drove a 130' cross-cut to the Imperial vein.

1926 - Associated Mining and Milling Co. Ltd. acquired the claims of the Valparaiso Gold Mining Co. and Imperial Mines Ltd. and staked 20 additional claims. Work consisted of cleaning out old workings.

1927 - The holdings of Associated Mining and Milling Co. Ltd. were increased to 60 claims. No shipments were made to this point.

1928 - Sanca Mines Ltd. acquired the property of Associated Mining and Milling Co. Ltd. Some assessment work was done.

1930 - Sanca Mines Ltd. Performed assessment work.

1932 - Canada Smelters Ltd., an associate of Sanca Mines Ltd., built a pole track tramway from the Valparaiso portal to an ore storage bin 3000' downslope. A small portable gasoline-powered mill was installed.

1933 - Canada Smelters Ltd. shipped 324 tons of gold-silver ore to the Trail smelter. Average grade and character of the shipments is shown in appendix. The Government shaft was sunk to a depth of 275' and about 600' of lateral work was done in the Government/Valparaiso workings. All of the ore shipped was reportedly taken from development headings.

1953 - Mr. Wilson of Boswell leased the Valparaiso and Government claims and staked 15 more for the purpose of investigating the area for tungsten occurrences. The Valparaiso workings were cleaned out and surface

HISTORY AND PREVIOUS WORK (cont'd)

History (cont'd)

stripping was done. A 1000 lb. bulk sample was shipped out for testing.

1954 - Akokli Tungsten Mines Ltd., associated with Palouse Co. Ltd. Of Moscow, Idaho, performed underground lateral development, 1500 feet of long hole percussion drilling and some surface trenching on the Valparaiso/ Government zone. An electric powerline was extended into the property and a 500 CFM compressor was installed. A headframe, compressor-house and pilot mill buildings were erected.

1955 - Akokli Tungsten Mine Ltd. improved the Government shaft, did some drifting and drove a raise to surface. The pilot mill was completed. The mill treated 533 tons of tungsten material, and produced 11,200 lb. of tungsten-pyrite concentrate. Work ceased in November when the waterline froze. (Assay values of two broken barrels of concentrate left at the mill site sampled by the writer were 4.9% and 6.25% W)

1956 - Mr. E. Houghland, Consulting Geologist of Republic, Washington, did sampling and geological work, during a three month period, on behalf of Palouse Co. Ltd. Papers found on the property suggest that some work has been done since 1956, but records of the exact nature or extent of this work are not presently available. In 1964, the present holdings were acquired by Mr. M.J. Pritchard on behalf of Northern Pacific Mines Ltd.

Workings

The present workings of the Valparaiso/Government vein consist of two sub-surface developments - the Government Workings and the Valparaiso Workings. The workings and their condition is as follows:

Government Workings:

1. Shaft - 85 m in length, inclined at approximately 40° E following the

HISTORY AND PREVIOUS WORK

Workings (cont'd)

dip of the vein, 2 m by 3 m in cross section. Although some surface rubble has blocked the rail access down the shaft, the shaft appears in good condition. The bottom 40 m (estimated) are rubble filled. Head frame and manway are in a deteriorated condition.

2. Drifts - From a point approximately 25 m downdip from the collar, a drift extends northward approximately 140 m. This drift is caved from 12 m to 80 m. The drift extending southward from the shaft, 24 m long, is caved from 5 m.

3. Raise - This raise, approximately 91 m north of the shaft, extends 25 m to surface from the drift.

Valparaiso Workings:

The portal, approximately 400 m north of the Government shaft, was caved and covered but has subsequently been cleared. The south end of the workings are 76 m north of the Government north drift.

1. Cross Cut Adit - Intersects a drifted vein at 61 m east of the portal (fair to poor condition).

2. Drifts - 164 m southward, caved but accessible to 152 m. Generally in poor and hazardous condition.
- 38 m northward, caved.

3. Cross Cuts - 122 m south of the adit intersection are two cuts, 7 m eastward and 18 m westward, in good condition.

4. Raise - 9 m north of adit intersection, 23 m updip (blocked).

5. Winze - 37 m north of adit intersection, 36 m downdip (condition unknown).

HISTORY AND PREVIOUS WORK

Workings (cont'd)

Other workings in the old mine area visited by the writer were:

A lower Valparaiso cross cut adit, located 40 m below and to the north of the main portal, was driven 30 m eastwards but encountered no vein material.

The Lost Mine Tunnel, 40 m long, is located 975 m north of the Valparaiso adit at an elevation of 3450 feet. The portal is caved and covered. Another adit, the Gold King Adit, the portal of which is also caved and covered, lies 30 m north of the Tunnel at approximately 3400 feet elevation. The Adit was apparently driven eastward to intersect a vein at 30 m. A total of 67 m of drifting was apparently done. (See LOCAL GEOLOGY)

The Imperial Workings are located about 340 m east and about 200 m above the Government shaft in a vein structure parallel to the Valparaiso/Government vein. The underground workings consist of 40 m cross cut adit poorly accessible for 30 m and in hazardous condition. Several surface cuts extend from 50 m north of the adit to 300 m south of the adit. (See LOCAL GEOLOGY)

Buildings

Having been partially dismantled and stripped over the period since 1964, the existing buildings at the old mine site are in generally poor condition and unsafe.

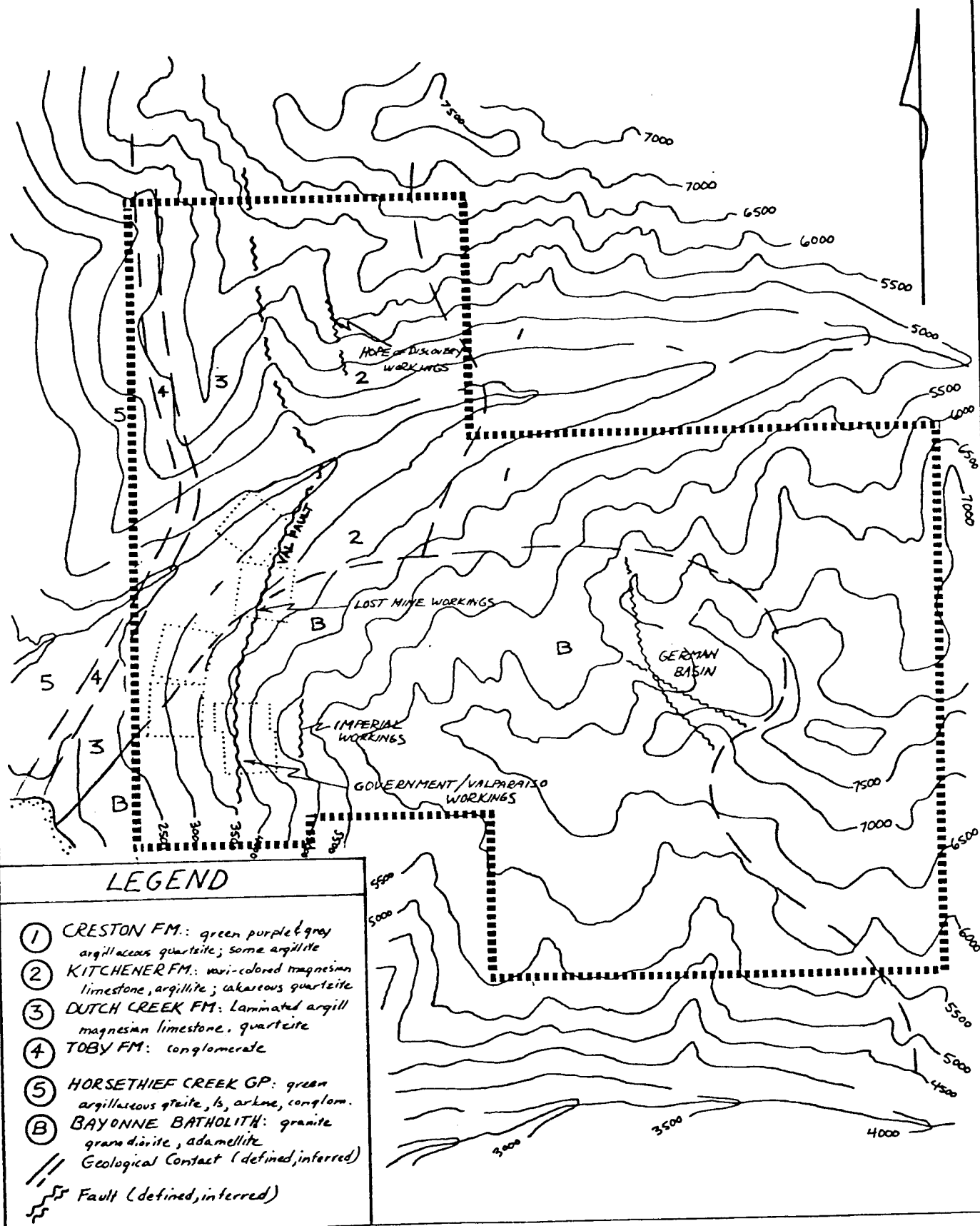
Previous Exploration of Valparaiso/Government Workings

The only record of previous exploration reports that 300 m of long hole percussion drilling was carried out in 1954. The results are not extant.

PRESENT WORK

Over the period of July through October, 1981, subsequent to the acquistion of the properties, the following work was done:

1. Character sampling of old dumps and old ore bins.
2. Upgrading and improvement of 3.5 km of old road (cat work only).
3. Construction of .9 km new road (cat work and blasting work).
4. Preparation of and surveying of six drill sites on new road at approximately 65 m spacings; preparation of four auxiliary drill sites if increased drill hole density for tonnage estimation purposes is desired.
5. Testing of VLF EM and fluxgate magnetometer equipment.
6. Construction of base line to the Lost Mine Adit (1000 m).
7. Preliminary geochemical sampling (94 samples).
8. Construction of a water collection and pumping system to supply drilling operations and future underground exploration operations.
9. Geological studies.
10. Commencement of road construction from Spur 6 logging access road to an exploration drift portal site.



LEGEND

1. CRESTON FM.: green purple & grey argillaceous quartzite; some argillite
2. KITCHENER FM.: vari-colored magnesian limestone, argillite; calcareous quartzite
3. DUTCH CREEK FM: Laminated argill magnesian limestone, quartzite
4. TOBY FM: conglomerate
5. HORSETHIEF CREEK GP: green argillaceous qtzite, ls, arkose, conglom.
B. BAYONNE BATHOLITH: granite granodiorite, adamellite

Geological Contact (defined, inferred)

Fault (defined, inferred)

CUSTOM MINING INC.

GENERALIZED GEOLOGICAL MAP

SCALE: 1:50000

ADAPTED FROM RKE, map 603A (1940) G.S.C.

1981-9 A.S.G *

GENERAL GEOLOGY

Geological History

Miogeoclinal sedimentation was initiated 1300 M.a. on presumably Archean metamorphosed basement rocks. Arenaceous and pelitic sediments, represented in the area of interest by the Creston, Kitchener and Dutch Creek Formations of the Purcell Supergroup of Proterozoic Helikian age, were deformed in late Helikian time into north trending folds, followed by regional metamorphism and uplift during the East Kootenay Orogeny. During Proterozoic Hadrynian (Windermere) time, the continental margin lay just west of or within the Kootenay Arc. The Purcell Arch, developed during the East Kooteny Orogeny, provided the immature and poorly bedded sediments observed in the Windermere assemblages represented in the area of interest by the Toby Conglomerate and Horsethief Creek Group.

Sedimentation continued from the east until late Paleozoic time. Uplift in the Omineca Crystalline Belt west of the Kootenay Arc related to the Cariboo Orogeny in late Paleozoic time is characterized by decollement type thrust faulting and folding from the west. The degree to which the Proterozoic rocks in the area of interest were involved has not been assessed.

Sedimentary deposition principally from the west took place through the early Mesozoic Era to Middle Jurassic time. Orogeny, beginning at this time, 165 M.a. and continuing to 97 M.a. resulted in emplacement of batholiths, plutons and stocks at different times and stages. Incipient back folding of Paleozoic strata which may have occurred during this period (Hoy, 1980) may or may not have involved older strata.

GENERAL GEOLOGY

Geological History (cont'd)

The Bayonne Batholith has not been precisely dated but it is believed to be 150 to 100 M.a. age. Since younging is eastward it is likely that emplacement of the batholith on the eastern margins of the plutonic terrain was late tectonic.

Stratigraphy

Formations, exposed in the area of interest within and near the property, of Proterozoic Hadrynian and Helikian age are as follows:

Creston Formation - Vari-colored argillaceous quartzite forms the bulk of the rock material. The writer noted that argillaceous quartzites were interbedded with thin bands of chlorite schist on the northestern portion of the property. This unit is probably transitional to the platy or laminated argillite described by Rice (1934). Narrow beds or lenses of calcareous rocks appear near the top of the formation where it is transitional to the Kitchener Formation.

Kitchener Formation - The Kitchener consists generally of impure dolomite, argillite and calcareous quartzite, with calcareous rocks forming the bulk of the Formation. There are no abrupt changes in lithology to distinguish it from the underlying Creston Formation and the overlying Dutch Creek Formation.

Dutch Creek Formation - Slaty argillite comprises most of the Dutch Creek Formation generally grey to black in color, occasionally green. Some argillite is calcareous grading to argillaceous dolomite. Similarly some argillite is sandy grading to argillaceous quartzite. Impure calcareous rock are common only in the basal units.

GENERAL GEOLOGY

Stratigraphy (cont'd)

Toby Conglomerate - The Toby is a variously sorted siliceous quartz-arkose foliated pebble conglomerate.

Horsethief Creek Group - Outcropping north-west of the property, the rocks are generally grey chlorite sericite phyllites with occasional thin beds of pebble conglomerate.

It should be pointed out that the stratigraphy and structure in the area of interest has been largely generalized and is not completely understood. As Hoy (1980) has ably demonstrated in the Riondel area, the structural geology in the region can be very complex. It is possible that the Lower Purcell units mapped on adjacent formations may be the same unit in overturned steeply recumbent isoclinal fold structures. Note the similarity of the Creston, Kitchener and Dutch Creek Formations.

Intrusives

The Bayonne Batholith - A lobe of the Bayonne Batholith extending from the west and from the south into the property is typically a white to light grey, medium to coarse grained biotite granodiorite. Phenocrysts of microcline occur in the rock locally and are generally small in size. Locally, the intrusive rock may be weathered and friable, the feldspar altered to kaolin . Fine-grained pink to grey aplite dikes transect the granitic rock frequently.

The contact to the metasediments is irregular, with numerous apopheses and

GENERAL GEOLOGY

Intrusives (cont'd)

relict country rock. The metasediments observed near the margins have been silicified and bleached in narrow aureoles.

A lamprophyre dike, reported in the footwall of the Government Workings, outcrops 150 m south of the shaft. A similar dike outcrops at DDS V-81-1 and another was noted on the hanging wall of a quartz vein in the Imperial Workings.

Metamorphism

The metasediments north of the intrusive were not examined in detail. However, cursory inspection indicates in general a greenschist facies. The contact aureole, where it appears, is narrow.

Geological Structure

Regional structural studies have not been completed. However, foliation measurements north and west of the intrusive rocks showed steep eastward dips on planes striking 10° - 20° east of north. This suggests an eastward dipping fold axial plane consistent with other areas adjoining the Kootenay Arc. Generally speaking, the fold axial planes in the region tend to be overturned to the west. It should therefore not be surprising if foliations tend to steepen with depth. Bedding may dip moderately to the west at higher elevations but can parallel foliation at lower elevations.

Although many faults in the Kootenay Arc antedate Mesozoic igneous intrusions,

GENERAL GEOLOGY

Geological Structure (cont'd)

Workings. In the Workings area, the Fault is oriented between N 20° W/40° - 50° E and N 10° E/35° - 50° E.

In the Hope of Discovery showing on the north side of Akokli Creek, at an elevation 5500 feet, roughly on the strike of the Val Fault, two narrow shears control mineralization. These are N 15° W/80° E and N 35° W/80° W to 60° E. The Val Fault at the Lost Mine Area, one kilometer north of the Valparaiso/Government Workings at 3450 feet elevation is oriented N 20° E/75° E. East of the Val Fault in the Imperial Workings, at an elevation 5300 feet, vein fractures are oriented between N 15° W/ 30° E and N 30° E/60° E. It should be noted that changes in the orientation of the Fault over short horizontal or vertical distances, and the increased ground permeability or brecciation that can result may be a factor in the structural control of local mineralization.

In the Valparaiso/Government Workings, two fault events important to vein deposition occurred. The first developed with a N 30° - 50° E/ 50° - 80° E orientation, the second and better developed occurs with a N 20° W to N 20° E/ 35° - 50° E orientation. Both fractures host quartz and sulphide veins, although it appears from cutting relationships that early quartz tended to prefer the former faults, while later quartz deposition and hypothermal sulphides tended to follow the major north trending fault.

In some areas of the Valparaiso/Government underground workings, the host granodiorite has been strongly brecciated, especially on the footwall. In these breccia zones, up to one meter thick at the 50 foot level, the feldspar

GENERAL GEOLOGY

Geological Structure (cont'd)

the ubiquitious development in the intrusive of smooth, closely spaced planar joint surfaces or sheets indicates that faulting, while perhaps conforming to older structural trends, considerably postdates the intrusion.

The development of these fault sheets is likely the result of the relaxation of east-west stresses imposed during Late Mesozoic Orogeny. Consequently, the fault zone, referred to in this report as the Val Fault, was initially formed as a zone of moderately dense concordant fracture surfaces or sheets along which subsequent dipslip movement took place.

While a moderate to steep dip of fault sheets was observed by the writer in the Workings area and north, Rice (1941), on the other hand, noted moderately westerly dipping north trending vein fractures within the Bayonne Batholith. This is the case for west dipping vein fractures studied by the writer in the German Basin, several kilometers east of the workings.

In the less anisotropic intrusive rocks, it is possible that fracture zones occur as a part of a large scale conjugate set with opposing dips and common strike. It is also possible that the major sheeted faults splay outwards near the margins of the intrusive mass but tend to parallelism near the plutonic centers and with depth.

A major fault structure or sheeted zone, conforming closely to the fabric of the schistose metasediments in the Akokli Creek Valley, traces southward into the intrusive rocks without apparent attenuation or refraction. This fault zone, the Val Fault, is the locus for mineralization in the Valparaiso/Government

GENERAL GEOLOGY

Geological Structure (cont'd)

has been largely altered to kaolin and the zone appears as a white, granular mud seam. Gold and silver carrying sulphide veins and veinlets frequently occur along the margins of these zones.

Slickensides, seen well developed in portions of the underground workings, especially where caving has taken place, indicate at least moderate dipslip displacement. Quartz veins tend to be fractured, both roughly perpendicular as well as parallel to the orientation of the vein. The former fractures are likely joint surfaces, but the latter, especially where mineralized, are shears. The indication is that fault movement and mineralization took place subsequent to the cooling of the quartz vein material.

The development of the structural features observed in the Valparaiso/Government Workings occurred in several stages. The sequence is postulated as follows: development of sheeted fractures during the cooling of the intrusives and relaxation of horizontal stress; normal movement along predeveloped surfaces; intrusion of quartz veins along northeast trending fractures; small order normal movement along north trending fractures and development of the major fault zones; quartz vein intrusion along the north trending fractures; normal movement, shearing, brecciation and sulphide mineralization near and in quartz vein material; intrusion of lamprophyre dikes.

LOCAL GEOLOGY

In addition to the Valparaiso/Government Workings area, geology and mineralization were studied in the Lost Mine Area, the Imperial Workings area, in the German Basin and in the Hope of Discovery Workings (see Property Map for approximate location). The detailed geology of the Valparaiso/Government Workings is discussed under the heading of ECONOMIC GEOLOGY and was also referred under Geological Structure.

Lost Mine Area

The Lost Mine Tunnel, 40 m long, is located 975 m north of the Valparaiso adit at an elevation 3450 feet. It was geologically examined and channel sampled. The portal is caved and covered but reveals a 1.4 m wide vein and shear zone (N 20° E/70° E). The shear zone is the lateral continuation of the Val Fault, which controls mineralization in the Valparaiso/Government Workings. The zone (channel sampled by the writer) is comprised of two fractured quartz veins, .4 and .6 m thick respectively, and a narrow footwall gouge zone containing weathered sulphides (mostly pyrite) with intervening altered granodiorite. Considerable oxidation and leaching is evident.

Another adit, the Gold King Adit, 30 m north of the Lost Mine Tunnel, at approximately 3400 feet elevation, was apparently driven eastward to intersect the vein at 30 m. A total of 67 m of drifting was apparently done. However, as this portal is also caved and covered, only grab samples from the old dump could be obtained.

Both these workings merit excavation work, underground sampling if possible, and further exploration by geochemical sampling. Gold values have been

LOCAL GEOLOGY

Lost Mine Area (cont'd)

reported in the workings both in quartz and in greisen (micaceous material).

Imperial Workings

The Imperial Workings are located about 340 m east and about 200 m above the Government shaft, in a vein structure parallel to the Valparaiso/Government vein. The underground workings consist of a 40 m cross cut adit, accessible for 30 meters in a poor, hazardous condition. Several surface cuts were examined and sampled by the writer. The northernmost cut, lying 50 m north-east of the adit consists of a.5 m thick quartz vein underlying a lamprophyre dike oriented N 15° W/30° E. 100 m south of the adit, a large caved open cut (which may have been an adit) displays a good exposure of sheared granodiorite N 0°/30° E. Large blocks of quartz vein material found in the dump were sampled. 250 m south of the adit and 30 m lower, a series of small open cuts show a narrow quartz vein (.25 m) in granodiorite oriented N 30° E/60° E, which the writer sampled. 30 m south of the adit, and 40 m lower, a small trench reveals a quartz vein lying at E 10° S/25° N.

German Basin

The German Basin Workings, originally developed in the late 1800's, lie on the south side of Akokli Creek, 3.6 km east of the Valparaiso/Government Workings at an elevation of about 700 feet. The underground workings consist of a long adit (portal caved), a 35 m adit driven in on a quartz vein 20 m higher, and a water filled shaft (depth unknown) 65 m southwest of the

LOCAL GEOLOGY

German Basin (cont'd)

lower adit. The higher adit and the shaft were examined and sampled. Several raises to surface and stopes have been driven from the adits. The raises however, are also caved. A series of open cuts following the same quartz vein and fault structure for about 100 m on a north ridge of the basin, were also sampled and examined.

5 m inside the portal of the upper adit, 100 m southeast of the lower adit, a 2 m thick milky quartz vein oriented N 5° W/35° W has been stoped updip for about 4 m. A major fault structure N 45° W/90°, intersects the controlling shear at this location. The vein consists of coarsely crystalline vuggy quartz mineralized with galena and pyrite in irregular bands, patches and clustered in vuggy quartz. Thin, dark to rusty weathered sulphide bands were observed underground along the margins of the quartz vein footwall. There is slight chloritization, seritization and pyritization of the granodiorite host rock on the footwall. Examination of the vein underground shows the vein pinching and swelling at intervals over the 35 m exposed distance, varying in thickness from a maximum of 2 m at the portal, to a minimum of .15 m 15 m and 35 m south of the portal. The vein ranges in orientation from N 5° W/35° W to N 10° W/45° W. The vein has obviously intruded a pre-existing shear zone of closely spaced fractures, as is evident in some places by the occurrence of parallel wallrock remnants within the quartz vein. Fractures within the quartz parallel the shear and were probably developed after cooling.

LOCAL GEOLOGY

German Basin (cont'd)

A quartz vein is exposed in a downdip shaft 65 m southwest of the lower adit and approximately 5 m below. The narrow .1 meter vein occupies a shear oriented W/65° S and shows visible spotty galena mineralization.

The open cuts on the north ridge, 500 to 600 m north of the underground workings, expose an irregular quartz vein up to 1 meter thick. The northernmost trench exposes a .6 meter galena mineralized quartz vein N 40° W/55° W , truncated or faulted off by an N 10° E/40° E oriented fault. Approximately 70 m south of this exposure is a 1 meter thick unmineralized vuggy quartz vein oriented W/35° S.

Hope of Discovery Workings

A very good but overgrown road leads 3.5 km from a forestry access road on the north side of Akokli Creek, approximately 2 km east of Highway 3A to the workings site at the 5500 foot elevation. The workings, approximately on strike and 4 km north of the Valparaiso/Government Workings, consist of a 24 meter adit with a 3 meter raise to surface, following a quartz lead and 30 meters of surface trenching above the adit. Construction includes two ore bins and a waste chute in fair condition (approximately 4 tons of mineralized rock remain in the bins)

The showing lies in a jointed or fractured dolomite, poorly bedded at N 10° E/ 65° W, cut by common quartz/calcite veins to .1 meters in thickness. The dolomite unit, approximately 150 m thick, grades eastward to a moderately to thinly bedded dolomitic argillite. Westward, the dolomite contacts argillites

LOCAL GEOLOGY

Hope of Discovery Workings (cont'd)

and argillaceous quartz pebble conglomerates.

Mineralization consists of galena in vuggy quartz and dolomite, .1 to .3 meters in thickness, occasionally pinching to .02 meters. Near the vein the dolomite is brecciated but no alteration was visible. Shears oriented N 35° W/80° W and N 15° W/80° E control mineralization. Mineralization is generally patchy but occasionally occurs in bands along quartz vein margins for short distances. Several channel samples across the vein were taken by the writer (see Addenum III and assay results).

ECONOMIC GEOLOGY (Valparaiso/Government Workings)

Mineralization

At the Valparaiso/Government Workings mineral and quartz vein deposition is controlled by parallel fractures within a major sheeted zone striking northward and dipping 35° to 50° to the east, and a minor zone of parallel fractures striking northeastward and dipping 50° to 80° to the east. The major fracture zone (the Val Fault) persists along strike to the northern margin of the intrusive and extends into the metasediments. The host rock is a biotite granodiorite which is chloritic and sericitic within and in the vicinity of mineralization, adjacent to quartz veins and locally adjacent to some concordant fractures. The mineral assemblages indicate both low to moderate and high temperature hydrothermal activity. Alteration of feldspar to muscovite (greisenization) occurs over narrow widths in the host rock near quartz veins in some locales. In general, alteration in the host rock near quartz veins or shears is chloritic, sericitic and kaolinitic, gradually decreasing outward, away from the shear. Kaolinization is apparent where granodiorite is permeable to meteoric waters, especially in brecciated granodiorite.

Inferred from results from spectrographic analysis of two character samples, the primary vein materials in order of abundance are: vein quartz, pyrite, arsenopyrite, wolframite, galena, sphalerite, chalcopyrite, silver and gold.

Pyrite, arsenopyrite and wolframite occur together and probably arrived and were precipitated in close synchronicity. Although wolframite with arsenopyrite occurs in sheared and altered wallrock, often in ribbon structures, it

ECONOMIC GEOLOGY

Mineralization (cont'd)

well and footwall sides of brecciated shear zones.

Although the arsenopyrite-wolframite assemblage is high temperature, its very fine crystalline texture indicates that the assemblage was not necessarily deposited at great depth. The suggestion is that the mineralization of the Valparaiso/Government Workings has the characteristics of xenothermal deposition.

A characteristic of xenothermal deposits, those formed under high temperature conditions in low pressure environments, is that there tends to be mixing or telescoping of high and low temperature mineral assemblages. The sequence is generally high temperature minerals followed by low temperature minerals. However, the occurrence of occasional wolframite in sheared quartz indicates a reverse sequence at this level. The implications are firstly that a range of mineral assemblages may be encountered in deeper exploration; secondly, since higher temperature minerals should be eclipsed by low temperature assemblages, notably silver-gold-quartz, there is a possibility that a low temperature assemblage later in the depositional evolution and in addition to the early low temperature assemblage observed at the higher level, will occur at deeper levels.

Channel sampling of oxidized sulphides alone, near the hanging wall of a quartz vein, yielded high assay values in gold and silver, while samples of quartz vein material only yielded low values of gold and silver (the exception is where quartz has been sheared and subsequently mineralized or replaced by sulphides). The implications are firstly that the sulphides, not the quartz, were the principal carriers of gold, silver and tungsten and precipitated

ECONOMIC GEOLOGY

Mineralization (cont'd)

with pyrite as well was also observed thinly deposited along fracture shears in quartz vein material. Similarly, small amounts of chalcopyrite with pyrite and galena occur in vein quartz, but generally these minerals are scarce. Gold values fluctuate in direct proportion to silver values (see Sample Profile) and were likely deposited in the same stages, i.e. in vein quartz and with sulphides.

The depositional sequence, determined from preliminary work only, is: vein quartz, probably epithermal, with minor pyrite carrying low gold and silver values; minor galena, sphalerite and chalcopyrite in the same depositional stage as, or carried in solution with vein quartz, probably epithermal; vein quartz, probably hypothermal, followed closely by shearing and deposition of pyrite, arsenopyrite, wolframite, gold and silver, probably at high temperature. The low and high temperature phases were probably separated by a period of cooling, minor fracturing and shearing. Occurrence of the late phase (probably post ore) lamprophyre dike in the Government Workings and the similar association of lamprophyre with quartz veining in other locales suggests perhaps a genetic relationship to quartz veining and sulphide mineralization.

Mineralization, with the exception of pyrite, is generally aphanitic to very finely crystalline. Wallrock replacement along shears and in brecciated material is the dominant depositional tecture. Sulphide mineralization is generally on the footwall side of quartz veins or brecciated shear zones. Parallel quartz veins from .1 to .5 meters in thickness, occurring usually in threes or as a pair, .2 to .6 meters apart, are found both on the hanging

ECONOMIC GEOLOGY

Mineralization (cont'd)

later than quartz. Secondly, since at the level at which samples were taken, samples not enclosed by quartz material were leached and oxidized, values from sulphide veining should increase significantly near the bottom of the oxidized zone in a secondary enrichment zone below the present workings. As a rough estimation, the top of the primary zone of mineralization may, on the evidence of the degree of leaching at the 50 foot level, first occur between the 200 and 400 foot levels.

In the old workings silver values are not generally associated with the occurrence of galena but rather with gold and other sulphides.

Because of the greater mobility/solubility of silver in hydrothermal solvents, in locales where high silver/gold ratios occur, particularly where grade is good, improvement of gold grade relative to silver with depth is possible. This may be the case in sections 1, 2, 3 and 7, 8, 9 of the Sample Profile, which are in the southern 300 feet of the Government Workings and the southern 200 feet of the Valparaiso Workings respectively.

On the other hand, if the silver/gold ratio observed is due to differences of gold and silver mobility/solubility in meteoric waters, silver values should increase relative to gold with depth in all sections that are water permeable.

In channel sampled mineralized quartz veins, tungsten values over vein widths range from .1% to .2% (or 2 to 4 pounds per ton). The relationship between gold-silver and tungsten as seen in assay results is not always direct. This also may be due to the leaching effect of metallics from the sulphides. The

ECONOMIC GEOLOGY

Mineralization (cont'd)

result is erratic values as a function of different mobility/solubility characteristics of gold, silver and tungsten and the degree of permeability of the mineralized zone to the downward flow of meteoric water.

Sampling

A reproduction of recorded smapling information by Houghland (1956), Curtin (1933) and O'Grady (1926 - 1927) plotted by A.F. Reeve (1964) together with his own sampling data on an underground plan is enclosed. The sampling information gives gold and silver values only.

Sampling by the writer consisted of obtaining character samples of dumps, ore bins and remains of concentrate at the mill and underground character and channel samples. The assay results (see assay certificates, Sample Data Sheet in Appendix III and Plan by A.F. Reeve) bear out the results of sampling by other workers.

Ore and Mineralization Estimation

The results of a drilling program underway at the time of writing will verify the underground sampling of other workers. The assay results of core, together with underground sampling results, will also permit grade and tonnage calculation. Until completion of the drilling program, in situ tonnage as calculated from underground sampling in the existing drifts is considered as indicated ore and indicated mineralization. No estimates of inferred tonnage can be made

ECONOMIC GEOLOGY

Ore and Mineralization Estimation (cont'd)

until assay values of downdip or lateral vein intersections are obtained. These will provide information for the estimation of the change and rate of change of mineralization grade with distance and depth, which in turn will enable the extrapolation of values laterally and downdip.

Tonnage Estimation from Sample Profile: (gold and silver only)

The profile enclosed is a lateral construct of the sampling data obtained in the workings at the 50 foot level by other workers (see Sample Records and Plan). Results of channel sampling by the writer (see Appendix III and assay certificates) agree closely with the sampling results of other workers near the same stations.

Weighted mean values over convenient distances ranging 30 feet to 200 feet are shown in numbered sections on the profile. It can be reasonably expected that these mean values should persist 80 feet updip and 80 downdip from the present workings. Tonnage calculations of the profile sections follow on the next page.

Note that sections 1, 4, 5, 6, 7 covering a horizontal distance of 690 feet (210 m) have mean values of .17 to 3.6 oz Au per ton, 1.6 to 4.6 oz Ag per ton over approximately 5.2 feet (1.6 m). Total tonnage (indicated ore) to the 100 foot level in these sections is calculated as 41,540 tons at .21 oz Au per ton and 2.5 oz Ag per ton(37,720 tonnes at 8,75 g Au per tonne and 104.2 g Ag per tonne). In the remaining sampled sections 2, 3, 8 to 14, a horizontal distance of 735 feet (224 m) indicated mineralization to the 100 foot level amounts to 57,518 tons at .09 oz Au per ton and .85 oz Ag per ton (52,230 tonnes at 3.75 g Au per tonne and 35.4 g Ag per tonne).

ECONOMIC GEOLOGY

Ore and Mineralization Estimation (cont'd)

Note that sections 1 and 14 are open to the south and north respectively. With respect to section 1, however, from a point estimated at 200 feet (65 m) south of the underground workings, the vein system is progressively truncated by a west-draining gully and creek valley which cuts across the strike of the vein and which has eroded vein material down to the 200 foot (estimated) level, 600 feet (200 m) south of the underground workings.

Tonnage Calculations

Section	Sampled Section Length		Est. Depth (80+80-5)		Sampled Width (ft)	Volume (ft^3)	Tonnage(tons) (@.1 ton/ft^3)	Assay Mean Au/Ag	Width (ft)	Au (oz)	Ag (oz)
1	135	x	155	x	4	83 700	8 370	.36/4.6	4	3 013.2	38 502
2	100	x	155	x	5.5	85 250	8 525	.06/1.55	5.5	511.5	13 214
3	100	x	155	x	6.4	99 200	9 920	.07/2.6	6.4	694.4	25 792
4	100	x	155	x	6.4	99 200	9 920	.17/1.6	6.4	1 686.4	15 872
5	100	x	155	x	6.5	100 750	10 075	.20/1.2	6.5	2 015.0	12 090
6	250	x	155	x	5.5	251 875	25 188	.18/2.1	5.5	4 533.8	52 895
7	100	x	155	x	4.5	69 750	6 975	.24/4.6	4.5	1 674.0	32 085
8	50	x	155	x	4.2	32 550	3 255	.22/5.4	4.2	716.1	17 577
9	50	x	155	x	4.1	31 775	3 178	.14/5.4	4.1	444.6	17 150
10	100	x	155	x	4	62 000	6 200	.11/1.4	4	682.0	8 680
11	60	x	155	x	4.3	39 990	3 999	.04/.3	4.3	160.0	1 200
12	120	x	155	x	4.7	87 420	8 742	.06/.9	4.7	524.5	7 868
13	30	x	155	x	5.3	24 645	2 464	.14/1.9	5.3	345.0	4 682
14	125	x	155	x	5.8	112 375	11 237	.09/.7	5.8	1 011.3	7 866

ECONOMIC GEOLOGY

Geochemical Sampling

Preliminary geochemical sampling (94 samples) was done mainly to test the viability of using the method in future work. Of the first results received at the time of writing, samples taken across the fault trace from the Valparaiso portal to 100 meters north were anomalous in gold and occasionally anomalous in tungsten. Gold values ranged from 400 ppb to 1000+ ppb (background 40 ppb); tungsten, 10 to 25 ppm (background - 2 ppm). Some geochemical samples, however, were taken from the "A" soil zone because of the absence of "B" soil zone development. These yielded only background values.

DIAMOND DRILL PROGRAM

A diamond drill program has begun at time of writing and is intended to validate previous sampling, to prove out present indicated tonnage, to provide data for indication and inferral of additional tonnage and to provide geological information to aid future exploration. Seven drill sites and three auxiliary drill sites have been prepared east of the underground workings (see Plan). One, or possibly two, holes of NQ size or perhaps BQ size will be drilled from each drill site to intersect the vein. Hole depths will range from 350 feet (110 m) at 60° to 500 feet (150 m) at 90°. In addition to encountering the mineralized zone developed in the workings, concordant fractures and possibly minor veins related to the Val Fault are expected to be penetrated.

The first drill site, DDS V-81-1, lies east of a 150 foot (45m) section where mean assays are .22 oz Au/ton to .24 oz Au/ton and 4.6 oz Ag/ton to 5.6 oz Ag/ton. Subsequent drill sites, DDS V-81-2 to 7, have been placed approximately 200 feet (60 m) apart south of DDS V-81-1. Holes from DDS V-81-6 and 7 will explore the area south and east of the Government Workings.

Casing may be left in selected vertical holes should it be warranted at a later time to re-enter the holes to drill to deeper levels or to employ borehole geophysics in lateral investigations.

CONCLUSION

The potential of the Val Fault in general and the Valparaiso/Government Workings area in particular for an economic vein-type deposit is good.

In the leached oxidized zone alone, indicated gold, silver ore tonnage of approximately 41,500 tons at .21 oz Au per ton/2.5 oz Ag per ton (37,700 tonnes at 8.75 g Au per tonne/184.2 g Ag per tonne) and fairly consistent tungsten values of .1 to .2% in sampled mineralized zones is an encouragement fur further exploration. The bulk sampling of several hundred tons from an exploration drift at the 300 foot level below the Government Workings would provide grade, metallurgical and geological information to aid in the planning of a small scale mining operation, if so recommended, and to aid in exploration planning.

The length (a minimum of 2 km) and depth (minimum 1 km) of the Val Fault, its sheeted nature and the existence of vein systems in addition to that at the Valparaiso/Government Workings parallel to the Fault strike indicates a major structural feature. The structure appears basically simple in form and together with its size feature and known mineral occurrences is an excellent prospect for further exploration.

While gold and silver values occur in quartz, best values are found where quartz is associated with sulphide and wolframite mineralization (sampling results of sulphide zones only, even though oxidized and leached yield gold and silver values considerably greater than in quartz vein material alone). Exploration should therefore concentrate on locating sulphide mineralization in the vicinity of known occurrences.

The zone of oxidation and leaching, particularly affecting massive sulphides,

CONCLUSION

extends deeper than the present underground workings down to perhaps the 200 foot to 400 foot level. Near the bottom of the leached zone, a zone of secondary enrichment above the primary zone may be developed. This zone should be the target for exploratory drifting and preliminary bulk sampling (the exploratory drift portal site to which a 1 km new road is presently being constructed, lies at approximately the 300 foot level). In the primary zone, the kaolinized breccia zones, largely barren, (except along margins) at the 50 foot level, have a greater likelihood of carrying values at deeper levels. On the whole, metallic concentrations should be greater at deeper levels than at the level of the present underground and surface workings.

RECOMMENDATION AND COMMENTS

Drilling, Drifting and Sampling

The diamond drilling program presently being conducted will delineate additional indicated potential ore tonnages, will test the downward and lateral development of the grade and character of mineralization and will provide assay values for tungsten grade estimation, presently generally unavailable from caved or inaccessible portions of the underground workings. Should values encountered in the diamond drill holes of Phase 1 be encouraging, a second phase of exploration should commence.

The Phase 2 Program should consist in part of the drifting of an exploratory adit 300 to 400 meters in length driven in at right angles to strike at the 300 foot level below the Government Workings. From the vein intersection to the eastern end of the adit, a minimum of 100 meters beyond, exploratory drill holes can be spotted at intervals and fanned north and south to evaluate the Val Fault at deep levels in this area. (In the very steep terrain, the length of diamond drill holes required to reach deeper levels from surface would result in considerable footage, site and road preparation costs.) Also in the Phase 2 Program, the bulk sampling of the vein material at the drift/vein intersection should be done, principally to provide grade and metallurgical information.

Following the Phase 1 and Phase 2 Programs, a Phase 3 Program to prove up indicated tonnage and to explore the Val Fault laterally and to deep levels, should begin. Depending on the Phase 1 drilling results and the Phase 2 underground drilling results, site preparation in locations along strike and downdip, where terrain is favourable, should commence, followed by drilling.

RECOMMENDATIONS AND COMMENTS

Drilling, Drifting and Sampling (cont'd)

North of logging license boundary, .7 km north of the Valparaiso adit, all portions of the Val Fault to Akokli Creek are accessible by existing logging road and skid trails. After detailed surface geological investigations have been conducted, favourable sections in this area should be trenched, sampled and drilled. The Lost Mine area in particular deserves re-evaluation. The old workings should be re-opened, geologically mapped and sampled if accessible. Drilling should follow if warranted.

Geophysics

A Phase 3 Geophysical Program to locate or verify fracture zone and mineralization extensions along strike can be undertaken during or following Phase 2 operations. The cost and advantages of a geophysical program over the Val Fault should be carefully compared with simply extending the Phase 1 Drilling Program in readily accessible sections of the Val Fault structure on the basis of other geological investigations alone.

If a geophysical program to investigate the Val Fault and/or other structures is desired, since the Fault is basically a mineralized, conductive, planar structure whose dip and strike is known that is being traced and examined, a dip-angle ground electromagnetic method would probably be a sufficiently effective method of geophysical prospecting in this area.

Since the steep terrain will pose noise problems, a roving transmitter and receiver "shootback" system to eliminate elevation differences can be used.

RECOMMENDATIONS AND COMMENTS

Geophysics (cont'd)

The vertical loop broadside method, if traverses are normal to the strike of the structure, ensures that the primary field vector is always at right angle to the strike. Since large elevation differences would exist on traverses at right angle to strike, a co-axial vertical loop method with fixed transmitter on each traverse line would not be appropriate. However, a "shootback" version of the co-axial vertical loop method may work.

The testing of VLF EM equipment over the Fault zone indicates that this equipment is not suitable for geophysical exploration in this area. The only signal source available lies at an azimuth too closely at right angles to the strike of the fractures. The primary field vector parallels the strike of the fractures, and dip-angle therefore cannot be measured.

A drawback of all dip-angle EM methods is apparently their shallow depth of investigation. Horizontal loop equipment, on the other hand, is too bulky and heavy to operate in the windfall covered steep terrain.

A fluxgate magnetometer tested over the fracture zone in the Valparaiso/ Government Workings detected anomalous magnetic fields over very narrow zones in the Fault area (probably due to the sheeted nature of the Fault). However, to give valid or interpretable results, stations over the Fault zone would need to be very closely spaced (1 meter). In addition, the wooded and mountainous terrain creates noise voltages that complicate interpretation. A total field magnetometer (proton or precession magnetometer) may be an improvement over the fluxgate magnetometer and, if a magnetic survey is desired, should be tested.

RECOMMENDATIONS AND COMMENTS

Geophysics (cont'd)

Borehole geophysics may be used in Phase 1 exploratory drill holes to locate favourable targets for Phase 2 exploration drifting, underground drilling and testing. Since principally sulphide mineralization is being sought, borehole IP or EM methods may be effective in targetting zones of optimum mineralization potential. An alternative to this targeting method is a lithogeochemical method mentioned later under geochemistry recommendations.

Geochemical Sampling

Ancillary to geophysical work, or perhaps by itself, a program of geochemical sampling (50 meter traverses at 10 to 25 meter sample intervals) over the Val Fault zone may be useful to locate drill targets. A problem encountered in preliminary geochemical sampling over the rocky terrain of the Workings area was that the "B" soil zone was not developed; the "A" zone is, of course, leached. However, at lower altitudes north of the Workings area this may not be a problem. In addition to evaluating quantitative geochemical data, element/element ratios can be used to assist in geological interpretation.

Lithogeochemical analysis of drill core may aid in locating favorable mineralization targets for exploration drifting and underground drilling. These analyses can localize anomalous metal contents in the wallrock adjacent to mineralization. The plots of elements and element ratios which may yield lithogeochemical halo patterns in three dimensions can indicate zones of highest probability for mineralization. The applicability of this method to this area should be investigated.

RECOMMENDATIONS AND COMMENTS

Reconnaissance geochemical prospecting is recommended covering the area of the property below alpine levels. Stream sediment and water samples should be taken from various streams draining the property, preferably in late summer and fall, at 500 foot contour intervals (a shorter interval if anomalous values are encountered), where access and ground cover permits (windfall can be a problem). Contour soil geochemical sampling at 500 foot contour intervals, at 50 meter sample intervals up to the alpine level can be done without the necessity of more than a widely sapced grid system (properly surveyed and well marked). However, the first stage should be concentrated in readily accessible logged areas on the south side of the Akokli Creek valley and where traverses could be done at right angles to the structure. Detailed geochemical sampling on a 10 to 25 meter grid can be done where anomalous values were obtained by reconnaissance work.

Surface Geology

All known old workings in the property should be located, surveyed, geologically mapped, freshly trenched and sampled. An attempt should be made to relate all mineral occurrences to a broad geologic framework if possible to aid in future exploration planning. Geological air photo interpretation can be very useful over a large property and in this type of terrain to locate geologically significant structural features to which surface work (mapping and sampling) can be directed. In addition to detailed geological work, general prospecting to include structural measurements and lithology description of rock outcrops at the alpine and subalpine levels may provide useful

RECOMMENDATIONS AND COMMENTS

Surface Geology (cont'd)

information and data for developing a comprehensive understanding of the geological framework surrounding and controlling mineral deposition in the area.

Follow-up Work

1. Environmental Impact Study: Should results of bulk sampling be encouraging, a study by professional organization should precede any future mining development. The Kootenay Lake area being a marine and land recreation area may be sensitive both socially and environmentally to mining development. Careful assessment and study of the environmental impact of any work planned should be done and made publically available when it is appropriate to do so.

2. Marketing and Cost Analysis: A study of the costs of exploration, mining, milling, shipping, smelting and administration should precede mining development of any scale. Market conditions and forecasts should be carefully considered before construction and mining is begun.

SUMMARY OF RECOMMENDATIONS

Phase 1

1. Drilling, mapping and sampling in the workings area to validate previous sampling and to indicate potential ore reserves.
2. Securing a water supply and constructing a water system that can supply, in addition to future drilling operations, underground exploration and bulk sampling operations.

Phase 2

1. Access road preparation from the Spur 3 logging access road to the portal site (1 km).
2. Exploration drifting from a portal at the 300 foot level west of the Government Workings to and beyond the mineralized zone.
3. Bulk sampling of the mineralized zone, (upon recommendations).
4. (optional) Geophysical logging of boreholes and interpretation or lithogeochemical analysis of core and interpretation.
5. Underground exploration drilling and geological mapping.
6. Increasing mineral rights and land position.

Phase 3

1. Entering and evaluating the Lost Mine underground workings.
2. Geochemical sampling of the Val Fault zone and/or a geophysical program over the Val Fault zone.
3. Drilling of any anomalies, either geological, geophysical or geochemical

SUMMARY OF RECOMMENDATIONS

Phase 3 (cont'd)

encountered over the Val Fault and/or extending to the north and south the Phase 1 drilling program.

4. Geochemical reconnaissance work over the property; geological studies including air photo interpretation, detailed mapping, general mapping and prospecting.

5. Upon recommendations of a mining engineer, follow-up work preceding development to include legal surveying of the site, market and cost analysis, environmental impact study.

Phase 4

1. Evaluation of other favourable prospects on the property encountered in previous reconnaissance work.

COST OF RECOMMENDATIONS

Phase 1 (Presently underway)

			C$(x1000)
A.	Drilling	1200 m @ 100/m	120
	Road and Site Preparation		
	Upgrading	4 km @ 3/km	12
	New Road	.9 km @ 30/km	27
	Surveying	4 days @ 500/day	2
	Assays		10
B.	Core, logging, supervision, geological mapping, compilation and reports		20
C.	Water System		5
D.	Support	100 man days @ 200/m.d.	20
E.	Transportation	2 trucks, 3 months + gas	6
F.	Misc. Exploration expenses (equipment testing, baseline, preliminary geochemical sampling)		5
		Total	227
		Contingency @20%	45.4
Phase 1 appropriation			272.4

COST OF RECOMMENDATIONS

Phase 2 (Valparaiso/Government Workings)

			C$ (x1000)
A.	Exploration Drifting and bulk sampling	400 m @ 600/m	240
B.	Subsurface Drilling	1000 m @ 100/m	100
C.	Access road preparation		
	existing road upgrading and repair.	1.5 km @ 3/m	4.5
	new road	1 km @ 30/m	30
	maintainance (winter)		10
D.	Core logging, supervision, reports		10
E.	Assays		5
F.	Support	180 man days @ 200/m.d.	36
G.	Transportation	2 trucks, 6 months + gas	12
H.	Geophysical logging (optional)		40
I.	Lithogeochemical analysis		20
		Total (excluding options)	447.5
		Contingency @ 20%	89.5
Phase 2 appropriation			537
Total Phase 1 and Phase 2 appropriations			809.4

COST OF RECOMMENDATIONS

Phase 3

			C$ (x1000)
A.	Drilling	9000 m @ 100/m	900
	Road and Site Preparation		
	New Road		50
	Surveying		5
	Assays		60
B.	Val Fault Evaluation		
	Geochemical Sampling	2000 soil samples @ 15/sample	30
	Geophysical survey	16 km @ 1000/km	16
	Line cutting	16 km @ 350/km	5.6
C.	Market and Cost Analysis		50
D.	Environmental Impact Study		100
E.	Legal and Plan Survey		10
F.	Reconnaissance Geochemical Sampling		
	Sampling	5000 soils @ 15 ea.	75
		600 water @ 15 ea.	9
		100 rock @ 30 ea	3
	Line Cutting	100 km @ 350/km	35
G.	Support	300 man days @ 200/m.d.	60
H.	Transportation	2 trucks, 4 months + gas	8
I.	Ground Acquisition		20
J.	Supervision, geological and engineering consulting, compilation, reports		50
		Total	1486.6
		Contingency @ 20%	297.32
Phase 3 appropriation			1783.92
Phase 1 + Phase 2 + Phase 3 appropriations			2593.32

APPENDIX I

Bibliography

Annual Report of the Minister of Mines and Petroleum Resources:

1927 - pages 320 - 322, by B.T. O'Grady, Mining Engineer
1933 - pages 239, 200, by B.T. O'Grady, Mining Engineer
1954 - pages 129 by J.E. Merrett

Curtin, Charles J. (B.A., B.Sc., M.E.); 1933; Report.

Houghland, Everett (P. Eng., Consulting Geologist): 1957; "Report on the Palouse Co. Ltd. Property in British Columbia, Canada".

Greene, A.S. (P. Geol., Consulting Geologist): 1981; "Property Evaluation Report, "HOT" Group".

Reeve, A.F. (P. Eng., Consulting Geological Engineer); 1964; Report on Destiny Bay Properties for Northern Pacific Mines Ltd.

Rice, H.M.A.; 1941; "Nelson Map-Area, East Half, British Columbia"; Geol. Surv. Canada Mem. 228.

APPENDIX II

Sampling Records (From A.F. Reeve, 1964)

B.T. O'Grady, 1926	Au oz/ton	Ag oz/ton
1. Grab sample, south end of Government drift	.58	8.6
2. Grab sample, south end of Government drift	.42	16.2
3. 2' of vein matter, Valparaiso Cross-cut adit	1.04	4.2
4. Grab sample, Lost mine dump	.02	.8
5. Imperial Workings:		
Grab, surface - quartz disseminated with pyrite & galena	.01	.9
Grab, surface - rusty quartz	.02	2.7
Grab, surface - quartz and pyrite	.04	1.7
Grab, dump - rusty quartz		1.1
Grab, dump - quartz, pyrite + (wolframite & galena)	.03	.5
Grab, dump - selected vein matter	Tr.	.7
Grab, dump - quartz, pyrite + (galena & malachite)	.02	1.1
30" sample, upper tunnel, rusty vein quartz, H.W.	103	2.7

B.T. O'Grady, 1927

11 channel samples north end of Valparaiso Drift (125' x 5.8'); see enclosed assay plan - Average	.10	1.1

B.T. O'Grady, 1933

9 carloads of "unsorted mine run ore", 324 tons:

Sulpher %	Silica %	Lime %	Iron%	Au oz/ton	Ag oz/ton
58.36	58.36	13.75	.6	.356	3.455

Prices paid - silver $0.41/oz
- gold $20.00/oz + $11.10/oz bonus

APPENDIX II

Sampling Records (cont'd)

4. for the occurrence of that mineral. However, the bulk of them were also tested for gold values."

"A re-sampling job with the emphasis on gold and silver only as the objective could well show an improved grade over the one inferred at present."

A.F. Reeve, May 1964 (All Surface)

No.			Au oz/ton	Ag oz/ton
A-1	3' chip	3100' S. of shaft, rusty quartz	.04	1.0
A-2	5½' chip	2000' S. of shaft, rusty quartz (FW)	.01	.3
A-3	5½' chip	2000' S. of shaft, rusty quartz (HW)	.01	.2
A-4	Grab	1900' S. of shaft, rusty quartz	.04	.7
A-5	Grab	Valparaiso Dump, quartz vein matter	.02	.3
A-6	4' chip	1200' S. Of shaft, massive quartz	.10	1.5
A-7	Grab	1000' S. of shaft, composite - 3 quartz veings	.04	.4
A-7a	1' Chip	1150(S. of shaft, rusty quartz + black mineral	.04	.8
A-8	6½' chip	440' S. of shaft, rusty quartz	.04	.5
A-9	2½' chip	320' S. of shaft, sheared granite + wolframite (FW)	.01	Trace
A-10	3½' chip	S. of shaft, rusty vein quartz (HE)	.04	.3
A-11	Grab chip	Valparaiso dump, massive galena	.04	27.8
A-12	Grab	Government dump, quartz, 25% pyrite	.56	36.9

NOTE: See assay plan also.

APPENDIX II

Sampling Records (cont'd)

C.J. Curtin, 1936	oz/ton Au	oz/ton Ag
1. Average of 101 channel samples (taken 1933) (Records of length, character, and location of samples not available)	.59	5.237
2. 15 channel samples, south end (330') of Valparaiso drift. See enclosed assay plan.		

Coranson (1933?)		
Average over a 29" width, along the drift in the vicinity of the Government shaft.	.546	5.12

Eichelberger, 1933		
Average in government shaft over a width of 18"	.41	4.1

HOUGHLAND, 1956		
1. Estimates (from tungsten sampling). A section in the south end of the Valparaiso drift (100' x 5') should average	.2	3 to 4
2. Estimates (from tungsten sampling). A section 80' south & 100' north of shaft, 5' wide, would average	.3	2

3. 65 channel samples taken in the Government workings are shown on the enclosed assay plan. Tungsten assays have been omitted.

4. The following are Mr. Houghland's general remarks regarding sampling, taken from his report of 1956:

"Older reports contain compilations of many samples."

"On the basis of my work in 1956, I believe this earlier sampling to represent true values."

"In 1956, I took 150 channel samples in the two workings previously described and on surface. These samples were taken primarily to determine tungsten values and were largely cut in places which might be considered favourable

APPENDIX III SAMPLE DATA SHEET

Assay Reference No.	Field Reference No.*	Elements Tested	Location; Width or Interval; Remarks
5551	GR-9-2-1	Ag,Au,W	Head frame ore bin; v. heavy qtz/sulphide, blk weathering
5552	GR 9-2-2	Ag,Au,W	As above, as above, banded
5553	GR 9-2-3	Ag,Au,W	As above, mainly pyrite moderately heavy
5554	S 9-27-1	Ag,Au	DDS-V-81-6 outcrop; 3-4cm; qtz vein parallel to local fracturing 0°/45°E
5555	CH 9-27-2	Ag,Au	Mine road, 1.6 km north of old workings; 0 - .1m; quartz vein, rusty
5556	GR 10-10-1	Ag,Au	Logging access road, km 37; .1m; rusty quz vein in phyllite.
5557	CH 10-16-1	Ag,Au	Imperial Workings, open cut 50 m N.E. of Imperial adit; 0 - .5m; rusty quartz vein N15°W/30°E, under lamprophyre dike
5558	GR 10-16-1	Ag,Au	Imperial south dump 100 m south of adit; qtz, vuggy, pyrite, minor sphalerite, black oxides
5559	GR 10-16-2	Ag,Au,Cu,Zn	Imperial south dump,100 m south of adit; qtz, pyr.cpy,tet(?),sp.
5560	CH 10-17-1	Ag,Au	250 m South of Imperial adit; 0 - .25 m quartz vein N30°E/60°E
5561	CH 10-19-1	Ag,Au	Valparaiso Workings, 75 mkr, 115 m south of adit in main drift; 0 - .5 m; mud seam on footwall side of quartz vein N10°W/40°E
5562	CH 10-19-2	Ag,Au,W	Valparaiso Workings, 90 mkr, 135 m south of adit in main drift; 0 - .75 m eastwall from floor up; qtz vein with drk bands.
5563	CH 10-19-3	Ag,Au,W	as above; .75m - 1.8 m; altered granodiorite
5564	CH 10-19-4	Ag,Au,W	as above; 1.8m - 2m; quartz vein
5565	CH 10-19-5	Ag,Au,W	Valparaiso Workings, 77 mkr, 118 m south of adit in main drift; 0 - .3 m,qtz vein,mineralized

APPENDIX III SAMPLE DATA SHEET (cpnt'd)

Assay Reference No.	Field Reference No.*	Elements Tested	Location; Width or Interval; Remarks
5566	GR 10-21-1	Ag,Au,Pb	German Basin, open cut on north ridge; quartz with galena
5567	CH 10-21-1	Au,Ag,Pb	German Basin, upper adit, adjacent to portal; 0 - 2.0 m; quartz vein, vuggy N5°W/35°W
5568	CH 10-21-2	Au,Ag,Pb	as above, 35 m south of porta; 0 - .3 m; rusty sheared quartz, galena, N40°W/40°W
5569	CH 10-21-3	Au,Ag,Pb	as above, 25 m south of portal; 0 - 6 m (top down); quartz in hanging wall, dark oxides N5°W/35°W
5570	CH 10-21- 4	Au,Ag,Pb	as above; .6 m - 1 m; black oxide over rusty sheared quartz (.15m); altered granodiorite (.25 m)
5571	CH 10-21-5	Au,Ag,Pb	as above, 20 m south of portal; 0 - .2 m; quartz vein
5572	CH 10-21-6	Au,Ag,Pb	as above, 15 m south of portal; 0 - .5 m: quartz vein
5573	CH 10-21-7	Au,Ag,Pb	as above, 8 m south of portal on north wall of raise; 0 - 1.2 m; quartz vein, galena, wallrock clasts
5574	CH 10-21-8	Au,Ag,Pb	German Basin, shaft 65 m southwest of lower adit; 0 - 1 m; quartz vein near top of shaft, N90°W/65°S
5575	CH 10-21-9	Au,Ag,Pb	German Basin, northern open cut on north ridge; 0 - .6 m; quartz vein with galena N40°W/55°W
5576	CH 10-21-10	Au,Ag,Pb	as above, southern open cut on north ridge; 0 - 1 m; quartz vein, vuggy N90°W/35°S
5577	CH 10-22-1	Au,Ag,Pb	North Akokli workings 2.5 km north of Valparaiso Workings, adit, 10 m north of portal on face; 0 - .5 m; shear and quartz vein N15°W/80°E

APPENDIX III SAMPLE DATA SHEET (cont'd)

Assay Reference No.	Field Reference No.*	Elements Tested	Location; Width or Interval; Remarks
5578	CH 10-22-2	Au,Ag,Pb	as above, 5 m north of portal on roof; 0 - .5 m; .2 m quartz vein, .3 m fractured dolomite N35°W/80°W
5579	CH 10-22-3	Au,Ag,Pb	as above, open cut 20 m north, 20 m above portal; 0 - .4 m; quartz vein with galena, dolomite
5580	GR 10-22-1	Au,Ag,Pb	as above, ore bin, representative grab; quartz, galena in dolomite
5581	GR 10-22-2	Au,Ag,Pb	as above, ore bin, grab; quartz, galena in dolomite
5582	CH 10-23-1	Au	road cut, uppermost spur, 100 m south of last switchback; 12 m; rusty quartz
5583	GR 10-26-1	Au,Ag	Lost Mine area, dump 100 m north of Lost Mine Adit, caved portal; rusty quartz.
5584	GR 10-26-2	as above,	stone in creek bed, 70 m northwest of Lost Mine; rusty quartz
5585	CH 10-26-1	Au,Ag	logging road cut 1.8 km along Mine Road north of Valparaiso Workings; 0 - .1 m; quartz vein in oxidized kaolinized shear zone in granodiorite
5586	CH 10-26-2	Au,Ag,	Lost Mine Adit, BL 9+75°N/0+20°E over caved portal; 0 - .4 m; quartz vein rusty in shear zone N20°E/70°E
5587	CH 10-26-3	Au,Ag	as above; .4m - .8 m; altered granodiorite
5588	CH 10-26-4	Au,Ag	as above; .8m - 1.4m; quartz vein, kaolinized gouge
5589	GR 10-26-3	Au,Ag	On Mine Road 1.6 km north of Valparaiso Workings, 50 m. south of sample 5555, 250 m south of sample 5585 on strike.
5590	S 10-27-1	Au,Ag,Pb	Valparaiso Workings .28 mkr, 43 m south of adit, from mineralized quartz vein N30°E/75°E

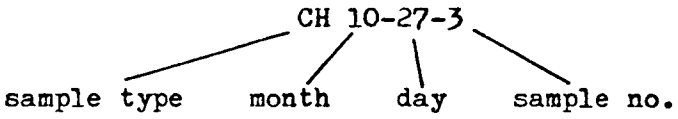
APPENDIX III SAMPLE DATA SHEET (cont'd)

Assay Reference No.	ield Reference No.*	Elements Tested	Location; Width or Interval; Remarks
5591	CH 10-27-1	Au,Ag,Pb,W	Government Workings, 88 m north of raise; 0 - .25 m; massive black oxidized sulphides over a 2 m length, N5°W/50°E
5592	CH 10-27-2	Au,Ag,Pb	as above, 85 m north of raise; 0 - 16 m down from hanging wall; altered granodiorite
5593	CH 10-27-3	Au,Ag,Pb,W	as above; .6 - 1.2 m; quartz vein and sulphides
5594	CH 10-27-4	Au,Ag,Pb,W	as above, 34 m north of raise north of stope; 0 - 2 m (true) from hanging wall down; fractured quartz vein, three mineralized veins each .03 m thick.
5595	CH 10-27-5	Au,Ag,Pb,W	as above, 25 m north of raise; 0 - 1.6 m (1 m true) hanging wall to footwall; rusty quartz veins, alterned granodiorite gouge
5596	CH 10-27-6	Au,Ag,Pb,W	as above, 15 m north of raise; 0 - 17 m; kaolin gouge, granodiorite, quartz vein, N5°W/45°E
5597	CH 10-27-7	Au,Ag,Pb,W	as above, 2 m north of raise; 0 - .3 m; quartz vein N30°E/80°E
5598	CH 10-27-8	Au,Ag,Pb,W	Valparaiso Workings 50 m east of portal; 0 - .6 m; kaolin gouge and breccia zone with sulphide stringers N20°E/40°E
5599	CH 10-27-9	Au,Ag,Pb,W	as above 40 m east of portal; 0 - .9 m; granodiorite with three narrow mineralized shears N30°E/35°E
5600	CH 10-27-10	Au,Ag,Pb,W	As above, 8 mkr, 12 m south of adit; 0 - 1.0 m east wall; sheared and brecciated rusty granodiorite with stringers rusty quartz NO/45°E
5601	CH 10-27-11	Au,Ag,Pb,Zn	as above, 9 mkr 14 m south of adit; 0 - .5 m west wall in cross cut; late quartz vein NO/40°E

APPENDIX III SAMPLE DATA SHEET (cont'd)

Assay Reference No.	Field Reference No.*	Elements Tested	Location; Width or Interval; Remarks
5602	CH 10-27-12	Au,Ag,Pb,W	as above, 1 m west and below 5601; 0 - 1.2 m; sheared rusty granodiorite with early quartz vein (.15 m), N50°E/70°E
5603	CH 10-27-13	Au,Ag,Pb,W	as above, 27 mkr 41 m south of adit; 0 - 12 m; quartz vein (.1 m) over kaolin gouge

* KEY



CH - channel

GR - grab

S - select

R - representative grab

APPENDIX IV

Assay Certificates

KAMLOOPS
RESEARCH & ASSAY
LABORATORY LTD.

B.C. CERTIFIED ASSAYERS

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

CTA
Member Canadian Testing Association

To J. Mawhinney.

Date: Sept 8, 1981

File No.: K4354

SEMI-QUANTATIVE SPECTROGRAPHIC ANALYSIS CERTIFICATE

Fe, Mg, Ca, Ti, Na, K, Si, Al and P reported in %: all other elements reported in ppm.

Element	Lower Detection Limit	Sample # Con 1	Sample # Con 2	Element	Lower Detection Limit	Sample# Con 1	Sample # Con 2
Au	10	N	N	Zr	10	100	150
Ag	.5	50	70	B	10	50	50
Cu	5	2000	1000	Ba	10	70	70
Pb	10	5000	5000	Be	1	N	N
Zn	200	1500	1000	La	20	N	N
Mo	5	N	N	Nb	10	100	70
Fe	0.05%	20.0	20.0	Sc	5	5	5
W	50	1%	1%	Sr	100	N	N
Ni	5	20	10	Y	10	30	30
Co	10	10	10	Ca	0.05%	0.2	L
Cr	20	150	200	Mg	0.02%	0.02	L
Cd	20	N	N	Ti	.001%	0.05	0.05
As	200	G10,000	G10,000	Na	.02%	N	N
Sb	100	N	N	K	.5%	N	N
Mn	10	G5000	5000	Si	1%	1.0	1.0
V	10	200	300	Al	.5%	L	L
Bi	10	20	20	P	.1%	0.7	0.7
Sn	10	N	N				

N — Not detected
L — Detected but below limit of determination
G — Greater than value shown

Values expressed in these analyses may be considered accurate to within plus or minus 35 to 50% of the amount present.

KAMLOOPS
SEARCH & ASSAY
LABORATORY LTD.

B.C. CERTIFIED ASSAYERS

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

CTA
Member
Canadian Testing
Association

To J. Mawhinney.
201-125 4th Ave
Kamloops B.C.

Date: Sept. 8, 1981

File No.: K4354

SEMI-QUANTATIVE SPECTROGRAPHIC ANALYSIS CERTIFICATE

Fe, Mg, Ca, Ti, Na, K, Si, Al and P reported in %: all other elements reported in ppm.

Element	Lower Detection Limit	Sample # V15	Sample # V	Element	Lower Detection Limit	Sample# V15	Sample # V
Au	10	15	10	Zr	10	N	N
Ag	.5	300.	100	B	10	20	20
Cu	5	7000	5000.	Ba	10	50	30
Pb	10	3000.	1500	Be	1	N	N
Zn	200	2000.	500.	La	20	N	N
Mo	5	N	N	Nb	10	10.	N
Fe	0.05%	20.0.	10.0.	Sc	5	N	N
W	50	1000.	N	Sr	100	N	N
Ni	5	N	N	Y	10	N	N
Co	10	N	N	Ca	0.05%	N	N
Cr	20	50.	50	Mg	0.02%	L	L
Cd	20	N	N	Ti	.001%	0.005	0.002
As	200	G 10,000.	G 10,000	Na	.02%	N	N
Sb	100	N	N	K	.5%	N	N
Mn	10	300	150.	Si	1%	10.0.	10.0.
V	10	N	N	Al	.5%	L	L
Bi	10	100	70	P	.1%	N	N
Sn	10	N	N				

N — Not detected
L — Detected but below limit of determination
G — Greater than value shown

Values expressed in these analyses may be considered accurate to within plus or minus 35 to 50% of the amount present.

Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. Jim Mawhinney

Suite 201 - 125 4th Avenue

Kamloops, B.C.

Certificate No. K-4354

Date September 16, 1981

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	GOLD	SILVER	W	Mo					
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	Con. #1	.386	1.89		.005					
2	Valpar - 150	.285	9.59	.18	.002					
3	Valpar	.187	4.85	.10	.002					
4	Con. #2	.57	2.69		.005					

NOTE:
Rejects retained three weeks.
Pulps retained three months unless otherwise arranged.

Registered Assayer, Province of British Columbia

CTA
Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. Jim Mawhinney

201 - 125 4th Avenue

Kamloops, B.C.

Certificate No. K-4412

Date September 18, 1981

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	GOLD	SILVER	W	Mo					
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	Val D-1	.050	.73	L.01	.002					
2	Val D-2	.016	.46	L.01	.002					

L means "Less than"

NOTE:
Rejects retained three weeks.
Pulps retained three months
unless otherwise arranged.

Registered Assayer, Province of British Columbia

Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. Jim Mawhinney

Suite 201 - 125 4th Avenue

Kamloops, B.C.

Certificate No. K-4412

Date September 16, 1981

I hereby certify *that the following are the results of assays made by us upon the herein described* _____ *samples*

Kral No.	Marked	GOLD	SILVER	Mo						
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	Val D-1	.050	.73	.002						
2	Val D-2	.016	.46	.002						

NOTE:
Rejects retained three weeks.
Pulps retained three months
unless otherwise arranged.

Registered Assayer, Province of British Columbia

Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. Jim Mawhinney

201 - 125 4th Avenue

Kamloops, B.C.

Certificate No. K-4354

Date September 18, 1981

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	GOLD	SILVER	W						
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	Con #1			4.90						
2	Con #2			6.25						

NOTE:
Rejects retained three weeks.
Pulps retained three months unless otherwise arranged.

Registered Assayer, Province of British Columbia

Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. Jim Mawhinney

201 - 125 4th Avenue

Kamloops, B.C.

Certificate No. K-4354

Date September 18, 1981

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	GOLD	SILVER	W						
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	Con #1			4.90						
2	Con #2			6.25						

NOTE:
Rejects retained three weeks.
Pulps ed three months
unless rwise arranged.

Registered Assayer, Province of British Columbia

Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. Jim Mawhinney

Suite 201 - 125 4th Avenue

Kamloops, B.C.

Certificate No. K-4412

Date September 16, 1981

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	GOLD	SILVER	Mo						
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	Val D-1	.050	.73	.002						
2	Val D-2	.016	.46	.002						

NOTE:
Rejects retained three weeks.
Pulps retained three months unless other arranged.

Registered Assayer, Province of British Columbia

CTA
Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. Jim Mawhinney
201 - 125 4th Avenue
Kamloops, B.C.

Certificate No. K-4412
Date September 18, 1981

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	GOLD	SILVER	W	Mo					
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	Val D-1	.050	.73	L.01	.002					
2	Val D-2	.016	.46	L.01	.002					

L means "Less than"

CT.
Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. Jim Mawhinney
Suite 201 - 125 4th Avenue
Kamloops, B.C.

Certificate No. K-4354
Date September 16, 1981

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	GOLD	SILVER	W	Mo					
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	Con. #1	.386	1.89		.005					
2	Valpar - 150	.285	9.59	.18	.002					
3	Valpar	.187	4.85	.10	.002					
4	Con. #2	.57	2.69		.005					

NOTE:
Rejects retained three weeks.
Pulps retained [illegible] e months
unless other[illegible] ranged.

Registered Assayer, Province of British Columbia

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

September 30, 1981

ASSAY REPORT

CLIENT: Custom Mining Inc., Kamloops, B.C.

ATTENTION: J. Mawhinney

SAMPLE DESCRIPTION: Samples received September 15, 1981

CERTIFICATE NUMBER: ET 36

	%Pb	%Zn	%Cu	%Ni	%Co
Conc. From barrel	3.6	0.1	0.12	.008	.03
Conc. From trough	3.8	0.1	0.08	/.002	.03

	%As	%W	oz/T Ag	oz/TAu
1	5.2	5.35	2.18	.560
2	4.4	6.25	2.75	.652

NOTE: / = Less Than.

ECO-TECH LABORATORIES LTD.
Ken Swanson
Chief Assayer

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

September 22, 1981

GEOCHEMICAL ANALYSES

CLIENT: Custom Mining Inc., Kamloops, B.C.

ATTENTION: Jim Mawhinney

SAMPLE DESCRIPTION: Samples Received September 17, 1981

CERTIFICATE NUMBER: ET 40

DESCRIPTION	ppb Au	ppm Ag	ppm W
BL 0+50N	60	14.6	25
BL 1+00N	445	1.6	1
L 1+00N 1+00E	1025	1.0	2
L 1+00N 1+00W	50	0.8	1
L 1+00N 0+10E	380	0.8	1
L 1+00N 0+10W	595	0.4	5
L 1+00N 0+20E	1645	0.8	3
L 1+00N 0+20W	20	0.6	5
L 1+00N 0+30E	55	0.4	3
L 1+00N 0+30W	30	0.2	2
L 1+00N 0+40W	30	0.2	1

...../2

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

DESCRIPTION	ppb Au	ppm Ag	ppm W
L 1+00N 0+30E	40	0.2	1
L 1+00N 0+50W	25	0.4	4
L 1+00N 0+60E	25	0.4	1
L 1+00N 0+60W	20	0.2	1
L 1+00N 0+70E	25	0.4	2
L 1+00N 0+70W	40	0.2	1
L 1+00N 0+80W	25	0.2	2
L 1+00N 0+90E	15	0.2	2
L 1+00N 0+90W	50	0.2	3
L 1+50N BL	30	1.2	1
L 1+50N 1+00E	25	0.8	1
L 1+50N 0+10E	40	0.8	5
L 1+50N 0+10W	130	0.6	4
L 1+50N 0+20E	40	0.4	8
L 1+50N 0+20W	45	0.6	4

...../3

Eco-Tech
LABORATORIES LTD.
ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

DESCRIPTION	ppb Au	ppm Ag	ppm W
L 1+50N 0+30W	80	0.2	5
L 1+50N 0+40E	20	0.2	1
L 1+50N 0+50E	30	0.4	6
L 1+50N 0+50W	90	0.4	1
L 1+50N 0+60E	120	0.2	3
L 1+50N 0+60W	30	0.4	2
L 1+50N 0+70E	75	0.2	2
L 1+50N 0+70W	95	0.4	5
L 1+50N 0+80E	45	0.2	2
L 1+50N 0+80W	45	0.2	2
L 1+50N 0+90E	40	0.2	5
L 2+00N BL	30	0.4	2
L 2+00N 0+10E	25	0.4	2
L 2+00N 0+20E	30	0.4	1
L 2+00N 0+40E	40	0.2	1
L 2+00N 0+50E	25	0.4	1

...../4

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

September 19, 1981

GEOCHEMICAL ANALYSES

CLIENT: Custom Mining Inc., Kamloops, B.C.

ATTENTION: Jim Mawhinney

CERTIFICATE NUMBER: ET - 38

DESCRIPTION	ppb Au	ppm Ag	ppm W	ppm Cu	ppm Pb	ppm Zn
L0 BL	1450	12.6	14	310	1020	575
L0+00 0+10W	4680	44.8	>50	562	6700	500
L0 0+20W	10560	24.4	>50	312	1560	330
0+20W	1110	6.6	>50	140	1530	408
0+40W	1700	12.0	>50	172	2600	392
0+50W	5800	30.4	>50	422	5320	660
0+60W	5700	24.8	>50	574	5660	482
0+70W	135	4.0	14	35	466	250
0+80W	85	2.0	12	13	144	174
0+90W	90	1.8	2	11	124	210
Δ 1+00W	20	1.8	8	11	164	272
L0+00 1+00E	30	1.8	4	9	76	164
0+10E	295	5.4	2	75	90	162
0+20E	7200	35.6	>50	1500	2500	>5000
0+30E	4320	29.2	>50	1325	3080	>5000
0+40E	8500	27.6	>50	1120	2490	2850
0+50E	50	2.0	14			

..../2

Eco-Tech
LABORATORIES LTD.
ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

DESCRIPTION	ppB Au	ppm Ag	ppm W
L0+00 0+60E	35	1.6	2
0+70E	35	1.6	2
0+80E	40	1.0	2
0+90E	40	1.4	2
L0+50N 0+10E	45	1.0	24
0+20E	45	1.2	14
0+30E	50	1.4	2
0+40E	70	1.4	2
0+50E	40	1.6	2
0+70E	45	.8	2
0+80E	40	.4	2
0+90E	35	.4	2
1+00E	35	.6	2
△ 1+00W	10	.4	2
0+10W	40	.8	2
0+20W	45	1.0	2
0+30W	40	1.0	2
0+40W	100	.6	2
0+50W	70	.6	2
0+70W	30	1.2	2
△ 0+80W	30	.8	2
△ 0+90W	40	.6	2

NOTE: > = Greater Than

Ken Swanson
Chief Assayer

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

September 19, 1981

ASSAY REPORT

CLIENT: Custom Mining Inc., Kamloops, B.C.

ATTENTION: Jim Mawhinney

CERTIFICATE NUMBER: ET 29

DESCRIPTION	% Sn	% W	% Cu	% As	oz/T Ag	oz/T Au
1	/.05	0.04	0.83	15.6	6.72	0.244

NOTE: / = Less Than.

ECO-TECH LABORATORIES LTD.

Ken Swanson

Chief Assayer

KS/te

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

Eco-Tech
LABORATORIES LTD. 783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

October 13, 1981

ASSAY REPORT

CLIENT: Custom Mining, Kamloops, B.C.

ATTENTION: Mr. Jim Mawhinney

SAMPLE DESCRIPTION: Samples received October 6, 1981

CERTIFICATE NUMBER: ET 51

DESCRIPTION	oz/T Au	oz/T Ag
5554	.001	.08
5555	.001	.02

ECO-TECH LABORATORIES LTD.
Ken Swanson
Chief Assayer

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

November 3, 1981

ASSAY REPORT

CLIENT: Custom Mining Inc., Kamloops, B.C.

ATTENTION: J. Mawhinney

SAMPLE IDENTIFICATION: Samples received October 29, 1981

CERTIFICATE NUMBER: ET 68

BAG DESCRIPTION	TAG DESCRIPTION	Ag	Au	Pb	W	Zn
GR-10-26-1	5584	.17	.002			
GR-10-26-2	5583	.24	.001			
GR-10-26-3	5589	.03	.001			
CH-10-26-1	5585	.27	.002			
CH-10-26-2	5586	.47	.002			
CH-10-26-3	5587	.51	.001			
CH-10-26-4	5588	.81	.027			
CH-10-27-1	5591	10.0	.273	/.1		
CH-10-27-2	5592	.89	.033	1.2		
Ch-10-27-3	5593	1.00	.043	0.1		
Ch-10-27-4	5594	.83	.093	0.7		
Ch-10-27-5	5595	2.38	.391	3.8		
Ch-10-27-6	5596	7.12	.341	0.7		
Ch-10-27-7	5597	.57	.017	0.1		
CH-10-27-8	5598	.59	.034	0.1		
Ch-10-27-9	5599	.09	.003	/.1		
Ch-10-27-10	5600	.45	.035	0.3		

...../2

Eco-Tech
LABORATORIES LTD.
ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

		Ag	Au	Pb	W	Zn
Ch-10-27-11	5601	.88	.055	0.2		/.1
Ch-10-27-12	5602	.15	.009	0.1		
Ch-10-27-13	5603	.66	.060	0.3		
S-10-27-1	5590	.95	.013	1.2		

NOTE: / = Less Than.

ECO-TECH LABORATORIES LTD.
KEN SWANSON
Chief Assayer

Eco-Tech
LABORATORIES LTD.
ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

DESCRIPTION	oz/T Au	oz/T Ag	% Pb	%W	Cu	Zn
5579	.002	4.74	9.1			
5580	.001	.90	2.1			
5581	.001	6.95	12.3			
No Tag	.002	.08	0.1			
5582	.081	.79	1.6			

ECO-TECH LABORATORIES LTD.
Ken Swanson
Chief Assayer

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

November 20, 1981

ASSAY REPORT

CLIENT: Custom Mining Corporation, Kamloops, B.C.

ATTENTION: J. Mawhinney

SAMPLE DESCRIPTION: Samples received October 29, 1981

CERTIFICATE NUMBER: ET 68

BAG DESCRIPTION	TAG DESCRIPTION	W
CH 10-27-1	5591	.03
CH 10-27-3	5593	/.01
CH 10-27-4	5594	/.01
CH 10-27-5	5595	/.01
CH 10-27-6	5596	.11
CH 10-27-7	5597	.01
CH 10-27-8	5598	/.01
CH 10-27-9	5599	/.01
CH 10-27-10	5600	.03
CH 10-27-11	5601	.13
CH 10-27-12	5602	/.01
Ch 10-27-13	5603	.01

NOTE: / = Less Than.

ECO-TECH LABORATORIES LTD.
Ken Swanson Chief Assayer

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

November 3, 1981

ASSAY REPORT

CLIENT: Custom Mining Inc., Kamloops, B.C.

ATTENTION: J. Mawhinney

CERTIFICATE NUMBER: ET 61

DESCRIPTION	oz/T Au	oz/T Ag	% Pb	% W	Cu	Zn
5551	.383	2.98	0.1			
5552	.554	12.40				
5553	1.072	6.44				
5556	.006	.18				
5557	.003	.08				
5558	.003	.25			0.06	1.5
5559	.003	.66				
5560	.001	.02				
5561	.002	.14				
5562	.135	1.12				
5563	.004	.17				
5564	.003	.45				
5565	.413	2.78				
5566	.052	10.68	39.7			
5568	.012	.62	0.3			
5569	.002	.10	0.1			
5570	.008	.29	0.3			
5571	.004	.26	0.2			
5572	.004	.23	0.3			
5573	.098	8.22	1.8			
5574	.006	.37	0.4			
5575	.001	.04	0.1			
5576	.001	.04	/.1			
5577	.001	.08	0.1			
5578	.001	.47	1.1			

...../2

Eco-Tech
LABORATORIES LTD.
783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 — Telephone (604) 372-9700

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

November 5, 1981

ASSAY REPORT

CLIENT: Custom Mining Corporation, Kamloops, B.C.

ATTENTION: J. Mawhinney

CERTIFICATE NUMBER: ET 61

DESCRIPTION	% W
5552	0.12
5553	0.07
5562	0.19
5563	0.05
5564	0.11
5565	0.19

ECO-TECH LABORATORIES LTD.
Per Ken Sawnson
Chief Assayer

Eco-Tech
LABORATORIES LTD. 783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 - Telephone (604) 372-9700
Telex: 048-8393

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

December 7, 1981

ASSAY REPORT

CLIENT: Custom Mining, Kamloops, B.C.

ATTENTION: J. Mawhinney

CERTIFICATE NUMBER: ET 79

DESCRIPTION	La	Ce	Nd	Sm	Eu	Yb	Lu	Tb
Concentrate from barrel	55	191	55	13.1	3.0	15	1	/1
Concentrate from trough	56	195	95	12.4	3.5	21	2	/1

All analysis are in ppm.

/ = Less Than.

ECO-TECH LABORATORIES LTD.

Ken Swanson

Chief Assayer

INDEPENDENT GEOLOGIST'S CONSENT

The undersigned geologist consulting to the mining industry knows that it is named as having prepared an evaluation of Destiny Bay Properties, otherwise referred to as Valparaiso/Government Workings in the "HOT" Group of properties for the exclusive use of Custom Mining Inc. and hereby consents to the use of said evaluation in its complete form only in a Filing Statement, Statement of Material Facts or Prospectus by Custom Mining Inc. No part of it should be reproduced, distributed or made available to any other person, company, regulatory body or organization without the complete context of the report or changed in any manner without the permission of A.S. Greene, Professional Geologist.

The Property Evaluation Report of Destiny Bay Properties and "HOT" Group of claims is respectfully submitted this 12th day of November, 1981.

A.S. Greene

A.S. GREENE, P. GEOL.

CERTIFICATE OF QUALIFICATION

I, A.S. Greene, Geologist, of Box 57, in the unincorporated village of Kootenay Bay, in the Province of British Columbia, hereby certify:

1. That I am a Professional Geologist and I did prepare an evaluation of Destiny Bay Properties and the "HOT" Group of claims for Custom Mining Inc., dated November 12, 1981.

2. That I attended the University of Calgary and that I graduated with a degree of Bachelor of Science in Geology in 1969; that I am a registered Professional Geologist and that I have in excess of 12 years experience relating to geological studies in Western and Northern Canada.

3. That I have no direct or indirect interest, nor do I expect to receive any direct or indirect interest in the properties or in any securities of Custom Mining Inc.

4. That this report is based on a personal inspection and examination of the above property and on information obtained from other reports on the property and from published material from government geological departments.

A.S. Greene

A.S. GREENE, P. GEOL.

ADDENDUM I

Destiny Bay Properties Exploration Update (1981-12-07)

Progress Report:

Since compilation of the Property Evaluation Report (1981-11-12) the following work has been done:

1. Three drill holes have been completed and one is currently being drilled. From DDS V81-1, two holes were drilled to lengths of 125 meters and 137 meters at 60° and 80° respectively. A mineralized fracture zone was intersected at 103.3 meters to 107.3 meters (elevation 1263 m to 1260 m) in DDH V81-1-1 and at 125.9 meters to 129.6 meters (elevation 1228.8 m to 1225.5 m) in DDH V81-1-2. Core recovery in these holes was 85% and 90% respectively. Although quartz vein material occurred in both intersections only DDH V81-1-2 encountered sulphides. Extent of leaching and oxidation of sulphides is pervasive in DDH V81-1-1 and approximately 50% in DDH V81-1-2.

   The third hole, vertically drilled from DDS V81-2 was 190 meters long, intersecting a mineralized fracture zone from 144.2 meters to 151.5 meters (elevation 1202.5 m to 1196 m). Core recovery however was only 58%. The fractured core material recovered was pervasively leached and oxidized. While no sulphide or quartz vein material was recovered, the broken and decomposed nature of the rock material and consequent poor recovery indicates that the anticipated mineralized zone encountered in DDH V81-1-2 was either abraded or washed out by drilling in DDH V81-2-1.

   A comprehensive geological description, together with assay results, will

ADDENDUM I (cont'd)

be given upon the completion of the fourth 1981 drill hole. Preliminary subsurface information indicates that depth of leaching and oxidation may vary from locale to locale but extends below the 1200 meter level. All core assay results will therefore reflect that of weathered and decomposed mineralized rock material.

2. A 1 km road has been extended from a logging access road to the old mine road and to a proposed exploration drift portal site at an elevation of approximately 1214 meters at a point 135 meters west and 165 meters north of the Government Workings shaft collar, considerably improving access to the area. Access to the drill sites has also been improved in anticipation of winter snow conditions.

3. An updated surveyed base map in the old workings and drill site areas has been prepared.

Discussion and Recommendations:

The operator, Custom Mining Inc., has suggested an exploration drift be collared approximately 200 feet (61 m) below the present workings to evaluate subsurface mineralization. With this in mind, a road was constructed to a proposed portal site appropriately located west of the first three diamond drill hole sites at approximately 1214 meters elevation (75 m below the Government Workings shaft collar). The proposed adit will encounter the mineralized fracture zone at approximately 180 meters (600 feet) from the portal if driven in an east direction. It is further proposed that the adit be extended eastward from the fracture zone to 300 meters. Exploration holes can be drilled in north-south fan patterns from locations in the adit

ADDENDUM I (cont'd)

east of the fracture zone intersection. From this 75 meter level adit the mineralized fracture zone can be evaluated down to the 200 meter level (elevation 1090 m or 3575 feet).

It is estimated that mineralization within a 3.7 hectare area can be outlined and evaluated from the one adit by the proposed underground drilling program. In comparison, existing old underground workings at the 14 meter level has evaluated an area of 1.3 hectares. The four hole 1981 drilling program will evaluate a roughly one hectare area

An exploration drift has been proposed to provide access for underground drilling and drifting exploration for reasons related mainly to the difficulty of drilling from the surface in this terrain. It is has been recommended in the report that subsurface exploration consist of drilling the steep east dipping mineralized fracture zone to progressively deeper levels. This program, if undertaken from the surface would necessitate the construction of a series of drill sites east of the workings. However, the terrain here slopes 35° to 40° to the west and consists of rock bluffs, talus slopes, and thinly covered wooded slopes. This terrain would adversely affect a drilling program from surface in numerous ways:

The building of drill site access roads would be extremely costly and time consuming and the difficulty in providing water for drilling operations in this area would add significant costs to a drilling program at the higher elevations.

To reach the deeper levels, beyond the proposed adit level, the drill holes would be excessively long and therefore expensive.

ADDENDUM I (cont'd)

For example, a hole reaching the 200 meter level (elevation 1090 m) from surface would be more than 350 meters (1150 feet) long compared to a 125 meters (410 feet) from the exploration adit. A drilling program from surface would require drill footage amounting to 3.25 times that required to test an equivalent area from the proposed adit. As 1000 meters of underground drilling is anticipated, the footage equivalent from surface would be 3250 meters, a difference of 2250 meters. At $100.00 per meter drilling costs, (a very conservative figure for this terrain and drilling conditions) the $225,000.00 difference is roughly the same as the anticipated cost of drifting (see Cost of Recommendations, p. 48). The cost of road building and associated drilling operation costs at higher elevations (water supply etc.) estimated at $120,000.00 or more is thereby eliminated.

Because of poor ground, per foot drilling costs from surface will be high. At the same time the poor ground will result in slow progress and necessitate a long time period to complete the program.

An underground exploration program would not be seasonally constrained. On the other hand, winter and spring snow conditions would preclude any surface drilling operations from December to May.

The proposed exploration adit has the advantage that the adit can be used to provide access to obtain bulk samples at the 75 meter level from cross cuts into the fractured zone. As well, at a later phase of development the exploration adit can be used for ventilation and safety exit purposes.

ADDENDUM I (cont'd)

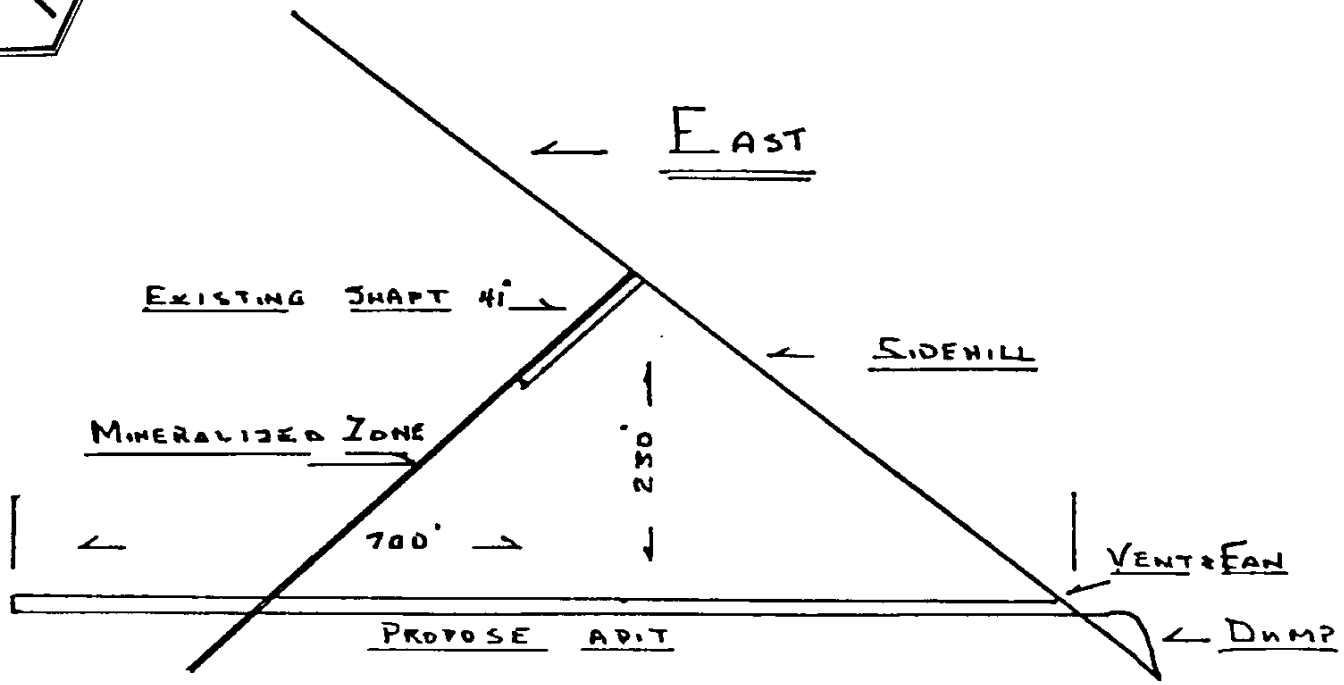
With the above factors kept in mind, the fact that mineralization is indicated (pending assay results) to beyond the 75 meter level and that exploration must extend to deep levels beyond the zone of leaching and oxidation (presently observed to the 80 meter level but possibly developed to beyond the 120 meter level) the proposed 300 meter adit is warranted and recommended. Underground exploration drilling should commence upon completion of the adit.

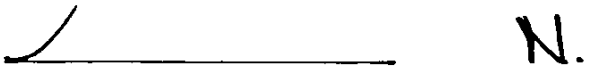
This Addendum to the Property Evaluation Report of Destiny Bay Properties, "HOT" Groups of claims, is submitted on this 7th day of December, 1981.

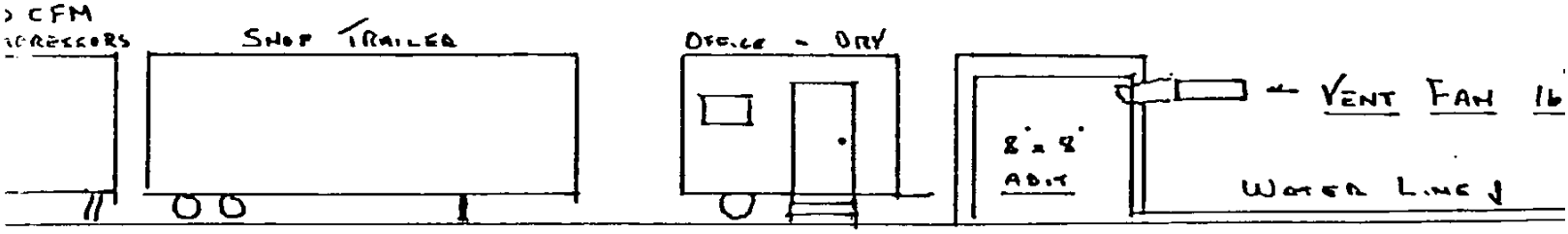
A.S. Greene, P. Geol.

custom mining services inc.

MINE CONTRACTING & ENGINEERING SERVICES







Suite 201, 125 - 4th Avenue, Kamloops, B.C. V2C 3N3 — Phone: (604) 374-3432

ADDENDUM II

Summary of Drillhole Data and Core Log

Borehole Ref. No.: DDH V81-1-1
Co-ordinates: 3315 m N; 6037 m E
Operator: Custom Mining Inc.
Drilling Contractor: Adam Diamond Drilling
Spudded: 1981-08-30
Finished Drilling: 1981-09-20
Core Size: BQ
Collar Elevation: 1353 m
Bearing/Plunge: West/60°
Total Depth: 125 m
Core Recovery: Ranges poor to good

Core Log:

meters	
0 - 47.4	Biotite granodiorite, white, medium to coarse-grained, hypidiomorphic-granular, variable mafic content, usually slightly chloritized; occasionally cut by medium to fine-grained aplite dikes up to .2 m thickness; fracture/joint density moderate to strong.
47.4 - 47.45	Quartz veinlet, fractured, rusty (poor recovery).
47.45 - 48	Lamprophyre.
48 - 48.3	Granodiorite, chloritized, kaolinized.
48.3 - 48.33	Quartz veinlet, fractured, rusty, poor recovery.
48.33 - 48.45	Granodiorite, as above, gouge clay.
48.45 - 48.6	Quartz veinlet, as above.
48.6 -103.3	Biotite granodiorite as in 0 - 47.4 meters; partial alteration of feldspar to muscovite and sericite over narrow zones adjacent to some fractures. Fractures are occasionally pyritic or rusty weathered.
103.3 -106.2	See Sample Data Sheet, Assay Ref. Nos. 5504,5505
106.2 -125	Biotite granodiorite, as above, less fractured and broken.

Summary of Drillhole Data (cont'd)

Borehole Ref. No.: DDH V81-1-2	Co-ordinates: 3315 m N; 6037 m E
Operator: Custom Mining Inc.	Drilling Contractor: Core Enterprises
Spudded: 1981-11-02	Finished Drilling: 1981-11-10
Core Size: NQ	Collar Elevation: 1353 m
Bearing/Plunge: West/80°	Total Depth: 137 m
Core Recovery: Ranges poor to good	

Core Log:

meters

0. - 126.2	Biotite granodiorite, white, medium to coarse-grained, hypidiomorphic-granular, variable mafic content, usually slightly chloritized; occasionally partial to complete alteration of feldspar to muscovite and sericite over narrow zones adjacent to some fractures; occasionally cut by medium to fine-grained aplite dikes up to .2 m thickness; fracture/joint density moderate to strong. Fractures are occasionally pyritic or rusty weathered.
126.2 - 128.2	See Sample Data Sheet, Assay Ref. No. 5506, 5507, 5508.
128.2 - 137	Biotite granodiorite, as above, generally unaltered, occasional joint fracture.

Summary of Drillhole Data (cont'd)

Borehole Ref. No.: DDH V81-2-1

Co-ordinates: 3257 m N; 6048 m E

Operator: Custom Mining Inc.

Drilling Contractor: Core Enterprises

Spudded: 1981-11-11

Finished Drilling: 1981-11-29

Core Size: BQ

Collar Elevation: 1346 m

Plunge: 90°

Total Depth: 190 m

Core Recovery: poor to good

Core Log:

meters

0. - 144.2	Biotite granodiorite, white, medium to coarse-grained, hypidiomorphic-granular, variable mafic content, usually slightly chloritized; occasionally partial to complete alteration of feldspar to muscovite and sericite over narrow zones adjacent to some fractures; occasionally cut by medium to fine-grained aplite dikes up to .2 m thickness; fracture/joint density moderate to strong. Fractures are occasionally pyritic or rusty weathered. Lamprophyre occurs at depth of 15 m to 16 m.
144.2 - 151.6	See Sample Data Sheet, Assay Ref. No. 5501, 5502, 5503.
151.6 - 190	Biotite granodiorite, as above, generally unaltered, occasional joint fracture.

Summary of Drillhole Data (cont'd)

Borehole Ref. No.: DDH V81-3-1

Co-ordinates: 3195 m N; 6058 m E

Operator: Custom Mining Inc.

Drilling Contractor: Core Enterprises

Spudded: 1981-12-02

Abandoned Drilling: 1981-12-10

Core Size: NQ

Collar Elevation: 1342 m

Plunge: 90°

Total Depth: 60 m

Core Recovery: fair

Core Log:

meters	
0 - 60	Biotite granodiorite, white, medium to coarse-grained, hypidiomorphic-granular, variable mafic content, usually slightly chloritized; occasionally cut by medium to fine-grained aplite dikes up to .2 m thickness; fracture/joint density moderate to strong.

ADDENDUM II

Sample Data Sheet - Diamond Drill Core

Assay Ref. No.	Drill Hole No.	Elements Tested	Interval (meters)	Rec. %	Lithological Description and Remarks
5501	V81-2-1	Ag,Au	144.2 - 146.3 (2.1)	80	144.2 m to 145.9 m: granodiorite, weathered, mafics largely absent (altered and weathered?), rusty feldspar altered to kaolin 10 - 70%; 145.9 m - 146.3 m: oxidized black iron sulphides in fractures.
5502	V81-2-1	Ag,Au	146.3 - 148.1 (1.8)	60	Granodiorite, very slight green-schist alteration, fractured (vari orientations), black oxide fractur filling, slickensides in shears.
5503	V81-2-1	Ag,Au	148.1 - 151.6 (3.5)	75	148.1 m - 150.8 m biotite grano-diorite, sheared and fractured, rusty mafics, fractures with black oxide fracture filling, feldspar altered to kaolin 70% - 90%; 150.8 m - 151.6 m granodiorite, slightly silicified, slightly chloritic, fractured.
5504	V81-1-1	Ag.Au	103.3 - 104.6 (1.3)	70	103.3 m - 104.1 m granodiorite, very fractured with rusty oxides, feldspar slightly altered to kaol 104.1 m - 104.2 m quartz vein, fractured parallel and perpendicu to core, iron oxide stain and limonite fracture filling; 104.2 104.6 m granodiorite, very rusty colored, limonitic, fractured.
5505	V81-1-1	Ag,Au	104.6 - 106.2 (1.6)	70	104.6 m - 105 m granodiorite, white, hornblende altered to chl biotite, feldspar completely alt to kaolin; 105 m - 105.8 m grano-diorite, rusty, very fractured, mafics, feldspar completely alte to kaolin; 105.8 m - 105.9 m quartz vein fractured perpendicu to core, leached vugs, limonite fracture filling; 105.9 m - 106. granodiorite, friable, very rust limonitic, no mafics, fractures slickensides.

Sample Data Sheet - Diamond Drill Core (cont'd)

Assay Ref. No.	Drill Hole No.	Elements Tested	Interval (meters)	Rec. %	Lithological Description and Remarks
5505	V81-1-2	Ag,Au,W	126.2 - 126.4 (.2)	90	Quartz vein, rusty white, fractured 0° to 70° to core, pyritic (10%), limonitic. Wolframite (?) occurs as small lenses in quartz (5%).
5507	V81-1-2	Ag,Au	126.4 - 127.7 (1.3)	90	Granodiorite, rusty colored, occasionally limonitic, sericitic, mafics altered to chlorite.
5508	V81-1-2	Ag,Au,W	127.9 - 128.2 (.3)	95	127.9 - 128.05 m; quartz vein, white, glassy with parallel orient fracture filling, 70° to core, comprised of arsenopyrite, pyrite, wolframite (?), ilmenite (?), total sulphides/mineralization 15% of rock volume; 128.05 m - 128.2 m granodiorite, feldspars and mafics altered to kaolin and chlorite, silicified, white to very pale gre color (from weathering of arseno-pyrite?), fine fractures variously 0° to 70° to core, small (1 - 3mm) erratically spaced pyrite lenses, fracture filling of pyrite, arsenc pyrite,(ilmenite?), wolframite(?). Sulphides/mineralization comprises 10% of rock volume.
5509	V81-1-2	Ag,Au	128.2 - 129.5 (1.3)	90	Granodiorite altered as above, rusty colored, shears/fractures 70° to core, occasional deteriorat hornblende phenocrysts, slickensic shear at 129.5 m.

ADDENDUM II

Assay Certificates (overleaf)

ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY

ECO-TECH LABORATORIES LTD. 783 Notre Dame Drive, Kamloops, B.C. V2C 5N8 - Telephone (604) 372-9700
Telex: 048-8393

December 31, 1981

ASSAY REPORT

CLIENT: Mr. Alf Green, Box 57, Kootenay Bay, B.C.

SAMPLE IDENTIFICATION: December 14, 1981

CERTIFICATE NUMBER: ET 83

DESCRIPTION	oz/T Au	oz/T Ag	% W	% As
5501	.001	/0.01	/0.01	------
5502	.001	0.05	/0.01	------
5503	0.001	/0.01	/0.01	------
5504	.003	0.12	/0.01	------
5505	.005	0.17	/0.01	------
5506	.036	0.94	1.36	1.43
5507	.002	0.03	0.02	-------
5508	.072	0.79	0.08	5.07
5509	.003	0.04	0.02	-------

NOTE: / = Less Than.

Per. ECO-TECH LABORATORIES LTD.
Ken Swanson, Chief Assayer

CC: Custom Mining Corp.
Invoice - Custom Mining Corp.

ADDENDUM II

Discussion

Diamond Drillhole Results:

The lithological examination and assay of drill core of the three drill holes, the deepest of which reached the 1225.5 m elevation, indicates oxidation and leaching of a degree no less than that observed at surface and in the underground workings. Therefore, the estimated depth of the base of the oxidized "flushed"zone may be greater than anticipated.(The bottom of the oxidized zone was estimated earlier in the report to lie between the 61 m and 122 m levels.) Since, as mentioned in the report a possible zone of secondary enrichment at the base of the zone of oxidation/leaching would be the most favourable target for exploration and bulk sampling, a proposed exploration adit (See Addendum I, p. 63.) at the 75 m level (elev. 1214 m) may not be sufficiently low in elevation to intersect the base of the oxidation/leaching zone. Furthermore, it must be conceded that since the degree of oxidation/ leaching at the 1225.5 m elevation is not appreciably less than that observed at surface or in the underground workings, the leaching may extend to a depth that cannot be predicted on the basis of present data. However, an early report (Curtin, 1933) comments that at the Government shaft (now inaccessible below the 16 m level) at approximately the 65 m level, "... there are indications of less oxidation...".

Exploration:

As discussed in Addendum I, any diamond drillhole exploration from surface on the hanging wall side or east of the fracture zone is physically difficult and costly. Furthermore, core assay values for gold in highly fractured rock

Discussion (cont'd)

material is not always valid. Therefore, deep exploration to locate and evaluate a possible secondary enrichment zone or to test unweathered vein material by means of conventional diamond drilling from surface is not recommended.

Several alternative subsurface exploration methods exist. A scheme consisting of drifting and diamond drilling from an exploration adit has been discussed in addendum I. A variation of this proposed here consists of an exploration adit constructed to the mineralized fracture zone and a ramp constructed in the footwall following the strike of the zone. Essentially the ramp would plunge down along a rake in a plane parallel to the fracture zone. The fracture zone can be tested variously by means of horizontal drilling from the ramp, by cross-cuts into the fracture zone or by an EM geophysical survey conducted along the ramp. While the estimated cost of this procedure would be equivalent to the scheme discussed in Addendum I, it has the advantage that any poor ground conditions that can be expected in hanging wall excavations or drilling are avoided. Surface drilling has indicated that the footwall is considerably less fractured and is probably technically more stable.

Cost estimate for underground work - See page 48.

Drifting and underground drilling exploration is best employed where they can be combined with bulk sampling, in this case preferably at a level where the degree of oxidation/leaching is low or where potentially economic mineraliza is anticipated. Therefore, to optimize the usefullness of underground work it is advantageous to locate (if possible) the target area for the best mineralization potential. To aid in the delineation of possible target areas

Discussion (cont'd)

lying at depths below the workings level and present drillhole depths, the following exploration technique is tentatively proposed.

The use of borehole geophysics in metallic mineral exploration is relatively uncommon. However, because of the physical difficulty and high cost of exploring or assessing the subsurface mineralization in this locale, the use of borehole geophysics may be an economically feasible exploration method to locate the best zones of potential mineralization to which subsurface testing can be directed. (A detailed discussion of borehole geophysical techniques is not presented in this Addendum. The reader may wish to refer to "Borehole Geophysics Applied to Metallic Mineral Prospecting: A Review", edited by A.V. Dyck, Paper 75-31, Geological Survey of Canada.) Basically, borehole geophysical electrical surveys detect anomalous conductivity in or in the vicinity of the borehole. The observed geological relationship between the occurrence of electrically conductive pyrite and arsenopyrite and the occurrence of gold-silver and nonconductive tungsten oxide permits the assumption that the occurrence of anomalous conductivity can correspond to an indication of metallic mineral concentration.

The writer proposes the drilling of a borehole (by the most economical method) on the footwall side of the mineralized fracture zone at a plunge roughly parallel to the dip of the fracture zone. (Drilling in the footwall granodiorite proves to be considerably easier and faster than in a highly fractured hanging wall.) The borehole should remain outside the altered and mineralized fracture zone. The first borehole can be conveniently located at the Government shaft where road and water access and site size are good and where geophysical data can be compared against geological and sample data obtained in the shaft

Discussion (cont'd)

and from underground workings in the vicinity of the borehole.

The following surveys should be conducted: an induced polarization survey (using a normal or lateral electrode array with various separations); an electromagnetic survey (using either a rotatable surface transmittor coil with a downhole receiver coil or using a downhole transmittor/receiver coil pair with fixed separation); a temperature survey (to aid in possible location of the base of the oxidized sulphides). The IP and EM surveys have detection limits estimated at about 100 meters beyond the bore hole and have been effectively employed to depths of about 650 meters. In this case, the borehole should be surveyed every 100 meters, the total depth determined on the basis of the results and effectiveness of the survey.

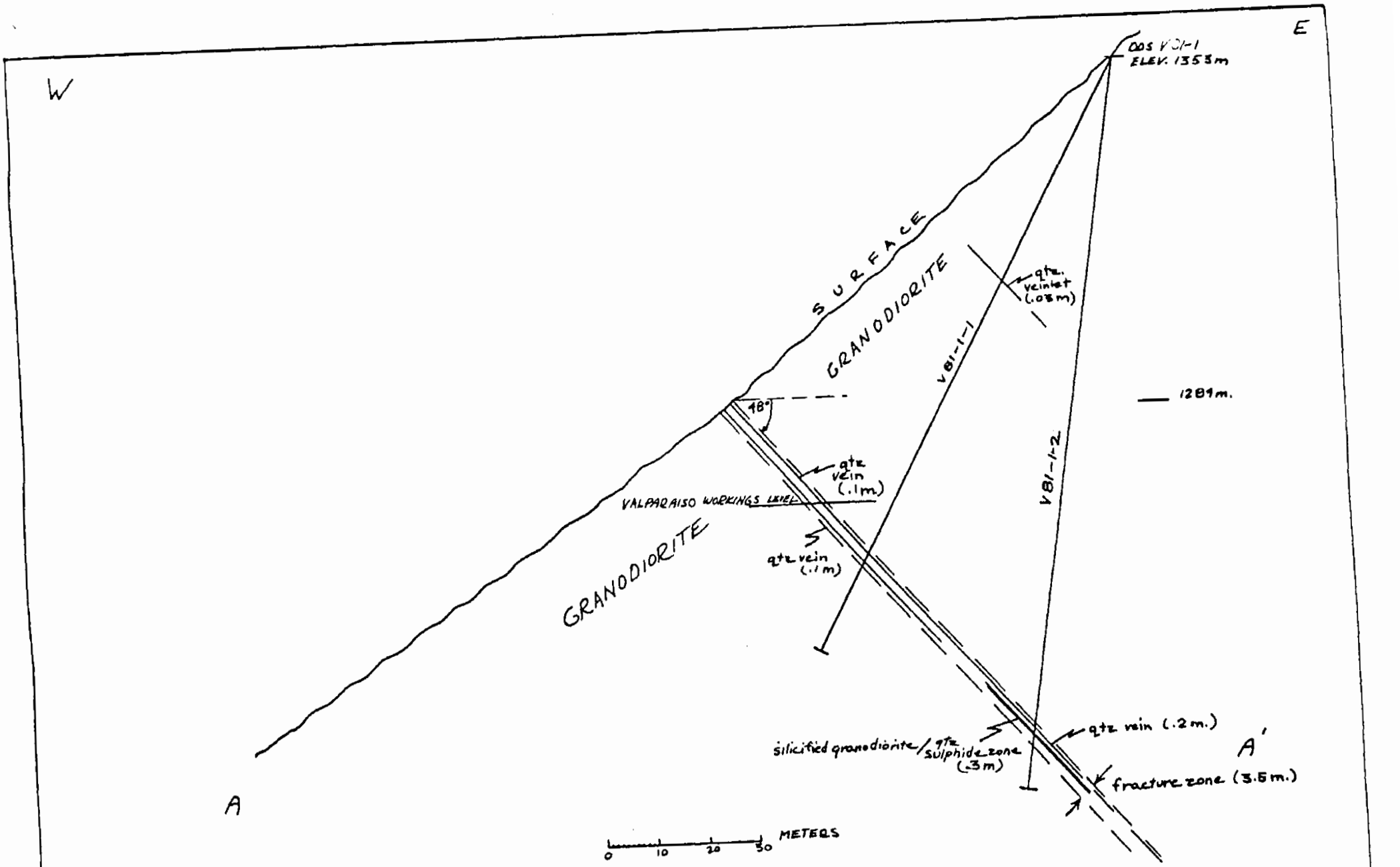
Cost Estimation of Borehole Logging Program (per hole):

Drilling	500 m @ $100./m*	$50,000.00
Logging, presentation, interpretation	500 m @ $25./m	$12,500.00
Total		$62,500.00

*Less if rotary tricone drilling or downhole hammer drilling is feasible.

This Addendum to the Property Evaluation Report of Destiny Bay Properties, "HOT" Groups of claims, is submitted on this 1st day of February, 1982.

A.S. Greene, P. Geol.



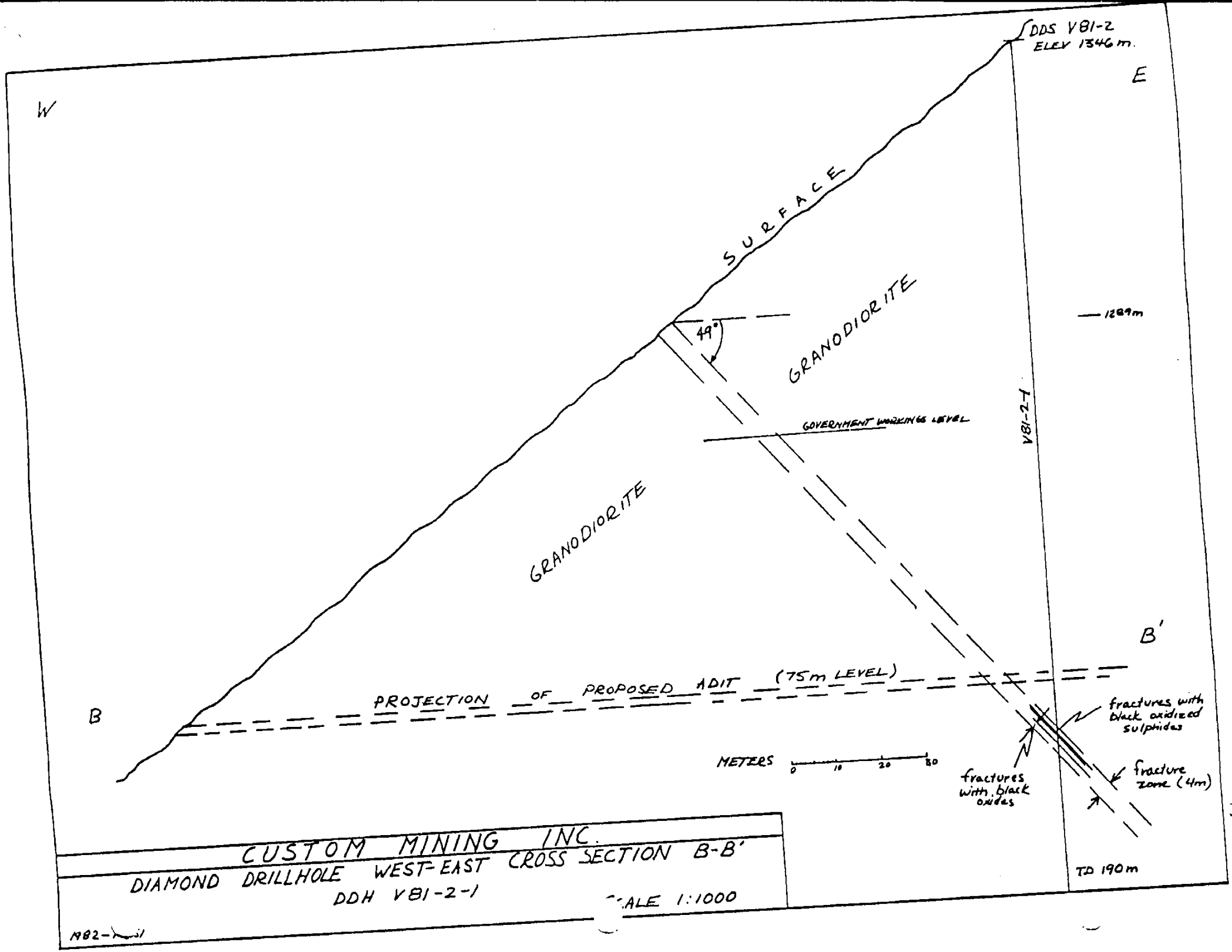
CUSTOM MINING INC.

DIAMOND DRILLHOLE WEST–EAST CROSS-SECTION A-A'

DDH V81-1-1, DDH V81-1-2

SCALE 1:1000

1982-1-2


DDS V81-2
ELEV 1346 m.
W
E
SURFACE
GRANODIORITE
49°
1289m
V81-2-1
GOVERNMENT WORKINGS LEVEL
GRANODIORITE
B'
B
PROJECTION OF PROPOSED ADIT (75m LEVEL)
fractures with black oxidized sulphides
METERS
0 10 20 30
fractures with black oxides
fracture zone (4m)
TD 190m
CUSTOM MINING INC.
DIAMOND DRILLHOLE WEST-EAST CROSS SECTION B-B'
DDH V81-2-1
SCALE 1:1000
1982-

STATEMENT

EXPLORATION AND DEVELOPMENT

COSTS INCURRED per Sec.C2(2)

July 1981-May 1982

Road Building	1.9Km-TD15-43 Hrs @46/hr		$ 1,972.00
Road Upgrading	4 KM-TD20-378.05 Hrs @60/hr		22,706.00
Drill Site Development	TD15-66 Hrs @50/hr		3,345.00
Drilling & Blasting	400m @50/m		20,000.00
Diamond Drilling	NQ & BQ - 2212 feet @26/ft		57,516.00
Labour:	105 Days		
Superintendent	1050 Hrs @ 13/hr	13,650.00	
Rock Driller	950 Hrs @ 11/hr	10,450.00	
Labourers	950 Hrs.@ 9/hr	8,550.00	32,650.00
Compressor Rental	600CFM @200.00/day -50 days		10,000.00
Truck Rental	4x4 @40/day		4,200.00
	Two Wheel D. @20/day		2,100.00
Fuel Costs			2,111.00
Accommodation	1 man/105 days @50/day		5,250.00
Baseline & Soilsamples	5Km +300 soil samples		3,649.00
Assay:			
Soil Samples	432 @4.00/		1,728.00
Core, Channel samples etc.			1,532.00
Equipment Moving Expense - Lowbed equip.			1,752.00
Tool Rentals	Misc. mining tools-105days @43/day		4,500.00
Administration			6,224.00
Geological Reports			19,996.00
			$201,231.00

JOHN R. KERR, P. ENG.
Geological Engineer

#1 - 219 VICTORIA STREET • KAMLOOPS, B.C. V2C 2A1 • TELEPHONE (604) 374-0544

November 10, 1981

Mr. J. D. Mawhinney,
Custom Mining Services Ltd.,
#840 - Bank of Montreal Bldg.,
175 - 2nd Avenue,
Kamloops, B. C.

Dear Jim:

Re: Examination & Sampling
-Valpraiso & Government Properties

In the accompaniment of Messrs. Alf Greene & George Keeper, I examined old mine workings on the above mentioned properties on September 23, 1981. The attached sketch indicates location of three samples collected by the writer.

In addition to the above, I have reviewed a draft copy of a report submitted by Mr. Greene during October, 1981. I concur with his geological understanding of the property, and his estimations of potential ore reserves.

In summary, a major vein system transects the property in a general N - S direction, dipping 41° to the east. In the area of the main workings, the vein transects granodiorite of a large batholith related to the Nelson Intrusive Complex. The vein structure can be traced into Precambrian metasediments approximately a kilometer to the north of the main workings.

The vein has been developed by underground adits on the Valpraiso and Government workings over a strike length of 430 meters (~1400 ft.). Test pits have developed the vein an additional 370 meters (~1200 ft.) to the north. Underground sampling by previous operators, O'Grady (1927), Hougland (1956), and Reeve (1964), have developed potential reserves to down dip depths of approximately 50 meters (~160 ft.), and over widths ranging 1.22 - 1.98 meters (4.0 - 6.5 ft). Greene (1981) has compiled all data of this underground sampling, estimating potential reserves of 107,000 metric tonnes (118,000 short tons) averaging 5.23 gm/tonn (.153 oz/T) Au and 58.1 gms/tonne (1.7 oz/T) Ag over the developed length, width and depth of the vein.

Further tonnages of ore are indicated both at depth and laterally in a north and south direction.

At the time of the writer's examination, the two inclined shafts to the Government working were in poor repair, and the adit to the Valpraiso workings was blocked off at the portal. The writer entered the main shaft to the developed level. This level was blocked off both to the north and south within 10 meters of the shaft. Two samples were collected over partial widths (exposed) of the vein. Surface exposures of the vein on the Valpraiso workings were examined, and one sample was collected. The location and assay results are indicated on the accompanying sketch. The results of the underground sampling substantiate the presence of gold and silver in the vein. The average of the two samples indicates 9.68 gms/tonne (.283 oz/T) Au, and 77.98 gms/tonne (2.28 oz/T) Ag, considerably higher than the average as compiled by Greene.

Sample G-04, as reported on the assay certificate is a sample submitted by Mr. Greene, the location and nature of this sample unknown to the writer.

Old reports, and some recent samples collected from dumps, have documented the presence of tungsten within the vein system, occurring either as scheelite or wolframite. The writer did not recognize the presence of any tungsten minerals, and assays indicated only trace contents of WO_3 in all of the samples.

The vein system offers the potential for development of an underground mining operation. In addition, other sub-parallel vein systems are reported to occur on the property. Further surface exploration programmes are required to evaluate the potential of these veins.

A logical three-phase exploration and development programme is recommended, as follows:

PHASE I: Approximately 1000 meters (3300 ft.) of drilling be completed to test the known vein system in the area of the main workings to a vertical depth of 150 meters (500 ft.). It is my understanding that this programme has commenced, with one hole being completed. As the wallrock of the vein is soft clays and decomposed granodiorite, and the core of the vein is hard quartz, all precautions should be undertaken to assure optimum recovery. As this phase of the programme is being completed in late fall and winter months, it is logical not to recommend a surface evaluation programme in PHASE I.

Anticipated costs of PHASE I are $150,000.00.

PHASE II: 1). An additional 3000 meters (~10,000 ft.) of diamond drilling to test the known vein system in north and south directions, and at depth.

2). A surface exploration programme to evaluate the potential of veins on the property. This programme would consist of detailed grid work, geological mapping, soil sampling, an E.M. Survey and bulldozer trenching.

3). Rehabilitation of old underground mine working. The objective of this programme would be to collect suitable bulk samples from various areas of the workings for metallurgical tests.

Costs of this programme are estimated to be $600,000.00.

PHASE III: Feasibility and further development for production. Details and costs of this phase would be totally contingent upon the results of PHASE I & II.

I trust that the above is of some assistance to you in continued development of a very interesting property.

Yours Very Truly,

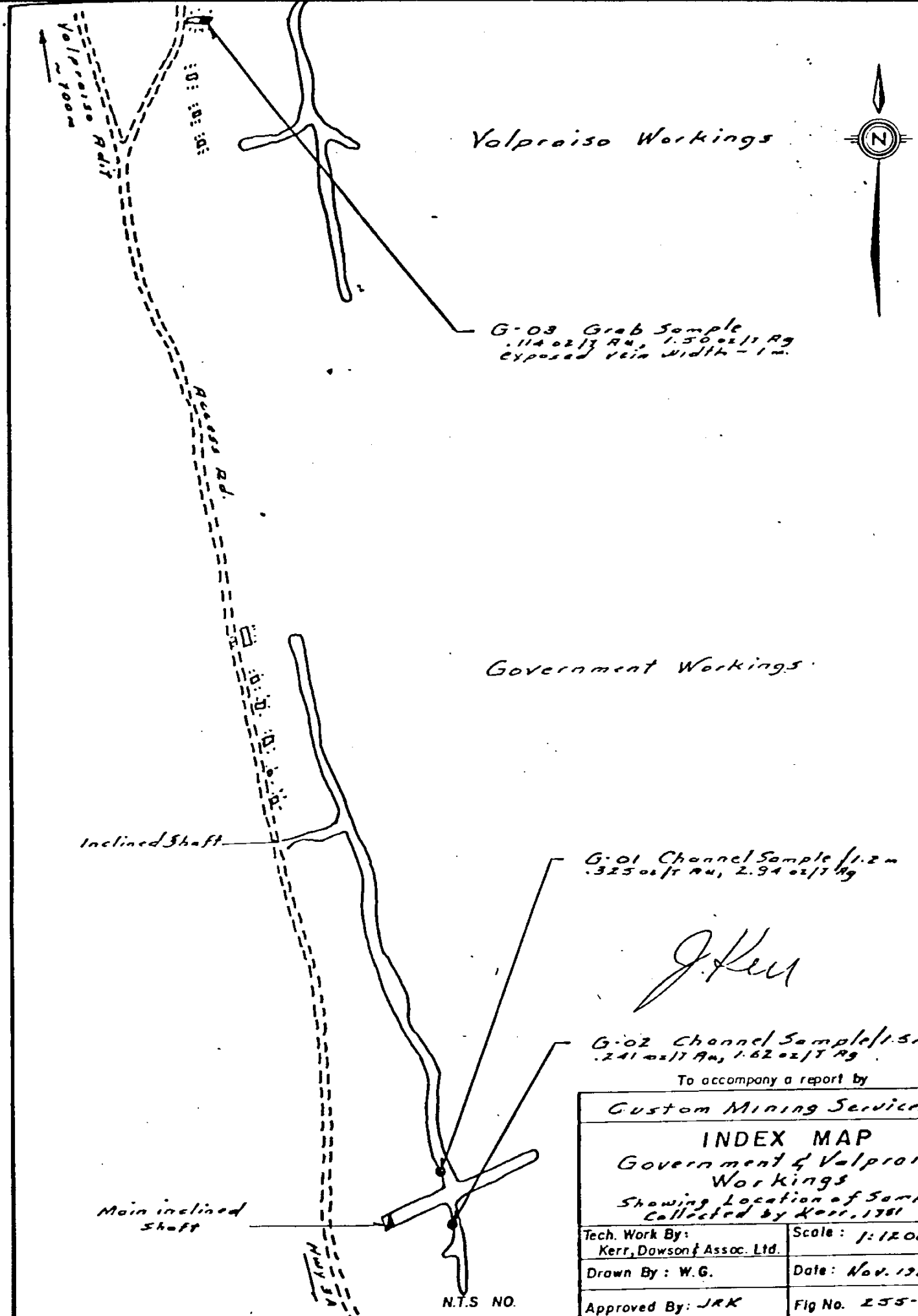
KERR, DAWSON & ASSOCIATES LTD.,

John R. Kerr

John R. Kerr, P. Eng.

JRK/bl

Enclosures:



To accompany a report by

Custom Mining Services Ltd.

INDEX MAP

Government & Valpraiso Workings

Showing Location of Samples Collected by Kerr, 1981

Tech. Work By: Kerr, Dawson & Assoc. Ltd.	Scale : 1:1200
Drawn By : W.G.	Date : Nov. 1981
Approved By: JRK	Fig No. 255-1

Member Canadian Testing Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

2095 WEST TRANS CANADA HIGHWAY — KAMLOOPS B.C.
V1S 1A7
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

CERTIFICATE OF ASSAY

TO Kerr-Dawson & Associates Ltd.

206 Nicola Place
310 Nicola Street
Kamloops, B.C. V2C 2P5

Certificate No. K-4524

Date October 20, 1981

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.		Marked	GOLD	SILVER	W						
			Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
K-5424	1	G - 01	.325	2.94	.03						
	2	G - 02	.241	1.62	.03						
	3	G - 03	.114	1.50	.04						
	4	G - 04	.009	.44	.02						

NOTE:
Rejects retained three weeks.
Pulps retained three months unless otherwise changed.

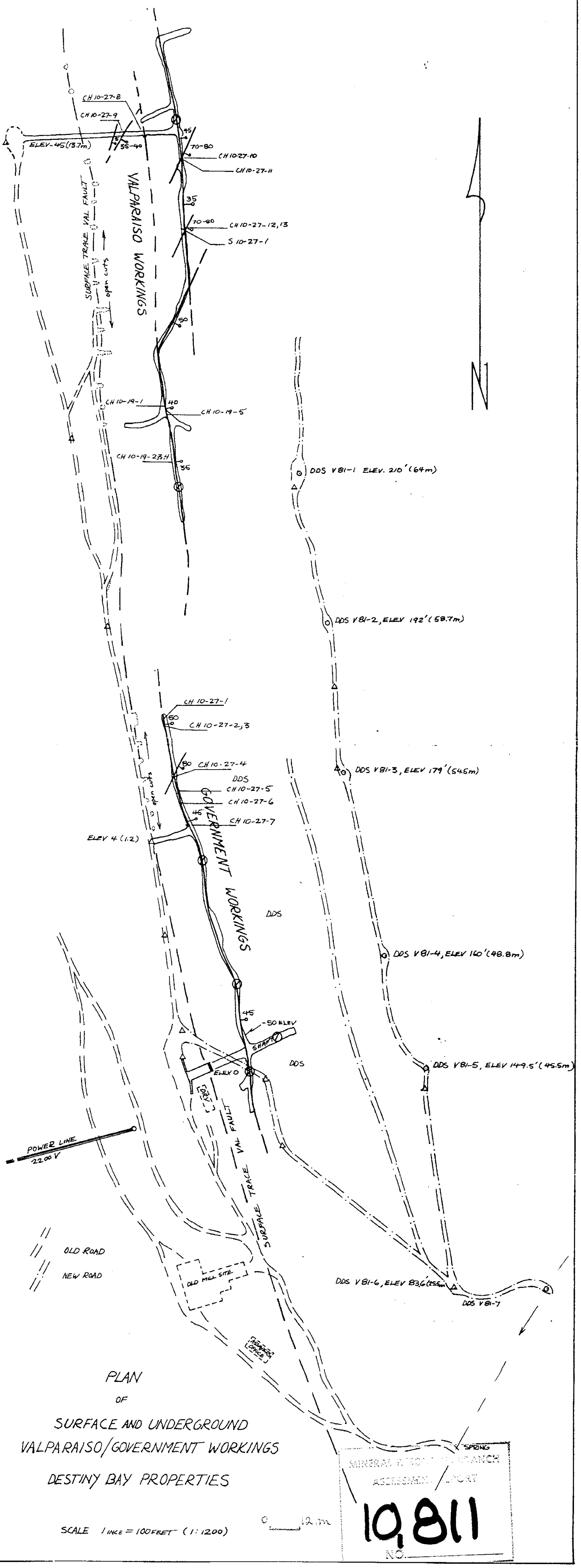
Registered Assayer, Province of British Columbia

DESTINY BAY PROPERTIES

Northern Pacific Mines Limited

Composite of Surface & Underground

1/2" = 50'

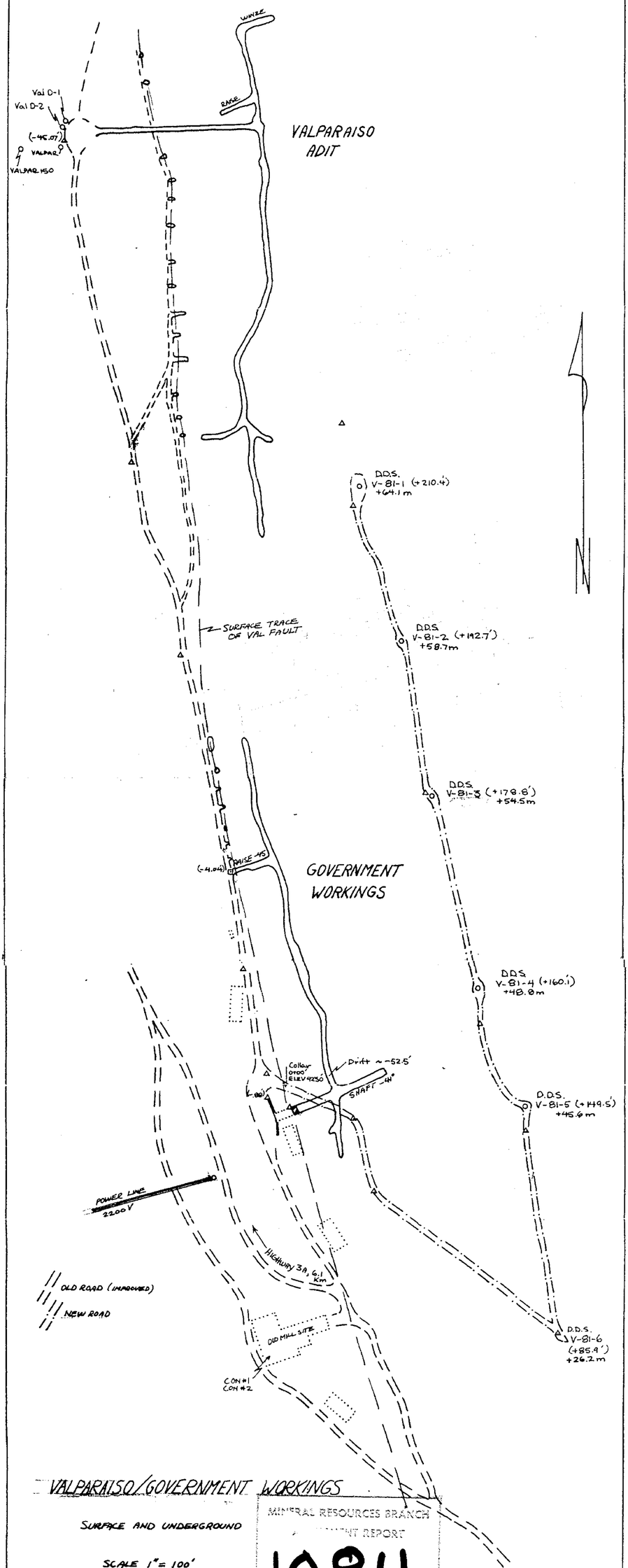


PLAN
OF
SURFACE AND UNDERGROUND
VALPARAISO/GOVERNMENT WORKINGS
DESTINY BAY PROPERTIES

SCALE 1 INCH = 100 FEET (1:1200)

0 12m

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,811
NO.

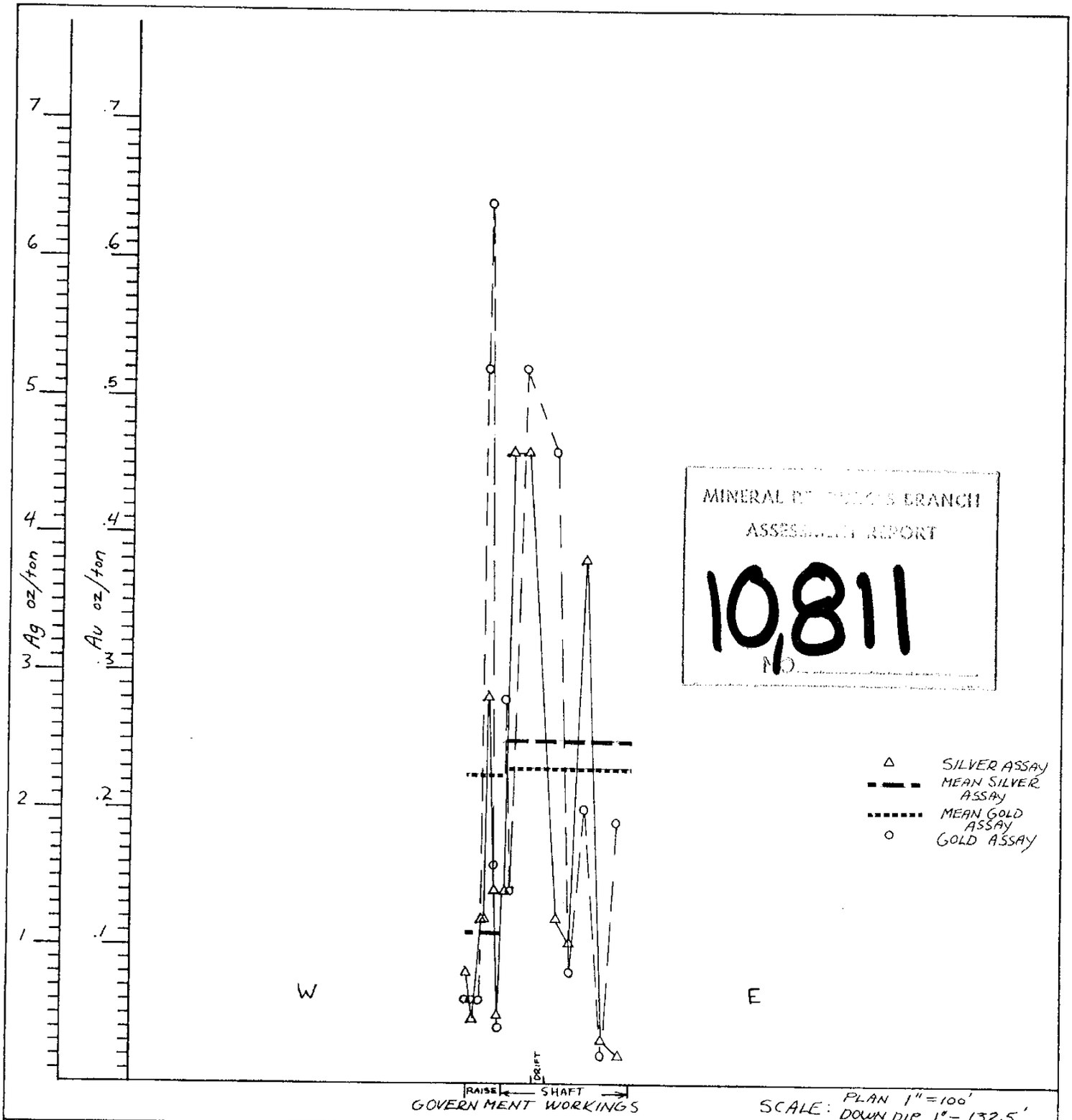


VALPARAISO/GOVERNMENT WORKINGS

SURFACE AND UNDERGROUND

SCALE 1" = 100'

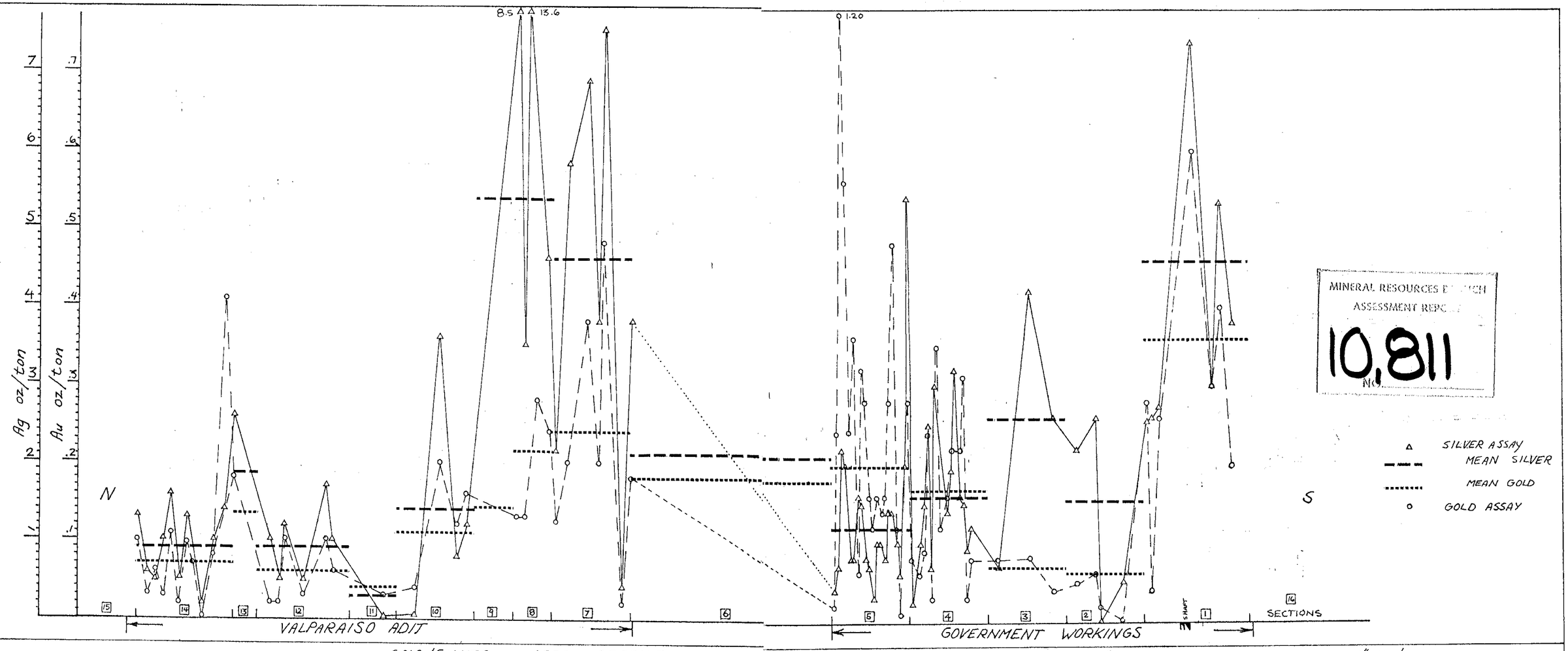
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,811
NO.



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,811
NO.

SCALE: PLAN 1" = 100'
DOWN DIP 1" = 132.5'

COMPOSITE DOWN-DIP GOLD/SILVER ASSAY PROFILE EAST-WEST SECTION



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,811
NO.

GOLD/SILVER ASSAY PROFILE OF SAMPLING OF MINE WIDTHS NORTH-SOUTH SECTION

SCALE HORIZ.: 1" = 100'