

MAP NO.: ASSESSMENT REPORT X DOCUMENT NO: 092647  
PROSPECTUS  
CONFIDENTIAL X MINING DISTRICT: Whitehorse  
105 F 12 OPEN FILE TYPE OF WORK: Geological, geochemical

REPORT FILED UNDER: Cyprus Gold (Canada) Ltd

DATE PERFORMED: 1-5 September, 1988 DATE FILED: 27 January, 1989

LOCATION: LAT.: 61 41'N AREA: Big Salmon River

LONG.: 133 56'W VALUE \$: 5400.00

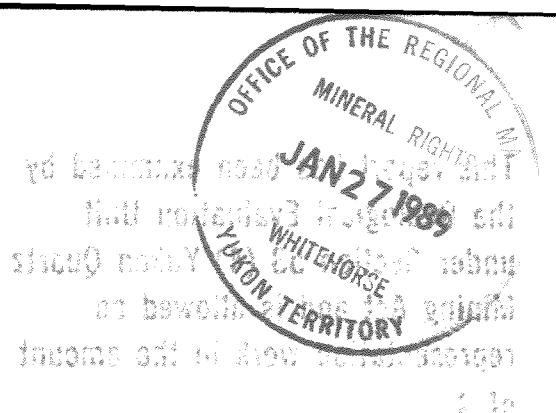
CLAIM NAME & NO.: HELO 1-18 (YB08043-60)

WORK DONE BY: J. Cuttle

WORK DONE FOR: Cyprus Gold (Canada) Ltd

DATE TO GOOD STANDING: | REMARKS: #140 HELO

| Prospecting in 1988 turned up several new areas of mineralized  
+ skarn including an area northwest of the claim block where float  
+ assayed up to 21.6% Pb, 1.38% Zn and 460.1 g/t Ag.  
+ and 1.25 km wide.



DATA ACQUISITION AND INVESTIGATION  
GEOLOGICAL and GEOCHEMICAL REPORT  
MANUFACTURED FOR EXPLORATION  
on the  
HELO 1-18 MINERAL CLAIM  
WHITEHORSE MINING DISTRICT

NTS: 105F-12

Latitude: 61°41'N  
Longitude: 133°56'W

Work done September 1 to 5, 1988



Submitted by:

J. Cuttle B.Sc. FGAC

September 26, 1988

092647

RECEIVED  
JULY 10 2010  
This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 5400.00.

*J. J. Brennen*  
for Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

5400.00

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MAPS

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### Introduction

A general prospecting and rock sampling program was carried out by Cyprus Gold (Canada) Ltd. on the Helo 1-18 mineral claim, Whitehorse Mining District, during September 1 to September 5, 1988. The field work was directed towards the location of additional skarn type Pb, Zn, Ag, Cu mineralization other than what was previously known, and then further assess the properties base and precious metal potential.

The work and results described in this report are intended to fulfill assessment requirements for this mineral claim.

### Location, Access and Topography

The Helo 1-18 claim group is located 120 kilometers (75 miles) north northeast of Whitehorse in the western portion of the Pelly Mountains, south central Yukon Territory. The mining town of Faro, 69 kilometers (43 miles) to the north northeast and Ross River, 83 kilometers (52 miles) northeast would serve as supply centers for project work. The mineral claims and surrounding area straddle the western and eastern boundary of NTS 105F/12 and 105E/9 respectively at 61°41'N and 133°56W. The South Canol road, 46 kilometers (29 miles) east of the Helo claims, runs north south joining Ross River and the Alaska Yukon highway. Access to the property would require fixed wing transportation into Northern Lake and then an additional 11 kilometer (7 mile) helicopter trip into the property area.

All of the claim group is found well above the tree line within varying elevations of 1370 meters to 1860 meters (4500 feet to 6100 feet). The valleys are generally broad, and surrounded by steep slopes and cliffs. Rock exposure is approximately 15%-20%. It is fair to say the property can conceivably be worked from June through mid September.

### History and Previous Work

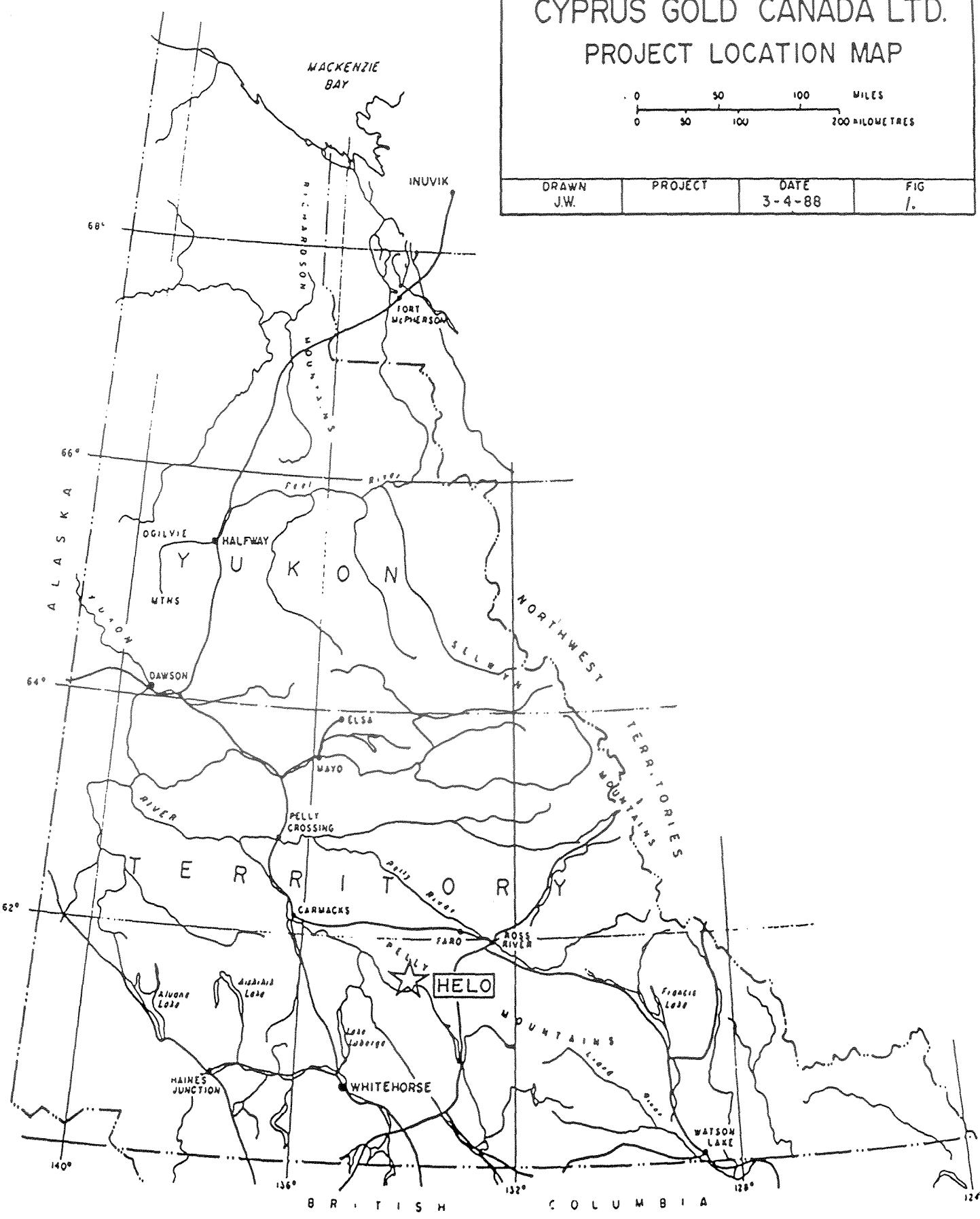
In the late summer of 1981, Amoco Canada Petroleum personnel located stratabound Pb, Zn, Cu, Ag mineralization on what is known today as the Helo #6 claim. This area was isolated by prospecting stream drainages with anomalous lead-zinc silt sample results. The occurrence was left unexplored until September 1987 when Cyprus Gold (Canada) Ltd staked eighteen units (Helo 1-18) over the mineralized zone.

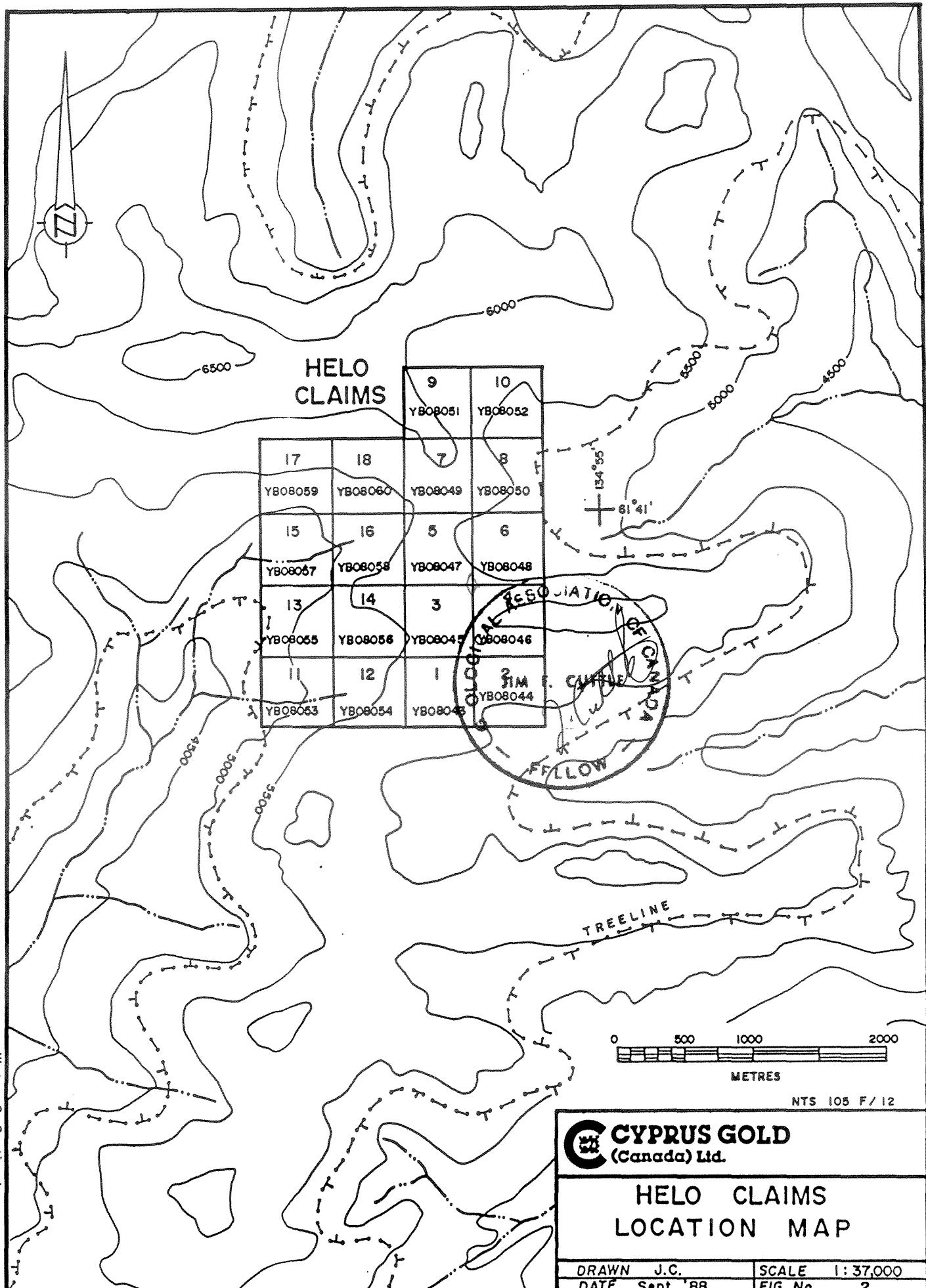
To date no valid quartz or placer claims exist around the Helo 1-18 claim group although various lapsed groups are still included on the claim maps. An old claim group (Fog Mountain 1-20), staked in 1980 by Amoco Canada Petroleum covered an area of Pb-Zn-Ag skarn mineralization. Mineralization and geology are very similar to that found on the Helo claims. One point of interest is a series of placer claims 14.5 kilometers (9 miles) long, beginning at the headwaters of D'Abbadie Cr. The start of the placer claims are 8.0 kilometers (5 miles) west northwest of the Helo group and they trend north westerly. Only limited road building work and trenching was performed in 1984 and the placer claims were later allowed to lapse.

CYPRUS GOLD CANADA LTD.  
PROJECT LOCATION MAP

0 50 100 200 MILES  
0 50 100 200 KILOMETRES

DRAWN J.W.	PROJECT	DATE 3-4-88	FIG 1.
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Claim Status

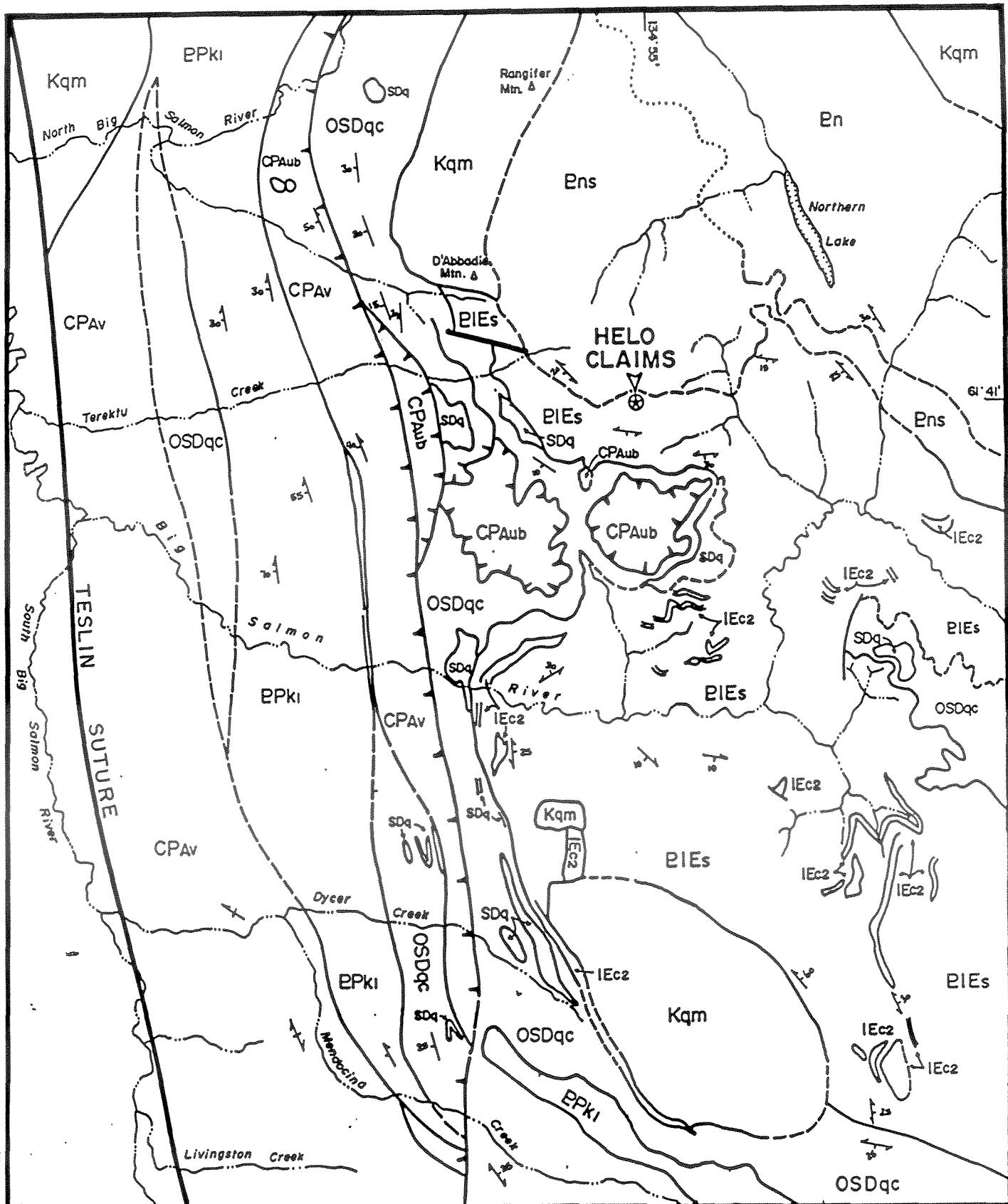
The Helo 1-18 were staked in September and recorded a week later on September 20, 1987. This report of field work performed in 1988 is intended to keep the claims in good standing until September 20, 1991.

<u>Claim name</u>	<u>Number</u>	<u>Expiry date</u>	<u>Recorded work</u>
Helo 1	YB 08043	September 20, 1988	3 years
Helo 2	YB 08044	" " "	" "
Helo 3	YB 08045	" " "	" "
Helo 4	YB 08046	" " "	" "
Helo 5	YB 08047	" " "	" "
Helo 6	YB 08048	" " "	" "
Helo 7	YB 08049	" " "	" "
Helo 8	YB 08050	" " "	" "
Helo 9	YB 08051	" " "	" "
Helo 10	YB 08052	" " "	" "
Helo 11	YB 08053	" " "	" "
Helo 12	YB 08054	" " "	" "
Helo 13	YB 08055	" " "	" "
Helo 14	YB 08056	" " "	" "
Helo 15	YB 08057	" " "	" "
Helo 16	YB 08058	" " "	" "
Helo 17	YB 08059	" " "	" "
Helo 18	YB 08060	" " "	" "

GeologyRegional Geology

The property area is located along the western edge of the Omineca Belt, known more specifically as the ancient North American continental margin. Proterozoic and/or Lower Cambrian sedimentary schist and gneiss dominate rock exposures in the area and exhibit a high degree of metamorphic grade. Interlaid with these probable miogeoclinal sediments are thin bands of recrystallized limestones, dolomites, and quartzite. Quartz biotite granodiorite outcrop may indicate the existence of an old intrusive suite found in the area. It is highly gneissic, monotonous in texture and may have intrusive contacts remnant in the Northern Lake area.

The consequences of this Proterozoic continental margin have given rise to the formation of various miogeoclinal and eugeoclinal rock types varying in ages from Upper Cambrian to Upper Devonian. Mid Jurassic island-arc collision with the continental margin abducted these sediments towards the east and are now preserved as various allochthonous terrains throughout the area. The Teslin Suture Zone, 10 kilometers (6.5 miles) west of the Helo claims is the contact zone of this massive collision and is an elongate area of highly siliceous mylonite, sheared ophiolite and mafic volcanic rocks. Partial melting from the final subduction of the Pacific plate before collision gave rise to a large number of Mid Cretaceous intrusive bodies such as the Big Salmon and Nisutlin Batholiths and the Dycer Creek Stock.



SEE FOLLOWING PAGE FOR LEGEND

**CYPRUS GOLD**  
(Canada) Ltd.

**HELO CLAIMS  
REGIONAL GEOLOGY**

0 5 10 15 Kilometres



DRAWN JC	SCALE 1:250,000
DATE Sept. '88	FIG. No. 3

## G E O L O G Y

### CRETACEOUS (90±10 My)

Kqm Biotite quartz monzonite  
(Dycey Creek Stock, Rangifer Mountain Batholith)

### TRIASSIC and/or JURASSIC

EPki Muscovite quartz schist, muscovite quartzite,  
chlorite schist

### CARBONIFEROUS and/or PERMIAN

#### Anvil Allochthonous Assemblage

CPAv Dark green amphibolite, altered basalt and gabbro

CPAub Serpentinized dunite, peridotite and pyroxenite

### SILURIAN and LOWER DEVONIAN

SDq Laminated mudstone, sandy dolomite, orthoquartzite

### ORDOVICIAN, SILURIAN, LOWER DEVONIAN

OSDqc Dark grey to black silty to dolomitic  
graphitic siltstone

### LOWER CAMBRIAN

IEc2 White resistant marble

### PROTEROZOIC (?) and LOWER CAMBRIAN

E1Es Muscovite biotite schist, micaceous quartzite,  
minor amphibolite and marble.

En Buff weathering muscovite biotite granodiorite  
gneiss

E1ns Muscovite biotite granodiorite gneiss with  
abundant foliated muscovite biotite  
quartz schist

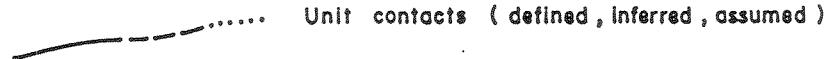
## S Y M B O L S



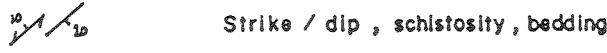
Thrust fault



Normal fault



Unit contacts (defined, inferred, assumed)



Strike / dip, schistosity, bedding

after TEMPELMAN-KLUIT (1977)

The area includes broad valleys occupied by major northerly and westerly flowing rivers, and rounded and rugged mountain tops with stunted tree growth up to elevations of 1280 meters (4200 feet). Glaciation has left heavy coverage of moraines on the lower elevation while glacial boulders can also be found on or near mountain tops.

#### Property Geology

From limited geological work done within the property boundaries one can safely say the claims have had less than 20% of its rock exposure examined and prospected. The following is an account of what has to date been found on the property.

#### Proterozoic to Lower Cambrian

Quartz Hornblende Biotite Schist: This rock type can be found underlying the whole sedimentary sequence on the Helo claim. It outcrops along the steep easterly facing slope on Helo #9 claim and on the lower sections of the Helo #5 and #6. It is generally uniform in appearance, greyish white in colour with consistent alternating schistose and gneissic bands of quartz and feldspar, hornblend and biotite. At times it resembles a highly metamorphosed granodiorite intrusive although small bands of definite limy sedimentary rocks have been seen paralleling schistosity.

Silty Limestone: Higher in the sedimentary sequence small 1-4 meter bands of silty limestone outcrop on Helo 5, 6 and 7. These units appear gradational from the underlying Quartz Hornblende Biotite Schist. Prospecting for this unit is better isolated by its development of skarn related minerals (actinolite, tremolite, calite, magnetite) and by pervasive epidote and manganese alteration. Massive and disseminated fine grained galena and yellow sphalerite are consistently found within this horizon and may not always appear to have nearby associated intrusive activity.

Limestone: A creamy white to grey unit consistently found capping the silty limestone horizons. They vary in widths from 1 to 7 meters, generally pinch and swell along strike and is coarsely recrystallized. No obvious skarn development has been seen in this unit to date.

Quartz Muscovite Schist: A light to dark brown micaceous schist, and at times highly variable in composition from an arenaceous sediment to grewacke. Small sections of "Silty Limestone" have been seen interbedded with these sediments and further create a possible exploration target for skarn type mineralization.

#### Age unknown

Pegmatitic Dykes and Sills: Coarse grained quartz-muscovite-feldspar pegmatitic dykes and sills have been seen in all the Proterozoic and Lower Cambrian sediments. They may vary from one half meter in thickness through to five meters wide, and occur conformably along unit contacts but are generally found cutting the metamorphosed sediments. It is not sure of the source or age of this unit although they are all cut and moderately displaced by the later felsic and mafic dykes found on the property. They may possibly be related to the Mid

Cretaceous intrusive batholiths found to the north, east and south of the property although at present this suggestion is only speculative.

Mafic Dykes: A commonly massive dark green, fine grained dyke sequence averaging in widths up to 5 meters. They are not as numerous as the closely related felsic dykes although they are rarely found by themselves. The Helo #5 has good exposure of this rock type.

Rhyolite Feldspar Porphyry Dyke: Varieties of this sequence are considerable, ranging from creamy brownish white rhyolite with porphyritic sections, beige felsite and sugary fine grained aplites. These rocks are commonly associated with mafic dykes and both are considered of the same age. A small intrusive plug found on Helo #17 and #18 may be the source of this dyke sequence.

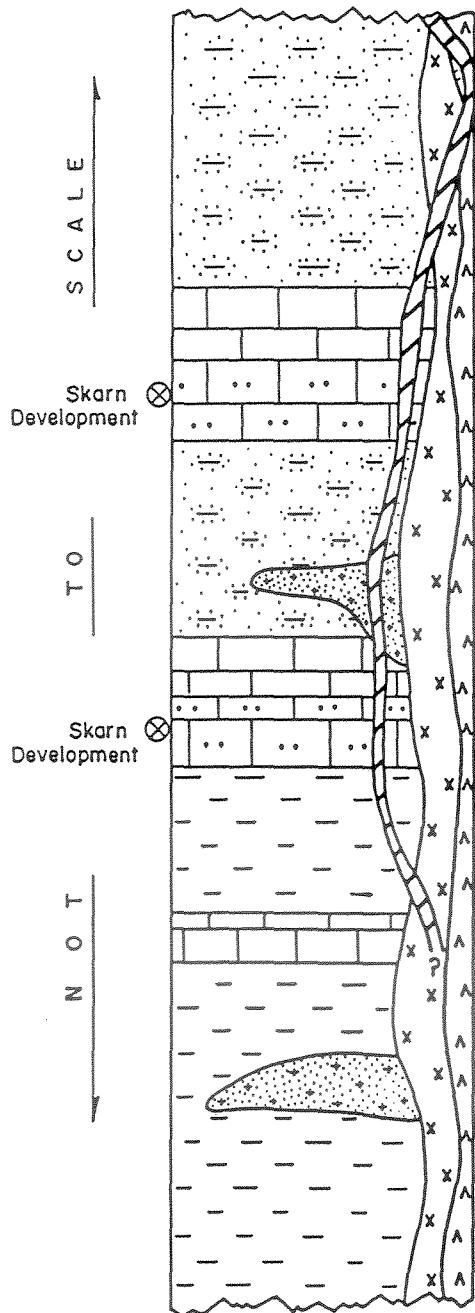
Quartz Fluorite Breccia: This is obviously the youngest rock occurrence located on the property and can be seen exposed along the Helo #5 and #6 claim boundary. Quartz and fluorite occur as 3 to 12 meter wide breccia and stockwork zones crosscutting all previous units. Vertical displacement of wall rock fragment in the breccia does not indicate large movement although the felsic fragments found are generally highly altered to clay with development of minor sericite. Mafic dyke and schistose fragments are also very common in the breccia matrix. The fluorite is commonly a light green colour although white and turquoise varieties have been seen.

Photo 1)      Quartz Fluorite Breccia on Helo #5, #6



## LEGEND

AGE UNKNOWN



Quartz, Fluorite Breccia. Occurs as stockwork and breccia cross-cutting all units on property. Fluorite is typically green, with lesser purple and white varieties. Breccia fragments are altered felsic and mafic dyke.

Rhyolitic Feldspar Porphyry Dyke. Varieties show rhyolite, felsite and aplite textures.

Mafic Dyke. Commonly massive dark green and fine grained.

### Pegmatitic Dykes and Sills.

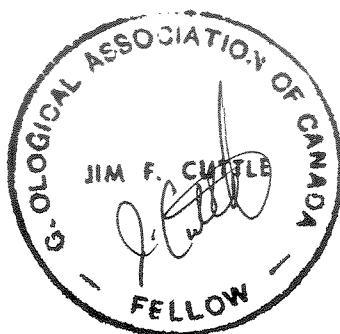
## PROTEROZOIC to LOWER CAMBRIAN (?)

Quartz Muscovite Schist. With minor  
Ilmey sections.

Limestone. Creamy white to grey massive and generally recrystallized.

Limestone. Dark grey with high silty component. Generally brown manganese stain found with skarn development. Calc-silicate, with epidote, actinolite, tremolite, galena, sphalerite, chalcopyrite and magnetite.

Quartz Hornblende Biotite Schist. Sections  
become gneissic.



The logo for Cypress Gold (Canada) Ltd. It features a stylized letter 'C' on the left containing a small illustration of a Native American figure holding a spear. To the right of the 'C', the word 'CYPRUS GOLD' is written in large, bold, serif capital letters. Below that, '(Canada) Ltd.' is written in a smaller, regular serif font.

## STRATIGRAPHIC COLUMN

HELO 1-18

DRAWN DATE	J.C. Sept. '88	SCALE FIG. No.	N.T.S. 4
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### Field Program Logistics

Five days were spent on the property with a crew of two people. The work program was designed primarily to prospect and rock sample newly found mineralization on and about the claim area and to access any further potential for ore grade Pb-Zn-Ag-Cu mineralization. Broad valley's offer excellent camping areas for small to medium sized crews and access by foot to all parts of the property is not overly difficult.

### Discussion of Results

The Helo claim group and surrounding area has demonstrated in the past its potential for Pb-Zn-Ag-Cu mineralization. Most occurrences to date have been Pb-Zn-Ag±Cu stratabound skarn type disseminated and massive mineralization found within limy Proterozoic to L. Cambrian sediments. Several 1-4 meter (3-12 feet) thick, flat lying silty carbonate horizons have been altered to a calc-silicate assemblage of actinolite, tremolite, calcite, epidote and magnetite. The surrounding country rock is a metamorphosed schistose sedimentary equivalent of greywacke to arkosic shallow water sediments.

Regionally, it is felt at the present time that base metal skarn mineralization is very closely related to a possible buried high level felsic dome. This intrusive may be isolated by a large egg shaped airborne magnetic anomaly approximately 11 kilometers long by 5 kilometers wide (7 miles by 3 miles) and can be found on 'Quiet Lake' magnetic map sheet #7005 (1:250,000). The Helo claims are centered in the middle of this anomaly and include numerous high level rhyolitic type dykes related very possibly to an underlying intrusive body.

Targets during the 1988 field program were three fold: 1) Investigation and sampling of the quartz-fluorite breccia for any possible type of concentrated mineralization. 2) Continuation of any of Pb-Zn-Ag mineralization along strike from known exposures isolated in 1981 and 1987. 3) Regional prospecting in and around the property boundary for additional base metal and precious metal occurrences.

Sampling of the fluorite breccia zone found in outcrop in a steep faulted gully between Helo #5 and #6 was negative. The breccia is found striking 176°/75°E and it outcrops sporadically for over 250 meters (820 ft.). Widths of the zone vary, and at times are covered by talus, but exposures have been estimated up to 12 meters (40 feet) wide. Assays from the breccia are as follows:

<u>Sample #</u>	<u>Width</u>	<u>Assays</u>						
		Cu%	Pb%	Zn%	Au oz/t	Sn(ppm)	W%	
HE-JC-9	1.0m chip	0.001	0.01	0.01	0.001	0.03	3	0.001
HE-JC-11	1.0m chip	0.001	0.01	0.02	0.001	0.05	2	0.001
HE-JC-14	grab	0.002	0.01	0.02	0.001	0.07	3	0.001

Continuing to the south from the ridge top at claim post Helo 3,4,5,6 the breccia can be picked up by VLF-EM-16 although overburden covers all outcrop. To the north along the claim line Helo #5 and #6 the breccia disappears under talus and is not known in any other area on the property.

Skarn mineralization found in 1981 could not be extended due to overburden cover. This occurrence, on the Helo #6 claim includes a 1.6 meter chip (5.3 ft.) of massive sulphide grading 7.2% Pb, 9.2% Zn, 3.5 oz/t Ag, 0.7% Cu. The zone appears to be small and pod-like and very possibly faulted by late stage quartz fluorite breccia development.



Photo 2) Looking South at Pb, Zn, Ag Skarn Zone and Breccia Outcrop

One zone of interest is the flat lying silty carbonates found along cliff exposures on Helo #5 claim. This area has been cut by numerous felsic dykes which are thought responsible for the skarn alteration and Pb-Zn-Ag-Cu mineralization. Various grab samples and chip samples were taken along 170 meters (560 ft.) of this skarn exposure and gave the following results. Working from the east to the west.

<u>Sample</u>	<u>Width</u>	<u>Assays</u>					<u>Location</u>
		Cu%	Pb%	Zn%	Ag oz/t	W%	
HE-JC-16	2 sq.meters	0.009	2.06	2.81	0.9	0.001	0+00W
HE-JC-17	o/c grab	0.002	3.12	3.6	3.4	0.011	0+30W
HE-JC-18	"	0.012	0.09	0.09	3.9	0.005	"
HE-JC-19	o/c grab	0.001	4.1	2.83	1.92	0.192	0+80W
HE-JC-20	sub o/c	0.820	12.80	10.10	4.64	0.002	1+30W
HE-JC-2	0.6m chip	0.081	3.50	3.90	1.98	0.116	1+70W

The skarn altered zone varies in thickness from 1 to 4 meters (3-13 feet) and is usually heavily stained with brown manganese. An overlying and sometimes interbedded creamy white recrystallized limestone acts as a good marker horizon. Felsic dykes are seen cutting this carbonate horizon and generally higher assays have been received where these dykes and silty carbonates are in contact with each other.

Regional prospecting of the claim group isolated a number of areas of similar skarn mineralization. The Helo #7 claim has several float samples of local origin, one that assayed up to 5.1 %Pb, 5.6% Zn, 1.47 oz/t Ag, and 0.035% W. This area has outcrop overlain by minor talus, but it is felt that Pb, Zn, Ag mineralization is related to the same mineralized skarn horizon found to the south across the valley on Helo #5. To the north of Helo #17 approximatley 350 meters (1150 feet) is an occurrence of similar skarn type alteration and mineralization. The occurrence outcrops near the ridge top and has surrounding float samples of 21.6% Pb, 1.38% Zn, and 13.42 oz/t Ag.

Conclusion and Recommendations

Various skarn type Pb-Zn-Ag-Cu mineral occurrences have been isolated over small and selected areas of the Helo 1-18 mineral claim. The continuous extent of the flat lying mineralized carbonate horizon is still unknown although continued prospecting and rock sampling would help clarify the properties mineral potential. High silver content (up to 21 oz/t) in these base metal skarn targets continue to keep this property interesting, especially in view of the fact that only 7% of the property has been looked at in detail.

Follow up on these targets and the generation of new ones would best be done by 1). Regional prospecting the whole claim group in detail and follow up on known high Zn-Pb-Ag mineralization on the property itself and to the north of the Helo #17 claim. 2). Stream silt sampling in detail after complete snow melt especially in the south and west sections of the claim block. 3). Selected work around the intrusive body found on the Helo #17 and 18 claims to determine its extent and possible relation to dyking and mineralization. 4) The generation of a detailed property geological map to better isolate further white carbonate marker horizons characteristic of the underlying skarn mineralization found on the property.

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APPENDIX A

EXPENDITURES HELO 1-18

September 1 to September 5, 1988

<u>Wages</u>	\$ 3,500.00
10 man days at \$350.00/day (2 people)	
<u>Helicopter Support</u>	\$ 1,920.00
3.2 hrs. at \$600.00/hr.	
<u>Geochemical Analysis</u>	\$ 352.00
22 rocks at \$16.00/rock (Au, Ag, Cu, Pb, Zn, Sn, W)	
Total	\$ 5,772.00

APPENDIX B

DESCRIPTION OF ROCK SAMPLES

<u>Sample No.</u> <u>(Location)</u>	<u>Description</u>	<u>Type</u>
HE-JC-1 (Helo #7)	Creamy white to greenish white brecciated felsic dyke. Includes spotty hematite with banded zones of metallic silvery sulphide.	Float
HE-JC-2 (Helo #5)	Skarn zone with calc-silicate development, manganese, gn sp, cp within marble horizon.	60cm chip
HE-JC-3 (Helo #7)	Epidote, actinolite, tremolite rich skarn with diss mal, cp, tgn.	Float
HE-JC-4 (Helo #7)	Skarn assemblage of calc-silicate, manganese, gn, and minor sp.	Float
HE-JC-5 (Helo #7)	Quartz breccia with fragments of altered muscovite schist. Open cavity fills layered chalcedonic growth.	Float
HE-JC-6 (Helo #7)	Brecciated felsic dyke (?), quartz healed with minor py and iron stain.	Float
HE-JC-7 (Helo #6)	Fe stained brecciated felsic dyke. Quartz healed. Altered felsic fragments with diss py.	Float
HE-JC-8 (Helo #6)	Brecciated felsic dyke healed by dark green matrix with diss py, cp, sp.	Float
HE-JC-9 (Helo #5)	Outcrop of quartz fluorite breccia. Fragments of highly altered to fresh felsic to mafic dyke.	1.0cm chip
HE-JC-10 (Helo #8)	Manganese stained calc-silicate with diss gn, sp.	Float
HE-JC-11 (Helo #6)	Quartz fluorite stockwork in breccia with highly altered felsic fragments.	1.0m chip
HE-JC-12 (Helo #5)	Hydrothermally altered quartz breccia.	Float
HE-JC-13 (Helo #6)	Brecciated rusty felsic dyke with diss py along footwall in contact with mafic dyke.	°/c grab

<u>Sample No.</u> <u>(Location)</u>	<u>Description</u>	<u>Type</u>
<u>HE-JC-14</u> (Helo #6)	Qtz fluorite breccia with diss py along footwall in contact with mafic dyke.	°/c grab
<u>HE-JC-15</u> (Helo #5)	Skarn zone approx. 15cms wide and covered with talus. Actinolite, diopside, mag, epidote and cp as small diss. Magnetite is massive at times.	15cm grab
<u>HE-JC-16</u> (Helo #5)	Skarn alteration of calcite, epidote, manganese, actinolite.	°/c grab over 2 sq meters
<u>HE-JC-17</u> (Helo #5)	20 meters along strike of HE-JC-16. Common gn, sp, manganese, epidote, calcite.	°/c grab
<u>HE-JC-18</u> (Helo #5)	Same location as HE-JC-17. Magnetite rich zone with minor gn (?) and sp.	°/c grab
<u>HE-JC-19</u> (Helo #5)	Skarn alteration with gn, sp, and manganese (Narrow zone).	°/c grab
<u>HE-JC-20</u> (Helo #5)	Massive fine gn in close association to felsic dyke.	Sub °/c
<u>HE-JC-21</u> (Helo #16)	Highly iron stained felsic intrusive with po. Source is unknown.	Float
<u>HE-JC-22</u> (Helo #18)	Rhyolitic feldspar porphyry 1% diss py with minor silvery mineral (?).	°/c grab
<u>HE-GM-1</u> (North of Helo #7 by 350m)	Copper stained epidote rich skarn with gn. Near felsic dyke.	Float
<u>HE-GM-2</u> (--)	Skarn (calc-silicate) with minor Pb and Mn.	Float
<u>HE-GM-3</u> (--)	Skarn with Pb, Zn and Mn stain.	°/c grab
<u>HE-GM-4</u> (10 meters above HE-GM-3)	Quartz with galena. Massive zones.	Float
<u>HE-GM-5</u> (over ridge 400m north of Helo #17)	Skarn with copper stain and abundant actinolite (?).	Float
<u>HE-GM-6</u> (25m above HE-GM-5)	Cu, Pb in skarn approx. 1 meter wide.	°/c grab

APPENDIX C



SPECIALISTS IN MINERAL ENVIRONMENTS  
GEOTECHNICAL • METALLURGICAL • MINERAL PROCESSING

VANCOUVER OFFICE:  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C., CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

### Certificate of ASSAY

Company: CYPRUS GOLD  
Project: HELO  
Attention: J. CUTTLE

File: 8-1468/P1  
Date: SEPT 18/88  
Type: ROCK ASSAY

I hereby certify the following results for samples submitted.

Sample Number	CU %	PB %	ZN %	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
IE JC 1	.003	1.22	.57	11.9	0.35	.06	0.002
IE JC 2	.081	3.50	3.90	68.0	1.98	.04	0.001
IE JC 3	.360	2.53	.46	6.3	0.18	.02	0.001
IE JC 4	.001	5.10	5.60	50.4	1.47	.02	0.001
IE JC 5	.002	.02	.01	1.2	0.04	.04	0.001
IE JC 6	.001	.01	.03	1.5	0.04	.03	0.001
IE JC 7	.004	.23	.07	47.8	1.39	.06	0.002
IE JC 8	.376	.22	.28	12.3	0.36	.04	0.001
IE JC 9	.001	.01	.01	0.9	0.03	.01	0.001
IE JC 10	.001	2.28	4.06	23.7	0.69	.02	0.001
IE JC 11	.001	.01	.02	1.6	0.05	.04	0.001
IE JC 12	.001	.01	.02	1.4	0.04	.02	0.001
IE JC 13	.001	.01	.01	2.3	0.07	.01	0.001
IE JC 14	.002	.01	.02	2.5	0.07	.01	0.001
IE JC 15	.225	.02	.07	7.8	0.23	.02	0.001
IE JC 16	.009	2.06	2.81	31.0	0.90	.03	0.001
IE JC 17	.002	3.12	3.60	117.0	3.41	.02	0.001
IE JC 18	.012	1.38	.09	134.0	3.91	.03	0.001
IE JC 19	.001	4.10	2.83	65.8	1.92	.02	0.001
IE JC 20	.820	12.80	10.10	159.0	4.64	.01	0.001
IE JC 21	.059	.09	.07	1.7	0.05	.03	0.001
IE JC 22	.002	.01	.02	0.2	0.01	.01	0.001
IE GM 1	.463	2.93	.56	9.8	0.29	.03	0.001
IE GM 2	.001	.89	.90	1.9	0.06	.02	0.001
IE GM 3	.003	4.03	4.62	4.0	0.12	.04	0.001
IE GM 4	.062	21.10	1.38	460.0	13.42	.03	0.001
IE GM 5	1.260	.29	.50	21.6	0.63	.01	0.001
IE GM 6	.161	1.47	1.01	3.9	0.11	.01	0.001

Certified by

MIN-EN LABORATORIES LTD.



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SPECIALISTS IN MINERAL ENVIRONMENTS  
GEOCHEMICAL ANALYSIS • DRILLING • FIELD WORK

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*Certificate of ASSAY*

Company: CYPRUS GOLD

File: 8-1468/P2

Project: HELO

Date: SEPT 18/88

Attention: J. CUTTLE

Type: ROCK ASSAY

I hereby certify the following results for samples submitted.

Sample Number	SN PPM	WO3 %
IE JC 1	3	.001
IE JC 2	2	.116
IE JC 3	19	.002
IE JC 4	4	.035
IE JC 5	3	.001
IE JC 6	2	.001
IE JC 7	2	.002
IE JC 8	14	.001
IE JC 9	3	.001
IE JC 10	2	.016
IE JC 11	2	.001
IE JC 12	4	.001
IE JC 13	2	.001
IE JC 14	3	.001
IE JC 15	2	.001
IE JC 16	38	.001
IE JC 17	2	.011
IE JC 18	2	.005
IE JC 19	2	.192
IE JC 20	2	.002
IE JC 21	2	.001
IE JC 22	8	.001
IE GM 1	4	.001
IE GM 2	6	.074
IE GM 3	3	.164 -
IE GM 4	2	.006
IE GM 5	5	.001
IE GM 6	13	.002

Certified by

MIN-EN LABORATORIES LTD.

APPENDIX D

STATEMENT OF QUALIFICATION

I, Jim F. Cuttle, of the Municipality of North Vancouver in the Province of British Columbia, certify as follows regarding the report on the Helo 1-18 mineral claims, Whitehorse Mining District, Yukon Territory:

That I am a geologist having practiced my profession in Canada and Norway for the past 8 years.

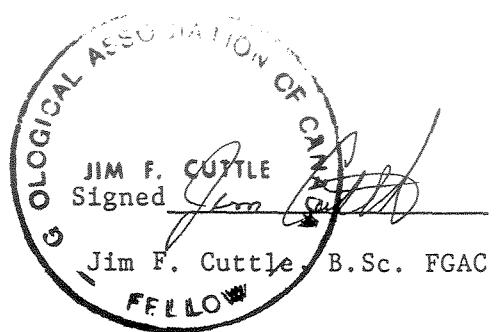
That I am a graduate of the University of New Brunswick with a B.Sc. in Geology.

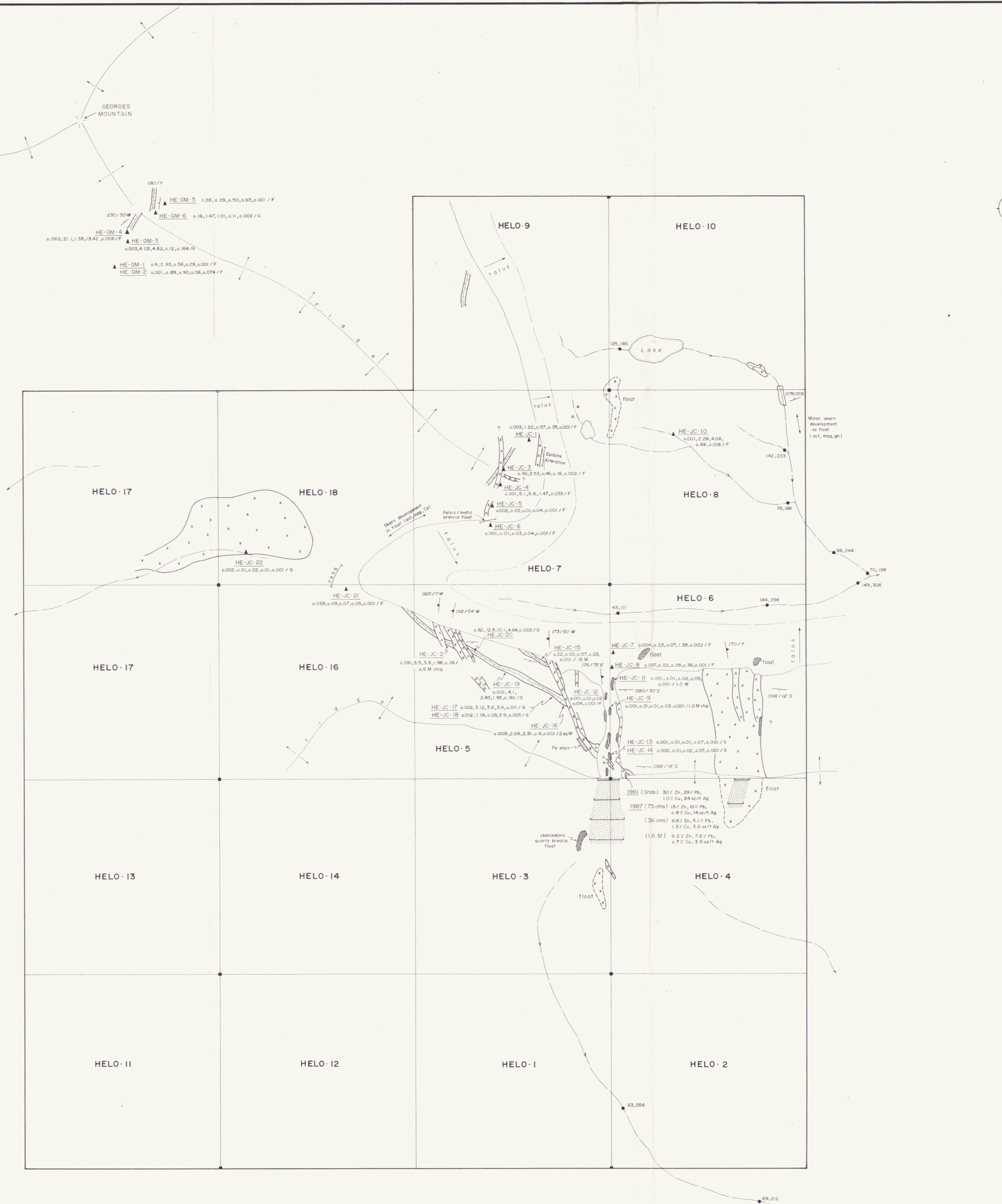
That I supervised and co-ordinated exploration activities on or adjacent to Helo 1-18 mineral claims.

That I am presently employed by Cyprus Gold (Canada) Ltd. in a full time capacity.

That I am a Fellow of the Geological Association of Canada.

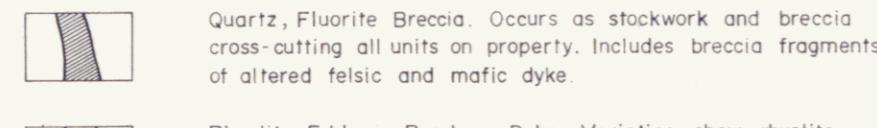
That I am presently residing at #1810-1055 W. Hastings Street, Vancouver, B.C. V6E 2E9.





L E G E N D

AGE UNKNOWN



▲ HE-GM-4      Sample location and sample number  
1.2,6.0,10.8,20.3,0.2 / 1.0M Cu %, Pb %, Zn %, Ag oz/t, W% / interval in meters  
F,G      Float or Grab sample

 Rhyolite Feldspar Porphyry Dyke. Varieties show rhyolite, felsite and aplite textures.

Mafic Dyke. Commonly massive dark green and fine grained.

## PROTEROZOIC to LOWER CAMBRIAN Carbonate

040/50°W Strike / Dip of B

*170/80°W*

Silt sample geochemistry in creek  
Pb, Zn (ppm)

VLF - EM

Claim pos

**HELO-2** Claim no.

www.sagepub.com/journals

0    50    100    200    300    400    500  
METRES

**092647**  
NTS 105 F/12

# **C (Canada) Ltd.**

---

and  
ASSAYS

DRAWN BY	J.C.	SCALE	I : 5000
DATE	Sept. 1888	MAP No.	1

DATE Sept. 88 MAP NO. 1