Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

MAP NO.: 105 B 07

ASSESSMENT REPORT X
PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 093053
MINING DISTRICT: WATSON LAKE
TYPE OF WORK: COMPILATION

Your file *Votre référence*

REPORT FILED UNDER: ARCHER CATHRO & ASSOCIATES (1981) LIMITED *Our file* *Notre référence*

DATE PERFORMED: JULY, 1992 **DATE FILED:** OCTOBER 19, 1992

LOCATION: **LAT.:** 60°19'N **AREA:** EDGAR LAKE

LONG.: 130°41'W **VALUE $:** 1,164

CLAIM NAME & NO.: BLUE (YB34257), BLUE 1-2 (YB34963-64), H 1-2 (YB34965-66), ORLY 1-2 (YB34967-68)

WORK DONE BY: DOUGLAS EATON

WORK DONE FOR: W4 JOINT VENTURE

DATE TO GOOD STANDING:

REMARKS: RESTAKED AND EXAMINED SHOWINGS ORIGINALLY FOUND DURING FLOW-THROUGH DAYS WHEN WORK ON THE HART SILVER PROPERTY WAS BEING DONE. SHOWINGS CONSIST OF ARGENTIFEROUS GALENA VEINS IN CAMBRIAN SCHISTS INTRUDED BY CRETACEOUS CASSIAR BATHOLITH.

Canada

Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

M.R. file no.

R.M.M.R. file no.

Date forwarded 14 Oct 92

TRANSMITTAL FORM

From ▶ Mining Recorder at: WATSON LAKE

To ▶ Regional Manager, Mineral Rights at Whitehorse, Y.T.

For action are:

- ☐ NEW APPLICATION FOR PLACER LEASE TO PROSPECT — Name
- ☐ RENEWAL APPLICATION PLACER LEASE TO PROSPECT — Name — Lease no.
- ☐ AFFIDAVIT OF EXPENDITURE ON PLACER LEASE — Name — Lease no.
- ☐ SECURITY DEPOSIT
- ☐ FINANCIAL ABILITY
- ☐ ASSIGNMENT OF PLACER LEASE NO. — From — To
- ☐ GROUPING APPLICATION UNDER SEC. 52(2) PLACER MINING ACT. — Owner
- ☐ DIAMOND DRILL LOGS — Claims — Claim sheet no.
- ☑ QUARTZ ASSESSMENT REPORT — Claims: BLUE, BLUE 1-2, H 1-2, ORLY 1-2 — Claim sheet no.: 105-B-07

Type of report: Prospecting + Data Compilation (1981) — Submitted by: Archer, Cathro & Associates, Limited

Cls. work performed on: Blue YB34257. Blue 1-2 YB34963, 64; H 1-2 YB34965, 66; ORLY 1-2 YB34967, 68. — $ req. for ren. application: 1550.00

Signature

REPLY ACTION

Date returned

093053

Signature

802-6027-26 (6-86)

ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

Box 4127, 3125 Third Avenue
Whitehorse, Y. T. Y1A 3S9

(403) 667-4415

ASSESSMENT REPORT

describing

PROSPECTING AND DATA COMPILATION

on the

BLUE, H AND ORLY CLAIMS

(Grant Numbers YB34257 and YB34963-YB34968)

Latitude 60°19' North, Longitude 130°41' West

NTS 105B/7

in the

WATSON LAKE MINING DISTRICT

YUKON TERRITORY

for

W4 JOINT VENTURE

by

W. Douglas Eaton, B.A., B.Sc.

September 1, 1992

1016-510 West Hastings Street, Vancouver, B. C. V6B 1L8

(604) 688-2568

This report has been examined by the Geological Evaluation Unit under Section 53 ( ) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 1164.58.

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

TABLE OF CONTENTS

APPENDICIES

LIST OF FIGURES

INTRODUCTION

The original Blue claim was staked in September, 1991 to cover a silver-lead-zinc vein (Blue Zone) discovered by Silver Hart Mines Limited in 1987. Work in 1992 showed that the Blue claim was mislocated. As a result, two additional claims were staked on the Blue Zone while four other claims were acquired to protect two other veins (H and Orly Zones) that were also discovered by Silver Hart in 1987.

The 1992 field exploration program consisted of one day travelling to and from the property, one day staking claims and two days spent relocating the old workings and prospecting the claims. Assay results for samples collected from the veins were later compiled with the old Silver Hart data and summarized herein. The field work was done by prospector Walter Egg between July 7 and 10 while supervision, data compilation and report preparation were performed by the author. The author's Statement of Qualifications is in Appendix I.

PROPERTY, LOCATION AND ACCESS

The property is owned 100% by W4 Joint Venture and is located in southern Yukon at latitude 60°19' north and longitude 130°41' west on NTS 105B/7 (see Figures 1 and 2). It consists of 7 mineral claims registered with the Watson Lake Mining Recorder as listed below.

Claim Name	Grant Number	Expiry Date *
Blue	YB34257	March 11, 1997
Blue 1-2	YB34963-YB34964	March 11, 1995
H 1-2	YB34965-YB34966	March 11, 1995
Orly 1-2	YB34967-YB34968	March 11, 1995

* includes work that has been filed for assessment but not yet formally accepted.

Access is provided by a 25 mile road that runs from milepost 721 on the Alaska Highway to the abandoned Silver Hart campsite. The road is suitable for 4-wheel drive vehicles but could be easily upgraded for 2-wheel drive use. A system of primitive 4-wheel drive roads and bulldozer trails extends from the Silver Hart campsite to the W4 claims. Float plane access is also possible using Edgar Lake which lies 1.5 miles west of the claims.

TOPOGRAPHY AND VEGETATION

The claims are situated in the Cassiar Mountains. Local elevations range from 3450 feet on the floor of the valley separating the Orly claims from the other W4 claims to 5250 feet on ridge crests. Treeline is at approximately 4200 feet.

Vegetation in the vicinity of the Blue and Orly claims is predominately buckbrush and stunted spruce, while thicker stands of larger spruce and willow cover most of the H claims. Soil development is poor and bedrock is generally obscured by talus above 4200 feet and glacial till at lower elevations.

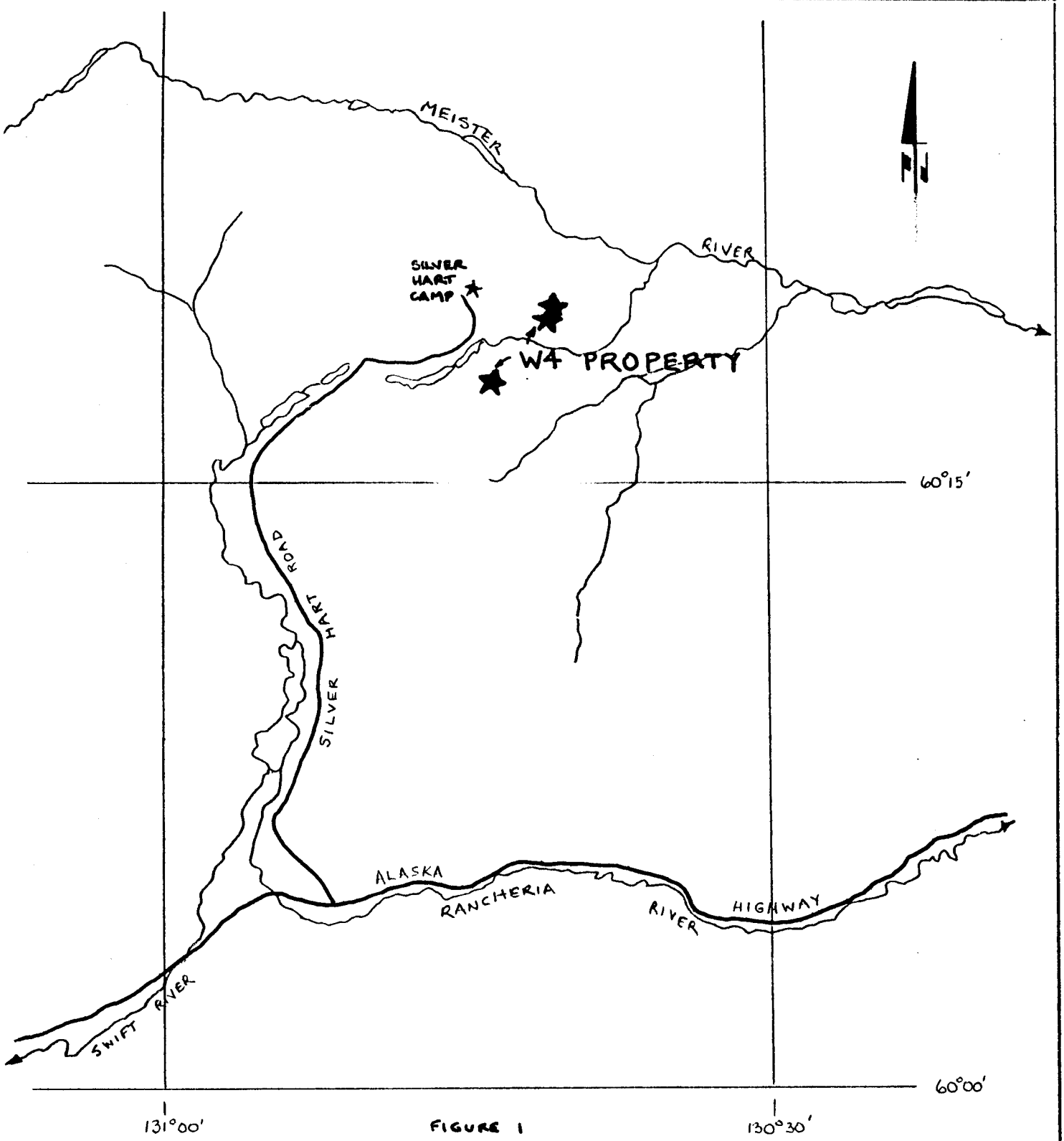


FIGURE 1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

LOCATION MAP

BLUE, H & ORLY CLAIMS

W4 PROPERTY

SCALE
1:250,000

0 5 10 15 20 km

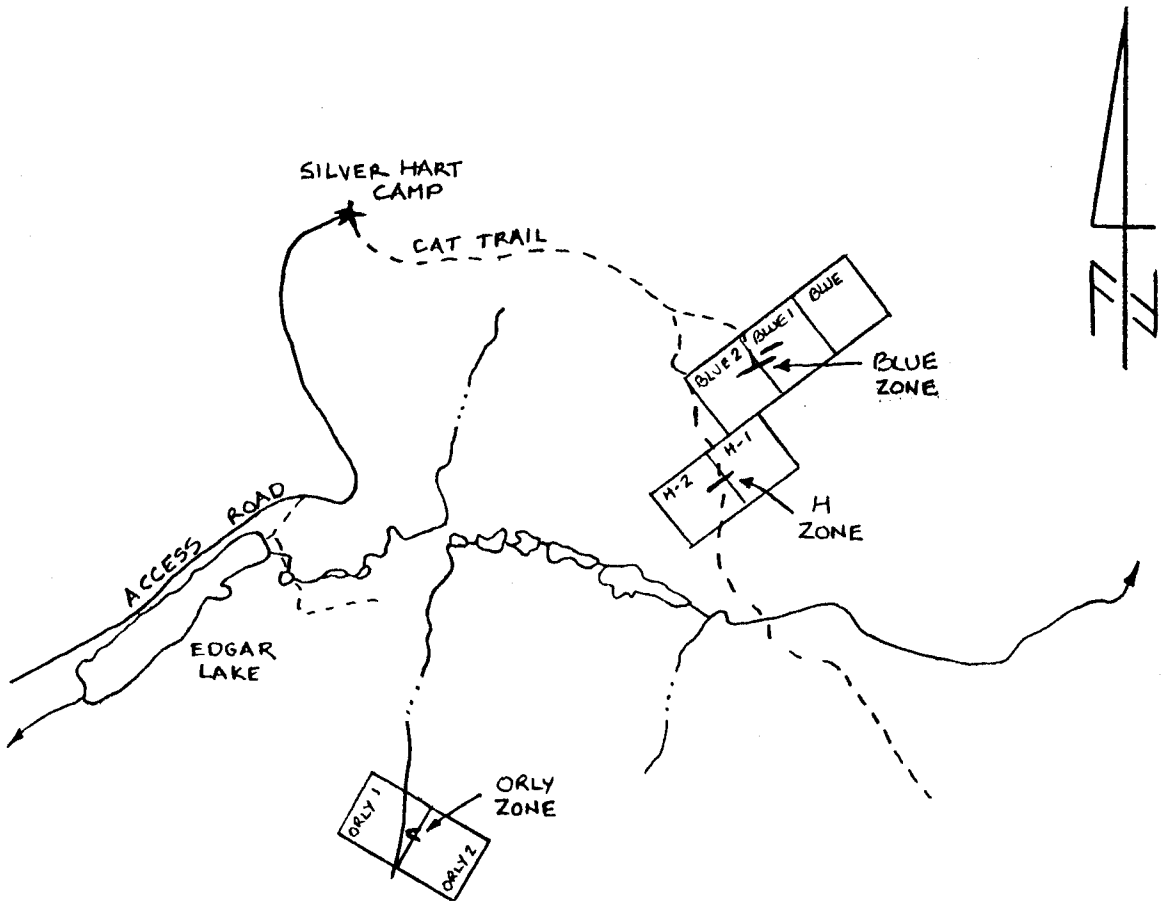


FIGURE 2.

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM MAP

BLUE, H, & ORLY CLAIMS

W4 PROPERTY

SCALE

1:50,000

0 1000 2000 m

GEOLOGY

Geology in the vicinity of the property is illustrated on Figure 3 and briefly summarized in the following paragraph.

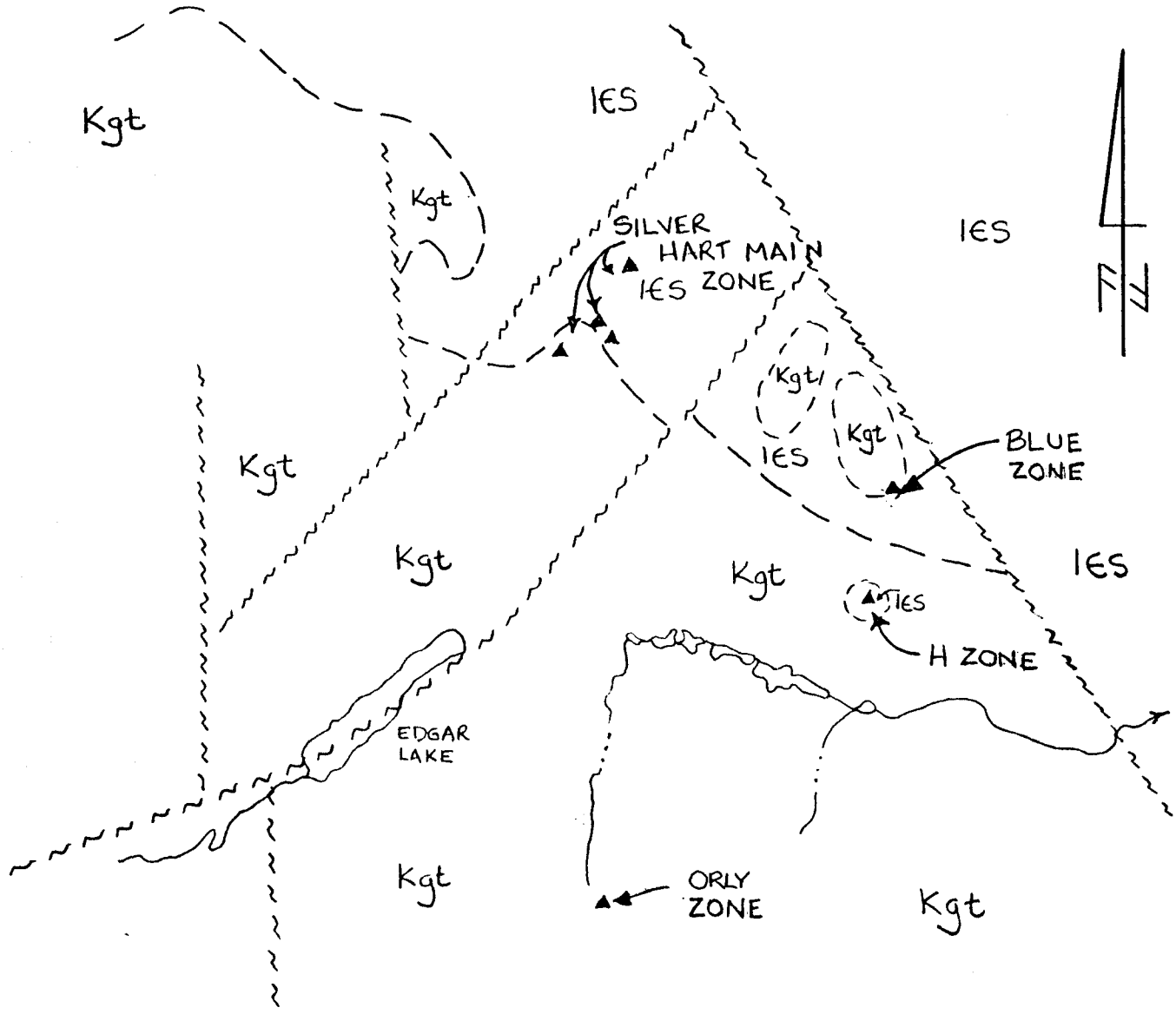
The main units are coarse- to medium-grained granitic rocks of the Mid-Cretaceous Cassiar Batholith and Lower Cambrian schists and quartzites, which typically exhibit lower greenschist facies regional metamorphism. Limy horizons within the metasedimentary package are often skarnified adjacent to intrusions. A series of block faults trend northwesterly and northeasterly across the area and often juxtapose granitic and metasedimentary rocks.

MINERALIZATION

General

Two main types of mineralization have been noted in the vicinity of the property: 1) silver+lead+zinc veins and 2) tungsten±lead±zinc±silver skarns. Grades in the skarns are generally low and no occurrences of this type are known on W4 claims. The veins appear to have more immediate economic potential and are well documented in a Summary Report prepared for Silver Hart Mines Ltd. (Fowler, 1987). The remainder of this section is concerned with the veins and is a compilation based on W4 and Silver Hart data.

Although veins occur in both granitic and metasedimentary rocks, the granite-hosted structures generally have better continuity and exhibit higher silver to lead ratios. Most veins strike 045 to 060° and dip 40° to near vertically toward the northwest. They typically show symmetrical banding and are mineralized with argentiferous galena, sphalerite and freibergite plus lesser amounts of arsenopyrite, pyrite, chalcopyrite, pyrargyrite, covellite, chalcocite and hematite. The common gangue minerals are quartz and siderite with minor calcite, dolomite, sericite, chlorite, plagioclase and potassium feldspar. A variety of secondary minerals



▲ Pb+Zn+Ag vein

Kgt – Cretaceous Granitic Batholiths & Stocks - including granite, quartz monzonite & granodiorite

IES – Lower Cambrian Sedimentary Rocks including quartzite, schist, marble & skarnified equivalents

~~~ High angle faults

FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOLOGY & MINERALIZATION

BLUE, H, & ORLY CLAIMS

W4 PROPERTY

SCALE

1:50,000

0 1000 2000 m

AFTER AHUKUM & LOWEY (1986)
~~~

commonly replace sulphides at surface and of these, black manganese wad (which occurs in the veins and adjacent wallrocks) has proven to be the most useful prospecting indicator mineral.

Hydrothermal alteration is usually developed in wallrocks, (particularly granitic rocks) adjacent to vein faults, even if they are unmineralized. Although argillic alteration is most prevalent, silicification and propylitization are also common. In a few areas mineralization has replaced limy horizons where they are cut by veins.

The veins are cut by post-mineralization cross faults and andesite dykes. The cross faults consistently exhibit left lateral offsets with less than 15 m of horizontal and 30 m of vertical displacement. Two main sets of cross faults have been recognized: one striking east and dipping steeply south and the other striking east-northeast and dipping steeply toward the northwest. The dykes intrude along cross faults and are pervasively altered to green clay.

In 1987 total reserves in veins on the Silver Hart property were calculated to be 106,799 tons grading 29.94 opt Ag using a 10 opt Ag cutoff grade and a minimum 4 ft mining width (with no cutting or dilution). Most of the reserves are in the No. 1 Vein approximately 2 miles northwest of the W4 claims.

Zones on the W4 Property

Three veins have been recognized on the W4 claims and are described in the following paragraphs.

The Blue Zone is located in a small granitic plug on the east flank of the batholith. It is exposed in a 300 ft long bulldozer trench dug parallel to the zone which is still open in both directions. The main vein averages 3 ft wide, strikes 051° and dips 57° to the northwest. A series of narrower (1.3 ft average) veins splay off the main structure. These secondary veins trend 085° and dip 60 to 65°

north. Mineralization in the main and secondary veins averages less than 10% total sulphides and consists of finely disseminated pyrite, arsenopyrite and tetrahedrite with lesser galena and sphalerite in a quartz-siderite matrix. The grade is generally low but some lenses of high grade mineralization are present. The best 1987 chip assay reportedly returned 56.8 opt Ag over 2.8 ft.

Prospecting on behalf of W4 located a patch of quartz float with disseminated blebby galena 130 ft along strike to the northeast of the trench (see Figure 4). It also indentified two patches of nearly massive steel galena float apparently derived from a previously unrecognized vein about 80 ft northwest of the main Blue vein. The new vein is exposed in a small outcrop and is about 1 ft wide, strikes 047° and dips 50° north. A specimen taken from the outcrop assayed 363 opt Ag and 73% Pb while a sample of galena float collected 200 ft to the northeast returned 101 opt Ag and 52.2% Pb.

The H Zone lies approximately one-half mile southeast of the Blue Zone. In 1987 it was trenched along strike for a length of 170 ft. Fowler (1987) described the zone as a series of discontinuous en echelon veins striking 020 to 040° and dipping 50 to 63° west. Where exposed, the veins cut quartz-siderite schist which is likely part of a large xenolith or roof pendant. Fowler mentions that the southern end of the trench partially exposed a massive sphalerite vein over a distance of 30 ft but did not give a width for the vein. He also reported an assay of 86.6 opt Ag over 4.4 ft but did not show where the sample was taken or list assays for other metals.

The H Zone trench was examined in 1992 but most had sloughed in. Three rock specimens were collected and submitted to Chemex Labs Ltd. in North Vancouver, B.C. where they were assayed for silver, gold, lead and zinc. Rock descriptions and assay results are tabulated below, while assay certificates are in Appendix II.

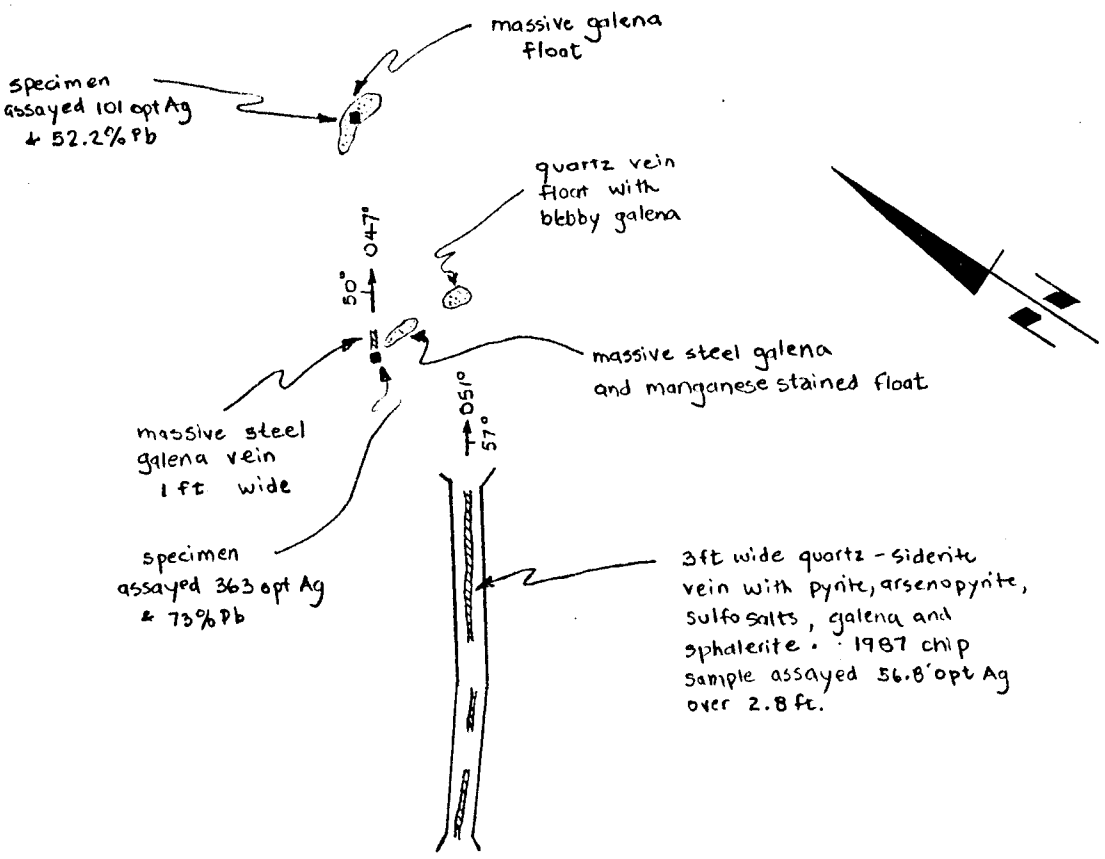


FIGURE 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

MINERALIZATION

BLUE ZONE

W4 PROPERTY

SCALE

1:2000

0 20 40 60 80 100 m

Sample Number	Au opt	Ag opt	Pb %	Zn %	Sample Description
H539851	0.014	0.07	0.06	0.22	4 in thick specimen of banded quartz and dolomite with fine disseminations of sphalerite, galena, pyrite and sulfosalts. Collected from road beside trench.
H539852	0.184	59.80	21.0	17.50	Specimen of nearly massive, fine-grained sulphides: galena, sphalerite and pyrite. From band at least 1 in thick. Float from south end of trench.
H539853	0.071	2.74	0.09	31.5	Nearly massive sphalerite and boxwork smithsonite with minor pyrite, galena and chalcopyrite From band at least 2 in thick. Float from south end of trench.

The Orly Zone was discovered in a creek cut in 1987 and attempts to trench it were relatively unsuccessful due to steep terrane. Fowler (1987) describes two veins (120°/45 NE and 080°/55° N) cutting coarse-grained granodiorite. The veins were exposed over a 30 ft strike length and are cut by two large cross faults, one of which offsets the veins about 20 ft to the left. Mineralization consists of massive steel galena and sphalerite in quartz. Hydrothermal alteration is best developed along the cross faults and is predominately argillization and silicification. A specimen of well mineralized vein material taken in 1987 reportedly assayed 250 opt Ag. The best 1987 chip samples returned 60.6 opt Ag over a true width of 0.7 ft from the south vein and 59 opt Ag across 0.8 ft from the north vein. Grade reportedly drops along strike to the east but the vein structures remain strong.

The 1992 inspection of the Orly Vein area revealed that all old workings were obscured by a slump. Only one float specimen (H539854) was collected and sent to Chemex Labs for assay. It consisted of a one-half inch wide band containing

abundant sphalerite surrounded by symmetrical one-quarter inch wide selvages with minor disseminated galena and pyrite. The specimen assayed 0.003 opt Au, 3.04 opt Ag, 0.08% Pb and 16.5% Zn.

CONCLUSIONS

Work on the W4 claims has outlined three vein systems, each of which has potential for significant, small scale production. The next stage of exploration should consist of close spaced grid soil sampling and prospecting along strike from the existing exposures followed by bulldozer or excavator trenching. If possible, high grade lenses should be mapped and sampled in detail so that they are ready for rapid development in case there is a sudden increase in the price of silver.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

/mjm

W. Douglas Eaton

REFERENCES

Abbott, J.G., 1985; Silver-bearing veins of replacement deposits of the Rancheria District; in Yukon Exploration and Geology 1983, pp 34-41.

Amukun, S.E. and Lowey, G.W., 1986; Geology of the Sab Lake map area (105B/7), Rancheria District, Southern Yukon, DIAND Open File 1987-1.

Cathro, R.J., 1972; Nite and Mid Claims Report on Geology, Geochemistry, Trenching and Diamond Drilling, NTS 105B/7, Yukon Territory; Wolf Lake Joint Venture, Archer, Cathro and Associates Limited, Assessment Report 060883.

Fowler, B.P., 1987; Summary report on 1987 exploration program at Hart Silver project, NTS 105B/7, Watson Lake Mining District, Yukon Territory, Silver Hart Mines Limited.

APPENDIX I

AUTHOR'S STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, W. Douglas Eaton, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia, and residential address in North Vancouver, British Columbia, do hereby declare:

1. I graduated from the University of British Columbia in 1980 with a B.Sc. majoring in Geological Sciences.
2. From 1971 to present, I have been actively engaged in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981, I became a partner in Archer, Cathro & Associates (1981) Limited.
3. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.

W. Douglas Eaton, B.A., B.Sc.

APPENDIX II

CERTIFICATES OF ANALYSIS

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: ARCHER CATHRO & ASSOC. (1981) LTD.

P.O. BOX 4127
WHITEHORSE, YT
Y1A 3S9

Project : BLUE
Comments:

Page Number :1
Total Pages :1
Certificate Date: 29-JUL-92
Invoice No. :I9217921
P.O. Number :
Account :F

CERTIFICATE OF ANALYSIS A9217921

SAMPLE	PREP CODE		Au oz/T	Ag oz/T	Pb %	Zn %						
H539851	208	226	0.014	0.07	0.06	0.22						
H539852	208	226	0.184	59.8	21.0	17.50						
H539853	208	226	0.071	2.74	0.09	31.5						
H539854	208	226	0.003	3.04	0.08	16.50						

CERTIFICATION: Mark Vinh

Chemex Labs Ltd.

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H539854	208	226	0.003	3.04	0.08	16.50						

CERTIFICATION: Mark Vonk

Chemex Labs Ltd.

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CERTIFICATION: Mark Vonk

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CERTIFICATION: Frank Vonk

Chemex Labs Ltd.

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British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

): ARCHER CATHRO & ASSOC. (1981) LTD.

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H539853	208	226	0.071	2.74	0.09	31.5						
H539854	208	226	0.003	3.04	0.08	16.50						

CERTIFICATION: Frank Vrak