

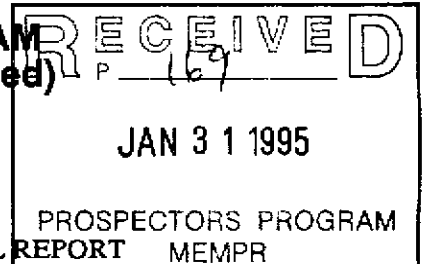
**BRITISH COLUMBIA**  
**PROSPECTORS ASSISTANCE PROGRAM**  
**MINISTRY OF ENERGY AND MINES**  
**GEOLOGICAL SURVEY BRANCH**

PROGRAM YEAR: 1994/95

REPORT #: PAP 94-54

NAME: JAMES LAIRD

BRITISH COLUMBIA  
PROSPECTORS ASSISTANCE PROGRAM  
PROSPECTING REPORT FORM (continued)



**B. TECHNICAL REPORT**

- One technical report to be completed for each project area
- Refer to Program Requirements/Regulations, section 15, 16 and 17
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT

Name JAMES LAIRD Reference Number 94-95-P169

**LOCATION/COMMODITIES**

Project Area (as listed in Part A.) TEIHSUM RIVER Minfile No. if applicable       
Location of Project Area NTS 92L6 WEST Lat 50°19.5' Long 127°18'  
Description of Location and Access DRIVE TO PORTALICE ON NORTHERN VANCOUVER  
ISLAND AND TAKE THE VICTORIA LAKE MAINLINE LOGGING ROAD AROUND THE  
SOUTH END OF THE LAKE. DRIVE UP THE TEIHSUM RIVER LOGGING ROAD ON THE  
S.E. SIDE OF THE LAKE.  
Main Commodities Searched For AU, ZN, CU

Known Mineral Occurrences in Project Area MERRY WIDOW MINE, OLDSPORT MINE

**WORK PERFORMED**

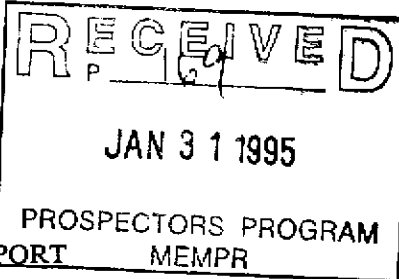
1. Conventional Prospecting (area) A1-A5 claims, all units prospected.
2. Geological Mapping (hectares/scale) 1:5000, A1-A4 claims, 1:1000-1km.
3. Geochemical (type and no. of samples) 41 soil, 1 pan, 18 rock
4. Geophysical (type and line km)
5. Physical Work (type and amount) hand trenching all showings
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify)

**SIGNIFICANT RESULTS (if any)**

Commodities AU, ZN, CU Claim Name A1-A4  
Location (show on map) Lat 50°19.5' Long 127°18' Elevation 250 m. to -  
Best assay/sample type AU - 0.607% off ACROSS 40cm, ZN - 25.8% across 1m.  
CU - 2% across 2m.  
Description of mineralization, host rocks, anomalies THE PROPERTY IS UNDERLAIN BY PARSON'S  
BAY Fm. LIMESTONE AND BONANZA VOLCANICS INTRUDED BY VARIOUS AGES OF BASIC TO FELSIC  
DIKES AND SILLS, AND THE COAST COPPER STOCK GABBRO AND QUARTZ MONZONITE. GOLD AND  
SULPHIDE MINERALIZATION IS ASSOCIATED WITH INTRUSIVE CONTACTS AND NORTH TO NORTHEAST  
TRENDING FAULTS AND SHEAR ZONES.

Supporting data must be submitted with this TECHNICAL REPORT.

BRITISH COLUMBIA  
PROSPECTORS ASSISTANCE PROGRAM  
PROSPECTING REPORT FORM (continued)



B. TECHNICAL REPORT

- \* One technical report to be completed for each project area
- \* Refer to Program Requirements/Regulations, section 15, 16 and 17
- \* If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT

Name JAMES LAIRD Reference Number 94-95-P169

LOCATION/COMMODITIES

Project Area (as listed in Part A.) NIMPKISH Minfile No. if applicable 92L-121 WOLF

Location of Project Area NTS 92L 7 West Lat 50° 22' Long 125° 53'

Description of Location and Access DRIVE TO NIMPKISH ON NORTHERN VANCOUVER ISLAND, TAKE NOOMAS CREEK LOGGING ROAD TO UPPER STOREY CREEK DRAINAGE.

Main Commodities Searched For ZN, CU (Au, Ag), LIMESTONE

Known Mineral Occurrences in Project Area NIMPKISH COPPER (KINMAN), STOREY CREEK-SMITH COPPER, WOLF, NIMPKISH IRON MINE

WORK PERFORMED

1. Conventional Prospecting (area) CBL 1-10 claims, All units prospected + surrounding area
2. Geological Mapping (hectares/scale) CBL 1-10 1:5000
3. Geochemical (type and no. of samples) Rock - 20 samples
4. Geophysical (type and line km)
5. Physical Work (type and amount) Hand trenching all showings
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify)

SIGNIFICANT RESULTS (if any)

Commodities ZN, CU (Fe); Lst. Claim Name CBL-1, 2

Location (show on map) Lat 50° 22' Long 125° 53' Elevation 900 m

Best assay/sample type 46.8% ZN (+1m); 10.3% CU (+1m) rock chip

Description of mineralization, host rocks, anomalies

QUATZINO LIMESTONE AND KARMUTSEN BASALTS ARE INTRUDED BY GRANODIORITE, DIORITE, AND QUARTZ-FELDSPAR PORPHYRY STOCKS, AND BASIC TO FELSIC DYKES AND SILLS. SPHALERITE, MAGNETITE, MALACOPYRITE, PYRITE AND PYRRHOTITE OCCUR IN SKARNS AND REPLACEMENTS NEAR INTRUSIVE CONTACTS.

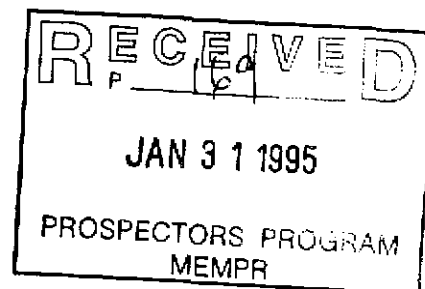
Supporting data must be submitted with this TECHNICAL REPORT.

TEIHSUM RIVER PROPERTY  
MERRY WIDOW MOUNTAIN  
VANCOUVER ISLAND, B.C.

NANAIMO MINING DIVISION

NTS 92L 6 WEST

Lat. 50°19.5' Long. 127°18'



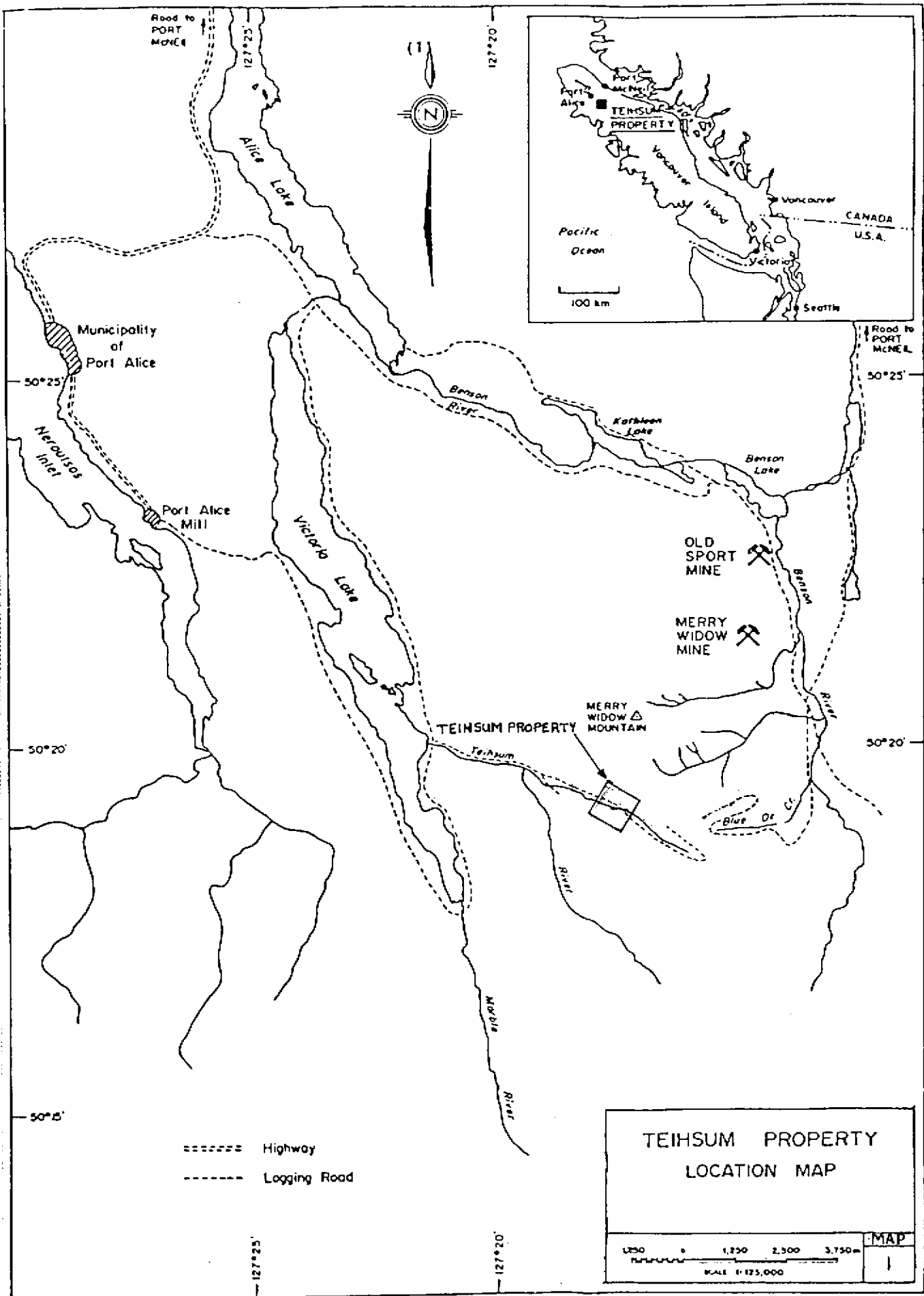
Owned and Operated by:

James W. Laird, Prospector

November, 1994

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===== Highway  
 - - - - - Logging Road

**TEIHSUM PROPERTY  
LOCATION MAP**

0	1,250	2,500	3,750	MAP
				1
SCALE 1:125,000				

## Introduction

This report details the results of a preliminary program of prospecting, geological mapping, rock and pan sampling, and a geochemical soil survey on the Teihsum River Property, located on Merry Widow Mountain, Northern Vancouver Island. This program was partially funded by a grant from the B.C. EMPR Prospector's Assistance Program.

## Summary

The work program began August 18 to 20, 1993 and was completed during August 9 to 14, 1994. Detailed prospecting of the 4 2-post claims uncovered significant gold and base metal mineralization in several zones. The program consisted of prospecting and 1:5000 mapping of all claims, 12 rock assays and hand trenching the showings, 41 geochemical soil samples and 1 heavy metal pan sample.

Results of the program were excellent, with rock assays of 20.8 g/t gold in vein shears and 6.96 g/t gold, 25.8% Zn, and 2.63% Cu in massive sulphide replacements in limestone. Soil geochemistry anomalies were closely related to the mineralized structures and had values up to 3210 ppb gold, 3653 ppm Zn, 873 ppm Pb, and 183 ppm Cu.

The observed mineral deposits can be classified as intrusive-related and multi-generational, often structurally brecciated, consisting of; Early Jurassic iron-copper skarns and co-genetic magmatic magnetite in the Coast Copper Stock gabbro, Mid to Late Jurassic copper, zinc, and gold deposits related to felsic granitic intrusions, and one or more phases of polymetallic gold vein deposition of Tertiary age.

The mineral deposits of the Teihsum River area show great similarities to the nearby Coast Copper and Merry Widow mines, and to the Zeballos and Mt. Washington mining camps.

Location and Access

The Teihsum River Property is located approximately 25 Km southeast of the town of Port Alice on north-central Vancouver Island. The claims lie within the Teihsum River drainage area on the south slope of Merry Widow mountain, between 200 and 500 metres elevation, overlooking Spruce Bay on Victoria Lake.

Access to the claims is via the Victoria Lake Main logging road southeast from Port Alice, or west from Port McNeill on the Benson and Alice Lake Mains to V.L. Main. The Teihsum River drainage is accessed by gated logging road controlled by Western Forest Products of Port Alice. The road system in the Teihsum River valley is currently in poor repair, with several major bridge and road washouts from severe rainstorms during 1990 and 1991. The western claim boundary is the current limit of driveable road but road renovations are scheduled early in 1995.

Environment

The climate of Northern Vancouver Island is mostly mild and wet, with about 400 cm. of precipitation annually. Heavy snowfall covers the higher elevations from November to April, but seldom persists at lower elevations for more than a few weeks in January and February.

The claim area has been partially logged in the last 20 years, and a dense new forest covers the lower elevations. The upper reaches of the valley are covered by first-growth forest with fir, hemlock, red cedar, spruce and cypress being harvested.

Wildlife observed in the area include deer, elk, black bear, cougar, and wolf. No endangered species are known to be present and no parks have been proposed in the area.



## Claims

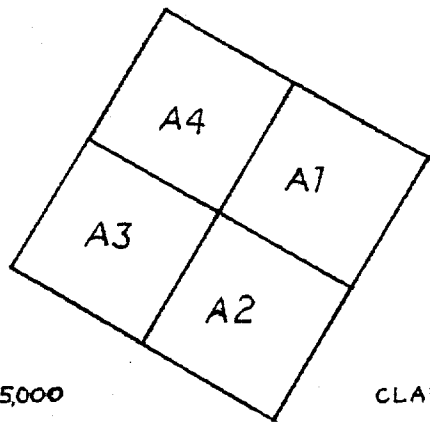
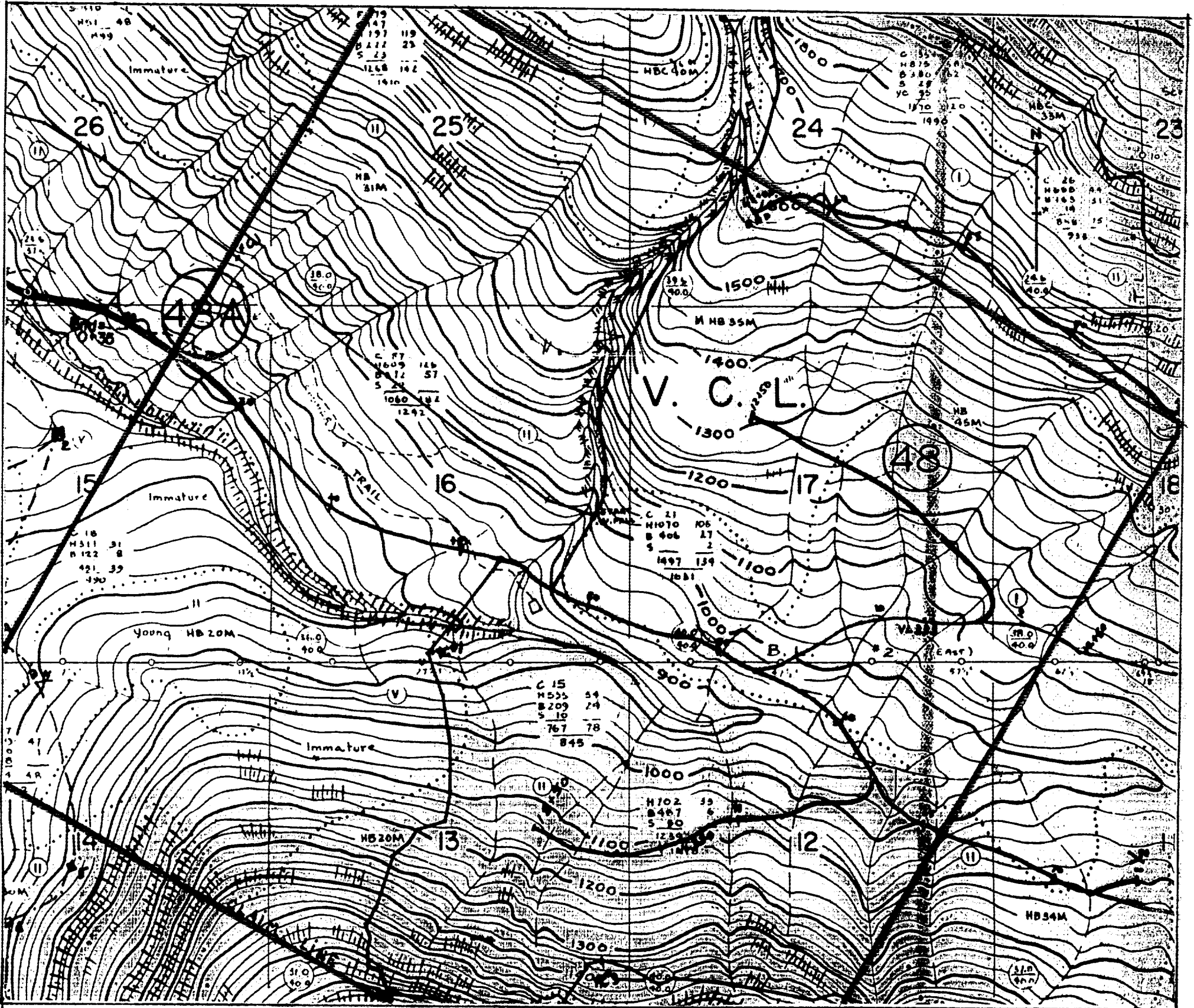
The Teihsum River Property consists of 4 2-post claims recorded in the Nanaimo Mining Division as:

A-1	July 22, 1993	319814
A-2	August 19, 1993	320703
A-3	August 19, 1993	320704
A-4	August 19, 1993	320705

## History

Vancouver Island has been explored for gold, coal, and base metals since the late 1700's, first by Spanish traders and later by British colonists. The Merry Widow Mountain copper-iron-gold deposits were discovered in the late 1800's, but lack of road access slowed development until the 1950's, when Empire Development Ltd. and Coast Copper Co. Ltd. began production. Coast Copper Co. Ltd. produced more than 2 million tonnes of copper-gold-iron ore from the stratiform skarn/replacement "Old Sport Horizon" at the base of the Quatsino Limestone. Mining ceased in 1972 due to mining out the developed orebodies, but deep drill intersections indicate that other potential orebodies exist south of the mine workings.

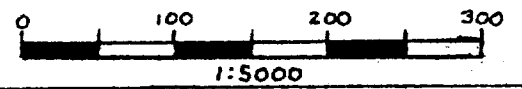
The Merry Widow and Kingfisher mines produced more than 3.7 million tonnes of iron ore from several massive magnetite deposits in limestone and sub-volcanic greenstone breccias near the contact of the gabbro stock. Gold, copper, and cobalt bearing sulphides were considered a serious impurity in the iron ore. In the late 1980's, James Laird and Taywin Resources Ltd. acquired a major land position in the camp, including the Merry Widow and Kingfisher mines. Significant drill intersections of gold-copper-cobalt mineralization indicate a potential ore zone in the former Merry Widow mine.



1:25,000

CLAIM MAP

## TEIHSUM RIVER TOPOGRAPHY



ELEVATIONS IN FEET

J. LAIRD NOV. 1994

**MAP 2**  
NTS 92L6W

## Property History

The first recorded explorations in the Teihsum River Valley area were in 1984 when the Vancouver Island Syndicate completed a geochemical and geological survey over an area several km. west of the claims. Several stream geochemical samples showed high values in gold, zinc, copper and arsenic. No bedrock sources were identified. (MEMPR AR# 12404)

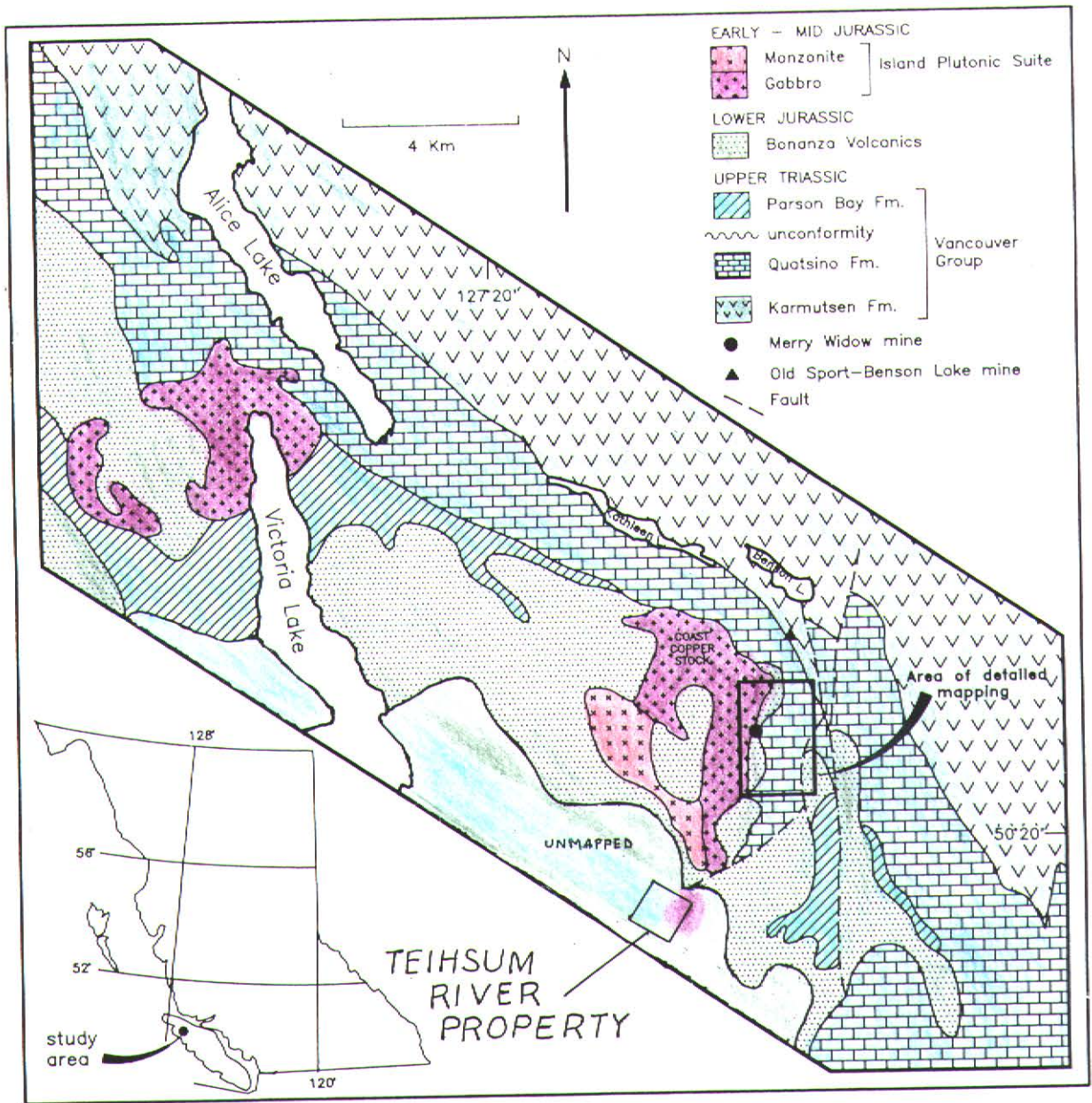
In 1985, Westmin Resources Ltd. completed a program of geochemical stream and soil sampling over the area now covered by the claims. Several strong anomalies were found, with gold values up to 4650 ppb and anomalous copper, zinc, arsenic, antimony, and mercury. No geology is given in the report (MEMPR AR# 14086) and bedrock sources were not identified.

The 1988 B.C. MEMPR RGS geochemical stream survey showed highly anomalous gold-arsenic values in the Teihsum River.

In July of 1990, independant prospecting by James Laird located several realgar-rich vein systems in the valley but initial sampling results did not contain significant gold.

More recently, Granges Ltd. has claimed a substantial land position in the valley and has conducted stream and soil geochemistry, mapping and rock sampling.

Unrecorded past explorations undoubtedly have taken place, and the remains of an old cabin and trail near Gold Creek as shown on the 1:5000 topo map tend to confirm this.



Regional Geology of the Merry Widow District  
 (after B.C. MEMPR Open File Map 1991-8)

## Geology of the Merry Widow Mining Camp

The Merry Widow Mining Camp is underlain by a conformable sequence of volcanics and sediments of Upper Triassic to Late Jurassic age collectively known as the Vancouver Group. These rocks were deposited in a dominantly marine environment and have been cut by several generations of structures and basic to felsic intrusives accompanied by distinctive mineral deposits. The bedded rocks have been regionally block-tilted and strike northwest with moderate southwest dips.

The Vancouver Group is comprised of, in ascending order, Karmutsen Formation volcanics, Quatsino Formation limestone, Parson's Bay Formation limestone and sediments, and finally the Bonanza Volcanics.

The Upper Triassic Karmutsen Formation is estimated to be between 2 and 5 kms. thick in this area with the exposed base resting conformably on the older Sicker Group rocks about 75 km. east in the Schoen Lake area. Karmutsen rocks include amygdaloidal basalt flows, pillow lavas and breccias, aquagene tuffs and thin limestone layers near the top of the sequence. The upper flows and sediments are host to sub-economic concentrations of disseminated chalcopyrite and bornite with minor native copper and vanadium minerals. Gold values are often related to propylitic alteration zones. Massive magnetite skarn zones are sometimes present in the upper units regionally.

The Quatsino Formation is estimated to be 1 km. thick in the map area, and is composed of thick-bedded to massive grey to white limestone. The limestone has been bleached and re-crystallized within the thermal halo related to the Coast Copper Stock and is currently being mined for industrial purposes by IMASCO Ltd., on the north slope of Merry Widow Mountain.

The Parson's Bay Formation is a complex limestone and sediment package with rapid vertical and lateral changes in facies. Rock types include black limestone, thin-bedded tuffaceous limestone, agglomeratic limestone, grey coralline limestone reefs, thin-bedded calcareous argillite, and other waterlain chemical and clastic sediments. The formation varies from less than 10 metres southeast of Benson River to more than 300 metres in thickness near Victoria Lake.

The depositional environment is interpreted to represent a shallowing basin or shelf with a regressing shoreline. Fine clastic sediments were eroded from the uplifted Karmutsen Range to the east and transported westward into the basin, intermixing with ongoing chemical carbonate deposition. Marine fossils are common in some units and are usually well preserved. Syngenetic mineralization includes geochemical enrichments of Zn, Pb, Cu, Ag, Cd, Ga, and Ge in certain carbonaceous sediments.

At the close of the Triassic period, explosive andesitic volcanics of the Bonanza Volcanics began to fill the basin with heterolithic fragmental breccias, tuffs and flows. The volcanics and lesser interbedded limestone and sediments are up to 3 km. in thickness on parts of Vancouver Island. Near the base, the flows are green to maroon in colour and are commonly feldspar porphyritic, sometime with hexagonal jointing or rarely pillows. Towards the top felsic volcanics become more common, and the final phases of volcanism are locally sub-aerial. The breccias and tuffs often contain disseminations of hematite, pyrite, pyrrhotite, magnetite, jasper and chalcopryrite, and host the nearby Island Copper Mine porphyry copper-gold deposit.

The Keystone Intrusions are a system of greenstone dikes, sills and sub-volcanic heterolithic breccia pipes which formed feeders to the overlying Bonanza Volcanics. The intrusives are intimately associated with prograde magnetite skarns within the thermal halo of the Coast Copper Stock and are often altered to endoskarn.

The Coast Copper Stock is a gabbroic intrusive complex co-magmatic with Keystone/Bonanza rocks and is the probable original source of magnetite in the skarns. The Quatsino limestone has been bleached and re-crystallized for more than 1 km. outwards from the stock contact and all known orebodies have been found within this halo. The stock varies from a coarse gabbro-diorite with a high magnetite content to anorthosite and pegmatite.

A somewhat younger phase of the stock forms a large central intrusion of potassium feldspar-rich Quartz Monzonite. Regionally, Jurassic potassic granitic rocks known as the Island Intrusions have been linked to felsic volcanism in the upper Bonanza Volcanics and to major economic mineral deposits. The granitic rocks and related felsic porphyrys are intimately associated with copper-gold-molybdenum ore at the nearby Island Copper Mine, and to copper-gold-zinc skarns, mantos, and replacements at the Yreka Mine near Port Alice, the Alice Lake mineral belt, the Nimpkish area deposits and many others. On Merry Widow Mountain, the early Keystone Intrusions and iron skarns have been intruded by a younger greenstone suite associated with sulphide deposition and retrograde skarn alteration.

The final phase of intrusive diking observed is probably of Tertiary age and consists of north striking steeply dipping narrow greenstone dikes cutting the sulphide zones and as N-S diorite dikes in the Parson's Bay Formation and Coast Copper Stock.

## Structures of the Merry Widow Area

The structure of Northern Vancouver Island is dominated by major northwest trending high angle faults which have allowed block-tilting of the Vancouver Group. The bedded rocks in the Merry Widow area strike northwest and dip from 20 to 50° to the southwest. North striking faults with steep easterly dips have repeated the stratigraphy east of the Coast Copper Stock with a total cumulative movement of more than 1 km., and have a footwall-up relative movement. These faults are sub-parallel to the stock contact, and are very important controls in ore formation.

Northeast striking faults and fracture zones show little displacement as a rule but were also important ore controls. An exception to this is the northeast striking Rainier Creek fault with a footwall-up relative movement of possibly 1 km., indicating it is probably part of a ring-fracture system surrounding the Coast Copper Stock. The local fault-block movements could then be explained as being displaced upward to allow emplacement of the stock in late Jurassic time, possibly during intrusion of the quartz monzonite phase.

Multiple episodes of movement and mineralization of the fault systems is likely, and the youngest event near the Merry Widow Mine is narrow E-W trending structures with coarse crystalline carbonate and ankerite.

Another important depositional control is formational contacts such as the Karmutsen/Quatsino "Old Sport Horizon" and the reducing environment found at the Quatsino/Parson's Bay contact. Detachment-style faulting may have played a part in ground preparation prior to mineralization of the "Old Sport Horizon".



### Mineralization of the Merry Widow Area

At the Merry Widow Mine, skarn-hosted massive magnetite orebodies form large lenses parallel to the contact of the Coast Copper Stock, hosted in greenstone and limestone. The adjoining Kingfisher Mine hosts massive, clean magnetite in two converging pipe-like orebodies in Quatsino limestone. At the Coast Copper Mine, at least five separate magnetite-chalcopyrite orebodies have been mined along the Karmutsen-Quatsino contact, hosted in a broad skarn zone updip from the contact with the gabbro stock.

Magnetite zones north of the Merry Widow Mine occur at the contact of intrusive greenstone breccia pipes and limestone, proximal to the stock contact. Chalcopyrite found within the magnetite zones is often poor in gold content. Coarse microcline feldspar is commonly found in the magnetite.

A younger mineralizing event, possibly related to quartz monzonite emplacement, is rich in gold, copper, cobalt and arsenical sulphides associated with mineralized greenstone dikes at the Merry Widow Mine and felsite sills at the Coast Copper Mine. The sulphides are structurally controlled and where magnetite skarns have been intersected a retrograde skarn assemblage is found consisting of actinolite, garnet, quartz, calcite, epidote, chlorite, amphibole, and coarse re-crystallized magnetite, often with a colloform texture. Distal from the magnetite zones, massive sulphides with little or no skarn alteration form mantos and replacements adjacent to fault zones and in solution cavities in limestone.

Observed mineralogy includes; chalcopyrite, pyrrhotite, pyrite, arsenopyrite, bornite, marcasite, cobaltite, bismuth tellurides, native gold and a little sphalerite, with thin surface alterations of limonite, malachite, azurite, erythrite, nickle bloom, scorodite, covellite, realgar and native copper.

## Teihsum River Property Geology

The Teihsum River area is underlain by Parson's Bay Formation limestone and Bonanza Volcanics intruded by various ages of basic to felsic dikes and sills, and the Coast Copper Stock. The bedded rocks strike northwest at about 330° and dip southwest at 20 to 50°. Gold and sulphide mineralization is associated with intrusive contacts and north to northeast trending faults and shear zones.

The Parson's Bay Formation is exposed as a belt at least 500 m wide extending from near the eastern property boundary along the lower slopes of Merry Widow Mountain to Victoria Lake. Topography in this area closely parallels the dip of the beds making thickness interpretation difficult, but at least 100 m of stratigraphy are present. Lithologies include grey to black thin-bedded tuffaceous limestone, agglomeratic limestone and grey limestone reefs with well preserved fossil corals. Shell fossils are also occasionally found. Near the Coast Copper Stock, the limestone is contorted, bleached, and re-crystallized to a skarny jasperoid.

The Bonanza Volcanics overlie the sediments to the north and south, indicating that it is an erosional window or fault block. On the south side of the valley, the volcanics are green and maroon basic flows with thin limestone interbeds. To the north basic volcanics occur on the upper slopes of Merry Widow Mountain, but were not examined in outcrop.

An amazing variety of heterolithic breccias are found as large boulders in the creeks but have not been seen in outcrop. The breccias occasionally have gabbroic or syenitic fragments in a volcanoclastic matrix. Near Victoria Lake, the lower volcanic flows are feldspar porphyritic with areas of chalcedonic amygdule fillings, quartz veins, hematite, pyrite and jasper.

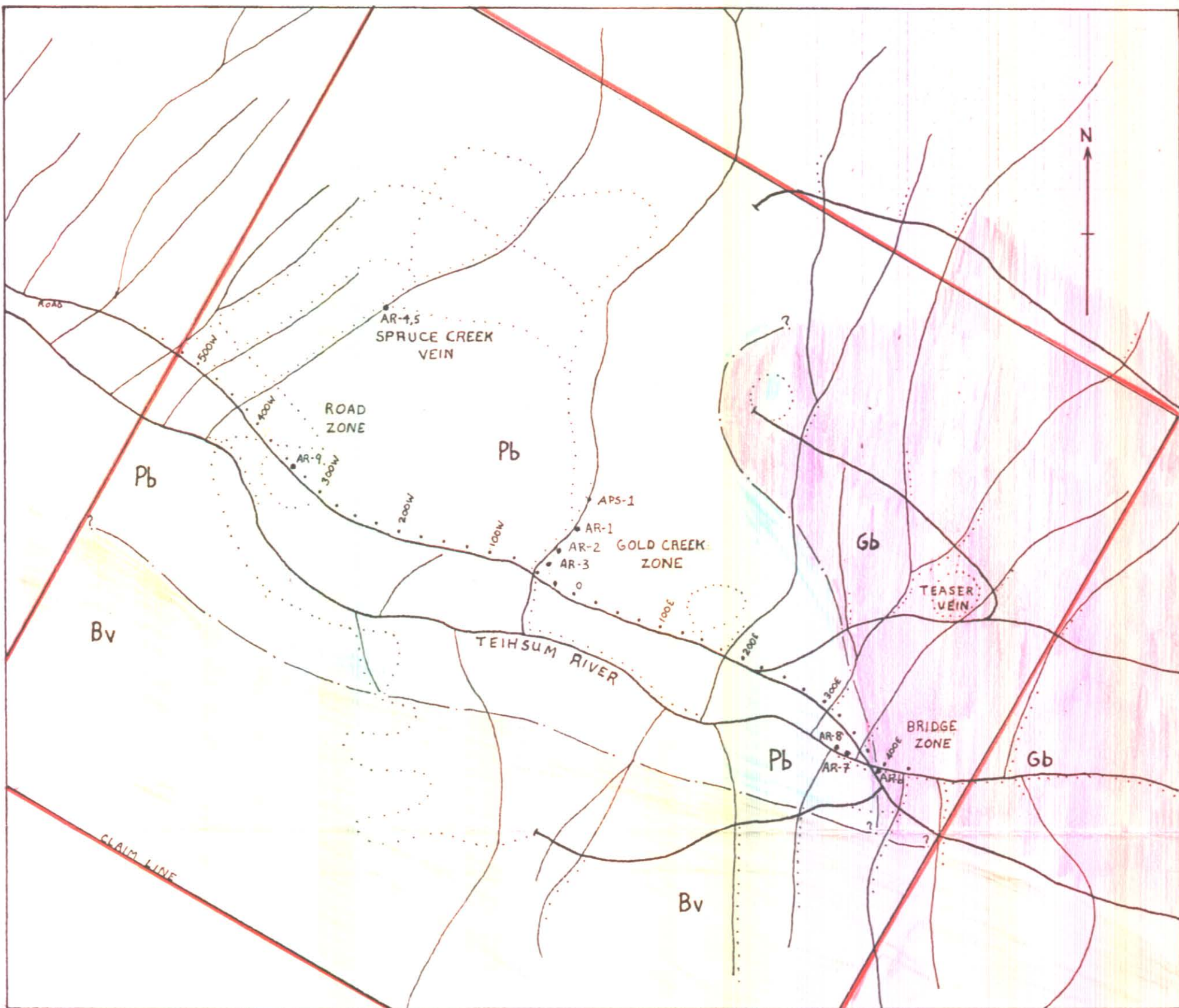
Intrusives noted on the property are Keystone suite greenstones, Coast Copper Stock gabbro-diorite, mineralized felsite dikes, and Tertiary diorite dikes. To the east of the property large slide blocks of greenstone/quartz monzonite breccia were observed.

The Keystone suite greenstones are seen as series of dikes and sills in the Road Zone, and outcrops along the road at the northern claim boundary show a small endoskarned stock with disseminated sulphides.

The Coast Copper Stock gabbro-diorite outcrops at the Bridge Zone along the Teihsum River and in road ballast pits in the northeast corner of the claims. At the Bridge Zone the gabbro is rather fine-grained and is altered by ankerite, hematite and silicification. The adjoining reef limestone is bleached white and mineralized for over 100 metres from the contact. The road ballast pits show brecciated gabbro with rotated fragments in a matrix of fine-grained diorite. The gabbro-diorite breccia has been cut by greenstone dikes and N-S striking Tertiary diorite dikes. Silicification, chloritization, and realgar veining along the edge of the diorite dikes was noted in one pit, and small fault-bound blocks of sediments in another. Outcrops along the road at the north claim line show gabbro with coarse magnetite crystals contacting skarned tuffaceous limestone with pyrite, hematite, chalcopyrite, and minor sphalerite. Areas of gabbro pegmatite and anorthosite were also observed.

Light green to yellow felsite dikes and sills intrude the Road Zone and are mineralized with disseminated pyrite, hematite, pyrrhotite, chalcopyrite and sphalerite.

Late diorite dikes are thought to be Tertiary in age because of the observed geological relationships, visual similarity to the Zeballos and Mt. Washington intrusions of known Tertiary (Miocene) age, and the close association with realgar and polymetallic gold-quartz veins of probable Tertiary age.



Gb

COAST COPPER STOCK  
GABBRO, DIORITE

Bv

BONANZA VOLCANICS  
ANDESITE FLOWS, TUFFS

Pb

PARSON'S BAY FORMATION  
LIMESTONE

• AR-1

ROCK SAMPLE

• 100W

SOIL SAMPLE

• APS-1

PAN SAMPLE

— — — — —

GEOLOGICAL CONTACT

.....

TRAVERSE LOCATION

## TEIHSUM RIVER PROSPECTING MAP



J. LAIRD

NOV. 1994

MAP 4  
NTS 92L 6 W

FIG. 01

## Teihsum River Property Mineralization

The Road Zone is well exposed in numerous recent road washouts and along the steep canyon of the Teihsum River near the western claim boundary. The host rock is a dark tuffaceous and agglomeratic limestone striking  $320^\circ$  with a  $50^\circ$  southwest dip. The beds are cut by three generations of intrusives; Keystone dikes and sills of green andesite, mineralized felsite dikes intruding the greenstone dikes, and Tertiary diorite dikes striking N-S with a steep east dip dissecting the existing rocks. Tectonic brecciation and silicification of the limestone has resulted in numerous mineralized fault lenses in an area over 100 metres wide and more than 200 m long, open in both strike directions.

The main structures are north striking shear zones with a steep east dip and a conjugate set of shears trending  $040^\circ$  NE and steeply dipping. Quartz-carbonate breccia veins, arsenopyrite, pyrite, sphalerite, chalcopyrite, galena and sometimes realgar are hosted in the north shears, altered limestones, and at the edge of diorite dikes in NE trending tensional vein zones. The sheared rock has been silicified and carbonated with ankerite and calcite, kaolinized, and sometimes hosts green mariposite mica. Near the eastern edge of the zone, shearing is accompanied by much chlorite alteration with quartz-pyrite veins and some clear gypsum crystals in quartz vugs.

In the central Road Zone, a 1 metre wide shear zone known as the Red Devil Shear, hosts gold-bearing sulphides and abundant realgar, often forming in drusy vugs filled with small ruby-red realgar crystals and clear quartz crystals. Gold values at sample location AR-9 were 0.607 oz/t (20.8 g/t) in a 40 cm. chip sample. Realgar is widespread along the edges of the diorite dikes and in joints, and forms the matrix of limestone breccias along detached bedding planes. Realgar veins without other sulphides do not contain gold. Pyrite, sphalerite, and some galena are also found in disseminations.

The Spruce Creek Vein is a NE trending 20 cm. wide shear vein with quartz, carbonate and massive realgar (AR-4). The vein is hosted in tuffaceous limestone with dikes in the bottom of a small creek. A coarse crystalline black carbonate mineral forms in the wallrock (AR-5). Exposures are limited in this area of dense 1st growth timber.

The Gold Creek Zone is mineralized for at least 100 m. above the road in shear zones and in replacements. A 50 cm. wide shear zone strikes NNE and dips steeply, paralleling the creek. Malachite, chalcopyrite, pyrite, and minor realgar occur in the shear (AR-1,2). A NS striking diorite dike cuts tuffaceous limestone in the vicinity of the shear and shows replacements of malachite, chalcopyrite and pyrite for about 5 metres in width along the dike edge. A well mineralized area gave assays of 0.276 oz/t Au and 2% Cu in a 1x2 m. chip sample (AR-3).

Silt and pan samples (APS-1) taken upstream from the showings were high in gold, giving values of 0.214 oz/t in the pan sample and 4650 ppb in Westmin Ltd's silt sample. The pan sample was taken from a gravel wash behind some large boulders in the center of the creek, and consisted of 2 full pans taken down to black sand, combined, and then assayed. Float rocks include quartz-carbonate breccias with sulphides and mineralized felsite.

The Teaser Vein was the original mineral discovery on the claims, and is located in one of the road ballast pits. The vein is 30 cm. of quartz, carbonate, realgar and graphite in a shear zone along a diorite dike cutting gabbro-diorite breccia. Realgar is found in other small shears over a width of 40 metres. Small vuggy quartz-limonite veins occur also.

The realgar veins strike north with the diorite dikes and are exposed for 30 metres in length. Hematite and ankerite alteration is very strong around the shear zones. Strong chloritization and silicification was seen along some shears.

The Bridge Zone is exposed for about 100 m. along the Teihsum River, near a washed-out bridge. The host rocks are coralline limestone intruded by the Coast Copper Stock and diorite dikes. The limestone is contorted, bleached, silicified and skarny for about 100 m. from the contact. At the contact, strong shearing occurs in a zone about 10 m. wide striking 065°, similar to the Rainier Creek fault and gold veins in the Zeballos mining camp. The shear zone hosts quartz-carbonate veins with pyrite, sphalerite and realgar giving assays of 0.116 oz/t Au and 3% Zn across 30 cm. (AR-6)

About 25 m. from the contact, a 1 m. wide replacement pod contains massive fine-grained sphalerite, chalcopyrite, pyrite and greenockite which gave assays of 0.203 oz/t Au (6.96 g/t) 2.63% Cu and 25.8% Zn across 1 metre. Diorite dikes are close by but apparently not related. (AR-7)

Between 25 and 50 m. back from the contact the limestone hosts numerous sphalerite-pyrite stringer veins and one area of finely-banded sphalerite and galena layers across 5 m. This area was sampled with a 5 m. x 5 m. chip sample over good mineralization (AR-8) which gave assays of 8.44% Zn.

Diorite dikes cut this area and have small amounts of realgar along the edges.

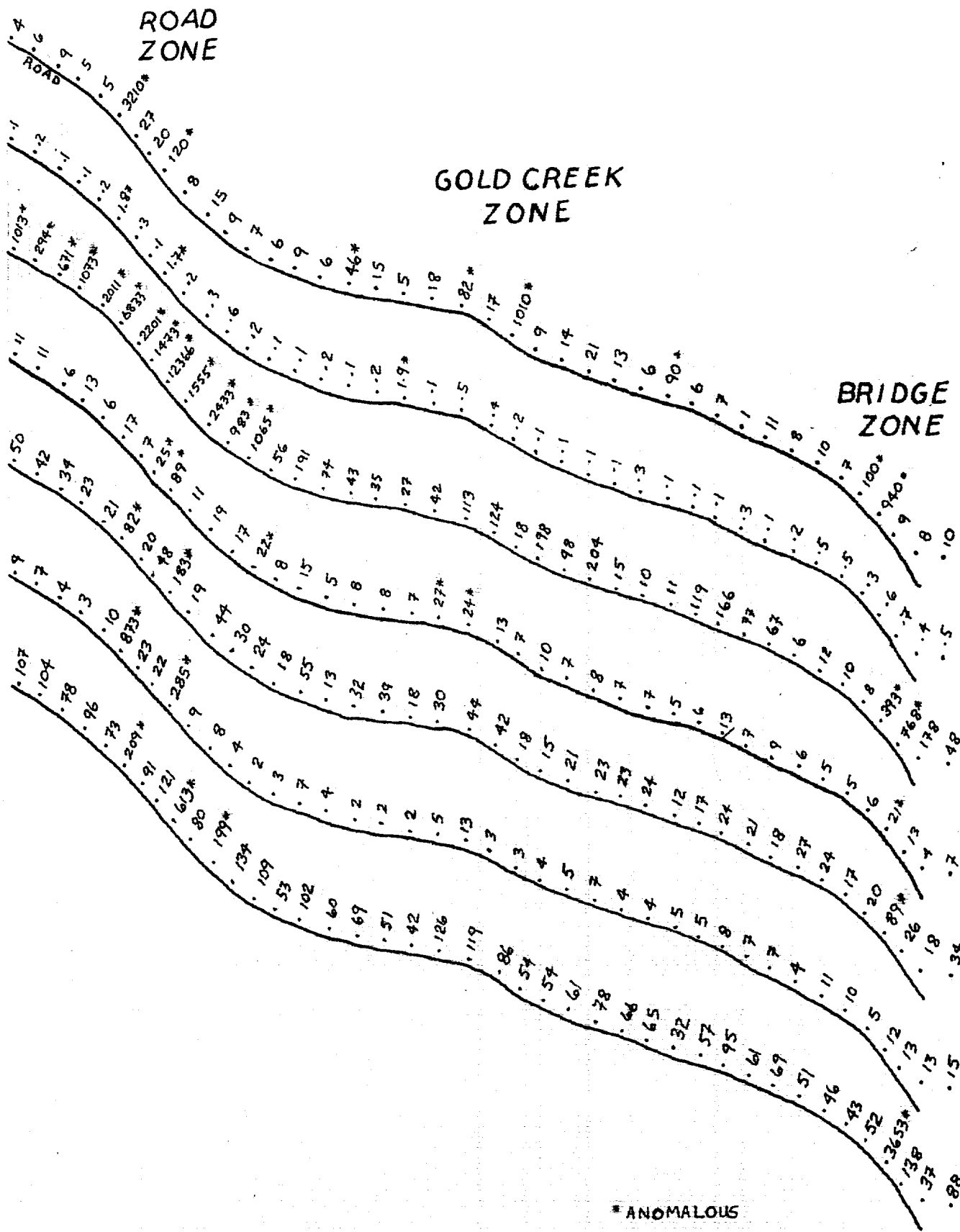
## Geochemical Survey

The geochemical survey consisted of 41 "B" horizon soil samples collected at 25 metre intervals along a single line which bisects the claim and passes over three mineralized zones. Samples were taken with a shovel along the upper bank of the old road and bagged in standard kraft envelopes and any rock or plant fragments were removed. Stations were measured by hipchain and marked with flagging tape. The sample bags were dried and then shipped to Acme Labs Ltd. where they were analysed for gold, mercury and 30 element ICP. Procedures are described in detail on the assay sheets.

The sample line location was chosen to complete a blank area in the 1985 Westmin Ltd. geochemical survey, and to do an orientation geochemical profile over the known mineralized zones. No comparison has been attempted with sample values of the Westmin anomalies as yet, but gold values over the known zones are similar to several Westmin anomalies which may overlies similar mineralization. Overburden comprised of large local boulders with a sand and gravel matrix covers parts of the claims but seldom exceeds 5 to 10 metres deep.

Anomaly determination was subjective given the limited number of samples and wide value range, but samples considered definitely anomalous are marked on the geochemical profile map. Gold, arsenic, zinc, lead, and copper anomalies are strongest proximal to the Road, Bridge, and Gold Creek zones, and several single station anomalies are unexplained. Cobalt, silver, mercury and other trace elements are also enhanced over the known zones. The broadest and strongest anomalies appear to have an outer arsenical halo surrounding a smaller gold and polymetallic anomaly. Given the observed close relationship between the soil anomalies and mineralization, the wide range of values and the well developed "B" horizon on the claims, soil sampling will be an effective tool to locate new zones of mineralization.





## TEIHSUM RIVER GEOCHEMICAL PROFILES



J. LAIRD

NOV. 1994

**MAP 5**  
NTS 92L6W

## Conclusions

The Teihsum River Property hosts a variety of gold and sulphide deposits including: epithermal veins, zinc and copper replacements, skarns, and magmatic magnetite. None of the zones discovered to date could be called an ore deposit, but geological similarities in lithology, structure, intrusions and mineralization invite comparison with the Merry Widow and Coast Copper mines.

One major difference is that property mineralization occurs in higher stratigraphic units which have been eroded at the Merry Widow mine, and the Coast Copper "Old Sport Horizon" is at least 1 km. below that. A vertical zonation between Merry Widow-type massive sulphides and Teihsum River epithermal-style fault veins and replacements is implied by structure and mineralogy. The realgar zones may have been generated by the destruction of massive arsenical sulphides at depth and remobilized along Tertiary dikes. Drilling below the epithermal systems to the reducing horizon at the top of the Quatsino limestone may discover new Merry Widow-type gold-copper zones.

Gold-copper-zinc replacements are an intriguing target but need a detached structure or easily replaceable beds to accumulate a significant mineral deposit. The mineralized felsite dikes are possibly related to a porphyry-style system similar to the Island Copper Mine, and felsites are also found near bonanza-grade zones at the nearby Electrum and Hiller prospects. Zeballos-type polymetallic gold veins with bonanza zones are a limited tonnage/high grade target.

The Mt. Washington area is probably the most similar to the realgar-rich epithermal veins and breccias and could serve as an exploration model. A Cinola-type environment is also a distinct possibility.

The Merry Widow Mountain and Teihsum River areas are within one of the largest and strongest magnetic anomalies on Vancouver Island and the probability of new mines being discovered here is excellent.

### Recommendations

1. Enlarge the claim block to cover additional ground.
2. Detailed 1:500 scale geological mapping of the showings and additional rock sampling.
3. Establish a 10 km. cut-line grid over the property.
4. Soil sample the grid (approximately 300 samples)
5. Geological grid mapping.
6. 10 kms. of magnetometer and IP surveys.
7. Limited diamond drilling to test the Road, Gold Creek, and Bridge Zones.

Bibliography

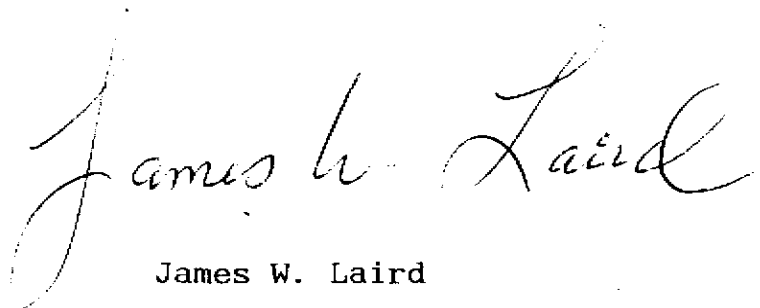
This report is mainly based on personal observations of the local geology and virtually all reports listed in the B.C. MEMPR Minfile data base for the general area have been consulted as well. The most current information and a detailed bibliography are found in Map 1991-8.

- 1. B.C. EMPR Open File Map 1991-8  
 Geology and Mineral Occurrences of the Merry Widow Skarn camp, Northern Vancouver Island by G.E. Ray and I.C.L. Webster.
- 2. Aeromagnetic Map 1737G Alice Lake
- 3. B.C. MEMPR Assessment Reports # 12404 and #14086

## Statement of Qualifications

I, James W. Laird, do state that:

1. I reside at 10975 Wilson Road, Mission, B.C. and receive mail at Box 3512, Mission, B.C. V2V 4L1
2. I am a self-employed prospector and mining exploration contractor and have been for 15 years.
3. I have completed the B.C. EMPR course "Advanced Mineral Exploration For Prospectors" 1980.
4. I have extensively explored Vancouver Island and the Merry Widow Mt. area for more than 15 years and am very familiar with the geology and mines thereof.
5. I am the registered owner of the A1 to A4 2-post claims.



James W. Laird  
Prospector  
November, 1994

## Appendix 1

Rock Sample Descriptions

Assay Results

## Rock Sample Descriptions

### Gold Creek Zone

AR-1 50 cm chip

Malachite, chalcopyrite, pyrite, and minor realgar with quartz and carbonate in a N/S trending shear zone.

AR-2 30 cm chip

Same as AR-1, about 50m south.

AR-3 1m x 2m chip

Malachite, chalcopyrite, and pyrite in replacements and small shears.

### Spruce Creek Vein

AR-4 20 cm chip

Realgar, quartz and carbonate in a NE trending shear zone.

AR-5 Grab

Crystalline black carbonate in vein wallrock.

### Bridge Zone

AR-6, also #120954 30cm chip

Pyrite, sphalerite, realgar, quartz and carbonate in a NE trending sulphide vein within the Bridge shear zone.

AR-7, also # 120953 1m chip

Replacement pod of massive sphalerite, chalcopyrite, pyrite, greenockite and covellite.

AR-8 5m x 5m chip

Sphalerite, pyrite, and galena in banded replacements and stringer zones.

### Road Zone

AR-9, also #120952 40 cm chip

Sphalerite, pyrite, realgar, chalcopyrite and galena in a complex quartz carbonate vein shear system.



## GEOCHEMICAL/ANALYSIS CERTIFICATE



James W. Laird PROJECT T.R./1994 File # 94-2817 Page 1  
Box 3512, Mission BC V2V 4L1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe ppm	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppm oz/t
AR-1	2	1669	80	396	11.6	54	168	2315	4.74	2025	<5	<2	4	457	1.3	<2	7	52	10.40	.015	7	42	1.94	7	.01	3	1.46	.01	.03	<1	7	<1	.024
AR-2	6	229	20	194	1.9	34	344	1406	4.57	1470	<5	<2	2	185	1.0	<2	2	51	10.00	.053	7	21	1.33	25	.01	11	1.49	.01	.13	<1	5	<1	.005
AR-3	2	20900	10	1181	35.4	40	236	773	9.77	510	<5	10	2	109	7.6	2	56	14	2.01	.021	2	17	.12	5	.07	<2	.87	<.01	.02	<1	5	<1	.276
AR-4	1	49	2	43	.5	5	8	2275	3.39	25594	<5	<2	2	198	.3	15	<2	4	11.23	.009	9	4	5.57	14	<.01	3	.12	.01	.03	12	<5	<1	<.001
AR-5	1	18	6	39	.6	4	9	1115	3.13	296	<5	<2	<2	876	<.2	<2	<2	33	17.66	.038	5	2	1.22	19	<.01	6	.93	.01	.08	<1	<5	<1	.001
RE AR-5	1	17	<2	40	.6	5	9	1154	3.23	301	<5	<2	<2	911	<.2	<2	<2	34	18.43	.040	4	2	1.24	20	<.01	6	.97	.01	.09	<1	<5	<1	<.001

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: ROCK AU\*\* BY FIRE ASSAY FROM 1 A.T. SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 23 1994

DATE REPORT MAILED:

*Aug 29/94*

SIGNED BY..... D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS





## ASSAY CERTIFICATE



James W. Laird PROJECT T.R./1994 File # 94-2817 Page 2

Box 3512, Mission BC V2V 4L1

SAMPLE#	Cu %	Pb %	Zn %	Ag** oz/t	Au** oz/t
AR-6	.196	<.01	5.52	.23	.060
AR-7	1.968	<.01	22.52	1.00	.058
AR-8	.040	.44	8.44	.15	.002
AR-9	.128	.03	3.72	.28	.387
RE AR-9	.126	.03	3.79	.28	.412

1 GM SAMPLE LEACHED IN 75 ML AQUA - REGIA, DILUTE TO 250 ML, ANALYSIS BY ICP.

AG\*\* &amp; AU\*\* BY FIRE ASSAY FROM 1 A.T. SAMPLE.

- SAMPLE TYPE: ROCK Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 23 1994

DATE REPORT MAILED:

Aug 29/94.

SIGNED BY: 

D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



ASSAYING  
 GEOCHEMISTRY  
 ANALYTICAL CHEMISTRY  
 ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 2J3 Phone (604) 573-5700  
 Fax (604) 573-4557

JULY 20, 1993

**CERTIFICATE OF ASSAY**  
 -----

-----  
 SAMPLE IDENTIFICATION: 4 ROCK samples received JULY 13, 1993  
 ----- PROJECT

ET#	Description	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)	As (%)	Cu (%)	En (%)
2 -	RED DEVIL No 120952	20.80	.607	-	-	4.93	-	1.56
3 -	BRIDGE No 120953	6.96	.203	58.8	1.72	-	2.63	25.80
4 -	BRIDGE No 120954	3.98	.115	-	-	2.40	-	3.06

*Frank J. Pezzotti*  
 ECO-TECH LABORATORIES LTD.  
 FRANK J. PEZZOTTI, A.S.O.T.  
 B.C. Certified Assayer

↑↑↑↑↑↑↑↑  
 FEED DOCUMENT THIS DIRECTION

TO \_\_\_\_\_  
 COMPANY \_\_\_\_\_  
 FAX NO \_\_\_\_\_  
 FROM Stacks  
 NO. OF PAGES 3  
 RE Results

BCO-TECH LABORATORIES LTD.  
 10041 EAST TRANS CANADA HWY.  
 KAMLOOPS, B.C. V2C 2J3  
 PHONE - 604-573-5700  
 FAX - 604-573-4557

JULY 20, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

4 ROCK SAMPLES RECEIVED JULY 13, 1993

PROJECT #:

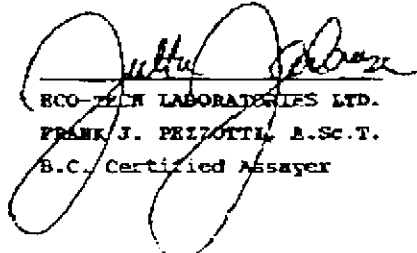
REF	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	NH	NO	NA(%)	NI	P	PB	SE	SM	SR	TI(%)	U	V	W	Y	ZN
2	-RED DEVIL No 120952 >1000	3.8	.32	>10000	12	45	5	8.03	192	21	32	285	5.67	.01	10	2.81	863	3	.01	6	90	18	75	20	313	.01	10	8	10	2	>10000	
3	-BRIDGE No 120953	-	>30	.86	700	2	60	5	1.74	>1000	119	21	>10000	12.24	.01	10	.51	974	9	.01	49	10	28	5	20	36	.01	20	3	150	1	>10000
4	-BRIDGE No 120954	-	2.0	.17	>10000	6	60	5	7.87	335	50	72	728	9.98	.01	10	1.69	1115	6	.01	6	20	12	40	20	224	.01	10	2	10	3	>10000

QC DATA

REPEAT #:

2	-RED DEVIL No 120952	2.9	.33	>10000	10	45	5	8.11	192	22	38	304	5.84	.01	10	2.85	876	3	.01	5	90	18	75	20	314	.01	10	8	10	2	>10000	
S	ARD 1991 -	1.0	1.81		65	8	160	5	1.63	1	18	63	87	3.51	.31	10	.96	650	1	.02	24	580	24	10	20	75	.12	10	78	10	12	71

NOTE: - = LESS THAN  
 > = GREATER THAN

  
 BCO-TECH LABORATORIES LTD.  
 FRANK J. PELZOTTI, B.Sc.T.  
 B.C. Certified Assayer

## Appendix 2

### Heavy Metal Pan Sample Results

AA  
LL

## ASSAY CERTIFICATE

AA  
LL

James W. Laird File # 94-2819

Box 3512, Mission BC V2V 4L1

SAMPLE#	Cu %	Pb %	Zn %	Ag** oz/t	Au** oz/t	Pt** ppb	Pd** ppb	Rh** ppb	Hg ppb
APS-1	.041	<.01	.01	.06	.214	<3	7	12	5

1 GM SAMPLE LEACHED IN 75 ML AQUA - REGIA, DILUTE TO 250 ML, ANALYSIS BY ICP.  
 AG\*\* & AU\*\* BY FIRE ASSAY FROM 1 A.T. SAMPLE. PT\*\* PD\*\* & RH\*\* ANALYSIS BY FA/ICP. (10 gm)  
 HG ANALYSIS BY FLAMELESS AA.  
 - SAMPLE TYPE: PAN

DATE RECEIVED: AUG 23 1994

DATE REPORT MAILED: Sept 2/94

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



## GEOCHEMICAL ANALYSIS CERTIFICATE



James W. Laird File # 94-2819

Box 3512, Mission BC V2V 4L1

SAMPLE#	SAMPLE	-20X20	H.M.
	wt. gm	gm	gm
APS-1	99	95	14.3

- SAMPLE TYPE: PAN

DATE RECEIVED: AUG 23 1994

DATE REPORT MAILED: *Sept 2/94*SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

## Appendix 3

### Geochemical Survey Results



GEOCHEMICAL ANALYSIS CERTIFICATE



James W. Laird PROJECT T.R./1994 File # 94-2818 Page 1

Box 3512, Mission BC V2V 4L1

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	Hg
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb	ppb
575W	3	50	9	107	<.1	22	11	580	7.20	1013	<5	<2	<2	22	<.2	<2	3	97	.19	.085	5	37	.40	39	.13	2	4.44	.02	.01	<1	4	145
550W	4	42	7	104	.2	16	11	569	7.42	294	<5	<2	2	20	<.2	<2	3	104	.12	.053	5	27	.27	20	.16	2	6.15	.02	.03	<1	6	120
525W	4	34	4	78	<.1	10	6	307	5.83	671	<5	<2	<2	7	<.2	<2	3	88	.05	.036	9	27	.28	17	.13	2	5.52	.01	.01	<1	9	155
500W	4	23	3	96	.1	6	13	577	6.95	1073	<5	<2	<2	7	<.2	<2	3	91	.09	.059	12	18	.27	17	.09	<2	4.65	.01	.01	<1	5	175
475W	3	21	10	73	.2	6	6	245	6.66	2011	<5	<2	<2	8	<.2	2	3	104	.10	.048	7	19	.14	18	.08	2	4.10	.01	.01	<1	5	175
450W	4	82	873	209	1.8	8	17	744	11.30	6833	<5	<2	3	7	<.2	2	11	117	.07	.042	12	20	.23	49	.11	<2	5.15	.01	.01	<1	3210	425
425W	3	20	23	91	.3	6	7	291	6.47	2201	<5	<2	<2	7	<.2	<2	2	88	.06	.042	7	18	.25	17	.10	2	4.53	.01	.02	<1	27	170
400W	4	48	22	121	<.1	17	25	885	6.92	1473	<5	<2	2	5	<.2	<2	4	97	.06	.060	7	42	.86	19	.16	3	7.22	.01	.01	<1	20	225
375W	3	183	285	613	1.7	34	89	4145	15.20	12366	<5	<2	2	29	9.8	61	<2	77	.46	.073	19	17	.27	63	.02	5	1.74	<.01	.04	<1	120	155
350W	5	19	9	80	.2	7	11	779	7.29	1555	<5	<2	<2	18	<.2	<2	2	97	.41	.052	7	21	.26	19	.11	<2	3.98	.01	.01	<1	8	125
325W	4	44	8	199	.3	16	19	1471	7.84	2433	<5	<2	<2	18	.3	<2	2	79	.37	.081	13	20	.93	27	.05	3	2.99	.01	.02	<1	15	80
300W	1	30	4	134	.6	8	17	1050	5.73	983	<5	<2	<2	14	.3	<2	2	74	.43	.117	19	22	.97	25	.06	3	3.29	.01	.03	<1	9	120
275W	2	24	<2	109	.2	5	22	1057	7.36	1065	<5	<2	<2	12	<.2	<2	2	101	.33	.109	12	20	.40	27	.09	2	6.26	.01	.03	2	7	195
250W	2	18	3	53	<.1	3	8	603	8.09	56	<5	<2	2	4	<.2	<2	3	102	.04	.091	7	10	.19	13	.11	<2	7.10	.01	.01	1	6	215
225W	2	55	7	102	.1	6	15	2688	5.91	191	<5	<2	<2	13	.4	<2	2	92	.35	.100	8	10	.44	40	.06	2	3.14	.01	.04	<1	9	205
200W	2	13	4	60	.2	2	5	390	7.87	74	<5	<2	<2	6	<.2	<2	<2	113	.08	.073	7	15	.13	15	.06	<2	5.57	.01	.02	6	6	260
175W	<1	32	<2	69	<.1	5	8	466	10.60	43	<5	<2	2	6	<.2	<2	7	108	.04	.058	4	14	.39	18	.08	<2	3.67	.01	.02	<1	46	200
150W	1	39	<2	51	.2	2	8	511	9.29	35	<5	<2	2	6	<.2	<2	2	118	.06	.074	6	13	.19	16	.07	<2	4.83	.01	.01	<1	15	210
125W	1	18	<2	42	1.9	3	7	421	9.85	27	<5	<2	2	5	<.2	<2	<2	130	.09	.072	5	12	.18	13	.06	<2	3.74	.01	.01	<1	5	230
100W	3	30	5	126	<.1	8	27	1715	9.25	42	<5	<2	<2	6	<.2	<2	7	112	.06	.067	10	14	.91	33	.06	3	4.22	.01	.04	<1	18	130
RE 100W	2	30	<2	126	<.1	9	28	1734	9.26	39	<5	<2	<2	6	<.2	<2	<2	112	.06	.068	10	15	.93	34	.06	2	4.22	.01	.03	<1	10	120
75W	1	44	13	119	.5	7	24	1915	8.05	113	<5	<2	<2	12	.2	<2	<2	108	.32	.109	12	11	.62	51	.03	2	3.19	.01	.04	<1	82	120
50W	1	42	3	86	.4	4	13	575	8.63	124	<5	<2	<2	6	<.2	<2	3	121	.08	.061	13	12	.34	30	.07	<2	4.12	.01	.01	<1	17	170
25W	2	18	3	54	.2	3	7	434	7.46	18	<5	<2	2	5	<.2	<2	2	131	.04	.053	7	13	.24	16	.09	<2	4.71	.01	.01	<1	1010	165
0+00	2	15	4	54	<.1	3	10	562	7.08	198	<5	<2	<2	6	<.2	<2	2	124	.08	.053	10	10	.18	17	.08	2	3.22	.01	.01	<1	9	155
25E	2	21	5	61	.1	4	7	446	8.37	98	<5	<2	2	5	<.2	<2	<2	114	.06	.057	7	14	.22	15	.13	<2	4.36	.01	.01	<1	14	195
50E	2	23	7	78	<.1	4	8	559	7.26	204	<5	<2	2	6	<.2	<2	2	98	.10	.089	9	16	.23	14	.10	3	5.22	.01	.02	<1	21	225
75E	1	23	4	66	<.1	3	7	361	7.05	15	<5	<2	2	6	<.2	<2	2	114	.08	.059	7	10	.24	12	.14	<2	5.23	.01	.02	<1	13	190
100E	<1	24	4	65	.3	4	7	439	6.60	10	<5	<2	2	8	.2	<2	3	89	.08	.099	6	8	.16	18	.11	<2	4.15	.01	.01	<1	6	200
125E	1	12	5	32	<.1	3	5	371	6.58	11	<5	<2	2	6	<.2	<2	<2	123	.13	.062	5	6	.11	10	.12	<2	2.52	.01	.02	<1	90	180
150E	1	17	5	57	<.1	4	6	668	7.29	119	<5	<2	2	9	<.2	<2	2	96	.21	.065	4	9	.23	15	.11	<2	2.14	.01	.01	<1	6	175
175E	1	24	8	95	<.1	5	13	1071	6.28	166	<5	<2	<2	8	.2	<2	<2	86	.23	.123	9	8	.42	18	.09	2	3.06	.01	.03	<1	7	160
200E	2	21	7	61	.3	4	7	466	6.76	77	<5	<2	2	10	.2	<2	2	75	.18	.127	7	10	.30	12	.09	2	5.93	.01	.01	<1	1	375
225E	2	18	7	69	<.1	5	9	647	8.26	67	<5	<2	2	5	<.2	<2	2	101	.06	.079	8	12	.40	14	.11	<2	4.72	.01	.01	<1	11	240
250E	<1	27	4	51	.2	3	6	319	6.92	6	<5	<2	2	8	.2	2	<2	86	.08	.051	6	8	.35	17	.11	2	4.76	.01	.02	<1	8	200
STANDARD C/AU-S	20	59	38	125	6.9	73	32	1074	3.96	42	18	8	38	54	17.3	16	20	61	.49	.091	40	58	.93	191	.08	33	1.88	.07	.15	11	49	1870

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

- SAMPLE TYPE: SOIL AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. HG ANALYSIS BY FLAMELESS AA.

Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 23 1994

DATE REPORT MAILED:

*Aug 30/94*

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS





SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	Hg
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	%	ppm	ppb
275E	1	24	11	46	.5	4	5	409	7.97	12	<5	<2	<2	5	.4	<2	<2	121	.06	.095	8	9	.30	15	.20	<2	5.43	.01	.01	2	6	305
RE 275E	1	23	8	44	.5	3	5	378	7.72	8	<5	<2	<2	5	.5	<2	<2	118	.06	.093	8	9	.29	14	.20	<2	5.30	.01	.01	2	10	255
300E	1	17	10	43	.5	5	5	335	6.53	10	<5	<2	<2	5	<.2	<2	<2	94	.06	.069	7	9	.26	10	.14	2	6.49	.01	.01	1	7	255
325E	1	20	5	52	.3	4	6	418	8.51	8	<5	<2	<2	6	.2	<2	<2	109	.07	.061	6	9	.39	13	.16	<2	5.63	.01	.01	<1	100	210
350E	3	89	12	3653	.6	8	21	2443	7.89	393	<5	<2	<2	9	21.9	<2	2	77	.26	.110	8	17	.45	29	.08	2	5.59	.01	.01	<1	940	270
375E	2	26	13	138	.7	8	13	1251	8.19	768	<5	<2	<2	14	.8	<2	<2	100	.36	.077	8	13	.52	28	.08	<2	4.21	.01	.02	2	9	200
400E	1	18	13	37	.4	5	4	162	8.04	178	<5	<2	<2	5	.4	<2	<2	162	.07	.044	7	13	.30	12	.11	<2	4.93	.01	.01	<1	8	265
425E	1	34	15	88	.5	7	7	289	7.01	48	<5	<2	<2	4	.6	<2	<2	120	.05	.085	6	14	.50	16	.17	2	7.01	.01	.02	2	10	165
STANDARD C/AU-S	19	58	37	127	7.2	72	31	1033	3.96	41	18	8	36	49	17.4	14	21	60	.50	.092	41	57	.90	185	.08	33	1.88	.07	.16	13	53	1820

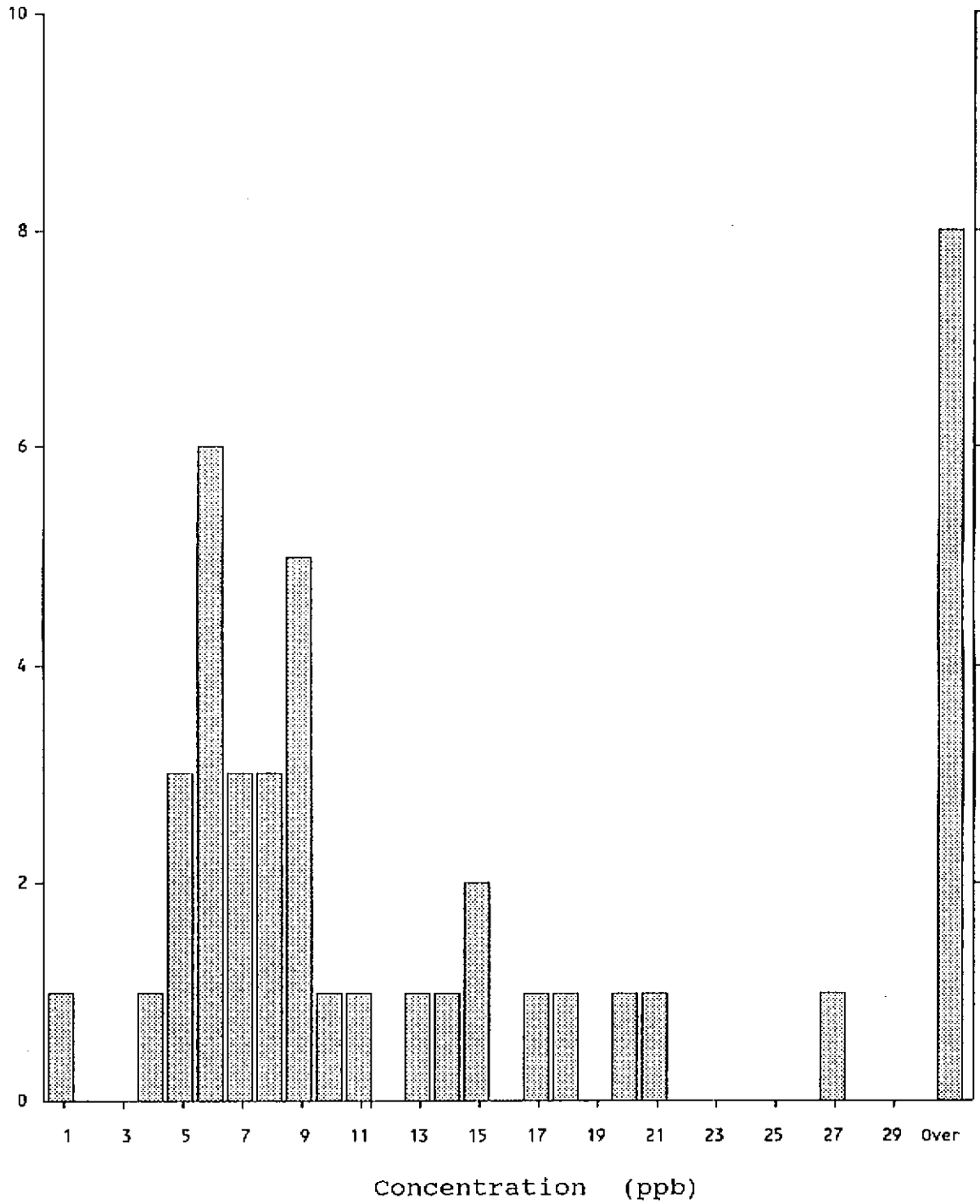
Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

## 41 SAMPLES

ELEMENT	Min.	Max.	Mean	Med.d	Dev.	
Mo	1	5	2	2	1	ppm
Cu	12	183	34	24	29	ppm
Pb	2	873	35	5	139	ppm
Zn	32	3653	183	73	556	ppm
Ag	0.1	1.9	0.4	0.2	0.4	ppm
Ni	2	34	7	5	6	ppm
Co	4	89	13	8	13	ppm
Mn	162	4145	820	559	771	ppm
Fe	5.73	15.20	7.80	7.29	1.67	%
As	6	12366	904	119	2160	ppm
U	5	5	5	5	0	ppm
Au	2	2	2	2	0	ppm
Th	2	3	2	2	0	ppm
Sr	4	29	9	6	5	ppm
Cd	0.2	21.9	1.0	0.2	3.6	ppm
Sb	2	61	3	2	9	ppm
Bi	2	11	3	2	2	ppm
V	74	162	103	101	18	ppm
Ca	0.04	0.46	0.15	0.08	0.13	%
P	0.036	0.127	0.074	0.067	0.023	%
La	4	19	8	7	3	ppm
Cr	6	42	15	13	7	ppm
Mg	0.11	0.97	0.36	0.27	0.21	%
Ba	10	63	22	17	12	ppm
Ti	0.02	0.20	0.10	0.09	0.04	%
B	2	5	2	2	1	ppm
Al	1.74	7.22	4.61	4.53	1.30	%
Na	0.01	0.02	0.01	0.01	0.00	%
K	0.01	0.04	0.02	0.01	0.01	%
W	1	6	1	1	1	ppm
Au*	1	3210	145	9	527	ppb
Hg	80	425	198	190	65	ppb

Au\*

Number of  
Samples



41 Samples

Maximum: 3210

Mean: 145

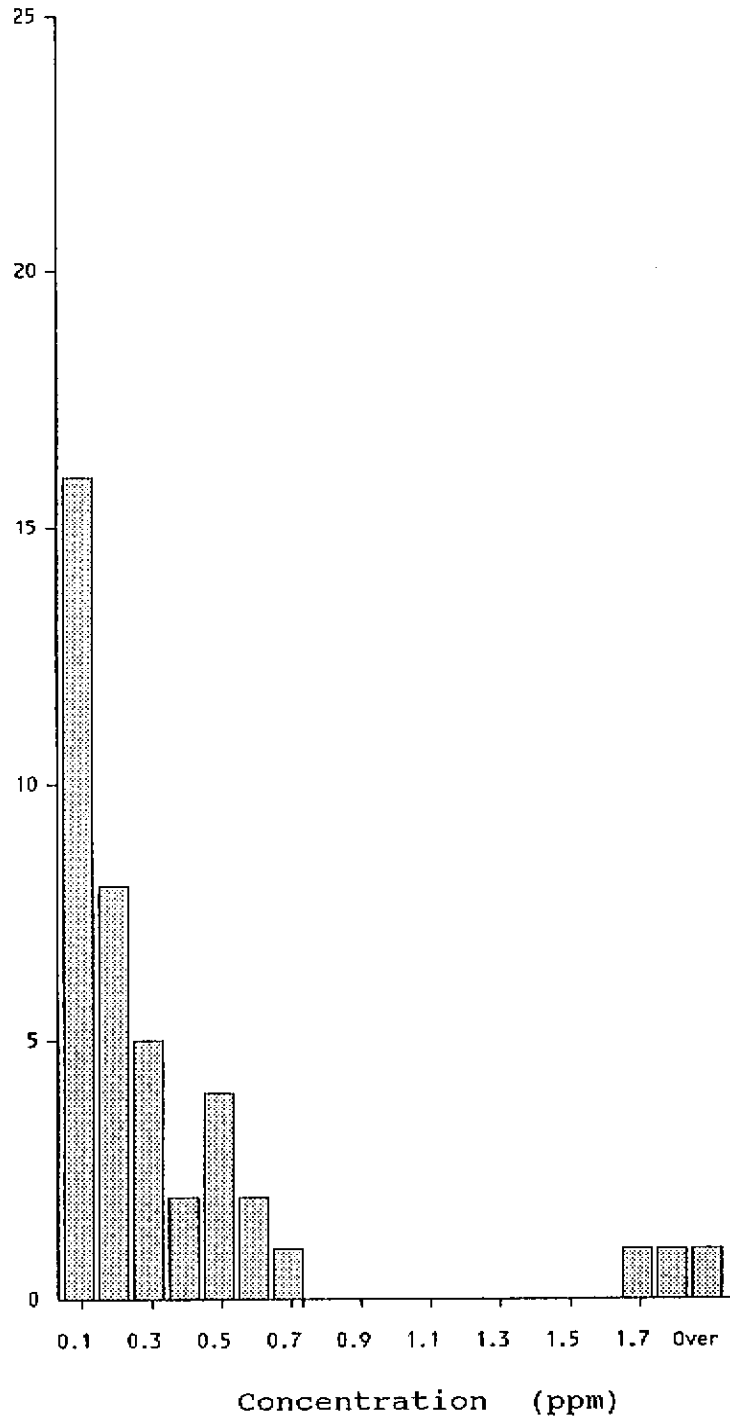
Minimum: 1

Median: 9

Standard Deviation: 527

### Ag

Number of  
Samples



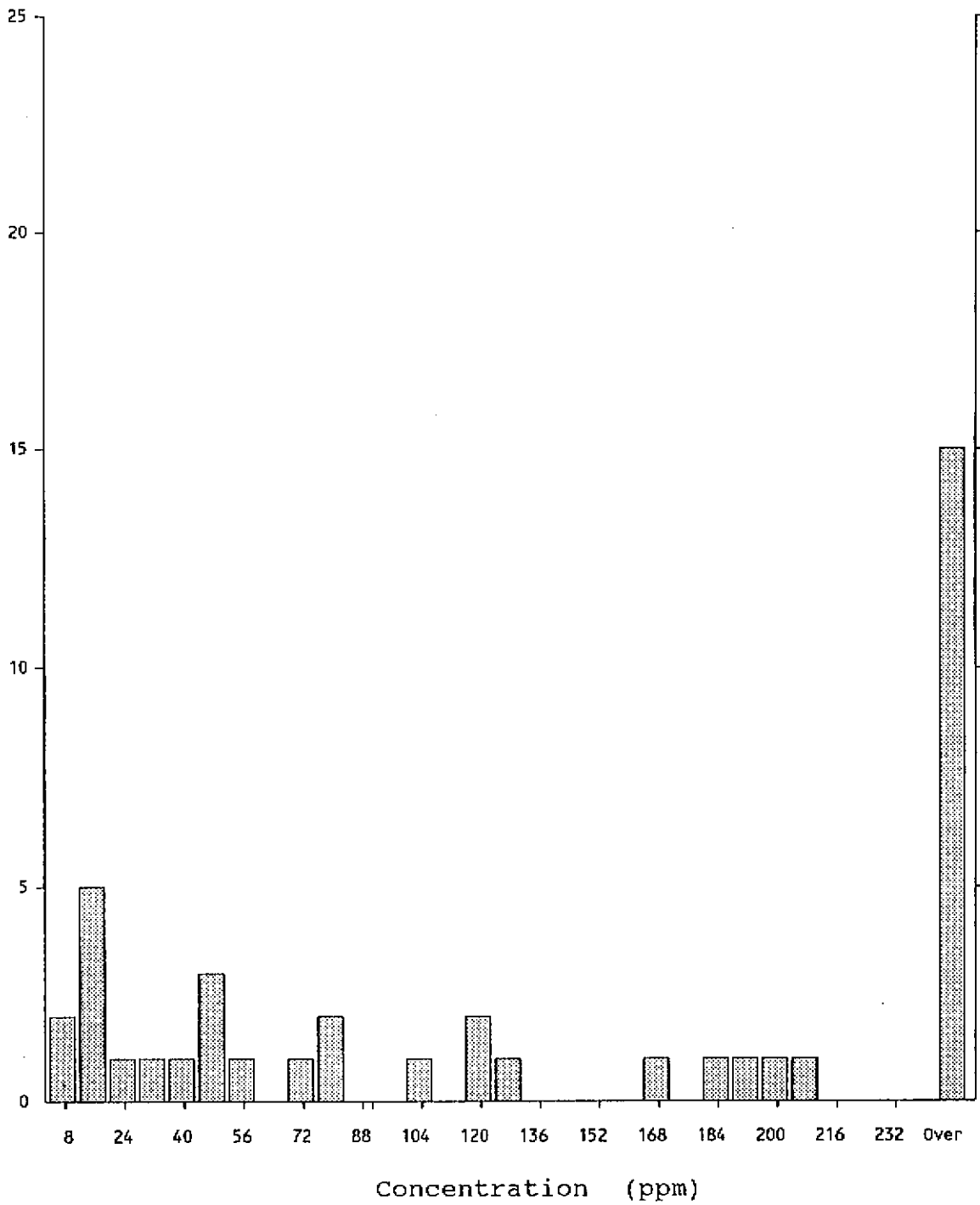
41 Samples

Maximum: 1.9  
Minimum: 0.1

Mean: 0.4  
Median: 0.2  
Standard Deviation: 0.4

As

Number of  
Samples



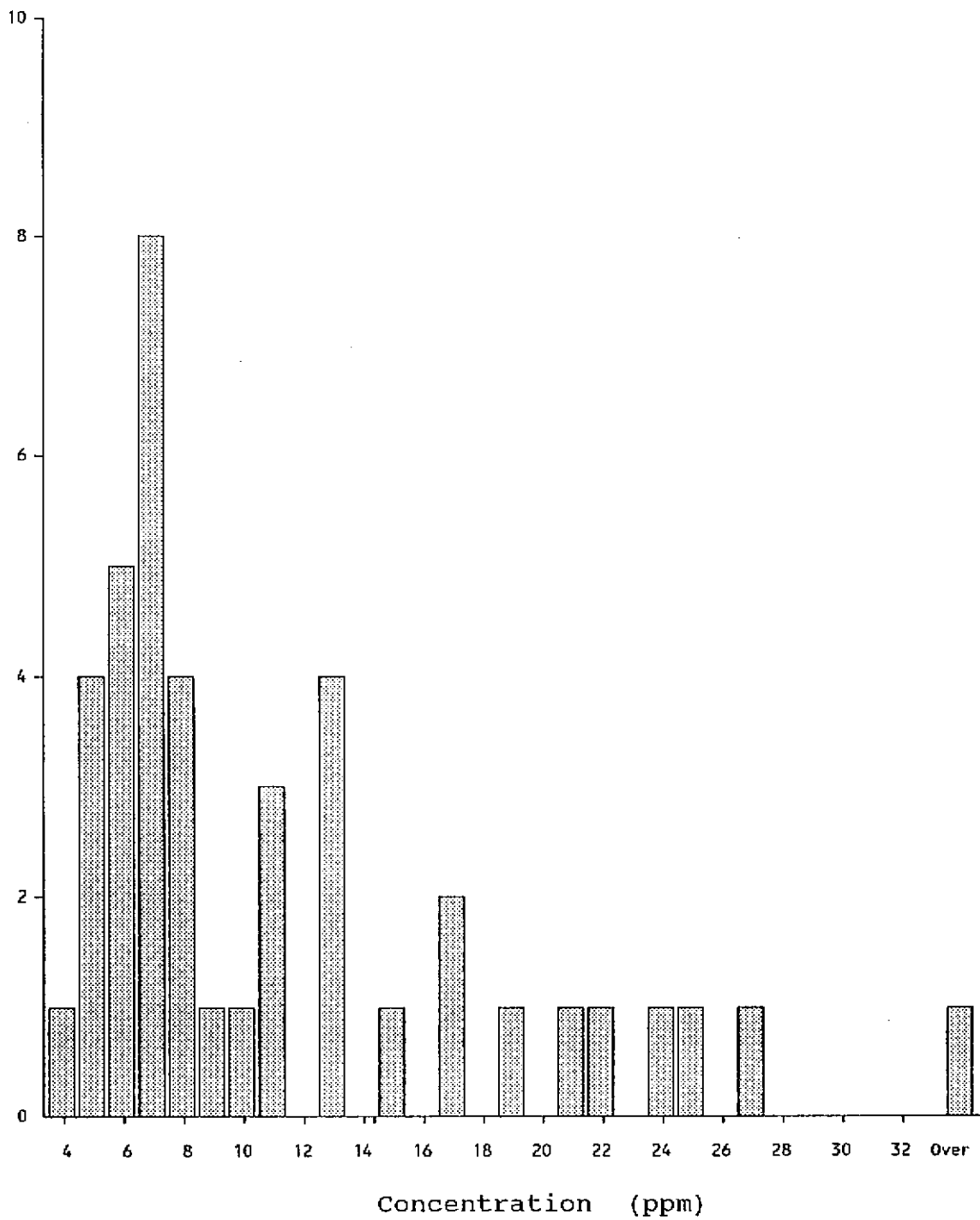
41 Samples

Maximum: 12366  
Minimum: 6

Mean: 904  
Median: 119  
Standard Deviation: 2160

Co

Number of  
Samples



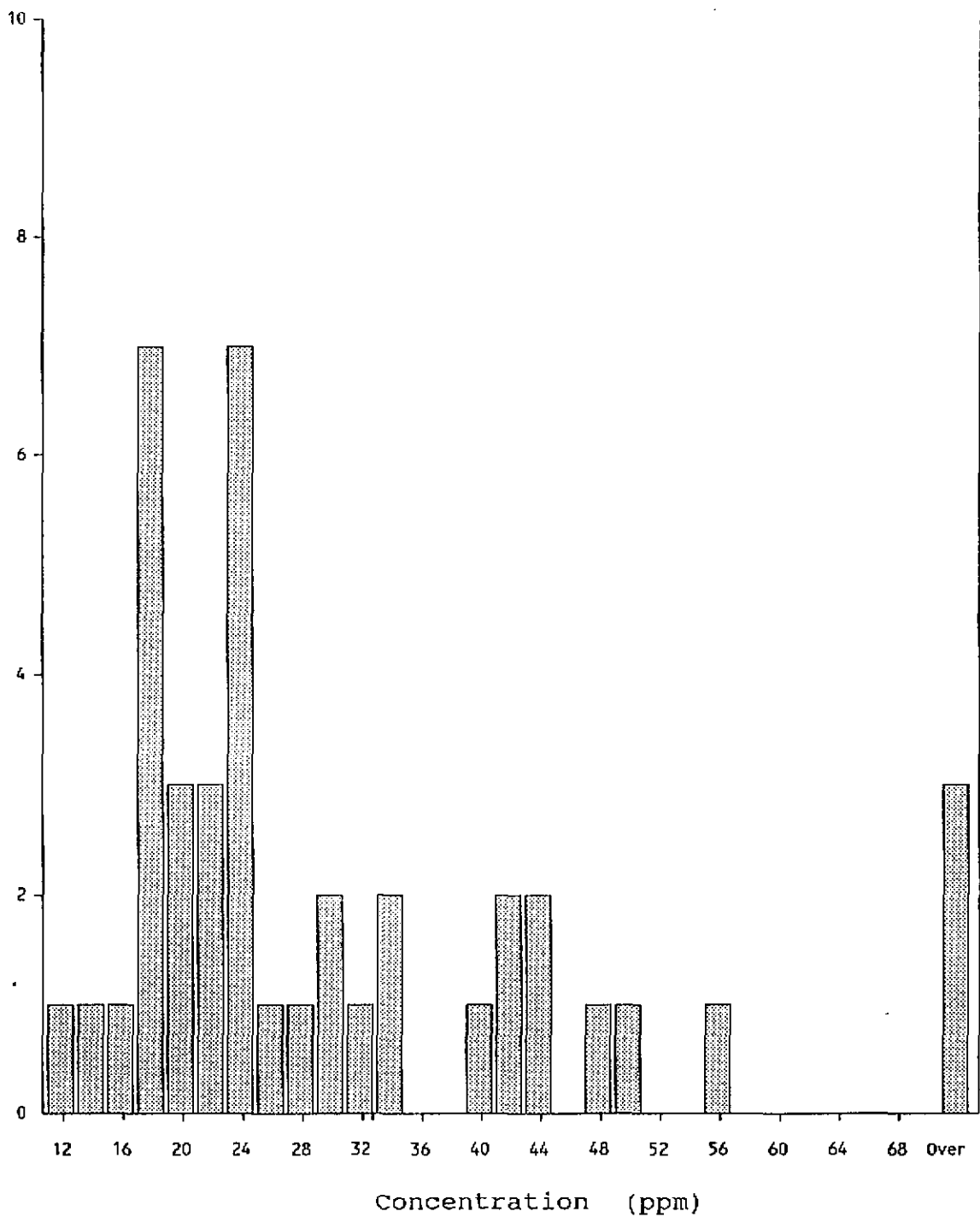
41 Samples

Maximum: 89  
Minimum: 4

Mean: 13  
Median: 8  
Standard Deviation: 13

# Cu

Number of  
Samples



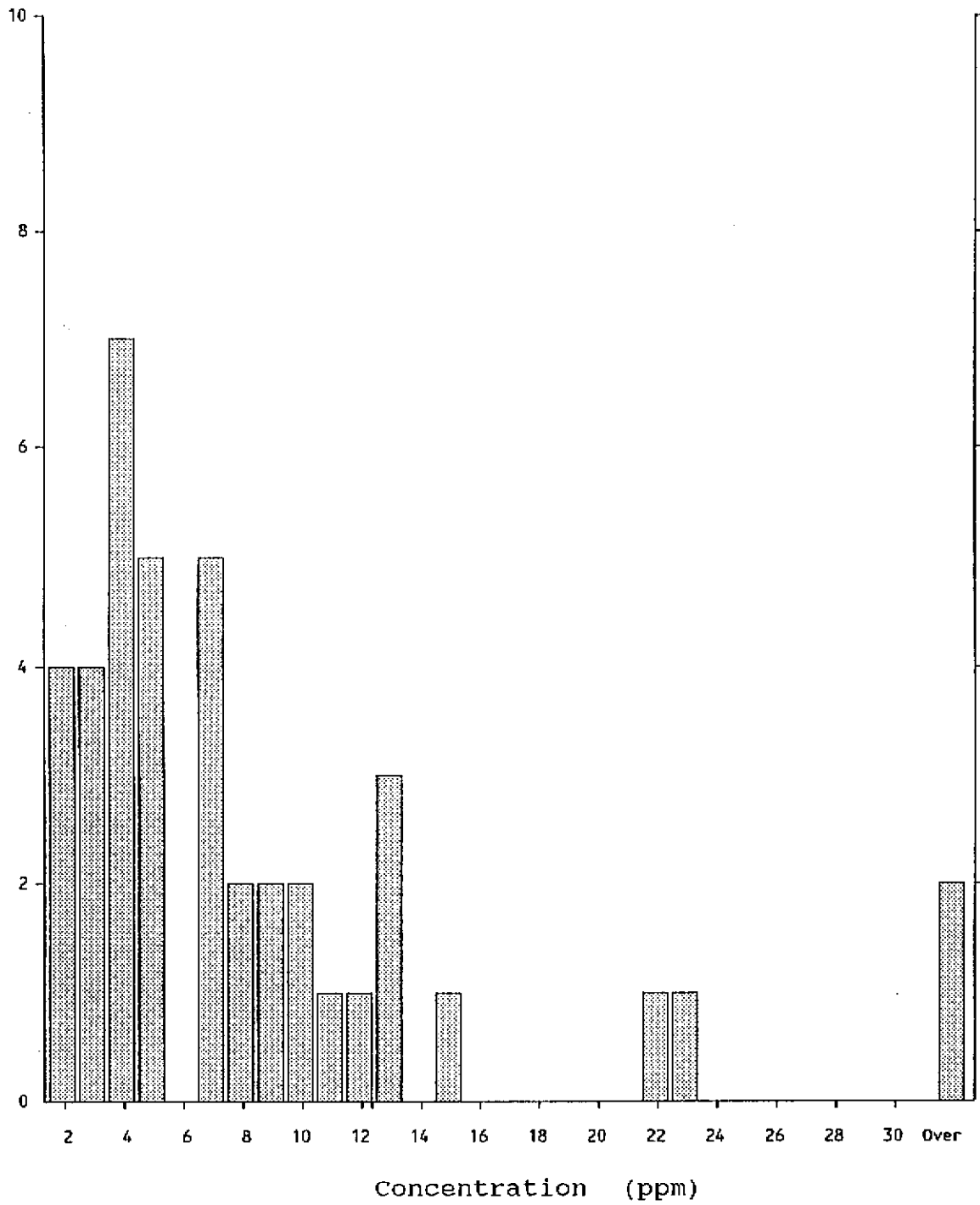
41 Samples

Maximum: 183  
Minimum: 12

Mean: 34  
Median: 24  
Standard Deviation: 29

Pb

Number of  
Samples



41 Samples

Maximum: 873

Minimum: 2

Mean: 35

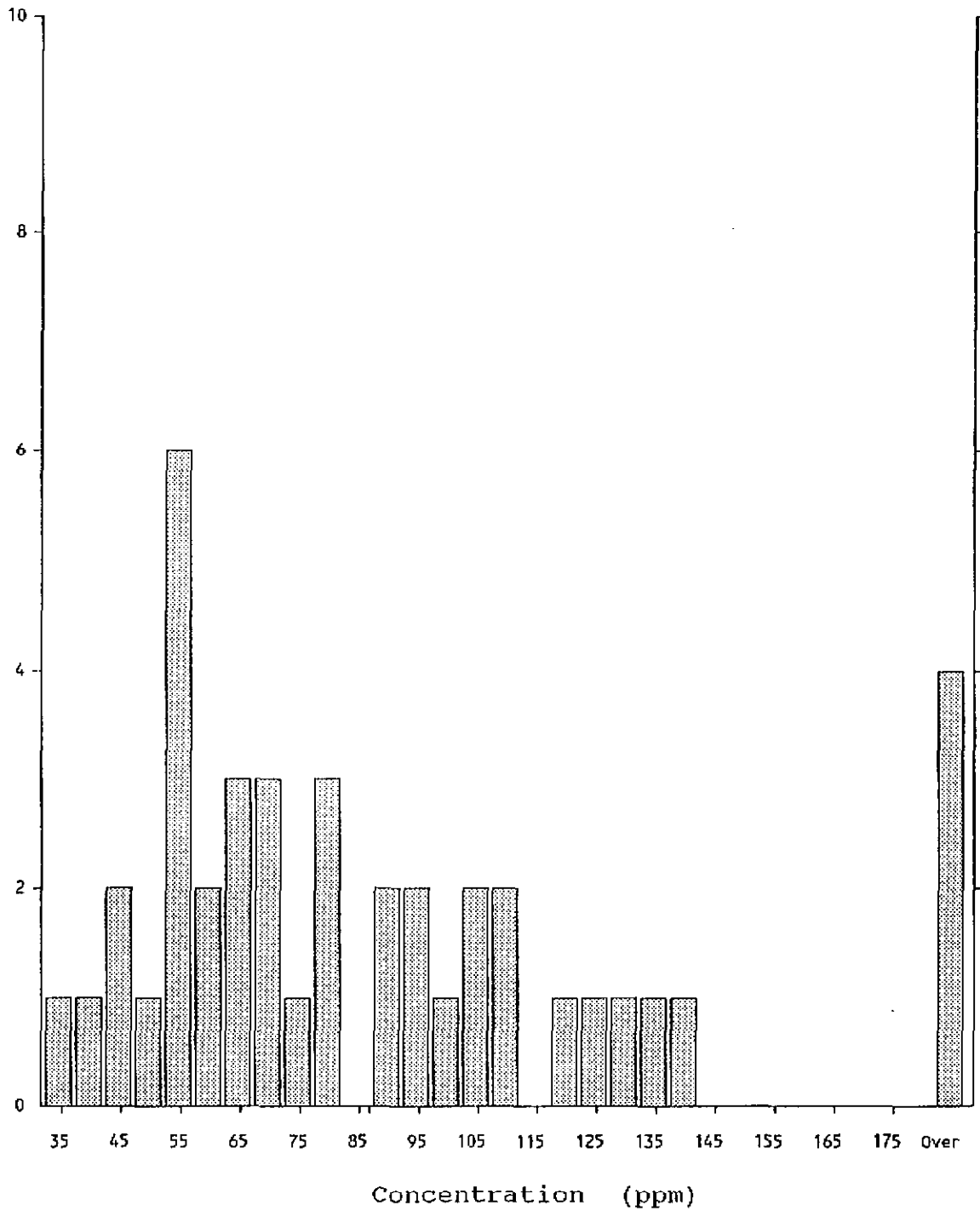
Median: 5

Standard Deviation: 139



# Zn

Number of  
Samples



41 Samples

Maximum: 3653

Mean: 183

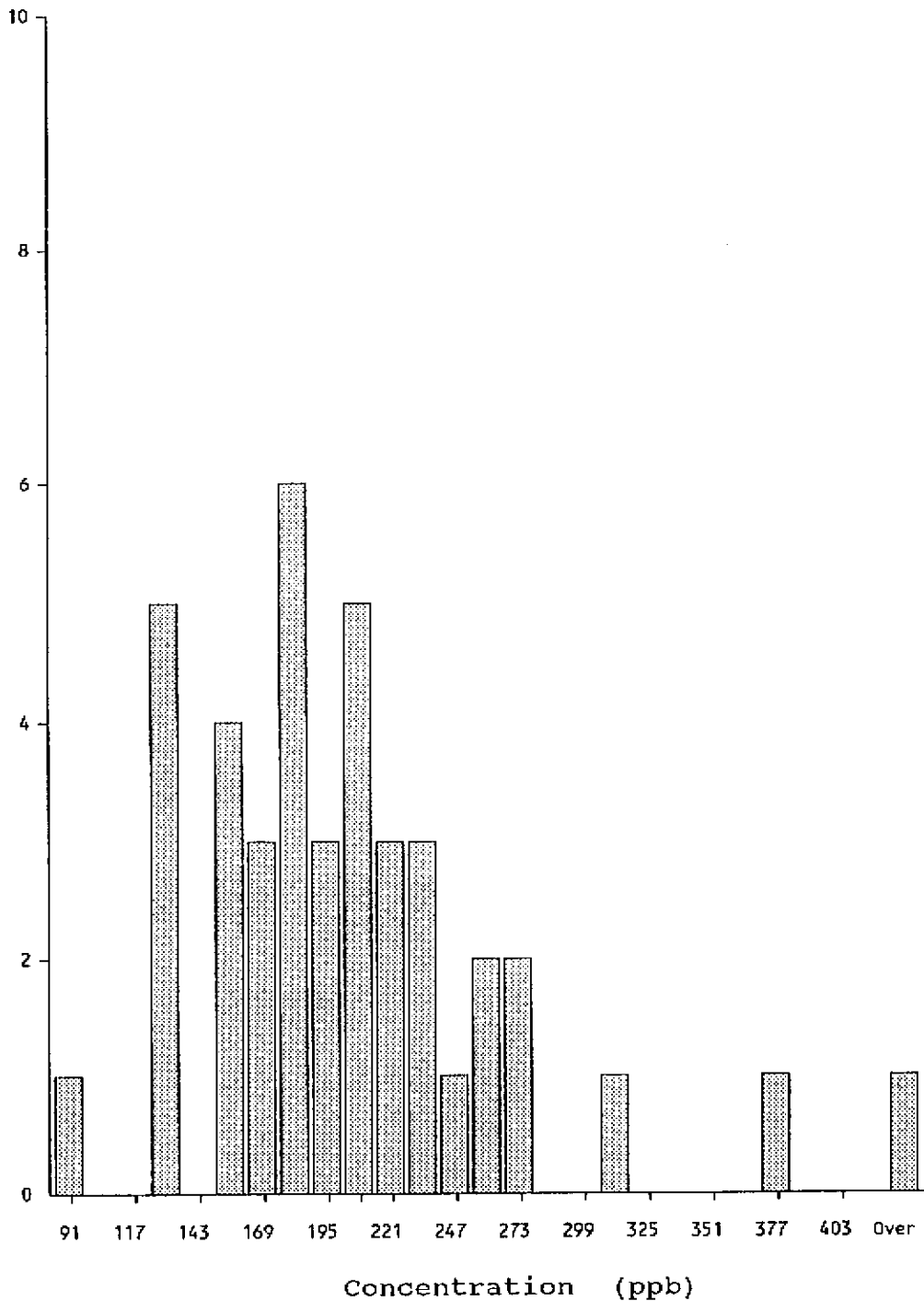
Minimum: 32

Median: 73

Standard Deviation: 556

# Hg

Number of  
Samples



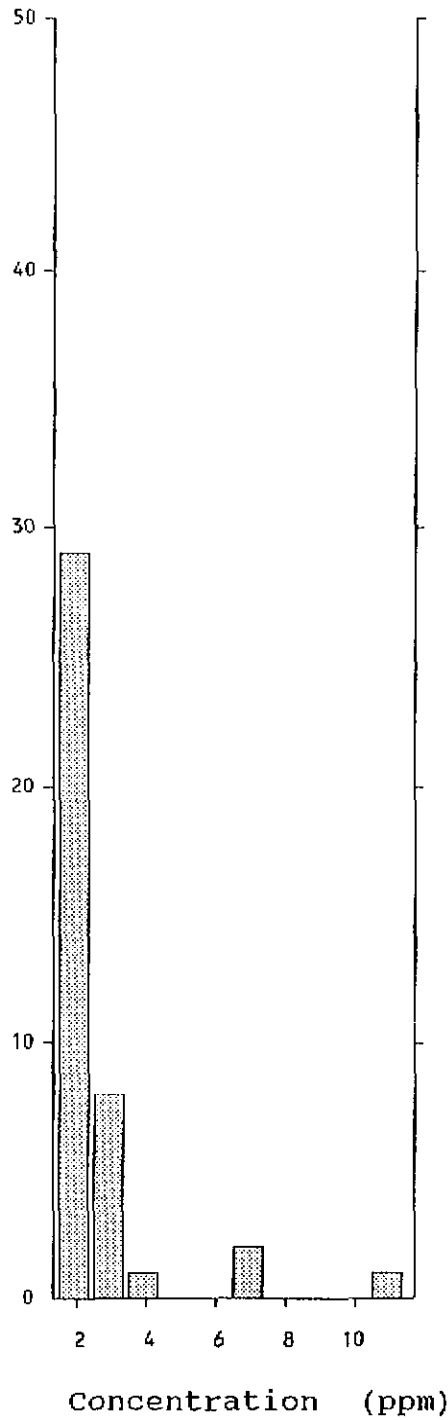
41 Samples

Maximum: 425  
Minimum: 80

Mean: 198  
Median: 190  
Standard Deviation: 65

**Bi**

Number of  
Samples



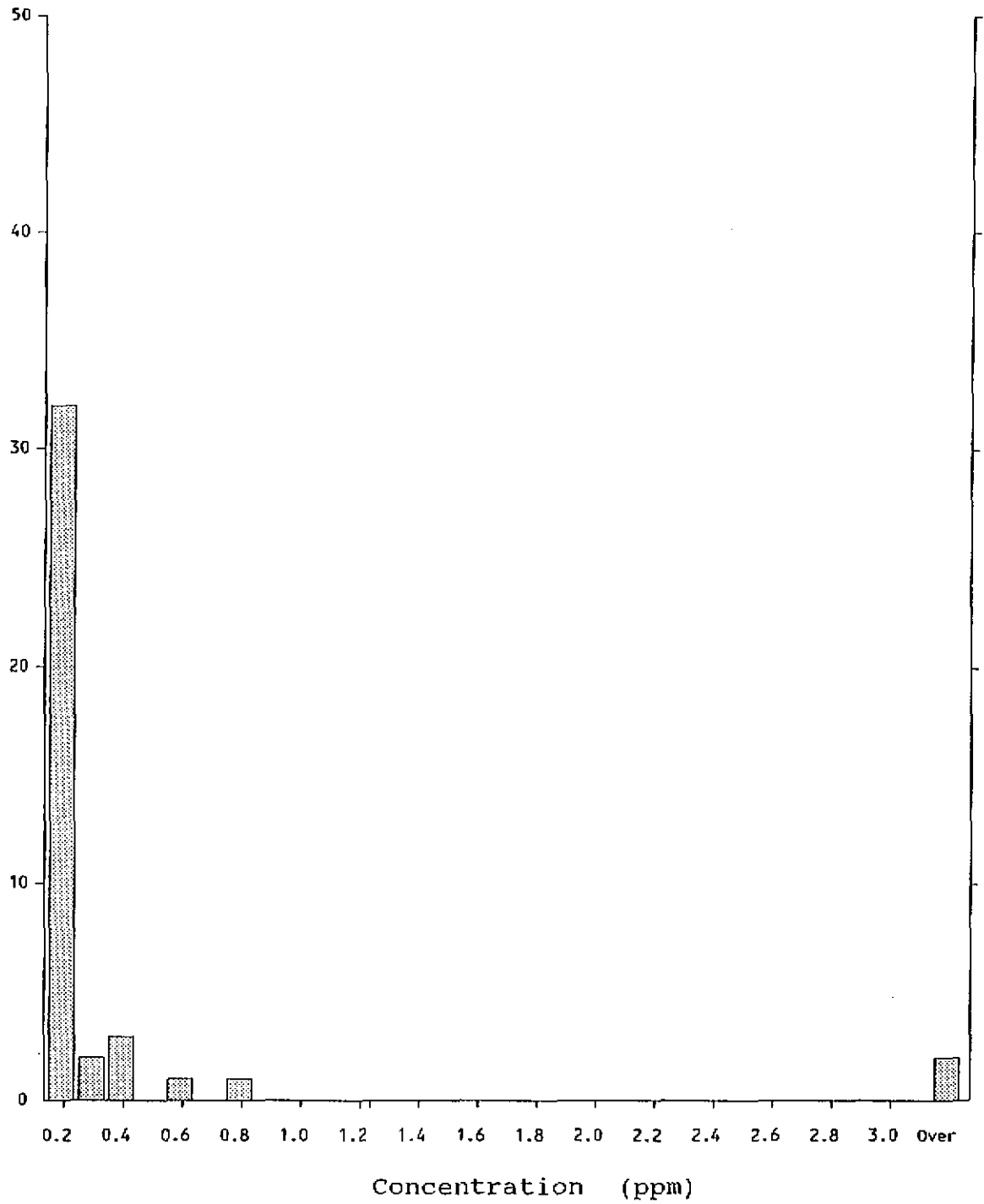
41 Samples

Maximum: 11  
Minimum: 2

Mean: 3  
Median: 2  
Standard Deviation: 2

# Cd

Number of  
Samples



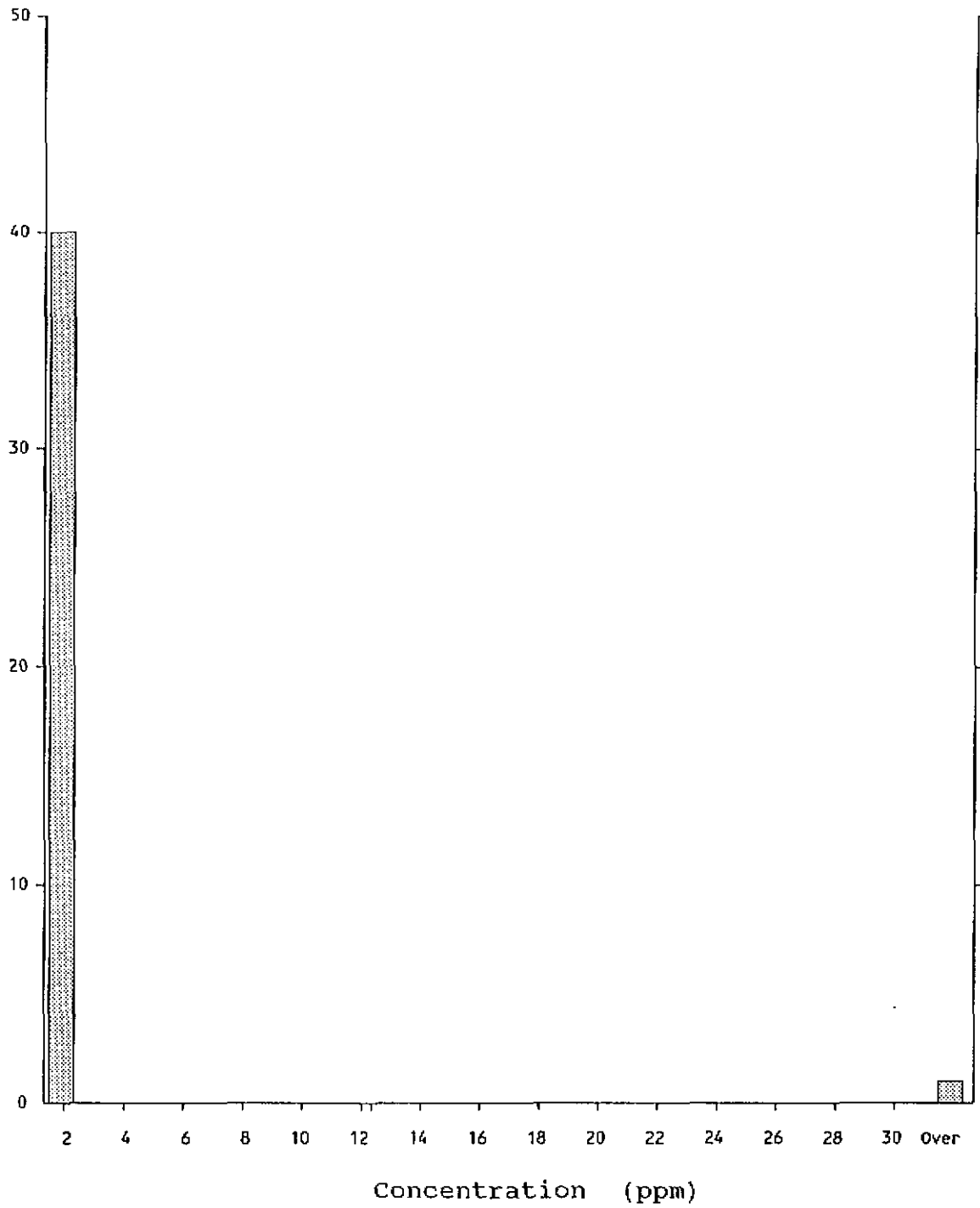
41 Samples

Maximum: 21.9  
Minimum: 0.2

Mean: 1.0  
Median: 0.2  
Standard Deviation: 3.6

Sb

Number of  
Samples



41 Samples

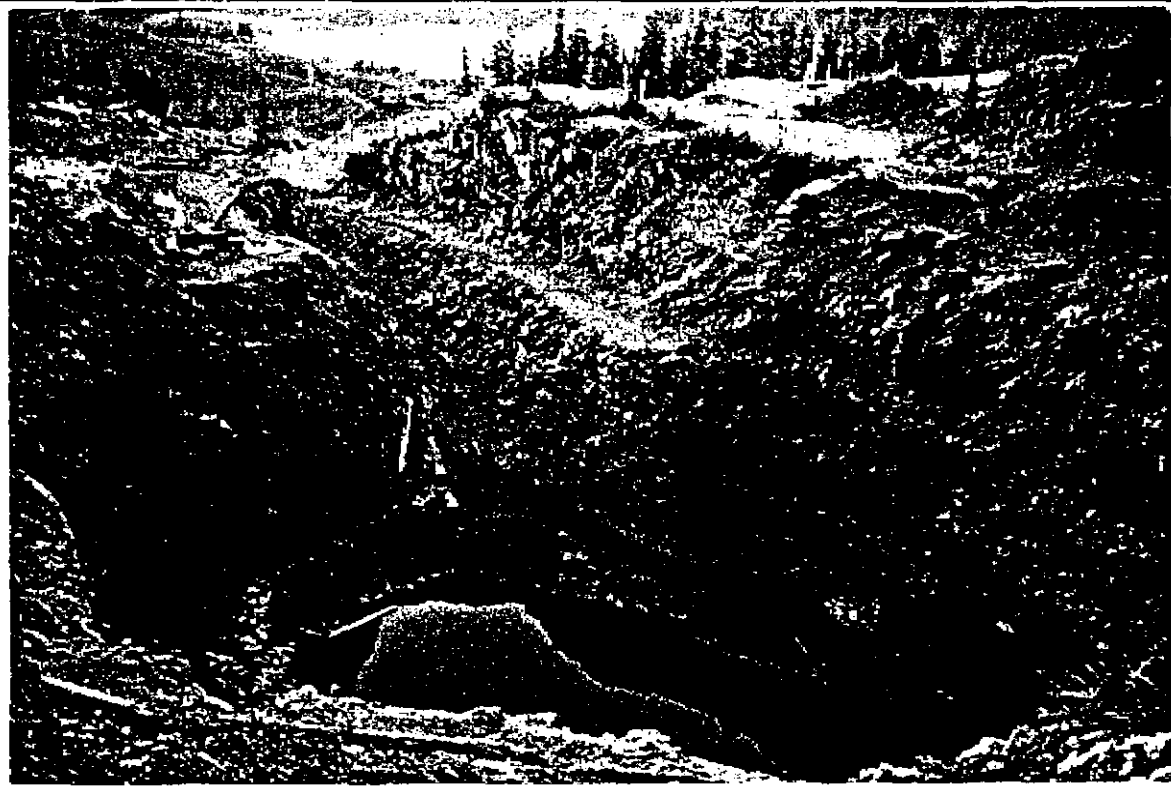
Maximum: 61  
Minimum: 2

Mean: 3  
Median: 2  
Standard Deviation: 9

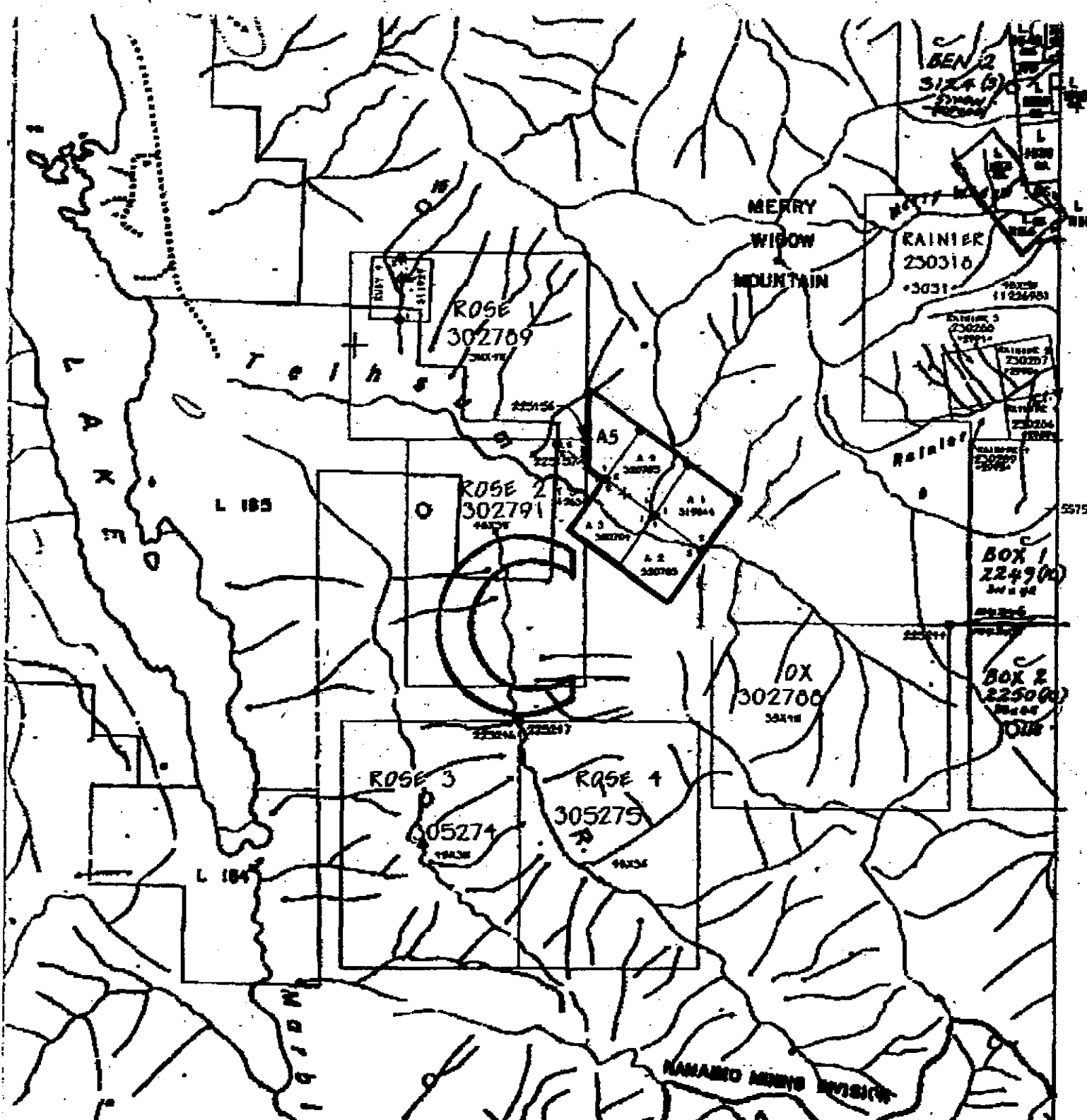
**TAYWIN RESOURCES LTD.**  
**MERRY WIDOW**  
**SUMMARY OF DRILLING HIGHLIGHTS**

HOLE NO.	INTERVAL METRES	WIDTH		GOLD OZ/T	COPPER %
		METRES	FEET		
89-1	6.8 - 8.0	1.2	4.0	2.57	3.37
	15.4 - 16.2	0.8	3.0	0.73	0.78
	20.0 - 21.0	1.0	3.0	0.11	0.17
	24.0 - 25.1	1.1	4.0	0.33	0.14
	30.0 - 32.0	2.0	7.0	0.20	0.18
	41.8 - 46.9	5.1	17.0	0.24	0.32
	58.0 - 61.0	3.0	10.0	0.26	0.09
or	6.8 - 62	55.0	181.0	0.127	0.20
89-2	14.4 - 15.4	1.0	3.0	0.49	1.04
	33.9 - 34.6	0.7	2.0	0.19	0.31
	44.8 - 47.8	3.0	10.0	0.06	0.02
	47.8 - 51.0	3.2	10.0	0.24	0.70
	63.5 - 64.5	1.0	3.0	0.12	0.03
89-6	29.5 - 43.0	13.5	44.0	0.26	0.60
	50.0 - 56.0	6.0	20.0	0.17	0.61
or	29.5 - 60.5	31.0	102.0	0.15	0.42
89-7	58.5 - 72.5	14.0	46.0	0.39	0.21
89-8	72.0 - 74.5	2.5	8.0	0.41	0.25
89-9	27.0 - 41	14.0	46.0	0.09	0.77
89-17	19.0 - 28	9.0	30.0	0.09	2.94
	33.0 - 66	33.0	108.0	0.11	0.57
89-18	33.0 - 36	3.0	10.0	0.16	0.08
89-19	2.0 - 5	3.0	10.0	0.17	0.42
	20.0 - 23	3.0	10.0	0.39	1.01
	29.0 - 31	2.0	6.5	1.72	5.41
or	2.0 - 31	29.0	95.0	0.17	0.60
89-20	9.0 - 15	6.0	19.5	0.63	3.86
	24.0 - 28	4.0	13.0	0.62	0.55
	28.0 - 34	6.0	19.5	0.08	0.12
or	9.0 - 52.4	43.4	142.5	0.20	1.34

HOLE NO.	INTERVAL METRES	WIDTH		GOLD OZ/T	COPPER %
		METRES	FEET		
89-21	4.0 - 10	6.0	19.5	0.20	1.29
or	4.0 - 57	53.0	174.0	0.09	0.46
89-22	16.0 - 33	17.0	56.0	0.14	0.40
or	16.0 - 61	45.0	147.5	0.11	0.33
89-23	26.0 - 33	7.0	23.0	0.30	0.66
89-24	25.0 - 28	3.0	10.0	0.14	0.31
	34.0 - 41	7.0	23.0	0.10	0.42
incl.	34.0 - 36	2.0	6.5	0.26	0.79
89-30	22.0 - 27	5.0	16.5	0.25	0.72
89-31	24.0 - 62	38.0	124.5	0.10	0.38
incl.	52.0 - 61	9.0	29.5	0.25	0.66



MERRY WIDOW OPEN PIT: NOTE THE DRILL ON THE LEFT SIDE



4

AREAS SUBJECT TO  
URANIUM / THORIUM  
REGULATIONS

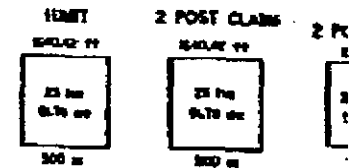
MINERAL TENURE

- MINERAL CLAIM
- MINERAL LEASE
- INDUSTRIAL MINERAL CLAIM
- CLAIM NAME
- TITLE NUMBER
- OLD TITLE NUMBER
- TAG NUMBER
- LEGAL POST
- WITNESS POST
- FORFEITED TENURE
- VERIFIED
- SURVEYED
- REVERTED C.G. MINERAL CLAIM
- CROWN GRANTED
- OPEN FOR STAKING

DEC 02 '94 11:24 MINERAL-TITLE BRANCH 952-0551

REV 05 2

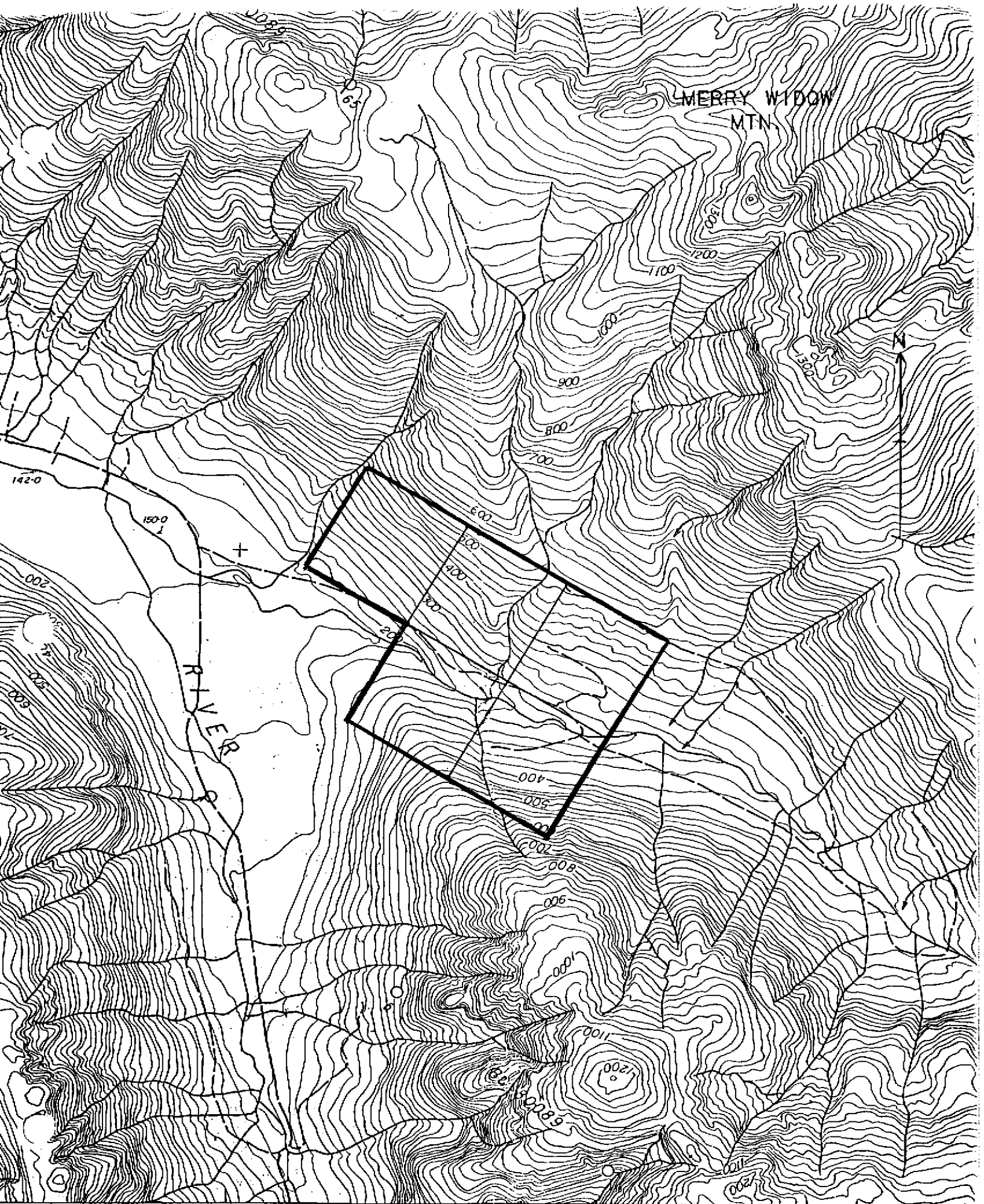
TO: Mr. James W. David  
c/o SA Mepaldi Riedig



THIS MAP IS PREPARED ONLY AS TO THE LOCATION OF MINERAL TITLE AS SHOWN ON THE LOCATOR'S SKETCH FOR CURRENT OR MORE SPECIFIC INFORMATION APPLICATION SHOULD BE MADE TO THE MINING DIVISION OF

RAINIER MOUNTAIN DIVISION





MERRY WIDOW  
MTN.

RIVER

620000

92L.024 92L.6w 1/20,000

TEH SUM PROPERTY

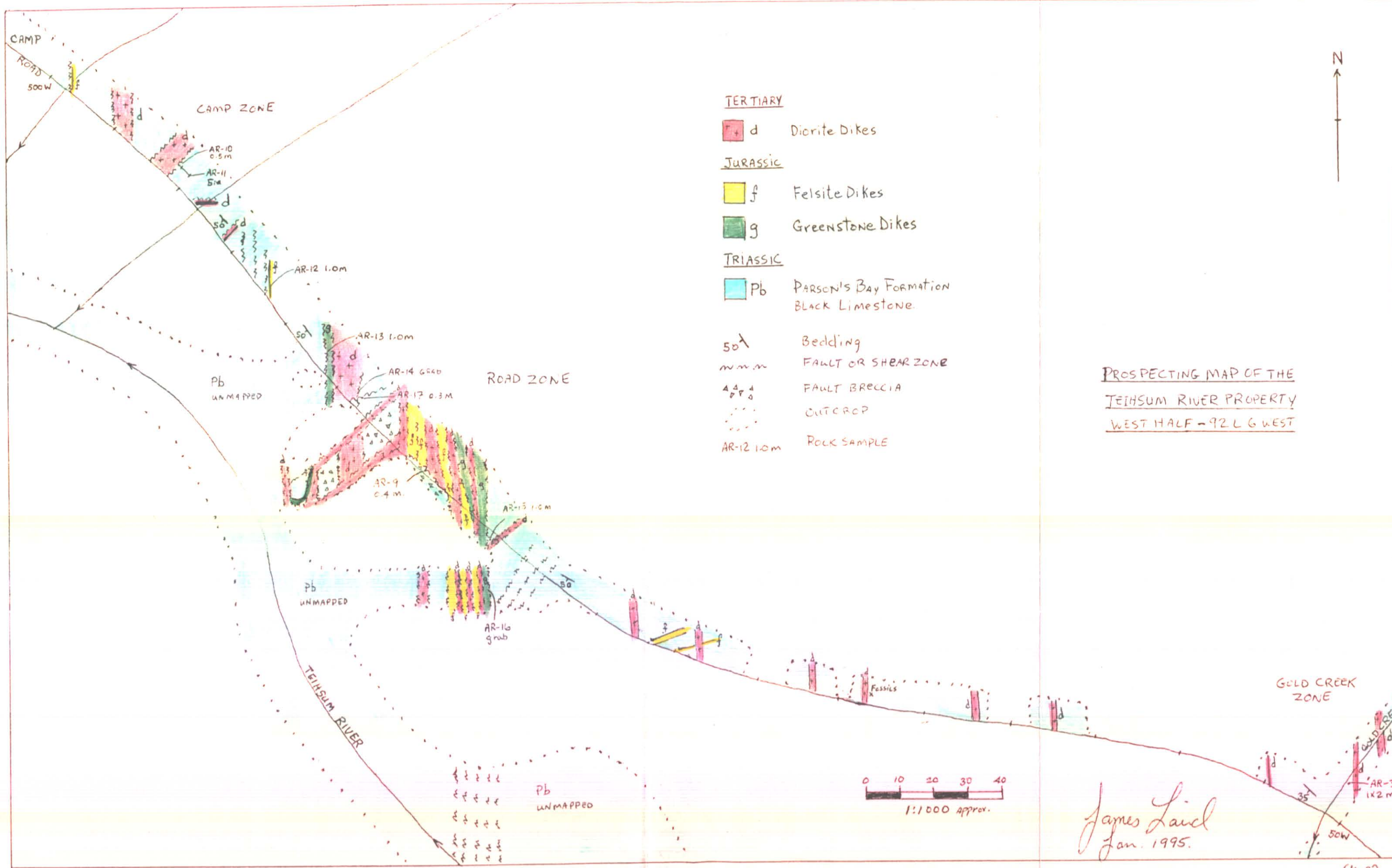
CENTRE



BUILDING



ROADS PAVED



TERTIARY

d Diorite Dikes

JURASSIC

f Felsite Dikes

g Greenstone Dikes

TRIASSIC

Pb PARSON'S BAY FORMATION  
BLACK LIMESTONE.

50λ Bedding

m m m FAULT OR SHEAR ZONE

4 4 4 FAULT BRECCIA

..... OUTCROP

AR-12 1.0m ROCK SAMPLE

PROSPECTING MAP OF THE  
TEIHSUM RIVER PROPERTY  
WEST HALF - 92 L 6 WEST

James Laird  
Jan. 1995.

PROJECT TRP-1994

SAMPLE DESCRIPTIONS

PROJECT TRP-1994 SAMPLE DESCRIPTIONS

ROAD ZONE

AR-10 50 cm. chip

Rusty gouge zone along 040° striking diorite dike, below a soil sample which gave 3210 ppb Au.

AR-11 5 metre chip

Rusty, fractured argillaceous limestone adjoining AR-10.

AR-12 1 metre chip

N-S striking mineralized felsic dike with pyrite, pyrrhotite, and sphalerite.

AR-13 1 metre chip

Sheared mineralized contact between silty black limestone and greenstone/diorite dike complex, striking N-S, with pyrite, pyrrhotite, sphalerite, galena, and chalcopyrite as fracture fillings and disseminations.

AR-14 Grab

Finely crystalline arsenopyrite and carbonate in a narrow shear vein striking 010° along a diorite dike.

PROJECT TRP-1994 SAMPLE DESCRIPTIONS

ROAD ZONE

AR-15 1 metre chip

Fractured, altered zone in limestone along a chloritized diorite dike complex, with pyrite and sphalerite.

AR-16 Grab

Strongly chloritized zone along diorite/felsite dikes in agglomeratic limestone, with several vuggy quartz veins containing pyrite, sphalerite and rare clear gypsum crystals in quartz vugs.

AR-17 30 cm. chip

Quartz-carbonate breccia vein striking 070° along a diorite dike, adjoining sample AR-14, with arsenopyrite, pyrite, chalcopyrite, sphalerite, and galena.

AR-18 30 cm. chip

Fine-grained pyrite in brecciated, silicified limestone along a diorite dike.

# ROSSLER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

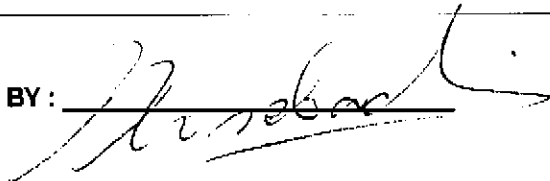
2225 Springer Ave., Burnaby,  
British Columbia, Can. V5B 3N1  
Ph:(604)299-6910 Fax:299-6252

To: TECK EXPLORATIONS LTD.  
# 350 272 VICTORIA STREET  
KAMLOOPS, B.C.

Project: TRP-94 J.W. Laird  
Type of Analysis: ICP

Certificate: 94293  
Invoice: 50370  
Date Entered: 95-01-04  
File Name: TEK94293.I  
Page No.: 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AC	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM LI	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	% AL	% NA	% SI	PPM W	PPM BE	PPB AU	PPB AA
A1	AR-10	5	105	1125	508	1.6	23	12	1587	6.56	6145	5	ND	ND	10	2	4	1	67	0.15	0.06	13	62	0.81	55	0.01	1.89	0.02	0.01	6	1	2400	
A1	AR-11	4	76	72	577	0.7	27	10	982	4.45	964	5	ND	ND	75	3	4	1	75	0.63	0.08	6	66	0.96	33	0.13	2.59	0.09	0.01	6	1	10	
A1	AR-12	2	40	22	305	0.6	5	3	725	3.89	177	5	ND	ND	472	2	1	1	8	3.71	0.09	9	43	0.44	16	0.01	0.87	0.04	0.01	6	1	20	
A1	AR-13	2	102	13	714	0.9	4	11	1935	6.26	590	5	ND	ND	28	7	5	8	25	0.77	0.19	10	17	0.96	28	0.01	1.91	0.03	0.02	9	1	40	
A1	AR-14	4	61	466	1503	1.6	48	8	1346	7.71	58641	5	ND	ND	157	17	263	1	12	4.96	0.03	3	59	0.90	3	0.01	0.33	0.02	0.01	8	1	790	
A1	AR-15	4	114	75	10960	0.9	18	13	506	4.48	2727	5	ND	ND	20	59	13	1	30	0.88	0.05	1	73	0.45	15	0.05	0.95	0.01	0.01	3	1	10	
A1	AR-16	7	312	101	3897	1.4	30	20	475	6.82	344	5	ND	ND	12	22	4	1	25	0.69	0.03	1	193	0.55	8	0.05	1.16	0.05	0.02	6	1	5	
A1	AR-17	2	998	4088	12859	17.9	43	13	885	5.32	42407	5	ND	ND	124	190	424	1	7	6.03	0.04	3	37	0.19	1	0.01	0.26	0.02	0.01	1	1	280	
A1	AR-18	6	335	23	251	2.7	72	71	1243	18.31	2013	5	ND	7	34	3	2	3	53	0.57	0.06	7	77	0.95	38	0.01	1.65	0.04	0.01	12	1	10	

CERTIFIED BY: 



TEHUSAN RIVER  
↑  
↓  
VICTORIA ISLAND



MERRY WIDOW MOUNTAIN  
↑



YONGUM RIVER



Point of view of the mountain





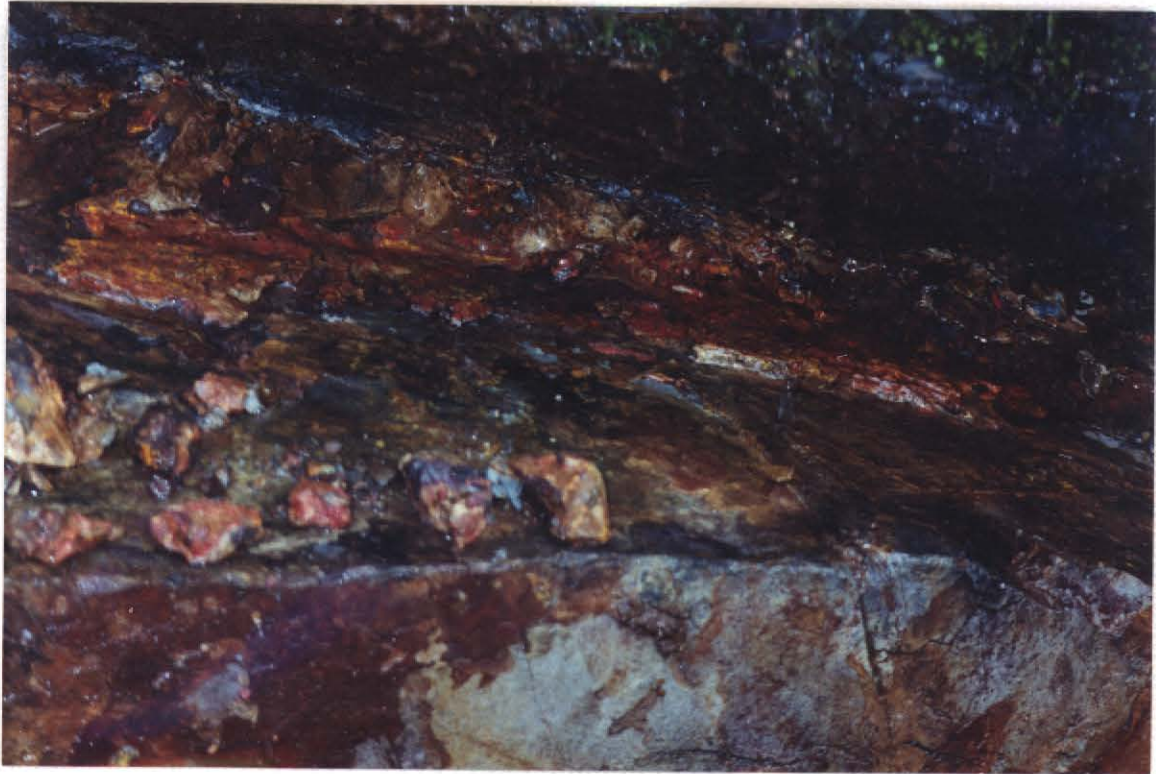
ROAD ZONE SAMPLES AIR-14, 17



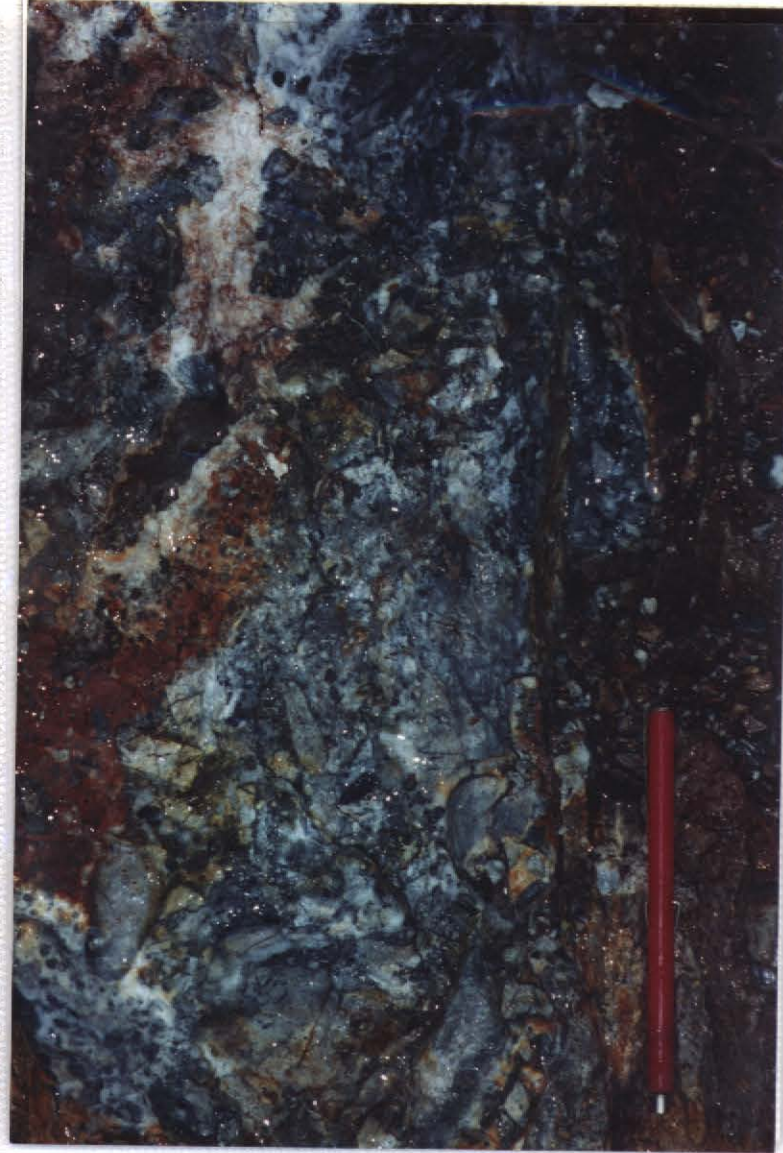
MINERALIZED FAULT BRECCIA  
AIR-14, 17, CA. 1950-51



ROAD ZONE REAGAR VEINS →



↑ ROAD ZONE REAGAR VEINS →



ROAD ZONE SAMPLES AR-14, 17



MINERALIZED FAULT BRECCIA  
AR-14, 17, Ca. 1000 ft

SPRUCE CREEK REARLAND VEIN



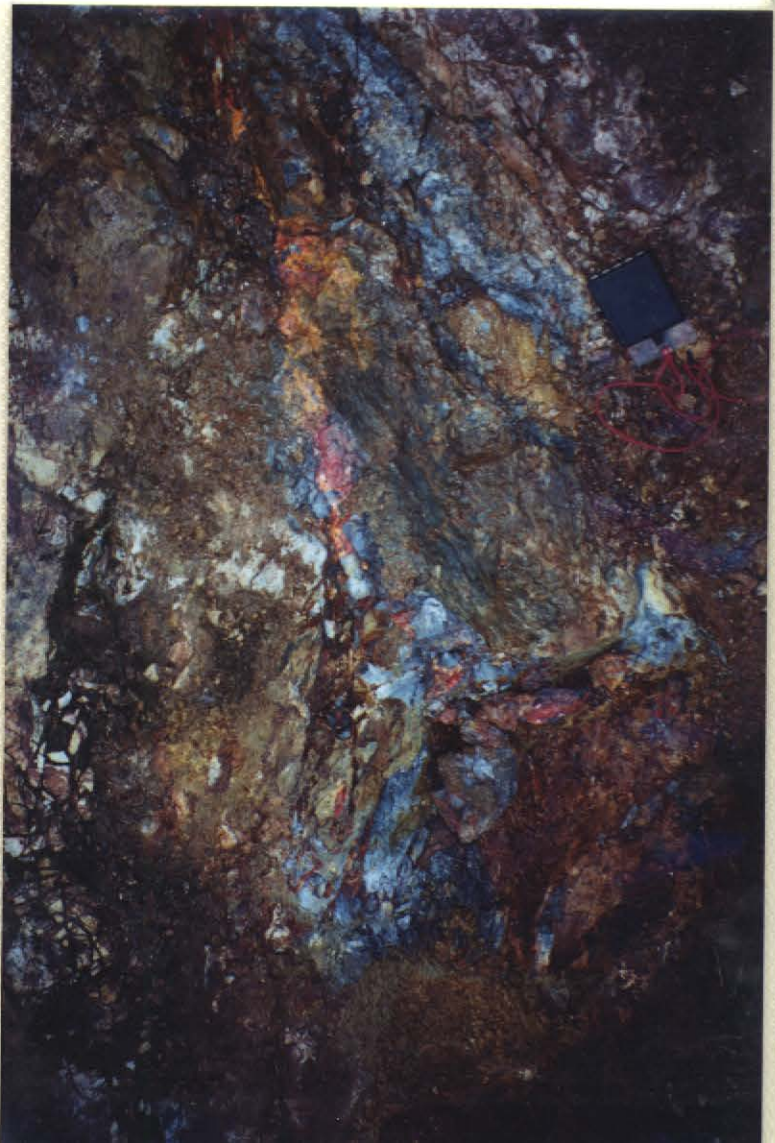
GOLD CREEK SHEAR VEIN AR-2



ROAD ZONE CRYSTALLINE RENIGAR  
←



ROAD ZONE - RED DEVIL SHEAR VEIN  
A4, 2M, C4, P5, A5, S5, M9  
→





GOLD CREEK SHEAR VEIN AR-1



GOLD CREEK ALL-CAL REPLACEMENT AR-3



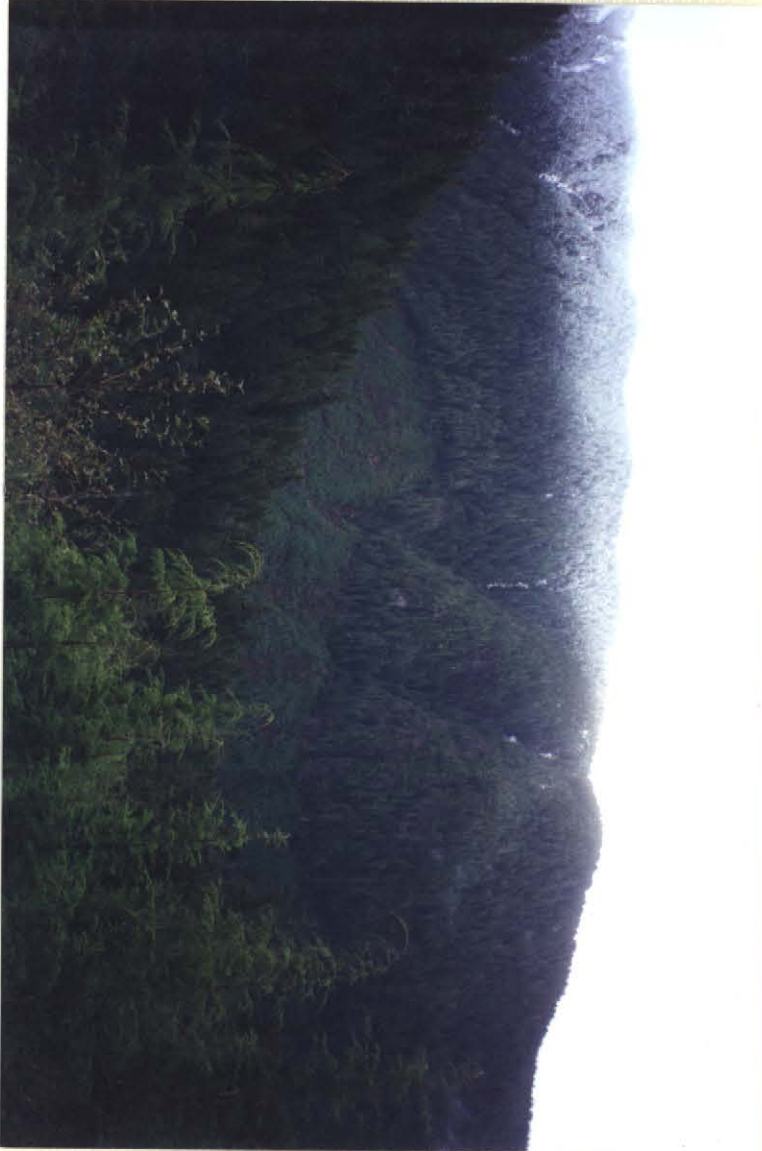


BRIDGE ZONE ↑



↑ ROAD ZONE CAMP

NOVEMBER WEATHER, CLAIMS AREA



↑ RIDGE WEST OF TEHSUM RIVER

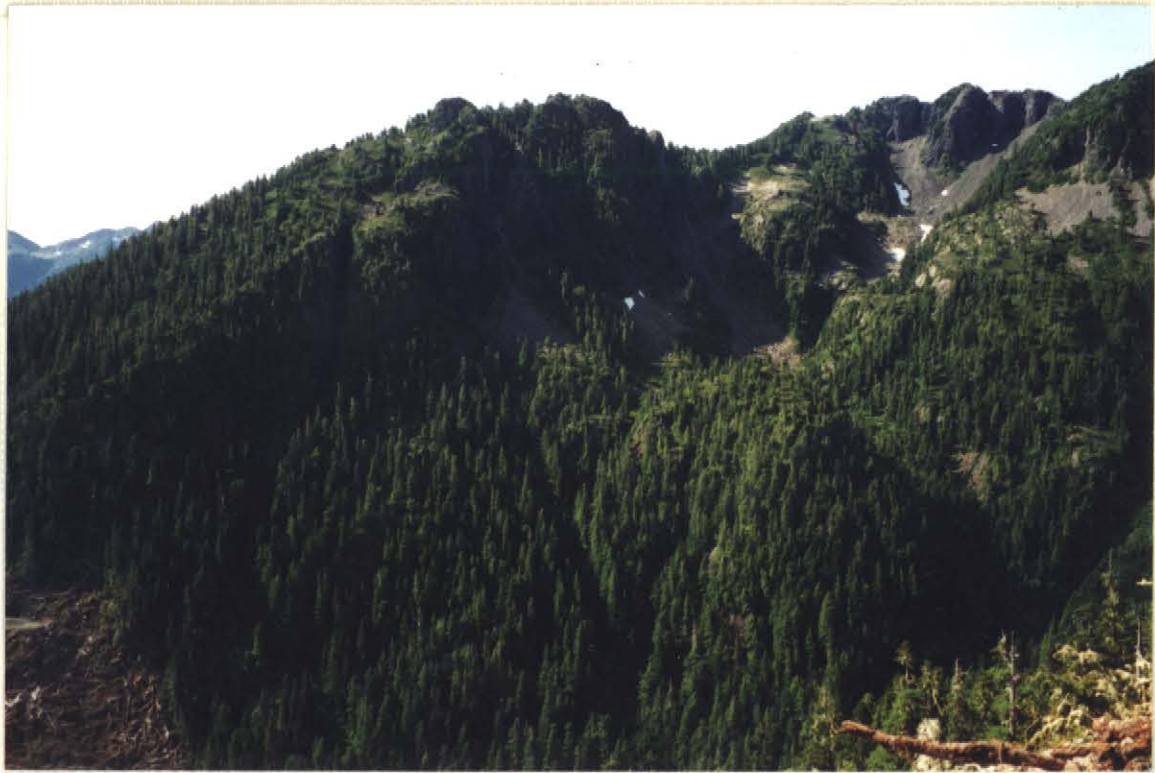




MERRY WIDOW PIT AREA



↓ MERRY WIDOW MOUNTAIN



M.W. Mt. PANORAMA LOOKING SOUTH ↗  
→



MERRY WIDOW PIT

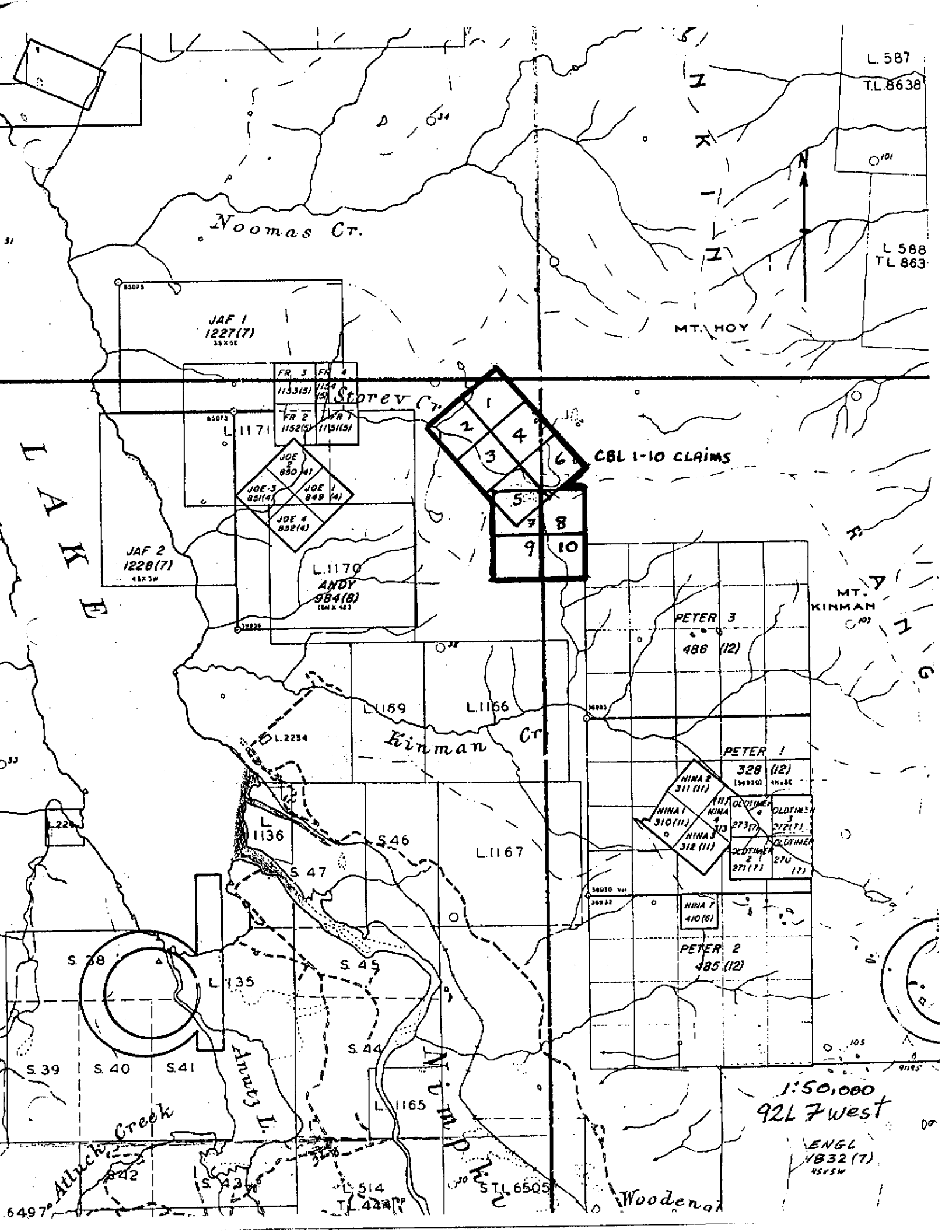


NEWT LAKE



CBL 1-10 CLAIMS

STOREY CREEK, NIMPKISH, B.C.



L 587  
TL 8638

L 588  
TL 863

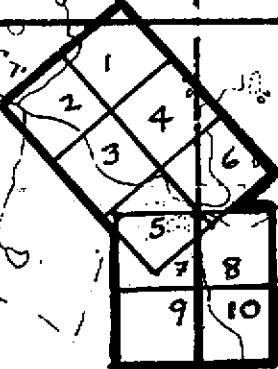
Noomas Cr.

MT. HOY

JAF 1  
1227(7)  
35 X 52

FR 3 1153(5)	FR 4 1154(5)
FR 2 1152(5)	FR 1 1151(5)

Storev Cr.



CBL 1-10 CLAIMS

JAF 2  
1228(7)  
48 X 38

JOE 2 850(4)	JOE 1 849(4)
JOE 3 851(4)	JOE 4 852(4)

L 1170  
ANDY  
984(8)  
104 X 487

MT. KINMAN

PETER 3  
486 (12)

Kinman Cr.

PETER 1  
328 (12)

NINA 2 311 (11)	OLDTIMER 4 272(7)	OLDTIMER 3 272(7)
NINA 1 310(11)	OLDTIMER 1 271(7)	OLDTIMER 2 271(7)
NINA 3 312 (11)		

NINA 7  
410(6)

PETER 2  
485 (12)

S 38  
S 39  
S 40  
S 41

L 1136

S 46

L 1167

S 47

S 45

S 44

L 1135

L 1165

Andy Cr.

Woodena

1:50,000  
92L 7 West

ENGL  
1832(7)  
4515W

L 514  
TL 444

STL 6505

Woodena

6497°

## SUMMARY REPORT ON THE CBL CLAIMS

The CBL claims are located near the headwaters of Storey Creek, which drains into Nimpkish Lake on Northern Vancouver Island B.C. The claims area covers a magnetite showing known as the Wolf (Minfile 92L 121), and adjoins the Kinman Copper property on the southeast, and the Storey Creek Main Zone to the west. The Nimpkish area has been prospected by James Laird since the early 1980's, and an area encompassing the CBL claims formerly known as the Nimpkish Group was the subject of a 1990 assessment report.

The CBL claims were staked to cover a large mineralized skarn zone located in 1989 which is now known as the CBL "A" Zone. The "A" and "B" zones were recently crosscut by a new Canfor logging road, and the "A" Zone showed over 50 metres of massive magnetite, chalcopyrite, sphalerite, pyrite and pyrrhotite in garnet-diopside skarn.

### Geology

The Nimpkish area is underlain by the same sequence of bedded rocks found in the nearby Merry Widow-Coast Copper area, and has also been subject to major folding, faulting, and intrusive activity. The bedded rocks are Karmutsen Formation basalts overlain by 100-200 metres of white, recrystallized Quatsino Limestone, and are overlain by Parson's Bay Formation limey sediments and Bonanza Volcanics. The intrusives in the Nimpkish area tend to be felsic and potassic, commonly granodiorite, quartz-feldspar porphyry, felsite and some diorite.

Mineral deposits in the area include the former Nimpkish River Iron Mine, a several million tonne magnetite skarn which produced in the 1950's and 60's, the Kinman Copper property which has a small gold-copper reserve, and the Storey Creek Main Zone, a stratiform skarn/replacement of the "Old Sport Horizon" with drilled reserves of nearly 100,000 tonnes of 12.5% zinc, plus lead and copper.

### "A" Zone

This zone contains massive magnetite-garnet-diopside skarn with layers and disseminations of chalcopyrite, sphalerite, pyrite and pyrrhotite. The mineralized skarn occurs in white recrystallized limestone near a major granitic contact, and is related to a number of small felsite intrusions. The zone exceeds 50 metres in width, and is open to the southeast and to depth. Major faulting and fracturing were noted to the west in the granitic rocks, with widespread pyritization.

Grab samples taken from the zone gave values up to 20.8% zinc, 10.3% copper, 11 oz/t silver, and negative results in gold and platinum group elements.

### "B" Zone

The "B" Zone is partially exposed in a road bank for about 10 metres, and contains skarn with magnetite, chalcopyrite, sphalerite, malachite, pyrite and pyrrhotite. Host rock is white limestone near a granitic contact. A single grab sample returned 1.38% copper.

### Cedar Lake Zone

This zone was found crossing Storey Creek near a small lake, and is exposed for up to 10 metres in width and followed for nearly 100 metres along a major granodiorite-limestone contact zone. Massive magnetite with pyrite and lesser chalcopyrite and sphalerite was sampled over 5x5 metres with low results. Coarse diopside skarn with disseminations of sphalerite gave 2.7% zinc across 3 metres.

The West Cedar Lake Zone is likely a continuation of this deposit, with similar length, width, and mineralogy. The zone is highly oxidized and was not sampled.

### Green Garnet Zone

This area hosts several small chalcopyrite and magnetite showings in skarn and hornfels, which form at the contact of a series of large granitic dikes and white limestone. Assay values were low.

### Porphyry Zone

A small intrusion of coarse quartz-feldspar porphyry contains disseminated pyrite but negative assay values.

### Falls Zone

The Falls Zone contains several small sulphide veins in white limestone, above the Karmutsen/Quatsino contact and in proximity to felsic dikes and skarn. Sphalerite, pyrrhotite and pyrite form the vein matter, and gave assays of 12.5% zinc.

### Wolf Zone

This zone was formerly explored for its magnetite content, but a newly discovered extension occurs in white limestone and skarn with massive yellow-brown sphalerite across more than 1 metre in thickness. The zinc-rich layer occurs at the contact of skarn and overlying limestone near the Karmutsen Formation, and is identical to the Storey Creek Main Zone in occurrence, with the exception of low lead content. Assays gave values up to 46.8% zinc. A drill hole on the Main Zone returned 13.7 metres of 14.5% zinc, plus lead and copper.

A bedded massive sulphide replacement occurs midway between the Wolf and Falls zones and contains sphalerite, magnetite, pyrite, pyrrhotite and chalcopyrite giving assays of 14.9% zinc across 1 metre.



## Discussion

The claims area hosts several mineral deposits with good exploration potential, namely the Wolf Zone, "A" Zone, and the Cedar Lake Zone. The Wolf Zone in particular may occur as a large stratiform replacement similar to the Coast Copper Mine "Old Sport Horizon" and the Storey Creek Main Zone. This type of deposit may underlie the entire area covered by Quatsino Limestone, with large tonnage potential. Skarn plus sulphides and related felsite intrusions were observed to be over 10 metres thick in outcrop. The sulphide zone seems likely to underlie the area between the Wolf and Falls zones, a distance of 400 metres.

The CBL "A" Zone and Cedar Lake Zone have size and grade potential, and are proximal to a major intrusive contact which, where exposed, is invariably mineralized. The possible strike length of this zone exceeds 1500 metres, with observed widths of 10 to 50 metres. The depth potential is estimated to be 100-200 metres, to the vicinity of the Wolf sulphide horizon at the base of the Quatsino Limestone.

The Quatsino Limestone has been recrystallized to a pure, white marble with an excellent industrial mineral potential. Karst topography and caves are quite common in the limestone, and several caves with recreational possibilities were found along upper Storey Creek, distal from any metallic deposits. Quarrying operations on the limestone should not be attempted where significant cave formations are found, but the tonnage potential for a high quality industrial mineral deposit is still very large.

Many other areas of mineralization were observed but were minor in nature. Prospecting, geological mapping, geochemistry, and geophysics will be used to define the known deposits and to locate others. Diamond drilling is needed to test the Wolf, "A", and Cedar Lake Zones.

PROJECT CBL-1994

SAMPLE DESCRIPTIONS

PROJECT CBL-1994 SAMPLE DESCRIPTIONS

CBL "A" ZONE

CBL-RCP Grab

Chalcopyrite-rich phase of the main skarn zone with magnetite, pyrite, pyrrhotite, and sphalerite.

CBL-RZN Grab

Sphalerite-diopside phase of the main skarn zone with minor magnetite, pyrite, pyrrhotite, and chalcopyrite.

CBL-RPR Grab

Pyrrhotite-rich phase of the main skarn zone with chalcopyrite, pyrite, magnetite, and sphalerite.

CBL-RPY Grab

Coarse crystalline pyrite-rich phase of the main skarn zone with magnetite, chalcopyrite, pyrrhotite, and sphalerite.

CBL "B" ZONE

CBL-RBZ Grab

Chalcopyrite and magnetite in a skarn zone with pyrrhotite, pyrite, and sphalerite.

## PROJECT CBL-1994 SAMPLE DESCRIPTIONS

### GREEN GARNET ZONE

G-1 1 metre chip

Disseminated chalcopyrite, pyrite, and malachite across a contact zone between granitic dikes and white recrystallized limestone.

G-2 Grab

Chalcopyrite in biotite hornfels near sample G-1.

G-3 Grab

Massive magnetite zones form in greenish-yellow garnet skarn between white recrystallized limestone and granitic dikes.

### FALLS ZONE

F-1 Grab

Pyrite, pyrrhotite, and sphalerite in veins and pods in white recrystallized limestone.

### PORPHYRY ZONE

P-1 Grab

Pyrite and minor chalcopyrite in a quartz-feldspar porphyry dike crossing white, grey, and black recrystallized limestone.

PROJECT CBL-1994 SAMPLE DESCRIPTIONS

UPPER STOREY CREEK AND CEDAR LAKE ZONE

S-1 Grab

Garnet and serpentine skarn zone in light grey recrystallized limestone near a felsic intrusive dike with minor hematite, chalcopryrite and pyrite.

S-2a Grab

Foliated recrystallized white limestone, in a small fold above a serpentized skarn zone (S-2b), with sphalerite disseminations parallel to the foliation.

S-2b Grab

Serpentine and skarn in a folded, recrystallized light grey limestone.

S-3 3 metre chip

Coarse, green diopside skarn with disseminated sphalerite and pyrite in a major granite/limestone contact zone.

S-4 5 x 5 metre chip

Massive magnetite with disseminated chalcopryrite, pyrite, and sphalerite, adjoining sample S-3.

PROJECT CBL-1994 SAMPLE DESCRIPTIONS

WOLF ZONE

W-1 1 metre chip

Massive magnetite, pyrrhotite, sphalerite, chalcopyrite and pyrite in a bedding plane parallel replacement or manto in white recrystallized limestone.

W-2 Grab

Coarse yellow-brown sphalerite with quartz, feldspar, chlorite, and calcite in veins and pods at the contact of skarn and white recrystallized limestone.

W-3 Grab

Coarse yellow-brown sphalerite with quartz, feldspar, chlorite, pyrite, and jasper in veins and replacements at the contact of skarn and white recrystallized limestone.

W-4 Grab

Massive, coarse yellow-brown sphalerite with minor specular hematite, chlorite, quartz, and feldspar in replacements and veins in white recrystallized limestone.

W-5 Grab

Red jasper, hematite, and magnetite in white recrystallized limestone and felsite.

AA  
LL

## ASSAY CERTIFICATE

AA  
LL

James W. Laird PROJECT CBL/1994 File # 94-2816

Box 3512, Mission BC V2V 4L1

SAMPLE#	Cu %	Pb %	Zn %	Ag** oz/t	Au** oz/t
CBL-RCP	10.301	<.01	.62	11.01	.006
CBL-RZN	.263	<.01	20.80	.33	.002
CBL-RPR	1.441	.01	.27	1.61	.002
CBL-RPY	.253	.01	1.05	.30	.004
CBL-RBZ	1.385	<.01	.14	1.03	.006
RE CBL-RBZ	1.386	.01	.14	1.06	.007

1 GM SAMPLE LEACHED IN 75 ML AQUA - REGIA, DILUTE TO 250 ML, ANALYSIS BY ICP.  
 AG\*\* & AU\*\* BY FIRE ASSAY FROM 1 A.T. SAMPLE.  
 - SAMPLE TYPE: ROCK Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 23 1994 DATE REPORT MAILED: *Aug 31/94* SIGNED BY: *C. Leong* ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

AA  
LL

## GEOCHEM PRECISION METALS ANALYSIS

AA  
LL

James W. Laird PROJECT CBL/1994 File # 94-2816

Box 3512, Mission BC V2V 4L1

SAMPLE#	Pt** ppb	Pd** ppb	Rh** ppb
CBL-RCP	<3	<3	<5
CBL-RZN	5	5	8
CBL-RPR	<3	<3	<5
CBL-RPY	3	6	5
CBL-RBZ	<3	4	<5
RE CBL-RBZ	<3	5	<5

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.

- SAMPLE TYPE: ROCK

Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 23 1994

DATE REPORT MAILED:

Aug 31/94

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

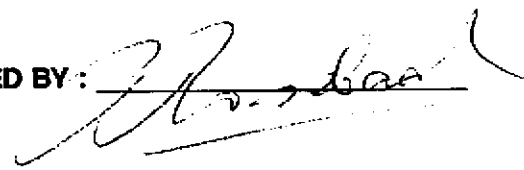
2225 Springer Ave., Burnaby,  
British Columbia, Can. V5B 3N1  
Ph:(604)299-6910 Fax:299-6252

To : TECK EXPLORATIONS LTD.  
# 350 272 VICTORIA STREET  
KAMLOOPS, B.C.

Project: CLB-94 J.W. Laird  
Type of Analysis: Assay

Certificate: 94292  
Invoice: 50370  
Date Entered: 95-01-04  
File Name: TEK94292  
Page No.: 1

PRE FIX	SAMPLE NAME	% Cu	% Zn
A1	F-1		12.50
A1	S-4	0.22	
A1	W-1		14.90
A1	W-2		13.80
A1	W-3		46.80
A1	W-4		33.40

CERTIFIED BY: 

# ROSSFUCHER LABORATORY LTD.

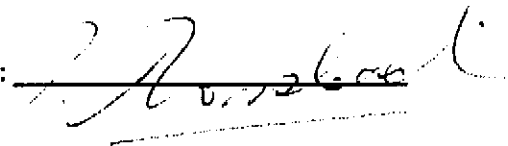
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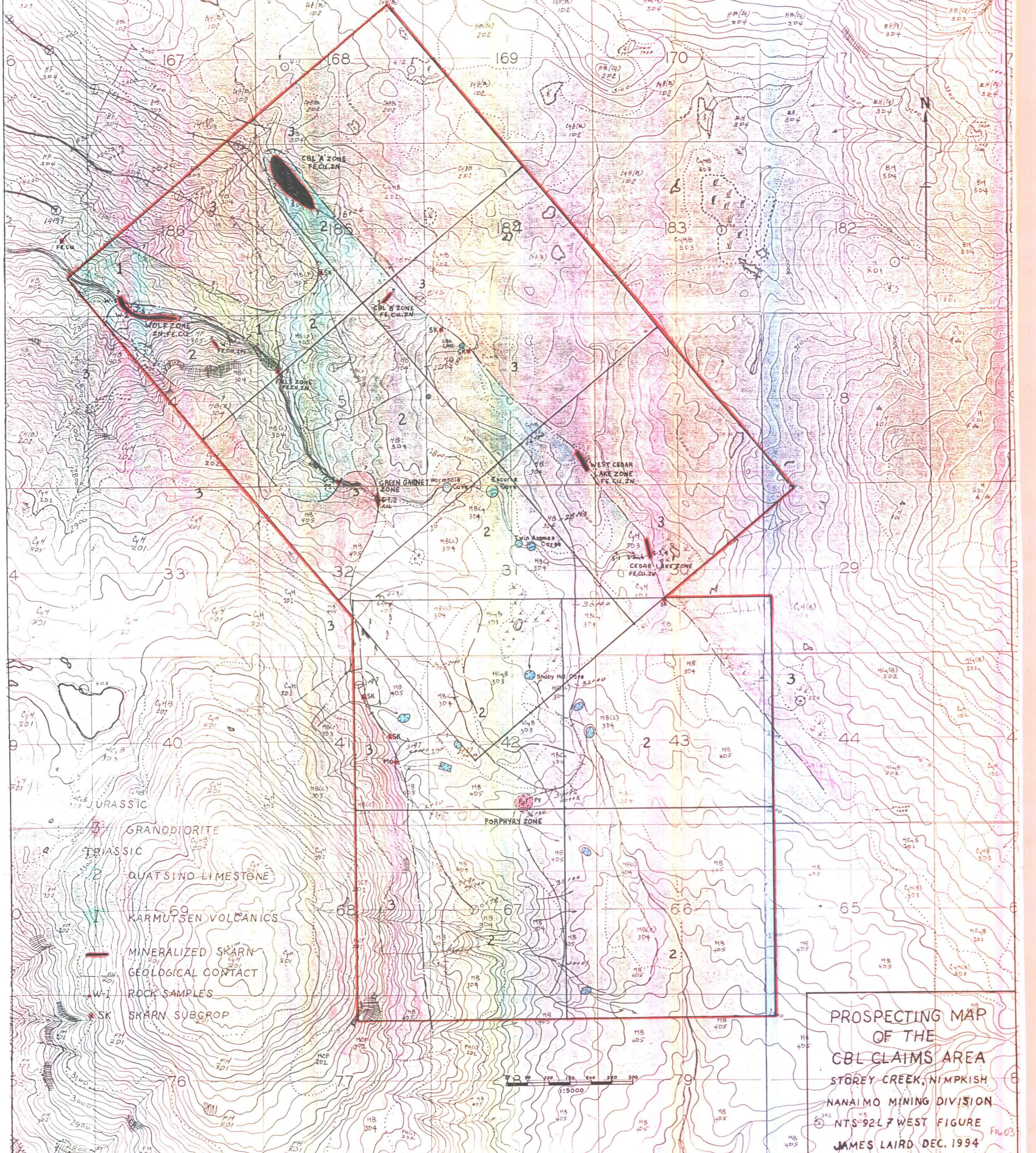
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Type of Analysis: ICP

Certificate: 94292  
Invoice: 50370  
Date Entered: 95-01-04  
File Name: TEK94292.I  
Page No.: 1

PRE FIX	SAMPLE NAME	MO	CU	PB	ZN	AG	NI	CO	MN	FE	AS	U	AU	HG	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	AL	NA	SI	W	BE	AU	AA
A1	F-1	5	2254	14	79625	1.8	1	279	1367	22.38	169	5	ND	7	6	393	9	16	1	0.21	0.01	3	5	0.07	7	0.01	0.03	0.03	0.02	6	1	20	
A1	G-1	2	48	30	665	0.7	26	15	560	6.55	19	5	ND	ND	292	5	6	1	8	4.14	0.05	5	81	0.83	1	0.05	1.11	0.09	0.04	3	1	20	
A1	G-2	1	803	1	846	0.8	15	1	813	1.47	11	5	ND	ND	1546	4	2	1	42	4.97	0.15	4	26	1.14	28	0.19	5.94	0.38	0.01	1	1	10	
A1	G-3	10	47	60	173	0.3	12	97	1248	25.43	58	5	ND	7	100	43	3	1	1	2.01	0.01	2	15	0.38	10	0.01	0.35	0.06	0.02	21	1	10	
A1	P-1	6	11	5	66	0.4	8	1	248	2.85	10	5	ND	ND	172	1	5	4	14	0.45	0.04	6	125	0.33	17	0.07	0.80	0.10	0.01	3	1	5	
A1	S-1	1	1853	1	74	3.0	2	1	1083	7.97	32	5	ND	ND	60	1	29	1	15	13.41	0.01	1	18	0.14	1	0.01	0.23	0.02	0.20	1	2	30	
A1	S-2A	1	33	1	16	0.3	3	1	255	0.54	15	5	ND	ND	583	1	1	1	1	21.54	0.01	1	1	5.81	1	0.01	0.08	0.02	0.01	1	2	5	
A1	S-2B	1	24	1	55	0.4	5	1	522	0.65	2	5	ND	ND	73	1	1	1	7	4.22	0.02	2	1	13.67	1	0.01	1.24	0.02	0.03	1	1	5	
A1	S-3	1	87	21	27066	1.0	3	23	6392	1.36	9	5	ND	ND	37	134	1	12	1	4.54	0.01	1	3	1.16	38	0.01	0.21	0.02	0.03	1	1	40	
A1	S-4	11	2063	66	285	2.5	13	143	2102	25.58	51	5	ND	10	7	2	32	15	7	0.31	0.01	2	31	0.38	18	0.01	0.24	0.05	0.02	1	1	30	
A1	W-1	7	4609	171	>10%	11.0	3	294	835	23.52	1760	5	ND	8	1	814	31	13	1	0.03	0.01	1	10	0.12	7	0.01	0.12	0.03	0.03	1	1	160	
A1	W-2	1	35	33	>10%	0.8	7	106	13150	3.46	33	5	ND	ND	218	616	15	18	1	15.11	0.01	1	1	0.93	1	0.01	1.25	0.03	0.04	1	2	180	
A1	W-3	5	98	36	>10%	1.0	8	357	8232	3.09	16	5	ND	ND	64	2124	119	19	1	4.35	0.01	1	1	1.14	1	0.01	1.40	0.02	0.05	1	1	5	
A1	W-4	1	31	34	>10%	1.0	9	249	6130	4.16	12	5	ND	ND	152	1521	66	21	1	6.95	0.03	1	1	0.88	1	0.01	1.18	0.02	0.07	1	1	20	
A1	W-5	1	45	32	3125	0.5	5	15	4129	10.44	15	5	ND	ND	319	31	1	5	1	15.54	0.01	1	10	0.28	1	0.01	0.31	0.02	0.19	1	2	10	

CERTIFIED BY: 



PROSPECTING MAP  
 OF THE  
 CBL CLAIMS AREA  
 STOREY CREEK, NIMPKISH  
 NANAIMO MINING DIVISION  
 NTS 92L7 WEST FIGURE  
 JAMES LAIRD DEC. 1994

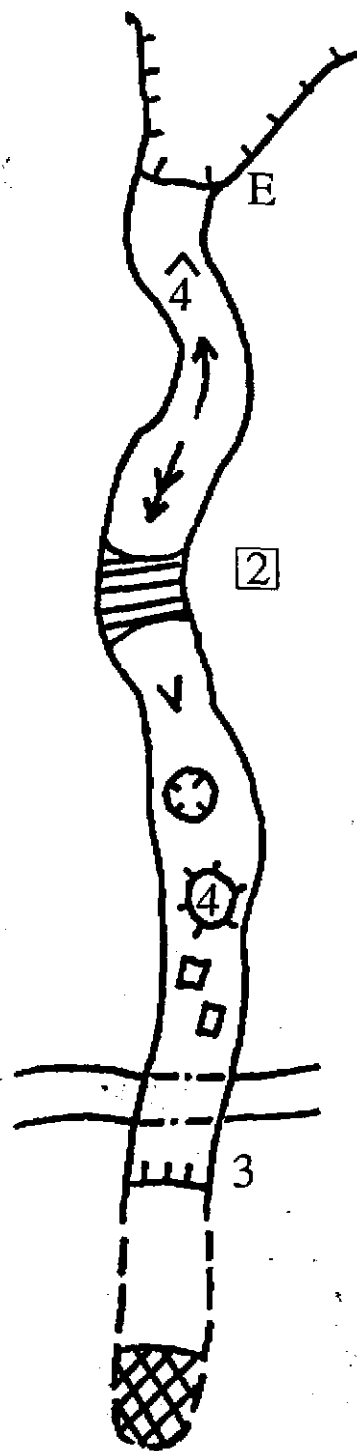
Fig 03

CAVES AND KARST TOPOGRAPHY  
OF THE UPPER STOREY CREEK AREA  
CBL CLAIMS, NIMPKISH, B.C.

(MAPS AND CAVE SURVEYS BY CANFOR LTD.)

# Legend for Cave Surveys

all measurements in metres



bluff

entrance

roof height

stream

air flow direction (changes seasonally - see survey date)

pool with water depth

slope, down in splayed direction

pit

roof aven (dome) with height

breakdown

underlying passage

drop, down in hatched direction, with depth

unsurveyed passage

sump (permanently flooded passage)

# TWIN AXEMAN CAVES

Storey Creek

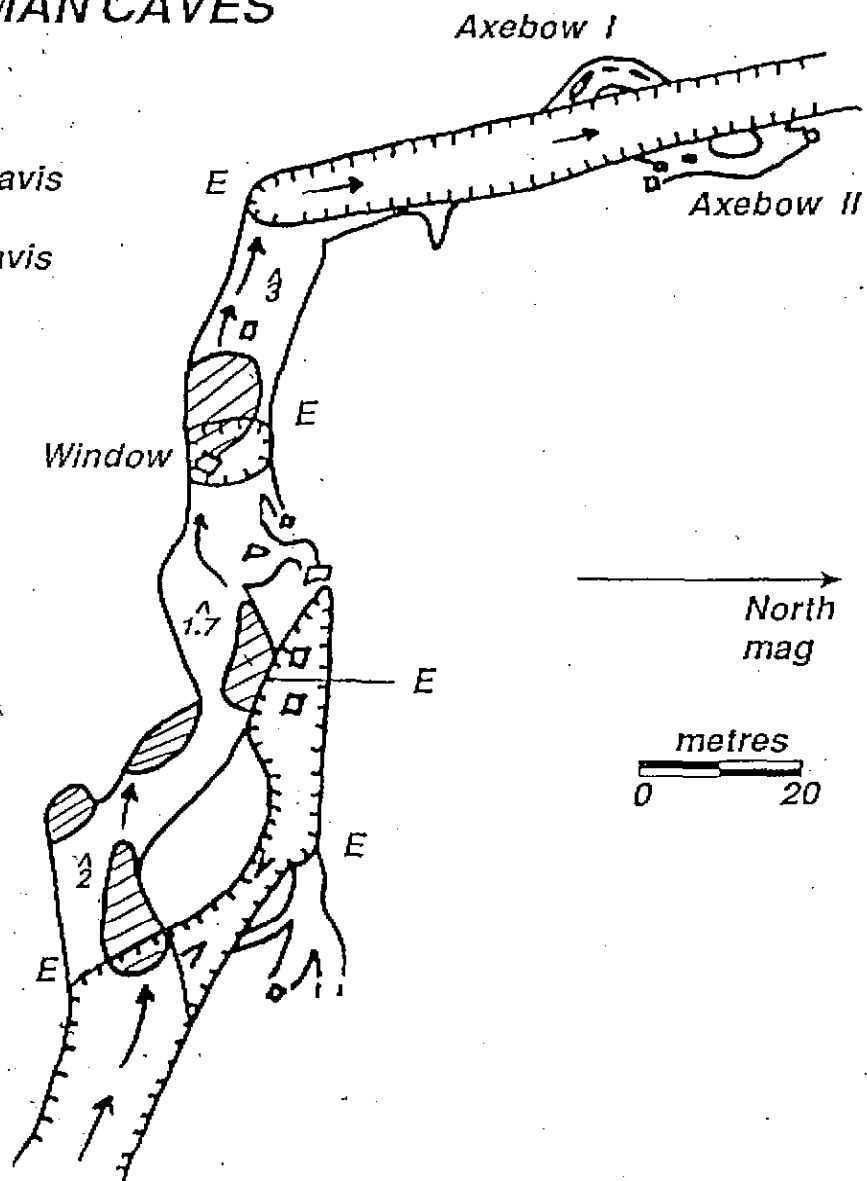
Length: 108 m

Survey: Martin Davis

Scott Macnab

Drawn: Martin Davis

December 1993

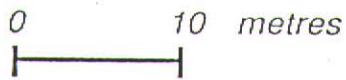
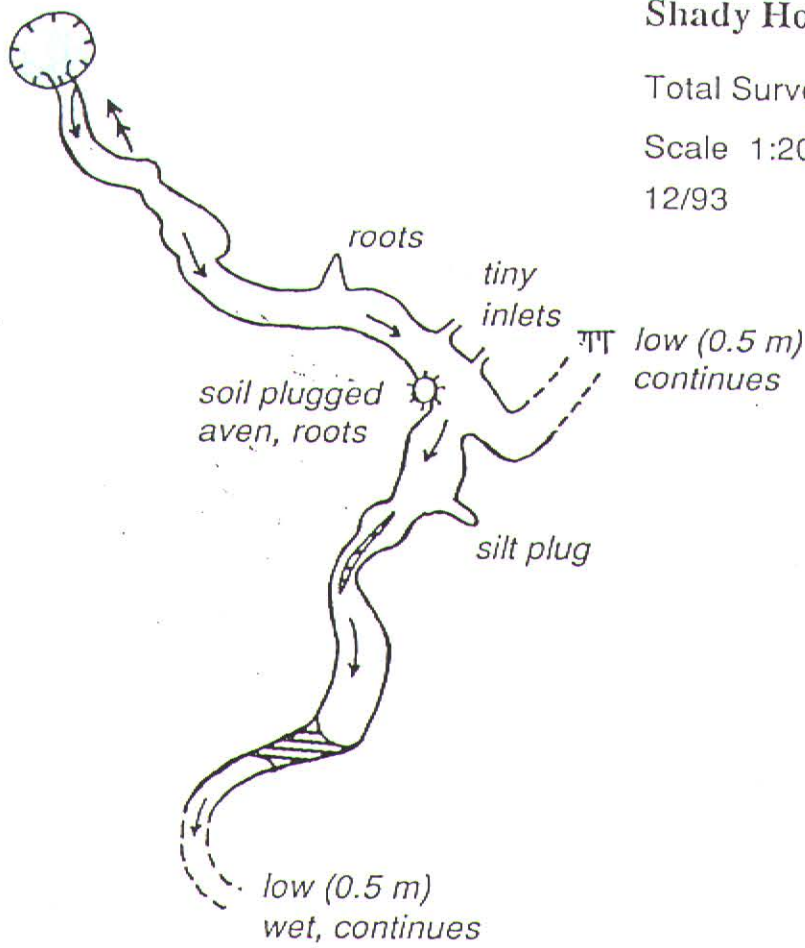


# Shady Hole Cave

Total Surveyed Length: 73.54 m

Scale 1:2000

12/93

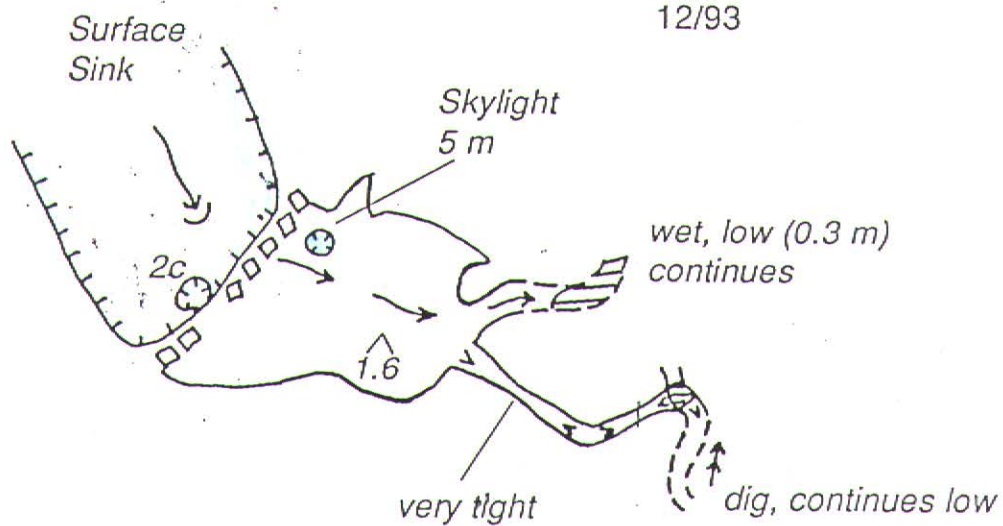


# Harvestman Cave (12A)

Total Surveyed Length: 33.65 m

Scale 1:2000

12/93







CBL CLAIMS, UPPER STOREY CREEK



OVER LOOKING WOLF ZONE





KARMUTSEN RANGE  
↓

CBL SKARN AREA  
→



CBL SKARN "A" ZONE



CBL SKARN "B" ZONE →



↑ GRANITE/LIMESTONE  
 CONTACT - NOTE  
 TREE GROWTH. → "A" ZONE



TWIN AXEMEN CAVES



TWIN AXE MEN CAVES



TWIN AXE MEN CAVES





↓ UPPER STOREY CREEK

SAMPLE SITES  
S-2a,b ↑  
S-1 →





CEDAR LAKE ZONE  
FE, ZN



SAMPLE SITES S-3, S-4



OLD CAMP NEAR CEDAR LAKE →



← CEDAR LAKE

WEST CEDAR LAKE ZONE



UPPER STOREY CREEK AREA ↗  
↘





↓ J. LAIRD

↑ ↑  
UPPER STOREY CREEK CAMP

GREEN GARNET ZONE



SAMPLE SITES G-1, G-2



↑ STOREY CREEK, Below GREEN GARNET ZONE ↓



↑ SKARN, NEAR SAMPLE SITE G-3 ↓



STOREY CREEK, FALLS ZONE



STOREY CREEK , FALLS ZONE



↑ SAMPLE SITE F-1 →  
ZN, CU, FE





STORLEY CREEK, FALLS ZONE

WILE ZONE MANTO  
Zn, Cu, Fe



SAMPLE SITE W-1



STONEY CREEK - WOLF ZONE





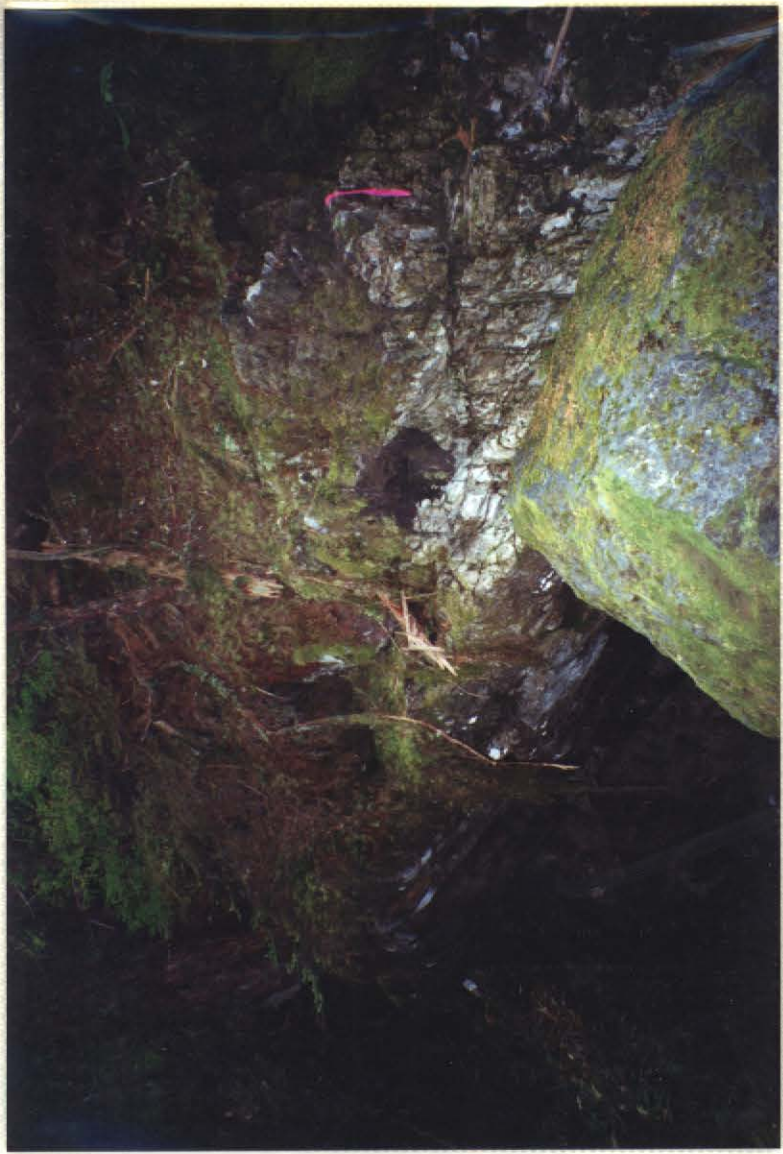
WOLF ZONE, SAMPLE SITE W-2





WOLF-ZONE, SAMPLE SITE W-3





WOLF ZONE, SAMPLE SITE W-4



LOOKING SOUTH FROM NOOMAS PLATEAU



W, SW, FROM NOOMAS PLATEAU





LOOKING SOUTH TO MT. HOY



HALFWAY ISLANDS, NIMPRISH LAKE





TECK VISIT , NOVEMBER.





TECK VISIT, NOVEMBER











