

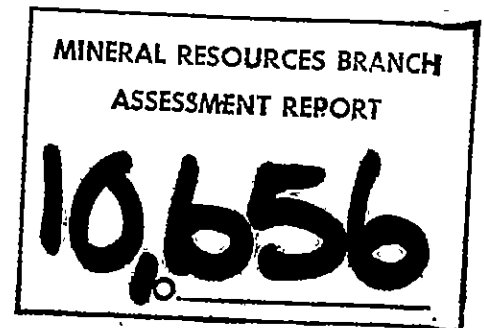
82-605-10656

ASSESSMENT AND PROGRESS REPORT ON  
DRILLING, GEOPHYSICS AND GEOLOGY

ON THE

SILVER CUP: SILVER CUP #1,#2; BIG QUA; MAPLE LEAF;  
VINCENT; HIGH COMMAND; SAM; GOLDEN EAGLE 1-4;  
TUYA 1-4; COR 1-3; COR 1Fr.-3Fr.; MINERAL CLAIMS

KNOWN AS THE  
TOPLEY PROPERTY  
OMINECA MINING DIVISION  
BRITISH COLUMBIA



93L/9 LAT.  $54^{\circ} 32'$  N.  
LONG.  $126^{\circ} 13'$  W.

OWNERS OF CLAIMS: GEOKOR ENERGY HOLDINGS LTD., W.H. MORRIS,  
L. PERRY, RONALD WILLIAMS, BISHOP MINES LTD.

OPTIONOR AND OPERATOR: BISHOP MINES LTD.

by

C. H. STANLEY, B.Sc. Geophysicist (Author)

CONSULTANT: Mr. R. W. PHENDLER, P.Eng.

September 7, 1982

VANCOUVER, B. C.

PHENDLER ENGINEERING LTD.

7360 Decourcy Cres., Richmond, B.C. V7C 4E9

September 20, 1982

Mr. R. Rutherford,  
Chief Gold Commissioner  
411 Douglas Bldg.  
Victoria, B.C.  
V8V 1X4

Dear Sir:

Re: Assessment Report, Topley Property  
for Bishop Mines, Ltd. by C.H. Stanley.

The accompanying assessment report covers work carried out in the past year on the Silver Cup property of Bishop Mines, Ltd. I have been closely involved as the Company's consultant in the acquisition, program planning and the supervision of the work.

I personally logged and sampled the drill core and am in full accord with conclusions and recommendations in the report.

CERTIFICATION

I certify that I am a registered member of the Association of Professional Engineers of British Columbia, am a graduate of McGill University, Montreal with a Bachelor of Science degree in Geology and have no interest in the property nor hold shares in Bishop Mines, Ltd.

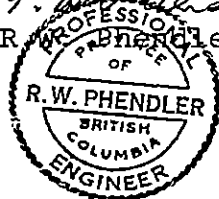
*R. W. Phendler*  
R. W. Phendler, P. Eng.  
A circular professional seal for R. W. Phendler, a registered professional engineer in British Columbia. The seal contains the text: "PROFESSIONAL ENGINEER OF BRITISH COLUMBIA" around the perimeter and "R. W. PHENDLER" in the center.

TABLE OF CONTENTS

	PAGE
SUMMARY AND CONCLUSIONS	1
A. INTRODUCTION	
1. GEOGRAPHIC AND PHYSIOGRAPHIC POSITION	2
2. ACCESS	2
3. PROPERTY DEFINITION	3
4. HISTORY	5
B. GEOLOGY	7
C. SUMMARY OF WORK	
1. DRILLING	8
2. GRID ESTABLISHMENT	10
3. GEOPHYSICAL SURVEY SURVEY SPECIFICATIONS	11
D. DETAILED TECHNICAL DATA AND INTERPRETATION	
1. DRILLING	
(a) PURPOSE	13
(b) RESULTS	13
(c) INTERPRETATION	13
(d) CONCLUSIONS	15
2. GEOPHYSICS AND GEOLOGY	
(a) PURPOSE	15
(b) INTERPRETATION OF RESULTS	
(i) PHOTOGEOLOGY	16
(ii) GEOLOGY	18
(iii) GEOPHYSICS, VLF EM-16 SURVEY	19
(c) CONCLUSIONS	25
E. BIBLIOGRAPHY	26
F. CERTIFICATION	27

MAPS AND ILLUSTRATIONS

		SCALE	PAGE
FIGURE 1.	LOCATION MAP, CLAIM MAP, AND AREA OF DRILLING	1:25000	4
FIGURE 2.	REGIONAL GEOLOGY	1:50000	9
FIGURE 3.	AIR PHOTO, BC 7746, NO. 130	Approx. 1"=1600'	17
FIGURE 4.	SUPERIMPOSITION OF FIGURES 5,6,7 APPENDIX II	1"=100'	20
FIGURE 4a	SUPERIMPOSITION OF FIGURES 5,6,7 APPENDIX II	1"=100'	21
FIGURE 4b	PROFILE FOR TABULAR SLAB REPRINT FROM OPERATING MANUAL-EM-16	N/A	23
FIGURE 5.	DIAMOND DRILL PLAN E-M GRID AND GEOLOGY	1"=100'	POCKET

FIGURE 6.	EM-16 VLF, E-M PROFILES	1"=100'	POCKET
FIGURE 7.	EM-16 VLF, FRASER FILTERED DATA	1"=100'	POCKET
PICTURE A	BLEACHED ZONE FROM HOLE 82-2		14
PICTURE B	BLEACHED ZONE ON DRILL PAD 82-4		14
PICTURE C	HIGH-GRADE SECTION FROM HOLE 82-3		14a
PICTURE D	CLOSE-UP OF HIGH GRADE SECTION, 82-3		14a

APPENDICES

<u>TITLE</u>	<u>APPENDIX</u>
PROGRESS REPORT ON 1981 PROGRAM-SILVER CUP PROPERTY by MR. R.W. PHENDLER, P.ENG., DATED MARCH 3, 1982	I
PROGRESS REPORT - SILVER CUP PROPERTY by MR. R. W. PHENDLER, P.ENG., DATED AUGUST 7, 1982	I
ASSAY CERTIFICATES	I
DRILL LOGS	I
DRILL INVOICES	I
GEOCHEMICAL SURVEY MAPS, ENDAKO MINES LTD. SCALE 1"=1000', OCTOBER, 1972	II
COST STATEMENTS	III

## SUMMARY AND CONCLUSIONS

The Topley Property, the subject of this report consists of 18 individual claims known as the Silver Cup claims, the Golden Eagle claims, and the Tuya claims. Contiguous to these claims are 3 COR claims consisting of 30 units and 3 COR fractions. In total, these claims cover 1161 hectares or 2870 acres.

The above claims have previously been treated as separate properties by different owners, each having their own vein system. Because of the geological environment in which the Topley Property is set, the writer believes that the individual showings in the area of interest could be related. As a result, the company, under the supervision of Mr. R.W. Phendler, P.Eng., undertook to test continuity of mineralization on the Silver Cup claims. The drilling in 1981 revealed that there are high grade sections within a wide (eleven to fifty-two feet) tabular, bleached zone which is open to the west, east, south and at depth. Drilling in 1982 revealed that the bleached altered zone is at or near surface on either side of the drilling grid and that in fact 1981 drilling may have been carried out in an andesite ridge.

Mr. Phendler recommended using an EM-16 unit to do a reconnaissance electro-magnetic survey in order to pin-point conductors for drilling and as a means to relate any possible high grade sections to the bleached altered zone. The results from the e-m survey were very encouraging as interpreted because of the manner in which it relates to work already carried out.

Conductors were identified which appear to be encouraging targets for drilling. It is hopeful that these conductive zones described herein may contain sulfides that will be of significance to develop.

Work was carried out on this property from June 9 to September 10, 1982 and a Summary of Costs are in Appendix I and III.

## A. INTRODUCTION

### 1. GEOGRAPHIC AND PHYSIOGRAPHIC POSITION

The Topley Property is located on the north side of Mt. McCrea and Findlay Creek (formerly known as Richfield Creek), between elevations of 975 meters (3200 feet) and 1522 meters (4995 feet) A.S.L., 7.5 km (4.5 miles) north-east of Topley B. C. The town of Topley, B.C. is situated 40 km (25 miles) east of Houston, B.C. on the Yellowhead Highway 16 which connects Prince George, B.C. to Prince Rupert, B.C. The coordinates are LAT.  $54^{\circ} 32'N$  and LONG.  $126^{\circ} 13'W$ . Most of the exploration and development has been at the lower elevations.

The northern interior plateau climate here is moderate with below-freezing average temperature from November to March and there is light to moderate precipitation at the lower elevations. Nez Lake, which drains into Findlay Creek, is part of the headwaters which form the Bulkley Valley drainage system. Findlay Creek flows westerly, through the northern edge of the property. Forest cover is predominately lodgepole pine. There is some scattered spruce and balsam and undergrowth in previously fire burned areas is dense, particularly in the swampy areas, and windfalls are plentiful.

Glaciations, as can be seen from striations on outcrop in Findlay Creek, was apparently west to west-south-west. Outcrops are scattered throughout the property and consist of andesite ridges above the swampy areas, and trend generally north-westerly, south-easterly.

### 2. ACCESS

Road access from B.C. Highway 16 is north by paved road along the Granisle-Babine Lake Road for 4.0km (2.4 miles), then by good gravel road east for 5.0 km (3.0 miles). The last section of road

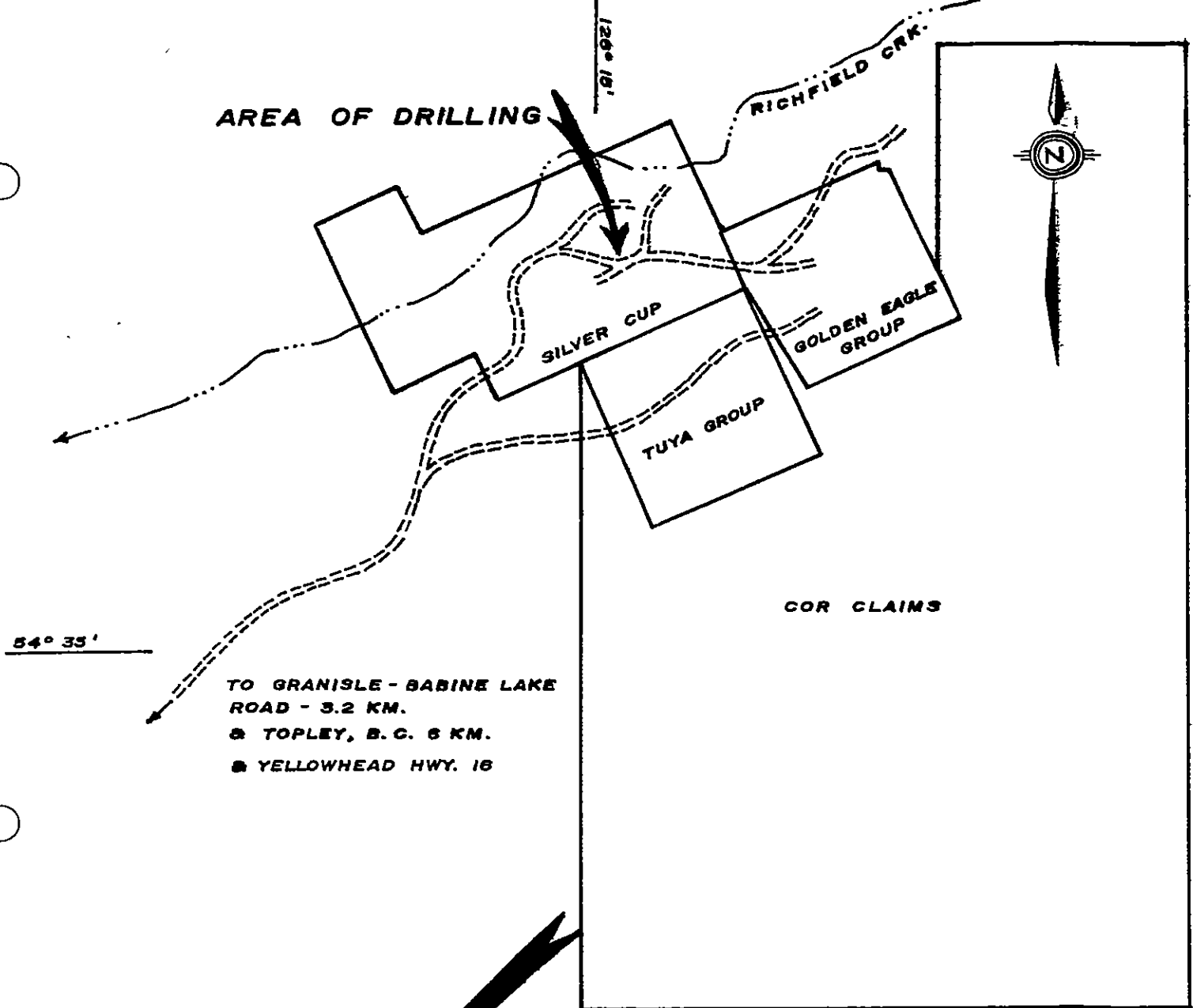
for 3.2 km (2.0 miles) requires a four-wheeled drive vehicle in wet conditions.

Access by air travel by commercial airlines is to Smithers, B.C. about 1.5 hours flight from Vancouver, B.C. Smithers is 57 km (36 miles) west of Houston, B. C. There is a gravel runway at a Federal Airport 7.2 km (4.5 miles) south-west of Houston, B.C., which is available all year for light aircraft use. See figure 1, page 4 for Location Map, Claim Map, and Area of Drilling.

3. PROPERTY DEFINITIONS

The Topley Property consists of the following contiguous mineral claims:

<u>CLAIM</u>	<u>RECORD NO.</u>	<u>EXPIRY DATE</u>
SILVER CUP	2388G	June 17, 1987
SILVER CUP #1	10495K	August 3, 1987
SILVER CUP #2	10496K	August 3, 1987
BIG QUA	2386G	June 17, 1987
MAPLE LEAF	4898G	June 25, 1987
VINCENT	2387G	June 17, 1987
HIGH COMMAND *	2385G	June 17, 1987
SAM	5537G	June 28, 1987
GOLDEN EAGLE 1-4	132205-132208	July 31, 1987
TUYA 1-4 .	1919-1922	July 31, 1987
COR 1 (4 units)	3352	November 6, 1987
COR 2 (6 units)	3353	November 6, 1987
COR 3 (20 units)	3354	November 6, 1987
COR 1Fr	3355	November 6, 1987
COR 2Fr	3356	November 6, 1987
COR 3Fr	3357	November 6, 1987



**BISHOP MINES LTD.**  
**SILVER CUP PROPERTY - TOPLEY AREA**  
**OMINECA M.D., B.C.**

**LOCATION MAP, CLAIM MAP, & AREA OF DRILLING**

**0 SCALE 1: 25000 1500 m.**

**FIGURE 1**



over an area of 1161 hectares or 2870 acres.

The COR 1-3, COR 1Fr-3Fr mineral claims are owned by Bishop Mines Ltd. The Silver Cup, Silver Cup #1, #2, Big Qua, Maple Leaf, Vincent, High Command, Sam mineral claims are owned by Laurence Perry, and the late Harry Hagman through the companies Hobby Mines Ltd. and Viscount Kenmure Holdings Ltd. Bishop Mines Ltd. has an option to purchase these mineral claims through Geokor Energy Holdings Ltd. Bishop Mines Ltd. acquired 50% interest held by Geokor Energy Holdings Ltd., in the Golden Eagle 1-4 mineral claims and is also acquiring an assignment to Laurence Perry of Smithers, B. C., Ronald Williams' remaining 50% interest in these claims, the remaining owner of the property. Bishop Mines Ltd. through Geokor Energy Holdings Ltd. has an option to purchase the Tuya 1-4 mineral claims from William H. Morris of Smithers, B.C. Bishop Mines Ltd. is the operator of all of the above claims known as the Topley Property.

#### 4. HISTORY

The history of the Silver Cup claims, Golden Eagle claims and Tuya claims (formerly known as the BOX group) are well documented in various B.C. Minister of Mines Annual Reports, 1911 to 1953, as well as various Bulletins. The most detailed description of the Silver Cup is in BCMM Annual Report 1937, pp. 27-32, and of the Golden Eagle BCMM Annual Report 1937 pp. 24-26. There are some records of impressive production from these claims, and some of the highest grade silver in the area was produced from the Golden Eagle. The history and production on these claims has been summarized by Mr. R.W. Phendler, P. Eng., in his reports dated October 29, 1980; October 19, 1981; and January 10, 1982.

Some exploration diamond drilling was done on the Silver Cup claims in 1966 by Silver Cup Mines Ltd. and in 1978, Jim Thomas of Smithers, B.C. drilled two holes south of Adit A. (see figure 5). On September 11, 1980, Mr. R.W. Phendler, P.Eng., examined the Silver Cup claims for Geokor Energy Holdings Ltd. and recommended its acquisition in his report of October 29, 1980. Geokor obtained an option on the claims as well as an outright purchase on the ball mill and flotation cells used by Equity Silver Mines Ltd. in their feasibility studies. In the meantime the writer who was intrigued by the possibility of a regional setting of a massive sulfide mineral deposit, began a literature research into neighbouring properties and conducted limited prospecting in the area. As a result, it was recommended that Geokor acquire the Golden Eagle 1-4, Tuya 1-4, and so some additional staking. This was done by November 1980 and in the spring of 1981, Bishop Mines Ltd. acquired the Silver Cup mineral claims from Geokor. During September 1981, while diamond drill testing for the veins described in Mr. R.W. Phendler's report of October 29, 1980 and letter attached August 10, 1981, a highly altered bleached rhyolite was encountered in the drill holes which contained fine-grained disseminated sulfides as well as veinlets containing high grade sulfides. This horizontal, bleached altered zone was intersected in a grid pattern measuring 100 meters (300 feet) east to west and 100 meters (300 feet) north to south, and south of an adit which contains high grade values of silver and base metals. It became apparent that the surrounding claims to the Silver Cup could be geologically related and on October 19, 1981, Mr. R.W. Phendler recommended in this report that the surrounding claims be acquired by Bishop Mines Ltd. Up to

this time the Silver Cup, Golden Eagle, and Tuya claims were all treated as separate prospects each containing its own quartz veins with high grade precious and base metal values. The geological setting of shallow to steeply, easterly dipping veins, intermittent with a wide horizontal bleached zone of impressive dimensions in a volcanogenic environment make this an attractive prospect for a massive sulfide deposit. If a deposit does in fact exist, the regional setting suggests that it may contain sizeable bulk tonnages of economic minerals amenable to underground and open pit mining methods. Some of the breccia near surface has been compared to the breccia from Equity Silver Mines Ltd. This type of breccia from the Topley Property can be seen on the surface around the drill pad at hole 82-4. See Picture B, page 14.

Moreover, if ever a deposit should prove economically viable, the power line to Granisle, B. C. passes within 5 km (3 miles) of the property and the Canadian National Railway loading area for Granisle Mines concentrate is on the south side of Topley, B.C. The area of interest on the property is nearly flat, topographically, making exploration for an orebody inexpensive.

#### B. GEOLOGY

With respect to G.S.C. Map 671A "Houston", and G.S.C. Map O.F. 351, Smithers, B.C. 93L, the property is underlain by volcanic fragmental rocks of the Jurassic-Cretaceous Age and possibly belongs to the Hazelton Group, Telkwa Formation. The volcanic rocks are composed of rhyolites, andesites, andesite porphyry, and andesite breccia with included tuff. Regional metamorphism has produced a talc-chloritic alteration in these rocks that forms

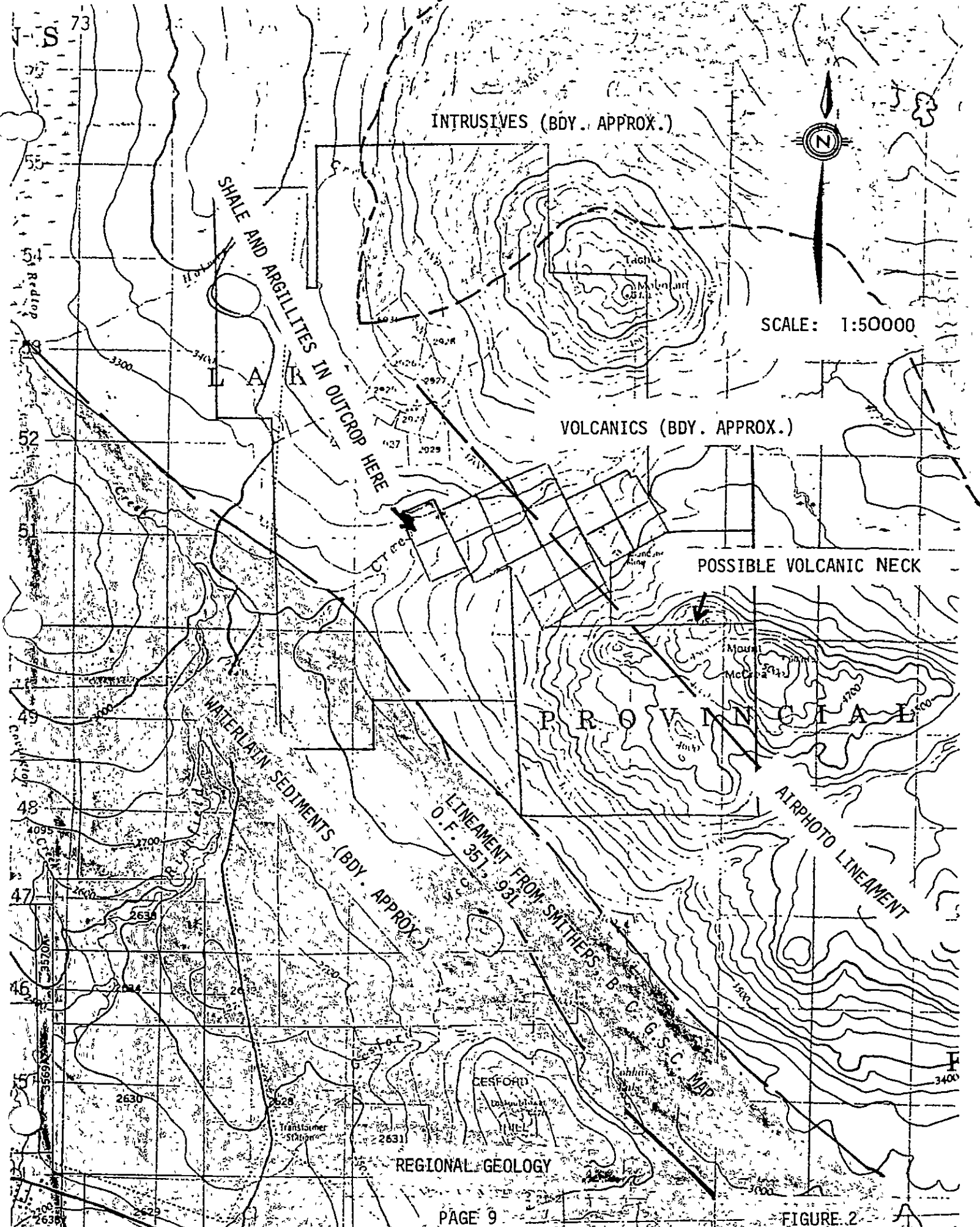
a silicified, chloritic schist form of volcanics. A granitic stock is found 4.0 km (2.5 miles) to the north-east that trends north-westerly, south-easterly, the Topley intrusions composed of quartz monzonite, quartz diorite, granodiorite, and monzonite. On the most north-western portion of the claims are some waterlain sediments of the Endako Group. Argillites and shales have been found by the writer exposed in cuts along the bank which intersects Findlay Creek. Refer to figure 2, page 9.

Within this geology, and within the Silver Cup, Golden Eagle, and Tuya claims are various quartz vein systems described in various reports (see Bibliography) by Mr. R.W. Phendler, P.Eng., Dr. W.R. Newman, P. Eng., John F. Fairley, P. Eng., and various BCMM Annual Reports and Bulletins. Much attention was focused on vein geology in the past. However, most recent development and observations which has been most noteworthy is the amount of disseminated sulfides and veinlets of massive sulfides in the significant widths of alteration and bleaching surrounding the mineralized vein systems. Various grab samples of the host rock have contained visible sulfides of good grade in the absence of quartz-carbonate veining. Mineralization is present in the form of galena, sphalerite, pyrite, chalcopyrite, tetrahedrite, freibergite, and native silver.

## C. SUMMARY OF WORK

### 1. DRILLING

During June and **July**, 1982, 155 meters (510 feet) of HQ size diamond drilling was carried out by Nusun Drilling & Exploration Ltd. The results, drill logs, and invoices are all included in Appendix I. The results of the drilling program continue to be favourable inasmuch as a bleached rhyolitic



INTRUSIVES (BDY. APPROX.)

SHALE AND ARGILLITES IN OUTCROP HERE

SCALE: 1:50000

VOLCANICS (BDY. APPROX.)

POSSIBLE VOLCANIC NECK

WATERLAIN SEDIMENTS (BDY. APPROX.)

PROVINCIAL

AIRPHOTO LINEAMENT

LINEAMENT FROM SWITHERS  
O.F. 351-951

REGIONAL GEOLOGY

Zone with good assay values was intersected near surface both west and east of the drilling grid. Please refer to figure 5. Continuation of the bleached zone south of the grid with good assay values was established in hole 82-3. It was felt, however, that since mineralization extends over an area east-west of over 1000 meters (3300 feet) and north-south of over 1500 meters (5000 feet) as well as below the elevation of the rich mineral bearing Adit A, that there must be an area where there is a zone of sulfides of more significant dimensions than has been intersected to date. This is possible both at depth and somewhere to the south, away from the grid and towards the rich Tuya and Golden Eagle veins. A clue that there is in fact the case, was given by a geochemical anomaly for silver from a survey conducted by Placer-Endako in 1966. A map of this survey is included in Appendix II.

In order to accurately pin-point additional diamond drill targets, Mr. R.W. Phendler by his report in Appendix I, recommended conducting a VLF electro-magnetic survey over the area of interest which has been described as an area of 1000 meters east-west and 1500 meters north-south.

## 2. GRID ESTABLISHMENT

In 1966, D. MacIntyre, while with Climax Molybdenum Ltd. of Smithers, B.C., established a north-south, east-west grid over the Silver Cup claims using a chain and transit. Pickets were driven into the ground with numbered metal tags and elevations in feet were recorded. All of the drill holes and showings were surveyed and tied into this grid. Drilling conducted in the fall of 1981 by Bishop Mines Ltd. was also tied into this grid and

it has been the basis of control for the maps used by the company.

In order to carry out a reconnaissance electro-magnetic survey a grid was designed so that a survey would detect steeply dipping narrow veins or conductors of less than 3 meters (10 feet) striking north-westerly, but stretched out over a long north-south area. The survey lines were oriented at right angles to the strike of the geology as well as the transmitting station. The grid was measured wide enough to tie in the previous drilling grid and showings on the Silver Cup with the showings and workings on the Golden Eagle. Therefore, stations of 25 foot spacing were used with lines 500 feet apart. Distances were kept in British units for ease of tying in both grids. The grid was established using a chain and compass and control was established by tie lines and measurement to known landmarks. Stations were identified by numbered flagging. The grid was tied into all of the known previous workings and showings as well as drill holes and roads. Please refer to figure 5. The total number of kilometers of grid established was 8.32 km (5.2 miles).

### 3. GEOPHYSICAL SURVEY - SURVEY SPECIFICATIONS

The Very Low Frequency Electro-Magnetic Survey was carried out using a GEONICS EM-16 system, the components of which are manufactured by GEONICS LIMITED of Mississauga, Ontario.

The system is a sensitive receiver covering the frequency band of the VLF-transmitting submarine communication stations based throughout the world. The VLF-transmitting stations operating with communications with submarines have a vertical antenna. The antenna current is thus vertical, creating a

concentric horizontal magnetic field around them. When these magnetic fields meet conductive bodies in the ground, there will be secondary fields radiating from these bodies. This system measures the vertical components of these secondary fields.

The receiver has two inputs, with two receiving coils, built into the instrument. One coil has a normally vertical axis and the other is horizontal.

The signal from one of the coils (vertical axis) is first minimized by tilting the instrument. The tilt-angle is first minimized by tilting the instrument. The tilt-angle is calibrated in percentage. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil, after being shifted by  $90^{\circ}$ . The coil is normally parallel to the primary field.

Thus, if the secondary signals are small compared to the primary horizontal field, the mechanical tilt-angle is an accurate measure of the vertical real-component, and the compensation  $\pi/2$  signal from the horizontal coil is a measure of the quadrature vertical signal.

The selection of Seattle (24.6 KHz) as the transmitting station was chosen so that the magnetic lines from the station are at right angles to the direction of the station and also which gives the field approximately at right angles to the main strike of the geological structure. Readings were accomplished by always facing east and the direction of travel is indicated on figure 6.



## D. DETAILED TECHNICAL DATA AND INTERPRETATION

### 1. DRILLING

#### (a) PURPOSE

In his report of October 29, 1980, Mr. R.W. Phendler, P.Eng., recommended 100 feet of drifting in the exploration program. Following the 1981 drilling program and after the discovery of the wide, horizontal bleached zone, it was decided to abandon the drifting program and proceed with additional drilling. This recommendation is covered in Mr. R.W. Phendler's PROGRESS REPORT ON 1981 PROGRAM-SILVER CUP PROPERTY dated March 3, 1982.

The purpose was to test for continuity of the mineralized tabular bleached zone on step-out holes which could be done at lower cost than by drifting methods.

#### (b) RESULTS

The results of the drilling program are covered in a PROGRESS REPORT-SILVER CUP PROPERTY by Mr. R.W. Phendler, P.Eng., dated August 7, 1982 which is included in Appendix I. Drill logs are included in the Appendix. (See Cost Statements in Appendix III).

#### (c) INTERPRETATION

With reference to Mr. Phendler's PROGRESS REPORT and figure 5, it can be seen that the mineralized, tabular bleached zone continues south-easterly. Two other mineralized bleached zones appeared near surface, both east and west of the drilling grid in holes 82-2 and 82-4. See the following pictures A and B. Continuity of the deeper, bleached zone south-easterly was seen in hole 82-3. For a picture of the core of this hole, see picture C, page 14.



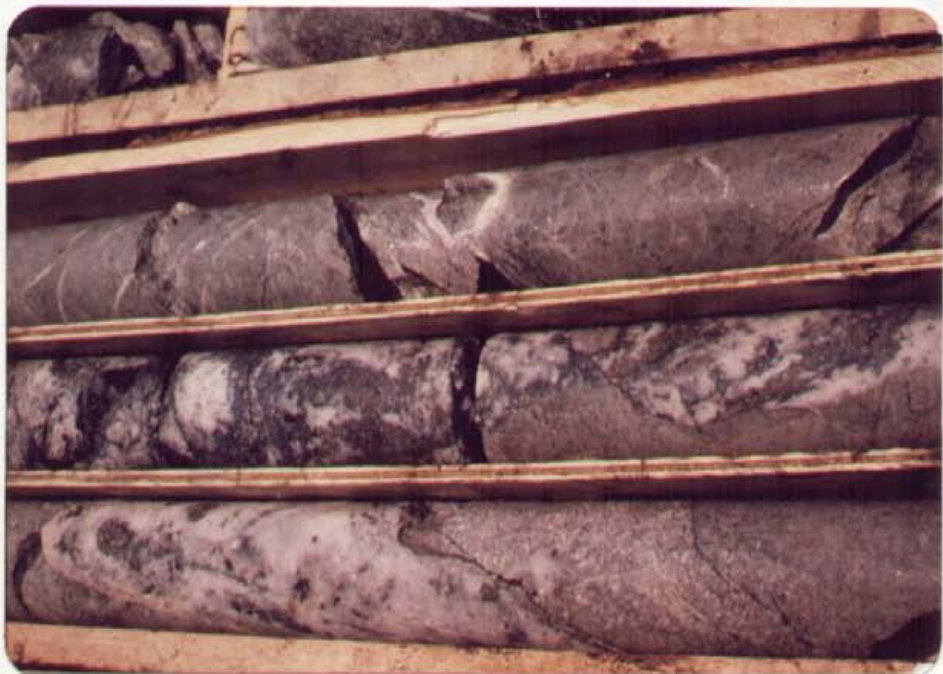
A Bleached zone from hole 82-2. Zone is 10.0 ft. from surface and 600 ft. south - west of drilling grid.



B Bleached zone on surface at drill pad:82-4. Zone is 550 ft. north-east of drilling grid.



C Core from high-grade section in hole 82-3.



D Close-up of high-grade section, 82-3

#### (d) CONCLUSIONS

Laurence Perry and Bob Williams of Smithers, B.C. who are owners of some of the claims under option have recently made the company aware of additional field data through maps and personal communication in the field with the writer. Some of the pertinent data has been plotted on figure 5. From the analysis of all available data, it has been concluded that additional drilling is warranted at depth, to the west, east and south-east, but the area to be drilled is so vast that more specific drill targets were required. Mr. R.W. Phendler states on page 2 of his August 7, 1982 PROGRESS REPORT-SILVER CUP PROPERTY in Appendix I that, "Additional drilling is warranted but it is felt that geophysical surveying should be undertaken over the area of interest at this time."

In fact phase I of this program has been completed by the writer and is dealt with in the next section under 2. GEOPHYSICS AND GEOLOGY.

#### 2. GEOPHYSICS AND GEOLOGY

##### (a) PURPOSE

The purpose of the VLF, electro-magnetic survey was to establish specific drill targets on electro-magnetic anomalies by relating structures, veins and the horizontal bleached altered horizon over a large area of approximately six claims. If a definite trend developed, and if there was good correlation between wide spaced lines, fill-in work would be done in the area to confirm correlation.

It is always helpful to relate geophysical results to known data for interpretation, and it was decided to establish line 2500 N through the drilling grid over known drill holes where

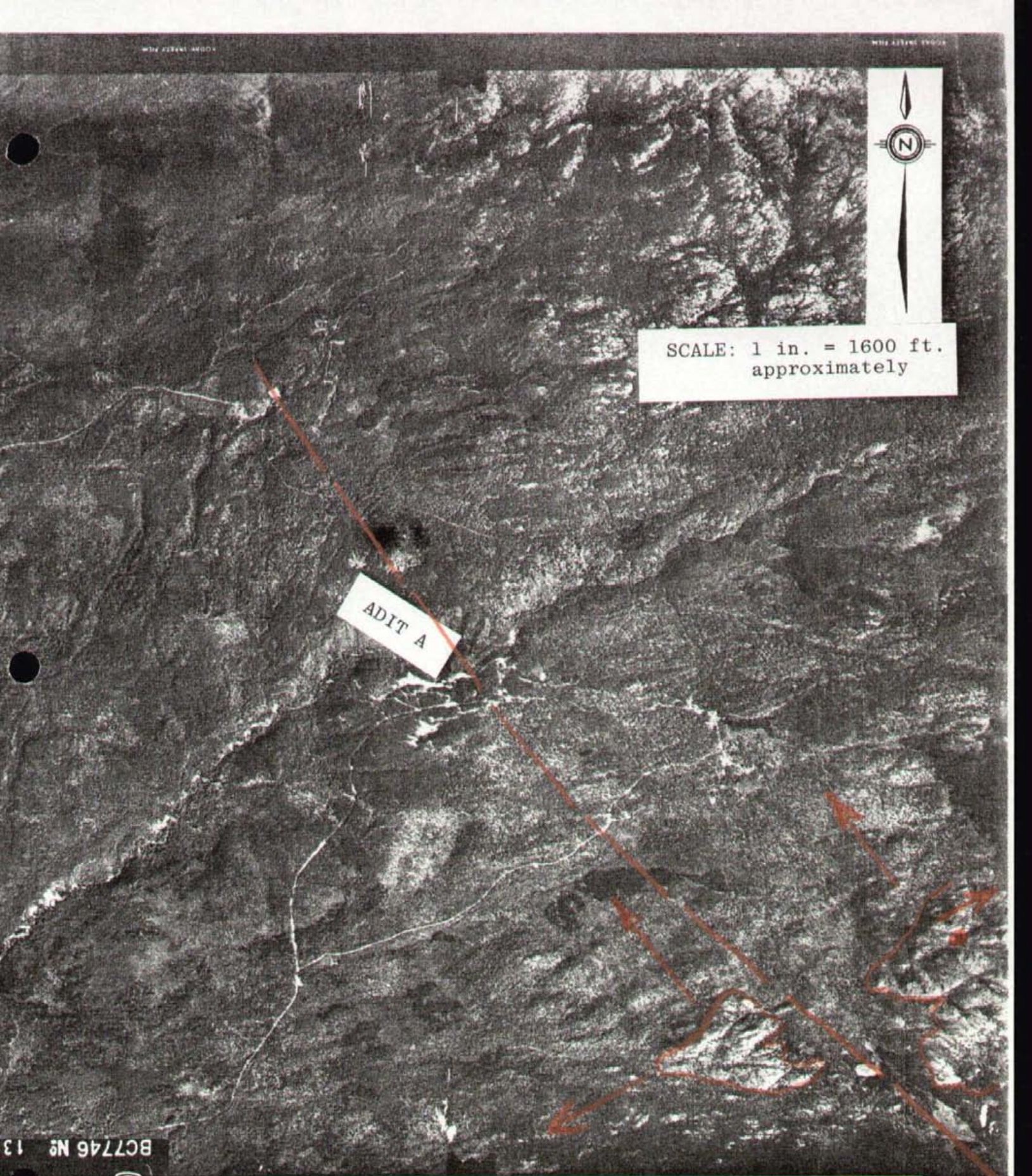
a high grade hole 81-4, lies within the bleached horizons.

The search for anomalies at this time was for conductors which lie close to the surface so that drilling costs would be kept minimal for the company budget at present. As encouraging results are obtained, more sophisticated e-m systems or other geophysical methods could be employed to search for anomalies at depth.

## (b) INTERPRETATION OF RESULTS

### (1) PHOTOGEOLOGY

Glaciation linears are noted in the airphotos and show a westward movement. This has been confirmed by looking at striations on outcrop in Findlay Creek. With reference to G.S.C. Map O.F. 351, Smithers, B.C. 93L, and Air Photo BC 5420 No. 163, BC 7746, No. 130, one very prominent tectonic linear set is apparent which passes through Mt. McCrea, the Golden Eagle claims, the drilling grid on the Silver Cup, across Findlay Creek to the Richfield workings. There appears to be some thrusting in the vicinity of Adit A near Findlay Creek; and there is a marked elevation difference in the creek of about 250 feet over a horizontal distance of 3000 feet, and which contains a waterfall. It appears as though the tops of Mt. McCrea at one time fit together. This can be seen in figure 3, page 17. When viewing the air photos, one can see in three dimensions the appearance of volcanic flows going north from what appears to be a side vent in a volcanic neck. This can be seen by referring to figure 3, page 17 and figure 2, page 9. This is more apparent when standing on top of Mt. McCrea and looking north-westerly. When traversing west to east and going



SCALE: 1 in. = 1600 ft.  
approximately

ADIT A

BC7746 N<sup>o</sup> 13

Province of B.C.



north from Mt. McCrea one encounters andesite ridges outcropping above the swamps, and pyritic rhyolite in the swamp depressions. "Sheeting" is mentioned in John F. Fairley's report in 1966, and one can see evidence of this on the drill pad at hole 82-4.

A very interesting feature is to note the iron rich red soil development above the side vent, whereas below the vent, the soil is grey, weathered basalt. Amygdoloidal basalt float and lapilli tuff may be found along the north slopes of Mt. McCrea and in lesser amounts scattered amongst the long andesite ridges near Findlay Creek.

The linear which passes through Mt. McCrea is thought to be intimately related to the mineralization because it strikes in exactly the same direction as the trend of the high grade section in which Adit A, holes 81-4, 82-3, line up and trend towards a silver high geochemical anomaly near 0+00 and 5000 E on the geophysical grid. This area is where some high grade sulfides were obtained in swamp trenches. This linear is also parallel to the trend of the Tuya and Golden Eagle veins.

## (2) GEOLOGY

The property is covered mostly by overburden but there is abundant outcrop in Findlay Creek. Moving southward on the property, one encounters andesite ridges and swamp depressions which strike for the most part north-westerly, south-easterly. The swamp depressions quite often contain rhyolite with pyrite and sometimes other sulfides. The ridges travel a few hundred feet each. Basalt float is found sparingly on the north end of the property but the float becomes more abundant going southward up the slopes of Mt. McCrea.

Drilling in 1966, 1978, and 1981 encountered primarily pyroclastic rocks of andesitic flows. It is believed that the drilling to date has intersected one of the andesite ridges overlying a distinct alteration zone characterized by pyritization and bleaching of the host rocks, which contain the economic sulfides. Zones of rich hematite were noted below the mineralized sections. It is not known at this time what is the control for the mineralization, but that we do have an encouraging environment for a massive sulfide deposit. A very detailed geological map should be compiled and detailed cross-sections should be draughted from available drill core in an attempt to understand this geological environment and mineralization. Bulk tonnages of minerals may be realized in this environment because of the fact that sulfides are disseminated over wide bleached zones and not restricted to quartz-carbonate veining. A geophysical attempt has been made to correlate the bleached zone with the high grade veins present, from the Silver Cup to the Golden Eagle.

### (3) GEOPHYSICS, VLF EM-16 SURVEY

Figures 5, 6, 7, were draughted so that they could be overlain with each other for interpretation. A copy of superimposition is shown on figures 4 and 4a, pages 20 and 21 respectively. Profiles for the in-phase and quadrature readings were plotted on figure 6. For the long distance north-south and wide line spacing used, there is good correlation between profiles. This becomes more apparent when the Fraser Filter is applied to the data. The Fraser Filter is plotted on figure 7. Line 2500 N was used



EAST TRENCH

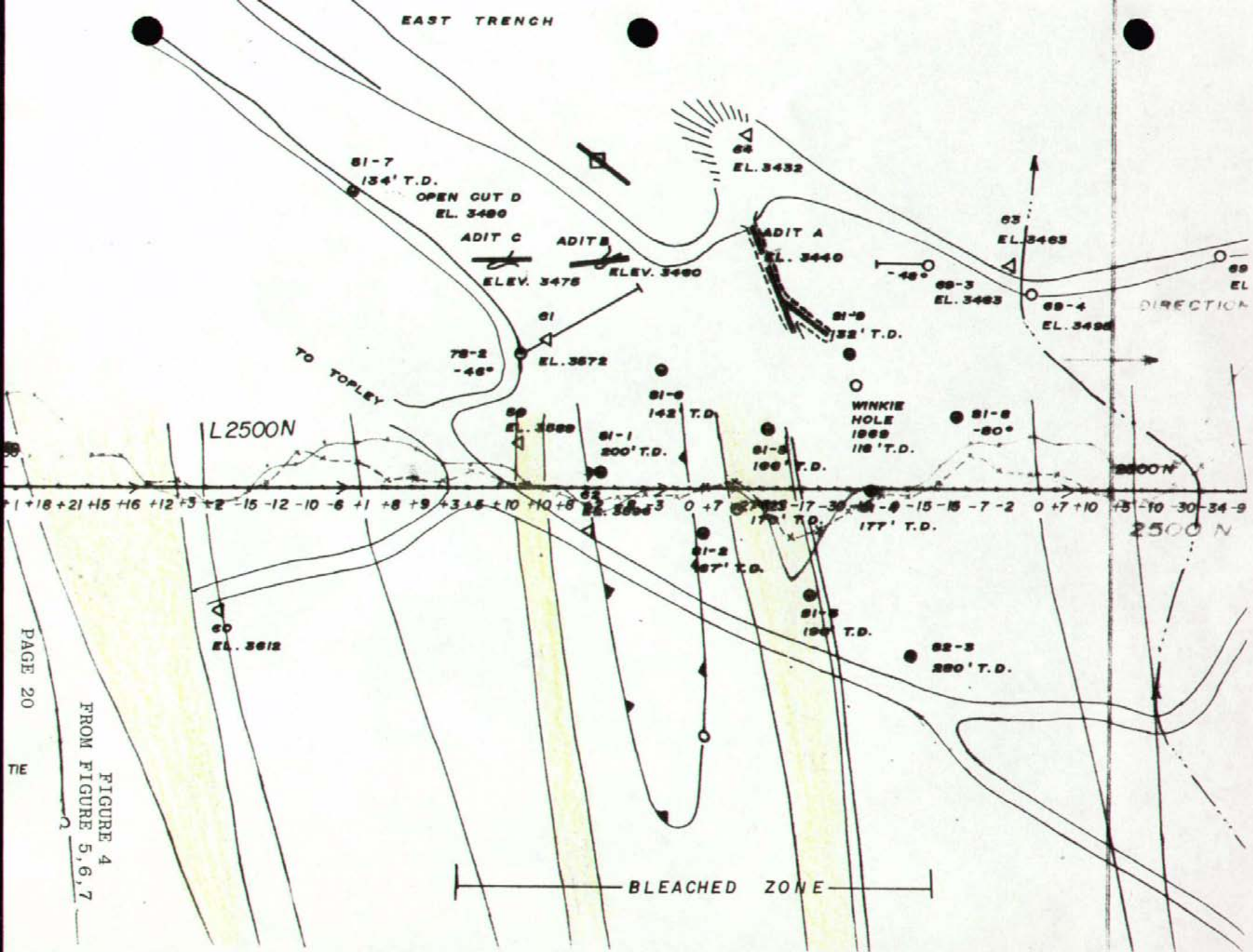


FIGURE 4  
FROM FIGURE 5, 6, 7

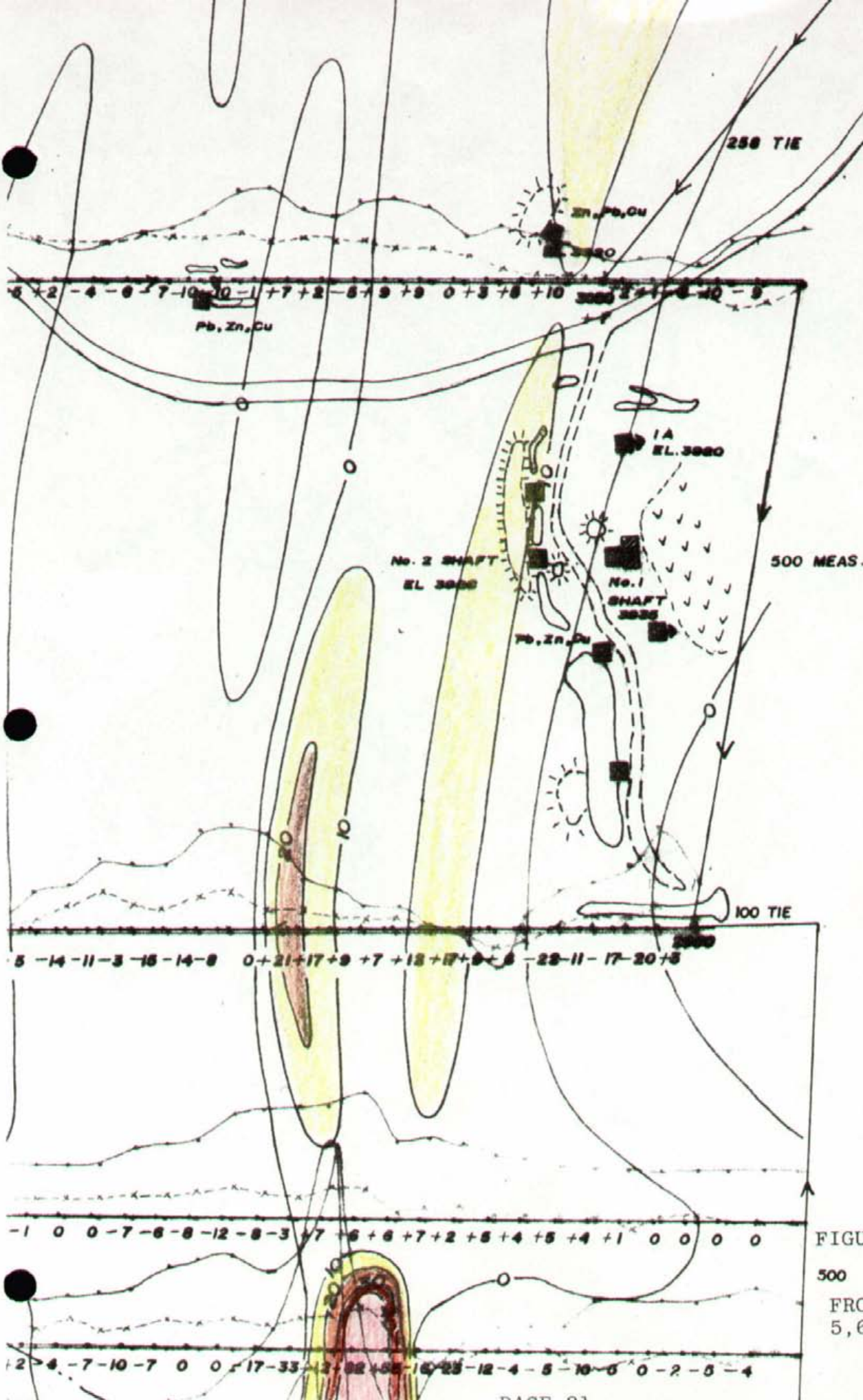
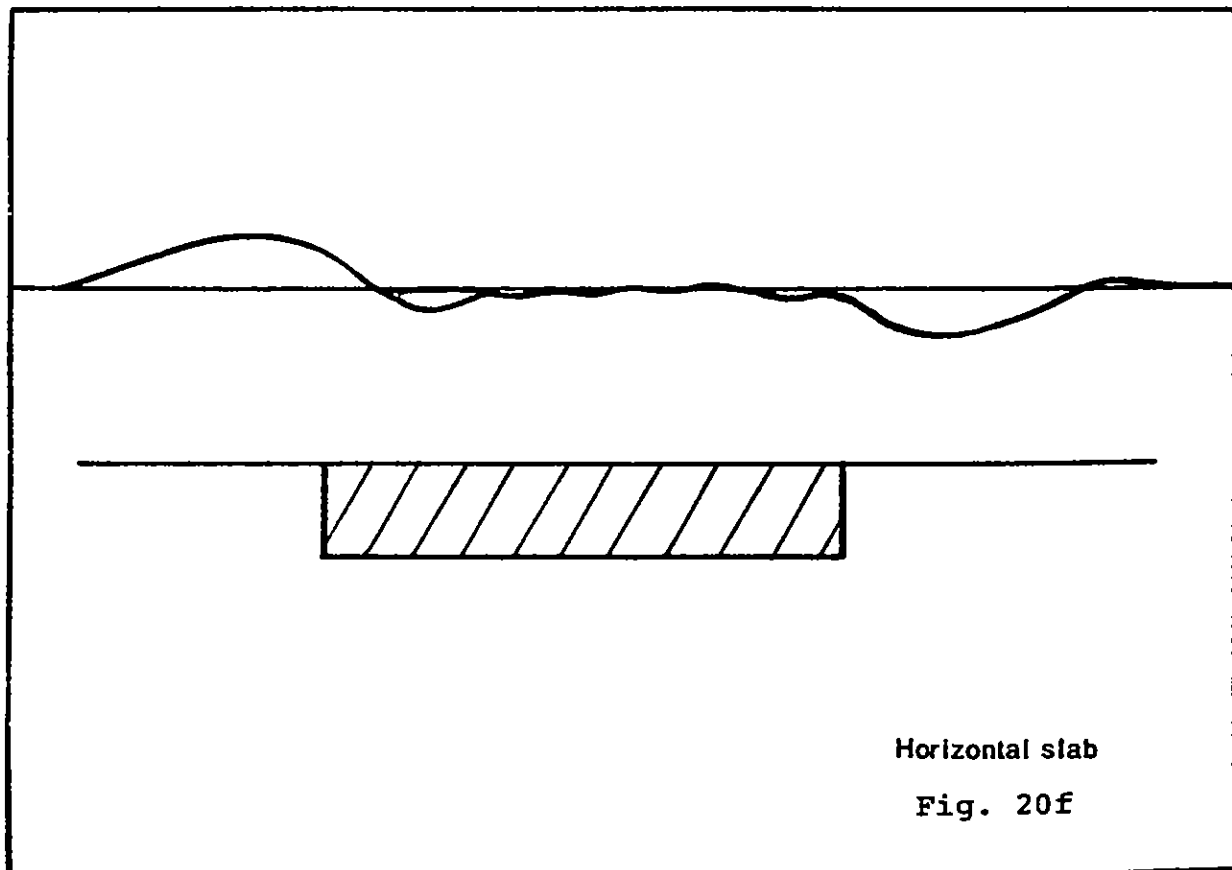
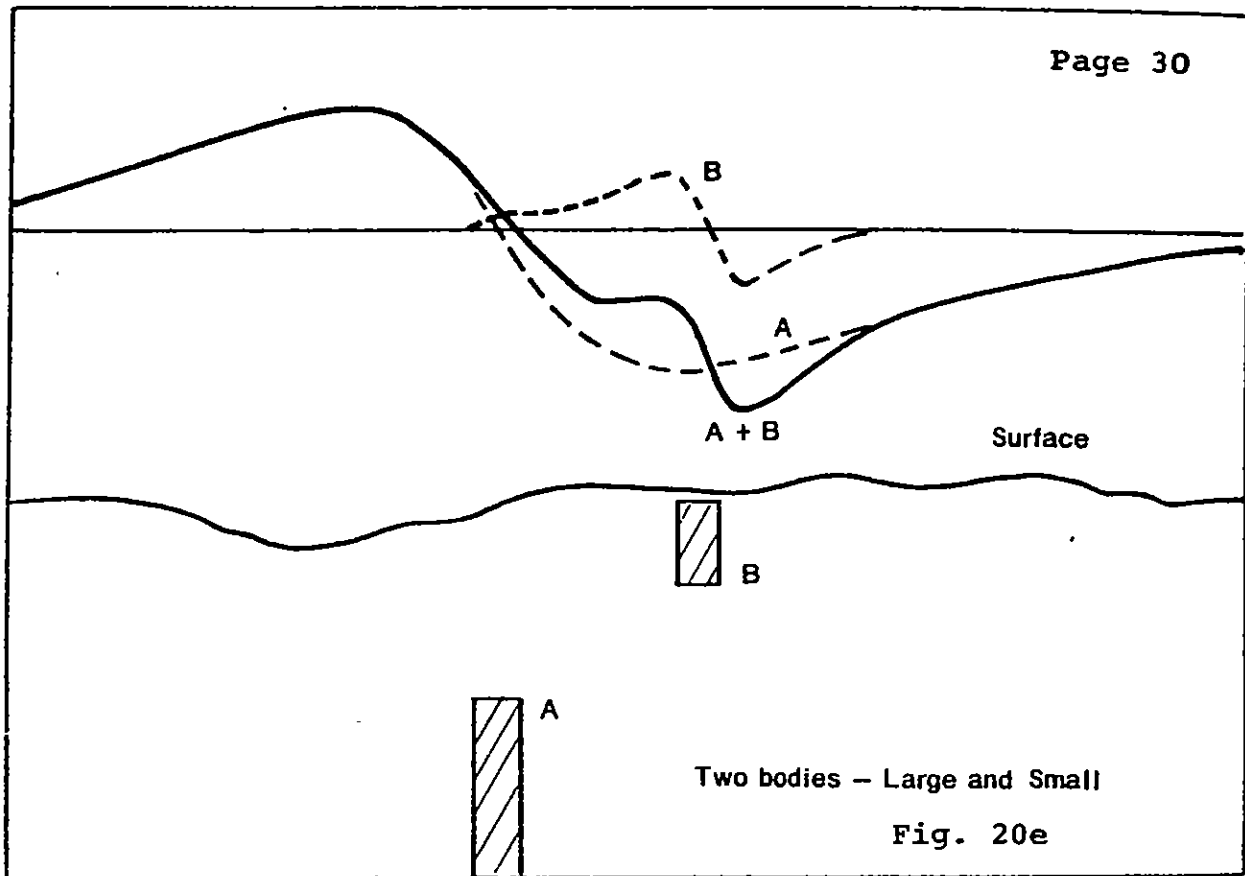


FIGURE 4a  
 500  
 FROM FIGS.  
 5, 6, 7

as a model for interpretation and the following observations were made:

1. The profile over the drilling grid containing the bleached horizon is a typical profile for a tabular slab, (refer to figure 4b, page 23, which is a model profile for a tabular slab and is reprinted from the OPERATING MANUAL EM-16 GEONICS LTD.), except for the depression 100 feet west of hole 81-4. Holes 81-5 and 81-3 contained the most abundant pyrite concentrations, particularly hole 81-3, and so then, it appears that the anomaly contoured greater than 10% and coloured yellow is our typical conductor. It must be noted that the richer valued holes lie on the eastern flank of that anomaly and within the depression there. This observation is valid also at the No. 2 shaft on the Golden Eagle vein. Please refer to figure 4a, page 21. Since we know that the higher grade veins dip steeply eastward, drill holes should be stepped out easterly from the anomalies and drilled at an angle westerly at  $45^{\circ}$  for maximum information.
2. Using a value of 10% or greater as anomalous, several conductors lie on the property striking north-westerly, south-easterly. Please refer to figure 7. Four of the conductors have values of over 40%. Two of these conductors have a large depression between them. It is believed that these conductors are large areas of pyrite as conductors and the most pronounced anomalies are massive pyrite, if the interpretation of Line 2500 N over the drilling grid is correct. It is hopeful that economic sulfides are associated with the conductor on its flanks, as is the case with holes 81-4 and 82-3.



3. The long conductor on the eastern portion of the grid which continues throughout at about 3900 E may be the important tectonic linear discussed on page 18, and shown on figure 2, page 9; as well as figure 3, page 17. There is a shaft with a large dump on the northern end of this linear. The dump was sampled by the writer and the rock consisted of mostly pyritized quartz which returned .16 oz/t gold from grab samples, scattered about and picked at random from the dump. On the southern end and on the east side of this conductor, on Line 0+00, Mr. Bob Williams has reported that a drill hole in 1920 intersected 62 oz/t silver over seven feet. Apparently, the casing is still in place but the writer has not been able to find it in the swamp although it appears that a drill pad existed in this area.

4. The long anomaly which extends from 0+00 to 500 N along 5000 E overlies an area in which the rocks are highly pyritic. This anomaly is also close to a geochemical silver anomaly. This area is a very favourable area for a drill target.

5. There is an offset, possibly caused by some tectonic linear at Line 1000 N and 5000 E.

6. All of these strong conductors should be drill tested by setting up the drill in the depression on the east of the anomaly and drilling at  $-45^{\circ}$ , westward into the anomaly. The main road crosses several conductors so that drilling preparation would be minimal. Drill stations will be spotted specifically in the field.

7. The highly resolved anomaly south of the Golden Eagle workings cannot be drilled until freeze-up as it is right in a swamp, but an attempt should be made to drill this anomaly

with the same approach as discussed above.

(c) CONCLUSIONS

The altered bleached zone may extend southward throughout the area covered by the grid and may be intermittent with high grade zones as outlined by the conductors. If future drilling intersect favourable economic sulfides near surface on the anomalies, this property would become a large, most attractive development project. The company should finance to carry out Phase II and III of Mr. Phendler's recommendations if Phase I is successful. If drilling is favourable and development drilling was warranted, the company should acquire its own drill and support equipment as an attempt to save costs on contract work and financing should be arranged to carry on a large scale program.

Respectfully submitted,



C. H. STANLEY, B.Sc.  
GEOPHYSICIST

September 7, 1982

Vancouver, B. C.

E. BIBLIOGRAPHY

British Columbia Minister of Mines Annual Reports.

1911, 105, 288; 1912, 113; 1914, 509; 1937, 27-37; 1941, 24, 44; 1952, 95; Bulletin 10, Rev. 1943, 73; Bulletin 45, 1962, 12 for Silver Cup.

British Columbia Minister of Mines Annual Reports.

1927, 48; 1928, 174; 1929, 179, 429; 1930, 143; 1931, 75; 1932, 85; 1933, 99; 1934, A24, C12; 1937, C24; 1938, B36, C49; 1939, 56, 58, 92; 1940, 23, 41, 43, 78; 1941, 24, 41, 42, 55; 1942, 31, 32; 1952, 95; for the Golden Eagle, Tuya.

G.S.C. Summary Report, 1928, Part A, pp 56-77.

G.S.C. Paper 36 - 20, 1936, pp 152 and 153.

Various Assessment Reports, British Columbia 93L/9E  
93L/9W

Phendler, R.W., P. Eng. - "Report on the Silver Cup Property, Omineca Mining Division, British Columbia" - October 29, 1980

Phendler, R.W., P. Eng. - "Report on the Silver Cup Property, Omineca Mining Division, British Columbia" - October 19, 1981

Phendler, R.W., P. Eng. - "Report on Assessment Work" - January 10, 1982

Phendler, R.W., P. Eng. - "Progress Reports" - March 3, 1982  
August 7, 1982

Cummings, J.M. - "Summary of Available Reports on Gold Claim Group - Silver Cup Mines" - February 13, 1980

Fairley, J.F., P. Eng. (Chapman, Wood & Griswold) - "Silver Cup Mines Ltd., Gold Claim Group" - August 19, 1966

B.C. Minister of Mines Annual Report - 1937, pages 27 - 32

Card, K. - Core logs with assays of Diamond drill holes #1 to #5

Newman, W.R., P. Eng. - "Topley Claim Group" - undated

Newman, W.R., P. Eng. - Letter Report - "Topley Claim Group, Babine Lake, B. C." - September 3, 1971

F. CERTIFICATION

I, C. H. STANLEY, of 305, 1212 West Broadway, Vancouver, British Columbia do hereby certify that:

1. I am an exploration geophysicist, and have worked continuously as an explorationist since graduation in 1971.
2. I am a graduate of the University of British Columbia, with a Bachelor of Science degree in geophysics.
3. I am Secretary and Director of Bishop Mines Ltd., and have been engaged principally on this company's projects in both exploration and financial affairs for the company.
4. The subject of this report was written from a great deal of personal research and field work. The report was written under the consultation and supervision of Mr. R. W. Phendler, P.Eng., the company's engineering consultant.



C. H. STANLEY, B.Sc.

September 7, 1982

Vancouver, B. C.





March 3, 1982

Bishop Mines, Ltd.  
305 - 1212 W. Broadway  
Vancouver, B.C.  
V6H 1G6

Attention: Mr. C. Stanley

PROGRESS REPORT on 1981 PROGRAM - SILVER CUP PROPERTY

During late September of 1981 a total of 1460 feet of diamond drilling was carried out in nine vertical holes on the Silver Cup property. These holes were drilled on 100 foot centres south and east of Adit "A" to explore the generally flat-lying silver-lead-zinc bearing lower Silver Cup vein. The holes are as follows:

<u>Hole No.</u>	<u>Length</u>	<u>Recovery</u>	<u>Dip</u>	<u>Thickness of alteration</u>
81 - 1	200'	97%	-90°	14'
81 - 2	187'	94.8%	-90°	30'
81 - 3	190'	90%	-90°	31'
81 - 4	177'	95%	-87°	23'
81 - 5	166'	95.9%	-86°	34'
81 - 6	142'	95.5%	-86°	28'
81 - 7	134'	95.9%	-86°	2'
81 - 8	131'	97.9%	-80°	6'
81 - 9	<u>133'</u>	94.0%	-90°	23'
Total	1460'			

The alteration referred to is an intense bleaching of the host tuffaceous andesite surrounding a strong sulphide-bearing, undulating shear zone. This zone was drifted on for 50 feet in adit "A" and was intersected in six of the eight holes drilled in the pattern. Hole 81-7 was drilled 400 feet southwest of adit "A" and cut the lower zone at 100 feet, assaying 0.15 oz Ag/2.0'.

Drill intersections in other holes are as follows:

<u>Hole No.</u>	<u>Depth</u>	<u>Length</u>	<u>% Pb</u>	<u>% Zn</u>	<u>oz Ag</u>	<u>oz Au</u>
81 - 2	156' -167'	11'	0.21	0.15	0.45	-
81 - 3	139' -143'	4'	1.52	2.34	0.41	.003
81 - 3	159' -167'	8'	0.15	0.45	0.69	.001
81 - 4	152' -157'	5'	3.35	4.02	28.30	.013
81 - 4	157' -161'	4'	0.39	0.74	0.44	.003
81 - 4	165' -166'	1'	5.44	0.32	1.56	.001
81 - 5	119 - 122'	3'	2.48	4.16	1.04	.001
81 - 5	147 - 150'	3'	0.36	0.60	0.13	.001
81 - 6	107 - 112'	5'	0.41	0.27	0.19	.001
81 - 6	124 - 126'	2'	0.10	0.19	0.10	.001
81 - 9	103 - 104.5'	1.5'	1.84	2.54	0.94	.005

The lower mineral zone is relatively continuous and appears to be generally flat lying with minor undulations. It is only one of three flat lying mineral zones in the Silver Cup area and all warrant exploration by wider spaced vertical diamond drilling.

In view of the undulating nature of the structure, Adit "A" should not be driven at this time.

## CONCLUSIONS

The continuity of the lower Silver Cup vein is impressive and the thickness of the alteration zone (24' average) suggests that moderate tonnages of lead-zinc silver mineralization may be present in the area. The Tuya and Golden Eagle veins have produced small tonnages of material in the 200 oz Ag per ton range in the past from a series of steeply dipping veins of unknown width. These veins warrant further exploration with the purpose of developing sufficient reserves to establish a small concentration.

## RECOMMENDATIONS

It is recommended that:

### Phase I

- 1) Electromagnetic and magnetometer surveys be carried out over the Silver Cup, Tuya and Golden Eagle veins.
- 2) Survey grids be established over the 3 vein systems.
- 3) Geochemical surveys be carried out over the 3 vein systems.
- 4) Geological mapping be carried out.
- 5) Additional diamond drilling be carried out on the Silver Cup vein systems and a first stage program of drilling be carried out on the Tuya and Golden Eagle vein systems.

### Phase II

- 1) Additional drilling on all vein systems be carried out
- 2) Rehabilitation of Golden Eagle shafts followed by geological mapping and systematic sampling be carried out.

COST ESTIMATE

Phase I

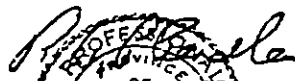
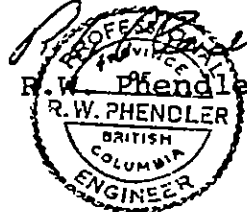
1) Establish grids	15,000
2) Electromagnetic and magnetometer surveys	20,000
3) Geochemical surveys	10,000
4) Diamond drilling 3,000' @ \$30/foot	90,000
5) Assaying and sample determination	3,000
6) Engineering & Geological mapping	10,000
7) Travel and Accommodation	<u>5,000</u>
Total -	\$153,000
15% Contingencies -	<u>22,950</u>
Total - Phase I -	\$175,950

Phase II

1) Additional diamond drilling 3,000' @ \$30/foot	\$ 90,000
2) Rehabilitation of Golden Eagle working	15,000
3) Engineering and supervision	10,000
4) Travel and accommodation -	7,000
5) Assaying	<u>3,000</u>
Total -	\$125,000
15% Contingencies -	<u>18,750</u>
Total - Phase II -	\$143,750

The sum of \$175,000 should be made available at this time to carry out Phase I of the above program.

Respectfully submitted

  
R.W. Phendler, P. Eng.  


August 7, 1982

Bishop Mines, Ltd.  
305 - 1212 W. Broadway  
Vancouver, B.C.  
V6H 1G6

Gentlemen:

Re: PROGRESS REPORT - SILVER CUP PROPERTY

Between June 12 and July 2, 1982 a total of 510 feet of diamond drilling was carried out in four drill holes on the Silver Cup property. This drilling was a follow-up to the drilling program that was carried out in September of 1981 which explored the generally flat lying silver-lead-zinc bearing lower Silver Cup vein.

The property is located about five miles northeast of Topley in the Omineca Mining Division of central British Columbia.

Results of the recent drilling continue to be favourable with significant intersections as follows (logging & sampling carried out by the writer):

<u>Drill Hole</u>	<u>Depth</u>	<u>Length</u>	<u>% Pb</u>	<u>% Zn</u>	<u>oz Ag</u>	<u>oz Au</u>
82-2	10.0'-11.5'	1.5'	3.23	0.59	2.09	.135
"	12.9'-17.6'	4.7'	-	-	4.40	.040
"	25.0'-26.0'	1.0'	.01	-	.10	.131
82-3	169.3-172.3	3.0'	5.95	3.64	8.89	.032
"	172.3-175.0	2.7'	.88	1.09	.53	.002
"	175.0-176.0	1.0'	.59	1.98	1.73	.009
"	176.0-178.0	2.0'	8.50	3.80	5.63	.009
82-4	0.0-2.5	2.5'	0.15	-	0.80	0.076

The widespread bleaching accompanied by intense fracturing and silicification is 32' thick in D-H 82-2, 25' thick in D-H 82-3, 7' thick in D-H 82-1 and 27' thick in D-H 82-4. This alteration has been found in each of the 13 holes completed to date, as has been the mineralization.

Additional exploration is warranted southeast of the lower Silver Cup mineral zone. To date the generally flat lying but undulating zone has been traced by drilling over an area measuring 300 feet by 400 feet. Additional drilling is warranted but it is felt that geophysical surveying should be undertaken over the area of interest at this time.

#### RECOMMENDATIONS

It is recommended that:

##### Phase I

- 1) Electromagnetic survey should be carried out southeast of the recently completed drill area.
- 2) Electromagnetic conductors should be diamond drilled.

##### Phase II

- 1) Geochemical surveys should be carried out over the three vein systems on the property (Silver Cup, Tuya and Golden Eagle).
- 2) Geological mapping should be carried out over the property.
- 3) Diamond drilling should be carried out on the Tuya and Golden Eagle veins.

##### Phase III

- 1) Rehabilitation of the Golden Eagle shafts should be undertaken and sampling should be carried out.
- 2) Additional drilling should be carried out on all vein systems.

COST ESTIMATE

Phase I

1) Electromagnetic survey .....	\$3,000
2) Diamond drilling -1,000' @ \$18/ft.....	18,000
3) Engineering and Geology .....	<u>1,000</u>
	Total - \$22,000
	15% Contingencies - <u>3,300</u>
	Total Phase I - \$25,300

Phase II

1) Geochemical survey .....	\$3,000
2) Geological mapping .....	5,000
3) Establish grid .....	5,000
4) Engineering and Geology .....	3,000
5) Travel and accommodation .....	3,000
6) Assaying .....	500
7) Diamond drilling -1,200' @ \$20/ft.....	<u>24,000</u>
	Total - \$43,500
	15% Contingencies - <u>6,525</u>
	Total Phase II - \$50,025

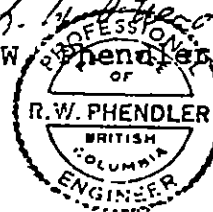
Phase III

1) Rehabilitation of Golden Eagle shafts, etc...	15,000
2) Diamond drilling - 2,700' @ \$20/ft.....	54,000
3) Assaying .....	1,000
4) Engineering & Geology .....	10,000
5) Travel and accommodation .....	<u>7,000</u>
	Total - \$87,000
	15% Contingencies - <u>13,050</u>
	Total Phase III - \$100,050

The sum of \$25,000 should be made available at this time to carry out Phase I of the above program.

Respectfully submitted,

*R. W. Phendler*  
R.W. Phendler, P. Eng.







To: Mr. Roy Phendler,  
7360 Decourcy Cres.,  
Richmond, B.C.  
V7C 4E9

File No. 82-0525

Type of Samples Core

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Pb%	Zn%	Ag oz/ton	Au oz/ton	<i>W</i>		No.
1	028864	.01		.01				1
2	028865	.01	.01	.01				2
3	028866			.11	.011			3
4	028867	.05		.18	.002			4
5	028868	.20		.46	.008			5
6	028869	3.23	.59	2.09	.135			6
7	028870			.34	.077			7
8	028871	.04		.38	.005			8
9	028872			4.40	.040			9
10	028873			.01	.002			10
11	028874			.09	.004			11
12	028875	.01		.10	.131			12
13	028876			.01	.001			13
14								14
15	028878			.09	.001			15
16	028879	5.95	3.64	8.89	.032			16
17	028880	.88	1.09	.53	.002			17
18	028881	.59	1.98	1.73	.009			18
19	028882	.08	.07		.001			19
20	028883	.05	.06		.001			20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED July 6, 1982

DATE REPORTS MAILED July 13, 1982

ASSAYER

*Dean Toy*  
DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Mr. Roy Phendler

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

File No. 82-0525

Type of Samples Core

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Pb%	Zn%	Ag oz/ton	Au oz/ton			No.
1	028884	.01	.01		.003			1
2	028885	.15		.80	.076			2
3	028886			.15	.003			3
4	028887			.03	.001			4
5	028888			.01	.001			5
6	028889			.01	.001			6
7	028890	.01			.001			7
8	028891			.01	.001			8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED July 6, 1982

DATE REPORTS MAILED July 13, 1982

ASSAYER

*D. Toye*  
DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Mr. R. Phendler

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

File No. 82-0525

Type of Samples Rock

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Mo %	Cu %	Pb %	Zn %	Ag oz/ton	Ni%	Au oz/ton	Sn%	W%	No.
1	028854	.001	.03	.44	.85	.11	.01	.001	.001	Trace	1
2											2
3	028858					2.26		.110			3
4	028859					.29		.055			4
5	028862					1.20		.132			5
6											6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15
16											16
17											17
18											18
19											19
20											20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED July 6, 1982

DATE REPORTS MAILED July 13, 1982

ASSAYER *D. Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Mr. R. Phendler

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

File No. 82-0525

Type of Samples P. cutting

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Mo %	Cu %	Pb%	Zn%	Ag oz/ton	Ni %	Au oz/ton	Sn%	W%	No.
1	028851					2.56		.056			1
2	028852	.001	.01	.01	.01	.01		.001			2
3	028853	.001	.03	.01	.02	.01		.001			3
4											4
5	028855	.001	.02	.07	.06	.10	.01	.002	.001	.05	5
6	028856	.001	.34	8.50	3.80	5.63	.01	.009	.001	.48	6
7	028857		.01	.02	.02	.02		.002			7
8											8
9	028860	.001	.01	.12	.11	.11	.01	.010	.001	.04	9
10	028861	.001	.01	.15	.13	.16	.01	.003	.001	.05	10
11											11
12	028863	.001	.73	14.30	9.65	18.00	.01	.025	.001	.54	12
13											13
14											14
15											15
16											16
17											17
18											18
19											19
20											20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED July 6, 1982

DATE REPORTS MAILED July 13, 1982

ASSAYER

*Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

July 15, 1982

1982 GEOLOGY AND DRILLING SUMMARY

Drill holes were in pyroclastic rocks, with intermittent andesitic flows. Drilling was mainly in medium grey-green fragmental volcanic agglomerate, andesitic tuff, varies from medium grained to coarse grained, sometimes porphyritic. Various quartz-carbonate thread veins, with limonite, and/ or hematite stringers (sometimes very heavy, blood red sludge). Intermittent rhyolite, dacite and some cherty rocks encountered. Alteration consists of pervasive talc-chlorite alteration, sometimes associated with heavy pyrite. In places much epidote is encountered. Intermittent bleaching is characteristic. Economic sulfides are contained within the bleached altered zone.

The following is a summary of bleached zones in 1982 drilling program.

- 82-1 0 - 7.5' bleaching
- 82-2 0 - 30.0' bleaching
- 82-3 0 - 11.0' overburden  
11.0 - 24.0 good bleaching
- 88 - 91 bleached
- 98 - 109 bleached
- 147 - 150 bleached, with some pyrite
- 157 disseminated galena here
- 169 - 186 good mineral zone
- 202 - 205 bleached
- 225 - 227 bleached with carbonate stringers
- 237 - 242 bleached with carbonate stringers, disseminated sulfides appear again in bleached andesite
- 82-4 0 - 24 SMELL OF HEAVY SULPHUR, GARLIC SMELL ON PULLING DRILL RODS, MUCH EPIDOTE, SOFT ROCK  
bleached, thread veins containing pyrite, galena
- 47 - 73 good pyrite disseminated in dark andesite
- 119 - 142 minor pyrite, strong garlic odour.





# BISHOP MINES LTD.

LOGGED 148 - 210.5 feet

#305, 1212 West Broadway, Vancouver, British Columbia V6H 1G6

Property	SILVER CUP	District	OMINECA	Hole No.	82-3	Length	280.5 feet
Commenced	June 17, 1982	Location	Silver Cup Claim	Tests at	-	Hor. Comp.	-
Completed	June 26, 1982	Core Size	HQ	Corr. Dip	-90°	Vert. Comp.	-
LAT.	DEP.	ELEV.	True Brg.	Logged by R.W. Phendler			
Objective	% Recov.			Date July 14, 1982			

Claim  
T Brg.  
Collar Dip  
Elev.  
Length

DEPTH feet from to	DESCRIPTION	ESTIMATED % MINERAL	RECOVERY		SAMPLE INTERVAL	SAMPLE NO.	Length	ANALYSIS								
			RUN	SHORT				Pb	Zn	Ag	Au	Cu	W			
148 - 187	Andesitic tuff, massive medium to dark green fragments to 1 cm. Bleaching begins at 162'		148-169	100%												
	Strong quartz vein with heavy galena and pyrite 169-172 and followed by a weakly brecciated 3.0' zone with galena rich matrix	barren 50% Qtz 5% galena thread veins			166.0-169.3 169.3-172.3 172.3-175.0 175.0-176.0	28878 28879 28880 28881	2.7 3.0 2.7 1.0		.09	.001	5.953	.648	.89	.032		
	At 187, 2" quartz pyrite stringer	sludge	LOST CORE	"	178.0-180.0	28882 28861	2.0 2.0	.08	.07		.001					
		sludge	"	"	180.0-184.0	28860	4.0	.15	.13	.16	.003	.01	.05			
187 - 199.3	Fresh coarse grained tuffaceous agglomerate fragments to 3 cm.	sludge	LOST CORE	"	184.0-185.66	28855	1.7	.12	.11	.11	.010	.01	.04			
199.3 - 202	Fine grained bleached andesitic tuff															
202 - 205	Dacite dyke; fractured, pyritic	pyritic			200.3-202	28883	1.7	.05	.06		.001					
202.5 - 210.5	Dark grey, andesitic tuff	bleached pyritic thread veins			202-205.5	28884	3.5	.01	.01		.003					
		SLUDGE			176.0-178.0	28856	2.0	8.503	3.805	.63	.009	.34	.48			





# NUSUN DRILLING & EXPLORATION LTD.

908 WEST 7th AVENUE, VANCOUVER, B.C. V6Z 1C3  
PHONE: (604) 736-8711

TO: BISHOP MINES LTD.  
#305, 1212 West Broadway  
Vancouver, B. C. V6H 1G6

INVOICE NO.  
DATE: July 26, 1982  
PROPERTY: Silver Cup

INVOICE AS PER DIAMOND DRILL CONTRACT DATED OCTOBER 19, 1981.

MOBILIZATION:	Wasi Lake to Topley Property	\$ 3,500.00
DIAMOND DRILLING:	Total Footage: 532.6' See attached Page 2	13,315.00
MAN AND MACHINE HOURS:	See attached page 3	4,425.00
MATERIALS USED:	See attached page 4	294.00
CORE LOGGING, TRANSPORTATION, SPLITTING:	C. H. Stanley - 23 days at \$200/day	<u>4,600.00</u>
		\$ 26,134.00
LESS: Credit as per drill contract and invoice dated January 5, 1982 from Nusun to Bishop		<u>2,000.00</u>
		<u>\$ 24,134.00</u>

# NUSUN DRILLING & EXPLORATION LTD.

908 WEST 7th AVENUE, VANCOUVER, B.C. V5Z 1C3  
PHONE: (604) 736-6711

## DIAMOND DRILLING

Page 2

HOLE NO.	DATE	REAMING OR OVERBURDEN (FT)		CORING (FT)		TOTAL FOOTAGE	RATE	AMOUNT
		FROM	TO	FROM	TO			
82-1	June 12	(Reaming) 0 - 4				4	25.00	100.00
				0 - 28		28	25.00	700.00
82-2	13	(Reaming) 0 - 2		28 - 47		19	25.00	475.00
	13			0 - 11		2	25.00	50.00
82-3	14			11 - 38		11	25.00	275.00
	16	0 - 11				27	25.00	675.00
82-4	17			11 - 25		11	25.00	275.00
	18			25 - 53		14	25.00	350.00
	21			53 - 75		27	25.00	675.00
	22			75 - 100		22	25.00	550.00
	23			100 - 154		25	25.00	625.00
	24			154 - 187		54	25.00	1,350.00
	25			187 - 210		33	25.00	825.00
	26			210 - 220		23	25.00	575.00
	29		(Reaming) 0 - 3	220 - 285		10	25.00	250.00
	30			220 - 285		65	25.00	1,625.00
July	1			0 - 14		3	25.00	75.00
	2			14 - 49		14	25.00	350.00
	1			49 - 118		35	25.00	875.00
	2			118 - 144.6		69	25.00	1,725.00
						36.6	25.00	915.00
						532.6 ft.		\$13,315.00

# NUSUN DRILLING & EXPLORATION LTD.

908 WEST 7th AVENUE, VANCOUVER, B.C. V5Z 1C3  
PHONE: (604) 736-6711

## MAN AND MACHINE HOURS

Page 3

<u>DATE</u>	<u>BRANNER</u>	<u>CHAPEL</u>	<u>STANLEY</u>	<u>DRILL CAT (D-8)</u>
June 9	6	6		6
June 10	5	5		5
June 11	2	2		3
June 12	2	2		
June 14	5			
June 15	4		4	3
June 28	3		3	9
June 29	6		6	
June 30	<u>4</u>	<u>—</u>	<u>4</u>	<u>4</u>
	37	15	17	30

Tractor Rental: 30 hours x \$90.00 = \$2,700.00

Man Hours: 69 hours x \$25.00 = 1,725.00

---

\$4,425.00

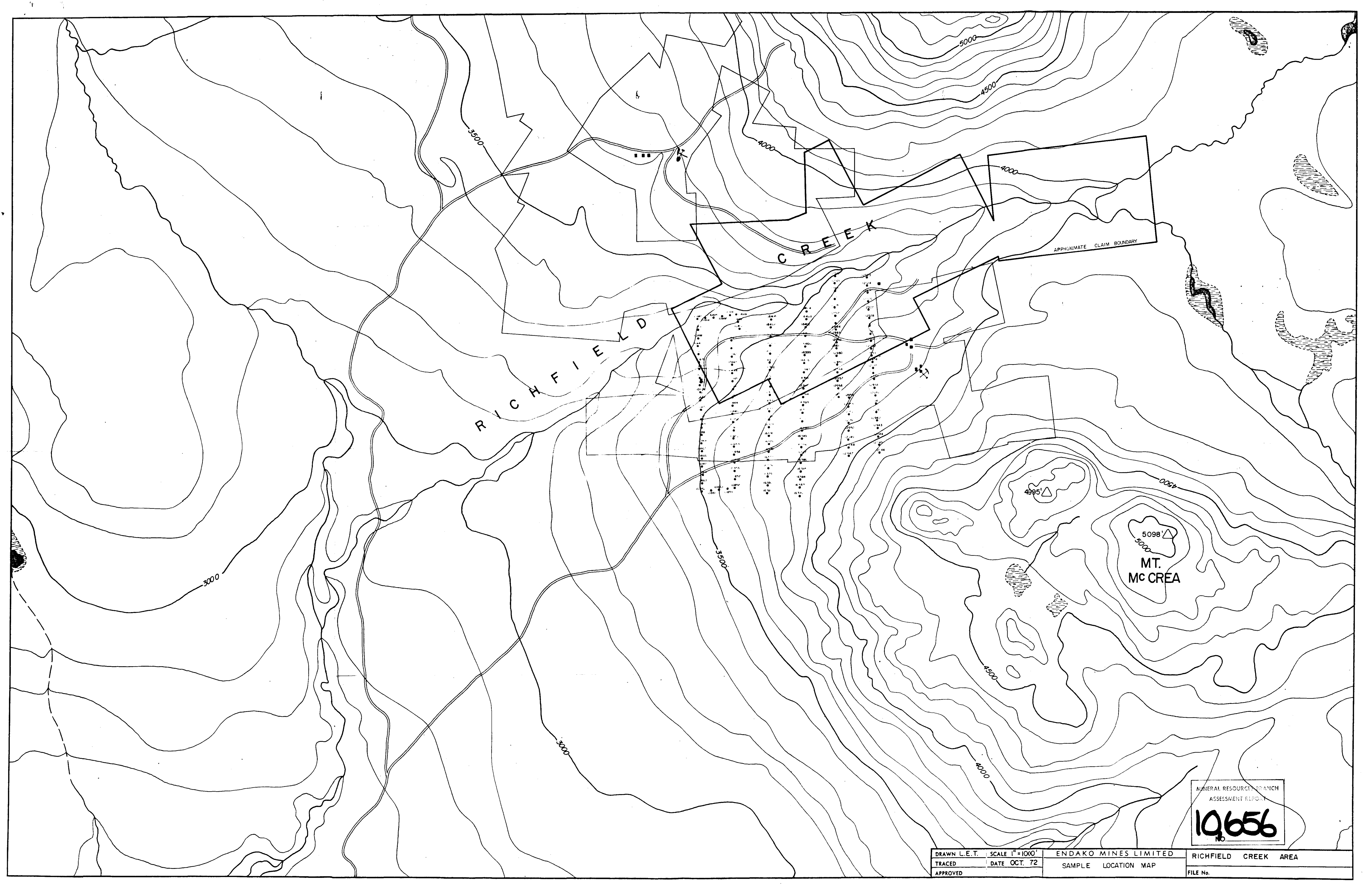
# NUSUN DRILLING & EXPLORATION LTD.

908 WEST 7th AVENUE, VANCOUVER, B.C. V5Z 1C3  
PHONE: (604) 736-6711

## MATERIALS USED, LOST, DAMAGED

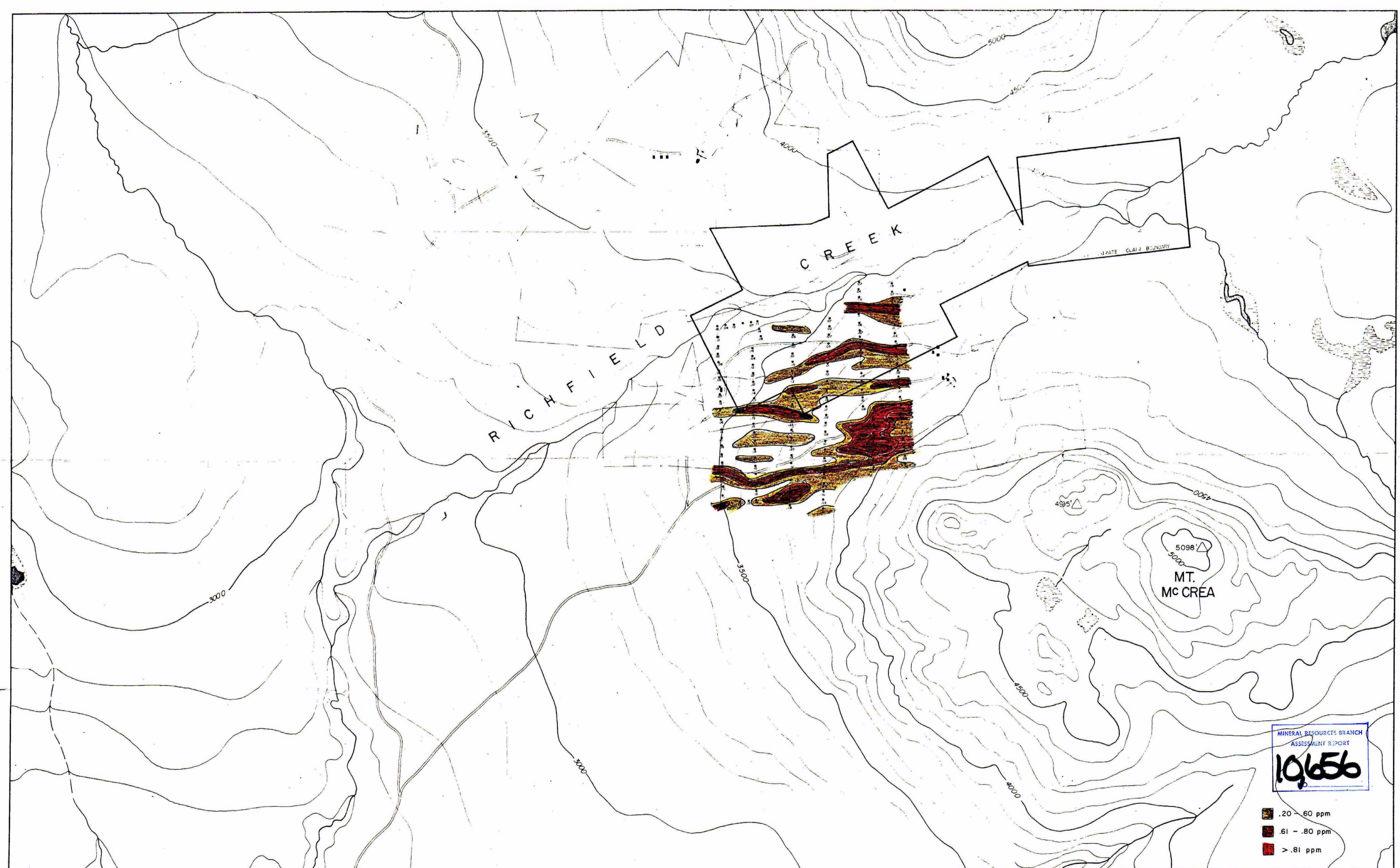
Page 4

<u>Date</u>	<u>Quantity</u>	<u>Item</u>	<u>Cost</u>	<u>Amount</u>
June 12 - July 2	42	HQ Core Boxes	\$7.00	\$294.00



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10656**  
No.

DRAWN L.E.T.	SCALE 1"=1000'	ENDAKO MINES LIMITED	RICHFIELD CREEK AREA
TRACED	DATE OCT. 72	SAMPLE LOCATION MAP	FILE No.
APPROVED			



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10656**

- .20 - .60 ppm
- .61 - .80 ppm
- > .81 ppm

## COST STATEMENTS

DRILLING, June 9 to July 3, 1982. See Figure 5 for drill hole plan, See Appendix I for drill logs. Contractor: Nusun Drilling & Explorations LTD. As per attached	\$ 24,134.00
MAP DATA: Grid for geophysics (chain and compass, numbered and flagged), road survey, geology, drill grid, claim lines and posts. K.F. Branner @ \$ 125.00/day field ass't. C. H. Stanley @ \$ 200.00/day geophy. August 2-10/82, 9 days	2,925.00
E-M 16 SURVEY: Kevan Branner @ \$125.00/day field ass't. C. H. Stanley @ \$200.00/day geophy. August 11-15/82, 5 days	1,625.00
DRAUGHTING; GEOLOGY, PROFILES, ENDAKO GEOCHEMISTRY McELHANNEY REGIONAL MAP; FRASER FILTER CALCULATIONS AND DRAUGHTING; INTERPRETATION AND REPORT C. H. Stanley, geophysicist August 20 - September 10, 22 days @ \$ 200.00/day	4,400.00
ASSAYING	57.62 169.50 864.00 208.00
ENGINEERING	368.00 156.50
EM-16 REPAIR, Crystál	160.00
	\$ 35,067.62



# NUSUN DRILLING & EXPLORATION LTD.

908 WEST 7th AVENUE, VANCOUVER, B.C. V5Z 1C3  
PHONE: (604) 736-6711

TO: BISHOP MINES LTD.  
#305, 1212 West Broadway  
Vancouver, B. C. V6H 1G6

INVOICE NO.  
DATE: July 26, 1982  
PROPERTY: Silver Cup

INVOICE AS PER DIAMOND DRILL CONTRACT DATED OCTOBER 19, 1981.

MOBILIZATION:	Wasi Lake to Topley Property	\$ 3,500.00
DIAMOND DRILLING:	Total Footage: 532.6' See attached Page 2	13,315.00
MAN AND MACHINE HOURS:	See attached page 3	4,425.00
MATERIALS USED:	See attached page 4	294.00
CORE LOGGING, TRANSPORTATION, SPLITTING:	C. H. Stanley - 23 days at \$200/day	<u>4,600.00</u>
		\$ 26,134.00
LESS: Credit as per drill contract and invoice dated January 5, 1982 from Nusun to Bishop		<u>2,000.00</u>
		<u>\$ 24,134.00</u>

# NUSUN DRILLING & EXPLORATION LTD.

908 WEST 7th AVENUE, VANCOUVER, B.C. V5Z 1C3  
PHONE: (604) 738-8711

## DIAMOND DRILLING

Page 2

HOLE NO.	DATE	REAMING OR OVERBURDEN (FT)		CORING (FT)		TOTAL FOOTAGE	RATE	AMOUNT
		FROM	TO	FROM	TO			
82-1	June 12	(Reaming) 0 - 4				4	25.00	100.00
				0 - 28		28	25.00	700.00
82-2	13	(Reaming) 0 - 2		28 - 47		19	25.00	475.00
	13			0 - 11		2	25.00	50.00
82-3	14			11 - 38		11	25.00	275.00
	16	0 - 11				27	25.00	675.00
82-4	17			11 - 25		11	25.00	275.00
	21			25 - 53		14	25.00	350.00
	22			53 - 75		27	25.00	675.00
	23			75 - 100		22	25.00	550.00
	24			100 - 154		25	25.00	625.00
	25			154 - 187		54	25.00	1,350.00
	26			187 - 210		33	25.00	825.00
	26			210 - 220		23	25.00	575.00
	26			220 - 285		10	25.00	250.00
	26		(Reaming) 0 - 3			65	25.00	1,625.00
82-4	29			0 - 14		3	25.00	75.00
	30			14 - 49		14	25.00	350.00
	July 1			49 - 118		35	25.00	875.00
	2			118 - 144.6		69	25.00	1,725.00
						36.6	25.00	915.00
						532.6 ft.		\$13,315.00

# NUSUN DRILLING & EXPLORATION LTD.

908 WEST 7th AVENUE, VANCOUVER, B.C. V5Z 1C3  
PHONE: (604) 736-8711

## MAN AND MACHINE HOURS

Page 3

<u>DATE</u>	<u>BRANNER</u>	<u>CHAPEL</u>	<u>STANLEY</u>	<u>DRILL CAT (D-8)</u>
June 9	6	6		6
June 10	5	5		5
June 11	2	2		3
June 12	2	2		
June 14	5			
June 15	4		4	3
June 28	3		3	9
June 29	6		6	
June 30	<u>4</u>	<u>—</u>	<u>4</u>	<u>4</u>
	37	15	17	30

Tractor Rental: 30 hours x \$90.00 = \$2,700.00

Man Hours: 69 hours x \$25.00 = 1,725.00

---

\$4,425.00

INVOICE

C. H. Stanley  
c/o 6130 Glendalough Place  
Vancouver, B. C.

September 14, 1982.

IN ACCOUNT WITH

BISHOP MINES LTD.  
305-1212 West Broadway  
Vancouver, B. C.

RE: LABOUR AND PROFESSIONAL SERVICES ON SILVER CUP  
PROPERTY, OMINECA M.D., TOPLEY, B. C.

MAP DATA: Grid for geophysics (compass and chain,  
numbered and flagged), geology, drill  
grid, claim line and post inspection  
August 2-10/82  
K. Branner 9 days @ \$125.00/day  
C. H. Stanley 9 days @ \$200.00/day \$ 2,925.00

EM-16 SURVEY: K. Branner 8 days @ \$ 125.00/day  
C. H. Stanley 5 days @ \$ 200.00/day  
August 11-15/82 1,625.00

DRAUGHTING, GEOLOGY, GEOPHYSICAL PROFILES, ENDAKO  
GEOCHEMISTRY, McELHANNEY REGIONAL MAP, FRASER FILTER  
CALCULATIONS AND DRAUGHTING, INTERPRETATION AND  
REPORT, August 20 - September 10/82  
22 days @ \$ 200.00/day 4,400.00

TOTAL: \$ 8,950.00

# ACME ANALYTICAL LABORATORIES LTD.

PHONE: 253-3158

852 East Hastings St., Vancouver, B.C. V6A 1R6

File: 82-0803

Date: Aug. 17, 1982

Bishop Mines Ltd.,  
#305 - 1212 W. Broadway,  
Vancouver, B.C.  
V6H 1G6

TERMS:  
NET TWO WEEKS  
2% PER MONTH CHARGED ON  
OVERDUE ACCOUNTS.

NUMBER	ASSAY	PRICE	AMOUNT
6	Cu and Au assays @	\$10.00	\$ 60.00
5	Additional Pb, Zn and Ag @	\$17.50	\$ 87.50
2	Additional Sb @	\$ 3.50	\$ 7.00
6	Rock sample preparations @	\$ 2.50	\$ 15.00
			\$169.50

*OK  
Chrs  
Aug 24 1982*

PLEASE PAY LAST AMOUNT →

# ACME ANALYTICAL LABORATORIES LTD.

PHONE: 253-3158

852 East Hastings St., Vancouver, B.C. V6A 1R6

## STATEMENT

Date: July 31, 1982

Bishop Mines  
305 - 1212 W. Broadway,  
Vancouver, B.C.  
V6H 1G6

**ANC 13**

TERMS:  
NET TWO WEEKS  
2% PER MONTH CHARGED ON  
OVERDUE ACCOUNTS.

DATE	REFERENCE FILE NUMBER	DEBIT	CREDIT	BALANCE
July 13, 1982	File # 82-0525	\$796.00		
July 13, 1982	File \$ 82-0525 (Re-run)	68.00		\$864.00
	<i>OK CDS Sept 2/82</i>			

PLEASE PAY LAST AMOUNT 



# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

BISHOP MINES LTD.  
BISHOP MINES LTD.  
ATTN. COREY STANLEY  
305-1212 WEST BRADWAY  
VANCOUVER B.C. V6H 1G6

Invoices: 463  
Date: July 28, 1982  
Report No: 422-1862  
Project: NONE GIVEN

4 Analyses of Copper	at	2.50	26.00	
3 Analyses of Lead	at	7.00	28.00	
4 Analyses of Antimony	at	9.50	38.00	
4 Analyses of Zinc	at	7.00	28.00	
		Subtotal	120.00	120.00
4 Analyses of Silver	at	3.50	14.00	
3 Analyses of Gold	at	9.00	35.00	
		Subtotal	50.00	50.00
4 Analyses of T. arsen	at	9.50	38.00	
		Subtotal	38.00	38.00
Invoice Total:				\$208.00

THIS IS A PROFESSIONAL SERVICE  
ACCOUNTS DUE WHEN RENDERED

# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: (604) 984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

\*\*\* STATEMENT \*\*\*

TO: Bishop Mines  
305 - 1212 West Broadway  
Vancouver, B.C.  
V6H 1G6

DATE: August 30, 1982

SEP 10 1982

Date	Item	Debits	Credits	Balance
July 30/82	Bal. Fwd. . .			\$56.68
Aug. 31/82	Interest charges	\$0.94		
Aug. 30/82				\$57.62

TERMS -- NET 30 DAYS

2.0% per month (24% per annum) charged on overdue accounts



MEMBER  
CANADIAN TESTING  
ASSOCIATION



R. W. PHENDLER, P. Eng., GEOLOGICAL CONSULTANT,  
EXPLORATION AND MINING  
7360 DECOURCY CRES., RICHMOND, B.C. V7C 4E9 (604) 271-2588

July 20, 1982

Bishop Mines Ltd.,  
305-1212 W. Broadway Ave.,  
Vancouver, B.C.  
V6H 1G7

Attention: Mr C. Stanley.

I N V O I C E No 253

Re: Professional Services of R.W. Phendler, P. Eng for  
logging of diamond drill core from Silver Cup property  
Topley, B.C. on July 6, 1982.

one day at \$300.00 per day - - - - -	\$300.00
<u>Recoverable expenses</u>	
July 13, 1982 ; Acme Analytical Labs assays	68.00
	<hr/>
T O T A L - - -	\$368.00

AUG 13

August 9, 1982

Bishop Mines, Ltd.  
305 - 1212 W. Broadway  
Vancouver, B.C.  
V6H 1G6

Attention: Mr. C. Stanley

I N V O I C E No. 262

Re: Professional services of R.W. Phendler, P. Eng. for preparation of Progress Report on Silver Cup property with a review of recent diamond drilling, recommendations for a new program with cost estimates and a certification.

Equivalent of  $\frac{1}{2}$  day at \$300/day ..... \$150.00

Recoverable expenses

Type report -  $\frac{1}{2}$  hour at \$13/hr. .... 6.50

Total = \$156.50

*C.P. Phendler  
Sept 2/82*



# GEONICS LIMITED

1745 Meyerside Drive, Unit 8, Mississauga, Ontario, Canada L5T 1C5 Tel. (416) 676-9580 Cables: Geonics  
Telex No. 06-968688

INVOICE NUMBER  
**9559**

TO: Bishop Mines Limited, 305 - 1212 West Broadway VANCOUVER, B.C. V6H 1G6  Tel: (604)733-7811 Attn: Corby Stanley		SHIP TO:  <i>same</i>	
---	--	-----------------------------	--

CUSTOMER ORDER NUMBER	ORDER DATE	INVOICE DATE August 12 1982	DATE SHIPPED August 12 1982
FEDERAL SALES TAX: EXEMPT <input checked="" type="checkbox"/> N/A <input type="checkbox"/> EXTRA <input type="checkbox"/>		PROVINCIAL SALES TAX: EXEMPT <input type="checkbox"/> N/A <input checked="" type="checkbox"/> EXTRA <input type="checkbox"/>	

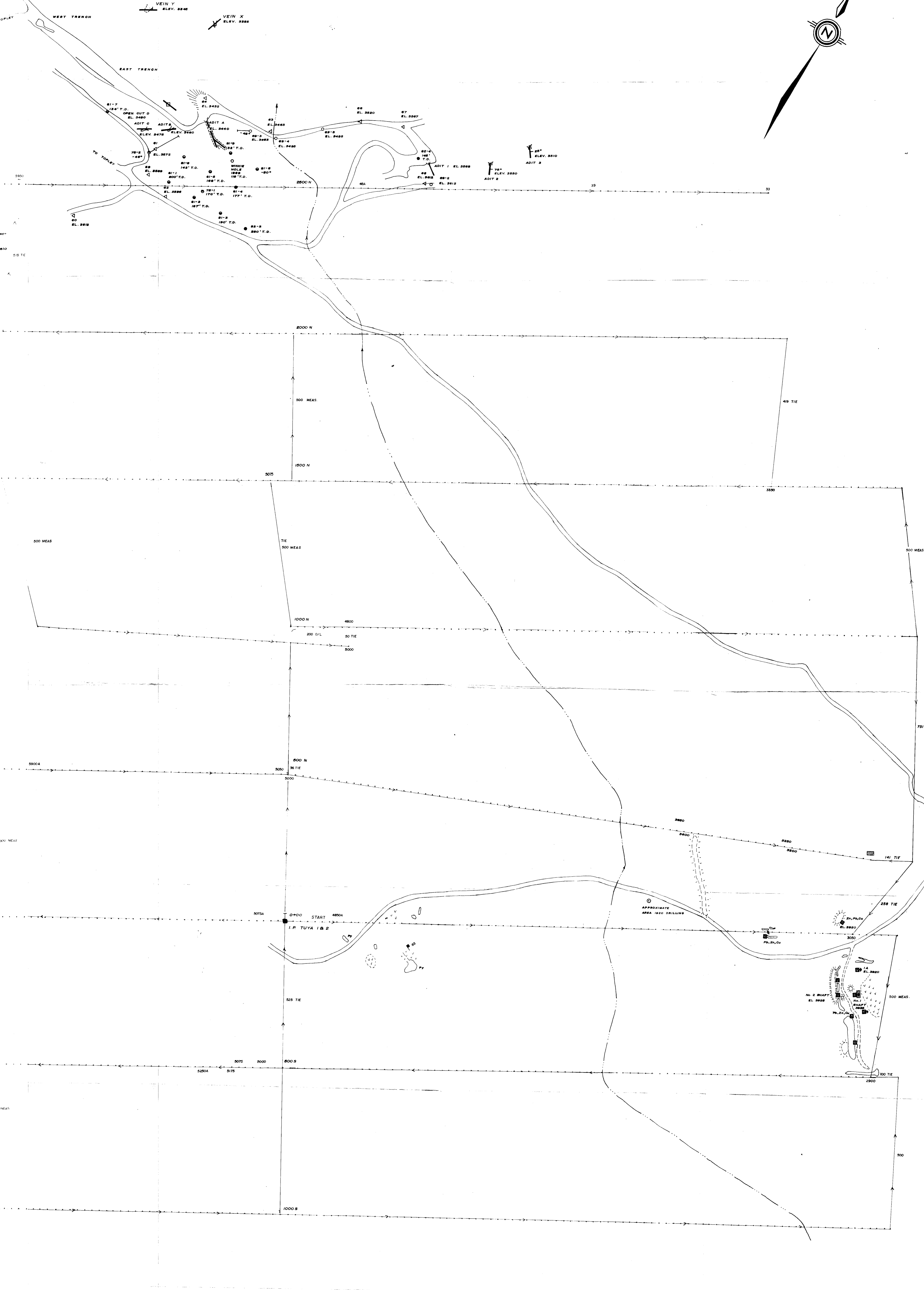
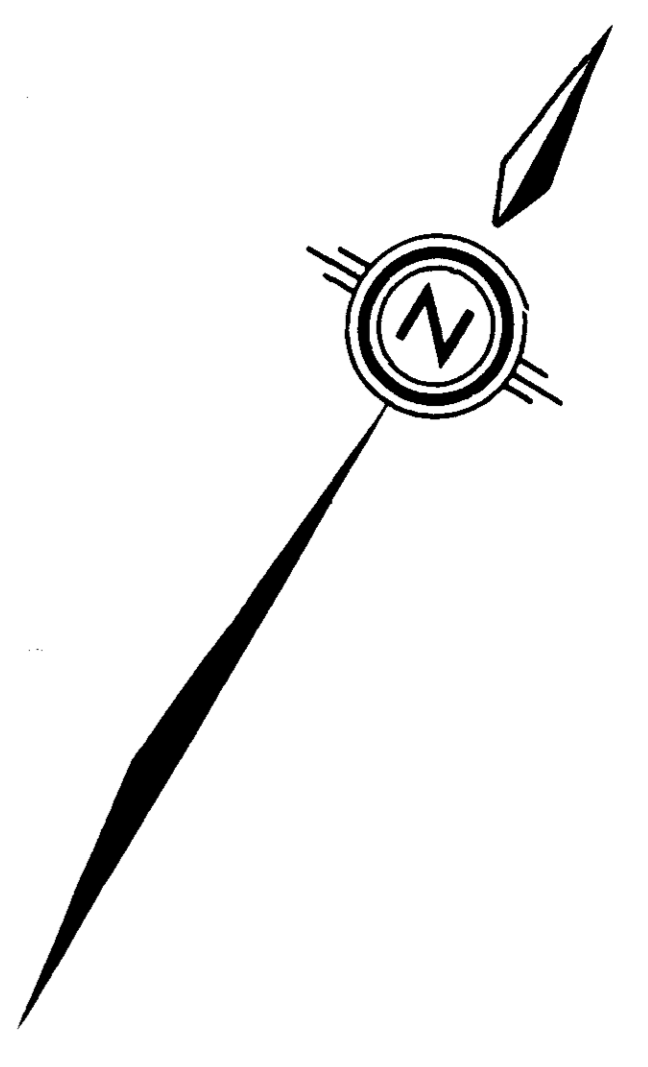
SHIPPED VIA:  
Air ExpressWaybill AE 520 953 collect COLLECT  PREPAID

TERMS: *Net 30*

QUANTITY	DESCRIPTION	BACK ORDERED	QUANTITY SHIPPED	UNIT PRICE	TOTAL
1	Returning Repaired: EM16 Serial No. 6441 PARTS: (1) NLK Plug In LABOUR: 1 Hour				120.00 40.00 <u>160.00</u>
E. & O.E.					

*OK  
CWS  
Sept 2/82*

VEIN Z ELEV. 3992  
8000E  
8100E  
8200E  
8300E  
8400E  
8500E  
8600E  
8700E  
8800E  
8900E  
9000E  
9100E  
9200E  
9300E  
9400E  
9500E  
9600E  
9700E  
9800E  
9900E  
10000E  
10100E  
10200E  
10300E  
10400E  
10500E  
10600E  
10700E  
10800E  
10900E  
11000E



TUYA VEINS, 3000 FT. SOUTH  
↓

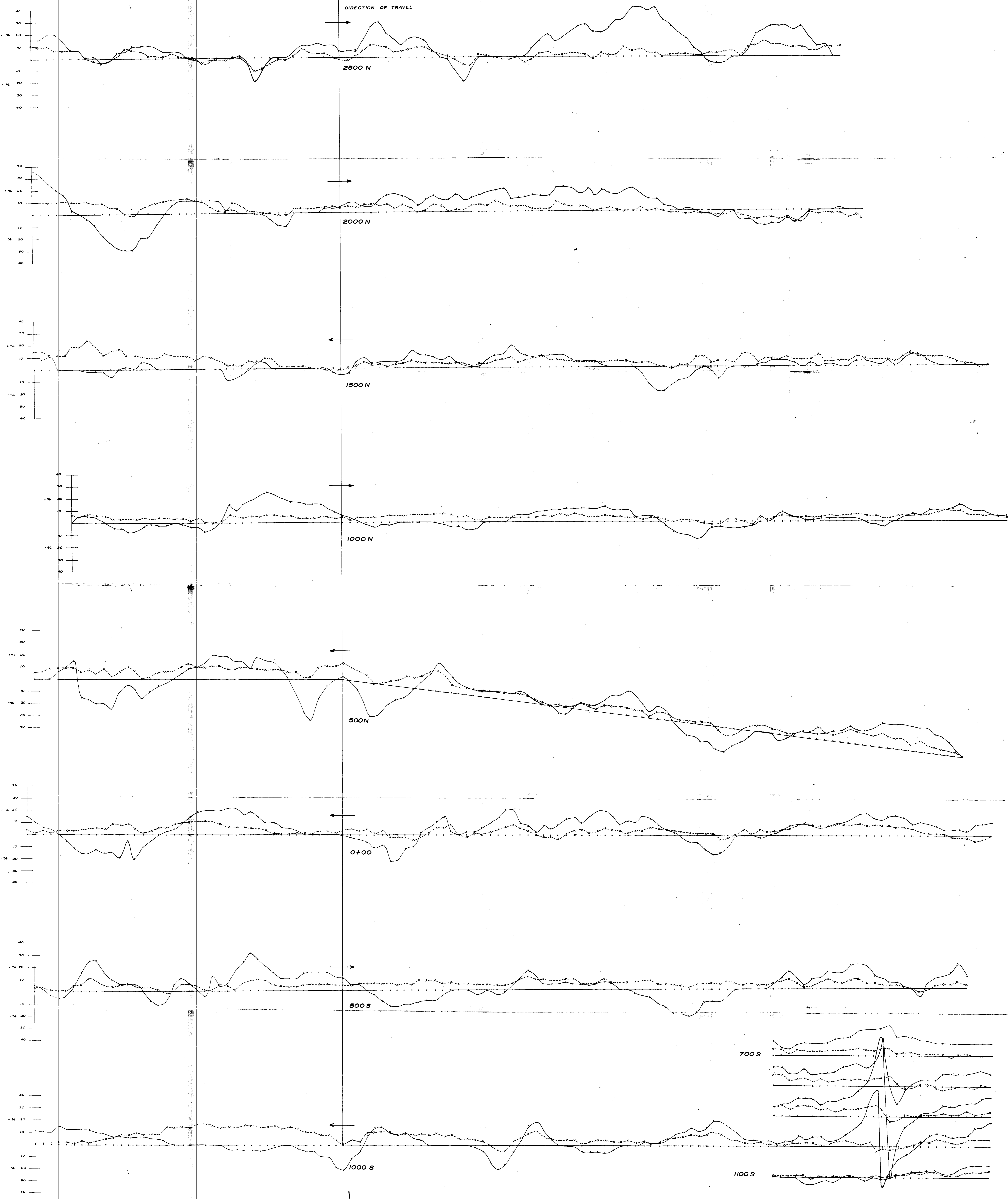
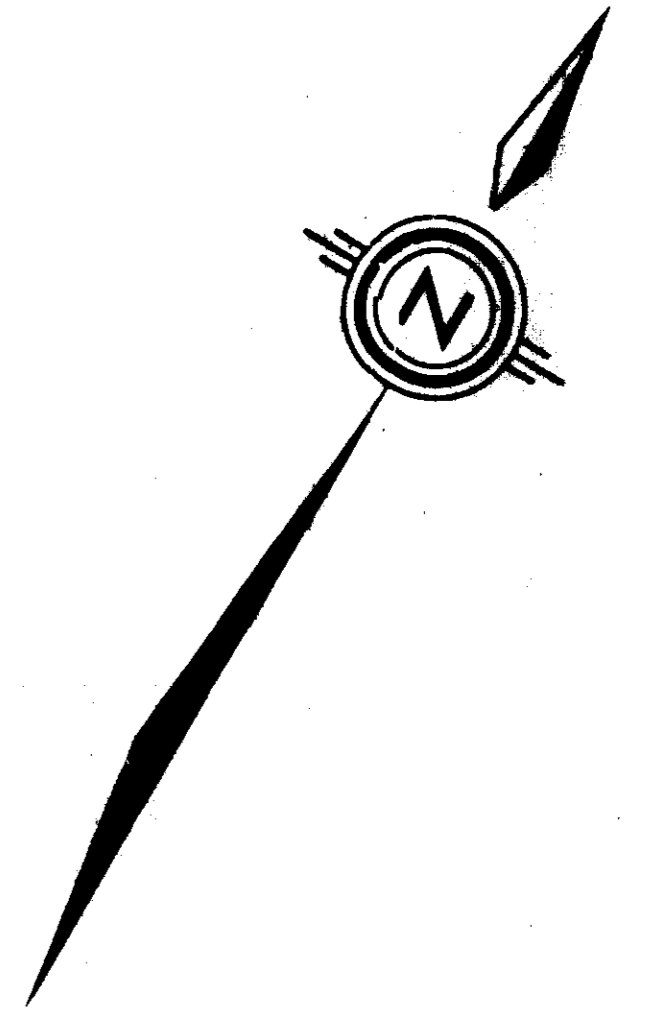
**LEGEND**

- 82-3 280 T.D. DIAMOND DRILL HOLES
- 1959
- 1978
- 1981
- 1982
- 60 SURVEY PEG WITH ELEVATION IN FEET
- ROAD
- CREEK
- ADIT
- E-M SURVEY GRID WITH STATIONS

**BISHOP MINES LTD.**  
**DIAMOND DRILL PLAN**  
**E-M GRID & GEOLOGY**  
TOPLEY PROPERTY  
OMINECA M.D., B.C.  
MAP REF. NTS 83L/8  
AIR PHOTOS: 130 BC 7748: 130 121  
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,656**  
NO.

SCALE IN FEET  
100 0 100 200

SCALE IN METERS  
20 0 20 40 60



**LEGEND**  
 PROFILES  
 — IN - PHASE  
 - - - QUADRATURE

**BISHOP MINES LTD.**  
 E-M 16 VLF, E-M PROFILES

TOPLEY PROPERTY  
 OMINECA M.D., B.C.  
 MAP REF. NTS 88L/9  
 AIR PHOTOS: 130  
 BC 7745: 131

MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**10,656**  
 NO.

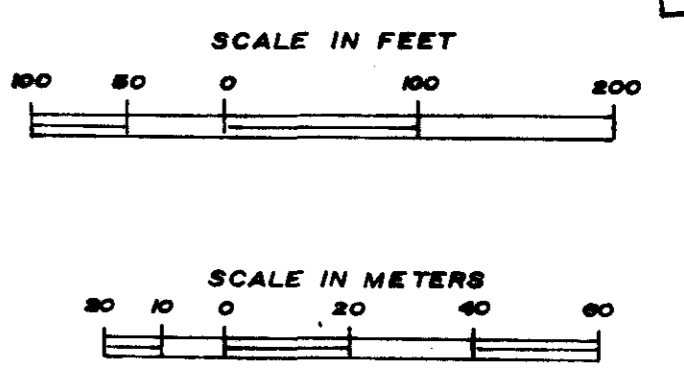
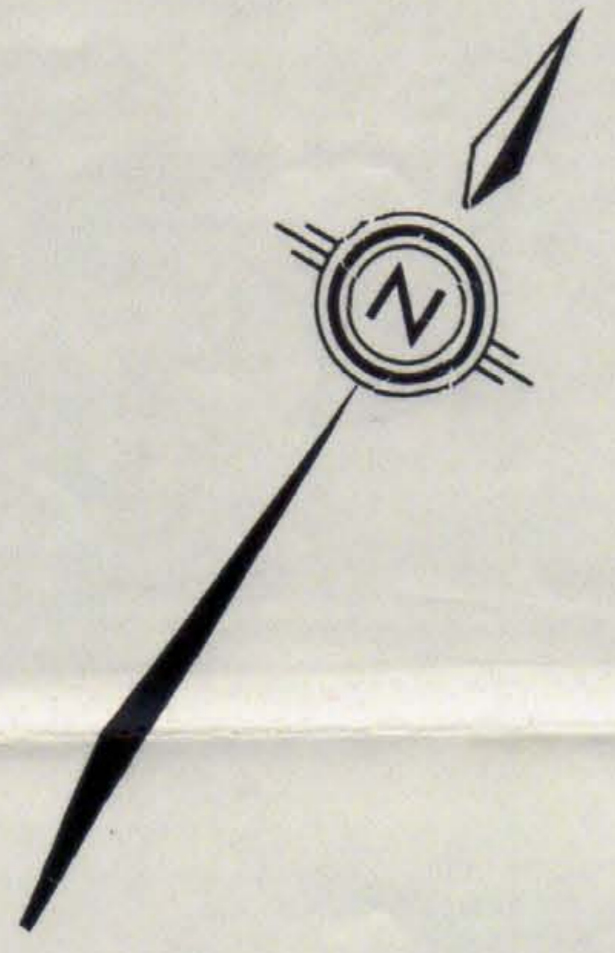


FIGURE 6



**LEGEND**

— 0.5% — SURVEY LINE & STATION WITH IN %  
— 20 — CONTOUR OF FRASER FILTER DATA PROFILES IN %  
— POSITIVE VALUES ONLY COM —

SEATTLE  
DIRECTION TO STATION  
READINGS FACING EAST

**BISHOP MINES LTD.**  
E-M 16 VLF, FRASER FILTERED DATA

**TOLPEY PROPERTY**  
OMINECA M.D., B.C.  
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
MAP REF. NTS 22L/3  
AIR PHOTO: BC 7748: 130  
181  
**10656**  
NO.

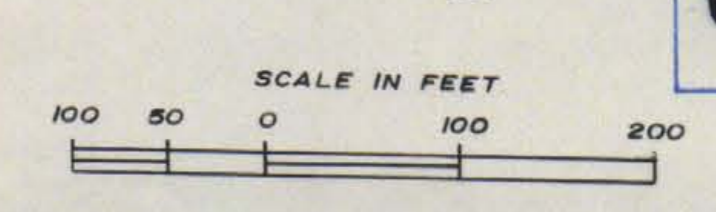


FIGURE 7

CALCULATIONS, SURVEY, DRAFTING - C. H. STANLEY