CAZADOR EXPLORATIONS LIMITED

HANSON LAKE PROJECT
GEOCHEMICAL/GEOPHSICAL/TRENCHING PROGRAM
DECEMBER 1989

93K/2,3,6,7
OMENICA MINING DIVISION
BRITISH COLUMBIA

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AINSWORTH-JENKINS HOLDINGS INC.
Mineral Resource Consultants

Table of Contents

Appendices

List of Figures

1. RECOMMENDATIONS

Additional work on Cazador Explorations Ltd. Hanson Lake property should be carried out as follows:

1.1. CENTRAL GRID - BYSOUTH ZONE

The coincident copper and ground magnetic survey anomalies located at: line 13900N:65650E
line 14050N:65600E
line 14200N:65400E,65450E,65500E,65550E,65600E

should be drill tested by vertical reverse circulation drill holes to a depth of 80m at these stations.

Trench 89-T12 should be extended along strike in order to explore the continuity of the mineralization. When confidence is gained that the mineralization continues along strike the zone should be tested by reverse circulation drilling.

Coincident geophysical and geochemical anomalies located at:

line 13600N:67225E, 66550E
line 13750N:66150E, 66450E
line 14050N:66300E

should be examined by trenching with success contingent drilling to follow.

The current geophysical and geochemical grid should be extended north to Helene Lake. Line spacing should be at 150m with geochemical samples taken every 50m. Geophysical readings should be taken at stations every 12.5m.
The trenching, soil sampling and geophysical program should be carried out during the coming summer field season in conjunction with the trenching program outlined for the east grid.

1.2. CENTRAL GRID DRILLING PROGRAM BUDGET

A budget of $104,000 is estimated for the winter drilling program as outlined below:

mob/demob		$ 2500
reverse circulation drilling: 12 holes to 80m@ $45/m		$ 43200
Supervisor/geologist	20 days @ 450/day	$ 9000
geologist	20 days @ 400/day	$ 8000
2 field technicians	20 days @ 230/day ea	$ 9200
Acommodation	$15/man/night 20 nights	$ 1200
meals	$30/man/day 20 days	$ 2400
Vehicle rental	$1200/Mo	$ 1200
Kilometerage	@ $0.15/Km	$ 600
Fuel, oil and repairs		$ 850
Mobile radio rental		$ 450
Freight/shipping		$ 3700
Analysis of drill cuttings		$ 7000
Report		$ 5000
	subtotal	$ 94300
	contingency 10%	$ 9430
	TOTAL rounded	$104,000

1.3. EAST GRID - CYR ZONE

The two ground magnetic survey peaks on line 14150N:69000E,69150E and the single ground magnetic peak on line 14100N:69000E which are considered to be the source of the gold anomalies to the south west should be trenched with success contingent drilling to follow.

The coincident copper geochemical and VLF-EM geophysical anomaly that trends north between 13450N:68200E and 13450N:68200E should be investigated by a trenching program with a budget as outlined below. This program requires that overburden be a maximum of 3m, if this is not found to be the case it will be necessary to abandon the trenching program and investigate this anomaly by drilling .

The current grid should be extended to the north east to further investgate the precious and base metal anomalies.

1.4. EAST AND CENTRAL GRID SUMMER PROGRAM BUDGET

Mob/demob			$ 3500
Trenching	60hrs @ $90/hr		$ 5400
Roadbuilding	20 hrs @ $110/hr		$ 2200
Supervisor/geologist	450/day	15 days	$ 6750
Field technicians	$230/day (2)	15 days	$ 6900
acommodation:	$15/man/night	15 nights	$ 675
meals:	$30/man/day	15 days	$ 1350
vehicle:	$75/day	15 days	$ 1125
kilometerage	$0.15/Km		$ 450
Mobile telephone rental			$ 450
fuel, oil and repairs			$ 600
Freight/shipping			$ 3300
Analysis			$13000
Geophysics	$225/km	22km	$ 4950
report			$ 5000
		subtotal	$43100
		contingency 10%	$ 4310
		TOTAL rounded	$47410

1.4.1. SUCCESS CONTINGENT DRILLING PROGRAM

Drilling 8 reverse circulation holes to 80m @ $45/m			$28800
Supervisor/geologist	$450/day	10 days	$ 4500
Geologist	$400/day	10 days	$ 4000
2 Field Technicians	$230/day ea	10 days	$ 4600
Acommodation	$15/man/night	10 nights	$ 600
Meals	$30/man/day	10 days	$ 1200
Vehicle	$75/day	10 days	$ 750
Fuel, oil and repairs			$ 300
Kilometerage	$0.15/Km		$ 250
Freight/shipping			$ 3500
Analysis			$ 5000
Report			$ 5000
		subtotal	$58500
		contingency 10%	$ 5850
		TOTAL rounded	$65000

NOTE: The above budget assumes that the drilling program immediatley follows the trenching and sampling program and the crew does not have to remobilize.

2. SUMMARY AND CONCLUSIONS

During the period from September 21st to October 20th 1989, a combined program of geophysical and geochemical surveys and trenching was carried out on the Hanson Lake Property of Cazador Explorations Ltd.

Exploration work focussed on two areas, the Central grid or Bysouth zone, approximately 1.5 km north of Hanson Lake and the East grid or Cyr Zone, 1.0 km north east of the eastern most edge of Hanson Lake. In order to provide better access to the east grid, a two wheel drive road was constructed during this program.

The Central grid has dimensions of 1.5 km by 2.4 km and covers an area of the property with known mineralization but that had previously only been investigated on a reconnaissance basis.

The East grid infills the central portion of the 1988 east grid soil survey, conducted by Ainsworth-Jenkins Holdings Ltd, providing line coverage every 50 m within an anomalous area located by the earlier work. The current grid also extends the 1988 grid 1 km to the West and 300 m. to the North.

A total of 1219 soil samples were collected from the grids during the current program and 40.2 km of ground magnetic and VLF-EM surveys were completed.

A total of 10 trenches in the East grid and 4 in the Central grid were opened, sampled and mapped. A total of 68 rock chip samples were taken from the trenches. Ten pits were opened in the east grid, sampled and filled.

Significant copper mineralization with gold values, was exposed in a 74m long trench opened in the central grid between two trenches excavated by Canex Placer Ltd. in 1972. This trench lies to the west of a copper geochemical anomaly in soils indicating glacial transport of superficial cover to the east.

In the western third of the grid, geophysics data support a strong copper in soils anomaly providing a focus for further exploration. To the north of these anomalies a series of anomalous copper values in soil samples were located that correspond to the southern limits of a potentially large copper anomaly discovered by Canex Placer Ltd. during regional geochemical exploration in 1972. The current grid should be expanded to the north in order to investigate this anomaly further.

Zinc was also found to be anomalous on the central grid. The character of this anomaly suggests an East-Northeast lithology change that crosses through the middle of the grid. Gold, lead and silver were not found to be significantly anomalous in the central grid.

On the East grid, the 1989 soil sampling program has extended the gold, zinc and silver anomalies discovered during the 1988 survey. The gold anomaly discovered during the 1988 soil survey program is extended 100 m to the north and appears to have a much more distinct closure along the northernmost edge.

The gold anomaly lies within larger base metal and silver anomalies. Pitting and trenching data show that the gold content of lower "C" horizon soils range from 0.12 to 2.2 ppm for 300 meters alog line 14100N. Approximately 200 meters of this length averages approximately 1.0 ppm. Trenching during the current program indicates that the anomaly has been transported downslope. Correspondingly, ground magnetic highs 60 to 80 m up slope to the north-east are high quality trenching and drill targets.

Copper forms an apparent halo to the south and west around the gold anomaly in the central portion of this grid. A coincident north trending VLF-EM and copper anomaly provide the best copper target on the east grid.

3. INTRODUCTION

During the latter part of September and early October 1989, a combined soil sampling, trenching, pitting and geophysical program was carried out on the Hanson Lake property of Cazador Explorations Ltd. The soil sampling and trenching and pitting program was carried out by Ainsworth Jenkins Holdings Inc. of Vancouver and Mr. J.Thornton of Scott Geophysics carried out a combined VLF-EM and Magnetometer survey.

The Ainsworth Jenkins crew, consisting initially of Mr. A. Clendenan (Project Geologist), Messers M. Twyman, T. MacKenzie and A. Isaak as samplers mobilized from Vancouver to Burns Lake on September 21st, 1989.

Due to an injury, Mr. Clendenan became unable to continue in the field and returned to Vancouver on September 25th. Mr. Twyman took over as Project Geologist and Mr. G. Bowes was sent up to assist with the soil sampling program.

3.1. LOCATION AND ACCESS

The property is located in central British Columbia, approximately 15 kilometres north of the Village of Endako which is located on Highway 16 and the Canadian National Railway between Prince George and Prince Rupert. Hanson Lake is located at 54° 14'N; 125° 04'W on NTS Map Sheet 93K/6 (Figure 1).

The property is reached by travelling 17 kms east from Burns Lake along Highway 16 to the gravel surfaced Auger Main logging road. Turning left onto the Auger Main one travels 10 km to the Hannay Branch. The Hannay road is followed for approximately 30 km to the Helene Branch road. 10 km along the Helene road one takes the Hanson Lake branch to the east which leads to the work areas. Travel time from Burns Lake is approximately one hour and fifteen minutes under ideal conditions.

3.2. PHYSIOGRAPHY

The general landscape within the project area is dominated by the easterly trending Shovel Creek valley. Most of the surrounding terrain has a similar easterly grain. This trend is approximately parallel to known geological structure. In stereoscopic pairs of air photos, it is possible to identify some W.N.W. structures that appear to be sub-parallel to some of the geochemical targets identified in exploration work this year. Maximum elevation on the property is about 1300 m, with 800 m being the minimum. Lower valley slopes are moderately steep to extremely steep generally lying between 20 and 40 degrees.

Drainage patterns show a marked degree of derangement due to glacial scouring and deposition. Shovel Creek, draining into Hanson Lake from the east, is meandering and swampy. Fine sediment is thought to have been deposited along the valley bottom in glacially formed depressions now demarcated by swamp and muskeg.

The valley slopes directly above Shovel Creek and Hanson Lake are moderately well drained by youthful streams. Upland areas are poorly drained by networks of swamps and sluggish creeks. Bedrock exposure is sparse, forming less than 2% of the area.

The project area is generally heavily forested. Several tree species occur on the claims and their occurrence may reflect the nature of the underlying materials. Aspen and Cottonwood are common on the steep grassy upper slopes immediately to the north of Hanson Lake. Elsewhere Spruce and Jackpine tend to dominate with varying amounts of Balsam fir.

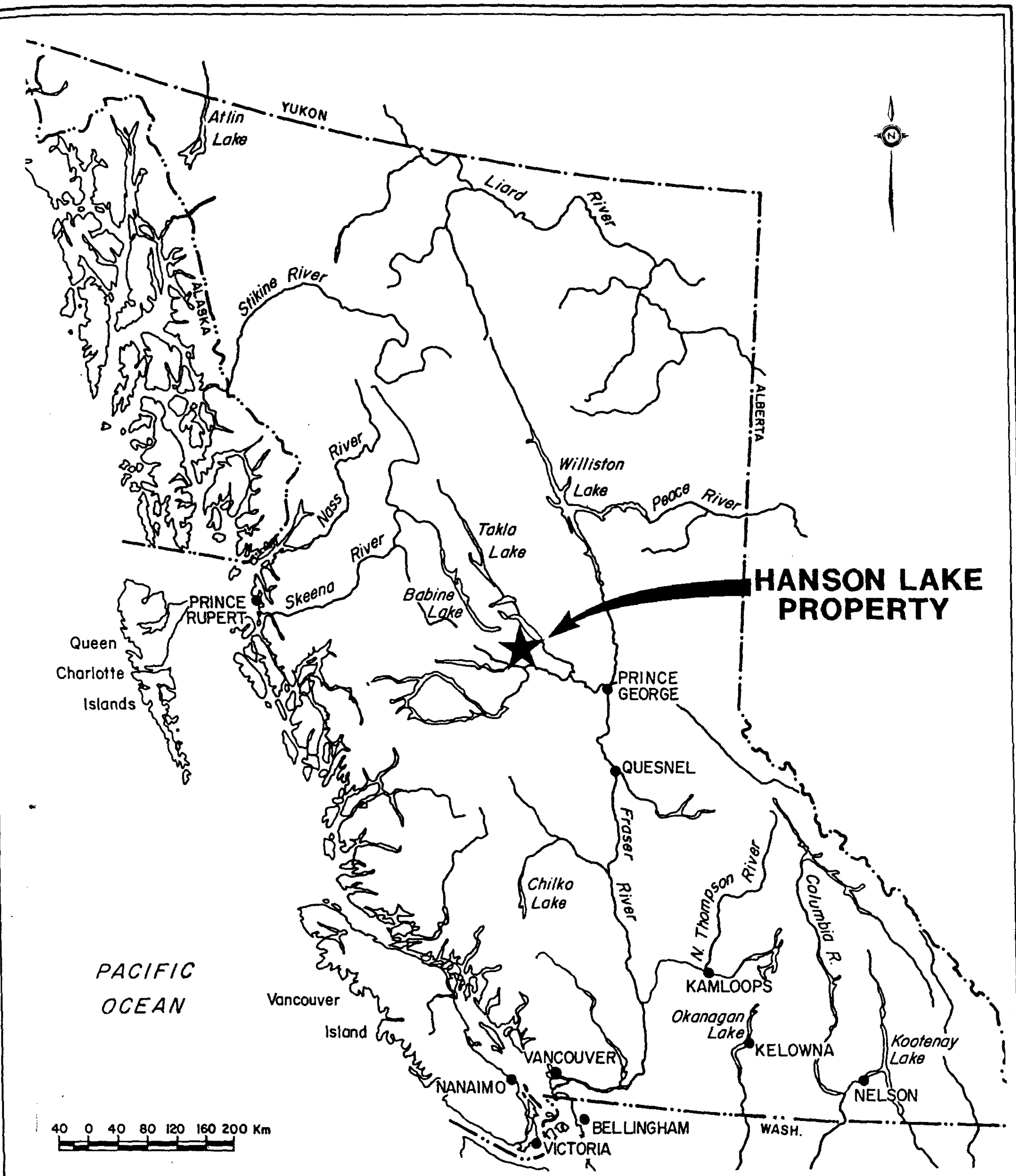


FIGURE 1

CAZADOR EXPLORATIONS LIMITED

HANSON LAKE PROJECT

Omineca Mining Division, British Columbia

LOCATION MAP

DECEMBER 1989

AINSWORTH-JENKINS HOLDINGS INC.

3.3. EXPLORATION HISTORY

The Endako Mines Division of Placer Development Ltd. located geochemically anomalous sediments on the property during a regional exploration program conducted in 1970. The anomalous area was acquired by staking more than 400 two post claims during 1971. In that year they carried out a program of line cutting, geochemical soil sampling and ground magnetometer work. They also constructed an access road.

That work identified three major geochemical anomalies identified as the East Lead Zinc Anomaly, the West Zinc Anomaly and the West Copper Anomaly. These were tested by induced polarization surveys, trenching and diamond drilling programs. The following year a program of diamond drilling and percussion drilling was carried out on these and other prospective areas of the property.

A further drilling program planned for the following year was abandoned due to the adverse effects of the Mineral Royalties Act and the ground was allowed to lapse.

Endako restaked a portion of the property and carried out limited drilling programs during the period 1977-1979. The claims lapsed following this program and no further work is recorded for the claims until Cazador acquired the ground in 1987 and 1988.

3.4. CLAIM STATUS

The location of the claims is shown on Figure 2. overleaf and are listed as follows:

Claim	Record No.	Units	Expiry Date
CLEA	8486	20	1992
YARA	8487	20	1993
BEN	9163	16	1994
BILL	9172	20	1991
DAVE	9164	16	1992
GARRETT	9167	20	1992
JED	9162	14	1992
JENNIFER	9170	20	1992
JIM	9165	20	1992
ROB	9166	20	1992
ROLANDO	9171	20	1991
ROY	9168	20	1992
STEVEN	9169	20	1992
MRS A	9948	20	1993
MRS.J	9947	8	1993

4. 1989 WORK PROGRAM

A program of soil sampling, trenching and pitting and VLF-EM and Magnetometer Surveys was carried out on two rectilinear grids between the dates of September 21 and October 20th, 1989 (Figure 3). A total of 1219 "B" Horizon soil samples were collected. Scott Geophysics Ltd. completed 40.2 km of geophysics.

Fourteen trenches and 10 pits were opened, mapped and sampled. A total of 68 rock samples and 55 soil samples were collected from the trenches and pits. At the request of the client the trenches were left open to permit further evaluation. All pits were infilled.

The East Grid was tied to an existing grid using hip chain and compass methods. Soil samples were collected every 25 m and marked with flagging and aluminum tags on lines 100 m apart.

The Central Grid was established using an IP line cut by previous operators as a north-south baseline. Grid lines were surveyed using hip-chain and compass methods. Lines were spaced 150 m apart and soil samples were taken on a 50 m interval.

Geophysical readings were taken every 12.5 m on both grids using an IGS-2 system manufactured by Scintrex Ltd. A recording base station was employed to monitor the earth's diurnal variations at a sixty second interval throughout the day. The data collected was reviewed and plotted by Mr J Thornton.

5. GEOLOGY

5.1. REGIONAL GEOLOGY

The property is underlain by meta-sediments and meta-volcanic rocks of the Permian Cache Creek Group, and gneissic quartz monzonites and Lower Jurassic granodiorites. The metamorphic rocks are intruded by granitic and quartz monzonitic rocks of the Topley Intrusions. These were emplaced during the Middle to Upper Jurassic time. Hazelton Group strata and Upper Cretaceous to Tertiary age volcanics unconformably overlie the older intrusive and metamorphic rocks.

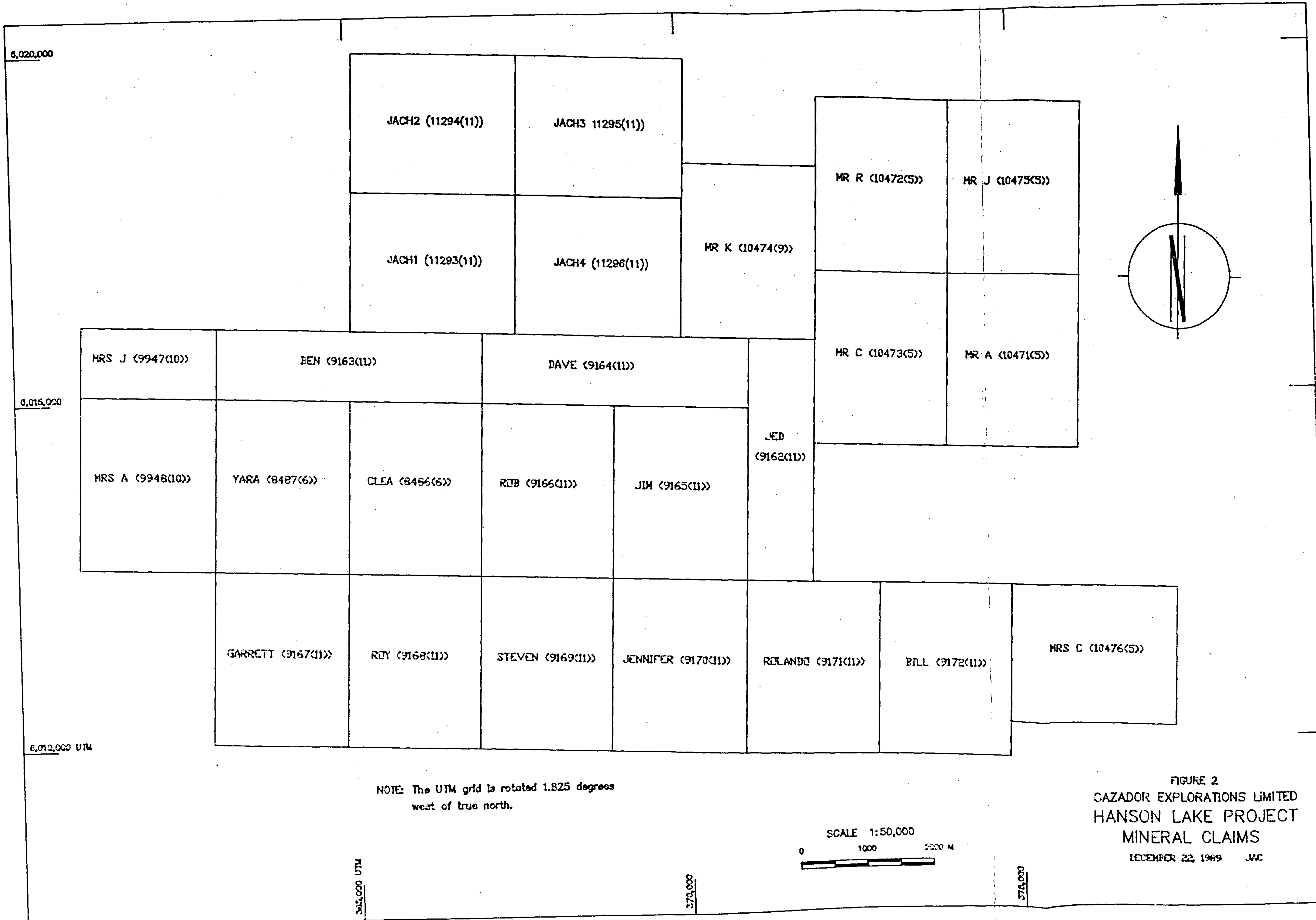
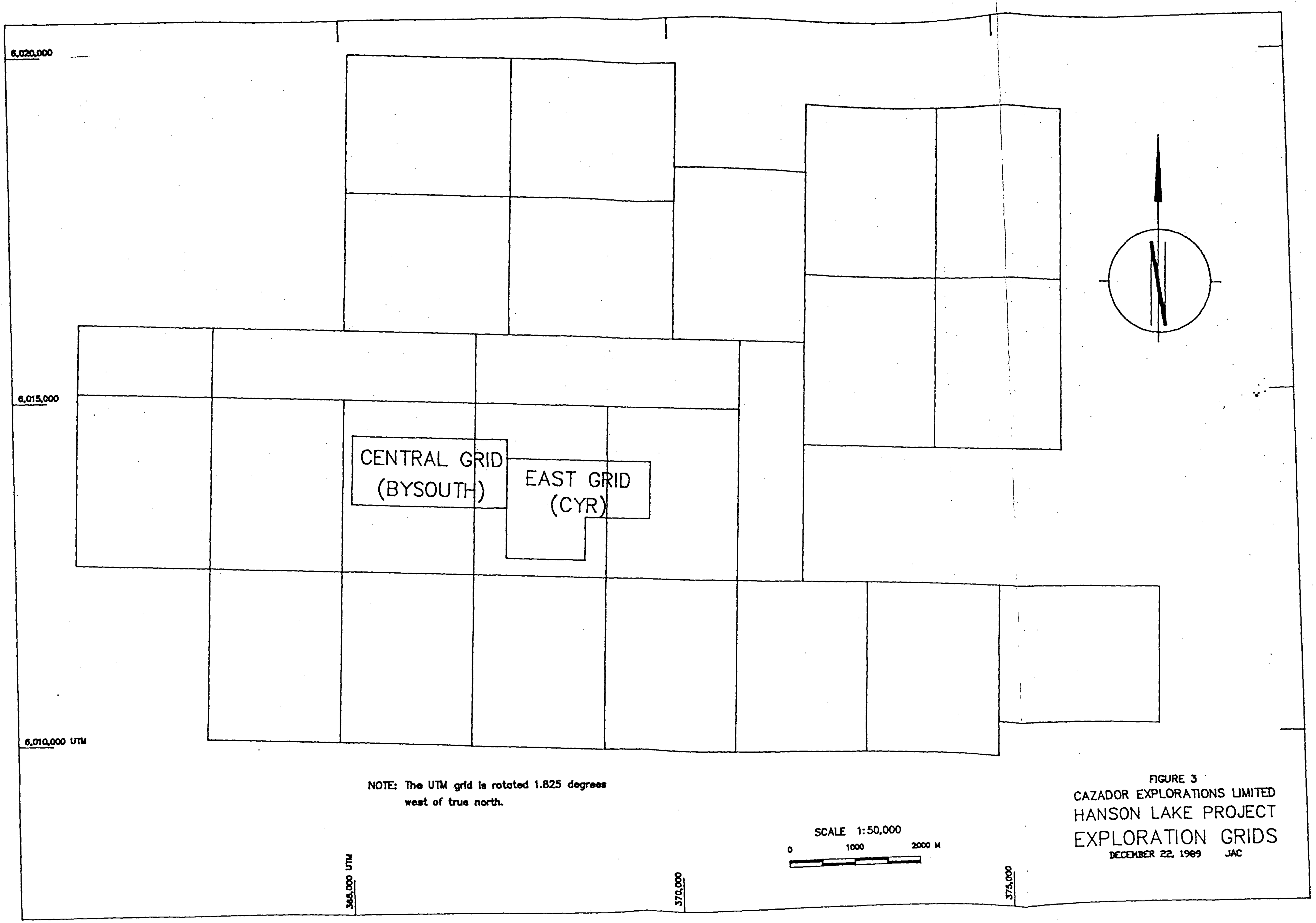


FIGURE 2
CAZADOR EXPLORATIONS LIMITED
HANSON LAKE PROJECT
MINERAL CLAIMS
DECEMBER 22, 1989 JAC


6,020,000
6,015,000
6,010,000 UTM
CENTRAL GRID
(BYSOUTH)
EAST GRID
(CYR)
NOTE: The UTM grid is rotated 1.825 degrees
west of true north.
SCALE 1:50,000
0
1000
2000 M
365,000 UTM
370,000
375,000
FIGURE 3
CAZADOR EXPLORATIONS LIMITED
HANSON LAKE PROJECT
EXPLORATION GRIDS
DECEMBER 22, 1989 JAC

5.2. PROPERTY GEOLOGY

Much of the ground covered by the claims has been mapped by Canex Placer Ltd. Endako Mines Division during exploration programs conducted during the early 1970's.

The current exploration program has further illuminated some aspects of the geology, however, due to sparse outcroppings on the ground covered by the grids, the geological model has not been altered significantly from that proposed in earlier reports.

The property is underlain by the older Metamorphic complex of metamorphic equivalents of the Cash Creek Group and the gneissic quartz diorite complex of granodiorites and quartz diorites. These have been intruded by the Glenannan quartz monzonites and the Casey granite of the Topley Intrusions. Extrusive volcanics of the Ootsa and Endako groups occur as flows, tuffs, and breccias covering the older rocks. House,(1988) has identified feeder plugs and dykes of quartz porphyry and quartz feldspar porphyry in several locations on the property.

Cache Creek Group rocks outcrop on the property as biotite hornblende schists and amphibolite. These occur in a northwest trending inlier on the margins of the quartz diorite complex on the north shore of Hanson Lake and have been mapped in trenches on the central grid.

A quartz diorite complex underlies the area north and south of Hanson Lake. House reports it to be bounded on the west by Glenannan Quartz Monzonite and covered on the east by extensive outcroppings of Ootsa Group quartz feldspar porphyry flows and breccias.

The Topley Intrusions underlie an extensive area in the western claims. Glenannan quartz monzonite outcrops north and south of the west end of Hanson Lake and Casey Granite outcrops on the northern shore that lake.

Ootsa and Endako volcanics outcrop over large areas on the eastern claims. The older Ootsa Lake volcanics are predominantely felsic in composition. The Endako Group of Miocene age are more mafic with a range of compositions between basalt and dacite.

The area was extensively glaciated during the Pleistocene and is blanketed with a variety of glacial and glacial-fluvial materials. The uplands are mantled by impervious layers of till. Post glacial drainage of much of the claims area is very poorly developed resulting in large areas of interconnected swamp and muskeg.

6. GEOCHEMISTRY

6.1. PROCEDURES AND METHODS

6.1.1. FIELD METHODS

Soil sampling was carried out on lines established by hip-chain and Brunton compass. Slope corrections were made in order to maintain a rectilinear grid. Samples were collected from "B" horizon soils where possible, using a large mattock to excavate the sample hole and a plastic spoon for taking the sample to place in standard kraft paper bags. The samples were air dried before shipping to Min-En Laboratories in North Vancouver, B.C. All soil samples were identified by their UTM coordinates.

6.1.2. ANALYTICAL METHODS

Samples were processed by standard procedures, including screening to -80 mesh after drying. Samples for copper, lead, zinc and silver were dissolved with a multiple acid digestion and analyzed by atomic absorption spectrometry (AAS); gold, after dissolution in aqua regia and completing with MIBK reagent, was analyzed by AAS.

The results of these analyses were transmitted on floppy disc for data processing by Ainsworth-Jenkins Holdings Inc. The data were computer contoured using a 25 metre square cell structure, a 100 meter circular search radius and weighted by the contributions of the 10 nearest data points by the inverse of the distance squared between the cell and the data point.

The certificates of analysis from Min-En Labs comprise Appendix "A" of this report.

7. GEOPHYSICS

7.1. PROCEDURES AND METHODS

Ground magnetometer and VLF Surveys were carried out using an IGS 2 system manufactured by Scintrex Ltd. This instrument is a micro-computer based system containing two modules that are carried in the field; one to measure the earth's total magnetic field and the other to measure the VLF signal from up to 3 VLF transmitting stations. On this project the equipment was programmed to receive the signals from Seattle (21.4 khz).

Data are stored internally in the system's memory along with the grid location (line and station) and the time. Up to 16 km of magnetic and VLF data can be stored at one time.

A Scintrex recording base station was employed to monitor the earth's diurnal field at a 60 second interval throughout the day. Diurnal variations were removed from the field data on a daily basis, by programs included in the base station and field units. Magnetic results are thus corrected to approximately plus or minus 2 nT.

Data were transferred to a portable computer for further processing and storage. In order to remove some of the topographic influence from the VLF data, the In-phase data was subjected to Fraser filtering. This treatment enhances the quickly changing part of the VLF In-phase signal and attenuates the slowly changing topographically induced part. Filtering also converts "crossovers" to peaks, which can then be contoured.

Filtering is accomplished by first re-sampling or interpolating the data at a 12.5 meter interval, in order to get the optimum response from the filter. This process does not alter the data appreciably, especially data gathered at 12.5 - 20 meter intervals. The resulting 12.5 meter data is then processed four readings at a time to produce the filtered data using the following equation.

$$F_i = (D_{i-2} + D_{i-1}) - (D_i + D_{i+1})$$

F_i is located at the midpoint of the four adjacent readings. This process tends to smooth or smother weak responses, and is sometimes presented with data plots of raw VLF profiles on In-phase and quadrature.

The field phase of the geophysical program was carried out by Scott Geophysics Ltd. and the data processing and plotting was completed by J. M. Thornton. The raw data comprise Appendix "A" of this report.

8. EXPLORATION PROGRAM RESULTS

8.1. GEOPHYSICAL RESULTS, CENTRAL GRID - BYSOUTH ZONE

8.1.1. VLF-EM DATA

VLF-EM data, stacked profiles and fraser filter contour plots for the central grid comprise figures 4, 5, and 6, included in the pocket at the end of this report.

The strongest and most continuous feature identified by the VLF-EM trends 335° between 13450N and 14500N. The conductor is somewhat diffuse, ranging in width from 100 m to 225 m. There are four isolated coincident ground magnetic and VLF peaks within the above mentioned feature which is suggestive of mineralized pods along a structural break. The shape of contour patterns in the fraser filter data and cross-overs in the stacked profile data suggest that this feature may dip to the west. However, due to very sparse rock outcrop and heavy overburden, the geology in this area is poorly understood and a trenching program to better understand the geology prior to drilling is required.

To the east of the Main conductor there are several weaker, diffuse VLF-EM conductors with similar trends. Within these diffuse conductors there are peaks that coincide with anomalous copper in soils geochemistry at 13600N:67225E, 13600N:66550E,13750N;66150E,13750N:66450E; and 14050N:66300E. These secondary targets should be investigated by a trenching program carried out in conjunction with investigation of the principal target.

Coincident VLF-EM and ground magnetic response is found at 13750N:6650E, 13750N:67025, 13900:66650E and 14050N:65950E. These conductors are considered to be fault emplaced basalt dykes, as there is no support from soil geochemistry for these features.

8.1.2. TOTAL FIELD MAGNETIC DATA

The total field magnetic data, stacked profiles and contour plots of the data comprise figures 7, 8, and 9, located in the pocket at the end of this report.

The principal feature is a series of discontinuous magnetic peaks that follow an approximate trend of 340 between 13450N and 14350N. These peaks occur in a VLF-EM low which parallels a diffuse VLF conductor immediately to the west of the magnetic's anomaly as described in 8.1.1 above.

The magnetic anomaly is coincident with a strong copper in soils anomaly and is interpreted as a magnetically responsive copper bearing lithology emplaced against a structural break as outlined by the VLF-EM conductor. The discontinuous nature of the magnetic peaks is suggestive of skarn type mineralization along a contact zone.

A program of trenching and drilling is recommended to evaluate this feature.

To the east of the principal magnetics anomaly there are several coincident Magnetic, VLF and copper in soils anomalies following an approximate trend of 015° between 13600N:65850E and 14050N:65950E. These features should be examined in conjunction with evaluation of the main anomaly described above.

Figure 10. in the pocket,is a geophysical compilation map of the central grid.

8.2. GEOPHYSICAL RESULTS EAST GRID - CYR ZONE

8.2.1. VLF-EM DATA

VLF-EM data, stacked profiles, fraser filter conversions and contour plots for the east grid comprise figures 11, 12 and 13, and are to be found in the pocket at the end of this report.

The VLF-EM data for the east grid demonstrate only moderate variability and there are no strong continuous anomalies evident in the data set.

Fraser filtering of the data reveals a northerly trend to the VLF-EM data collected. A number of diffuse north trending features are identified (the strongest lies between 14000N:68350E and 14450N:68350E).A crossover from the VLF-EM data on line 14150N:69125E coincides with an intense magnetic peak thought to be a source of the east grid gold anomaly 60-80m to the south west. Between 13550N:68000E and 14150N:68000E there is a diffuse but continuous VLF-EM anomaly that coincides with a north trending copper in soils anomaly, providing a focus for further exploration.

8.2.2. TOTAL FIELD MAGNETIC DATA

The total field magnetic data, stacked profiles and contour plots comprise figures 13, 14, and 15, and are located in the pocket at the end of this report.

Two features are apparent from the ground magnetic survey total field contour map. The first feature is a boundary that trends 025θ between a region of moderate magnetic relief on the western two thirds of the grid and a region of broad very low magnetic relief in the remaining portion of the grid.The second class of feature occurs within the region of low magnetic relief and consists of two distinct magnetic peaks that occur on line 14150N at 69000E and,69150E respectively. The magnetic peaks described above lie on the northern limits of gold in soils geochemical anomalies.

Contour patterns in the soils geochemistry indicate a downslope and perhaps glacial dispersion to the southwest of the magnetic peaks. The two magnetic peaks are probably caused by small basic plugs, roof pendants, or areas of metasomatic alteration within a large pluton. The spatial relationships suggest that the magnetic peaks may be the sites of auriferous mineralization.

A similar pattern is noted in a soils geochemistry and geophysical survey conducted in the same vicinity during 1988.

On line 14100N at 69700E there is a magnetic peak with a relief of 500nT that has a corresponding gold in soils anomaly that shows similar south west downslope displacement.

These three areas identified by the ground magnetic survey and anomalous gold in soils values are primary exploration targets that should be further investigated by a trenching and drilling program.

When the ground magnetic survey total field contour map from the 1988 survey is pieced together with the current total field contour map a continuation of the region of low magnetic variation is observed. This region is bounded in the south west along an approximate trend of 70° - 80° by a region of increased magnetic relief.

There are two possible interpretations for this. The first is that there is increased overburden to the southeast and northwest of the area with low magnetic relief which is causing increased magnetic activity. A second interpretation is that the area of low magnetic relief indicates the existence of a region with little magnetite content in the underlying lithologies or lithologies as a result of widespread alteration and destruction of magnetite and ferro-magnesium minerals. Trenches opened in this area have exposed weakly to moderately argillicly altered quartz porphyry that contains little or no mafic minerals thus lending support to the second interpretaion.

8.3. GEOCHEMICAL RESULTS CENTRAL GRID

Geochemical data for the central grid are found on figures 18 -22.in the pocket at the rear of this report.

Gold data for the central grid are, with the exception of one sample, uniformly less than 10 ppb. The one anomalous sample is located on line 13750N:66700E. This single point anomaly is supported by anomalous silver, zinc, lead and to a lesser degree anomalous copper values. The anomaly occurs in a diffuse low grade magnetic high having a relief of 400nT that trends due north for 700m. Because this is a single point anomaly it has a low priority for follow up. However due its proximity to the magnetic high it should be investigated, time and funds permitting, during subsequent investigation of nearby targets.

Lead data for the central grid, with the exception of four single point anomalous samples, indicates the absence of this element in meaningful quantities.

Silver data for the central grid when contoured at 0.75, 1.5

and 3.0ppm demonstrate numerous low grade anomalous areas dispersed more or less evenly throughout the grid. There is no obvious correlation between other elements analysed or geophysical features noted on the grid.

Zinc contoured at the 150, 200, 400, and 600ppm values divides the sampled area into a northern region with low values, comprising one third of the grid area containing only six anomalous samples, and a southern region, with only ten samples below a threshold value of 150ppm zinc.

Current exploration data indicates that there is a rock type change from Cache Creek group metamorphic rocks to more felsic Topley intrusives in the North, marked by the east-west trending geochemical boundary mapped by the zinc data.

Geochemical data from the central grid sampling for copper range up to 1370ppm above a threshold of 50ppm. Most of the anomalous data fall into four main north-north westerly trending zones that appear to be related to geophysical features as described below.

An alternate interpretation is that the copper distribution is a function of glacial dispersion to the southeast and in fact is related to the zinc geochemistry. There are coincident zinc and copper peaks that follow the lithologic boundary suggested by the zinc geochemistry which may indicate that the copper is related to a contact feature rather than a geophysical feature as suggested below. Should the exploration program outlined be unsuccessful, trenching across the coincident zinc-copper anomalies should be carried out.

The most prominent copper anomaly runs north-northwest from line 13600N to line 14350N overlying a series of ground magnetic highs that lie within a broad VLF-EM low as described in 8.1.2 above. Due to the geophysical support, it is felt that this anomaly is close to source and has little if any glacial dispersion.

This is a primary exploration target that should be followed up with trenching and drilling.

To the west of the above anomaly between lines 13750N and 14350N is a smaller copper anomaly that has coincident ground magnetic and VLF-EM highs. This anomaly should be investigated by trenching followed by a drilling program.

Located in the center of the grid between lines 13450N and 14150N is a northwest trending copper anomaly that has coincident VLF-EM peaks. These particular anomalies lie 250m to the east of a series of discontinous ground magnetic highs and the possibility that the copper in soils anomaly has been glacially transported should not be ignored. Further exploration involving trenching over the coincident VLF-EM/geochemical peaks followed by drilling based on encouraging results.If positive results are not encountered trenching over top of the above described anomalies the ground magnetic highs to the east should be investigated in a similar manner.

On the northernmost line a series of anomalous samples between 65450E and 66100E were collected. These possibly correlate to the southernmost limits of an extensive north trending copper anomaly discovered by Canex Placer on a widely spaced geochemical sampling program carried out during 1972. These anomalies suggest that the current grid should be expanded to the north and a program consisting of VLF-EM, ground magnetometer and soil surveys should be carried out.

8.4. GEOCHEMICAL RESULTS EAST GRID

The geochemical data for the East Grid are found on figures 23 - 27 in the pocket.

The gold anomaly defined in the 1988 survey has been extended approximately 100m to the north and appears to be genetically related to two magnetic peaks 60-80m to the north east as described in 8.2.2 above. The current trenching program which exposed bedrock directly below the gold anomalies did not reveal aurferous mineralization or alteration of significance. Soil profiles taken down the trench walls returned highly anomalous gold values from the "C" horizon/bedrock interface. This supports the conclusion that the anomaly has been transported down slope and has also possibly been glacially dispersed to the west.

Lead supports the gold anomaly and there continues to be a relatively close correlation between the geographic distribution of the lead values and the more anomalous gold data.

Zinc and silver demonstrate a much less clear relationship to the gold data.

Current sampling has extended the 1988 copper, lead, zinc and silver anomalies to the north and west, but with the exception of copper, the anomalies do not appear to correlate with geophysics data.

Copper, which forms an apparent halo to the south and west of the gold soils anomaly, is anomalous between 13450N:68200E and 14200N:68200E which is coincident with a diffuse VLF-EM anomaly. This north trending zone should be trenched with success contingent drilling to follow.

The anomaly becomes more intense to the south between lines 13450N and 13750N and appears to have an east west orientation. Thick overburden in this area precludes trenching to expose bedrock.

9. TRENCH AND PIT SAMPLING

9.1. EAST GRID - CYR ZONE

A total of 10 pits and 10 trenches were excavated on the east grid as shown on Figure 28. Soil profiles were collected down the wall of each pit. Generally three samples were taken spaced equally down the pit profile. Results are shown on Table 1.

Pits 1 through 4 exposed massive quartz porphyry, exhibiting some weak argillic alteration, with up to 2% pyrite as fine disseminations.

Pit 1 was not found to be anomalous in gold at depth but soil profiles returned elevated lead values from the upper and lower "C" horizons.

Pit 2 soil profile returned highly anomalous gold values from the upper and lower "C" horizons. Lead was found to be highly anomalous in the upper and lower "C" horizons Pits 3 and 4 demonstrated similar geochemical response to sampling.

The upper "C" horizon in pit 5 was found to be moderately anomalous in gold and demonstrated a similar response for lead.

Pit 6 exposed foliated diorite and the pit profile was not found to contain anomalous values for the elements analysed.

Pit 7 exposed massive quartz porphyry and the soil profile contained highly anomalous gold and lead values increasing in tenor with depth.

Pit 8 exposed quartz porphyry with weak argillic alteration and containing 1-2% of a sulphide thought to be black sphalerite. This pit returned increased gold enrichment at depth but was not anomalous in zinc as expected.

Pits 9 and 10 were not found to be anomalous in gold but did demonstrate weak lead enrichment at depth.

Trenches 1 and 2 were excavated in attempts to test a copper in soils anomaly on the southern edge of the grid. Trench 1 was abandoned at 3.5m; resulting soil profiles did not return any anomalous values for any of the elements analysed. Trench 2, also opened to test a copper anomaly, gave similar results, with the exception of slightly elevated zinc values.

Trench 3 some 50m west of trench RC-21 was excavated to test a geophysical anomaly. Overburden was found to be too thick to

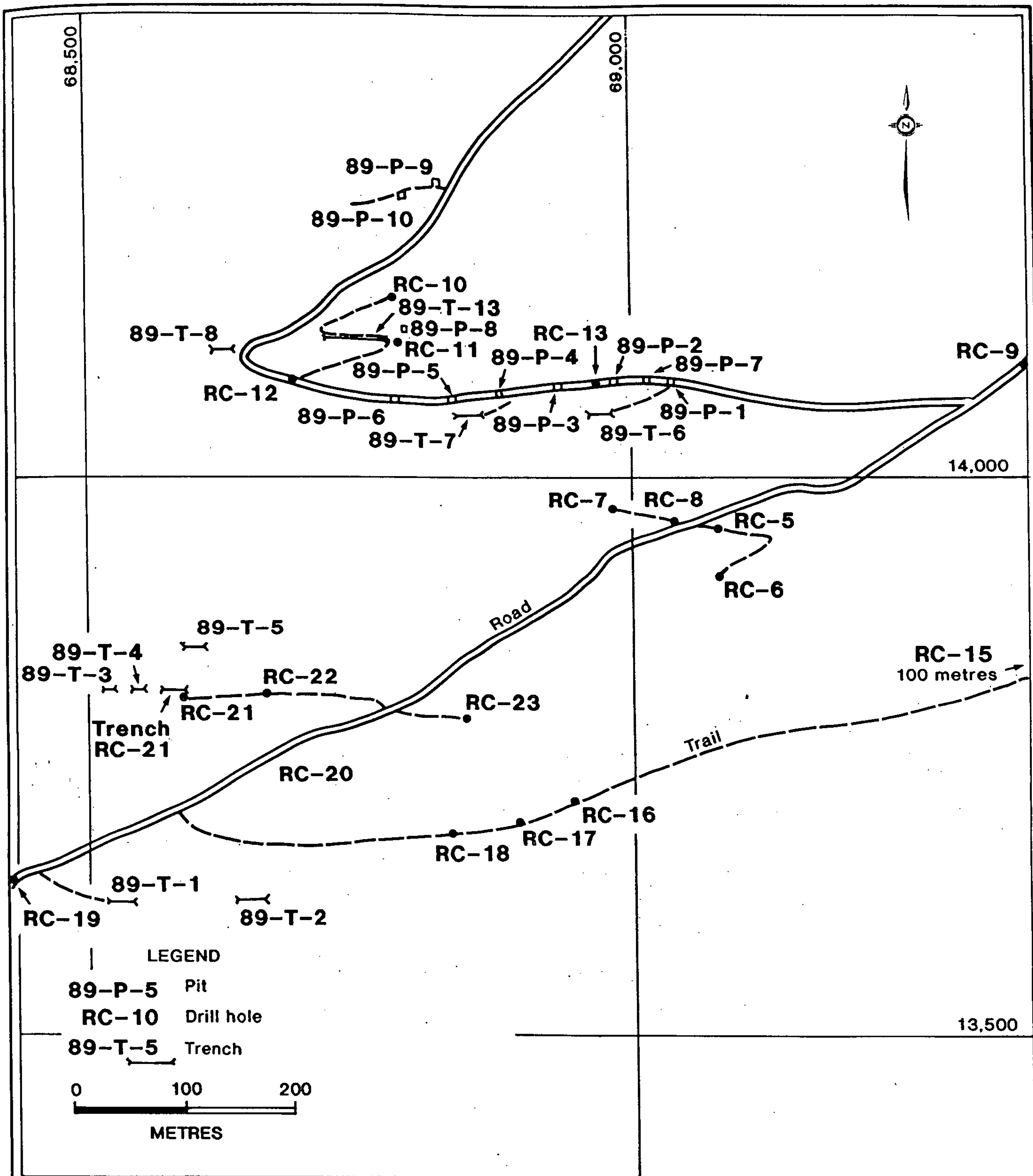


FIGURE 28

CAZADOR EXPLORATIONS LIMITED

HANSON LAKE PROJECT

Omineca Mining Division, British Columbia

1989 EXPLORATION WORK

DECEMBER 1989

AINSWORTH-JENKINS HOLDINGS INC.

intersect bedrock and was abandoned at a depth of over 4m. Sub-crop was found to be diorite that was angular and badly weathered. No anomalous values were returned.

Bedrock was not intersected in trench 4, adjacent to trench 3, and the soil profiles did not return any anomalous values.

Trench 5 excavated 50m due north of trench RC-21 intersected a rusty fine grained intrusive. Unstable trench walls prevented insitu sampling, however bedrock grab samples and soil profiles returned negative results.

Trench 6 opened for 6m exposed massive quartz porphry that is crosscut by a narrow aplite dyke. Soil profiles did not return anomalous values for copper, lead, silver or gold, but the "B" horizon returned anomalous zinc values.

Trench 7 was opened for 47m. From 0-42m the trench exposed massive quartz porphyry that contained trace amounts of pyrite and exhibits weak argillic alteration. From 42-47m the upper surface of the quartz porphyry bedrock is heavily coated with manganese oxide and lesser hematite. The lower "C" horizon is highly anomalous in both gold and lead.

Trench 8 exposed foliated diorite at a depth of 3m. the corresponding soil profile did not return any anomalous values.

Trench 13 opened over 53m exposed hornblende biotite schist that demonstrated variable chloritic alteration, ranging from weak to intense. A migmatitic ? contact with quartz porphyry was observed. A soil profile taken down the 1m deep trench at the eastern end returned a highly anomalous gold value from the lower "C" horizon but demonstrated an inverse relationship with zinc geochemistry.

9.2. CENTRAL GRID -BYSOUTH ZONE

Four trenches were opened sampled and mapped on the central grid. Three of these trenches were designed to test IP anomalies discovered by Canex Placer Ltd. during their exploration programs conducted during the 1970's. The fourth was opened between two trenches excavated by the previous operators, that reported copper mineralization in a narrow shear zone.

Trench location is shown on Figure 29 and results are on Table 2.

Trench 9 was opened over 60 m and exposed weakly foliated to massive diorite bounded by a 1m basalt dyke in contact with mas-

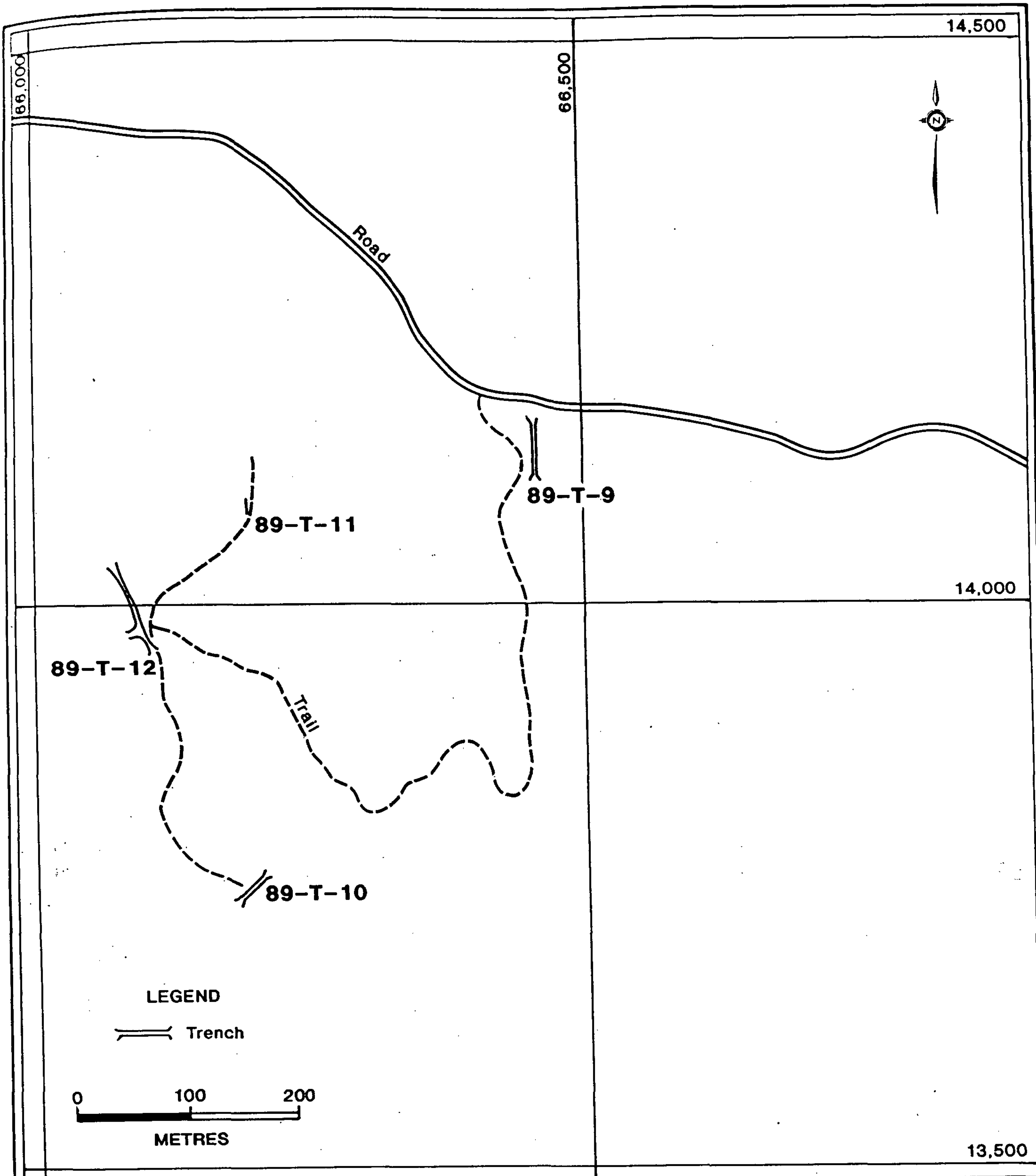


FIGURE 29

CAZADOR EXPLORATIONS LIMITED

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sive quartz porphyry. The trench made water and sampling the bedrock in situ was not possible.There were negligible sulphides or alteration in the rock fragments recovered; soil samples at different horizons returned no anomalous values.

Trench 10 was opened over 24m and exposed massive to weakly foliated diorite crosscut by several magnetite rich andesite and basalt dykes.

Trench 11 did not intersect bedrock. Soil profile samples did not return anomalous values.

Trench 89-T12

Trench 12 was opened between two trenches excavated by the previous operator in order to test for continuity of mineralization between these trenches. A narrow shear zone ranging in width from several cm to 50cm in width was mapped in the North end of the trench. This shear, which cuts through massive to foliated melanocratic diorite, contains fragments of amphibolite from the Cashe Creek Group. Chalcopyrite, bornite, and malachite staining are associated with the shear, with chalcopyrite forming blebs and masses up to 5% of the composition. Mineralization is not restricted to the shear.

Several silicified dykes crosscut the trench and the tenor of the copper mineralization tends to increase across these. An increase in copper content showed a corresponding increase in gold values indicating that the gold is associated with the copper.

A crosscut, cut perpendicular to the trench at 56 to 59 m, showed alteration, thought to be related to the shear, penetrates the wall rock for approximately 2.5-3m.

Soil profile samples returned highly elevated values in the lower "C" horizon for copper and gold.

10. METALLURGICAL TESTING

A short series of metallurgical tests were completed at Westcoast Mineral Testing Inc.. The reports filed by that company comprise Appendix "E" of this report.

The work consisted of exploratory flotation and cyanidation tests of two composites of sample material from trenches. The results are not definitive. Recovery of total copper and gold was not good in the first flotation tests. Subsequent examination suggested the presence of a large oxide copper component was the cause of the low recovery. Re-analysis showed that recovery of sulphide copper was approximately 89%. Cyanidation tests of the mineralization recovered 88.7% of the gold and 39.6% of the silver. Cyanide consumption was 0.8 kg/t. The specific sample from Trench 21 was oxidized. Hence, the applicability of the results of this test work to deeper mineralization is unknown.

11. STATEMENT OF COSTS

Contractors labour charge:

Ainsworth, B.	3	days @ $400 /day		$1,200
Jenkins, D.	7.5	days @ $400 /day		$3,000
	7	hrs @ $50/hr		350
Clendenan,A	8.5	days @ $400 /day	Sept 18-Sept 29	$3,400
Twyman, M.	32	days @ $400 /day	Sept 25-Oct 31	$12,800
Twyman, M.	4	days @ $230 /day	Sept 21-Sept 24	920
McKenzie, T.	19	days @ $230 /day	Sept 21-Oct 9	$4,370
Izaak, A.	30	days @ $230 /day	Sept 21-Oct 20	$6,900
Bowes, G.	12.5	days @ $230 /day	Sept 27-Oct 9	$2,875

Accommodation and meals:	
Accommodation 102 man days at $21.53 per man day	$2196
Meals 102 man days @ $20.35 per man day	$2075.91
Vehicle Rentals:	$1,077.51
Vehicle Expenses: gas, oil, repairs, etc.	$1,745.66
Transportation freight and communications	$1,285.84
Road Construction: bulldozer, skidder, fallers,	$10,567
Trench work:	$5,310
Consultants:	
Scott Geophysics Ltd	$9,977
JMT data processing	221
Sample Analysis:	$16,357.00
Field supplies:	$1,024.13
Office support: copying, drafting	378.56
Report Preparation:	$5,000
Metallurgical testing	$1,061.75
SUBTOTAL	$ 94,092.36
Exploration supervision:	
Field Inspection visit by J.A. Chapman Oct13-14th	$1,165.50
CEIP SUBTOTAL	$95,257.86
Planning and preparation visit Aug 11-13th (see Appendix F)	$2,025.58
GRAND TOTAL	$97,283.44

12. REFERENCES

BYSOUTH, G.D.,	1971	Report on the Justine-Hanson Project Hanson Lake area, B.C.,
Chapman, J.A.,	1989	Exploration Report, Reverse Circulation Drill Program, January and February 1989,
CYR, J.B.,	1974	Report on the Hanson Lake Project Hanson Lake area, B.C., May 28 1984
HOUSE, G.D.,	1988	Report on the Hanson Lake Property Fraser Lake area Omineca mining division B.C.,
JENKINS, D.M.,	1988	Cazador Explorations Limited Hanson Lake Project 93K/2,3,6,7 Omineca Mining Division B.C., Geochemical/Geophysical program October 1988,

13. STATEMENT OF QUALIFICATIONS

I, Michael P. Twyman of the District of North Vancouver, Province of British Columbia do hereby certify as follows:

1. I am a Consultant Geologist residing at 4687 Tourney Rd. North Vancouver British Columbia

2. I am a fellow of the Geological Association of Canada. I graduated with a B.Sc. in geology from the University of British Columbia in 1984.

3. I have practiced my profession continuously since graduation. I have worked as a consultant Geologist on exploration projects throughout B.C., and in Sierra Leone, West Africa.

4. I am the author of this report which is based on work that I personally supervised in the field during September and October of 1989.

Dated this 22nd day of December 1989.

Michael P. Twyman, B.Sc. F.G.A.C.
Consultant Geologist
AINSWORTH-JENKINS Holdings Inc.

APPENDIX A
GEOPHYSICAL DATA

NOTE: Original magnetic and electromagnetic data are posted on maps located in pockets at the back of this report.

APPENDIX B

GEOCHEMICAL DATA

NOTE: Original geochemical data are posted on the maps in the pockets of this report, with the tabulated data.

APPENDIX C
EAST GRID TRENCH RESULTS

TRENCH	No	SAMPLE No	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
89-T-1	"B" Horizon	454585	5	1.4	36	68	337
89-T-1	Upper C	454586	5	0.8	78	26	98
89-T-1	Lower C	454587	5	1.1	61	21	87
89-T-2	"B" Horizon	454588	5	1.6	64	51	444
89-T-2	Upper C	454589	5	1.2	112	54	218
89-T-2	Lower C	454590	5	1.2	77	53	251
89-T-3	"B" Horizon	454572	5	0.9	21	26	394
89-T-3	Upper C	454573	5	0.7	75	38	163
89-T-3	Lower C	454574	5	0.9	80	57	196
89-T-4	Lower C	454578	5	1.4	83	113	471
89-T-5	"B" Horizon	454579	5	1.2	51	82	709
89-T-5	Upper C	454580	5	1.5	72	93	574
89-T-5	Lower C	454581	5	1.0	76	87	416
89-T-6	"B" Horizon	454603	10	1.3	40	435	2800
89-T-6	Upper C	454604	200	1.9	100	600	535
89-T-6	Lower C	454605	70	1.6	60	760	490
89-T-7	"B" Horizon	454606	5	0.9	30	37	475
89-T-7	Upper C	454607	10	1.3	110	325	640
89-T-7	Lower C	454608	920	14.9	330	4300	410
89-T-8	"B" Horizon	454628	25	1.0	49	95	152
89-T-8	Upper C	454629	60	0.8	55	97	200
89-T-8	Lower C	454630	60	1.1	105	106	245
89-T-13	"B" Horizon	454640	5	1.2	30	120	2060
89-T-13	Upper C	454641	5	2.4	170	660	880
89-T-13	Lower C	454642	210	6.4	40	1360	170

TRENCH	No.	SAMPLE No	Au g/tonne	Au oz/ton	Ag g/tonne	Ag oz/ton	Cu %	Pb %	Zn %
89-T-13	Bedrock Grab	454643	0.05	0.001	1.9	0.06	0.002	0.04	0.02
89-T-21	0-3 m	454652	0.23	0.007	25.9	0.76	0.001	0.01	0.01
T-RC-21	3-6m	454653	1.48	0.043	73.8	2.15	0.001	0.01	0.01
T-RC-21	6-9m	454654	3.95	0.115	203.0	5.92	0.001	0.01	0.01
T-RC-21	9-12m	454655	0.49	0.014	30.7	0.90	0.001	0.01	0.01

APPENDIX D
CENTRAL GRID TRENCH RESULTS

TRENCH	No	SAMPLE No	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
89-T-9	"B" Horizon	454656	5	1.0	61	22	127
89-T-9	Upper C	454657	10	0.9	135	15	79
89-T-9	Lower C	454658	5	0.8	210	40	121
South End							
89-T-10	Upper C	454501	5	1.0	180	23	140
89-T-10	Lower C	454502	10	1.4	515	40	173
89-T-10	"B" Horizon	454510	10	0.8	30	21	227
North End							
89-T-10	Float	454511	5	0.7	50	13	47
89-T-10	"B" Horizon	454512	20	0.8	100	19	105
89-T-10	Upper C	454513	10	0.5	150	17	80
89-T-10	Lower C	454514	10	0.6	155	26	102
89-T-11	"B" Horizon	454515	5	0.7	170	19	87
89-T-11	C at bedrock	454516	10	0.7	90	15	63

TRENCH	No.	SAMPLE No	Au g/tonne	Au oz/ton	Ag g/tonne	Ag oz/ton	Cu %	Pb %	Zn %
89-T-12	2.4-5 m	454520	0.30	0.009	0.1	0.01	0.043	0.01	0.01
89-T-12	6.4-7.7m	454521	0.37	0.011	0.2	0.01	0.328	0.01	0.01
89-T-12	7.7-10.7m	454522	0.60	0.016	4.1	0.12	0.790	0.01	0.01
89-T-12	10.7-13.7m	454523	0.21	0.006	0.4	0.01	0.152	0.01	0.01
89-T-12	13.7-16.7m	454524	0.35	0.010	1.6	0.05	0.248	0.01	0.01
89-T-12	16.7-20m	454543	0.22	0.006	1.3	0.04	0.140	0.01	0.01
89-T-12	20-23m	454544	0.80	0.023	2.0	0.06	0.552	0.01	0.02
89-T-12	23-27m	454545	0.38	0.011	1.8	0.05	0.253	0.01	0.01
89-T-12	27-30m	454529	0.10	0.003	0.3	0.01	0.041	0.01	0.01
89-T-12	30-33m	454530	0.19	0.006	0.2	0.01	0.059	0.01	0.01
89-T-12	33-36m	454531	0.38	0.011	1.5	0.04	0.271	0.01	0.01
89-T-12	36-39m	454532	0.05	0.001	1.3	0.04	0.038	0.01	0.01
89-T-12	39-42m	454533	0.76	0.022	3.9	0.11	0.910	0.01	0.02
89-T-12	42-45m	454534	1.30	0.038	4.0	0.12	1.320	0.01	0.02
89-T-12	45-48m	454535	0.23	0.007	1.9	0.06	0.112	0.01	0.01
89-T-12	48-51m	454536	0.19	0.006	2.1	0.06	0.089	0.01	0.01
89-T-12	51-54m	454546	0.19	0.006	0.5	0.01	0.071	0.01	0.01
89-T-12	54-57m	454547	0.20	0.006	0.2	0.01	0.072	0.01	0.01
89-T-12	57-60m	454548	0.40	0.012	0.4	0.01	0.338	0.01	0.01
89-T-12	60-63m	454549	0.13	0.004	1.8	0.05	0.070	0.01	0.01
89-T-12	63-66m	454550	0.29	0.008	1.7	0.05	0.157	0.01	0.01
89-T-12	66-69m	454551	0.21	0.006	0.6	0.02	0.139	0.01	0.01
89-T-12	69-72m	454552	0.41	0.012	1.3	0.04	0.373	0.01	0.01
89-T-12	72-74m	454553	0.58	0.017	0.3	0.01	0.482	0.01	0.02
Cross-Cut									
89-T-12	0-3m	454540	0.19	0.006	0.8	0.02	0.130	0.01	0.01
89-T-12	3-6m	454541	0.20	0.006	0.6	0.02	0.432	0.01	0.01
89-T-12	6-9m	454542	0.20	0.006	0.4	0.01	0.241	0.01	0.01

TRENCH	No	SAMPLE No	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
Cross-Cut							
89-T-12	Lower C	454537	770	1.8	5800	22	87
89-T-12	Upper C	454538	5	0.9	130	31	164
89-T-12	"B" Horizon	454539	5	0.9	95	19	158
North End							
89-T-12	"B" Horizon	454517	20	1.4	91	23	667
89-T-12	Upper C	454518	5	0.7	120	20	185
89-T-12	Lower C	454519	3760	5.4	15000	34	103
South End							
89-T-12	"B" Horizon	454554	5	1.4	100	32	190
89-T-12	Lower C	454555	260	1.7	2600	48	150
89-T-12	Upper C	454556	10	0.8	120	25	89

APPENDIX E

METALLURGICAL TEST REPORTS

W-890137

FLOTATION TEST--CZ-GF-3

November 13, 1989

CLIENT: Cazador / Ainsworth Jenkins PROJECT: Hanson Lake

SAMPLE: Composite C-1, from 89T-12 (samples 45420-24, 29-36, 43-53). This compo. is of interest for Au and Cu.

OBJECTIVE: Preliminary gravity / staged flotation test.

PROCEDURE: Grind: 1000 gm / 7 min / 67 % solids
Gravity: K = + 100:1
Float: 3 stages of rougher flotation only.
Wet/Dry Screen: Flotation tailing @ 325 mesh.

TEST CONDITIONS: Flotation

Time	Event	DF250	3418A	PAX			LIME	pH
0 min	Float 1	63	-					9.1
3	Float 2		3					
4		63						
6	Float 3	63		20				
8		63						
9	Finish	252	3	20				

All reagent consumptions in g/t

METALLURGICAL CALCULATIONS:

	Assay			Distribution %	
Product	Wt %	Au oz/t	Cu %	Au	Cu
Pan conc	0.35	0.224	1.26	4.6	1.4
Float 1 conc	2.1	0.178	6.74	22.4	48.0
Float 2 conc	1.4	0.088	2.02	7.0	9.4
Float 3 conc	2.4	0.079	1.15	11.1	9.4
Total conc	6.3	(0.123	3.27)	45.1	68.2
Rghr Tlg	93.7	0.010	0.10	54.9	31.8
Feed(calc)	100.0	(0.017	0.30)	100.0	100.0
assay		0.020	0.32		
Field Sampling		0.010	0.22		

COPPER ANALYSES

Product	Ox.Cu %	T Cu %
Flot tlg	0.08	0.10
Feed	0.12	0.30

SCREEN ANALYSIS - flotation tailing

Mesh	Micron	Wt %					
		20.0					
150	105						
		15.1					
200	75						
		26.6					
325	45						
		38.3					
		100.0	(		)		

64.9 % - 200 mesh.

OBSERVATIONS:

-- The pan concentrate did not contain any visible Au, but it contained an estimated 30 % magnetite.

-- Unlike the C-2 composite, this sample was competent and appeared not to be significantly weathered.

CONCLUSIONS

-- The overall recovery of both Au and Cu was not good, although in the case of the Cu this was due to the presence of oxide copper minerals. Presumably, this in part explains the low Au recovery as well.

The feed and tailing have been assayed for oxide Cu, and indicate that while only 68 % of the total Cu was recovered in gravity + flotation concentration, the recovery of sulphide Cu was approximately 89 % and that of the oxide Cu was a predictably low 47 %.

-- The 4.6 % Au recovery in gravity concentration is insufficient to justify the inclusion of a gravity stage in the processing flowsheet.

-- The accompanying ICP analyses of the head and F-1 flotation concentrate samples indicate that neither the feed or the concentrate contain any deleterious elements.

RECOMMENDATIONS:

-- There is no point in performing additional testing at this time to optimize the metallurgy on this probably weathered sample.

However, as soon as fresh mineralization, of an economically viable grade is encountered, additional testing needs to be performed to determine the response to flotation concentration.

(2480 - 2482)

W-890138

FLOTATION TEST--CZ-GF-4

November 14, 1989

CLIENT: Cazador / Ainsworth Jenkins PROJECT: Hanson Lake

SAMPLE: Composite C-2 from trench RC-21 (samples 454652-54). This sample is of interest for Au and Ag. The sample contains arsenic minerals.

OBJECTIVE: Preliminary gravity / flotation test.

PROCEDURE: Grind: 1000 gm / 7 min / 67 % solids
Gravity: K = + 100:1
Float: Bulk rougher + 1 stage of cleaning.
Wet/Dry Screen: Flotation tailing @ 325 mesh.

TEST CONDITIONS: Flotation

Time	Event	DF250	3418A	PAX			LIME	pH
0 min	Float 1	63	6					
3				20				
4				10				
6				10				
9	Finish	63	6	40				6.8

All reagent consumptions in g/t

METALLURGICAL CALCULATIONS:

	Assay			Distribution %	
Product	Wt %	Au oz/t	Ag oz/t	Au	Ag
Pan conc	0.17	1.775		6.5	
Float 1 C C	0.79	1.293		21.9	
" C T	3.6	0.184		14.2	
Total conc	4.6	(0.43	)	42.6	39.7
Rghr Tlg	95.4	0.028	1.44	57.4	60.3
Feed(calc)	100.0	(0.047	2.39)	100.0	100.0
assay		0.052			
field sampling		0.045	2.43		

WESTCOAST MINERAL TESTING INC. 1128 W. 15th St., North Vancouver, B.C., Canada V7P 1M9 Bus. (604) 984-6493 Fax (604) 986-2125

SCREEN ANALYSIS - flotation tailing

Mesh	Micron	Wt %	Au oz/t	Ag oz/t
		25.2	0.060	3.06
150	105			
		13.8	0.024	1.14
200	75			
		18.2	0.018	0.88
325	45			
		42.8	0.014	0.82
		100.0	(0.028	1.44)
			0.038	1.81

61.0 % - 200 mesh.

OBSERVATIONS:

-- Although the samples was described as having elevated As levels, the sulphide content was quite low, by both observation and the low weight recovery in the cleaner flotation concentrate at 0.8 %.

-- The sample was heavily weathered, and was pasty after grinding at 67 % solids.

-- There was no apparent sulphide float after the initial addition of 3418A.

-- The F-1 rougher flotation concentrate was quite dirty and did benefit from cleaning.

-- The F-1 cleaner concentrate was also somewhat dirty and would probably benefit from additional cleaning.

CONCLUSIONS

-- The recovery of both Au and Ag were quite low, at 35 % and 28 %, respectively.

-- The response of this material to gravity concentration, with a Au recovery of only 5 %, is not good. Future testing need not include gravity concentration.

-- The accompanying ICP analysis of both the head and F-1 CC samples indicate low arsenic content, at only 30 ppm on the head sample and 594 ppm in the concentrate.

RECOMMENDATIONS:

-- Perform a cyanidation test to determine the Au exposure and potential amenability to cyanidation. This needs to be done, since this flotation test may have "failed" because of excessive oxidation, and not because the material is refractory.

  This was done in test CZ-L-5 with a very good reported 88 % Au recovery and a low 39.6 % Ag recovery.

-- Although his test provided useful data, future preliminary testing should be performed on samples from sufficient depth that oxidation does not potentially alter the results.

(2483 - 2485)

W-890139

Nov 20, 1989

CYANIDATION --CZ-L-5

CLIENT: Cazador / Ainsworth Jenkins PROJECT: Hanson Lake

SAMPLE: C-2 composite

OBJECTIVE: Preliminary straight cyanidation test.

PROCEDURE: -Grind: 500 gm / 4 min / 40 % solids
-Gravity: No
-Preareation: Nil
-Leach: 24 hr / 33 % solids / 1 g/l NaCN / pH 10.0-10.5
-Wet / dry screen: @ mesh
-Carbon: no

TEST CONDITIONS: Cyanidation

Time	Addition - gm		NaCN g/l	Pb(NO3)3	pH	
Hr	NaCN	Ca(OH)2			Initial	Final
L-0	1.0	11.0	-		6.5	10.2
-1	-	-	0.85		11.0	
-24	-	-	0.55		11.0	

REAGENT CONSUMPTION: Cyanidation

Reagent	gm	kg/t
NaCN	0.39	0.80
Ca(OH)2	11.0	22.0
Pb(NO3)2	-	

METALLURGICAL CALCULATIONS:

Product	gm	Assay oz/t Au	Assay oz/t Ag	Distribution % Au	Distribution % Ag
Preg sol'n	1,118	0.024	0.421	88.7	39.6
Leach tlg	481.5	0.007	1.49	11.3	60.4
Feed(calc.)	481.5	(0.063	2.47)	100.0	100.0
assay		0.052			

SCREEN ANALYSIS: Leach Tailing

Mesh	Wt %	Au oz/t	Ag oz/t
	27.2	0.006	0.90
150			
	11.2	0.004	0.99
200			
	24.6	0.006	1.23
325			
	37.0	0.008	2.25
	100.0	(0.007	1.49)

61.6 % - 200 mesh.

PREGNANT SOLUTION ANALYSIS: ppm

	Au	Ag	Cu	Fe	As
24 hr	0.82	14.4	4.8	2.2	<0.2

OBSERVATIONS:

-- The slurry was slimy, but it responded well to SF 127.

CONCLUSIONS:

-- The recovery of Au, in cyanidation, at 88.7 %

-- The recovery of Ag, at 39.6 %, was quite low, probably reflecting the presence of Ag sulphides.

-- The consumption of NaCN, at 0.8 kg/t was not particularly high.

RECOMMENDATIONS:

-- The amenability of this material to cyanidation, for Au recovery, is encouraging. However, once unweathered mineralization is exposed, there is no assurance that this characteristic will persist.

-- Additional testing, therefore, needs to be performed on fresh samples which will be acquired in a future exploration program.

(2486 / 2487)

CDN RESOURCE LABORATORIES LTD.

6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

** CERTIFICATE OF ANALYSIS **

To: Westcoast Mineral Testing
1128 West 15th Street
North Vancouver, B.C.
V7P 1M3

Number: 833531
Date: November 24, 1983
Proj.:

Attn: Gary Hawthorn

Type of Analysis: ICP-AES

	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm
[redacted]														
2480	3.6	1.18	54	82	34	3	8	2.56	1	31	126	3322	2.87	ND
2481B	40.3	1.01	2	572	50	3	8	1.86	5	1	44	48260	6.96	ND
2483	63.1	0.40	30	138	96	1	38	0.03	1	13	159	191	2.90	ND
2484B	58.2	0.13	534	10300	124	1	123	0.03	7	165	74	276	19.55	18

CAZADOR

SAMPLE	DESCRIPTION
2480	C-1 COMPO - 89T12
2481 B	F-1 FLOT CONC - TEST CZ-GF-3
2483	C-2 COMPO - RC21
2484 B	F-1 CLEANER CONC - TEST CZ-GF-4

GDN RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

** CERTIFICATE OF ANALYSIS **

To: Westcoast Mineral Testing
1128 West 15th Street
North Vancouver, B.C.
V7P 1M9

Number: 69359i
Date: November 24, 1989
Proj.:

Attn: Gary Hawthorn

Type of Analysis: ICP-AES

	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	V ppm	W ppm	Zn ppm
[redacted]													
2480	8	1.10	356	14	NA	30	226	2	108	0.35	101	40	52
2481B	7	1.00	393	25	NA	48	25	17	88	0.21	79	86	250
2483	9	0.06	109	10	NA	5	144	2	52	0.01	11	8	40
2484B	6	0.02	155	17	NA	33	645	61	25	0.01	9	40	740

APPENDIX F

PLANNING AND PREPARATION VISIT

January 3, 1990

Ainsworth-Jenkins Holdings Inc.
Suite 525-890 West Pender St.
Vancouver, B.C., V6C 1J9

Attention: Mr. Ben Ainsworth, P.Eng.

Dear Ben:

RE: SEPTEMBER-OCTOBER HANSON LAKE EXPLORATION PROGRAM

Attached are copies of exploration expenses submitted to Cazador as part of the September-October exploration program at Hanson Lake.

Exploratory Trip to Hanson Lake by John Chapman and Barry C. Way with Brian Remanda, to plan the next phase of the exploration program, on August 11-13, 1989.

Accommodation and meals	$228.86
Field supplies	60.57
Field crew-powersaw 2 days @ $100/day	200.00
Technical & professional fees 3 days @ $250/day	750.00
Transportation	333.00
Vehicle rental	332.16
Vehicle expenses: gas, oil, repairs	120.99
Total	$2,025.58

Field visit by John Chapman to Hanson Lake on October 13-14, 1989 to assist in the exploration program.

Accommodation and meals	$ 46.75
Technical & professional fees 2 days @ $250/day	500.00
Transportation	423.10
Vehicle rental	158.15
Vehicle expenses: gas, oil, repairs	37.50
Total	$1,165.50