ARIS SUMMARY SHEET

District Geologist, Kamloops — Off Confidential: 94.12.15

ASSESSMENT REPORT 23151 — MINING DIVISION: Kamloops

PROPERTY: Alwin Copper
LOCATION: LAT 51 29 00 LONG 121 07 00
UTM 10 5705039 630774
NTS 092I06E

CAMP: 018 Highland Valley Camp

CLAIM(S): Hub 1-2,Call 1-4,EZZ 21-22,Pal Fr 1-3,OK 5-7, 10,OK 9 Fr
Alwin 3 Fr
OPERATOR(S): Claimstaker Res.
AUTHOR(S): Somerville, R.;Sebert, C.
REPORT YEAR: 1993
KEYWORDS: Triassic-Jurassic,Guichon Creek Batholith,Alteration,Faults
Ore shoots,Chalcopyrite,Bornite,Pyrite,Silver

WORK
DONE: Geophysical,Geological,Physical,Geochemical
SAMP 8 sample(s) ;CU,AG
TREN 135.0 m 6 trench(es)
Map(s) - 1; Scale(s) - 1:1200
MINFILE: 092ISW010

Filmed

RSGM R. Somerville Geological & Mining Engineering Ltd.
Ste. 630 - 171 West Esplanade • North Vancouver, B.C., Canada V7M 3K9 • (604) 986-5766 Fax (604) 986-8701

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VANCOUVER, B.C.

AN INTERIM REPORT on EXPLORATORY TRENCHING on the ALWIN COPPER PROPERTY Highland Valley Area, B.C.

Lat. 50 deg. 29 N; Long. 121 deg. 6 W.
NTS 92 I/6E
MINFILE NO. 92ISW010
KAMLOOPS MINING DIVISION

for

CLAIMSTAKER RESOURCES LTD
Suite 603 - 171 West Esplanade
North Vancouver, B.C.
V7M 3K9

by

C. F. B. SEBERT, B.A.Sc.

and

R. D. SOMERVILLE, P.Geol., B.A.Sc., B.Tech., P.Eng.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

LOG NO: DEC 2 3 1993 RD.
ACTION.
FILE NO:

23,151

December 9, 1993

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*Suite 240 - 171 West Esplanade • North Vancouver, B.C. Canada V7M 3K9 • Tel: (604) **986-5766** Fax: (604) 986-5928*

SUMMARY

Six cross trenches were excavated over an exposure of oxidized copper mineralization on the IOU claim between section line 5390 and 5660. The mineralized zone was found to be continuous over 84 m (275 ft) of strike length and measured up to 7 m (23 ft) wide, striking at 105 deg and dipping nearly vertically. The mineralized zone appears to continue under the overburden, along strike, both east and west from the area trenched.

Copper mineralization occurs adjacent to sericite and clay altered limonite stained shear zones. Typically it consists of malachite/azurite stain on fracture surfaces or, less often, as disseminated fine to coarse grained chalcopyrite in coarse grained variably sericite and silica altered granodiorite.

Geological mapping and sampling of the zone was not completed due to the onset of severe winter weather. Almost all the copper reported in the samples analysed occurred as oxide copper. The occurrence of copper oxides suggests that the samples were taken in a lower grade leached zone, and that the primary sulphide ore is located several feet down dip. The location of the zone as observed in the trenches is sketched on the plan map in the back pocket. Due to extreme weather conditions the mineralized zone in only one trench, was sampled. The zone in Trench T93-04 was 6 m (19.7 ft) wide and returned an average assay of 1.09% Cu and 1.25 g/tonne (0.036 oz/ton) Ag.

INTRODUCTION

The Alwin Property is located in the Highland Valley in the Kamloops Mining Division, southcentral British Columbia. It has been a past producer of copper ore notably from 1980 to 1981 when it was operated as an underground mine by Dekalb Mining Corp. Total production during this period was 171,246 tons with an average grade of 1.54% Cu and .39 oz/ton Ag. Reserves, as determined by Dekalb Mining Corp., are listed as 289,600 tons with an average grade of 3.21% Cu.

The present copper price rules out immediate resumption of underground mining. Instead, the property may be suited to small scale open pit production (Westervelt, 1993) especially given a modest rise in the price of copper. With this in mind it was decided to trench the surface in and near a previous cat trench which contained malachite stained, oxidized copper rich material. This mineralization is believed to originate from the 4 North Zone defined by Dekalb Mining Corporation's reserve estimate of 1982. Sample data taken underground and diamond drilling results report undiluted grades in excess of 3% Cu and the trenching programme was designed to locate and delineate an additional near surface ore block on this promising zone.

PROPERTY TENURE

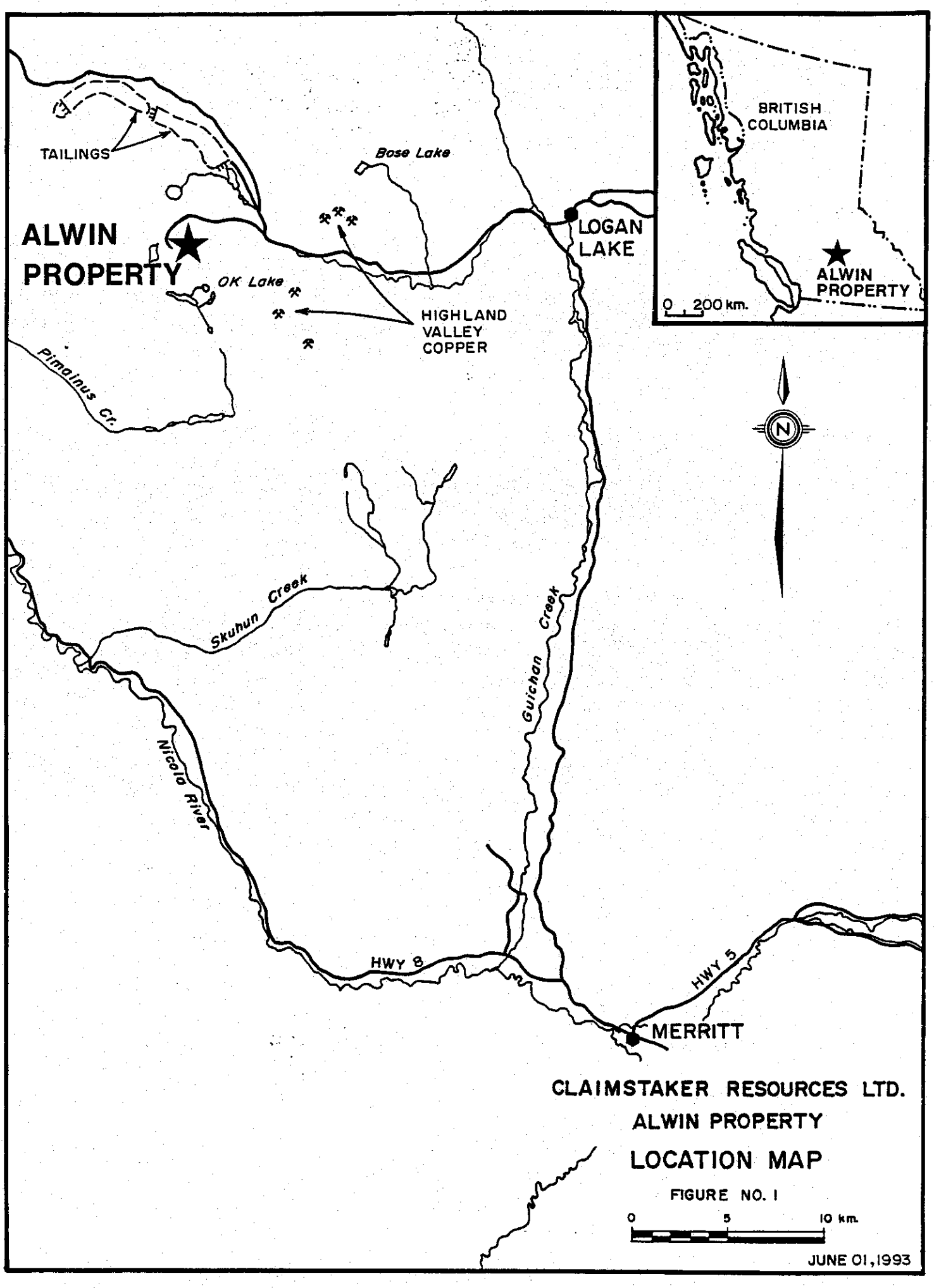
The Alwin property is composed of a contiguous group of 3 Crown Granted claims and 21 single unit mineral claims or fractions. Pertinent claim information as presently recorded is tabulated below:

Crown Grants:

IOU	DL 3643	OK	DL 3644
APEX	DL 3645		

Mineral Claims:

Name	Record No.	Tenure No.	Expiry Date
HUB # 1	1	216669	Mar. 3/94
HUB # 2	2	216670	Mar. 3/94
CALL # 1	34803	220375	Dec. 19/93
CALL # 2	34804	220376	Dec. 19/93
CALL # 3	34805	220377	Dec. 19/93
CALL # 4	34806	220378	Dec 19/93
EZZ # 13	35344	220393	Mar. 30/94
EZZ # 14	35345	220394	Mar. 30/94
EZZ # 21	36777	220408	June 22/94
EZZ # 22	36778	220409	June 22/94
PAL # 1	37386	220426	July 27/94
PAL # 1 FR	37387	220427	July 27/94
PAL # 2 FR	37388	220428	July 27/94
PAL # 3 FR	37389	220429	July 27/94
OK # 5	49719	220724	May 4/94
OK # 6	49720	220725	May 4/94
OK # 7	49721	220726	May 4/94
OK # 8	49722	220727	May 4/94
OK # 9 FR	50239	220735	May 25/94
OK # 10	50240	220736	May 25/94
ALWIN # 3 FR	69320	220937	May 30/94



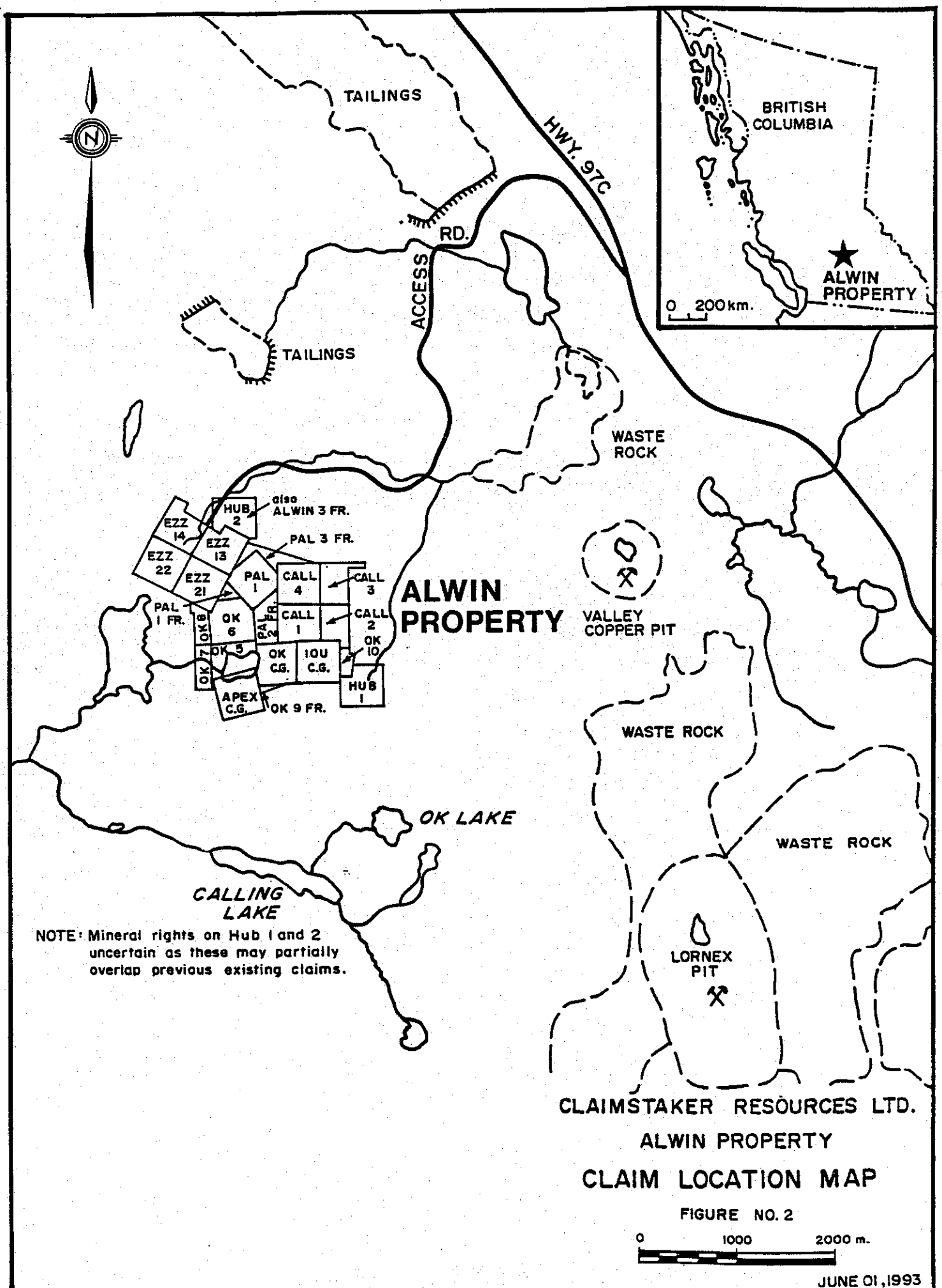
CLAIMSTAKER RESOURCES LTD.

ALWIN PROPERTY

LOCATION MAP

FIGURE NO. 1

JUNE 01, 1993


TAILINGS
HWY. 97C
ACCESS RD.
TAILINGS
BRITISH COLUMBIA
ALWIN PROPERTY
0 200km.
WASTE ROCK
HUB 2
also ALWIN 3 FR.
EZZ 14
EZZ 13
PAL 3 FR.
EZZ 22
EZZ 21
PAL 1
CALL 4
CALL 3
ALWIN PROPERTY
PAL 1 FR.
OK 8
OK 6
PAL 2 FR.
CALL 1
CALL 2
OK 10
OK 7
OK 5
OK C.G.
IOU C.G.
HUB 1
APEX C.G.
OK 9 FR.
VALLEY COPPER PIT
WASTE ROCK
WASTE ROCK
OK LAKE
CALLING LAKE
LORNEX PIT
NOTE: Mineral rights on Hub 1 and 2 uncertain as these may partially overlap previous existing claims.
CLAIMSTAKER RESOURCES LTD.
ALWIN PROPERTY
CLAIM LOCATION MAP
FIGURE NO. 2
0 1000 2000 m.
JUNE 01, 1993

LOCATION, ACCESS AND PHYSIOGRAPHY

The Alwin property is located 40 km southwest of Kamloops, B.C. on the western slopes of the Highland valley. It adjoins the Highland Valley Copper Corp. holdings and is within 2 km of the major porphyry copper open pit currently in production.

The property is readily accessible by highway from Merritt, Ashcroft, and Logan Lake with a 9 km gravel road from Highway 97 C providing access to the OK mine development area.

The claims cover an area of gently rolling hills with the topography gradually sloping to the west. The relief is moderate with elevations ranging from 1490 m to 1680 m (approx. 4900 ft to 5500 ft) above sea level. Much of the property is covered by moderate to heavy lodgepole pine forest with overburden being extensive and rock exposure sparse. Overburden is shallow in the eastern portion of the property and around the old workings, where it rarely exceeds 1.5 m (5 ft) in depth. Westward, the overburden depth increases and may exceed 30 m (100 ft) towards the western boundary.

GEOLOGY AND MINERALIZATION

The Alwin property is underlain by the Early Jurassic - Late Triassic Guichon Creek batholith. The dominant rock is Bethsaida phase granodiorite which is typically leucocratic and coarse grained, hosting large (up to 1 cm across) crystals of biotite. Steeply dipping aplite dykes strike east and northeast and locally they form vein-like networks in brecciated granodiorite.

The ore lenses known to date occur within a steeply dipping, easterly trending zone roughly 457 m (1500 ft) in length by 152 m (500 ft) in width and have been traced through a vertical range in excess of 244 m (800 ft). Within this zone, the ore shoots occur as discontinuous lenses in highly sericitized, variably silicified, shear structures developed within the massive granodiorite. Alteration along the shears is intense with local heavy clay gouge development.

The steeply dipping ore shoots have two dominant trends - 075 to 090 degrees and 110 to 125 degrees. The shoots pinch, swell, and digitate irregularly both along strike and down dip with mined widths varying from 1.5 m (5 ft) to 10.7 m (35 ft).

Mineralization within the shoots consists of chalcopyrite and bornite occurring as fine to coarse disseminations and as discontinuous veins and veinlets along with minor fine pyrite and traces of chalcocite. Gangue minerals are mainly flaky sericite and quartz with locally heavy specularite and lesser amounts of chlorite and calcite. Post-ore iron carbonate veins are common in the ore zones.

Local north trending quartz-plagioclase porphyry dykes up to 6 m (20 ft) in width dip 45 degrees east and offset the ore zones. These are believed to have been emplaced along an east-dipping set of thrust faults which have displaced the ore structure both vertically and laterally.

WORK PERFORMED

Six trenches from 19 m (62 ft) to 41 m (135 ft) long were excavated from 12 m (40 ft) to 37 m (120 ft) apart using a backhoe from Sanders and Company Contracting Ltd. between November 19 and November 21, 1993. The trenches were arranged to intersect the projected surface trace of copper mineralization believed to be the 4 North Zone as defined by Dekalb Mining Corp.

An attempt was made to map the trenches at 1:200 scale and to sample the exposed mineralization. Unfortunately this work could not be completed due to the sudden onset of severe winter conditions and must be completed in the spring as soon as the weather will permit.

Two zones of copper mineralization were exposed in trench 93-04 but due to extreme weather conditions only the wider zone of mineralization was sampled. Samples were taken at 1 m intervals and the samples (Nos. 58351 to 58358) were assayed for copper and silver at Min-En Laboratories in North Vancouver, B.C. Trench T93-01 was mucked and mapped but was snowed in before it could be sampled. The mineralization in the remaining trenches had only a cursory examination and the trenches require additional mucking, mapping and sampling.

RESULTS

The exposures in the trenches indicate the presence of an apparently continuous steeply dipping copper bearing zone up to 7 m (23 ft) wide striking 105 deg for 84 m (275 ft).

Malachite with lesser quantities of azurite are the dominant copper minerals observed. They tend to occur as fracture controlled stains and as pervasive, included patches in variably sericite and silica altered granodiorite. Dark patchy layers of goethite occur in the more intensely malachite rich areas. Mineralization is concentrated adjacent to distinctive clay and sericite altered limonite stained shears up to 1.5 m (5 ft) wide. Patches of malachite were observed in these structures as well but usually in lesser amounts than in the attendant unsheared fractured granodiorite. Fine to coarse grained patches of chalcopyrite in amounts up to 1 % (by vol.) were also observed in some of the less oxidized, intact rock, notably in trench T93-01. A quartz veinlet, up to 1 cm wide, hosting patches of coarse grained chalcopyrite was observed near the south end of trench T93-03.

Samples (Nos. 58352 to 58357) of the main zone of oxidized copper mineralization in trench T93-04 returned a composite-average assay of 1.09% Cu and 1.25 g/tonne (0.036 oz/ton) Ag over an interval of 6 m (19.7 ft).

In trench T93-01 a second, smaller malachite stained zone occurs to the north of the main zone (described above) adjacent to a second parallel shear structure. This mineralization also appears in trenches T93-02 and T93-04.

The main zone was not present in trench T93-03 and was only partially exposed in trench T93-02, disappearing under increasing thicknesses of overburden to the east. By extending trench T93-02 to the south a furthur exposure of this zone might be revealed.

PROGRAMME COST

The costs of the 1993 trenching programme on the Alwin property are summarized below:

Trenching	$963.00
Backhoe Mobilization	$1230.50
Supervision/Reporting	
a) Geologist	$1846.15
b) Vehicle/Fuel	$421.85
c) Room and Board	$268.19
d) Supervision	$535.00
Assaying Charges	$220.42
Miscellaneous Sundries	$20.00
Total Programme Cost	$5505.11

RECOMMENDATIONS

It is apparent from the analytical work done by Min en labs that almost all of the copper reporting in the assays is occurring as oxide copper. From the type of mineralization (azurite and malachite) observed, it is obvious that the trenching has exposed only the leached (copper depleted) zone. Probably by deepening the trenches a few feet primary (and higher grade) mineralization would be exposed. In order to provide the high quality geological and sample information required for a reliable ore reserve estimate the following work must be performed:

PHASE I

1) Deepen all the trenches into primary mineralization.

2) Extend trench T93-02 further to the south to gain complete exposure of the main mineralized zone.

3) Finish mucking trenches T93-02, T93-04, T93-05, and T93-06.

4) Complete the sampling of the main zone and the secondary zone in trenches T93-02, T93-05, and T93-06. Re-sample the main zone in T93-04.

5) Survey the trench/sample location and tie the locations to the existing underground survey

PHASE II

1) Assuming that the trench sampling and survey program outlined in Phase I confirms the extension of the 4 North Zone, then the following Phase II program should be carried out:

1) In order to prepare an accurate ore reserve estimate, the copper mineralization should be trenched along strike. This would facilitate the gathering of even spaced samples on closer spacings and help to prove zone continuity.

2) Additional trenching should be attempted to the west between trench T93-06 and the fenced open stope on the 3 East Zone (section 5150 to 5390). Overburden in this area should be thin (~0.5 m) judging by the thicknesses observed in T93-06 and there is an excellent chance to expose the zone another 75 m (246 ft) along strike.

3) Since the overburden thickens to the east, the extension of the zone in this direction should be tested with short shallow diamond drill holes at closely spaced intervals.

Appendix I: Writers' Certificates

I, Christopher F. B. Sebert residing at 19616 - 80th Avenue, Langley, British Columbia, V3A 4P7 do hereby certify that:

1. I graduated from the University of British Columbia in 1987 with a B.A.Sc. in Geological Engineering (Mineral Exploration Option).

2. I am registered as an Engineer in Training with the Association of Professional Engineers and Geoscientists in the Province of British Columbia.

3. I have practised my profession as an exploration and mine geologist for seven years in Canada and the United States.

4. I am a member of the Society of Economic Geologists.

5. My report is based on field examination of the afore described trenches on the Alwin property.

6. I am an employee of R. Somerville Geological and Mining Engineering Ltd.

Dated at North Vancouver, B.C. on the 9th day of December, 1993.

Christopher Sebert

Appendix I (cont'd): Writers' Certificates

I, Richard D. Somerville, residing at 1704 - 2016 Fullerton Avenue, North Vancouver, British Columbia, V7P 3E6 certify that:

1. I am a practising Consulting Geologist with offices at Suite 240 - 171 West Esplanade, North Vancouver, British Columbia, V7M 3K9.

2. I am president of R. Somerville Geological and Mining Engineering Ltd.

3. I am a registered Professional Engineer of the province of Ontario and British Columbia.

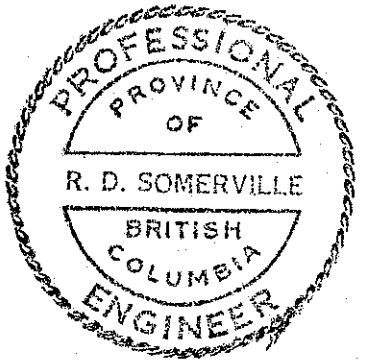
4. I am a fellow of the Geological Association of Canada and a Member of the Canadian Institute of Mining and Metallurgy.

5. I am a graduate of Queens University at Kingston, Ontario having received a B.Sc. (honours) degree majoring in geology and a B.A. degree majoring in physics and mathematics.

6. This exploration work was conducted under my direction, and I am satisfied that the work was conducted in a proper and professional manner.

7. I am a Director and Corporate Secretary of Claimstaker Resources Ltd.

Dated at North Vancouver, B.C. on the 9th day of December, 1993.



R. Somerville, P. Eng.

Appendix II: Min-En Laboratories Assay Certificate

MINERAL
• ENVIRONMENTS
LABORATORIES
(DIVISION OF ASSAYERS CORP.)

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

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

SMITHERS LAB.:
3176 TATLOW ROAD
SMITHERS, B.C. CANADA V0J 2N0
TELEPHONE (604) 847-3004
FAX (604) 847-3005

Assay Certificate

3V-0800-RA1

Company: **CLAIMSTAKER RESOURCES LTD.**
Project: ALWIN
Attn: R. Somerville / C. Sebert

Date: NOV-26-93
Copy 1. Claimstaker Resources, Vancouver, B.C.

We hereby certify the following Assay of 8 rock samples submitted NOV-24-93 by Chris Sebert.

Sample Number	Ag g/tonne	Ag yp	Total Cu %	Non Sul Cu %
0-58351	.4	.01	.067	.059
0-58352	.3	.01	1.065	1.063
0-58353	.8	.02	1.250	1.248
0-58354	.3	.01	1.280	1.246
0-58355	.9	.03	1.140	1.103
0-58356	4.4	.13	.930	.619
0-58357	.8	.02	.885	.820
0-58358	.6	.02	.177	.177

Certified by _____

MIN-EN LABORATORIES

Appendix III: Key References

Westervelt, R.D., 1993, A Preliminary Review Report on the Alwin Copper Property Highland Valley B.C.: Private report for Claimstaker Resources Ltd.

Dekalb Mining Corp, Sundry maps, plans, sections, working drawings, and reports pertaining to the Alwin operation, 1968 through 1982.

Trimble, G., 1982, Exploration Report, Highland Valley OK Mine: Private report for DeKalb Mining Corp.

PAL 2
IOU C.G.

IOU C.G.

CALL 2
OK 10

OK 10
FB-1 Fr.

IOU C.G.

96,000 E
97,000 E
98,000 E
97,000 N
96,000 N
5+00S
10+00S
0+00
30+00E
35+00E
38+00E
39+00E
40+00E
41+00E
42+00E
43+00E
44+00E
45+00E
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53+00E
54+00E
55+00E
56+00E
57+00E
58+00E
59+00E
60+00E
61+00E

5230
5250
5270
5290
5310
5330
5350
5370
5390
5410
5430
5450

UPPER PORTAL
ADIT
OPEN STOPE
5 ZONE
OPEN STOPE
3 EAST ZONE

T93-04
Composite Sample
(Nos. 58352 to 58357)
6m. at 1.09% Cu, 1.25 g./tonne Ag

T93-06
T93-04
T93-05
T93-01
T93-02
T93-03

ENLARGEMENT OF T93-04

58358
1m, 0.177% Cu, 0.6g/t. Ag
58357
1m, 0.855% Cu, 0.8g/t. Ag
58356
1m, 0.930% Cu, 4.4g/t. Ag
58355
1m, 1.140% Cu, 0.9g/t. Ag
58354
1m, 1.280% Cu, 0.3g/t. Ag
58353
1m, 1.250% Cu, 0.8g/t. Ag
58352
1m, 1.065% Cu, 0.3g/t. Ag
58351
1m, 0.67% Cu, 0.4g/t. Ag

P. ENG.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,151

PROPERTY BOUNDARY

LEGEND

TRENCH

APPROXIMATE OUTLINE OF OXIDIZED COPPER MINERALIZATION

CLAIMSTAKER RESOURCES LTD.

ALWIN PROPERTY

SURFACE TRENCHING

SCALE: 1" = 100'

DATE: NOVEMBER 1993