NTS 49°05.5'N Long. 124°34.5'W

REPORT ON RECONNAISSANCE ON THE

TAN CLAIM

in
Victoria and Alberni Mining Divisions,
Nitinat River area, Vancouver Island, B.C.

on behalf of

Operator: LODE RESOURCE CORPORATION Vancouver, B.C.

Owner: Clive Ashworth West Vancouver, B.C.

> GEOLOGICAL BRANCH ASSESSMENT REPORT

14,431

by
Hugo Laanela, F.G.A.C.
ASHWORTH EXPLORATIONS LIMITED

FILMED

during October 3-4, 1985

SUMMARY

The Tan claim, at the headwaters of Nitinat River, SE of Port Alberni on Vancouver Island, was staked in 1980 to cover an area of Total Heavy Metal anomalies in stream sediments, detected in the 1960's by Gunnex Limited. The claim was optioned by Lode Resource Corporation in 1983 to protect the east side of Lode's holdings in the Mount McQuillan area where the company has been exploring and drilling several Au-Ag-(Cu-Pb) bearing quartz-carbonate veins since 1980.

The Tan claim, and the adjoining Lode Resources holdings south of Mount McQuillan are largely underlain by Paleozoic Sicker Group volcanics and sediments. Of particular interest on the Tan claim is the presence of Myra Formation which elsewhere on the island hosts the Westmin's Buttle Lake area and Mount Sicker area massive sulphide deposits as well as gold and silver. Hence considerable exploration activity has taken place recently in the areas of Sicker rocks. In the Mount McQuillan area several small mines came into production following the initial China Creek gold rush in the late 1800's; they are now dormant, but new exploration activity has started again here lately.

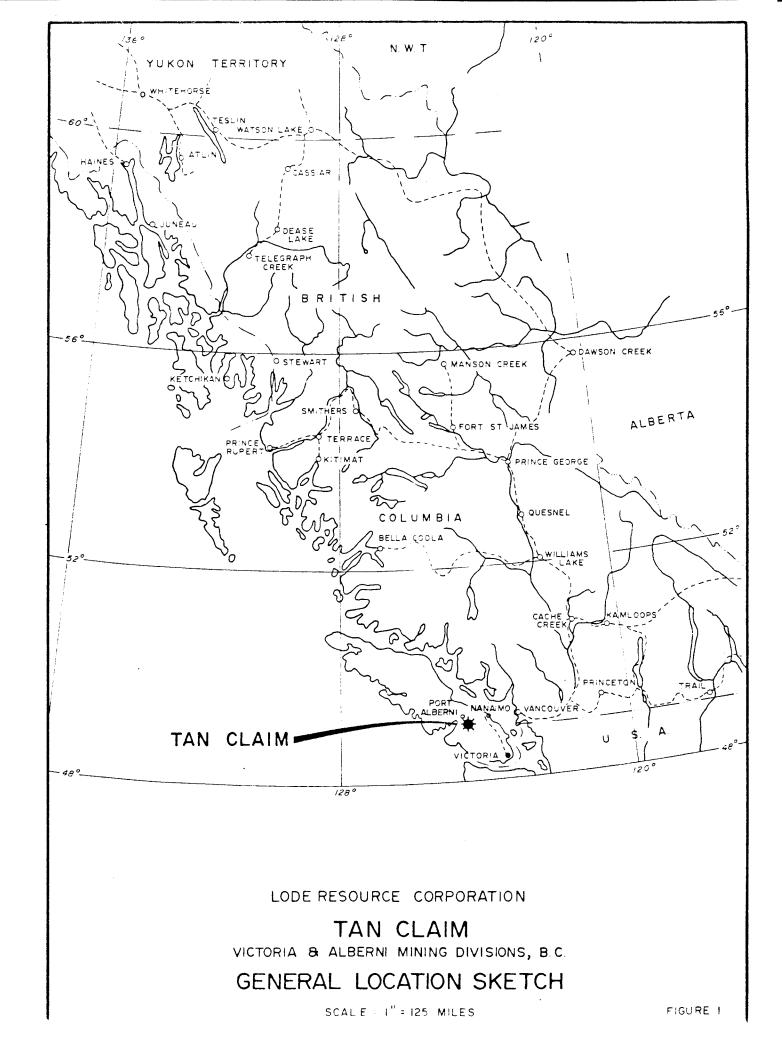
Although no mineral showings have yet been discovered on the Tan claim, a number of interesting Au-Ag and base metal anomalies in stream sediments and soil samples have been detected here during a 1984 geochemical survey and the present survey, confirming the anomalies detected by Gunnex in the 1960's. A further program of geochemical sampling, mapping and prospecting is recommended to complete the reconnaissance surveys and to test the anomalies located so far by more detailed work.

CONTENTS

	<u>Page</u>
1.	INTRODUCTION
2.	PROPERTY
3.	LOCATION, ACCESS AND TERRAIN
4.	PREVIOUS WORK
5.	GEOLOGY
6.	FALL 1985 PROGRAM
7.	RESULTS
	7.1 Geological Reconnaissance and Prospecting 8
	7.2 Geochemistry 8
	7.2.1 Copper
8.	CONCLUSIONS
9.	RECOMMENDATIONS AND PROPOSED BUDGET
	CERTIFICATE
	REFERENCES
	APPENDICES
	APPENDIX I LIST OF PERSONNEL & EXPENDITURES
	APPENDIX II DISTRIBUTION GRAPHS FOR Cu, Pb, Zn, Ag & Au IN STREAM SEDIMENTS AND SOILS
	APPENDIX III GEOCHEMICAL LAB RESULTS (BONDAR-CLEGG & CO.LTD.)

MAPS IN TEXT

FIGURE	1	GENERAL LOCATION MAP, 1":125 miles
FIGURE	2	CLAIM SKETCH, 1:50,000
FIGURE	3	REGIONAL GEOLOGY (VANCOUVER ISLAND), 1":30 miles
		WARC IN DOCKER
		MAPS IN POCKET
FIGURE	4	GEOLOGY, 1:10,000
FIGURE	5	GEOCHEMICAL SURVEY PLAN, 1:10,000
FIGURE	6	Cu, Pb AND Zn GEOCHEMISTRY, 1:10,000
FIGURE	7	SILVER AND GOLD GEOCHEMISTRY, 1:10,000



1. INTRODUCTION

Lode Resource Corporation, #1020-475 Howe Street, Vancouver, B.C., holds option on the Tan claim in the Mount McQuillan area, southeast of Port Alberni, Vancouver Island, B.C. The claim was staked in 1980 to cover an area of anomalous Total Heavy Metals in stream sediments discovered by Gunnex Limited in the 1960's during their regional exploration program. Lode Resource Corporation also owns a group of other claims (Mar, Jan, Nat, Remy, Raft 1 and Raft 2) on the adjoining ground to the west and south of the Tan claim. These claims cover known gold-silver occurrences along the slopes of South Ridge of Mount McQuillan, and in the saddle (col) near Summit Lake west of the NW corner of the Tan claim.

This report describes the results of two days of field work in early October, 1985, on the Tan claim, carried out by Ashworth Explorations Limited at the request of Mr. T.F. Schorn, President of Lode Resource Corporation. The work consisted of reconnaissance type geochemical sampling, prospecting and limited geological mapping. The geochemical sampling was done to augment a stream sediment sampling program carried out by Sawyer Consultants Inc. in early 1984 (House, 1984), mainly in the areas not previously sampled.

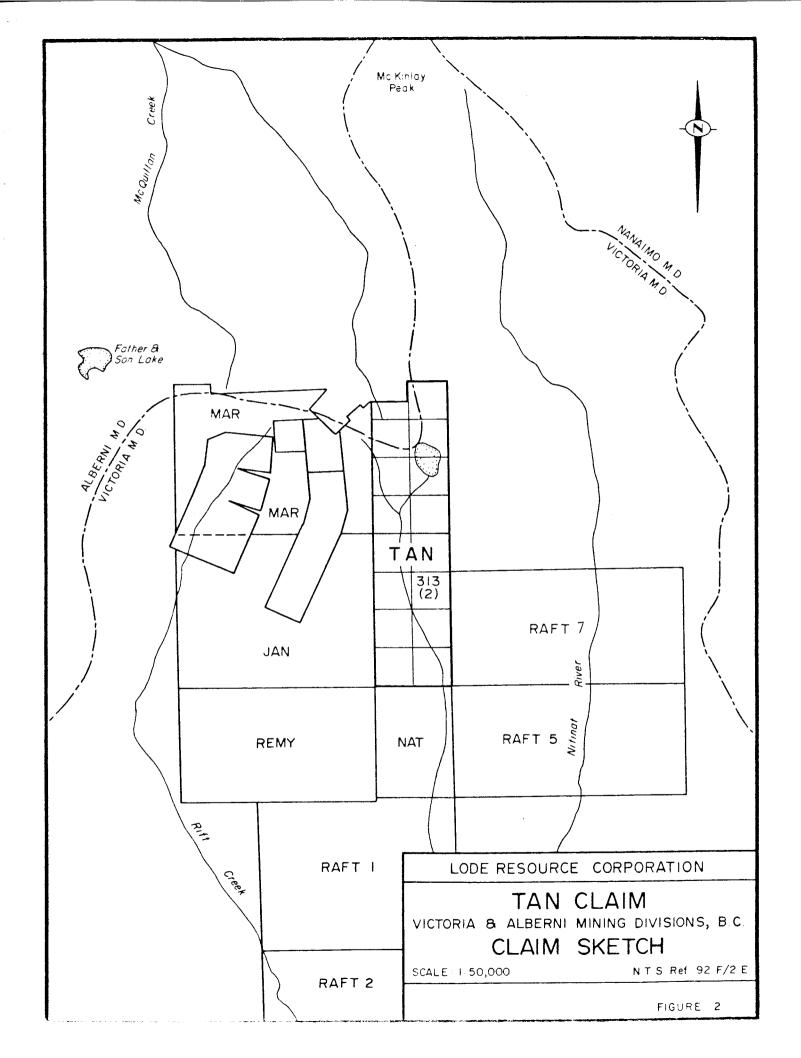
2. PROPERTY

The Tan claim (Record Number 313) consists of 16 units and is owned by Mr. Clive Ashworth of West Vancouver, B.C., who staked it in February, 1980. It was optioned by Lode Resource Corporation (then Jan Resources Ltd.) in 1983 to protect the east side of Lode's Jan-Mar-Remy claim blocks. Its expiry date is February 25, 1986.

3. LOCATION, ACCESS AND TERRAIN

The Tan claim is located in the headwaters of the Middle Fork of Nitinat river, about 23 km SE of Port Alberni, Vancouver Island, B.C. It is mainly in the Victoria Mining Division, with the NW corner in the Alberni Mining Division. Its center is at latitude 49°05.5'N, longitude 124°04.5'W, on NTS Map Sheet 92F/2/SE.

The best road access is from the south, by a main logging road extending north from Cowichan Lake area up the Nitinat River; a branch road extends two thirds of the way up the claim along the east side of the Middle Fork, then switch-backing toward the high ridge to the east.



However, the northern third of the claim area is not easily accessible, requiring a tough hike to Black Lake, north and uphill from the end of the road. Alternately, the northern-most part of the claim area could be reached from the end of the road from the China Creek headwaters, to the north.

The claims are located on both sides of a steep valley formed by the headwaters of the Middle Fork. This valley is steeper on the west side, with many gullies and streams draining the heavily timbered east slope of McQuillan Ridge. The main valley steepens toward the north until it reaches the saddle at Summit Lake. The larger Black Lake, some $300\text{m} \times 450\text{m}$ in size, is situated near the center of the northern part of the claim. Topographic relief ranges from less than 400 m at the south end of the claim to about 1,300 m at the north end, a total of some 900 m over a N-S distance of 4 km. The relief is steeper in E-W direction, across the valley, and is often precipitous.

Most of the southern part and the slopes east of the river are now logged-off, some recently; the resulting logging slash makes traversing difficult. Trees (Douglas Fir, Hemlock, Cedar) become stunted at higher elevations around Black Lake, and there are small alpine meadows and ponds in the saddle near Summit Lake.

PREVIOUS WORK

Although considerable exploration and mining activity has taken place over the years in the neighbouring area to the west, around Mount McQuillan (about 2 km NW of Black Lake), the author has no knowledge of mineral showings found on the Tan claim. The closest showings to the claim occur at Summit Lake (e.g., old "Lakeview prospect which Lode explored and drilled a few years ago). The chance that some of close to the NW corner of the Tan claim. the Au-Ag-Cu-Pb bearing, N-S striking quartz-carbonate veins may extend into the Tan claim has not been explored. Another showing, described by Stevenson (1945), is the old "B&K" which has not been definitely located or identified since. It is reported to occur southerly of Summit Lake, near the west boundary of the Tan claim. The auriferous Middle Vein, and the smaller and less mineralized Angus Vein, examined and sampled by Lode in late 1983, are some 600 m and 350 m from the Tan boundary, respectively. The High Grade Vein, situated about 1 km west from the Tan boundary, was explored and drilled by Lode in 1983 with encouraging results.

The Au-Ag prospects in the Mount Spencer area are "Golden Eagle", "Black Panther", "Black Lion" and "Havilah" (see Stevenson, 1945), all discovered during the China Creek gold rush. They are covered by old Crown Grants. The area is part of the E & N Railway Land Grant.

During 1964-1966 Gunnex Limited (Gunnar Mining Ltd.) in a joint venture with Canadian Pacific Oil & Gas (C.P.R.) who held the base metal mineral rights on the Land Grant, carried out a reconnaissance exploration survey on the above Land Grant area between the 49°00' latitudes from Nanaimo to Alberni and 49°20' Inlet. The work consisted of geological mapping of the Land Grant, examination of various showings, geochemical regional surveys and prospecting. Both Mr. T.F. Schorn and the author of this report were involved in this work, being then employed by Gunnex Limited. Stream sediment sampling results at that time revealed that the streams draining the main ridge south of Mount McQuillan, covered partly by the Tan claim now (and other Lode's claims to the west) contained anomalous Total Heavy Metal values (no analysis was made for gold or silver). was no follow-up of these anomalies and no further work was done. The author, while carrying out a regional mapping program on the Land Grant in the 1960's also visited the area of the present Tan claim and various old mineral showings, including the Summit Lake area around Mount McOuillan.

Lode Resource Corporation (formerly Jan Resources Limited) has carried out exploration work on the adjoining Jan, Mar and Remy claims to the west since 1979, including diamond drilling at Summit Lake and the High Grade Vein where gold and silver has been found in quartz-carbonate veins. In 1983 Lode Resources also carried out a reconnaissance type geochemical-mapping-prospecting survey on the Raft 1 and 2 claims, just south of the Tan claim. This work resulted in roughly outlining several geochemical anomalies, the largest of which includes a massive pyrite bearing outcrop and some VLF-EM anomalies.

Both ground and helicopter-borne geophysical surveys in the High Grade Vein area on the Mar claim to the west during 1981 and 1983 revealed a number of interesting magnetic anomalies and EM conductors; these have not been followed-up.

First follow-up sampling of the THM anomalies located in the area of the present Tan claim by Gunnex in the 1960's was carried out by Sawyer Consultants Inc. in early 1984 (House, 1984). It confirmed the anomalous THM values in some of the creeks sampled by Gunnex by returning analyses above background for copper, zinc and gold. Most of the samples came from tributaries draining the eastern steep slope of the high ridge south of Mount McQuillan.

The present survey by Ashworth Explorations Limited was carried out to fill in the remaining unsampled area, mainly to the east of the river, and north toward Black Lake.

5. GEOLOGY

The geology of the Tan claim has not been mapped in any detail so far, hence the map enclosed (Figure 4) is based on rather limited information gathered by the author in the 1960's during a regional survey of the Land Grant. Some information was added during the 1983 work program on the other adjoining claims, and while carrying out the geochemical sampling recently. Most of the Tan claim is the Nitinat Formation (Sicker Group) underlain by volcanics, particularly east of the river. Myra Formation rocks, including cherty beds, occur at Summit Lake, and from there toward Black Lake, striking north to south. This belt of Myra rocks (Sicker Group) extends southward on the Tan claim, along the West Fork where it apparently narrows and is poorly exposed. To the west of the river the rocks are assigned to Nitinat Formation also, in a fault contact with Myra rocks. Some diorite bodies and dykes (Island Intrusions), mapped in the 1960's occur in or near the SW corner of the Tan claim, with Vancouver Group (Karmutsen) volcanics occurring south of these.

Regionally, the Mount McQuillan-Nitinat River area is located in one of the three main geologically most favourable and economically most promising areas on Vancouver Island. These areas consist uplifted Middle-Paleozoic volcanic-arc centers, namely the Buttle Lake Uplift (which contains the Westmin's Buttle Lake volcanogenic massive sulphide deposits) to the north, the smaller Nanoose Uplift north of Nanaimo, and the Cowichan-Horne Lake Uplift in the south part of the Island. The latter one is the largest, being some 80 miles long and 10-15 miles wide and contains the past producers in Mount Sicker and Mount McQuillan-China Creek areas. All three are underlain by Sicker Group volcanics and associated sedimentary rocks, mostly of Devonian age (Nitinat, Myra and Buttle formations).

These Sicker Group rocks, consisting of entire Paleozoic sequence on the island, appear to be remnant of a Middle-Paleozoic island arc formed on the oceanic crust or possibly along the continental margin. They become buried under the Mesozoic cover, except where they are now exposed in the above three major (and some smaller) uplift areas or arches. These structural culminations, containing the host rocks of exhalite type polymetallic deposits, are at present of prime interest in mining exploration on the island. While the massive sulphides are close to or at the volcanic vents (e.g., at Buttle Lake), the precious metal bearing quartz veins, such as those in Mount McQuillan-China Creek area, appear to be more distal nd originating over a longer time span, being related to various intrusive events, including the Island and the later Catface-Sooke Intrusions.

6. REGIONAL GEOLOGY (from Muller, GSC, 1980) Geological sketch map of Vancouver Island. LEGEND MIDDLE TERTIARY CARMANAH GROUP EARLY TO MIDDLE CATFACE INTRUSIONS TERTIARY METCHOSIN VOLCANICS EARLY TERTIARY LATE CRETACEOUS NANAIMO GROUP QUEEN CHARLOTTE GROUP LATE JURASSIC KYUQUOT GROUP TO 500 LEECH RIVER FORMATION PACIFIC RIM COMPLEX EARLY CRETACEOUS 2 EARLY AND (?) MIDDLE ISLAND INTRUSIONS JURASSIC EARLY JURASSIC BONANZA GROUP VANCOUVER GROUP PARSON BAY FORMATION QUATSING FORMATION LATE AND (?) MIDDLE TRIASSIC KARMUTSEN FORMATION

SICKER GROUP

TAN CLAIM

PALEOZOIC

METAMORPHIC COMPLEXES

JURASSIC AND OLDER

① ALERT BAY - CAPE SCOTT, 921-102 I (G.S.C. PAPER 74-8)

- 2 BUTE INLET, 92 K (IN PREPARATION), O.P. MAP 345
- 3 NOOTKA SOUND, 92 E (IN PREPARATION)
- (4) ALBERNI 92 F (G.S.C. PAPER 68-50)
- . (3) VICTORIA, 92 B. C (FIELD WORK IN PROGRESS: SEE G.S.C. PAPERS 75-1A, p. 21-26: 76-1A, p. 107-111, 77-1A, p. 287-294.)
 - A BUTTLE LAKE UPLIFT
 - B COWICHAN-HORNE LAKE UPLIFT
 - C NANOOSE UPLIFT

MILES 0 20 40 The Cowichan-Horne Lake Uplift area, which includes Mount Sicker, has become the focus of much exploration and mining activity by a number of major companies during the last decade.

The Mount McQuillan-China Creek area deposits have been described in some detail by Stevenson (1945), by Gunnex Limited company reports (1965), and by Sawyer (progress and summary reports for Jan Resources Ltd./Lode Resource Corporation, 1979 to 1984), and need no further repeating here. The geology of the Sicker Group, including its mineral potential, has been described by Muller (1980). The geology and mineral potential on the Island, with particular reference to the Sicker Group rocks and the Mount McQuillan area were also reviewed and summarized in a report to Lode Resource Corporation by the author in May, 1984.

6. FALL 1985 PROGRAM

During October 3-4, 1985 a three man crew of Ashworth Explorations Limited carried out a reconnaissance type stream and soil sampling survey, along with limited mapping and prospecting on the Tan A stream sediment sampling program by Sawyer Consultants Inc., in February, 1984, had already covered the tributaries and the main stream of the West Fork in the south part of the claim. present survey attempted to cover the remaining area to the north, as well as the east slope of the valley, by soil and stream sediment Sixteen sediment samples and 50 soil samples were sampling. collected, also two rock samples for assay. Soil samples were taken mostly along the logging roads, with 7 samples also taken along the west shore of Black Lake. Samples were collected in Kraft-paper bags and numbered. The samples were then shipped to Bondar-Clegg geochemical laboratory in North Vancouver where they were dried and sieved to -80 mesh, then analysed by hot hydrochloric-nitric acid extraction and atomic absorption method for Cu, Pb, Zn and Ag. assay and atomic absorption method was used for analysis of Au. The results were plotted on 1:10,000 scale geochemical maps. estimate the "threshold" and "anomaly" limits the results for each metal and sampling medium were plotted on histogram-graphs from which these parameters were estimated.

Limited prospecting and geological reconnaissance was carried out while doing the sampling traverses; time did not permit any systematic mapping or prospecting. Use was made also of previously gathered geological information of the area to prepare the geology map.

The work was carried out from a motel at Lake Cowichan, using a 4-W-D for transport.

7. RESULTS

7.1 Geological Reconnaissance and Prospecting

The following description is from field notes by Mr. Peter Leriche, field geologist, October 3-4, 1985:

"The Tan claim is underlain by a monotonous package of intermediate to basic volcanic rocks. The sequence ranges from agglomeratic tuffs to porphyry flows. Average composition is andesitic, but ranges from basaltic to dacitic.

The southern part of the claim is all andesitic. Interbedded augite porphyry flows (occur) with lapilli tuffs; there appears to be nothing of interest here.

The northern part of the claim is of more interest. Once again the rocks consist of intermediate flows and tuffs. Faults tend to run at 120° to 160°. A small rusty zone with quartz-carbonate stringers was located at the 900 metre elevation on the creek going to Summit Lake. (Rock sample TN-85-101 taken here assayed 2.1 ppm Ag and 150 ppb Au.) This zone may not be on the Tan claim.

Another rock sample (TN-85-102) was taken from a small quartz vein within basaltic rocks in the east central part of the claim, on the road. It assayed 190 ppb Au and 0.9 ppm Ag.

Sample coverage (silts and soils) is good. If none of the lab results are encouraging, the only thing to recommend would be more prospecting on the very northern part of the claim. Time did not permit to take a look up there."

7.2 Geochemistry

From the distribution graphs (see Appendix II) the following lower limits of anomalous values were estimated:

Sampling medium:	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
Soil samples	130	8	100	0.4	20
Sediment samples	160	25	200	0.4	30

The previously obtained results by Sawyer's (House, 1984) have been included both in the graphs and on the geochemical maps for a more complete, up-to-date picture. On the maps the above listed and higher anomalous values are underlined.

Any values that are at least double the above limiting values should be considered as "definitely anomalous", and should be confirmed by further sampling.

Following is a discussion of anomalies caused by individual metals in sediment and soil samples:

7.2.1 Copper

Most of the anomalous values for copper (more than 160 ppm in sediments and 130 ppm in soils) are in the streams draining the west side of the valley, particularly in the southern part of the Tan claim. Several soil samples here are also anomalous. At least 6 of these sediment samples are outside the claim's west boundary, pointing to a source somewhere uphill on Jan claim. Samples from the east side of the valley and from the headwaters are, with a few exceptions, non-anomalous in copper.

7.2.2 Lead

There are only a few weakly to moderately anomalous lead values on the Tan claim. The highest anomalous values occur just west of the claim boundary, below Summit Lake, and apparently reflect the galena found in veins there (along with silver and gold). Several anomalous Pb values also occur in the creek running south, out of Black Lake. One of these sediment samples (#TN-85-12) appears to be quite significant since it contains also 2.6 ppm Ag (=0.08 oz/ton Ag) and 750 ppb Au (=0.02 oz/ton Au), both of which are the highest values for these respective metals here. (See also 7.2.4 and 7.2.5 below.) The anomalous values for lead were estimated to be above 25 ppm for sediments and 8 ppm for soils.

7.2.3 <u>Zinc</u>

The anomalous values for zinc were estimated to be above 200 ppm for sediments and 100 ppm for soils. Although the range of zinc values has quite a wide "spread", the actual number of anomalous values is small, and none of these appear to be overly significant. Most of the zinc anomalies occur in the tributaries draining the west side of the valley - similar to copper anomalies with which Zn has some correlation (see 7.2.1, above).

7.3.4 Silver

Both in soils and sediments the silver values above and including 0.4 ppm Ag could be considered anomalous. The "background" value is "less than 0.2 ppm Ag", i.e., it is below the laboratory detection limit. Most of the anomalous values are within the low range and few in number, particularly in soil samples. In stream samples a couple of more significant silver anomalies occur just west of the claim boundary, south of Summit Lake, along with some corresponding high lead and gold values (see also 7.2.2, above). The highest silver value of 2.6 ppm along with a high Au value (see below) and anomalous lead value occurs in the stream just below Black Lake (see 7.2.2).

7.2.5 Gold

The "background" value for gold, both in sediments and soils, appears to be in the "less than 5 ppb Au" range (i.e. below the analytical detection limit of the lab). However, the distribution graphs (histograms, see Appendix show some interesting features, particularly In both sample media (sediments and stream samples. soils) there appears to be a secondary "peak", which may the either indicate presence of two separate "backgrounds", or else a larger "regional" background population superimposed by a secondary or "local" and If so, this may reflect possibly anomalous population. favourable for presence of zones more mineralization. Until more samples can be collected and the lab values better statistically analysed, as well as until the geology is better mapped, the above remains a speculation. Hence, for the time being, the values above 30 ppb Au in sediments and 20 ppb Au in soils are considered to be anomalous.

Most of the anomalous sediment samples came from the headwaters of the river in the north half of the claim, near or outside of the west boundary, along with some corresponding anomalous lead and silver values (see 7.2.2 and 7.2.4, above). The highest gold value, 760 ppb Au (=0.02 oz/ton Au), along with the highest silver value (and anomalous lead) came from the creek just south of Black Lake. This location should be checked by further sampling and prospecting.

Two samples near the center of the claim (a 50 ppb Au soil and a 135 ppb Au sediment), east of the river, were "followed-up" by soil sampling two logging roads up-hill from these; this failed to pick up the anomaly previously indicated. Probably further check-sampling is needed here.

Several soil samples from the south end of the claim, mostly along a logging road west of the river, were anomalous in gold (along with some anomalous copper values in the area).

Another isolated high Au value of 260 ppb (Sawyer's, 1984) occurs in the creek just inside the west boundary of the south half of the claim. High copper values occur also in several neighbouring streams (see 7.2.1, above); these indicate a source west of the claim.

8. CONCLUSIONS

- 1. A north-south trending belt of Myra Formation rocks (Sicker Group), well exposed east of Summit Lake and north of the claim, extends southward on the claim where it narrows and becomes hidden under the overburden. This formation is considered to be favourable host rock for Buttle Lake and Mount Sicker type volcanogenic massive sulphide mineralization, as well as for gold and silver.
- 2. Although no mineralized occurrences have so far been found on the Tan claim, the adjoining claims to the west contain several Au-Ag(-Cu-Pb) bearing veins, with the closest being at Summit Lake.
- 3. Several geochemical anomalies were located on the claim. The most interesting ones are:
 - a sediment sample containing high Au and Ag in the creek just south of Black Lake;
 - several soil samples along logging roads at the south end of the claim, containing low to moderately anomalous values of gold, with some anomalous copper and slightly anomalous silver.
 - moderate copper anomalies and a high gold value occur in or near the SW quadrant of the claim, in the streams draining the east slope of McQuillan ridge; the source area appears to be outside and west of the Tan claim;
 - a main headwaters tributary running southward from Summit Lake and located mostly west of the Tan claim is anomalous in silver, gold and lead. The source areas here may be the Middle Vein, as well as the High Grade Vein, and Summit Lake area, all west of the Tan claim.
 - a previous anomaly at the center of the claim, west of the river, consisting of sediment and a soil sample

(Sawyer's, 1984) could not be confirmed by additional sampling of the roads above it. Possibly further checking is needed.

- 4. The sampling coverage of the claim area is not complete, i.e. more reconnaissance sampling (prospecting) is needed in the northern area around Black Lake, along the ridge to the east, and in the SW corner.
- 5. The claim also needs to be geologically mapped in better detail.
- 6. Most of the work here, including follow-up, could be done in conjunction with the work on adjoining claims. No detail grid-work should be considered until reconnaissance work is completed (see 4 and 5 above) over the claim area.

9. RECOMMENDATIONS AND PROPOSED BUDGET

- In general, there are several anomalous areas, some of them indicated by a single sample or a few samples that should be confirmed by (a) repeat sampling, and (b) taking a few additional samples close to the anomaly.
- 2. Also, the gaps in sampling coverage should be filled-in by additional reconnaissance work. It is estimated that about 20-30 sediment samples and 60-80 soil samples (taken at 100 m intervals from creeks and along contour lines) would adequately cover the reconnaissance phase (Phase I) of the sampling program.
- 3. In conjunction with above enough geological information should be gathered to permit the mapping of different rock types and locating the geological boundaries. With the aid of airphotos (blown up to same scale as base map, e.g., 1:10,000) other features, such as faults, could also be mapped.

It is estimated that the above program could be completed by a 3-4 man crew, including a field geologist, within a week, or in 4 or 5 days if a helicopter is used to work at the north end of the claim, i.e., the crew could be dropped off in the morning near Summit Lake, from where they can work their way back to the vehicle on the road below.

The following budget to complete the above Phase I Program is proposed:

PERSONNEL

Consulting, supervision and reporting	
2 days in field and 4 days office (6 x \$375)	\$ 2,250
Field geologist (5 days x \$275)	1,375
Two assistants (5 days x 2 x \$180)	1,800
Total fees	\$ 5,425
DISBURSEMENTS	
4-W-D rental (7 days x \$90) Room and Board (20 man days x \$50) Helicopter (estimate 4 days x 2 hrs x \$425/hr) Typing, drafting, maps (estimated) Lab Analysis (say 100 samples x \$14)	\$ 630 1,000 3,400 1,000 1,400
Total fees and disbursements	\$12,855
Miscellaneous and contingency, 15% of above	1,930
TOTAL BUDGET	\$14,785
SAY	\$15,000

Respectfully submitted by ASHWORTH EXPLORATIONS LIMITED

Hugo Laanela, F.G.A.C.

October 24, 1985 Nanaimo, B.C. H. LAMINELA SO

(Seal)

CERTIFICATE

I, HUGO LAANELA, of 3657 Ross Road, Nanaimo, British Columbia, do hereby declare that:

- 1. I am a geologist, graduate of the University of British Columbia, Vancouver, B.C., in 1961 with a B.A. degree in Geology.
- 2. I am a Fellow of The Geological Association of Canada, and a full member of The Association of Exploration Geochemists, The Canadian Institute of Mining and Metallurgy, and The Australasian Institute of Mining and Metallurgy.
- 3. I have practised my profession as a mining exploration geologist from 1961 to 1966 and 1973 to present across Canada, and during 1966 to 1972 as a senior/regional geologist in Australia.
- 4. During 1964-1966 I carried out regional geological mapping and numerous property evaluations on Vancouver Island, including the project area discussed in this report.
- 5. The information, opinions and recommendations presented in this report are based on field work carried out under my direction in 1985 as well as my own field work in the area in 1983 and 1964-1966.
- I became a shareholder in Lode Resource Corporation in June, 1984.

DATED at Nanaimo, British Columbia, this day of October, 1985.

Hugo Laanela, F.G.A.C.

(Seal)

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APPENDIX I

LIST OF PERSONNEL AND EXPENDITURES

APPENDIX I

LIST OF PERSONNEL AND EXPENDITURES

October, 1985

Field Crew:

Peter Leriche, field geologist October 3 & 4, 1985 (2 days @ \$250)	500.00
Paul Leping, sampler/assistant October 3 & 4, 1985 (2 days @ \$190)	380.00
Robert Paeseler, sampler/assistant October 3 & 4, 1985 (2 days @ \$190)	380.00
Supervision, Consulting, Reporting:	
Hugo Laanela, consulting geologist October 19 & 23, 1985 (2 days @ \$400)	800.00
Principal, Supervision (1 day @ \$450/day)	450.00
Total Wages and Salaries	\$2,060.00
Expenditures:	
Room and Board (9 man days @ \$60/day) Vehicle rental & gas 4 x 4 (3 days x \$90/day) Lab Analysis Drafting Word Processing Materials Reproduction	540.00 270.00 864.90 288.00 364.00 60.00 28.00
Administration (15% of above expenses) Mobilization-Demobilization	362.35 885.00
Total Expenses	\$3,662.25
TOTAL	\$5,722.25

APPENDIX II

DISTRIBUTION GRAPHS

FOR Cu, Pb, Zn, Ag and Au

IN STREAM SEDIMENTS AND SOILS

Cu in Sediments (1984 and 1985)

Range: 30 - 357 ppm Cu

ppm Cu	F (1984)	F (1985)	F (Total)	Histogram
0-29 30-59	0	0 7	0 7	
60-89	4	2	6	
90-119	7	4	11	
120-149	6	3	9	
150-179	3	0	3	
180-209	4	0	4	
210-239	1	0	1	
240-269	3	0	3	
270-299	0	0	0	
>300	1	0	1	Background 120+ ppm Cu Threshold 140+ ppm Cu
N =	29	16	45	Anomalous >160 ppm Cu

TAN CLAIM

Cu in Soils 1985

Range: 12 - 341 ppm Cu

ppm Cu	F	
0-29 30-59 60-89 90-119 120-149 150-179 180-209	6 12 15 9 4 4 0	
>210	1	Background 80+ ppm Cu Threshold 120+ ppm Cu
N =	51	Anomalous >130 ppm Cu

TAN CLAIM Pb in Sediments (1984 and 1985)

Range: <2 - 59 ppm Pb

ppm Pb	F (1984)	F (1985)	F (Total)	Histogram
<2-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59	13 10 4 1 - - 1	- 4 3 2 2 1 2 1 - -	0 17 13 6 3 1 2 1 1 0 0	
>60	_	-	0	Background 10± ppm Pb Threshold 20 ppm Pb
N =	29	16	45	Anomalous >25 ppm Pb

TAN CLAIM
Pb in Soils
1985

Range: <2 - 33 ppm Pb

ppm Pb	F	
<2 2 3 4 5 6 7 8 9 10 11 12 13	4 3 10 7 10 6 1 4 1 2 0	
<13	0	Background 4+ ppm Pb Threshold 6 ppm Pb
N =	51	Anomalous >8 ppm Pb

Zn in Sediments (1984 and 1985)

Range: 54 - 280 ppm Zn

ppm Zn	F (1984)	F (1985)	F (Total)	Histogram
0-20 30-59 60-89 90-119 120-149 150-179 180-209 210-239 240-269 270-299	- 1 3 2 8 8 3 1 1	- - 5 2 6 3 - -	0 1 3 7 10 14 6 1 1	
>300	_		0	Background 150± ppm Zn Threshold 190± ppm Zn
N =	29	16	45	Anomalous >200 ppm Zn

TAN CLAIM

Zn in Soils 1985

Range: 23 - 119 ppm Zn

ppm Pb	F	
0-9 10-19 20-29 30-39 40-49 50-59 60-69 70-79 80-89 90-99 100-109 110-119	0 1 2 4 6 13 13 6 3 1	
>120	0	Background 70± ppm Zn Threshold 90 ppm Zn
N =	51	Anomalous >100 ppm Zn

Ag in Sediments (1984 and 1985)

Range: <0.2 - 2.6 ppm Ag

ppm Ag	F (1984)	F (1985)	F (Total)	Histogram
<0.2 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0	13 8 6 2 - - - - -	4 2 1 4 1 - 1 1 -	17 10 7 6 1 0 1 1 0	Regional?
>1.1	_	1	1	Background <0.2 ppm Ag Threshold 0.3 ppm Ag
N =	29	16	45	Anomalous >0.4 ppm Ag

TAN CLAIM

Ag in Soils 1985

Range: <0.2 - 0.6 ppm Ag

ppm Pb	F	
<0.2 0.2 0.3 0.4 0.5 0.6 0.7	23 15 5 6 1 1	
>0.7	0	Background <0.2 ppm Ag Threshold 0.3 ppm Ag
И =	51	Anomalous >0.4 ppm Ag

Au in Sediments (1984 and 1985)

Range: <5 - 760 ppb Au

ppb Au	F (1984)	F (1985)	F (Total)	Histogram
<5 5 10 15 20 25 30 35 40 45 50	9 4 6 4 - 2 1 1 -	4 - 1 1 1 - - 1 1	13 4 7 5 1 3 2 1 0 1	Background <5-5 ppb Au
>1.1	2	5	7	Threshold 15-25 ppb Au Anomalous >30 ppb Au
N =	29	16	45	(probably multimodal population)

TAN CLAIM

Au in Soils 1985

Range: <5 - 140 ppb Au

ppb Au	F	Histogram
<5 5 10 15 20 25 30 35 40 45 50	18 7 12 8 1 0 1 1 0 0	Background <5-10 ppb Au
>50	2	Threshold ±15 pbm Au Anomalous >20 ppb Au
N =	51	(apparently multimodal population)

APPENDIX III

GEOCHEMICAL LAB REPORTS

(BONDAR-CLEGG & CO. LTD.)

mdar-Clegg & Company Ltd.

130 Pemberton Ave. North Varcouver, B.C. anada V/P 2R5 hone: (604) 985-0681 elex: 04-352667



Geochemical Lab Report

	ANUJORNIU TURI OD 1870U 180	
	ASHWORTH EXPLORATION LTD. MR. HUGO LAANELA	
	3657 ROSS ROAD	
	HANAIMO, B.C.	
	V9T 293	
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Bondar-Clegg & Company Ltd.

130 Pemberton Ave. North Vancouver, B.C. Canada V7P 2R5 Phone: (604) 985-0681 Telex: 04-352667



Geochemical Lab Report

REPORT: 125-3298 (COMPLETE)

REFERENCE INFO:

CLIENT: ASHWORTH EXPLORATION LTD.

SUBHITTED BY: UNKNOWN

PROJECT: NONE GIVEN

DATE PRINTED: 17-0CT-85

ORDER	EL	ehent	NUMBER OF ANALYSES	LOWER DETECTION LIM	IT EXTRACTION	METHOD
1	Cu	Copper	68	1 PPH	HNO3-HCL HOT EXTR	Atomic Absorption
2	Pb	Lead	68	2 PPM	HN03-HCL HOI EXTR	Atomic Absorption
3	Zn	Zinc	68	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
4	Aq	Silver	68	O.2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
5		Gold - Fire Assay	68	5 PPB	Fire-assay	Fire Assay AA
6	wt/Au	Sample Weight	3	l gm		
7		Sample Weight	5	1 9m		

SA	MPLE TYPES	NUMBER	SIZ	E FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S	SOILS	63	1	-30	66	DRY, SEIVE -80	66
I	STREAM SEDIMENT.SILT	3	2	-150	2	CRUSH, PULVERIZE -150	2
<u>q</u>	BOCK OF BED BOCK	2					

REMARKS: 1ST COLUMN OF AU WEIGHT IS -80 MESH.

2ND COLUMN OF AU WEIGHT IS -20 MESH.

REPORT COPIES TO: MR. CLIVE ASHWORTH

MR. HUGO LAANELA

INVOICE TO: HR. CLIVE ASHWORTH

Bondar-Clegg & Company Ltd.

130 Pemberton Ave. North Vancouver, B.C. Canada v.7P 2R5 Phone: (604) 983-0681 Telex: 04-352667



Geochemical Lab Report

REPORT: 125-3298								PROJEC	T: NONE GIVEN	PAGE 1	
SAMPLE	ELEMENT	Cu	Pb	Zri	Ag	Αu	wt/Au	wt/Au			
YUMBER	UNIIS	PPM	PPM	PPM	PPH	PPB	Q#I	ð m			
61 TM85-2		12	8	23	<0.2	₹5	· ·····				
61 IN85-3		20	12	30	<0.2	5					
S1 TN85-4		15	13	48	<0.2	₹5					
61 TN85-5		13	10	34	<0.2	₹5					
61 TM85-6		13	8	48	<0.2	<5					
SI TN85-7		51	5	118	⟨0.2	15					
SI TN95-8		30	8	108	<0.2	<5					
1 IN85-9		34	8	102	<0.2	₹5					
1 TN85-11		80	8	70	0.3	₹5					
1 TN85-12		68	36	190	2.6	760					
1 TN85-13		59	11	140	<0.2	10		10			
1 TN85-15		45	6	77	0.3	⟨5					
1 TN95-16		151	13	110	0.5	30					
1 IN85-17		56	5	79	0.2	<5					
1 TN95-18		66	6	75	<0.2	10					
1 TN85-19		66	5	65	0.2	10					
1 TN85-20		85	5	60	<0.2	10					
1 TN85-21		51	2	50	<0.2	5					
1 TN35-22		35	4	56	0.3	⟨5					
1 IN85-23		40	5	42	0.2	10					
1 TN85-24		62	3	45	⟨0.2	20					
1 TN85-25		84	3	62	<0.3	15					
1 TN85-26		81	3	60	0.3	15					
1 TN85-27		107	4	72	0.4	15					
1 TN85-28		85	3	50	0.2	15					
1 TN85-29		46	2	51	0.2	⟨5					
SI TN85-30		52	⟨2	65	<0.2	10					
1 IN85-31		60	5	80	0.2	₹5					
1 TN85-32		70	<2	61	0.4	10					
1 IN85-33		137	<2	103	0.2	35					
1 TN85-34		176	4	89	0.2	140	······································				
1 TN85-35		63	3	69	0.4	60					
1 TN85-36		341	6	119	0.2	<5					
1 TN85-37		101	⟨2	80	0.6	10					
1 TN85-38		101	2	70	0.4	₹5					
1 TN85-51		111	12	167	0.4	30					
1 TN85-52		95	12	162	0.4	25					
1 TN85-53		106	16	160	0.3	20	6	4			
1 TN85-54	•	120	19	160	0.4	55					
1 IN85-55		147	33	168	1.0	55					

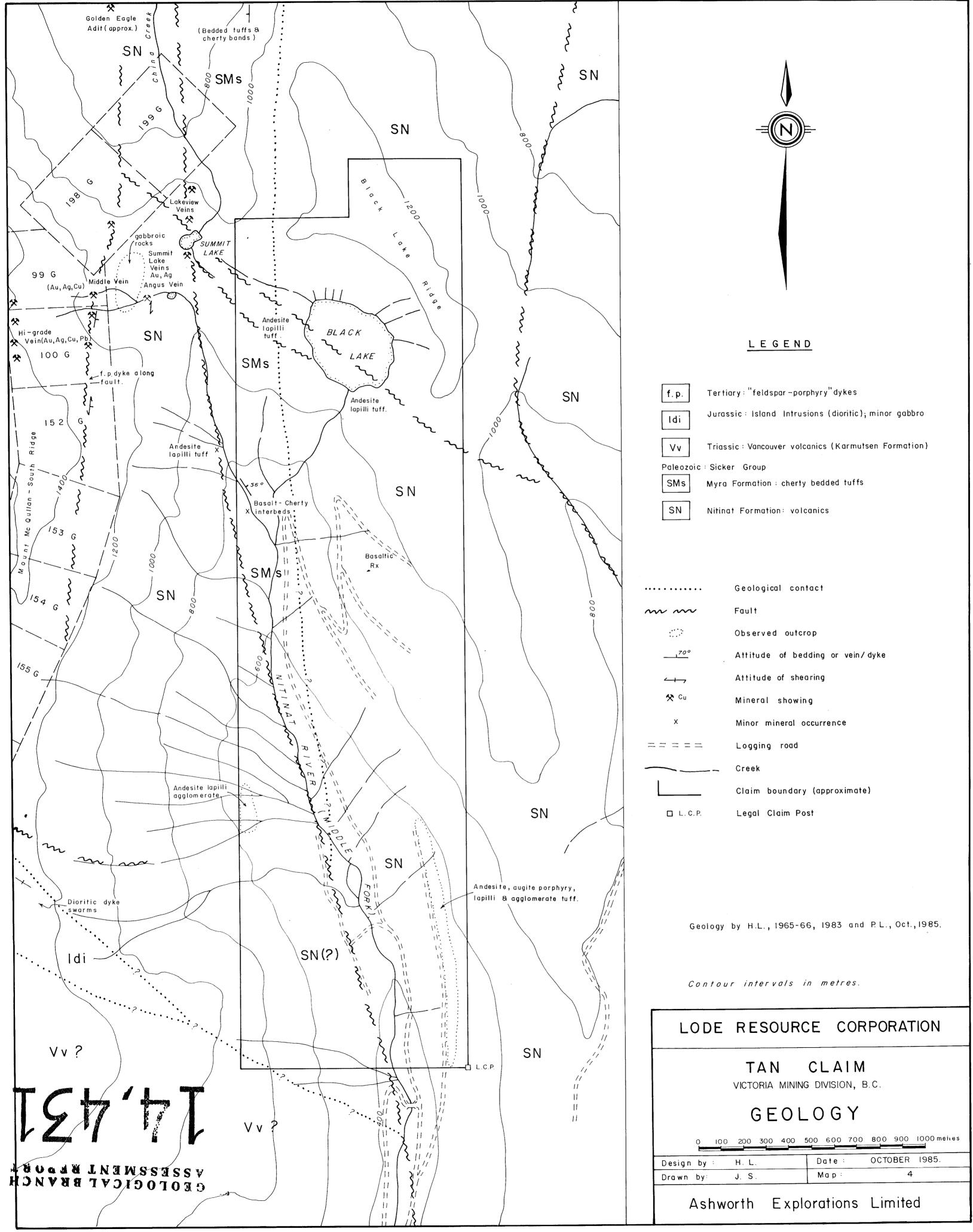
Bondar-Clegg & Company Ltd.

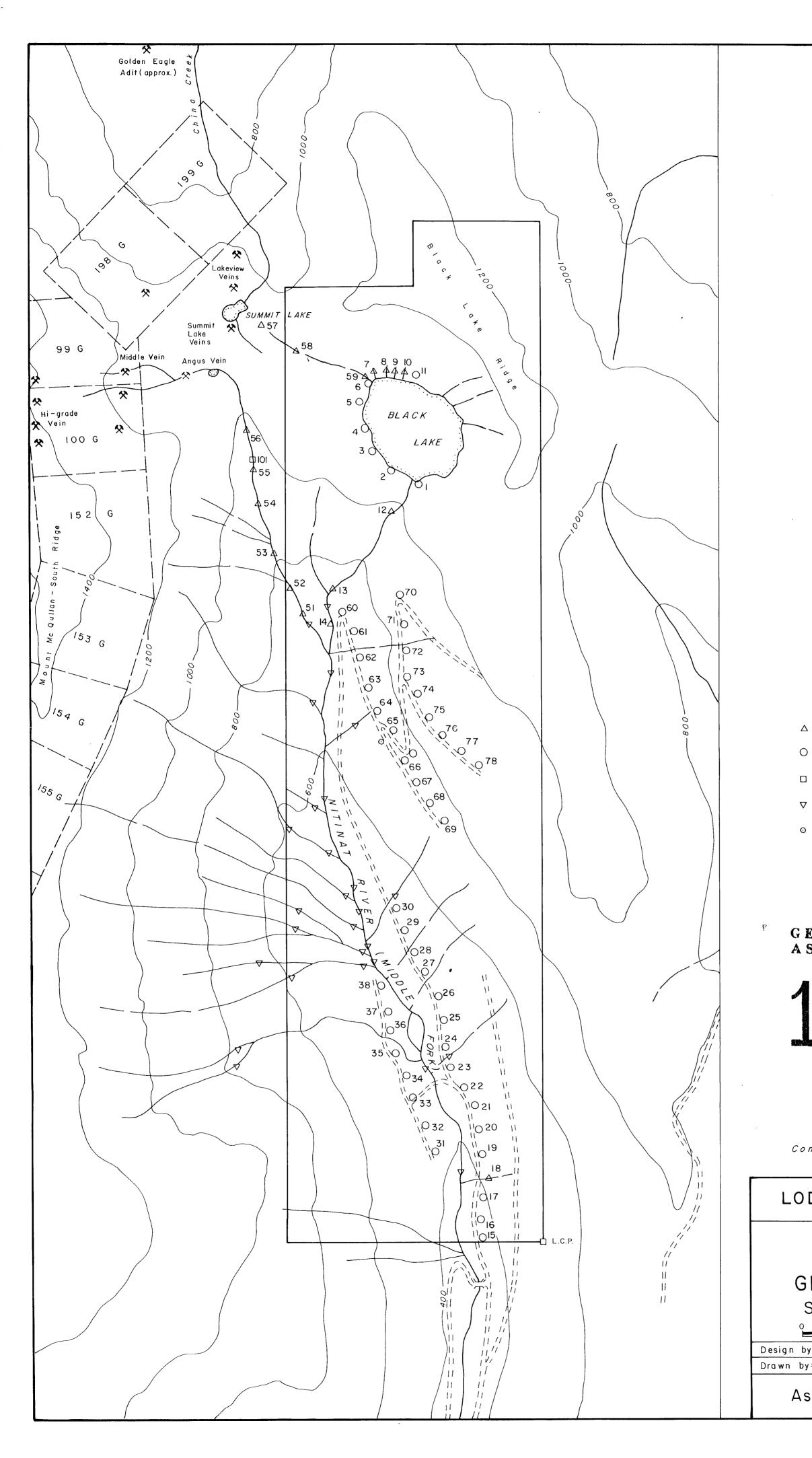
130 Pemberton Ave. North Var pouver, B.C. Canada V7P 2R5 Phone: (604) 985-0681 Telex: 04-352667

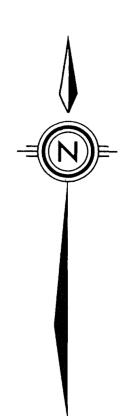


Geochemical Lab Report

REPORT: 125-3298				5-3298					PROJECT: NONE GIVEN PAGE 2			
SAMPLE NUMBER	ELEHENT UNITS	Cu PPH	Pb PPM	Zn PPM	Aq Mqq	Au PPB	wt/Au gm	wt/Au				
S1 TN85-56		143	28	198	0.5	45	5	5			,	
S1 IN85-57		65	59	196	0.8	240		10				
S1 TN85-58		51	21	115	0.4	<5						
S1 TN85-59		90	32	160	0.7	⟨5						
S1 TN85-60		161	6	96	0.4	15						
SI TH85-61		107	5	70	0.2	⟨5						
SI TN85-62		77	3	60	<0.2	₹5						
S1 TN85-63		52	3	61	0.2	<5						
S1 TN85-64		93	3	60	<0.2	₹5						
S1 TN85-65		125	5	81	0.2	10						
SI TN85-66		104	3	72	0.2	10						
S1 TN05-67		91	4	78	0.2	15						
S1 IN85-68		179	8	97	0.4	5						
S1 TN35-69		56	9	90	<0.2	10						
S1 TN85-70		86	5	68	<0.2	15						
S1 TN85-71		34	6	55	<0.2	5						
S1 IN85-72		123	4	72	<0.2	5						
SI TN85-73		137	4	87	0.2	5						
S1 TN85-74		42	5	69	<0.2	5						
S1 TH85-75		96	3	70	<0.2	<5						
S1 TN85-76		102	4	72	⟨0.2	10						
S1 TN85-77		91	6	<i>7</i> 5	<0.2	15				-	•	
S1 TN85-78		49	7	56	<0.2	10						
T1 TN85-1		24	5	90	<0.2	<5						
T1 TN85-10		46	8	100	0.2	50						
T1 TN35-14		58	24	130	0.2	60	6	4				
R2 IN85-101		36	76	102	2.1	150						
R2 TN85-102		8	20	20	0.9	190						







LEGEND

 Δ 14 Silt sample site and number O 30 Soil sample site and number 101 Rock sample site and number Silt sample site (by Sawyer's, Feb. 1984) Soil sample site(by Sawyer's, Feb. 1984)

GEOLOGICAL BRANCH ASSESSMENT REPORT

14,431

Contour intervals in metres.

LODE RESOURCE CORPORATION

TAN CLAIM

VICTORIA MINING DIVISION, B.C.

GEOCHEMICAL SURVEY

SAMPLE LOCATION MAP

Map:

O 100 200 300 400 500 600 700 800 900 1000 meires OCTOBER: 1985. H. L. Design by:

J. S.

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