

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

10,460  
ND

GEOCHEMICAL REPORT

ON THE  
LIKELY PROJECT

JUN, ROSE, EASY, MARCH, GOLD, JUL, NOV

AUG, DUG, TY, LAKE

CARIBOO MINING DIVISION

NTS 93A/11W, 12E

Latitude 52°39'; Longitude 121°36'

OWNER: CAROLIN MINES LIMITED  
&  
AQUARIUS RESOURCES LIMITED

OPERATOR: CAROLIN MINES LIMITED

by

P.W. RICHARDSON, Ph.D., P.Eng.



FIELD WORK COMPLETED BETWEEN JULY 1, 1981

and  
DECEMBER 7, 1981

Vancouver, B.C.

May 21, 1982

## TABLE OF CONTENTS

|   | <u>Page</u> |
|---|-------------|
| SUMMARY   |             |
| INTRODUCTION                                      | 1           |
| LOCATION AND ACCESS                               | 3           |
| CLAIMS AND CLAIM GROUPS                           | 4           |
| HISTORY   | 6           |
| FIELD PROCEDURES                                  | 8           |
| GEOLOGY   |             |
| A. Regional Geology                               | 9           |
| B. Property Geology                               | 10          |
| GEOCHEMISTRY                                      | 15          |
| CONCLUSIONS AND RECOMMENDATIONS                   | 18          |
| BIBLIOGRAPHY                                      | 19          |
| STATEMENT OF AUTHOR'S QUALIFICATIONS              | 21          |
|   |             |
| TABLE I - List of Claims and Claim Groups         | 5           |
| TABLE II - Assay Distribution Parameters          | 15          |
| APPENDIX I - RECORDS OF MINERAL CLAIMS            |             |
| APPENDIX II - GEOCHEMICAL ASSAY CERTIFICATES      |             |
| APPENDIX III - ANALYTICAL PROCEDURES              |             |
| APPENDIX IV - HISTOGRAMS OF GEOCHEMICAL DATA      |             |
| APPENDIX V - STATEMENT OF COSTS                   |             |
| APPENDIX VI - ALLOCATION OF COSTS TO CLAIM GROUPS |             |

## LIST OF ILLUSTRATIONS

|                                      |             | <u>following page</u> |
|--------------------------------------|-------------|-----------------------|
| FIGURE 1 - LOCATION MAP              | 1:2,400,000 | 3                     |
| FIGURE 2 - ACCESS MAP                | 1:250,000   | 3                     |
| FIGURE 3 - CLAIM MAP                 | 1:100,000   | 5                     |
| FIGURE 4 - REGIONAL GEOLOGY          | 1:300,000   | 9                     |
| FIGURE 5 - GEOLOGY AND GEOPHYSICS    | 1:20,000    | in pocket             |
| FIGURE 6 - GEOCHEMISTRY - North Grid | 1:5,000     | "                     |
| FIGURE 7 - " Central "               | 1:5,000     | "                     |
| FIGURE 8 - " South "                 | 1:5,000     | "                     |

## SUMMARY

The Likely Project consists of 27 modified grid claims containing a total of 368 units, which are jointly owned by Carolin Mines Limited and Aquarius Resources Limited. The claims are drained by several streams that produced placer gold in the past and are underlain by an assemblage of mafic lavas, volcanoclastic sediments and intrusive rhyolite to diorite dykes and stocks. Previous work by various operators on the potential of lode mineralization on the area of the claims has entailed limited soil geochemistry, diamond drilling, reconnaissance geological mapping and an airborne magnetometer and electromagnetometer survey. In November 1981, a soil geochemical programme was designed to investigate the three areas of anomalous response outlined by an airborne survey done by Carolin Mines Ltd. Numerous isolated high gold-in-soil geochemical values were found throughout these grid areas. A broad area of slightly anomalous gold-in-soil associated with high arsenic occurs in the southern half of the central grid. A magnetometer survey over the grid areas and detail geological and geochemical surveys are recommended.

## INTRODUCTION

The Likely Project encompasses an area of approximately 8,680 hectares located in an area of placer workings between the Cariboo and Quesnel Rivers near the town of Likely, B.C. The claims were optioned from R.E. Mickle by Aquarius Resources Limited and Carolin Mines Limited on the premise that local bedrock gold deposits produced the placer gold. Added encouragement was received when Dome Mines Limited announced discovery of a gold deposit 6 km west of the Likely Project in 1981. The Cariboo Bell copper-gold porphyry deposit lies 8 km southwest of the Property.

An airborne magnetometer and electromagnetometer survey was conducted in February 1981. The following anomalies were identified as priority targets:

1. T-1 : EM Anomaly on JUN 9 Claim
2. T-2 : EM Anomaly on Easy 6 Claim
3. T-3 : EM Anomaly on Easy 1 Claim
4. T-4 : Magnetic and EM Anomaly on Easy 5, Easy 3 and JUN 10 claims
5. T-5 : Magnetic Anomaly on Easy 4 and Easy 1 claims
6. T-6 : Magnetic Anomaly on June, Dug and Rose 3 claims
7. T-7 : Magnetic Anomaly on July 1 Claim
8. T-8 : Magnetic Anomaly on JUN 9 and Dug claims

Field inspection of these anomalous areas was carried out by R. Hrkac and D. Rennie in May 1981. Linecutting and soil sampling were completed by Amex Exploration Services Limited under contract in November and early December 1981.

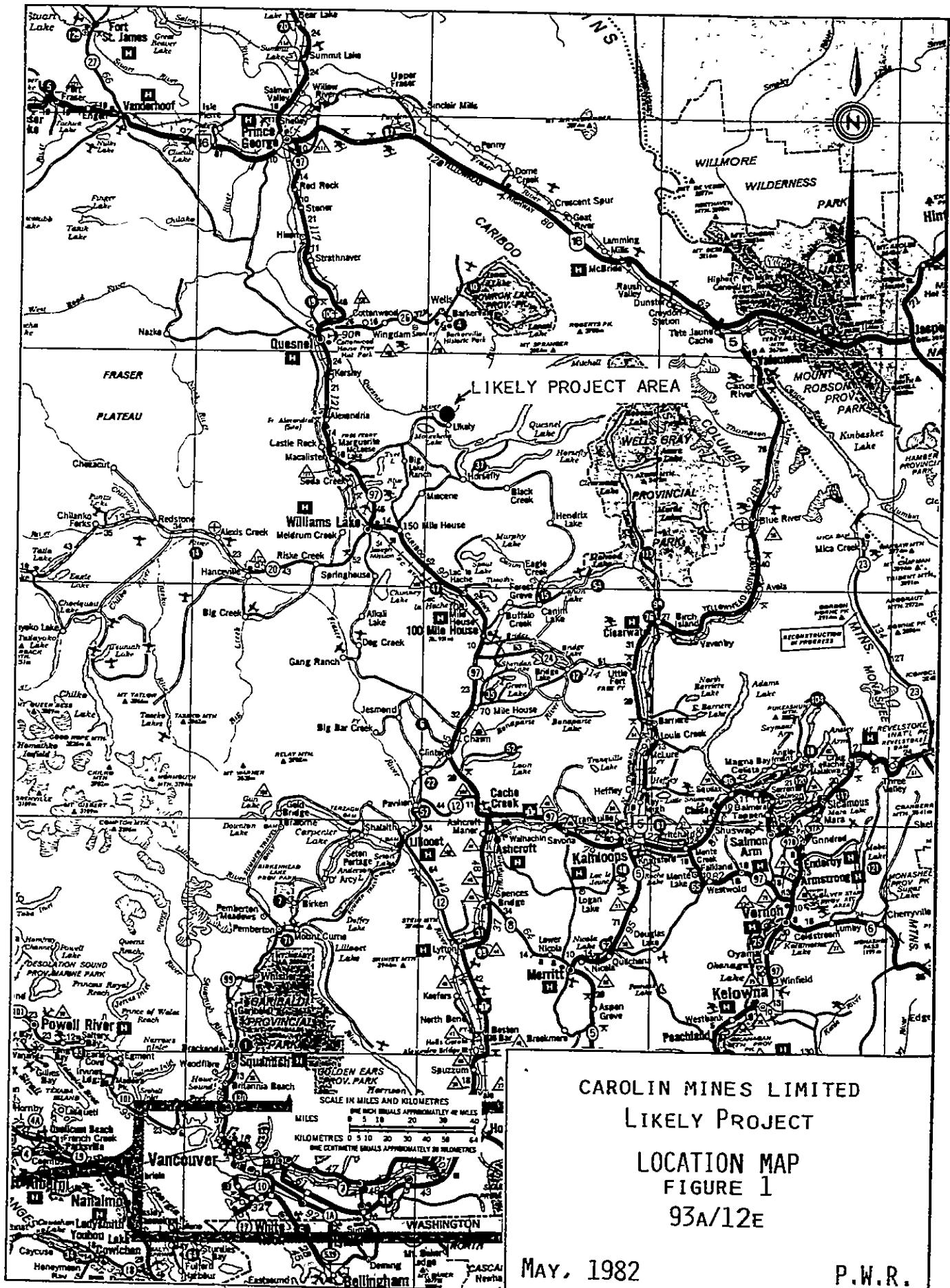
This report deals with the geochemical data which are submitted for assessment credit.

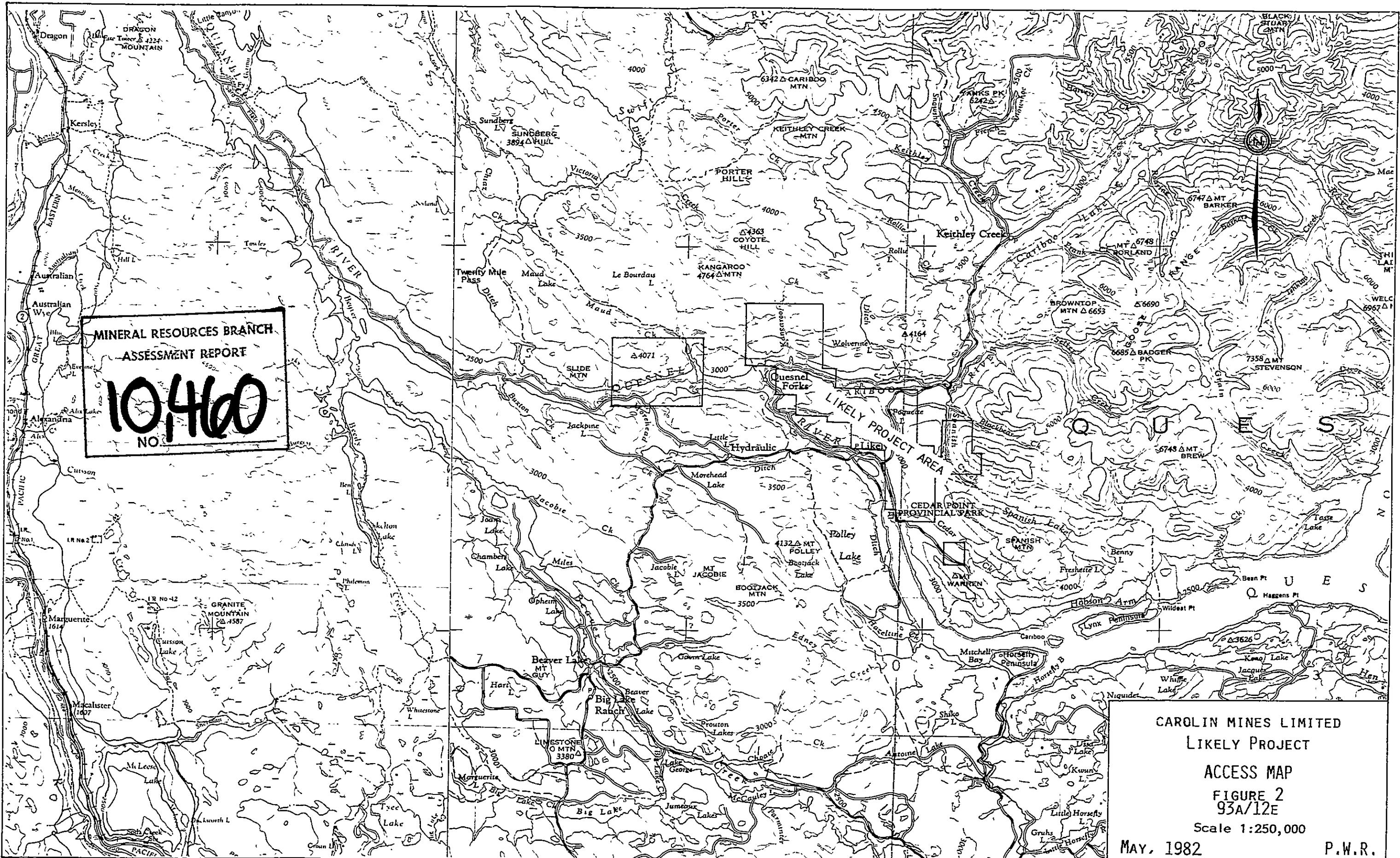
### LOCATION AND ACCESS

The Property is immediately east of the towns of Likely and Quesnel Forks between Spanish and Quesnel Lakes in the south to the flank of Kangaroo Mountain in the North (Figure 2). Most of the claims are south of the Cariboo River and northeast of the Quesnel River. The isolated JUL 1 claim is on the northeast slope of Mount Warren.

The area is accessible from Highway 97 at 150 Mile House by 75 km of all-weather gravel road to Likely (Figure 1). All-weather roads lead from Likely to Quesnel Forks and Keithley Creek through the central portion of the Property. Numerous logging roads, which vary from good two-wheel-drive roads to overgrown walking paths, provide access to the edges of the property. Logging has extended to the east boundary of the JUN 9 Claim along Westenhiser Creek north of the Cariboo River, and access to the Kangaroo drainage is by foot.

Elevations vary from 604m on the Quesnel River to 1500 m on the March 1 Claim (Figure 3).





### CLAIMS AND CLAIM GROUPS

The Likely Project consists of 24 modified grid claims, two 2-post claims and one fractional claim totalling 368 units which are jointly owned by Carolin Mines Limited and Aquarius Resources Limited (Figure 3). The claims have been grouped for applying assessment work into four groups as follows:

TABLE I

List of Claims and Claim Groups (from north to south)

| <u>Group Name</u> | <u>Claim Name</u> | <u>Record Number</u> | <u>Units</u> | <u>Date Recorded</u> | <u>Expiry Date *</u> |
|-------------------|-------------------|----------------------|--------------|----------------------|----------------------|
| Group 1           | JUN 6             | 1794                 | 20           | July 7, 1980         | July 7, 1984         |
|                   | JUN 7             | 1795                 | 20           | July 7, 1980         | July 7, 1984         |
|                   | JUN 8             | 1796                 | 20           | July 7, 1980         | July 7, 1984         |
|                   | JUN 9             | 1797                 | 20           | July 7, 1980         | July 7, 1984         |
|                   | JUNE              | 1050                 | <u>20</u>    | June 28, 1979        | June 28, 1983        |
| 100 units total   |                   |                      |              |                      |                      |
| Group 2           | DUG               | 999                  | 12           | May 22, 1979         | May 22, 1984         |
|                   | Rose 4            |                      |              |                      |                      |
|                   | Fraction          | 4197                 | 1            | Dec. 15, 1981        | Dec. 15, 1983        |
|                   | Rose 3            | 4196                 | 15           | Dec. 15, 1981        | Dec. 15, 1983        |
|                   | Rose 2            | 3992                 | 12           | Aug. 24, 1981        | Aug. 24, 1983        |
|                   | Easy 7            | 1007                 | 20           | May 23, 1979         | May 23, 1984         |
|                   | Easy 6            | 923                  | 20           | Dec. 7, 1978         | Dec. 7, 1983         |
|                   | TY                | 1051                 | <u>20</u>    | June 29, 1979        | June 29, 1983        |
| 100 units total   |                   |                      |              |                      |                      |
| Group 3           | Easy 4            | 880                  | 20           | Nov. 2, 1978         | Nov. 2, 1984         |
|                   | Easy 1            | 877                  | 20           | Nov. 2, 1978         | Nov. 2, 1984         |
|                   | Easy 5            | 881                  | 6            | Nov. 2, 1978         | Nov. 2, 1984         |
|                   | Aug 1             | 1149                 | 6            | Aug. 31, 1979        | Aug. 31, 1984        |
|                   | Easy 3            | 879                  | <u>15</u>    | Nov. 2, 1978         | Nov. 2, 1984         |
| 67 units total    |                   |                      |              |                      |                      |
| Group 4           | Nov 4             | 1366                 | 20           | Dec. 6, 1979         | Dec. 6, 1983         |
|                   | March 1           | 1531                 | 20           | March 17, 1980       | March 17, 1983       |
|                   | March 2           | 1532                 | 4            | March 17, 1980       | March 17, 1983       |
|                   | Jun 11            | 1799                 | 18           | July 7, 1980         | July 7, 1983         |
|                   | Jun 10            | 1798                 | 18           | July 7, 1980         | July 7, 1983         |
|                   | Lake 1            | 3994                 | <u>8</u>     | Aug. 24, 1981        | Aug. 24, 1983        |
| 88 units total    |                   |                      |              |                      |                      |
| not grouped       | Rose 1            | 3993                 | 2            | Aug. 24, 1981        | Aug. 24, 1982        |
|                   | Gold 1            | 1800                 | 1            | July 7, 1980         | July 7, 1983         |
|                   | Gold 2            | 1801                 | 1            | July 7, 1980         | July 7, 1983         |
|                   | Jul 1             | 1852                 | <u>9</u>     | Aug. 8, 1980         | Aug. 8, 1982         |
| 13 units total    |                   |                      |              |                      |                      |

\* Expiry date after the assessment work applied for in the present report is credited.

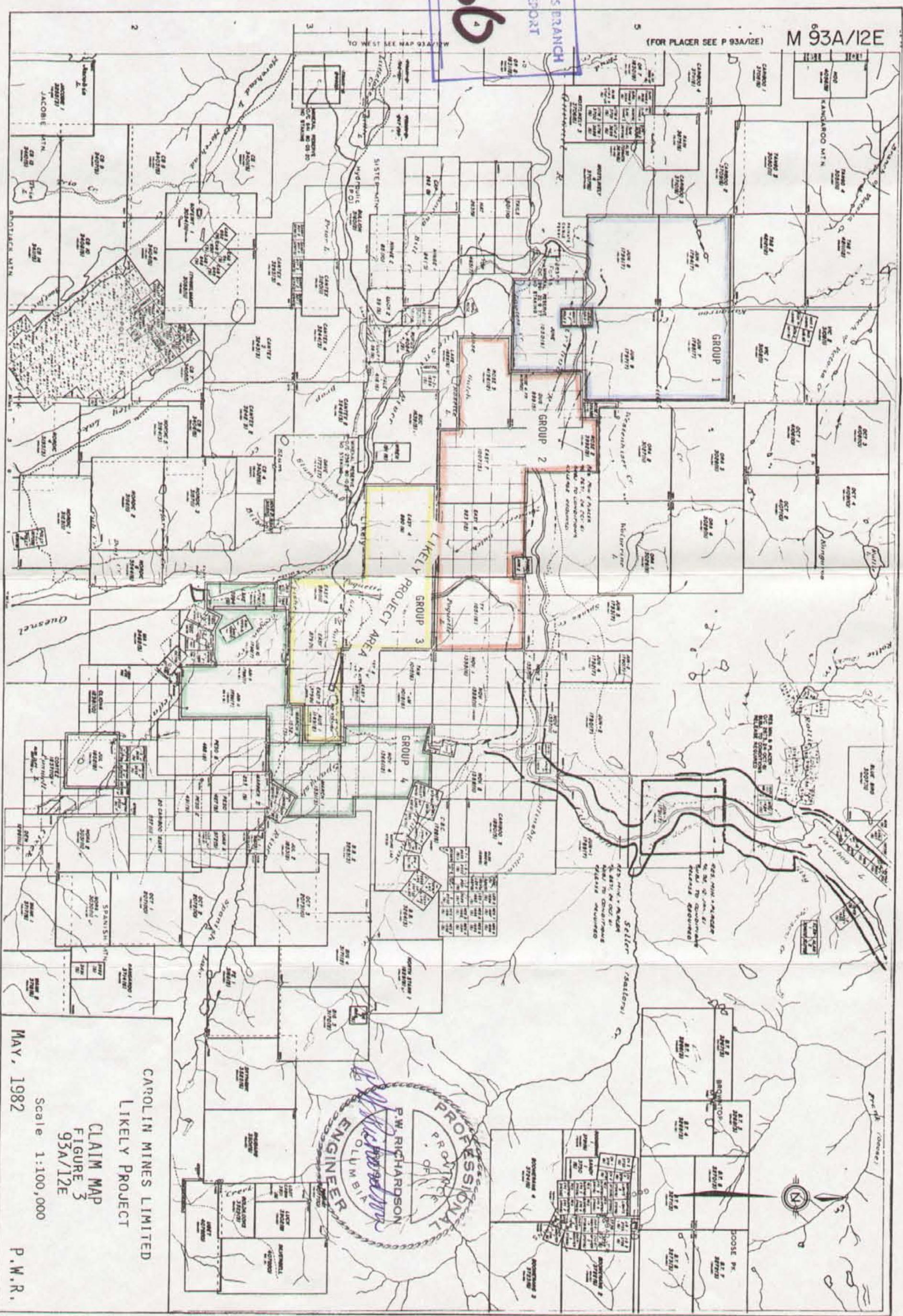
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MR. M. RESOURCES FRAN  
ASSESSMENT REPORT

MR. T'S RESOURCES EXAMINER  
ASSESSMENT REPORT

(FOR PLACER SEE P 93A/12E)

M 93A/I2E



## HISTORY

The first gold discovery in the Cariboo was in mid 1859 on the Horsefly River about 20 km south of the Likely Project. By late 1859, numerous miners were working shallow diggings on gravel bars around the junction between the Cariboo and Quesnel Rivers. Subsequent discoveries of richer placer deposits at Keithley Creek in 1860 and then the bonanza of Williams Creek in 1861 attracted a stampede of men through the area.

Quesnel Forks townsite was laid out by the Royal Engineers in 1861, and remained the main supply centre for the Cariboo until 1865 when the Cariboo Wagon Road was completed via Quesnel and Lightning Creek.

Placer mining in the Quesnel Forks region is discussed in detail by Cockfield and Walker (1933), and is summarized as follows:

1. Shallow workings were mined on the gravel flat around the Quesnel Forks townsite where gold was found on certain clay layers. Glaciofluvial bench gravels were also productive along the Cariboo River.
2. High level gravels from buried channel deposits on bedrock were worked on a large scale at the Bullion Mine hydraulic operation 5 km downstream from Likely. Another high level old channel deposit was worked along lower Morehead Creek, 13 km downstream from Quesnel Forks.

3. Recent bar gravels on the Quesnel River were deposited from small tributary creeks cutting the old high level channel. Gravels in the small tributary creeks were also extensively mined.
4. Apparently eluvial (residual) concentrations of gold were found in Cedar Creek and Poquette Creek Valley.

The famous Bullion Mine operated from 1894 to 1905, when somewhat over 12 million yards of Pleistocene gravels were processed to yield \$1,233,936.51. More recently, the Bullion Mine was operated on a smaller scale between 1933 and 1942.

Placer gold has been found in all creeks draining the Likely Project claims. The most notable production came from Cedar Creek, Likely Gulch, Gold Creek, Rose Gulch and Spanish Creek.

Recent exploration has resulted in the discoveries of the Cariboo Bell porphyry copper-gold deposit on Mount Polley and the Dome Mines Limited Quesnel River Gold Deposit between lower Maud Creek and Slide Mountain. A significant proportion of the gold in the placer deposits in the Likely Area probably originated from similar types of bedrock mineralization.

## FIELD PROCEDURES

Geological observations were recorded on a 1:20,000 base map constructed from an air photograph mosaic compiled for the airborne magnetometer-EM survey. No detail geological mapping has been carried out on the Property.

Three areas were selected for soil sampling, and separate baselines were established with an azimuth of 135°. Line cutting was done by Amex Exploration Services Ltd. of Kamloops. All lines were cleaned out with a chainsaw in order to be wide enough for induced polarization surveys. A total of 66 km of line was cut.

Soil lines were run perpendicular to the baselines at 200m intervals. Sample stations were marked every 50m by a wooden picket. Soil sampling was conducted by Amex under contract to Carolin Mines Limited. All samples, with a few exceptions, were taken from the B horizon, which varied from a few cm to over 50 cm in depth. Sampling was done using a grubhoe, and each sample was placed in a kraft waterproof paper bag. Analytical procedures by Acme Analytical Laboratories Ltd. of Vancouver are outlined in Appendix III.

## GEOLOGY

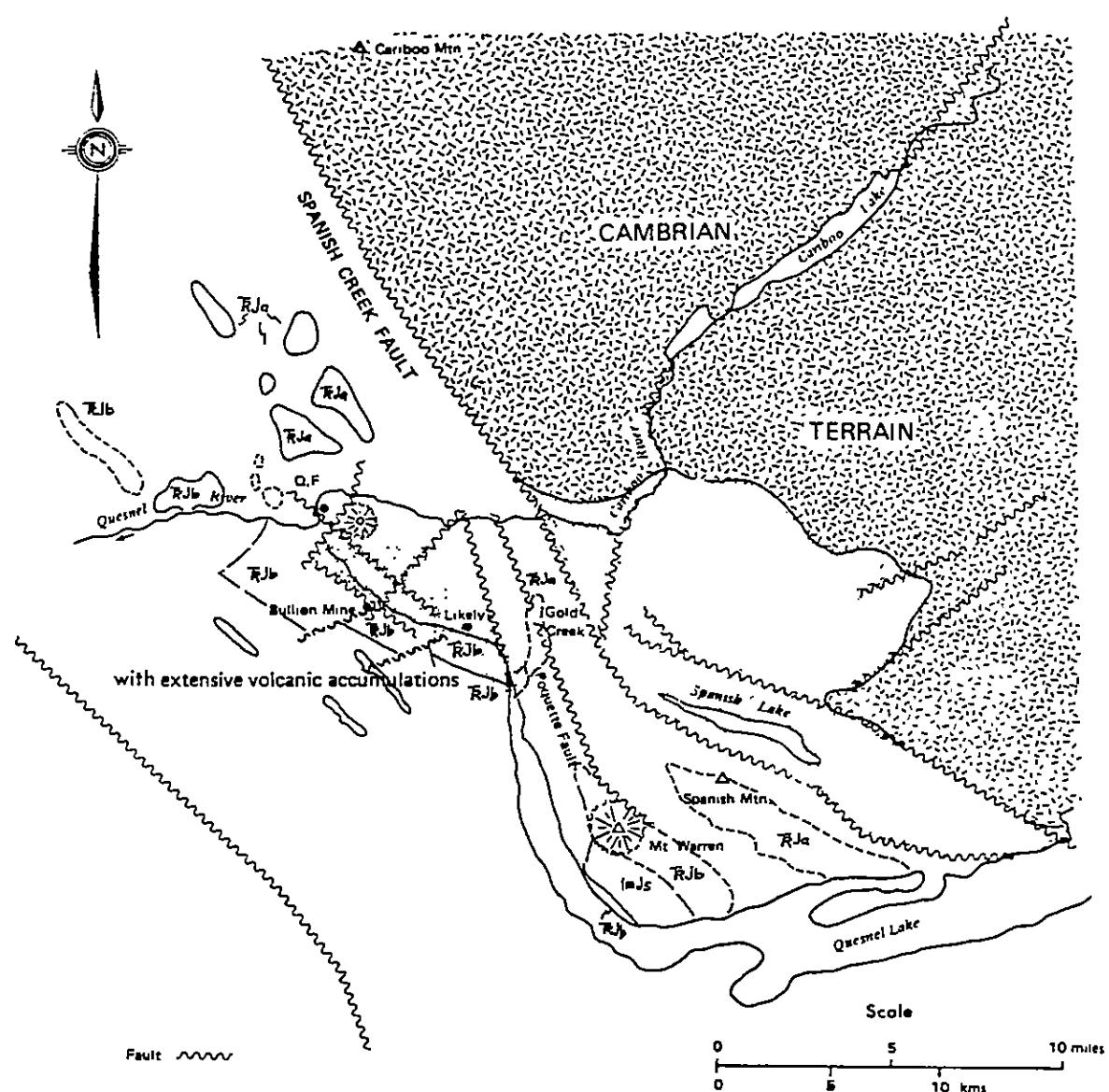
### A. REGIONAL GEOLOGY

The regional geology of the Quesnel Lake Area has been compiled by Campbell (1961). More detailed studies were recently conducted by Bailes (1975). A major revision of the pre-Mesozoic stratigraphy has been completed by Campbell (1978).

The claims are on the eastern margin of the Quesnel Trough, a 35 km wide, northwesterly-trending, Early Mesozoic, volcanic-sedimentary belt of regional extent which is fault-bounded against metamorphosed Paleozoic and older rocks to the west in the Pinchi Geanticline and to the east by the Omineca Geanticline (Campbell and Tipper, 1970; Figure 4). The equivalent tectonic element northwest of latitude 58°N, the Whitehorse Trough, is predominantly sedimentary in contrast with the mainly volcanic facies in the Quesnel Trough. Although strata in the Quesnel Trough are characterized by broad folds and steep block faults, the folds are tighter and inclined to the west locally along the eastern edge of the trough, indicating that there was southwestward tectonic transport in the western part of the Omineca Belt. Godfrey (1980) has recognized this type of folding along the "Kangaroo Creek Fault Zone" in central Likely Project.

A profound regional fault that can be traced over 100 km to the north occurs along the east edge of the Likely Property,

Regional geological setting of Likely district, B.C. (after Campbell 1978 and Godfrey 1980)



Fault ~~~~~

Volcanic Centre ☀

Sedimentary Basin ⚭



Jurassic conglomerate, greywacke, shale  
Norian and younger( )



Augite porphyry basalt breccia, minor flows tuff and  
tuffaceous argillite; local andesitic basalt



Basaltic tuff and breccia, generally fine-grained  
argillite,

CAROLIN MINES LIMITED  
LIKELY PROJECT  
REGIONAL GEOLOGY

FIGURE 4  
93A/12E

MAY, 1982

P.W.R.

and has been described by Littlejohn (1977). It is called the Spanish Creek Fault by Godfrey (1980).

Two major regional volcanic suites are recognized by Campbell (1978). Both are Norian, which is 200 million years old, and perhaps slightly younger in age. The westernmost unit is composed of pyroxene basalt, pillow lavas and breccias which are locally analcite-bearing. The eastern unit is mainly fine-grained basaltic tuff and breccia with minor argillite and chert.

An important feature of Quesnel Trough are narrow linear zones of lower Jurassic syenite to monzonite stocks and related sub-volcanic intrusive phases. These alkalic plutonic rocks are often associated with copper-gold mineralization.

#### B. PROPERTY GEOLOGY

Approximately 90% of the claim area is obscured by glacial and glaciofluvial overburden. Bedrock is best exposed in road cuts and along the steep valley walls of the Cariboo and Quesnel Rivers. Outcrop is relatively common around Poquette Lake. Angular rubble on ridges and hill tops appears indicative of underlying rock types.

Reconnaissance geological observations by R.A. Hrkac, R.H. Beaton, and from Geological Survey of Canada Open File 574 (1978) have been plotted on Figure 5 (in pocket). The following is derived mostly from Hrkac (1981).

Rocks on the claim group include a series of sediments and metamorphic rocks: argillites, phyllites, quartzites, slates, schists and greenstones. These rocks are generally exposed on the margins of the Property in steep sided valleys.

The main rock unit on the Property is a volcanic series of andesitic and basaltic flows, agglomerates and tuffs. The volcanic sequence has been intruded by small dykes and sills of diorite, syenite and rhyolite. The outcrops of the basalt and andesite were found to contain pyrrhotite and pyrite. Some gold values were obtained in the quartz veins in the rhyolite dykes.

#### JUNE, DUG, EASY 4, 6 & 7 MINERAL CLAIMS

The June, Dug, Easy 4, 6 and 7 mineral claims are underlain by olivine - augite basalts and agglomerates (Figure 5). The volcanics are cut by NE-trending rhyolite dykes. Anomalous gold values are related to the dykes and their contained quartz veinlets. To date, no significant portions of the dykes have proven to be economic.

The basalts are dark green, fine to medium-grained, and at times porphyritic, containing tabular augite phenocrysts. Calcite amygdules and fine calcite veinlets are common. Fine, disseminated pyrite is present in amounts much less than one percent. The agglomerates, with fragments up to 8 x 10 cm, are composed of the basalts described above. When tested with HCl, a moderate to strong reaction occurs in both the basalts and agglomerates.

On the EASY 4 mineral claim, the basalts contain epidote alteration as patches, veinlets and replacement of augite. Here calcite veinlets are more numerous, and up to two cm in thickness. Despite the increase in alteration, pyrite remains a minor constituent.

The basalts are intruded by vertical to steeply-dipping rhyolite dykes striking from N25E to N80E. Most are one to two metres wide. On the EASY 7 Claim the attitude of a dyke was N85W/75S while on the JUNE Claim opposite Kangaroo Creek a rhyolite dyke, or dykes, is seen over a width of 120 metres.

The rhyolite is pale, grey-green, fine-grained, and contains white and clear quartz grains and green feldspar. It weathers a prominent rusty-orange colour that penetrates one to

three cm into the rock, both at surface and along joints and fractures. Approximately one percent pyrite is present as cubes and finely disseminated grains. Quartz veinlets from one to five mm wide are common. Most are vertical and strike at right angles to the strike of the dykes; others occur at various attitudes. The weathered surfaces react with HCl, but little or no reaction takes place on fresh rhyolite. The basalts adjacent to the dykes are altered to a medium green, fine-grained rock.

On the June Claim south of Kangaroo Creek a vertically dipping shear zone strikes north-south across a rhyolite dyke. The shear is 1 metre wide, and contains 0.3 metres of semi-massive pyrite. Three samples were cut across this zone during an examination in 1977. The best assay returned less than 0.003 oz/ton Au and 0.04 oz/ton Ag. Minor amounts of galena, tetrahedrite and chalcopyrite are seen rarely in some of the quartz veinlets associated with the rhyolite.

Mutual Resources Ltd. carried out an exploration programme on the Easy 1 Claim. Their work consisted of soil sampling, rock geochemistry, channel sampling and four diamond drill holes.

Intermittent exposures of andesite occur along the Keithley Creek road from Likely Gulch to the north end of Poquette Lake. The andesite is medium green, fine to medium-grained, with minor epidote and calcite alteration and little or no reaction with

HCl. It contains less than one percent fine, disseminated pyrite.

South of Gold Creek the andesite is cut by rhyolite dykes averaging one metre in width. The dykes strike northeasterly, and have vertical to steep southeasterly dips. They are identical to the rhyolites previously described.

A major fault zone is well exposed along the Spanish Lake Road south of Gold Creek, near the mouth of Gold Creek and along a road cut north of Gold Creek and west of Poquette Creek. Within the fault, andesite and rhyolite are sheared into haphazard blocks, and numerous rust-coloured earthy gouge zones occur from several mm to 0.5 metres wide, and are commonly occupied by quartz veinlets up to several cm in width.

At Gold Creek, the fault has cut a zone consisting of rhyolite with some andesite, and contains a series of vertical, east-west shears one to seven cm wide consisting of reddish, earthy gouge flanking quartz veinlets. Channel sampling by R.H. Beaton (1979) across the shears and samples of the gouge and quartz taken by Godfrey (1980) have shown that significant gold and silver values are present in the shears. The location and decomposed nature of the shears indicate a strong probability that the precious metal values are due to surface enrichment.

Diamond drill hole 79-1 was collared immediately west of Gold Creek below the above outcrop area, and drilled SE at -60 degrees to a total depth of 91.5 metres. The hole entered the fault zone, but reached neither the east contact nor the area vertically below the mineralized shears. No significant assays were reported.

### GEOCHEMISTRY

A total of 1201 soil samples were collected on three grids as follows: North Grid, 457 soils; Central Grid, 444 soils; and South Grid, 300 soils (Figures 6, 7 & 8). All samples were analyzed for Au, Ag, As, Cu, Zn, Pb, Mo, Ni, Co, Sb and W. Histograms were plotted for each element, except Mo, Sb and W (Appendix IV). Statistical parameters of the histogram distributions are listed in Table II.

TABLE II  
ASSAY DISTRIBUTION PARAMETERS

| <u>ELEMENT</u> | <u>MEAN</u> | <u>RANGE</u>      | <u>THRESHOLD</u> |
|----------------|-------------|-------------------|------------------|
| GOLD           | 40.05 ppb   | 5 ppb - 9,500 ppb | 40 ppb           |
| SILVER         | 0.25 ppm    | 0.1 ppm - 5.3 ppm | 0.6 ppm          |
| ARSENIC        | 46.0 ppm    | 3 ppm - 1,656 ppm | 75 ppm           |
| COPPER         | 48.6 ppm    | 6 ppm - 779 ppm   | 85 ppm           |
| ZINC           | 92.5 ppm    | 6 ppm - 599 ppm   | 120 ppm          |
| LEAD           | 11.1 ppm    | 1 ppm - 155 ppm   | 16 ppm           |
| COBALT         | 19 ppm      | 2 ppm - 104 ppm   | 35 ppm           |
| NICKEL         | 30.5 ppm    | 5 ppm - 132 ppm   | 50 ppm           |

The gold and silver sample populations are typical of the truncated distributions due to the low concentration inaccuracy of Atomic Absorption and ICP (Induction Coupled Plasma) analytical methods. Arsenic, copper, zinc, lead, cobalt and nickel exhibit near normal distributions that are slightly skewed to the right. An overlap of two distinctly different populations is suggested for zinc and lead. Iron content of the samples averaged 4 - 5% which interfered with Sb and W results. Molybdenum values are slightly higher than normal. The ICP run was not corrected enough for the iron background. There is very little variation in Mo, Sb and W values throughout all of the grids except for a local concentration of Sb on L18S in the Central Grid and L2S on the North Grid.

Gold, silver and arsenic results are plotted for each grid (Figures 6, 7 & 8). Since the lines are 200 metres apart, the data can not be meaningfully contoured. Intermediate lines at 100 metre spacing should be established where the many isolated, anomalous gold samples occur. Closer sample intervals are needed to outline areas of gold enrichment in the soil. On the north grid (Figure 6), highly anomalous gold in soils are found at L12N, 2+00E; L8N, 0+50W; L4N, 6+00W; L4S, 5+00E; L14S, 3+50E; L16S, 8+50E and L18S, 8+00E. Slightly anomalous gold in soil values were found over most of the southern half of the Central Grid (Figure 7). This gold anomaly is characterized by high

arsenic in contrast to the extremely high isolated gold values which are not associated with arsenic or silver. Only a few anomalous gold soil results occur sporadically throughout the South Grid (Figure 8).

### CONCLUSIONS AND RECOMMENDATIONS

The Likely Project covers an area that has produced substantial quantities of placer gold. Exploration work in early 1981 consisted of an airborne magnetometer - EM survey which outlined several anomalies.

The present programme of widely-spaced soil lines in the vicinity of the airborne anomalies has indicated numerous isolated samples with highly anomalous gold-in-soil content. A broad area of slightly anomalous gold-in-soil associated with high arsenic is indicated on the Central Grid.

A detail geological map of the entire property which focuses on the airborne and soil anomalies will be a first priority in future work. Follow-up soil sampling on 100m lines at close intervals is needed to investigate the anomalies found by the reconnaissance surveys. Selected areas should receive Induced Polarization coverage to locate sulfide-rich zones.



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## STATEMENT OF AUTHOR'S QUALIFICATIONS

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1950-52: Mine Geologist at Sullivan Mine, B.C.

1955-66: Exploration Geologist with Dome Exploration (Canada) Limited, Toronto.

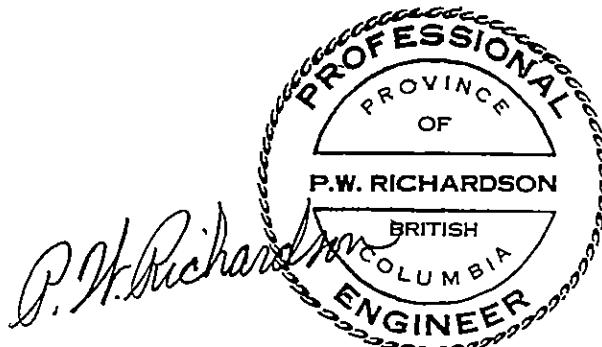
1966-68: Exploration Geologist with Amax Exploration Limited, Vancouver.

1968-78: Vancouver Manager for Newconex Canadian Exploration Ltd.

1978-  
Jan. 31/81: Principal of Richardson Geological Consulting Ltd.

Feb. 1/81-  
Present: Vice-President, Exploration of Carolin Mines Ltd.

I have had an interest in and have practised exploration geochemistry from 1953 to the present time.



Do not  
microfilm

T.K.

APPENDIX I

RECORDS OF MINERAL CLAIMS





## MINERAL ACT - PROVINCE OF BRITISH COLUMBIA

Record of Mineral Claim

FORM G

RECORD NO 1796

MAP NO 93A/12E

1354453

Quesnel

BC THIS 7th DAY OF

July

1980

DO NOT APRIL IN  
SHADED AREAS

Cariboo

Gold Commissioner

Affidavit  
for  
Mineral  
Claim

Robert E. Michie

AGENT FOR

5416 Hudson Ave. Pender River BC V8A-3P4 3P4

VALID SUBSISTING FMC NO 181356

VALID SUBSISTING FMC NO

MAKE OATH AND SAY - I COMMENCED LOCATING THE

June 8 JUN 8

MINEPAL CLAIM

ON THE 25 DAY OF JUNE 1980 AT 7 AM AND COMPLETED THE LOCATION

ON 25 JUNE 1980 7 PM

4 UNIT LENGTHS NORTH AND 5 UNIT LENGTHS WEST AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION

ON METAL TUBE NO 16531 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS

IDENTIFICATION POSTS NOT PLACED HERE

CHECK  APPLICABLE SQUARE THE LEGAL CORNER POST

IS SITUATED 2100 MTS

 THE WITNESS POST FOR THE LEGAL CORNER POSTNORTH of the Mouth of Kitwanga Creek  
APPROXIMATELY EAST OF POST RELATIVE TO A POINT DOWNTHEAD ON SURVEY LINE STATEDLY THAT IS PLACED TO MARK THE CORNER

Map # 93A/12E

THE BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST

BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST

JUL 7 1980

Quesnel, B.C.

Receipt No. 1354453

MR OR MR STAMP

SWORN AND SUBSCRIBED TO AT

THIS DAY OF 19 BEFORE ME

\* THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA

NO OF MTS 20 XXXXXXXXX XXXXXXXXX XXXXXXXXX XXXXXXXXX XXXXXXXXX XXXXXXXXX XXXXXXXXX XXXXXXXXX

| WORK NUMBERS | CLIN S | MINING LSN AND DATE ISSUED | TYPE OF WORK | YEAR OF EXPIRY | CREDIT | TRANSFERS | LESS ASSIGMENT  |
|--------------|--------|----------------------------|--------------|----------------|--------|-----------|---|
|              |        |                            |              |                |        |           |   |
|              |        |                            |              |                |        |           | B/S 1161 Aug. 25/80 50% interest to Carolin Lines Ltd. and 50% interest to Aquarius Resources Ltd |
|              |        |                            |              |                |        |           |   |
|              |        |                            |              |                |        |           |   |
|              |        |                            |              |                |        |           |   |
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|              |        |                            |              |                |        |           |   |

## MINERAL ACT - PROVINCE OF BRITISH COLUMBIA

Record of Mineral Claim  
FORM G

MAP NO 931/123

RECORD NO 1797

MINING REG. NO 135445E

RECORDED AT Quesnel

S. C. THIS 7th DAY OF July 1980

DD LOT 1 PTE IN  
SHADED AP. AS

Gold Commissioner

Cariboo

Affidavit  
for  
Mineral  
Claim

Robert E. McVale

AGENT FOR

5416 Mansion Ave Powell River BC V8A-3Z4

VALID SUBSISTING FMC NO 181356

VALID SUBSISTING FMC NO

MAKE OATH AND SAY - I COMMENCED LOCATING THE

ON THE 25 DAY OF JUNE 1980 AT 7pm AND COMPLETED THE LOCATION

ON THE 26 DAY OF JUNE 1980 AT 7pm CONSISTING OF

4 UNIT LENGTHS NORTH REM 5 UNIT LENGTHS EAST AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION

IN TOTAL THIS INC 16532 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS PROVIDED UNDER THE REGULATIONS

IDENTIFICATION POST(S) NOT PLACED WERE

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SWORN &amp; AFFIDATED IN A SQUARE



THE LEGAL CORNER POST

T-E WITNESS POST FOR THE LEGAL CORNER POST

IS SITUATED

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BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST

I HAVE COMPLIED WITH ALL THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN ACCEPTABLE TO THE MINING REGULATOR OF THE LOCATION

SWORN AND SUBSCRIBED TO AT

THIS DAY OF 19 BEFORE ME

\* THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA

JUL 7 1980

Quesnel, B.C.

Receipt No. 135445E

MR OR SMR STAMP

NO OF UNITS 20

| WORK NUMBERS | C.L.N. | MINING PERIOD AND DATE HELD/HOLD | TYPE OF WORK | YEAR OF EXPIRY | CREDIT | WORK UNITS | RENTALS | TRANSFERS   |                               |
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|              |        |                                  |              |                |        |            |         | B/S'S ASSIGNMENTS CO-OWNANCES   | P/S'S ASSIGNMENTS CO-OWNANCES |
| L-----       |        |                                  |              |                |        |            |         | P/S 1161 Aug. 25/80 50% interest to Carolin Mines Ltd. and 50% interest to Aquarius Resources Ltd |                               |
| -----        |        |                                  |              |                |        |            |         |   |                               |
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Cariboo

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for FREDERICK JAMES KELLY JR.  
KELLY  
CITY - ON DATE OF DEATH 172 411  
WITNESSED BY THE NO.

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32. *Chlorophytum comosum* (L.) Willd.

L/D/S 1003 Oct. 29/79 L2; intent to  
Robert E. Mickle -

## MINERAL ACT - PROVINCE OF BRITISH COLUMBIA

MAP NO. 93A/12S9

## Record of Fractional Mineral Claim

FORM H

RECORD NO. 4197

MINING RECEIPT NO. 172312E

RECORDED AT

Quesnel,

B.C. THIS

15

DAY OF DEC.

19

81

DO NOT WRITE IN  
SHADED AREASG.M. D'Heith  
of Gold Commissioner

Cariboo

MINING DIVISION

Affidavit  
for  
Fractional  
Claim1. Percy F. Cox  
1714 Clifford Ave.,  
Kamloops, B.C.  
ADDRESS

AGENT FOR \_\_\_\_\_ NAME \_\_\_\_\_

VALID SUBSISTING F.M.C. NO. 190403

VALID SUBSISTING F.M.C. NO. \_\_\_\_\_

MAKE OATH AND SAY:-

ON THE 24th DAY OF November 19 81 I LOCATED THE ROSE 4 Fr. MINERAL CLAIM

FOR WHICH THE LEGAL CORNER POST IS SITUATE Approximately 5.5 kilometers northwesterly from  
(PRECISELY DESCRIBE POSITION OF POST RELATIVE TO KNOWN TOPOGRAPHICAL OR SURVEYED FEATURES THAT RELATE TO FEATURES ON A MAP)  
Likely, B.C., 30 meters east and 1.44 kilometers north of the outfall of  
Rosette Lake, at an approximate elevation of 3320 feet A.S.L.

I HAVE PLACED THE LEGAL CORNER POST ON OR AS NEAR AS POSSIBLE TO THE LINE OF THE PREVIOUSLY LOCATED MINERAL CLAIMS.

I HAVE SECURELY FASTENED TO THE LEGAL CORNER POST, METAL TAG NO. 62622 UPON WHICH HAS BEEN IMPRESSED ALL THE INFORMATION REQUIRED BY THE REGULATIONS

HAVE WRITTEN ON THE LEGAL CORNER POST THE FOLLOWING WORDS:- THIS FRACTIONAL CLAIM IS

BOUNDED ON THE NORTH BY Open Ground ON THE SOUTH BY Rose 3

ON THE EAST BY DUG ON THE WEST BY JUNE

I HAVE COMPLIED WITH THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN, ACCEPTABLE TO THE MINING RECORDER, OF THE LOCATION.

SWORN AND SUBSCRIBED TO AT \_\_\_\_\_

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 19 \_\_\_\_\_ BEFORE ME } *Percy F. Cox* SIGNATURE

\* THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA.

172312E 80

MR OR SMR STAMP

WORK REQUIREMENT \$200.00 PER YEAR RENTAL REQUIREMENT (IF WORK RECORDED) \$100.00 PER YEAR (IF C/L RECORDED) \$20.00 PER YEAR

| WORK NUMBERS | MINING RECEIPT AND DATE RECORDED | TYPE OF WORK | YEAR OF EXPIRY | TRANSFERS (B/S'S, ASSIGNMENTS, CONVEYANCES) |
|--------------|----------------------------------|--------------|----------------|---|
| -----        | -----                            | -----        | -----          | -----                                       |
| -----        | -----                            | -----        | -----          | -----                                       |
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COPY



## PROVINCE OF BRITISH COLUMBIA

Record of Mineral Claim  
FORM G

MAP NO. 93A 12B

RECORD NO. 3992

MINING RECEIPT NO. 162261B

RECORDED AT Quesnel

24th DAY OF August 1981

DO NOT WRITE IN  
SHADED AREAS*S/ G.M. Keith*  
Gold Commissioner

Cariboo

MINING DIVISION

Affidavit  
for  
Mineral  
Claim1. Graham Cope  
1714 Clifford Ave.,  
Kamloops, B.C.AGENT FOR Carolina Mines Ltd.  
1020-475 Howe Street,  
Vancouver, B.C.

ADDRESS

ADDRESS

VALID SUBSISTING F.M.C. NO. 187336

VALID SUBSISTING F.M.C. NO. 208119

MAKE OATH AND SAY:- I COMMENCED LOCATING THE

ROSE 2

MINERAL CLAIM

ON THE 6th DAY OF August 1981 AT 11:35 A.M. AND COMPLETED THE LOCATION

(TIME INDICATE AM OR PM)

ON THE 6th DAY OF August 1981 AT 4:30 P.M. CONSISTING OF

(TIME INDICATE AM OR PM)

5 UNIT LENGTHS South AND 3 UNIT LENGTHS east AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION

(NUMBER)

(DIRECTION)

(NUMBER)

(DIRECTION)

ON METAL TAGS NO. 68515 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS

IDENTIFICATION POST(S) NOT PLACED WERE 3S, 4S, 4S1E, 4S2E, 4S3E

CHECK "V" APPLICABLE SQUARE



THE LEGAL CORNER POST



THE WITNESS POST FOR THE LEGAL CORNER POST

{ IS SITUATED: Approximately

7.1 kilometers northwesterly of Likely, B.C., 1.45 kilometers east and 600

PRECISELY DESCRIBE POSITION OF POST RELATIVE TO KNOWN TOPOGRAPHICAL OR SURVEYED FEATURES THAT RELATE TO FEATURES ON A MAP  
meters north ~~NE~~ of the confluence of the Cariboo River and Westenhiser Creek,  
at an approximate elevation of 3250 feet A.S.L.

BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST

BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST

I HAVE COMPLIED WITH ALL THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING  
OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN, ACCEPTABLE TO THE MINING RECORDER, OF THE LOCATION

SWORN AND SUBSCRIBED TO AT

THIS \_\_\_\_ DAY OF \_\_\_\_ 19 \_\_\_\_ BEFORE ME

{ SIGNATURE

*162261B-450*

MR OR SMR STAMP

NO. OF UNITS 12

WORK REQUIREMENT 3000 U.S. WORK UNITS OR \$2000.00 C.C.

| WORK NUMBERS | C/L IN \$ | MINING RECEIPT AND DATE RECORDED | TYPE OF WORK | YEAR OF EXPIRY | CREDIT       |               | TRANSFERS<br>(B/S'S. ASSIGNMENTS. CONVEYANCES) |
|--------------|-----------|----------------------------------|--------------|----------------|--------------|---------------|--|
|              |           |                                  |              |                | WORK UNIT(S) | RENTAL IN \$S |  |
|              |           |                                  |              |                |              |               |  |
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**COPY**

1000 P.M.

Quarter 1

23

May 29

79

Cariboo

1000 P.M.

L.C. Gold Commissioner

Milepost

18000 FEET ELEVATION

Milepost

UPPER PORTAGE RIVER IS VEGA 21%

Milepost

MILEPOST 13077

VANCOUVER DISTRICT NO. 10

MILEPOST 13077

MINING CLAIM

MILEPOST 13077 WILL BE REFERRED TO AS THE LOCATION

OR LUMACI BY MILEPOST 13077 CO-OP.

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C. E. Prentiss

M.R. 122465 100  
LIBRARY B.C.



**Record of Mineral Claims.**

24/122

FIGURE 1

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## Quesnel

, 29th June

79

griffiths  
whole case

Cariboo

STEVE WINSLEY  
180 B.C. 5 HILLY, B.C.  
1164809.

TY

SUN. 13 NOV. TIME - 129 2. P.M.

14 JUNE 1979 E.P.M. CONCERN

W. 5.  $\sin n$

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4. WEST 2 VERTU.

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W. W. COOK 10.

ANSWER: **1. The following are the main features of the new system:**

EAST & WEST LINE BORDERS ON EASY 1 AND THE WEST  
EAST & SOUTH LINE BORDERS ON EASY 2.

**STORRS & WESSELER TRAIL**

July 29 day of January 1979 before me  
John L. Johnson, Notary Public  
in and for the State of California  
THIS ACT IN WITNESS BE IT KNOWN THAT I HAVE THIS DAY  
SIGNED THIS EDITION OF THE CALIFORNIA  
CONSTITUTION.

卷之三

MAR # 1343655 180  
LILLY, B. C.  
N.Y.C. LIBRARY

26 

1961

PROVINCE OF BRITISH COLUMBIA

Record of Mineral Claim  
FORM C

13-772

RECORD NO. 226

10,000'

Quadrant

2 - 1000' November 1978

R. E. Middle

Proprietor

ASSUMPTION

Caroline

Minerals  
for  
Mineral  
Claim

ALERT FOR

SILVER

Lead Zinc Gold

VALID SUBSTANCE NO. 52-255

ANNUAL SUSPENSION FEE PAID

MINERAL CLAIM

ON 1/2 ACRE, 0.511 ACRES, 10.114 HECTARES LOCATED IN THE AREA AND

17 m. E. of CECIL, 17 m. N. of CECIL, CONSIST

4 m. S. 45° W. IN THE N.W. QUADRANT OF THE SECTION, 1000' FROM THE

2375' ELEVATION WITH DRAWS TO THE SOUTH AND

RIDGE (SW)

THE TACTICAL CORNER POST

NEAR THE SURFACE IN THE CENTER

ISSUED BY 1 UNIT

NORTH OF 4 WEST DE LAKE LK AND GOING EAST, SURVEYED LINE 1713 AND 1714 NORTH OF THE LINE, 1713 IS THE SOUTH END OF THE VEGETATION BREAK, WHICH IS IN THE NE CORNER OF THE SECTION.

ALL THE ROCK IS METAMORPHIC, THE SOIL IS BROWN, THE GROUND IS COVERED WITH GRASS AND BUSHES.

B-ADING RECORDS RECEIVED

NOV 2 - 1978

M.R. # 122332 S. 335  
L1401978

SCOURING OF VARIOUS SPOTS

IN THE AREA, 1000' REFERRED

TO THE SURVEYED LINE 1713 AND 1714

AND THE SURFACE IS METAMORPHIC ROCK.

R.E. Middle

B/S Oct. 1978

1096-All Interest-to Mutual Resources Limited.

1000' 1100' 1200' P 800



## MINERAL LOC - PROVINCE OF BRITISH COLUMBIA

Record of Filing of Claim

FC = 10

RECORD NO 881

1978

1223324

R.E. Miller

100% On Location &amp; Exclusive

Cariboo

Mineral

for

Mineral

Claim

Valid

SUSPENSION

FMC NO

RE

VALID SUSPENDING FMC NO

MINERAL CLAIM

MINERAL

CLM

LOC









MINE NO. 135232 E

RECORDED AT Quesnel

B.C. THIS 17 DAY OF March 1980

DO NOT WRITE IN  
SHADeD AREASJohn Smith  
Gold Commissioner

Cariboo

Affidavit  
for  
Mineral  
Claim

ROBERT E MICKLE

AGENT FOR

5416 MANSON AVE. POWELL RIVER BC. V8A 3P4

ADDRESS

VALID SUBSISTING F.M.C. NO. 181356

NAME

ADDRESS

VALID SUBSISTING F.M.C. NO.

MAKE OATH AND SAY - I COMMENCED LOCATING THE

MARCH 2

MINERAL CLAIM

ON THE 1 DAY OF MARCH 1980 AT 9:30 AND COMPLETED THE LOCATION

ON THE 5 DAY OF MARCH 1980 AT 3:30 CONSISTING OF

2 UNIT LENGTHS N AND 2 UNIT LENGTHS W AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION

IN METAL TAGS NO. 484 33 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS.

IDENTIFICATION POSTS NOT PLACED WERE

CHECK THE APPLICABLE SQUARE

 THE LEGAL CORNER POST THE WITNESS POST FOR THE LEGAL CORNER POST

IS SITUATED SAME AS

MARCH 1 - APP 2000 m. SOUTH OF JUNCTION OF HEPBURN CR + SPANISH CR AND APP 6500m. EAST OF LIKELY MAP : M 93A/11W.

BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST

BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST

I HAVE COMPLIED WITH ALL THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN, ACCEPTABLE TO THE MINING RECORDER, OF THE LOCATION.

SWORN AND SUBSCRIBED TO AT Powell River

THIS 11 DAY OF MARCH 1980 BEFORE ME

\* MINECER L M. C. M. C.

\* THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA.

Cariboo Mining Div.

RECORDED MAR 17 1980

Quesnel, B.C.

Rept No. 135232

R-E. Mickle

SIGNATURE

| NO. OF UNITS | 4 | WORK REQUIREMENTS | RENTAL REQUIREMENT \$100 PER PERSON DUE WORKERS PER SEASON |                                  |              | TRANSFERS<br>B/S'S, ASSIGNMENTS, CONVEYANCES |  |
|--------------|---|-------------------|--|----------------------------------|--------------|--|--|
|              |   |                   | C/L IN \$  | MINING RECEIPT AND DATE RECORDED | TYPE OF WORK | YEAR OF EXPIRY                               |  |
| WORK NUMBERS |   |                   |  |                                  |              |  |  |
| 14123-126    |   |                   |  | Aug 28/80                        | P            | Mar 17 1982                                  |  |
| 22477/180    |   |                   |  | March 5/81                       | G            | 1983   |  |
|              |   |                   |  |                                  |              |  |  |
|              |   |                   |  |                                  |              |  |  |
|              |   |                   |  |                                  |              |  |  |
|              |   |                   |  |                                  |              |  |  |

Part value of 324

CENTRAL RECORDS

COPY



## MINERAL ACT - PROVINCE OF BRITISH COLUMBIA

Record of Mineral Claim

FORM NO. 1

MAP NO. 93A/12E &amp; 11W

RECORD NO. 1798

MINING RECEIPT NO. 135452E

RECORDED AT QUESNEL

B.C. THIS 7th DAY OF

July

1980

DO NOT WRITE IN  
SHADED AREAS

Cariboo

MINING DIVISION

Goto Commissioner

Affidavit  
for  
Mineral  
Claim

ROBERT E. MICKLE AGENT FOR

5416 MANSON AVE POWELL RIVER BC, V8A 3P4

VALID SUBSISTING F.M.C. NO. 181356

VALID SUBSISTING F.M.C. NO.

MAKE OATH AND SAY - I COMMENCED LOCATING THE

JUN 10

MINERAL CLAIM

ON THE 27 DAY OF JUNE 1980 AT 8 AM AND COMPLETED THE LOCATION

ON THE 27 DAY OF JUNE 1980 AT 9 PM CONSISTING OF

6 UNIT LENGTHS S AND 3 UNIT LENGTHS W AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION

ON METAL TAGS NO 16533 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS

IDENTIFICATION POST(S) NOT PLACED WERE

CHECK "V" APPLICABLE SQUARE



THE LEGAL CORNER POST



THE WITNESS POST FOR THE LEGAL CORNER POST

{ IS SITUATED

APP. 1500 m

SOUTH WEST OF THE EAST END OF HEPBURN LAKE  
APP. 2500 m. EAST OF QUESNEL LAKE - MAP M 93A/12E

BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST

BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST

I HAVE COMPLIED WITH ALL THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING  
OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN, ACCEPTABLE TO THE MINING RECORDER, OF THE LOCATION

SWORN AND SUBSCRIBED TO AT

THIS \_\_\_\_ DAY OF \_\_\_\_ 19 \_\_\_\_ BEFORE ME

\*

\* THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO  
TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA.

Cariboo Mining D.V.

RECORDER

JUL 7 1980

Quesnel, B.C.

Receipt No. 135452E

MR OR SMK STAMP

NO OF UNITS 18

| WORK NUMBERS | C/L IN \$ | MINING RECEIPT AND DATE RECORDED | TYPE OF WORK | YEAR OF EXPIRY | CREDIT        |               | TRANSFERS<br>(B/S'S, ASSIGNMENTS, CONVEYANCES)   |
|--------------|-----------|----------------------------------|--------------|----------------|---------------|---------------|--|
|              |           |                                  |              |                | WORK UNITS(S) | RENTAL IN \$S |  |
|              |           |                                  |              |                |               |               | B/S 1161 Aug. 25/80 50% interest<br>to Carolin Mines Ltd. and 50%<br>interest to Aquarius Resources Ltd. |
|              |           |                                  |              |                |               |               |  |
|              |           |                                  |              |                |               |               |  |
|              |           |                                  |              |                |               |               |  |
|              |           |                                  |              |                |               |               |  |
|              |           |                                  |              |                |               |               |  |

## MINERAL ACT - PROVINCE OF BRITISH COLUMBIA

Record of Mineral Claim  
FORM GMAP NO. BOOK 93A 12ERECORD NO. 93XX93X 3994MINING RECEIPT NO. 162261ERECORDED AT QuesnelB.C. THIS 24th DAY OF August 1981DO NOT WRITE IN  
SHADED AREAS*G.M. Keith*  
*Gold Commissioner*Affidavit  
for  
Mineral  
ClaimPercy F. Cox  
1714 Clifford Ave.,  
Kamloops, B.C.  
ADDRESS

AGENT FOR

Carolin Mines Ltd.  
1020-475 Howe Street,  
Vancouver, B.C.  
ADDRESSVALID SUBSISTING F.M.C. NO. 190403VALID SUBSISTING F.M.C. NO. 208119

LAKE 1

MINERAL CLAIM

MAKE OATH AND SAY:- I COMMENCED LOCATING THE

ON THE 9th DAY OF August 1981 AT 1:30 P.M. TIME INDICATE AM OR PM AND COMPLETED THE LOCATIONON THE 9th DAY OF August 1981 AT 4:30 P.M. TIME INDICATE AM OR PM CONSISTING OF6 UNIT LENGTHS north 2 UNIT LENGTHS west DIRECTION AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATIONON METAL TAGS NO. 68517 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS.IDENTIFICATION POST(S) NOT PLACED WERE 1W, 2W, 2W1N, 2W2N, 2W3N, 2W4N,

CHECK "V" APPLICABLE SQUARE

 THE LEGAL CORNER POST } IS SITUATED. Approximately THE WITNESS POST FOR THE LEGAL CORNER POST }5 kilometers southeasterly of Likely, B.C., 300 meters east and 200 metersnorth of the bridge crossing Cedar Creek, 500 meters east of the northeastcorner of Cedar Point Provincial Park, at an approximate elevation of 2700

feet A.S.L.

† BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST

BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST

I HAVE COMPLIED WITH ALL THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN ACCEPTABLE TO THE MINING RECORDER OF THE LOCATION

SWORN AND SUBSCRIBED TO AT \_\_\_\_\_

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 19\_\_\_\_\_ BEFORE ME

\*

\* THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA.

*Percy F. Cox*  
SIGNATURE

162261E430

MR OR SMR STAMP

NO. OF UNITS 8 WORK REQUIREMENT 3 RENTAL REQUIREMENT \$10.00 PER \$200.00 WORK, \$20.00 PER \$200.00 CREDIT

| WORK NUMBERS | C/LIN S | MINING RECEIPT AND DATE RECORDED | TYPE OF WORK | YEAR OF EXPIRY | CREDIT       |              | TRANSFERS<br>(B/S'S ASSIGNMENTS, CONVEYANCES) |
|--------------|---------|----------------------------------|--------------|----------------|--------------|--------------|---|
|              |         |                                  |              |                | WORK UNIT(S) | RENTAL IN \$ |   |
|              |         |                                  |              |                |              |              |   |
|              |         |                                  |              |                |              |              |   |
|              |         |                                  |              |                |              |              |   |
|              |         |                                  |              |                |              |              |   |
|              |         |                                  |              |                |              |              |   |
|              |         |                                  |              |                |              |              |   |
|              |         |                                  |              |                |              |              |   |
|              |         |                                  |              |                |              |              |   |

**COPY**



MAP NO 93A/125

MINING RECEIPT NO. 1517043

RECORDED AT Quesnel

DO NOT WRITE IN  
SHADeD AREAS*R.E. Mickie*  
GOLd #1

BC THIS 7th DAY OF July 1980

APPLICATION TO RECORD A 2-POST CLAIM LOCATED BY WITNESS POST(S)

Cariboo

1 Robert E. Mickie

5416 Highway 14E Power Line BC.

HOLDER OF VALID SUBSISTING F.M.C. NO 181356

STATE THAT:

ON THE 25 DAY OF JUNE 1980 I LOCATED THE GOLD #1 2-POST CLAIM  
 SITUATE ON left bank of CARIBOO RIVER (50' N. of South) AND  
 OPPOSIT the mouth of the KINGAROO CREEK

I HAVE PLACED THE NO. 1 POST (ON THE LOCATION-LINE) AS FOLLOWS:

~~1500 FT FROM THE TRUE POSITION OF NO. 1 POST~~

I HAVE WRITTEN ON THE WITNESS-POST FOR THE NO 1 POST

DISTANCE TO TRUE POSITION OF NO.1 POST IS

METRES COMPASS BEARING

I HAVE SECURELY FASTENED TO THE WITNESS-POST FOR THE NO.1 POST (NO 1 POST), METAL TAG NO. ~~491071 M~~

EMBOSSED "INITIAL POST (NO.1)", UPON WHICH THE FOLLOWING HAS BEEN IMPRESSED:-

NAME OF CLAIM GOLD #1

DATE OF LOCATION

25 JUNE

LOCATOR Robert E. Mickie

BEARING TO TRUE POSITION OF NO 2 POST

EAST

DISTANCE TO NO 2 POST (FROM TRUE POSITION OF NO.1 POST) 1500 FT

NUMBER OF FEET

TO LEFT OF LOCATION LINE 1500

I HAVE PLACED A NO. 2 POST (ON THE LOCATION-LINE) AS FOLLOWS:

I HAVE WRITTEN ON THE WITNESS-POST FOR THE NO.2 POST

DISTANCE TO THE TRUE POSITION OF NO 2 POST IS

METRES COMPASS BEARING

I HAVE SECURELY FASTENED TO THE WITNESS-POST FOR THE NO 2 POST (NO 2 POST), METAL TAG NO. ~~491071 M~~

EMBOSSED "FINAL POST (NO.2)", UPON WHICH THE FOLLOWING HAS BEEN IMPRESSED:-

NAME OF CLAIM GOLD #1

DATE OF LOCATION

25 JUNE 1980

LOCATOR Robert E. Mickie

Cariboo Mining Div.

† DELETE WORDS NOT APPLICABLE

RECORDED

JUL 7 1980

\$10

Quesnel, B.C.

Receipt No. 1517043

R.E. Mickie

SIGNATURE

| WORK NO'S OR C.L. | DATE RECORDED | MINING RECEIPT | DATE OF EXPIRY | TRANSFERS<br>(BILLS OF SALE, ASSIGNMENTS, CONVEYANCES)   |
|-------------------|---------------|----------------|----------------|--|
| SURVEY PENDING    | 4/1/1980/81   |                |                | Aug 25/80...B/S #1161 - 50% int. to<br>Carolin Mines Ltd. & 50% int. to Aquarius<br>Resources Limited. |
| 22857/858. G      | March 5/81    | 2 yrs          | July 7/83      |  |
|                   |               |                |                |  |
|                   |               |                |                |  |
|                   |               |                |                |  |
|                   |               |                |                |  |

000

S34/1231

RECORD NO.

1301

REC'D. REC'D. NO. 1517043

RECORDED AT

Quesnel

SO THIS

7th

DAY OF

July

DO NOT WRITE IN  
SHADED AREASCarihoo  
Mines Ltd.

APPLICATION TO RECORD A 2-POST CLAIM LOCATED BY WITNESS POST #1

GOLD #2

Robert E. Mickle S616 MTHUSIO Line Powell River BC.

HOLDER OF VALID SUBSISTING F.M.C. NO.

151356

STATE THAT:

ON THE 25

DAY OF JUNE

1980

I LOCATED THE GOLD #2 2-POST CLAIM

SITUATE ON left bank of Carihoo River (SO N SOUTH) Hand

(HERE DESCRIBE THE POSITION OF THE CLAIM RELATIVE TO KNOWN TOPOGRAPHICAL OR SURVEYED FEATURES ON THE MAP)

deposit to the Mouth of Kingbird Creek

I HAVE PLACED THE NO. 1 POST (ON THE LOCATION-LINE) (AS NEAR AS POSSIBLE TO THE LOCATION-LINE)

~~AS NEAR AS POSSIBLE TO THE LOCATION-LINE~~

I HAVE WRITTEN ON THE WITNESS-POST FOR THE NO.1 POST

DISTANCE TO TRUE POSITION OF NO.1 POST IS METRES COMPASS BEARING

I HAVE SECURELY FASTENED TO THE WITNESS-POST FOR THE NO.1 POST (NO. 1 POST), † METAL TAG NO. 491072 M. ENGRAVED "INITIAL POST (NO.1)", UPON WHICH THE FOLLOWING HAS BEEN IMPRESSED:-

NAME OF CLAIM GOLD #2

DATE OF LOCATION 25 JUNE 80

LOCATOR Robert E. Mickle

BEARING TO TRUE POSITION OF NO.2 POST

EAST

DISTANCE TO NO.2 POST (FROM TRUE POSITION OF NO.1 POST) 1500'

NUMBER OF METRES TO RIGHT

1500'

I HAVE PLACED A NO. 2 POST (ON THE LOCATION-LINE) (AS NEAR AS POSSIBLE TO THE LOCATION-LINE). †

~~AS NEAR AS POSSIBLE TO THE LOCATION-LINE~~

I HAVE WRITTEN ON THE WITNESS-POST FOR THE NO.2 POST

DISTANCE TO THE TRUE POSITION OF NO.2 POST IS METRES COMPASS BEARING

I HAVE SECURELY FASTENED TO THE WITNESS-POST FOR THE NO.2 POST (NO. 2 POST), † METAL TAG NO. 491072 M. ENGRAVED "FINAL POST (NO.2)", UPON WHICH THE FOLLOWING HAS BEEN IMPRESSED:-

NAME OF CLAIM GOLD #2

DATE OF LOCATION 25 JUNE 80.

LOCATOR Robert E. Mickle

† DELETE WORDS NOT APPLICABLE

RECORDED

JUL 7 1980

Quesnel, B.C. #10

Receipt No. 1517043

RECORDER'S STAMP

SIGNATURE

R.E. Mickle

| MINING RECEIPT NO. | DATE RECORDED | MINING RECEIPT | DATE OF EXPIRY |
|--------------------|---------------|----------------|----------------|
| SURVEY PENDING     | 4/1/1981      |                |                |
| 22859/860 G        | March 5/81    | 2 yrs.         | July 7/83      |
|                    |               |                |                |
|                    |               |                |                |
|                    |               |                |                |
|                    |               |                |                |

TRANSFERS  
(BILLS OF SALE, ASSIGNMENTS, CONVEYANCES)

Aug 25/80... B/S #1161 - 50% int. to  
Carolin Mines Ltd. & 50% int. to Aquarius  
Resources Limited.

C.J.D.



APPENDIX II  
GEOCHEMICAL ASSAY CERTIFICATES

81-1903

File No.

SoI's

Type of Samples

Disposition

&lt;4"

## GEOCHEMICAL ASSAY CERTIFICATE

S.G.

.005

| 1    | SAMPLE No |   | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | W  |
|------|-----------|---|------|----|-----|----|-----|----|----|----|-----|----|----|
| BL   | 0+50 S    | X | .005 | 2  | 32  | 13 | 62  | .3 | 33 | 14 | 23  | 2  | 1  |
| 0+00 | 0+00      |   | .010 | 2  | 41  | 32 | 102 | .4 | 41 | 17 | 32  | 2  | 1  |
| 0+50 | S         |   | .005 | 3  | 38  | 16 | 85  | .2 | 37 | 16 | 26  | 2  | 1  |
| 1    |           |   | .005 | 4  | 54  | 10 | 96  | .4 | 42 | 18 | 32  | 2  | 1  |
| 1+50 |           |   | .005 | 3  | 113 | 12 | 20  | .8 | 66 | 18 | 44  | 2  | 1  |
| 2    |           |   | .010 | 2  | 12  | 7  | 74  | .2 | 11 | 8  | 10  | 2  | 1  |
| 2+50 |           |   | .005 | 3  | 46  | 9  | 75  | .3 | 29 | 12 | 27  | 2  | 1  |
| 3    |           |   | .005 | 2  | 34  | 9  | 65  | .1 | 29 | 12 | 19  | 2  | 1  |
| 3+50 |           |   | .005 | 3  | 34  | 7  | 66  | .2 | 23 | 11 | 22  | 2  | 1  |
| 4    |           |   | .010 | 2  | 37  | 6  | 53  | .1 | 26 | 10 | 19  | 2  | 1  |
| 4+50 |           |   | .070 | 3  | 26  | 9  | 73  | .3 | 29 | 2  | 25  | 2  | 1  |
| 5    |           |   | .005 | 2  | 17  | 7  | 71  | .3 | 20 | 10 | 17  | 2  | 1  |
| 5+50 |           |   | .005 | 4  | 60  | 8  | 79  | .1 | 30 | 14 | 22  | 2  | 1  |
| 6    |           |   | .005 | 3  | 37  | 3  | 93  | .3 | 25 | 11 | 29  | 3  | 1  |
| 6+50 |           |   | .005 | 4  | 53  | 11 | 64  | .3 | 27 | 13 | 31  | 2  | 1  |
| 7    |           |   | .005 | 2  | 52  | 11 | 78  | .3 | 69 | 15 | 32  | 2  | 1  |
| 7+50 |           |   | .005 | 2  | 15  | 8  | 104 | .2 | 19 | 10 | 12  | 2  | 1  |
| 8    |           |   | .005 | 2  | 23  | 9  | 129 | .2 | 24 | 98 | 52  | 2  | 1  |
| 8+50 |           |   | .005 | 3  | 20  | 6  | 80  | .1 | 22 | 9  | 21  | 2  | 1  |
| 9    |           |   | .005 | 5  | 28  | 12 | 59  | .2 | 20 | 15 | 16  | 2  | 1  |
| 9+50 |           |   | .005 | 3  | 20  | 7  | 108 | .2 | 22 | 8  | 13  | 2  | 1  |
| 0+00 | 10 S      |   | .005 | 3  | 31  | 9  | 128 | .5 | 34 | 14 | 13  | 2  | 1  |
| 0+00 | 4 W       |   | .150 | 3  | 38  | 8  | 71  | .2 | 28 | 12 | 32  | 2  | 1  |
| 4+50 |           |   | .005 | 3  | 43  | 10 | 87  | .5 | 29 | 12 | 47  | 2  | 1  |
| 5    |           |   | .005 | 3  | 42  | 8  | 96  | .4 | 45 | 17 | 30  | 2  | 1  |
| 5+50 |           |   | .005 | 2  | 17  | 8  | 73  | .3 | 22 | 12 | 20  | 2  | 1  |
| 6    |           |   | .040 | 2  | 13  | 8  | 39  | .3 | 10 | 7  | 38  | 2  | 1  |
| 6+50 |           |   | .035 | 3  | 114 | 8  | 84  | .2 | 53 | 26 | 166 | 2  | 1  |
| 7    |           |   | .035 | 2  | 60  | 6  | 67  | .3 | 51 | 10 | 64  | 2  | 1  |
| 7+50 |           |   | .055 | 2  | 19  | 7  | 94  | .4 | 25 | 14 | 25  | 2  | 1  |
| 8    |           |   | .005 | 2  | 34  | 6  | 94  | .3 | 46 | 10 | 43  | 2  | 1  |
| 8+50 |           |   | .005 | 1  | 19  | 7  | 88  | .2 | 39 | 14 | 36  | 2  | 1  |
| 9    |           |   | .005 | 2  | 48  | 4  | 97  | .2 | 38 | 20 | 35  | 2  | 1  |
| 9+50 |           |   | .005 | 2  | 40  | 10 | 104 | .3 | 36 | 18 | 26  | 2  | 1  |
| 0+00 | 10 W      |   | .005 | 2  | 31  | 7  | 105 | .2 | 33 | 16 | 20  | 2  | 1  |
|      |           |   | ✓    | ✓  | ✓   | ✓  | ✓   | ✓  | ✓  | ✓  | ✓   | ✓  | 38 |
|      |           |   |      |    |     |    |     |    |    |    |     |    | 39 |
|      |           |   |      |    |     |    |     |    |    |    |     |    | 40 |
| (35) |           |   |      |    |     |    |     |    |    |    |     |    |    |

All reports are the confidential property of clients  
All results are in PPM.

DATE SAMPLES RECEIVED Dec. 7, 1981

Dec. 23, 1981

DATE REPORTS MAILED

ASSAYER

*D. Toye*

DIGESTION:

DETERMINATION:

All samples were sieved to -80 mesh  
& pulverized to -150 mesh.

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

To: Caro in Mines Ltd.,

Assaying &amp; Trace Analysis

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

phone 253 3158

File No.

81-1903

Type of Samples

Disposition

S.G.

## GEOCHEMICAL ASSAY CERTIFICATE

|      | SAMPLE No | Au   | Mo | Cu   | Pb | Zn  | Ag  | Ni   | Co | As   | Sb | W |    |
|------|-----------|------|----|------|----|-----|-----|------|----|------|----|---|----|
| 0+00 | 1 N       | .005 | 3  | 40   | 10 | 96  | .3  | 41   | 22 | 32   | 2  | 1 | 1  |
|      | 1+50      | .005 | 2  | 31   | 10 | 67  | .3  | 30   | 16 | 19   | 2  | 1 | 2  |
|      | 2         | .005 | 3  | 94   | 11 | 90  | 1.0 | 55   | 33 | 29   | 2  | 1 | 3  |
|      | 2+50      | .005 | 2  | 18   | 7  | 120 | .3  | 24   | 12 | 23   | 2  | 1 | 4  |
|      | 3         | .005 | 2  | 25   | 7  | 77  | .2  | 26   | 10 | 12   | 2  | 1 | 5  |
|      | 3+50      | .005 | 3  | 24   | 9  | 75  | .3  | 27   | 12 | 20   | 2  | 1 | 6  |
|      | 4         | .005 | 2  | 6    | 5  | 54  | .3  | 10   | 6  | 12   | 2  | 1 | 7  |
|      | 4+50      | .005 | 2  | 13   | 8  | 85  | .2  | 20   | 13 | 15   | 2  | 1 | 8  |
|      | 5         | .015 | 2  | 28   | 8  | 84  | .2  | 29   | 14 | 22   | 2  | 1 | 9  |
|      | 5+50      | .005 | 2  | 12   | 2  | 85  | .2  | 19   | 12 | 11   | 2  | 1 | 10 |
|      | 6         | .035 | 3  | 22   | 7  | 153 | .3  | 30   | 13 | 25   | 2  | 1 | 11 |
|      | 6+50      | .005 | 2  | 13   | 5  | 64  | .2  | 16   | 9  | 15   | 2  | 1 | 12 |
|      | 7         | .230 | 2  | 15   | 6  | 93  | .2  | 17   | 11 | 24   | 2  | 1 | 13 |
|      | 7+50      | .005 | 3  | 46   | 4  | 77  | .2  | 38   | 18 | 21   | 2  | 1 | 14 |
|      | 8         | .005 | 2  | 21   | 4  | 90  | .2  | 25   | 11 | 24   | 2  | 1 | 15 |
|      | 8+50      | .005 | 4  | 16   | 4  | 66  | .2  | 20   | 8  | 29   | 2  | 1 | 16 |
|      | 9         | .005 | 3  | 29   | 7  | 169 | .6  | 28   | 16 | 20   | 2  | 1 | 17 |
|      | 9+50      | .025 | 3  | 21   | 6  | 88  | .5  | 24   | 11 | 26   | 2  | 1 | 18 |
| 0+00 | 10 N      | .005 | 2  | 38   | 4  | 91  | .2  | 43   | 18 | 10   | 2  | 1 | 19 |
| 0+00 | 10+50 N   | .035 | 3  | 41   | 6  | 68  | .3  | 40   | 16 | 32   | 2  | 1 | 21 |
|      | 11        | .005 | 2  | 29   | 10 | 137 | .9  | 32   | 16 | 26   | 2  | 1 | 22 |
|      | 11+50     | .005 | 2  | 30   | 7  | 66  | .2  | 27   | 11 | 20   | 2  | 1 | 23 |
|      | 12        | .005 | 2  | 44   | 5  | 77  | .2  | 38   | 16 | 34   | 2  | 1 | 24 |
|      | 12+50     | .015 | 1  | 21   | 4  | 78  | .2  | 28   | 16 | 22   | 2  | 2 | 25 |
|      | 13        | .045 | 3  | 36   | 6  | 142 | .1  | 41   | 18 | 47   | 2  | 2 | 26 |
|      | 13+50     | .010 | 3  | 74   | 12 | 90  | .2  | 50   | 25 | 54   | 2  | 2 | 27 |
|      | 14        | .005 | 3  | 28   | 5  | 48  | .4  | 31   | 14 | 47   | 2  | 1 | 28 |
|      | 14+50     | .005 | 2  | 24   | 7  | 122 | .2  | 26   | 13 | 26   | 2  | 1 | 29 |
|      | 15        | .005 | 2  | 28   | 7  | 91  | .2  | 29   | 17 | 33   | 2  | 1 | 30 |
|      | 15+50     | .005 | 2  | 18   | 6  | 76  | .1  | 21   | 13 | 35   | 2  | 1 | 31 |
| 0+00 | 16 N      | .830 | 2  | 29   | 8  | 81  | .2  | 24   | 12 | 39   | 2  | 1 | 32 |
| 2S   | 0+50 E    | .005 | 3  | 108  | 11 | 154 | 1.1 | 63   | 26 | 32   | 2  | 1 | 34 |
|      | 1         | .005 | 8  | 199  | 12 | 148 | 2.0 | 96   | 26 | 68   | 2  | 1 | 35 |
|      | 1+50      | .005 | 4  | 47   | 6  | 137 | .4  | 39   | 20 | 25   | 2  | 2 | 36 |
|      | 3+50      | .005 | 2  | 30   | 7  | 90  | .3  | 31   | 16 | 29   | 2  | 1 | 37 |
|      | 5         | .125 | 2  | 13   | 6  | 63  | .1  | 14   | 10 | 13   | 2  | 1 | 38 |
|      | 5+50      | .210 | 2  | 28   | 6  | 101 | .2  | 28   | 11 | 18   | 2  | 1 | 39 |
| 2S   | 6 E       | .005 | 2  | 33 ✓ | 5  | 101 | .2  | 28 ✓ | 11 | 21 ✓ | 2  | 1 | 40 |

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DIGESTION: .....

DETERMINATION: .....

DATE SAMPLES RECEIVED Dec. 7, 1981

DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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



To: Carolin Mines Ltd.,

File No. 81-1903

## GEOCHEMICAL ASSAY CERTIFICATE

Type of Samples

Disposition

S.G.

3

| SAMPLE No. | Au   | Mo  | Cu  | Ph  | Zn  | Ag  | Ni | Co  | As  | Sb | W  |    |  |
|------------|------|-----|-----|-----|-----|-----|----|-----|-----|----|----|----|--|
| 2S 0+50 W  | .005 | 2   | 24  | 8   | 69  | .2  | 26 | 11  | 15  | 2  | 1  | 1  |  |
| 1 .025     | 2    | 45  | 11  | 74  | .2  | 23  | 14 | 41  | 2   | 1  | 2  |    |  |
| 1+50 .005  | 3    | 65  | 16  | 117 | .1  | 33  | 21 | 70  | 2   | 1  | 3  |    |  |
| 2 .010     | 2    | 37  | 11  | 82  | .3  | 30  | 12 | 30  | 2   | 1  | 4  |    |  |
| 2+50 .005  | 2    | 15  | 9   | 103 | .2  | 15  | 10 | 16  | 2   | 1  | 5  |    |  |
| 3 .010     | 3    | 24  | 6   | 120 | .2  | 24  | 14 | 19  | 2   | 1  | 6  |    |  |
| 3+50 .005  | 2    | 23  | 9   | 69  | .2  | 21  | 12 | 23  | 2   | 1  | 7  |    |  |
| 4 .005     | 2    | 80  | 16  | 153 | .2  | 65  | 41 | 106 | 2   | 1  | 8  |    |  |
| 4+50 .005  | 2    | 35  | 14  | 148 | .3  | 30  | 16 | 90  | 2   | 1  | 9  |    |  |
| 5 .005     | 2    | 36  | 15  | 124 | .3  | 23  | 31 | 39  | 2   | 1  | 10 |    |  |
| 5+50 .035  | 2    | 29  | 7   | 98  | .1  | 30  | 15 | 24  | 2   | 1  | 11 |    |  |
| 6 .005     | 2    | 81  | 14  | 129 | .4  | 34  | 29 | 52  | 2   | 1  | 12 |    |  |
| 6+50 .005  | 2    | 40  | 12  | 95  | .4  | 40  | 21 | 53  | 2   | 1  | 13 |    |  |
| 7 .005     | 2    | 69  | 13  | 79  | .3  | 42  | 23 | 89  | 2   | 1  | 14 |    |  |
| 7+50 .010  | 2    | 91  | 10  | 90  | .1  | 44  | 24 | 95  | 2   | 1  | 15 |    |  |
| 8 .015     | 3    | 117 | 9   | 78  | .1  | 56  | 31 | 209 | 7   | 1  | 16 |    |  |
| 8+50 .025  | 2    | 271 | 13  | 122 | .1  | 28  | 59 | 100 | 2   | 1  | 17 |    |  |
| 9 .005     | 2    | 44  | 8   | 89  | .2  | 35  | 21 | 103 | 2   | 1  | 18 |    |  |
| 9+50 .240  | 2    | 135 | 12  | 88  | .2  | 51  | 39 | 56  | 2   | 1  | 19 |    |  |
| 10 .020    | 2    | 51  | 8   | 136 | .2  | 31  | 27 | 92  | 2   | 1  | 20 |    |  |
| 10+50 .005 | 4    | 119 | 20  | 196 | .3  | 54  | 31 | 92  | 3   | 1  | 21 |    |  |
| 11 .005    | 1    | 133 | 16  | 172 | .3  | 65  | 58 | 36  | 2   | 1  | 22 |    |  |
| 11+50 .075 | 1    | 84  | 10  | 75  | .2  | 34  | 26 | 24  | 2   | 1  | 23 |    |  |
| 12 .015    | 1    | 125 | 18  | 89  | .2  | 47  | 29 | 61  | 2   | 1  | 24 |    |  |
| 12+50 .005 | 1    | 81  | 13  | 141 | .4  | 42  | 24 | 34  | 2   | 1  | 25 |    |  |
| 2S 13 W    | .005 | 2   | 26  | 7   | 97  | .3  | 30 | 15  | 20  | 2  | 1  | 26 |  |
| 2N 0+50 W  | .005 | 2   | 50  | 10  | 64  | .1  | 29 | 13  | 25  | 2  | 1  | 28 |  |
| 1 ✓.050    | 1    | 33  | 10  | 54  | .1  | 21  | 10 | 21  | 2   | 1  | 29 |    |  |
| 1+50 .005  | 1    | 19  | 9   | 60  | .2  | 17  | 9  | 20  | 2   | 1  | 30 |    |  |
| 2 .035     | 3    | 24  | 7   | 109 | .?  | 33  | 13 | 30  | 2   | 1  | 31 |    |  |
| 2+50 .005  | 1    | 24  | 10  | 90  | .2  | 22  | 14 | 30  | 2   | 1  | 32 |    |  |
| 3 .005     | 2    | 41  | 11  | 98  | .5  | 25  | 17 | 25  | 2   | 1  | 33 |    |  |
| 3+50 .025  | 4    | 330 | 155 | 99  | .1  | 132 | 64 | 68  | 2   | 1  | 34 |    |  |
| 4 .005     | 1    | 63  | 16  | 148 | .6  | 34  | 23 | 53  | 2   | 1  | 35 |    |  |
| 4+50 .015  | 3    | 78  | 7   | 75  | .2  | 53  | 26 | 65  | 2   | 1  | 36 |    |  |
| 5 .010     | 1    | 212 | 11  | 84  | .1  | 92  | 51 | 86  | 2   | 1  | 37 |    |  |
| 2N 5+50 W  | .005 | 1   | 48  | 10  | 109 | .2  | 33 | 20  | 138 | 2  | 1  | 38 |  |
|            |      |     |     |     |     | ✓   | ✓  | ✓   |     |    |    | 39 |  |
|            |      |     |     |     |     |     |    |     |     |    |    | 40 |  |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

DATE SAMPLES RECEIVED Dec. 7, 1981

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ASSAYER

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

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

S.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| 4    | SAMPLE No             | Au    | Mo | Cu  | Pb | Zn  | Ag  | Ni | Co | As  | Sb | W |    |
|------|-----------------------|-------|----|-----|----|-----|-----|----|----|-----|----|---|----|
| 2N   | F W                   | .005  | 2  | 69  | 7  | 108 | .2  | 48 | 22 | 102 | 2  | 1 | 1  |
|      | F+50                  | .005  | 2  | 52  | 4  | 101 | .2  | 48 | 24 | 66  | 2  | 1 | 2  |
| 7    | Gill grid             | .005  | 1  | 43  | 4  | 104 | .2  | 53 | 24 | 45  | 2  | 1 | 3  |
| 7+50 | Gill grid             | .005  | 1  | 35  | 2  | 83  | .2  | 36 | 19 | 29  | 2  | 1 | 4  |
| 8    | Gill grid             | .005  | 2  | 29  | 7  | 97  | .2  | 32 | 16 | 28  | 2  | 1 | 5  |
| 8+50 | Gill grid             | .035  | 1  | 54  | 5  | 105 | .2  | 33 | 28 | 39  | 2  | 1 | 6  |
| 2N   | W                     | .005  | 1  | 38  | 6  | 75  | .2  | 34 | 20 | 44  | 2  | 1 | 7  |
|      | Where is 2N East side |       |    |     |    |     |     |    |    |     |    |   | 8  |
| 4N   | 0+50 E                | .005  | 2  | 18  | 5  | 146 | .2  | 23 | 12 | 22  | 2  | 1 | 9  |
| 1    |                       | .005  | 5  | 69  | 7  | 220 | .6  | 68 | 17 | 25  | 4  | 1 | 10 |
| 1+50 |                       | .005  | 3  | 25  | 8  | 81  | .2  | 26 | 13 | 26  | 2  | 1 | 11 |
| 2    |                       | .005  | 2  | 22  | 4  | 82  | .2  | 24 | 12 | 18  | 2  | 1 | 12 |
| 2+50 |                       | .005  | 1  | 17  | 4  | 85  | .2  | 23 | 10 | 10  | 2  | 1 | 13 |
| 3    |                       | .005  | 2  | 27  | 4  | 91  | .2  | 27 | 11 | 18  | 2  | 1 | 14 |
| 3+50 |                       | .055  | 4  | 40  | 7  | 87  | .1  | 34 | 13 | 30  | 3  | 1 | 15 |
| 4    |                       | .005  | 3  | 37  | 8  | 133 | .2  | 34 | 18 | 25  | 3  | 1 | 16 |
| 4+50 |                       | .005  | 2  | 26  | 3  | 76  | .2  | 24 | 12 | 18  | 2  | 1 | 17 |
| 5    |                       | .015  | 2  | 34  | 3  | 65  | .2  | 30 | 14 | 16  | 2  | 1 | 18 |
| 6    |                       | .005  | 2  | 28  | 4  | 98  | .2  | 26 | 13 | 12  | 2  | 1 | 19 |
| 4N   | 6+50 E                | 1.010 | 3  | 21  | 8  | 65  | .4  | 23 | 7  | 20  | 2  | 1 | 20 |
|      |                       |       |    |     |    |     |     |    |    |     |    |   | 21 |
| 4N   | 1 W                   | .005  | 2  | 26  | 5  | 144 | .4  | 30 | 20 | 25  | 2  | 1 | 22 |
| 1+50 |                       | .005  | 2  | 42  | 7  | 74  | .1  | 37 | 15 | 26  | 2  | 1 | 23 |
| 2    |                       | .005  | 2  | 19  | 6  | 88  | .2  | 21 | 10 | 22  | 2  | 1 | 24 |
| 2+50 |                       | .005  | 3  | 28  | 5  | 126 | .2  | 35 | 15 | 29  | 2  | 1 | 25 |
| 3    |                       | .005  | 2  | 37  | 10 | 91  | .4  | 33 | 13 | 37  | 2  | 1 | 26 |
| 3+50 |                       | .005  | 2  | 44  | 6  | 71  | .4  | 34 | 17 | 38  | 2  | 1 | 27 |
| 4    |                       | .005  | 2  | 75  | 6  | 115 | .3  | 46 | 22 | 75  | 2  | 1 | 28 |
| 4+50 |                       | .025  | 2  | 62  | 7  | 122 | .1  | 59 | 28 | 65  | 2  | 1 | 29 |
| 4N   | 5 W                   | .195  | 3  | 100 | 7  | 107 | .2  | 49 | 27 | 75  | 2  | 1 | 30 |
|      |                       |       |    |     |    |     |     |    |    |     |    |   | 31 |
| 6N   | 1 E                   | .005  | 2  | 19  | 5  | 66  | .2  | 21 | 9  | 18  | 2  | 1 | 32 |
| 1+50 |                       | .005  | 2  | 19  | 5  | 90  | .1  | 22 | 11 | 16  | 2  | 1 | 33 |
| 2    |                       | .005  | 2  | 30  | 6  | 101 | .3  | 30 | 15 | 19  | 2  | 1 | 34 |
| 2+50 |                       | .005  | 2  | 101 | 4  | 25  | .9  | 39 | 7  | 27  | 3  | 1 | 35 |
| 3    |                       | .005  | 2  | 26  | 7  | 59  | .1  | 22 | 10 | 26  | 2  | 1 | 36 |
| 3+50 |                       | .005  | 2  | 22  | 6  | 78  | 1.0 | 25 | 10 | 21  | 2  | 1 | 37 |
| 4    |                       | .005  | 2  | 18  | 7  | 65  | .2  | 17 | 11 | 21  | 2  | 1 | 38 |
| 6N   | 4+50 E                | .005  | 2  | 19  | 4  | 132 | .1  | 23 | 11 | 16  | 2  | 1 | 39 |
|      |                       |       |    |     |    |     |     |    |    |     |    |   | 40 |

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DETERMINATION: \_\_\_\_\_

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ASSAYER

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





To Carolin Mines Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

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

Phone 253-3158

File No. 81-1003

Type of Samples

Disposition

S.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| SAMPLE No.      | Au     | Mo | Cu  | Pb | Zn  | Ag   | Ni   | Co   | As   | Sb | W |    |
|-----------------|--------|----|-----|----|-----|------|------|------|------|----|---|----|
| 6N 5+ E         | .030 ✓ | 2  | 18  | 4  | 66  | .3   | 21   | 8    | 10   | ?  | 1 | 1  |
| 5+50            | .020   | 1  | 28  | 12 | 81  | .3   | 27   | 21   | 13   | 2  | 1 | 2  |
| 6N >6+50 E (6E) | .005   | 2  | 34  | 13 | 88  | .6   | 31   | 16   | 17   | 2  | 1 | 3  |
| 6N 0+50 W       | .005   | 1  | 35  | 9  | 68  | .1   | 27   | 13   | 22   | 2  | 1 | 5  |
| 1               | .035   | 2  | 40  | 7  | 65  | .1   | 34   | 14   | 31   | 2  | 1 | 6  |
| 1+50            | .005   | 2  | 48  | 16 | 110 | .3   | 37   | 18   | 54   | 2  | 1 | 7  |
| 2               | .130   | 2  | 58  | 18 | 35  | .7   | 48   | 20   | 47   | 2  | 1 | 8  |
| 2+50            | .075   | 1  | 44  | 15 | 80  | .4   | 41   | 18   | 33   | 2  | 1 | 9  |
| 6N 3 W          | .035   | 2  | 56  | 21 | 79  | .4   | 41   | 24   | 49   | 2  | 1 | 10 |
| 8N 0+50 E       | .005   | 3  | 24  | 7  | 119 | .5   | 21   | 12   | 27   | 2  | 1 | 11 |
| 1               | .005   | 2  | 20  | 10 | 75  | .1   | 21   | 10   | 22   | 2  | 1 | 12 |
| 1+50            | .005   | 2  | 42  | 20 | 93  | .5   | 28   | 16   | 35   | 2  | 1 | 13 |
| 2               | .005   | 2  | 25  | 10 | 66  | .3   | 22   | 11   | 17   | 2  | 1 | 14 |
| 2+50            | .005   | 1  | 14  | 8  | 64  | .1   | 17   | 9    | 10   | 2  | 1 | 15 |
| 3               | .005   | 3  | 28  | 6  | 69  | .5   | 26   | 12   | 18   | 2  | 1 | 16 |
| 3+50            | .005   | 2  | 23  | 11 | 100 | .2   | 25   | 11   | 13   | 2  | 1 | 17 |
| 4               | .005   | 2  | 32  | 12 | 89  | .1   | 29   | 15   | 20   | 2  | 1 | 18 |
| 4+50            | .005   | 2  | 24  | 16 | 102 | .2   | 23   | 15   | 21   | 2  | 1 | 19 |
| 5               | .005   | 1  | 17  | 9  | 69  | .1   | 19   | 14   | 10   | 2  | 1 | 20 |
| 5+50            | .005   | 3  | 22  | 7  | 74  | .4   | 18   | 9    | 17   | 2  | 1 | 21 |
| 6               | .005   | 2  | 37  | 11 | 104 | .1   | 27   | 13   | 23   | 2  | 1 | 22 |
| 8N 6+50 E       | .235   | 1  | 22  | 9  | 91  | .1   | 20   | 9    | 16   | 2  | 1 | 23 |
| 8N 0+50 W       | .050   | 1  | 35  | 12 | 76  | .6   | 28   | 15   | 24   | 2  | 1 | 24 |
| 1               | .005   | 1  | 27  | 11 | 83  | .3   | 26   | 16   | 23   | 2  | 1 | 25 |
| 1+50            | .325   | 3  | 24  | 6  | 88  | .1   | 30   | 12   | 26   | ?  | 1 | 26 |
| 2               | .005   | 2  | 49  | 12 | 72  | .1   | 28   | 15   | 31   | 2  | 1 | 27 |
| 2+50            | .065   | 1  | 15  | 11 | 98  | .2   | 17   | 11   | 16   | 2  | 1 | 28 |
| 3               | .005   | 2  | 40  | 17 | 138 | .1   | 32   | 20   | 50   | 2  | 1 | 29 |
| 3+50            | .005   | 1  | 103 | 11 | 101 | .1   | 54   | 31   | 64   | 2  | 1 | 30 |
| 8N 4 W          | .005   | 2  | 42  | 7  | 101 | .1   | 35   | 20   | 39   | 2  | 1 | 31 |
| 10N 0+50 E      | .005   | 2  | 38  | 11 | 79  | .1   | 30   | 17   | 25   | 2  | 1 | 32 |
| 1.              | .005   | 3  | 59  | 15 | 93  | .1   | 36   | 18   | 37   | 2  | 1 | 33 |
| 1+50            | .005   | 1  | 25  | 12 | 89  | .1   | 27   | 13   | 24   | 2  | 1 | 34 |
| 2               | N.S.   |    |     |    |     |      |      |      |      |    |   | 35 |
| 10N 2+50 E      | .005 ✓ | 2  | 25  | 6  | 82  | .3 ✓ | 26 ✓ | 11 ✓ | 19 ✓ | 2  | 1 | 36 |
|                 |        |    |     |    |     |      |      |      |      |    |   | 37 |
|                 |        |    |     |    |     |      |      |      |      |    |   | 38 |
|                 |        |    |     |    |     |      |      |      |      |    |   | 39 |
|                 |        |    |     |    |     |      |      |      |      |    |   | 40 |

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DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

*D. Toye*

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

To: Carolin Mines Ltd.,

Assaying &amp; Trace Analysis

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

Phone 253 3158

File No. 81-1003

Type of Samples

Disposition

S.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| SAMPLE No.   | Au   | Mo | Cu | Pb | Zr  | Ag  | Ni | Co | As | Sb | W |    |
|--------------|------|----|----|----|-----|-----|----|----|----|----|---|----|
| 10N 5 E      | .005 | 2  | 15 | 9  | 83  | .2  | 20 | 10 | 16 | 2  | 1 | 1  |
| 3+50         | .035 | 2  | 30 | 9  | 67  | .2  | 26 | 11 | 22 | 2  | 1 | 2  |
| 4            | .010 | 2  | 35 | 15 | 89  | .2  | 29 | 11 | 29 | 2  | 1 | 3  |
| 4+50         | .015 | 2  | 21 | 8  | 59  | .1  | 20 | 8  | 13 | 2  | 1 | 4  |
| 5            | .005 | 2  | 12 | 11 | 79  | .4  | 15 | 10 | 13 | 2  | 1 | 5  |
| 5+50         | .005 | 4  | 42 | 10 | 86  | .5  | 38 | 21 | 24 | 2  | 1 | 6  |
| 6            | .015 | 2  | 20 | 8  | 66  | .1  | 18 | 7  | 17 | 2  | 1 | 7  |
| 10N 6+50 E   | .005 | 2  | 28 | 12 | 81  | .4  | 25 | 9  | 27 | 2  | 1 | 8  |
|              |      |    |    |    |     |     |    |    |    |    |   | 9  |
| 10N 0+50 W   | .025 | 2  | 21 | 9  | 108 | .4  | 18 | 11 | 31 | 2  | 1 | 10 |
| 1            | .005 | 3  | 20 | 5  | 70  | .2  | 21 | 10 | 25 | 2  | 1 | 11 |
| 1+50         | .065 | 2  | 29 | 11 | 90  | .3  | 26 | 12 | 26 | 2  | 1 | 12 |
| 2            | .020 | 2  | 50 | 12 | 87  | .2  | 33 | 15 | 37 | 2  | 1 | 13 |
| 2+50         | .060 | 2  | 27 | 10 | 57  | .1  | 21 | 11 | 28 | 2  | 1 | 14 |
| 3            | .005 | 2  | 25 | 8  | 62  | .1  | 24 | 12 | 26 | 2  | 1 | 15 |
| 3+50         | .020 | 6  | 80 | 13 | 79  | .3  | 48 | 27 | 57 | 4  | 1 | 16 |
| 4            | .005 | 2  | 49 | 11 | 68  | .2  | 32 | 17 | 45 | 2  | 1 | 17 |
| 4+50         | .005 | 2  | 28 | 6  | 101 | .2  | 28 | 17 | 34 | 2  | 1 | 18 |
| 5            | .025 | 2  | 32 | 11 | 92  | .1  | 32 | 18 | 78 | 2  | 1 | 19 |
| 5+50         | .005 | 2  | 13 | 10 | 46  | .1  | 10 | 8  | 21 | 2  | 1 | 20 |
| 10N 6 W      | .085 | 3  | 82 | 7  | 85  | .2  | 44 | 24 | 52 | 2  | 2 | 21 |
|              |      |    |    |    |     |     |    |    |    |    |   | 22 |
| 12N 0+50 E   | .035 | 2  | 47 | 14 | 96  | .4  | 38 | 21 | 43 | 2  | 1 | 23 |
| 1            | .010 | 2  | 20 | 10 | 90  | .2  | 19 | 10 | 29 | 2  | 1 | 24 |
| 1+50         | .005 | 2  | 22 | 10 | 107 | .2  | 25 | 13 | 25 | 2  | 1 | 25 |
| 3            | .040 | 2  | 16 | 6  | 86  | .2  | 22 | 10 | 15 | 2  | 1 | 26 |
| 3+50         | .015 | 2  | 14 | 9  | 85  | .2  | 17 | 9  | 13 | 2  | 1 | 27 |
| 4            | .025 | 2  | 41 | 6  | 74  | .2  | 31 | 16 | 29 | 2  | 1 | 28 |
| 4+50         | .005 | 2  | 25 | 8  | 69  | .1  | 20 | 8  | 19 | 2  | 1 | 29 |
| 5            | .005 | 2  | 25 | 10 | 106 | 1.6 | 24 | 12 | 25 | 2  | 1 | 30 |
| 5+50         | .005 | 4  | 27 | 8  | 88  | .3  | 27 | 11 | 20 | 2  | 1 | 31 |
| 6            | .005 | 2  | 12 | 7  | 100 | .1  | 16 | 8  | 16 | 2  | 1 | 32 |
| 6+50         | .035 | 2  | 43 | 12 | 81  | .2  | 29 | 13 | 39 | 2  | 1 | 33 |
| 12N 7 E      | .045 | 2  | 30 | 11 | 68  | .1  | 24 | 9  | 28 | 2  | 1 | 34 |
|              |      |    |    |    |     |     |    |    |    |    |   | 35 |
| 12N 0+50 W   | .005 | 3  | 63 | 9  | 102 | .2  | 43 | 21 | 54 | 2  | 1 | 36 |
| 1            | .065 | 2  | 29 | 6  | 97  | .1  | 24 | 14 | 29 | 2  | 1 | 37 |
| 1+50         | .005 | 2  | 61 | 10 | 90  | .2  | 37 | 18 | 67 | 2  | 1 | 38 |
| 12N > 2+50 W | .125 | 2  | 28 | 8  | 115 | .2  | 27 | 16 | 29 | 2  | 1 | 39 |
|              |      |    |    |    |     |     |    |    |    |    |   | 40 |

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CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To Carol n Mines Ltd.,

Assaying &amp; Trace Analysis

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

phone.253-3158

81-1903

File No.

Type of Samples

Disposition

S.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | W |    |
|------------|------|----|-----|----|-----|----|----|----|-----|----|---|----|
| 12N 3+50 W | .005 | 1  | 28  | 12 | 98  | .2 | 27 | 19 | 37  | 2  | 1 | 1  |
| 4          | .005 | 3  | 69  | 7  | 97  | .2 | 39 | 20 | 56  | 2  | 1 | 2  |
| 4+50       | .005 | 2  | 75  | 14 | 101 | .1 | 32 | 19 | 110 | 2  | 1 | 3  |
| 5.         | .005 | 1  | 67  | 14 | 122 | .2 | 38 | 20 | 61  | 2  | 1 | 4  |
| >5+50      | .005 | 1  | 18  | 9  | 76  | .1 | 17 | 12 | 17  | 2  | 1 | 5  |
| 6+50       | .005 | 5  | 68  | 15 | 48  | .1 | 6  | 16 | 160 | 8  | 1 | 6  |
| 12N 7 W    | .005 | 4  | 100 | 32 | 64  | .3 | 9  | 12 | 538 | 10 | 1 | 7  |
|            |      |    |     |    |     |    |    |    |     |    |   | 8  |
| 14N 0+50 E | .025 | 2  | 35  | 12 | 86  | .4 | 30 | 14 | 38  | 2  | 1 | 9  |
| 1          | .005 | 1  | 21  | 12 | 86  | .1 | 25 | 12 | 30  | 2  | 1 | 10 |
| 1+50       | .020 | 1  | 18  | 12 | 61  | .1 | 20 | 10 | 25  | 2  | 1 | 11 |
| 2          | .020 | 3  | 35  | 7  | 93  | .3 | 37 | 14 | 26  | 2  | 1 | 12 |
| 2+50       | .005 | 1  | 24  | 12 | 90  | .1 | 26 | 12 | 24  | 2  | 1 | 13 |
| 3          | .005 | 1  | 21  | 9  | 89  | .1 | 20 | 11 | 21  | 2  | 1 | 14 |
| 3+50       | .005 | 3  | 42  | 14 | 91  | .2 | 32 | 18 | 39  | 2  | 1 | 15 |
| 4.         | .005 | 2  | 22  | 12 | 68  | .2 | 21 | 11 | 28  | 2  | 1 | 16 |
| 4+50       | .005 | 3  | 23  | 8  | 116 | .2 | 28 | 14 | 23  | 2  | 1 | 17 |
| 5          | .005 | 2  | 46  | 14 | 83  | .2 | 32 | 15 | 36  | 2  | 1 | 18 |
| 5+50       | .005 | 2  | 30  | 13 | 107 | .1 | 34 | 15 | 26  | 2  | 1 | 19 |
| 6          | .005 | 2  | 17  | 7  | 65  | .1 | 17 | 9  | 14  | 2  | 1 | 20 |
| 14N 6+50 E | .005 | 2  | 27  | 12 | 96  | .4 | 27 | 15 | 25  | 2  | 1 | 21 |
|            |      |    |     |    |     |    |    |    |     |    |   | 22 |
| 14N 0+50 W | .455 | 3  | 55  | 7  | 85  | .1 | 38 | 17 | 60  | 2  | 2 | 23 |
| 1          | .005 | 1  | 26  | 15 | 134 | .2 | 28 | 20 | 42  | 2  | 1 | 24 |
| 1+50       | .005 | 1  | 31  | 11 | 117 | .1 | 27 | 16 | 27  | 2  | 1 | 25 |
| 2          | .005 | 1  | 32  | 11 | 90  | .1 | 27 | 15 | 30  | 2  | 1 | 26 |
| 2+50       | .005 | 2  | 21  | 11 | 87  | .1 | 24 | 13 | 28  | 2  | 1 | 27 |
| 3          | .015 | 2  | 15  | 7  | 79  | .2 | 15 | 9  | 34  | 2  | 1 | 28 |
| 3+50       | .005 | 1  | 22  | 13 | 93  | .1 | 24 | 13 | 21  | 2  | 1 | 29 |
| 4          | .005 | 3  | 80  | 17 | 117 | .1 | 40 | 21 | 104 | 2  | 1 | 30 |
| 4+50       | .250 | 2  | 35  | 11 | 67  | .1 | 23 | 15 | 28  | 2  | 1 | 31 |
| 5          | .005 | 2  | 119 | 15 | 150 | .1 | 34 | 24 | 34  | 2  | 1 | 32 |
| 5+50       | .005 | 2  | 54  | 10 | 187 | .2 | 55 | 36 | 18  | 2  | 1 | 33 |
| 6          | .005 | 1  | 50  | 18 | 197 | .3 | 35 | 44 | 18  | 2  | 2 | 34 |
| 14N 6+50 W | .005 | 1  | 169 | 18 | 67  | .1 | 34 | 41 | 18  | 2  | 1 | 35 |
|            |      |    |     |    |     |    |    |    |     |    |   | 36 |
| 16N 0+50 E | .035 | 3  | 71  | 17 | 95  | .2 | 52 | 26 | 63  | 2  | 1 | 37 |
| 1          | .005 | 2  | 14  | 4  | 28  | .1 | 13 | 6  | 20  | 2  | 1 | 38 |
| 16N 1+50 E | .045 | 2  | 24  | 12 | 79  | .1 | 28 | 14 | 32  | 2  | 1 | 39 |
|            |      |    |     |    |     |    |    |    |     |    |   | 40 |

All reports are the confidential property of clients  
All results are in PPM.

DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

DATE SAMPLES RECEIVED Dec. 7, 1981

DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

*D. Toye*

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

To: Carolin Mines Ltd.,

File No. 81-1903

Type of Samples

Disposition

S.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| S    | SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag  | Ni  | Co | As  | Sb | W |    |
|------|------------|------|----|-----|----|-----|-----|-----|----|-----|----|---|----|
|      |            |      |    |     |    |     |     |     |    |     |    |   |    |
| 16N  | 2 F        | .005 | 2  | 17  | 8  | 80  | .2  | 29  | 13 | 16  | 2  | 1 | 1  |
|      | 2+50       | .045 | 4  | 39  | 10 | 58  | .1  | 29  | 12 | 32  | 2  | 1 | 2  |
|      | 3          | .005 | 4  | 22  | 11 | 79  | .1  | 22  | 11 | 36  | 2  | 1 | 3  |
|      | 3+50       | .005 | 5  | 53  | 7  | 95  | .3  | 46  | 15 | 49  | 2  | 1 | 4  |
|      | 4          | .450 | 5  | 54  | 11 | 90  | .2  | 33  | 15 | 72  | 2  | 1 | 5  |
|      | 4+50       | .045 | 2  | 13  | 6  | 78  | .1  | 15  | 8  | 18  | 2  | 1 | 6  |
|      | 5          | .005 | 3  | 23  | 9  | 80  | .1  | 28  | 11 | 26  | 2  | 1 | 7  |
|      | 5+50       | .005 | 3  | 29  | 5  | 64  | .2  | 27  | 10 | 27  | 2  | 1 | 8  |
| 16N  | 6 E        | .005 | 2  | 16  | 4  | 47  | .4  | 17  | 8  | 21  | 2  | 1 | 9  |
|      | 6+50       | .005 | 3  | 25  | 8  | 79  | .1  | 27  | 12 | 44  | 2  | 1 | 10 |
| 16N  | 0+50 W     | .005 | 3  | 30  | 10 | 109 | .1  | 27  | 24 | 29  | 2  | 1 | 11 |
|      | 1          | .005 | 2  | 38  | 10 | 100 | .1  | 39  | 23 | 54  | 2  | 1 | 12 |
|      | 1+50       | .035 | 3  | 49  | 8  | 141 | .3  | 44  | 19 | 106 | 3  | 1 | 13 |
|      | 2          | .030 | 4  | 67  | 6  | 107 | .1  | 32  | 22 | 72  | 2  | 1 | 14 |
|      | 2+50       | .005 | 2  | 21  | 7  | 159 | .1  | 28  | 21 | 69  | 2  | 1 | 15 |
|      | 3          | .005 | 2  | 21  | 10 | 160 | .6  | 17  | 13 | 30  | 2  | 1 | 16 |
|      | 3+50       | .005 | 4  | 21  | 15 | 167 | .1  | 27  | 21 | 21  | 2  | 1 | 17 |
|      | 4          | .005 | 4  | 37  | 9  | 240 | .3  | 26  | 25 | 36  | 2  | 2 | 18 |
|      | 5          | .005 | 5  | 72  | 9  | 240 | .3  | 26  | 25 | 36  | 2  | 2 | 19 |
|      | 5+50       | .005 | 5  | 69  | 14 | 273 | .1  | 37  | 29 | 20  | 2  | 2 | 20 |
| 16N  | 6 W        | .005 | 5  | 33  | 13 | 599 | .8  | 36  | 28 | 25  | 2  | 3 | 21 |
|      | 6+50       | .005 | 5  | 33  | 13 | 599 | .8  | 36  | 28 | 25  | 2  | 3 | 22 |
| 0+00 | 1+50 E     | .005 | 3  | 39  | 11 | 119 | .2  | 36  | 16 | 40  | 2  | 1 | 23 |
|      | 2          | .005 | 4  | 44  | 6  | 91  | .3  | 42  | 17 | 44  | 2  | 1 | 24 |
|      | 2+50       | .005 | 4  | 36  | 11 | 92  | .2  | 35  | 15 | 38  | 2  | 1 | 25 |
|      | 3          | .005 | 1  | 87  | 16 | 128 | 4.3 | 73  | 15 | 18  | 2  | 1 | 26 |
|      | 3+50       | .005 | 5  | 32  | 13 | 129 | .2  | 30  | 12 | 29  | 2  | 1 | 27 |
|      | 4          | .005 | 5  | 28  | 10 | 73  | .1  | 24  | 10 | 32  | 2  | 1 | 28 |
|      | 4+50       | .005 | 4  | 30  | 8  | 124 | .2  | 31  | 12 | 29  | 3  | 1 | 29 |
|      | 5          | .005 | 5  | 43  | 8  | 80  | .2  | 29  | 11 | 40  | 2  | 1 | 30 |
|      | 5+50       | .030 | 5  | 38  | 11 | 78  | .3  | 26  | 12 | 40  | 2  | 1 | 31 |
|      | 6          | .015 | 5  | 60  | 16 | 106 | .4  | 47  | 18 | 66  | 2  | 1 | 32 |
| 0+00 | 6+50 E     | .005 | 3  | 21  | 8  | 86  | .2  | 23  | 8  | 24  | 2  | 1 | 33 |
|      | 6+50       | .005 | 3  | 21  | 8  | 86  | .2  | 23  | 8  | 24  | 2  | 1 | 34 |
| 0+00 | 0+50 W     | .005 | 6  | 160 | 18 | 137 | 2.7 | 101 | 24 | 56  | 2  | 2 | 35 |
|      | 1          | .005 | 2  | 16  | 6  | 38  | .3  | 17  | 7  | 24  | 2  | 1 | 36 |
|      | 1+50       | .005 | 2  | 15  | 7  | 58  | .2  | 15  | 7  | 18  | 2  | 1 | 37 |
|      | 2          | .005 | 3  | 24  | 6  | 51  | .1  | 22  | 12 | 20  | 2  | 1 | 38 |
| 0+00 | 2+50 W     | .005 | 2  | 37  | 6  | 67  | .4  | 31  | 16 | 38  | 2  | 1 | 39 |
|      | 2+50       | .005 | 2  | 37  | 6  | 67  | .4  | 31  | 16 | 38  | 2  | 1 | 40 |

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

To Carolin Mines Ltd.,

Assaying & Trace Analysis  
857 E Hastings St. Vancouver B.C. V6A 1R6  
Phone 253-3158

File No. 81-1903

Type of Samples \_\_\_\_\_  
Disposition \_\_\_\_\_

S.G.

## GEOCHEMICAL ASSAY CERTIFICATE

8A

| SAMPLE No. |        | Au   | Mo | Cu | Pb | Zn  | Ag | Ni | Co | As | Sb | W |    |
|------------|--------|------|----|----|----|-----|----|----|----|----|----|---|----|
| 0+00       | 3 W    | .005 | 4  | 39 | 6  | 104 | .1 | 37 | 15 | 21 | 2  | 2 | 1  |
| 0+00       | 3+50 W | .005 | 2  | 37 | 16 | 85  | .5 | 29 | 19 | 35 | 2  | 1 | 2  |
| 2S         | 2 E    | .005 | 2  | 32 | 13 | 87  | .3 | 20 | 15 | 14 | 2  | 1 | 4  |
|            | 2+50   | .005 | 4  | 64 | 17 | 98  | .6 | 40 | 17 | 22 | 2  | 1 | 5  |
|            | 3      | .005 | 3  | 15 | 8  | 112 | .4 | 26 | 14 | 14 | 2  | 1 | 6  |
|            | 3+50   | .005 | 2  | 29 | 13 | 83  | .2 | 21 | 11 | 17 | 12 | 1 | 7  |
| 2S         | 4 E    | .005 | 2  | 25 | 13 | 107 | .3 | 19 | 10 | 16 | 2  | 1 | 8  |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 9  |
| 2N         | 0+50 E | .005 | 2  | 32 | 14 | 120 | .3 | 23 | 12 | 27 | 2  | 1 | 10 |
| 1          |        | .005 | 5  | 30 | 4  | 82  | .2 | 25 | 10 | 25 | 2  | 1 | 11 |
| 1+50       |        | .010 | 2  | 22 | 13 | 119 | .3 | 20 | 12 | 20 | 2  | 1 | 12 |
| 2          |        | .005 | 2  | 27 | 12 | 71  | .2 | 26 | 18 | 15 | 2  | 1 | 13 |
| 2+50       |        | .005 | 2  | 18 | 9  | 57  | .3 | 17 | 7  | 10 | 2  | 1 | 14 |
| 3          |        | .005 | 2  | 23 | 12 | 94  | .2 | 22 | 9  | 14 | 2  | 1 | 15 |
| 4          |        | .020 | 4  | 30 | 7  | 101 | .5 | 32 | 11 | 20 | ?  | 2 | 16 |
| 4+50       |        | .005 | 2  | 20 | 10 | 90  | .3 | 20 | 8  | 10 | 2  | 1 | 17 |
| 5          |        | .005 | 2  | 13 | 8  | 65  | .1 | 16 | 5  | 8  | 2  | 1 | 18 |
| 5+50       |        | .005 | 3  | 18 | 11 | 77  | .2 | 20 | 11 | 10 | 2  | 1 | 19 |
| 6          |        | .015 | 2  | 17 | 9  | 59  | .4 | 21 | 6  | 11 | 2  | 1 | 20 |
| 2N         | 6+50 E | .090 | 3  | 18 | 5  | 65  | .3 | 16 | 6  | 18 | 2  | 1 | 21 |
|            |        |      |    | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓  |    |   | 22 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 23 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 24 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 25 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 26 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 27 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 28 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 29 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 30 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 31 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 32 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 33 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 34 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 35 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 36 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 37 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 38 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 39 |
|            |        |      |    |    |    |     |    |    |    |    |    |   | 40 |

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DETERMINATION: \_\_\_\_\_

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ASSAYER

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

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

C.G.

9

| SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | H |    |
|------------|------|----|-----|----|-----|----|----|----|-----|----|---|----|
| 0+00       | .010 | 5  | 80  | 10 | 81  | .1 | 39 | 20 | 75  | 2  | 1 | 1  |
| 0+50 S     | .035 | 4  | 70  | 13 | 128 | .7 | 44 | 27 | 62  | 2  | 1 | 2  |
| 1          | .045 | 5  | 87  | 15 | 98  | .3 | 45 | 24 | 72  | 2  | 1 | 3  |
| 1+50       | .050 | 5  | 190 | 20 | 97  | .7 | 54 | 32 | 165 | 2  | 1 | 4  |
| 2          | .035 | 5  | 93  | 21 | 86  | .1 | 39 | 36 | 89  | 2  | 1 | 5  |
| 2 A        | .030 | 4  | 60  | 9  | 101 | .3 | 31 | 20 | 62  | 2  | 2 | 6  |
| 2+50       | .035 | 5  | 35  | 13 | 92  | .2 | 23 | 14 | 53  | 2  | 1 | 7  |
| 3          | .020 | 4  | 40  | 16 | 169 | .2 | 34 | 20 | 57  | 2  | 1 | 8  |
| 3+50       | .015 | 4  | 33  | 14 | 125 | .2 | 28 | 16 | 51  | 2  | 1 | 9  |
| 4          | .025 | 4  | 44  | 8  | 153 | .6 | 34 | 19 | 70  | 2  | 1 | 10 |
| 4+50       | .020 | 4  | 41  | 6  | 119 | .2 | 36 | 17 | 57  | 2  | 1 | 11 |
| 5          | .015 | 3  | 77  | 10 | 109 | .1 | 37 | 28 | 105 | 2  | 1 | 12 |
| 5+50       | .020 | 3  | 41  | 13 | 139 | .2 | 32 | 18 | 66  | 2  | 1 | 13 |
| 6          | .025 | 4  | 52  | 14 | 119 | .1 | 30 | 18 | 91  | 2  | 1 | 14 |
| 6+50       | .015 | 3  | 61  | 15 | 176 | .3 | 29 | 20 | 122 | 2  | 1 | 15 |
| 7          | .005 | 4  | 41  | 8  | 179 | .2 | 30 | 19 | 122 | 2  | 2 | 16 |
| 7+50       | .030 | 3  | 43  | 12 | 203 | .4 | 36 | 21 | 117 | 2  | 1 | 17 |
| 8          | .035 | 2  | 59  | 10 | 134 | .1 | 27 | 16 | 118 | 2  | 1 | 18 |
| 8 A        | .015 | 2  | 53  | 15 | 149 | .1 | 32 | 18 | 144 | 2  | 1 | 19 |
| 8+50       | .025 | 2  | 46  | 13 | 153 | .1 | 26 | 14 | 54  | 2  | 1 | 20 |
| 9          | .020 | 4  | 44  | 6  | 98  | .2 | 31 | 16 | 65  | 2  | 1 | 21 |
| 9+50       | .015 | 3  | 35  | 10 | 109 | .2 | 25 | 20 | 64  | 2  | 1 | 22 |
| 10         | .025 | 3  | 75  | 16 | 152 | .5 | 37 | 23 | 122 | 2  | 1 | 23 |
| 10+50      | .020 | 3  | 74  | 17 | 115 | .1 | 46 | 24 | 186 | 2  | 1 | 24 |
| 11         | .035 | 2  | 34  | 10 | 83  | .4 | 20 | 14 | 62  | 2  | 1 | 25 |
| 11+50      | .010 | 4  | 38  | 6  | 126 | .2 | 27 | 14 | 80  | 2  | ? | 26 |
| 12         | .030 | 2  | 20  | 8  | 109 | .1 | 20 | 12 | 47  | 2  | 1 | 27 |
| 12+50      | .035 | 2  | 27  | 11 | 93  | .1 | 22 | 12 | 62  | 2  | 1 | 28 |
| 13         | .060 | 3  | 33  | 15 | 135 | .3 | 31 | 15 | 80  | 2  | 1 | 29 |
| 13+50      | .020 | 2  | 20  | 10 | 67  | .1 | 20 | 10 | 35  | 2  | 1 | 30 |
| 14         | .005 | 4  | 30  | 4  | 81  | .4 | 24 | 13 | 41  | 2  | 1 | 31 |
| 14+50      | .040 | 3  | 55  | 16 | 113 | .2 | 35 | 22 | 75  | 2  | 1 | 32 |
| 15         | .015 | 4  | 65  | 18 | 88  | .1 | 34 | 24 | 86  | 2  | 1 | 33 |
| 15+50      | .005 | 2  | 45  | 13 | 93  | .1 | 34 | 23 | 58  | 2  | 1 | 34 |
| 16         | .005 | 3  | 51  | 14 | 88  | .6 | 38 | 26 | 70  | 2  | 1 | 35 |
| 16+50      | .010 | 5  | 60  | 9  | 96  | .5 | 44 | 23 | 68  | 2  | 1 | 36 |
| 0+00 17 S  | .085 | 3  | 36  | 12 | 82  | .2 | 28 | 17 | 62  | 2  | 1 | 37 |
|            |      |    | ✓   | ✓  | ✓   | ✓  | ✓  | ✓  | ✓   |    |   | 38 |
|            |      |    |     |    |     |    |    |    |     |    |   | 39 |
|            |      |    |     |    |     |    |    |    |     |    |   | 40 |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

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ASSAYER *D. Toye*

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

To Carolin Mines Ltd.,

Assaying &amp; Trace Analysis

852 E Hastings St Vancouver, B.C. V6A 1H6

phone 253 3158

File No. 31-1903

Type of Samples

Disposition

C.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| SAMPLE No.   | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | W |    |
|--------------|------|----|-----|----|-----|----|----|----|-----|----|---|----|
| 0+00 17+50 S | .050 | 6  | 78  | 16 | 107 | .5 | 48 | 32 | 109 | 2  | ? | 1  |
| 0+00 18 S    | .030 | 4  | 25  | 9  | 83  | .2 | 21 | 13 | 53  | 2  | 1 | 2  |
| 0+00 0+50 E  | .020 | 2  | 42  | 9  | 85  | .1 | 24 | 16 | 58  | 2  | 1 | 4  |
| 1            | .005 | 4  | 35  | 4  | 126 | .3 | 23 | 16 | 38  | 2  | 1 | 5  |
| 1+50         | .085 | 3  | 34  | 10 | 85  | .2 | 21 | 15 | 48  | 2  | 1 | 6  |
| 2            | .050 | 2  | 30  | 11 | 123 | .1 | 22 | 14 | 45  | 2  | 1 | 7  |
| 2+50         | .045 | 2  | 62  | 11 | 75  | .2 | 28 | 21 | 60  | 2  | 1 | 8  |
| 3            | .085 | 3  | 32  | 8  | 100 | .1 | 22 | 14 | 43  | 2  | 1 | 9  |
| 3+50         | .350 | 4  | 44  | 4  | 154 | .2 | 28 | 18 | 37  | 2  | 1 | 10 |
| 4            | .035 | 2  | 84  | 16 | 119 | .1 | 32 | 24 | 63  | 2  | 1 | 11 |
| 4+50         | .025 | 3  | 66  | 13 | 116 | .4 | 38 | 23 | 93  | 2  | 1 | 12 |
| 0+00 5 E     | .095 | 2  | 153 | 15 | 86  | .2 | 48 | 29 | 183 | 2  | 1 | 13 |
| 0+00 0+50 W  | .025 | 5  | 73  | 11 | 127 | .3 | 46 | 23 | 50  | 2  | 1 | 15 |
| 1            | .005 | 3  | 55  | 17 | 101 | .4 | 35 | 23 | 50  | 2  | 1 | 16 |
| > 1+50       | .045 | 2  | 86  | 18 | 80  | .2 | 42 | 34 | 61  | 2  | 1 | 17 |
| 2+50         | .025 | 2  | 47  | 12 | 78  | .2 | 26 | 16 | 54  | 2  | 1 | 18 |
| 3            | .005 | 3  | 50  | 9  | 75  | .2 | 22 | 21 | 48  | 2  | 1 | 19 |
| 3+50         | .035 | 5  | 110 | 1  | 85  | .1 | 46 | 33 | 39  | 2  | 2 | 20 |
| 4            | .005 | 4  | 93  | 13 | 73  | .1 | 38 | 30 | 36  | 2  | 1 | 21 |
| 4+50         | .005 | 3  | 31  | 7  | 63  | .1 | 19 | 14 | 40  | 2  | 1 | 22 |
| 5            | .005 | 2  | 45  | 8  | 70  | .1 | 27 | 15 | 40  | 2  | 1 | 23 |
| 5+50         | .005 | 2  | 48  | 8  | 83  | .1 | 29 | 20 | 23  | 2  | 1 | 24 |
| 6            | .005 | 4  | 42  | 7  | 105 | .1 | 25 | 25 | 17  | 2  | 1 | 25 |
| 6+50         | .005 | 2  | 72  | 12 | 101 | .1 | 35 | 27 | 19  | 2  | 1 | 26 |
| 7            | .005 | 2  | 31  | 10 | 106 | .1 | 26 | 17 | 15  | 2  | 1 | 27 |
| 7+50         | .005 | 2  | 38  | 6  | 93  | .1 | 29 | 19 | 18  | 2  | 1 | 28 |
| 8            | .005 | 3  | 47  | 8  | 112 | .2 | 25 | 21 | 26  | 2  | 2 | 29 |
| 8+50         | .005 | 5  | 58  | 4  | 88  | .1 | 39 | 23 | 35  | 2  | 1 | 30 |
| 9            | .005 | 4  | 81  | 14 | 86  | .1 | 32 | 25 | 39  | 2  | 2 | 31 |
| 9+50         | .005 | 2  | 63  | 15 | 110 | .3 | 31 | 25 | 34  | 2  | 1 | 32 |
| 10           | .195 | 4  | 44  | 10 | 105 | .1 | 29 | 18 | 62  | 2  | 1 | 33 |
| 10+50        | .950 | 2  | 53  | 11 | 77  | .1 | 32 | 20 | 65  | 2  | 1 | 34 |
| 0+00 11 W    | .025 | 4  | 61  | 6  | 129 | .2 | 36 | 18 | 38  | 2  | 1 | 35 |
|              |      |    |     |    |     |    |    |    |     |    |   | 36 |
| 0+00 0+50 N  | .065 | 4  | 56  | 9  | 87  | .2 | 30 | 17 | 67  | 2  | 1 | 37 |
| 1            | .005 | 3  | 47  | 8  | 73  | .1 | 23 | 16 | 59  | 2  | 1 | 38 |
| 0+00 1+50 N  | .005 | 5  | 71  | 7  | 89  | .1 | 33 | 20 | 72  | 2  | 1 | 39 |
|              |      |    |     |    |     |    |    |    |     |    |   | 40 |

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DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

*D. Toye*

DIGESTION:

DETERMINATION:

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

To: Carolin Mines Ltd.,

Assaying & Trace Analysis  
857 E Hastings St. Vancouver B.C. V6A 1R6  
phone 253-3158

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

C.G.

## GEOCHEMICAL ASSAY CERTIFICATE

11

|      | SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | W |    |
|------|------------|------|----|-----|----|-----|----|----|----|-----|----|---|----|
| 0+00 | 2 N        | .020 | 3  | 40  | 7  | 96  | .1 | 24 | 13 | 49  | 2  | 1 | 1  |
|      | 2+50       | .025 | 2  | 46  | 14 | 103 | .2 | 28 | 14 | 86  | 2  | 1 | 2  |
|      | 3          | .025 | 2  | 46  | 14 | 141 | .1 | 24 | 20 | 82  | 2  | 1 | 3  |
|      | 5          | .065 | 2  | 36  | 11 | 99  | .1 | 24 | 12 | 54  | 2  | 1 | 4  |
|      | 5+50       | .050 | 5  | 63  | 9  | 121 | .1 | 34 | 24 | 90  | 2  | 1 | 5  |
| 0+00 | 6 N        | .020 | 2  | 48  | 15 | 91  | .1 | 31 | 24 | 55  | 2  | 1 | 6  |
| 2S   | 0+50 E     | .030 | 2  | 71  | 9  | 86  | .1 | 34 | 21 | 95  | 2  | 1 | 8  |
|      | 1          | .030 | 2  | 57  | 11 | 97  | .1 | 36 | 21 | 64  | 2  | 1 | 9  |
|      | 1+50       | .045 | 4  | 55  | 6  | 113 | .1 | 31 | 19 | 54  | 2  | 1 | 10 |
|      | 2          | .275 | 2  | 53  | 11 | 87  | .1 | 33 | 25 | 54  | 2  | 1 | 11 |
|      | 2+50       | .040 | 2  | 34  | 14 | 136 | .1 | 20 | 21 | 48  | 2  | 1 | 12 |
|      | 3          | .025 | 2  | 26  | 10 | 92  | .1 | 17 | 17 | 30  | 2  | 1 | 13 |
|      | 3+50       | .040 | 2  | 39  | 14 | 102 | .1 | 25 | 16 | 60  | 2  | 2 | 14 |
|      | 4          | .045 | 4  | 80  | 8  | 139 | .2 | 38 | 22 | 83  | 2  | 2 | 15 |
|      | 4+50       | .010 | 2  | 44  | 15 | 98  | .1 | 20 | 16 | 94  | 2  | 1 | 16 |
| 2S   | 5 E        | .010 | 2  | 58  | 20 | 169 | .4 | 42 | 22 | 114 | 2  | 1 | 17 |
| 2S   | 0+50 W     | .025 | 2  | 64  | 13 | 87  | .3 | 38 | 22 | 61  | 3  | 1 | 19 |
|      | 1          | .015 | 4  | 80  | 14 | 154 | .2 | 55 | 34 | 49  | 2  | 1 | 20 |
|      | 1+50       | .235 | 2  | 78  | 20 | 113 | .1 | 49 | 28 | 46  | 2  | 1 | 21 |
|      | 2          | .015 | 2  | 39  | 13 | 80  | .1 | 25 | 20 | 42  | 2  | 3 | 22 |
|      | 2+50       | .015 | 2  | 102 | 14 | 70  | .3 | 44 | 30 | 46  | 2  | 1 | 23 |
|      | 3          | .005 | 2  | 76  | 15 | 106 | .1 | 44 | 27 | 62  | 2  | 1 | 24 |
|      | 3+50       | .015 | 4  | 93  | 8  | 86  | .6 | 53 | 32 | 46  | 2  | 2 | 25 |
|      | 4          | .010 | 2  | 108 | 14 | 81  | .3 | 52 | 35 | 58  | 2  | 1 | 26 |
|      | 4+50       | .005 | 2  | 48  | 12 | 77  | .1 | 31 | 23 | 31  | 2  | 1 | 27 |
|      | 5          | .025 | 2  | 42  | 8  | 79  | .2 | 27 | 16 | 23  | 2  | 1 | 28 |
|      | 5+50       | .075 | 2  | 34  | 9  | 78  | .1 | 32 | 24 | 16  | 2  | 1 | 29 |
|      | 6          | .020 | 4  | 82  | 7  | 86  | .1 | 37 | 23 | 30  | 2  | 2 | 30 |
|      | 6+50       | .005 | 2  | 50  | 8  | 83  | .1 | 33 | 20 | 27  | 3  | 1 | 31 |
|      | 7          | .005 | 2  | 51  | 10 | 91  | .1 | 34 | 20 | 34  | 2  | 1 | 32 |
|      | 7+50       | .005 | 2  | 34  | 11 | 189 | .1 | 25 | 25 | 10  | 2  | 1 | 33 |
|      | 8          | .005 | 2  | 93  | 9  | 88  | .1 | 42 | 29 | 29  | 4  | 1 | 34 |
|      | 8+50       | .005 | 4  | 46  | 5  | 140 | .1 | 32 | 23 | 23  | 2  | 1 | 35 |
|      | 9          | .005 | 2  | 37  | 9  | 170 | .1 | 31 | 23 | 18  | 2  | 1 | 36 |
|      | 9+50       | .035 | 2  | 34  | 11 | 84  | .1 | 26 | 17 | 60  | 2  | 1 | 37 |
|      | 10         | .025 | 2  | 32  | 12 | 104 | .1 | 28 | 15 | 97  | 2  | 1 | 38 |
| 2S   | 10+50 W    | .010 | 3  | 26  | 7  | 118 | .1 | 25 | 15 | 26  | 2  | 1 | 39 |
|      |            |      |    |     |    |     |    |    |    |     |    |   | 40 |

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ASSAYER

DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

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

## ACME ANALYTICAL LABORATORIES LTD.

To: Carolin Mines Ltd.,

Assaying &amp; Trace Analysis

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

phone: 253 - 3158

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

C.G.

11A

| SAMPLE No  | Au    | Mo | Cu  | Pb | Zn  | Ag  | Ni | Co | As  | Sb | W |    |
|------------|-------|----|-----|----|-----|-----|----|----|-----|----|---|----|
| 2N 0+50 E  | .025  | 4  | 40  | 8  | 82  | .2  | 24 | 15 | 69  | 2  | 1 | 1  |
| 1          | .030  | 2  | 32  | 13 | 110 | .2  | 18 | 14 | 62  | 2  | 1 | 2  |
| 2          | .015  | 2  | 60  | 11 | 105 | .1  | 30 | 21 | 69  | 2  | 1 | 3  |
| 2+50       | .035  | 2  | 38  | 13 | 109 | .1  | 28 | 25 | 56  | 2  | 1 | 4  |
| 3          | .045  | 3  | 32  | 7  | 86  | .3  | 19 | 15 | 37  | 2  | 1 | 5  |
| 3+50       | .050  | 2  | 76  | 17 | 164 | .5  | 34 | 30 | 83  | 2  | 1 | 6  |
| 4          | 1.200 | 2  | 87  | 15 | 120 | 1.1 | 38 | 30 | 108 | 2  | 1 | 7  |
| 4+50       | .015  | 2  | 121 | 17 | 161 | .2  | 58 | 28 | 186 | 2  | 1 | 8  |
| 2N 5 E     | .005  | 6  | 779 | 24 | 185 | 5.3 | 89 | 30 | 271 | 2  | 1 | 9  |
|            |       |    |     |    |     |     |    |    |     |    |   | 10 |
| 2N 0+50 W  | .090  | 2  | 72  | 16 | 81  | .2  | 35 | 20 | 83  | 4  | 1 | 11 |
| 1          | .030  | 2  | 60  | 13 | 85  | .1  | 26 | 20 | 88  | 5  | 1 | 12 |
| 1+50       | .080  | 3  | 36  | 11 | 102 | .2  | 22 | 21 | 71  | 2  | 1 | 13 |
| 2          | .005  | 4  | 42  | 7  | 78  | .1  | 27 | 22 | 35  | 2  | 1 | 14 |
| 2+50       | .035  | 2  | 48  | 13 | 99  | .2  | 28 | 22 | 62  | 2  | 2 | 15 |
| 3          | .050  | 2  | 24  | 9  | 67  | .1  | 20 | 15 | 30  | 2  | 1 | 16 |
| 4          | .005  | 2  | 174 | 11 | 58  | .1  | 43 | 32 | 60  | 2  | 1 | 17 |
| 4+50       | .005  | 3  | 66  | 12 | 66  | .2  | 45 | 35 | 36  | 2  | 1 | 18 |
| 6          | .025  | 5  | 91  | 11 | 130 | .1  | 46 | 38 | 46  | 2  | 1 | 19 |
| 6+50       | .005  | 2  | 119 | 17 | 82  | .3  | 32 | 35 | 40  | 2  | 1 | 20 |
| 7          | .005  | 2  | 120 | 14 | 86  | .1  | 34 | 37 | 43  | 2  | 1 | 21 |
| 7+50       | .005  | 2  | 48  | 15 | 136 | .2  | 24 | 29 | 58  | 2  | 1 | 22 |
| 8          | .025  | 4  | 110 | 13 | 76  | .1  | 38 | 32 | 71  | 2  | 1 | 23 |
| 8+50       | .005  | 5  | 190 | 5  | 87  | .1  | 32 | 33 | 49  | 2  | 2 | 24 |
| 9          | .010  | 3  | 41  | 10 | 134 | .1  | 29 | 24 | 21  | 2  | 1 | 25 |
| 9+50       | .035  | 3  | 113 | 18 | 76  | .1  | 40 | 34 | 70  | 2  | 1 | 26 |
| 10         | .015  | 4  | 77  | 15 | 84  | .3  | 40 | 30 | 64  | 2  | 1 | 27 |
| 2N 10+50 W | .005  | 4  | 35  | 8  | 112 | .1  | 31 | 19 | 37  | 2  | 1 | 28 |
|            |       |    |     |    |     |     |    |    |     |    |   | 29 |
|            |       |    |     |    |     |     |    |    |     |    |   | 30 |
|            |       |    |     |    |     |     |    |    |     |    |   | 31 |
|            |       |    |     |    |     |     |    |    |     |    |   | 32 |
|            |       |    |     |    |     |     |    |    |     |    |   | 33 |
|            |       |    |     |    |     |     |    |    |     |    |   | 34 |
|            |       |    |     |    |     |     |    |    |     |    |   | 35 |
|            |       |    |     |    |     |     |    |    |     |    |   | 36 |
|            |       |    |     |    |     |     |    |    |     |    |   | 37 |
|            |       |    |     |    |     |     |    |    |     |    |   | 38 |
|            |       |    |     |    |     |     |    |    |     |    |   | 39 |
|            |       |    |     |    |     |     |    |    |     |    |   | 40 |

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DETERMINATION:.....

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ASSAYER

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

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

C.G.

12

|      | SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag  | Ni | Co  | As | Sb | W |    |
|------|------------|------|----|-----|----|-----|-----|----|-----|----|----|---|----|
| 4S   | 0+50 E     | .025 | 2  | 21  | 5  | 93  | .1  | 19 | 12  | 34 | 2  | 2 | 1  |
| 1    |            | .015 | 2  | 18  | 7  | 70  | .1  | 15 | 11  | 34 | 2  | 2 | 2  |
| 1+50 |            | .045 | 2  | 58  | 10 | 111 | .3  | 28 | 15  | 65 | 3  | 1 | 3  |
| 2    |            | .005 | 2  | 47  | 8  | 143 | .3  | 32 | 18  | 45 | 3  | 1 | 4  |
| 2+50 |            | .030 | 3  | 31  | 6  | 83  | .1  | 19 | 15  | 42 | 2  | 1 | 5  |
| 3    |            | .035 | 4  | 49  | 10 | 96  | .4  | 29 | 14  | 71 | 2  | 1 | 6  |
| 3+50 |            | .025 | 2  | 48  | 14 | 240 | 1.0 | 26 | 24  | 31 | 2  | 1 | 7  |
| 4    |            | .020 | 2  | 35  | 13 | 188 | .7  | 20 | 18  | 65 | 3  | 2 | 8  |
| 4+50 |            | .005 | 3  | 42  | 11 | 81  | .0  | 17 | 14  | 59 | 2  | 1 | 9  |
| 4S   | 5 E        | .010 | 3  | 87  | 12 | 91  | .3  | 34 | 24  | 66 | 2  | 1 | 10 |
|      |            |      |    |     |    |     |     |    |     |    |    |   | 11 |
| 4S   | 0+50 W     | .020 | 2  | 27  | 8  | 110 | .1  | 20 | 12  | 31 | 2  | 2 | 12 |
| 1    |            | .010 | 2  | 26  | 6  | 45  | .2  | 12 | 89  | 27 | 2  | 1 | 13 |
| 1+50 |            | .005 | 2  | 81  | 31 | 134 | .8  | 44 | 26  | 57 | 2  | 1 | 14 |
| 2    |            | .005 | 3  | 57  | 35 | 215 | .3  | 36 | 22  | 47 | 2  | 1 | 15 |
| 2+50 |            | .005 | 3  | 42  | 6  | 33  | .5  | 13 | 7   | 28 | 2  | 1 | 16 |
| 3    |            | .005 | 2  | 19  | 6  | 70  | .2  | 13 | 12  | 10 | 2  | 1 | 17 |
| 3+50 |            | .005 | 2  | 18  | 8  | 95  | .3  | 16 | 14  | 16 | 2  | 1 | 18 |
| 4    |            | .005 | 2  | 28  | 10 | 68  | .2  | 24 | 12  | 26 | 2  | 1 | 19 |
| 4+50 |            | .005 | 3  | 56  | 8  | 84  | .1  | 39 | 19  | 36 | 2  | 1 | 20 |
| 5    |            | .005 | 2  | 22  | 10 | 78  | .2  | 20 | 13  | 18 | 2  | 1 | 21 |
| 5+50 |            | .005 | 2  | 38  | 10 | 82  | .1  | 35 | 15  | 34 | 2  | 1 | 22 |
| 6    |            | .005 | 2  | 108 | 14 | 73  | .6  | 38 | 22  | 33 | 2  | 1 | 23 |
| 6+50 |            | .005 | 3  | 40  | 10 | 100 | .3  | 32 | 16  | 26 | 2  | 1 | 24 |
| 7    |            | .005 | 4  | 82  | 7  | 134 | .1  | 41 | 28  | 37 | 2  | 1 | 25 |
| 7+50 |            | .005 | 3  | 124 | 15 | 89  | .4  | 32 | 30  | 84 | 2  | 1 | 26 |
| 8    |            | .005 | 2  | 66  | 18 | 104 | .3  | 35 | 20  | 32 | 2  | 1 | 27 |
| 8+50 |            | .005 | 2  | 38  | 10 | 142 | .2  | 29 | 17  | 14 | 2  | 1 | 28 |
| 10   |            | .030 | 4  | 69  | 14 | 66  | .2  | 31 | 19  | 52 | 2  | 1 | 29 |
| 4S   | 10+50 W    | .020 | 3  | 26  | 6  | 66  | .1  | 24 | 12  | 28 | 2  | 1 | 30 |
|      |            |      |    |     |    |     |     |    |     |    |    |   | 31 |
| 4N   | 1 E        | .005 | 5  | 38  | 11 | 90  | .3  | 22 | 12  | 44 | 2  | 1 | 32 |
| 1+50 |            | .015 | 4  | 45  | 10 | 132 | .3  | 28 | 17  | 46 | 2  | 1 | 33 |
| 2    |            | .005 | 4  | 26  | 8  | 114 | .2  | 20 | 10  | 34 | 2  | 1 | 34 |
| 2+50 |            | .005 | 3  | 152 | 7  | 23  | 1.9 | 18 | 66  | 22 | 2  | 1 | 35 |
| 3    |            | .035 | 4  | 58  | 14 | 94  | .1  | 35 | 17  | 69 | 2  | 1 | 36 |
| 3+50 |            | .020 | 4  | 30  | 10 | 109 | .5  | 24 | 104 | 41 | 2  | 1 | 37 |
| 4N   | 4 E        | .005 | 4  | 50  | 13 | 214 | .2  | 32 | 18  | 77 | 2  | 1 | 38 |
|      |            |      |    | ✓   | ✓  | ✓   | ✓   | ✓  | ✓   | ✓  |    |   | 39 |
|      |            |      |    |     |    |     |     |    |     |    |    |   | 40 |

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ASSAYER

*D. Toye*
 DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
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T. Carolin Mines Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

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

phone: 253-3158

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

C.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| 13 | SAMPLE No. | Au     | Mo | Cu  | Pb | Zn  | Ag   | Ni   | Co   | As   | Sb | W |    |
|----|------------|--------|----|-----|----|-----|------|------|------|------|----|---|----|
| 4N | 7+50 E     | .005   | 2  | 37  | 4  | 24  | .1   | 8    | 7    | 72   | 2  | 1 | 1  |
|    | 8          | .005   | 2  | 14  | 2  | 6   | .2   | 5    | 2    | 6    | 2  | 1 | 2  |
|    | 9          | .005   | 4  | 30  | 2  | 36  | .2   | 9    | 5    | 25   | 2  | 1 | 3  |
|    | 9+50       | .005   | 3  | 32  | 6  | 51  | .2   | 12   | 6    | 10   | 2  | 1 | 4  |
|    | 10         | .005   | 2  | 19  | 13 | 38  | .8   | 22   | 10   | 23   | 2  | 1 | 5  |
|    | 10+50      | .005   | 5  | 37  | 7  | 84  | .3   | 34   | 14   | 29   | 2  | 1 | 6  |
|    | 11         | .005   | 4  | 33  | 9  | 90  | .2   | 25   | 13   | 27   | 2  | 1 | 7  |
|    | 11+50      | .005   | 2  | 17  | 9  | 108 | .1   | 20   | 12   | 19   | 2  | 1 | 8  |
|    | 12         | .005   | 3  | 32  | 11 | 105 | .2   | 24   | 13   | 27   | 2  | 1 | 9  |
|    | 12+50      | .005   | 4  | 53  | 16 | 83  | .1   | 34   | 24   | 53   | 2  | 1 | 10 |
|    | 13         | .005   | 4  | 42  | 8  | 109 | .2   | 29   | 18   | 23   | 2  | 1 | 11 |
|    | 13+50      | .005   | 4  | 17  | 8  | 77  | .1   | 15   | 10   | 20   | 2  | 1 | 12 |
|    | 14         | .005   | 4  | 12  | 2  | 41  | .2   | 6    | 2    | 3    | 2  | 1 | 13 |
|    | 14+50      | .005   | 5  | 270 | 16 | 99  | 3.4  | 89   | 21   | 70   | 2  | 1 | 14 |
|    | 15         | .005   | 4  | 41  | 11 | 75  | .3   | 25   | 15   | 43   | 2  | 1 | 15 |
|    | 15+50      | .005   | 3  | 16  | 7  | 91  | .2   | 17   | 11   | 17   | 2  | 1 | 16 |
|    | 16         | .005   | 3  | 29  | 9  | 55  | .1   | 15   | 10   | 28   | 2  | 1 | 17 |
| 4N | 16+50 E    | .005   | 3  | 80  | 14 | 69  | .1   | 21   | 23   | 121  | 2  | 1 | 18 |
|    |            |        |    |     |    |     |      |      |      |      |    |   | 19 |
| 4N | 1 W        | .005   | 3  | 36  | 20 | 223 | .4   | 32   | 24   | 99   | 2  | 1 | 20 |
|    | 1+50       | .005   | 4  | 29  | 7  | 185 | .2   | 27   | 21   | 40   | 2  | 1 | 21 |
|    | 2          | .005   | 4  | 40  | 12 | 114 | .3   | 34   | 22   | 58   | 2  | 1 | 22 |
|    | 2+50       | .005   | 3  | 20  | 11 | 99  | .2   | 17   | 13   | 48   | 2  | 1 | 23 |
|    | 3          | .005   | 3  | 25  | 9  | 78  | .1   | 22   | 11   | 40   | 2  | 1 | 24 |
|    | 3+50       | .005   | 4  | 37  | 7  | 83  | .2   | 28   | 14   | 44   | 2  | 1 | 25 |
|    | 4          | .005   | 2  | 24  | 8  | 99  | .1   | 20   | 15   | 28   | 2  | 1 | 26 |
|    | 4+50       | .005   | 4  | 59  | 13 | 90  | .1   | 33   | 19   | 61   | 2  | 1 | 27 |
|    | 5          | .250   | 2  | 33  | 12 | 79  | .2   | 31   | 27   | 25   | 2  | 1 | 28 |
|    | 5+50       | .005   | 2  | 59  | 14 | 88  | .2   | 35   | 27   | 44   | 2  | 1 | 29 |
|    | 6          | .005   | 5  | 111 | 9  | 87  | .1   | 42   | 34   | 43   | 2  | 1 | 30 |
|    | 6+50       | .005   | 3  | 55  | 18 | 149 | .2   | 29   | 25   | 36   | 2  | 1 | 31 |
|    | 7          | .005   | 2  | 66  | 17 | 134 | .3   | 33   | 29   | 38   | 2  | 1 | 32 |
|    | 7+50       | .005   | 3  | 63  | 14 | 109 | .2   | 38   | 24   | 48   | 2  | 1 | 33 |
|    | 8          | .005   | 4  | 59  | 11 | 98  | .2   | 36   | 21   | 34   | 2  | 1 | 34 |
|    | 8+50       | .005   | 4  | 44  | 6  | 93  | .2   | 36   | 18   | 27   | 2  | 1 | 35 |
|    | 9          | .005   | 3  | 32  | 9  | 69  | .1   | 22   | 14   | 31   | 2  | 1 | 36 |
|    | 9+50       | .005   | 3  | 39  | 13 | 116 | .2   | 35   | 18   | 47   | 2  | 1 | 37 |
|    | 10         | .005   | 3  | 35  | 11 | 135 | .2   | 31   | 19   | 20   | 2  | 1 | 38 |
| 4N | 10+50 W    | .005 ✓ | 4  | 63  | 6  | 118 | .1 ✓ | 34 ✓ | 22 ✓ | 13 ✓ | 2  | 1 | 39 |
|    |            |        |    |     |    |     |      |      |      |      |    |   | 40 |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

DATE SAMPLES RECEIVED Dec. 7, 1981

Dec. 23, 1981

DATE REPORTS MAILED \_\_\_\_\_

ASSAYER \_\_\_\_\_

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

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

C.G.

| 14    | SAMPLE No | Au   | Mo | Cu | Pb | Zn  | Aq | Ni | Co | As  | Sb | W |    |
|-------|-----------|------|----|----|----|-----|----|----|----|-----|----|---|----|
| 4+50N | 9 E       | .030 | 2  | 22 | 9  | 73  | .4 | 27 | 13 | 11  | 2  | 1 | 1  |
| 10+50 |           | .005 | 2  | 20 | 11 | 112 | .1 | 23 | 11 | 16  | 2  | 1 | 2  |
| 11    |           | .035 | 3  | 35 | 14 | 99  | .4 | 32 | 16 | 27  | 2  | 1 | 3  |
| 11+50 |           | .010 | 3  | 26 | 12 | 80  | .2 | 20 | 12 | 22  | 2  | 1 | 4  |
| 12    |           | .005 | 3  | 38 | 13 | 98  | .3 | 35 | 14 | 26  | 2  | 1 | 5  |
| 12+50 |           | .005 | 4  | 27 | 8  | 95  | .4 | 21 | 11 | 17  | 2  | 1 | 6  |
| 13    |           | .035 | 5  | 43 | 17 | 74  | .1 | 48 | 34 | 55  | 2  | 1 | 7  |
| 13+50 |           | .010 | 4  | 29 | 11 | 53  | .5 | 21 | 14 | 22  | 2  | 1 | 8  |
| 14+50 |           | .005 | 4  | 37 | 14 | 109 | .1 | 30 | 15 | 43  | 2  | 1 | 9  |
| 15    |           | .035 | 4  | 17 | 10 | 33  | .8 | 11 | 7  | 28  | 2  | 1 | 10 |
| 15+50 |           | .005 | 3  | 21 | 8  | 107 | .2 | 15 | 12 | 17  | 2  | 1 | 11 |
| 16    |           | .005 | 2  | 24 | 10 | 99  | .1 | 17 | 15 | 15  | 2  | 1 | 12 |
| 4+50N | 16+50 E   | .005 | 3  | 56 | 15 | 98  | .1 | 30 | 16 | 29  | 2  | 1 | 13 |
| 5 N   | 8+50 E    | .005 | 2  | 13 | 18 | 64  | .6 | 17 | 11 | 18  | 2  | 1 | 15 |
| 9     |           | .315 | 3  | 25 | 7  | 101 | .4 | 23 | 9  | 22  | 2  | 1 | 16 |
| 9+50  |           | .005 | 2  | 26 | 14 | 104 | .8 | 31 | 14 | 7   | 2  | 1 | 17 |
| 10    |           | .025 | 2  | 24 | 13 | 107 | .3 | 28 | 11 | 32  | 2  | 1 | 18 |
| 10+50 |           | .065 | 1  | 16 | 9  | 122 | .2 | 16 | 8  | 21  | 2  | 1 | 19 |
| 11    |           | .025 | 1  | 45 | 10 | 94  | .3 | 28 | 12 | 34  | 2  | 1 | 20 |
| 11+50 |           | .005 | 4  | 38 | 8  | 77  | .3 | 26 | 11 | 22  | 2  | 1 | 21 |
| 12    |           | .005 | 1  | 49 | 14 | 116 | .6 | 32 | 13 | 39  | 2  | 1 | 22 |
| 12+50 |           | .010 | 1  | 21 | 10 | 87  | .3 | 19 | 9  | 19  | 2  | 1 | 23 |
| 13    |           | .005 | 2  | 20 | 10 | 76  | .2 | 18 | 9  | 20  | 2  | 1 | 24 |
| 13+50 |           | .005 | 1  | 18 | 11 | 112 | .3 | 16 | 10 | 23  | 2  | 1 | 25 |
| 14+50 |           | .005 | 5  | 24 | 5  | 87  | .2 | 19 | 11 | 22  | 2  | 1 | 26 |
| 15    |           | .005 | 1  | 38 | 13 | 152 | .5 | 27 | 14 | 31  | 2  | 1 | 27 |
| 15+50 |           | .005 | 2  | 56 | 15 | 93  | .3 | 25 | 14 | 28  | 2  | 1 | 28 |
| 16    |           | .005 | 1  | 56 | 11 | 133 | .8 | 26 | 14 | 31  | 2  | 1 | 29 |
| 5 N   | 16+50 E   | .005 | 1  | 38 | 11 | 104 | .4 | 19 | 10 | 19  | 2  | 1 | 30 |
| 6 S   | 0+50 E    | .005 | 4  | 48 | 5  | 166 | .2 | 31 | 16 | 106 | 2  | 1 | 32 |
| 1     |           | .035 | 1  | 76 | 14 | 129 | .3 | 36 | 21 | 89  | 2  | 1 | 33 |
| 1+50  |           | .045 | 1  | 48 | 13 | 159 | .4 | 34 | 16 | 69  | 2  | 1 | 34 |
| 2     |           | .075 | 1  | 39 | 7  | 208 | .2 | 28 | 13 | 53  | 2  | 1 | 35 |
| 2+50  |           | .035 | 1  | 51 | 12 | 150 | .3 | 32 | 16 | 85  | 2  | 1 | 36 |
| 3+50  |           | .025 | 4  | 68 | 10 | 157 | .1 | 39 | 21 | 130 | 2  | 2 | 37 |
| 6 S   | 4 E       | .135 | 1  | 34 | 15 | 528 | .6 | 25 | 16 | 67  | 2  | 3 | 38 |
|       |           |      |    | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓   |    |   | 39 |
|       |           |      |    |    |    |     |    |    |    |     |    |   | 40 |

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Dec. 7, 1981

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

To Carolin Mines Ltd.,

Assaying &amp; Trace Analysis

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

phone: 253-3158

SI-1003

File No.

Type of Samples

Disposition

C.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| 15 | SAMPLE No. | Au     | Mo | Cu  | Pb | Zn  | Ag | Ni | Co   | As  | Sb | W |    |
|----|------------|--------|----|-----|----|-----|----|----|------|-----|----|---|----|
| 6S | 4+50 E     | .415   | 4  | 70  | 38 | 381 | .7 | 27 | 15   | 88  | 4  | 1 | 1  |
| 6S | 5 E        | .065   | 2  | 114 | 16 | 120 | .7 | 56 | 29   | 113 | 2  | 1 | 2  |
| 6S | 0+50 W     | .040   | 4  | 43  | 12 | 123 | .5 | 29 | 14   | 62  | 2  | 1 | 3  |
| 1  |            | .040   | 4  | 49  | 8  | 86  | .1 | 26 | 14   | 62  | 2  | 2 | 4  |
| 2  | 1+50       | .030   | 3  | 19  | 9  | 94  | .2 | 20 | 10   | 41  | 2  | 1 | 5  |
| 2  | 2+50       | .025   | 3  | 31  | 12 | 94  | .2 | 26 | 14   | 30  | 2  | 1 | 6  |
| 3  | 2+50       | .205   | 4  | 46  | 20 | 131 | .3 | 32 | 17   | 45  | 2  | 1 | 7  |
| 3  | 3+50       | .045   | 3  | 36  | 19 | 106 | .3 | 29 | 19   | 26  | 2  | 1 | 8  |
| 3  | 3+50       | .025   | 3  | 46  | 8  | 103 | .1 | 36 | 18   | 22  | 2  | 1 | 9  |
| 4  | 4+50       | .015   | 3  | 35  | 10 | 67  | .2 | 27 | 13   | 29  | 2  | 1 | 10 |
| 5  | 4+50       | .035   | 3  | 40  | 10 | 75  | .2 | 30 | 16   | 29  | 2  | 3 | 11 |
| 5  | 5+50       | .015   | 3  | 38  | 13 | 93  | .2 | 31 | 16   | 29  | 2  | 1 | 12 |
| 6  | 5+50       | .005-  | 3  | 66  | 19 | 101 | .8 | 38 | 21   | 42  | 2  | 1 | 13 |
| 6  | 6          | .015   | 5  | 79  | 15 | 91  | .1 | 40 | 28   | 60  | 2  | 2 | 14 |
| 7  |            | .025   | 4  | 81  | 17 | 140 | .2 | 32 | 23   | 20  | 2  | 1 | 15 |
| 7  | 7+50       | .005-  | 2  | 41  | 13 | 135 | .1 | 25 | 16   | 10  | 2  | 1 | 16 |
| 8  |            | .015   | 3  | 61  | 13 | 116 | .2 | 30 | 19   | 15  | 2  | 1 | 17 |
| 8  | 8+50       | .025   | 4  | 47  | 11 | 101 | .2 | 22 | 16   | 13  | 2  | 1 | 18 |
| 9  |            | .015   | 5  | 68  | 2  | 77  | .1 | 30 | 24   | 8   | 2  | 2 | 19 |
| 9  | 9+50       | .005-  | 4  | 56  | 15 | 82  | .2 | 28 | 22   | 15  | 2  | 1 | 20 |
| 10 | 10         | .005-  | 4  | 51  | 14 | 147 | .3 | 32 | 19   | 17  | 2  | 1 | 21 |
| 6S | 10+50 W    | .025   | 5  | 59  | 13 | 144 | .3 | 46 | 14   | 20  | 2  | 1 | 22 |
| 6N | 0+50 E     | .125   | 4  | 55  | 6  | 100 | .1 | 37 | 24   | 41  | 2  | 2 | 23 |
| 2  |            | .065   | 3  | 35  | 13 | 72  | .2 | 20 | 12   | 197 | 2  | 1 | 24 |
| 2  | 2+50       | .055   | 3  | 36  | 14 | 77  | .2 | 21 | 13   | 84  | 2  | 1 | 25 |
| 3  |            | .035   | 3  | 33  | 13 | 86  | .2 | 22 | 14   | 68  | 2  | 1 | 26 |
| 3  | 3+50       | .195   | 3  | 41  | 12 | 110 | .1 | 26 | 13   | 57  | 2  | 1 | 27 |
| 6N | 4 E        | .045   | 5  | 61  | 9  | 81  | .3 | 32 | 15   | 105 | 2  | 2 | 28 |
| 6N | 0+50 W     | .045   | 4  | 41  | 13 | 94  | .1 | 27 | 14   | 35  | 2  | 1 | 29 |
| 1  |            | .195   | 4  | 74  | 14 | 124 | .4 | 39 | 37   | 51  | 2  | 1 | 30 |
| 1  | 1+50       | .065   | 4  | 49  | 13 | 111 | .2 | 25 | 15   | 44  | 2  | 1 | 31 |
| 2  |            | .030   | 3  | 32  | 4  | 215 | .1 | 29 | 19   | 31  | 2  | 1 | 32 |
| 2  | 2+50       | .025   | 2  | 60  | 18 | 99  | .2 | 38 | 21   | 43  | 2  | 1 | 33 |
| 3  |            | .025   | 2  | 24  | 8  | 92  | .1 | 17 | 12   | 28  | 2  | 1 | 34 |
| 6N | 3+50 W     | .015 ✓ | 3  | 41  | 14 | 97  | .3 | 33 | 15 ✓ | 42  | 2  | 1 | 35 |
|    |            | ✓      | ✓  | ✓   | ✓  | ✓   | ✓  | ✓  | ✓    | ✓   |    |   | 36 |
|    |            |        |    |     |    |     |    |    |      |     |    |   | 37 |
|    |            |        |    |     |    |     |    |    |      |     |    |   | 38 |
|    |            |        |    |     |    |     |    |    |      |     |    |   | 39 |
|    |            |        |    |     |    |     |    |    |      |     |    |   | 40 |

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ASSAYER

*R. Toye*

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

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

C.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | W |    |
|------------|------|----|-----|----|-----|----|----|----|-----|----|---|----|
| 6N 4 W     | .035 | 4  | 31  | 4  | 112 | .2 | 28 | 16 | 40  | 2  | 2 | 1  |
| 4+50       | .010 | 3  | 33  | 7  | 110 | .1 | 29 | 17 | 32  | 2  | 1 | 2  |
| 5          | .025 | 3  | 37  | 8  | 90  | .1 | 31 | 20 | 34  | 2  | 1 | 3  |
| 5+50       | .015 | 3  | 57  | 8  | 105 | .1 | 33 | 20 | 30  | 2  | 1 | 4  |
| 6          | .060 | 2  | 52  | 10 | 134 | .1 | 33 | 22 | 51  | 2  | 1 | 5  |
| 6+50       | .105 | 3  | 44  | 2  | 145 | .1 | 23 | 22 | 23  | 2  | 1 | 6  |
| 7          | .015 | 4  | 73  | 10 | 127 | .1 | 39 | 25 | 32  | 2  | 1 | 7  |
| 7+50       | .005 | 2  | 69  | 11 | 107 | .4 | 35 | 24 | 37  | 2  | 1 | 8  |
| 8          | .005 | 3  | 49  | 9  | 159 | .1 | 39 | 20 | 40  | 2  | 1 | 9  |
| 8+50       | .015 | 3  | 34  | 8  | 107 | .1 | 31 | 15 | 25  | 2  | 1 | 10 |
| 9          | .015 | 3  | 25  | 4  | 145 | .2 | 25 | 15 | 18  | 2  | 2 | 11 |
| 9+50       | .005 | 4  | 80  | 14 | 103 | .1 | 42 | 24 | 45  | 2  | 1 | 12 |
| 10         | .005 | 3  | 42  | 11 | 240 | .1 | 30 | 21 | 32  | 2  | 1 | 13 |
| 6N 10+50 W | .005 | 4  | 66  | 12 | 172 | .1 | 38 | 26 | 26  | 2  | 1 | 14 |
|            |      |    |     |    |     |    |    |    |     |    |   | 15 |
| 8S 0+50 E  | .055 | 4  | 36  | 4  | 117 | .2 | 36 | 15 | 65  | 2  | 1 | 16 |
| 1          | .025 | 3  | 37  | 7  | 191 | .2 | 29 | 18 | 55  | 2  | 1 | 17 |
| 1+50       | .005 | 3  | 34  | 8  | 136 | .1 | 32 | 17 | 48  | 2  | 1 | 18 |
| 2          | .025 | 4  | 35  | 7  | 109 | .1 | 23 | 15 | 46  | 2  | 1 | 19 |
| 2+50       | .035 | 4  | 73  | 11 | 247 | .1 | 44 | 34 | 97  | 2  | 1 | 20 |
| 3          | .025 | 4  | 49  | 6  | 112 | .2 | 28 | 19 | 118 | 2  | 1 | 21 |
| 3+50       | .025 | 4  | 67  | 11 | 123 | .2 | 35 | 23 | 93  | 2  | 1 | 22 |
| 4          | .035 | 4  | 82  | 10 | 125 | .1 | 33 | 22 | 115 | 2  | 1 | 23 |
| 4+50       | .050 | 3  | 86  | 9  | 143 | .1 | 40 | 24 | 129 | 2  | 1 | 24 |
| 8S 5 E     | .020 | 2  | 132 | 11 | 115 | .3 | 72 | 44 | 121 | 2  | 1 | 25 |
|            |      |    |     |    |     |    |    |    |     |    |   | 26 |
|            |      |    |     |    |     |    |    |    |     |    |   | 27 |
| 8S 0+50 W  | .095 | 4  | 97  | 7  | 86  | .2 | 49 | 25 | 91  | 2  | 2 | 28 |
| 1          | .020 | 3  | 38  | 12 | 129 | .1 | 23 | 15 | 57  | 2  | 1 | 29 |
| 1+50       | .040 | 4  | 62  | 10 | 100 | .2 | 39 | 19 | 67  | 2  | 1 | 30 |
| 2          | .025 | 3  | 38  | 10 | 99  | .4 | 34 | 15 | 48  | 2  | 1 | 31 |
| 2+50       | .090 | 5  | 49  | 13 | 95  | .1 | 32 | 14 | 68  | 2  | 1 | 32 |
| 3          | .055 | 4  | 69  | 10 | 118 | .1 | 44 | 23 | 49  | 2  | 1 | 33 |
| 3+50       | .045 | 3  | 99  | 44 | 225 | .1 | 56 | 40 | 31  | 2  | 1 | 34 |
| 4          | .005 | 2  | 29  | 16 | 175 | .1 | 29 | 22 | 23  | 2  | 1 | 35 |
| 4+50       | .005 | 3  | 31  | 19 | 103 | .2 | 34 | 20 | 40  | 2  | 1 | 36 |
| 5          | .055 | 3  | 34  | 16 | 91  | .2 | 36 | 20 | 30  | 2  | 1 | 37 |
| 5+50       | .015 | 3  | 37  | 5  | 126 | .1 | 26 | 14 | 16  | 2  | 1 | 38 |
| 8S 6 W     | .005 | 3  | 35  | 11 | 169 | .2 | 33 | 17 | 26  | 2  | 1 | 39 |
|            |      |    |     |    |     |    |    |    |     |    |   | 40 |

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ASSAYER

*D. Toye*

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

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

C.G.

## GEOCHEMICAL ASSAY CERTIFICATE

17

|      | SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | W |    |
|------|------------|------|----|-----|----|-----|----|----|----|-----|----|---|----|
| 8S   | 6+50 W     | .005 | 4  | 39  | 6  | 178 | .2 | 38 | 23 | 20  | 2  | 2 | 1  |
| 7    |            | .005 | 4  | 51  | 14 | 105 | .2 | 31 | 16 | 21  | 2  | 1 | 2  |
| 7+50 |            | .005 | 3  | 29  | 10 | 127 | .3 | 29 | 17 | 15  | 2  | 1 | 3  |
| 8    |            | .005 | 3  | 32  | 9  | 145 | .1 | 26 | 15 | 19  | 2  | 1 | 4  |
| 8+50 |            | .005 | 3  | 45  | 13 | 106 | .1 | 30 | 18 | 17  | 2  | 1 | 5  |
| 9    |            | .005 | 4  | 77  | 3  | 107 | .1 | 31 | 22 | 23  | 2  | 2 | 6  |
| 9+50 |            | .005 | 3  | 54  | 14 | 189 | .2 | 30 | 19 | 10  | 2  | 1 | 7  |
| 10   |            | .005 | 2  | 49  | 13 | 101 | .2 | 33 | 15 | 23  | 2  | 1 | 8  |
| 8S   | 10+50 W    | .005 | 4  | 34  | 12 | 136 | .1 | 32 | 18 | 21  | 2  | 1 | 9  |
| 10S  | 0+50 E     | .025 | 5  | 67  | 7  | 141 | .2 | 43 | 23 | 132 | 2  | 2 | 10 |
| 1    |            | .005 | 4  | 46  | 12 | 99  | .2 | 25 | 24 | 53  | 2  | 1 | 11 |
| 1+50 |            | .065 | 4  | 115 | 15 | 89  | .1 | 43 | 26 | 201 | 2  | 1 | 12 |
| 2    |            | .120 | 4  | 84  | 8  | 85  | .1 | 29 | 24 | 110 | 2  | 1 | 13 |
| 2+50 |            | .070 | 3  | 156 | 16 | 107 | .2 | 44 | 35 | 210 | 2  | 1 | 14 |
| 3    |            | .105 | 5  | 66  | 5  | 114 | .1 | 24 | 18 | 127 | 2  | 2 | 15 |
| 3+80 |            | .035 | 4  | 60  | 13 | 134 | .1 | 34 | 17 | 119 | 2  | 1 | 16 |
| 4    |            | .135 | 4  | 54  | 13 | 111 | .2 | 24 | 16 | 97  | 2  | 1 | 17 |
| 4+50 |            | .065 | 3  | 58  | 12 | 106 | .1 | 24 | 19 | 71  | 2  | 1 | 18 |
| 10S  | 5 E        | .035 | 4  | 33  | 9  | 84  | .2 | 19 | 16 | 57  | 2  | 1 | 19 |
| 10S  | 0+50 W     | .195 | 4  | 45  | 5  | 145 | .1 | 29 | 18 | 69  | 2  | 1 | 20 |
| 1    |            | .030 | 4  | 25  | 11 | 117 | .2 | 20 | 14 | 52  | 2  | 1 | 21 |
| 1+50 |            | .005 | 3  | 53  | 13 | 126 | .5 | 32 | 18 | 82  | 2  | 1 | 22 |
| 2    |            | .025 | 2  | 25  | 9  | 74  | .1 | 22 | 11 | 35  | 2  | 1 | 23 |
| 2+50 |            | .025 | 4  | 62  | 17 | 104 | .4 | 33 | 15 | 79  | 2  | 1 | 24 |
| 3    |            | .025 | 4  | 61  | 9  | 134 | .1 | 34 | 18 | 97  | 2  | 1 | 25 |
| 3+50 |            | .045 | 3  | 97  | 21 | 468 | .6 | 36 | 22 | 148 | 2  | 2 | 26 |
| 4+50 |            | .020 | 3  | 32  | 16 | 142 | .1 | 32 | 17 | 31  | 2  | 1 | 27 |
| 5    |            | .015 | 3  | 28  | 14 | 166 | .3 | 28 | 15 | 16  | 2  | 1 | 28 |
| 5+50 |            | .015 | 2  | 18  | 14 | 120 | .2 | 20 | 13 | 10  | 2  | 1 | 29 |
| 6    |            | .020 | 4  | 56  | 8  | 133 | .2 | 41 | 26 | 34  | 2  | 2 | 30 |
| 6+50 |            | .005 | 4  | 51  | 10 | 105 | .1 | 31 | 16 | 18  | 2  | 1 | 31 |
| 7    |            | .005 | 3  | 32  | 11 | 125 | .2 | 30 | 15 | 18  | 2  | 1 | 32 |
| 7+50 |            | .045 | 3  | 38  | 12 | 84  | .1 | 28 | 13 | 9   | 2  | 1 | 33 |
| 8    |            | .015 | 3  | 42  | 12 | 115 | .1 | 34 | 17 | 18  | 2  | 1 | 34 |
| 8+50 |            | .145 | 3  | 54  | 6  | 107 | .1 | 32 | 20 | 19  | 2  | 1 | 35 |
| 10S  | 9 W        | .005 | 3  | 63  | 13 | 147 | .1 | 25 | 23 | 12  | 2  | 1 | 36 |
|      |            | ✓    | ✓  | ✓   | ✓  | ✓   | ✓  | ✓  | ✓  | ✓   | ✓  | ✓ | 37 |
|      |            |      |    |     |    |     |    |    |    |     |    |   | 38 |
|      |            |      |    |     |    |     |    |    |    |     |    |   | 39 |
|      |            |      |    |     |    |     |    |    |    |     |    |   | 40 |

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ASSAYER

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

To Carolin Mines Ltd.,

Assaying &amp; Trace Analysis

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

phone: 253 - 3158

File No. 81-1903

Type of Samples

Disposition

C.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| 18 | SAMPLE No.  | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | W |    |  |
|----|-------------|------|----|-----|----|-----|----|----|----|-----|----|---|----|--|
|    |             |      |    |     |    |     |    |    |    |     |    |   |    |  |
|    | 10S 9+50 W  | .005 | 4  | 64  | 7  | 140 | .1 | 40 | 26 | 22  | 2  | 2 | 1  |  |
|    | 10          | .005 | 4  | 28  | 14 | 154 | .1 | 34 | 15 | 21  | 2  | 2 | 2  |  |
|    | 10+50       | .005 | 5  | 36  | 13 | 98  | .1 | 38 | 15 | 22  | 2  | 1 | 3  |  |
|    | 10S 11 W    | .005 | 3  | 89  | 15 | 95  | .5 | 32 | 19 | 19  | 2  | 1 | 4  |  |
|    | 12S 0+50 E  | .025 | 5  | 75  | 7  | 93  | .2 | 40 | 17 | 100 | 2  | 1 | 6  |  |
|    | 1           | .045 | 4  | 32  | 10 | 85  | .2 | 27 | 14 | 90  | 2  | 1 | 7  |  |
|    | 1+50        | .035 | 5  | 45  | 11 | 98  | .1 | 30 | 13 | 62  | 2  | 1 | 8  |  |
|    | 2           | .005 | 3  | 56  | 11 | 73  | .1 | 26 | 12 | 109 | 2  | 1 | 9  |  |
|    | 2+50        | .050 | 5  | 97  | 12 | 96  | .1 | 38 | 24 | 187 | 2  | 1 | 10 |  |
|    | 3           | .040 | 7  | 212 | 11 | 109 | .1 | 57 | 54 | 316 | 2  | 3 | 11 |  |
|    | 3+50        | .055 | 4  | 79  | 12 | 89  | .5 | 30 | 17 | 168 | 2  | 2 | 12 |  |
|    | 4           | .095 | 4  | 135 | 14 | 86  | .5 | 38 | 23 | 214 | 2  | 1 | 13 |  |
|    | 4+50        | .040 | 5  | 45  | 12 | 56  | .1 | 17 | 9  | 88  | 2  | 1 | 14 |  |
|    | 12S 5 E     | .005 | 4  | 40  | 8  | 72  | .1 | 19 | 15 | 73  | 2  | 1 | 15 |  |
|    | 12S 0+50 W  | .005 | 4  | 51  | 7  | 101 | .3 | 34 | 15 | 60  | 2  | 1 | 16 |  |
|    | 1           | .045 | 3  | 36  | 9  | 69  | .1 | 21 | 11 | 61  | 2  | 1 | 17 |  |
|    | 1+50        | .005 | 3  | 24  | 10 | 51  | .3 | 19 | 8  | 56  | 2  | 1 | 18 |  |
|    | 2           | .135 | 4  | 44  | 12 | 50  | .4 | 21 | 11 | 88  | 2  | 1 | 19 |  |
|    | 3           | .005 | 5  | 16  | 9  | 112 | .1 | 15 | 13 | 42  | 2  | 1 | 20 |  |
|    | 3+50        | .005 | 5  | 61  | 5  | 198 | .2 | 42 | 22 | 103 | 2  | 1 | 21 |  |
|    | 4           | .005 | 4  | 38  | 10 | 145 | .1 | 27 | 15 | 42  | 2  | 1 | 22 |  |
|    | 4+50        | .005 | 4  | 59  | 29 | 153 | .4 | 45 | 19 | 33  | 2  | 1 | 23 |  |
|    | 5           | .005 | 4  | 22  | 21 | 214 | .2 | 25 | 16 | 22  | 2  | 1 | 24 |  |
|    | 5+50        | .005 | 3  | 66  | 15 | 98  | .2 | 33 | 18 | 23  | 2  | 1 | 25 |  |
|    | 6           | .005 | 3  | 28  | 7  | 125 | .1 | 27 | 17 | 18  | 2  | 1 | 26 |  |
|    | 6+50        | .005 | 3  | 52  | 20 | 116 | .1 | 40 | 34 | 21  | 2  | 1 | 27 |  |
|    | 7           | .005 | 5  | 46  | 25 | 158 | .1 | 32 | 20 | 21  | 2  | 1 | 28 |  |
|    | 7+50        | .005 | 4  | 56  | 14 | 89  | .1 | 37 | 20 | 25  | 2  | 1 | 29 |  |
|    | 8           | .005 | 4  | 52  | 12 | 128 | .1 | 29 | 17 | 18  | 2  | 1 | 30 |  |
|    | 8+50        | .005 | 5  | 48  | 7  | 220 | .1 | 38 | 22 | 23  | 2  | 2 | 31 |  |
|    | 9           | .005 | 4  | 62  | 19 | 237 | .6 | 41 | 22 | 29  | 2  | 1 | 32 |  |
|    | 9+50        | .005 | 4  | 26  | 10 | 132 | .1 | 30 | 13 | 21  | 2  | 1 | 33 |  |
|    | 10          | .005 | 4  | 18  | 10 | 119 | .1 | 23 | 11 | 15  | 2  | 1 | 34 |  |
|    | 12S 10+50 W | .005 | 3  | 16  | 5  | 157 | .2 | 22 | 14 | 14  | 2  | 1 | 35 |  |
|    |             |      | ✓  | ✓   | ✓  | ✓   |    |    |    |     | ✓  |   | 36 |  |
|    |             |      |    |     |    |     |    |    |    |     |    |   | 37 |  |
|    |             |      |    |     |    |     |    |    |    |     |    |   | 38 |  |
|    |             |      |    |     |    |     |    |    |    |     |    |   | 39 |  |
|    |             |      |    |     |    |     |    |    |    |     |    |   | 40 |  |

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DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Dec. 7, 1981

DATE REPORTS MAILED Dec. 23, 1981

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



To Carolin Mines Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

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

phone: 253-3158

File No. 81-1903

Type of Samples

Disposition

C.G.

## GEOCHEMICAL ASSAY CERTIFICATE

19

| SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag  | Ni | Co | As  | Sb | W  |
|------------|------|----|-----|----|-----|-----|----|----|-----|----|----|
| 14S 0+50 E | .100 | 2  | 32  | 10 | 75  | .3  | 31 | 11 | 78  | 2  | 1  |
| 1          | .025 | 3  | 47  | 14 | 81  | .1  | 32 | 12 | 62  | 2  | 1  |
| 1+50       | .005 | 2  | 12  | 10 | 81  | .1  | 15 | 13 | 29  | 2  | 1  |
| 2          | .020 | 3  | 35  | 11 | 71  | .1  | 21 | 15 | 67  | 2  | 1  |
| 2+50       | .065 | 3  | 24  | 7  | 104 | .2  | 21 | 11 | 53  | 2  | 1  |
| 3          | .150 | 3  | 60  | 13 | 59  | .1  | 31 | 13 | 146 | 2  | 1  |
| 3+50       | .005 | 2  | 22  | 12 | 111 | .2  | 24 | 12 | 58  | 2  | 1  |
| 4          | .085 | 3  | 150 | 18 | 77  | .7  | 33 | 16 | 170 | 5  | 1  |
| 4+50       | .075 | 2  | 29  | 12 | 66  | .1  | 23 | 13 | 58  | 2  | 1  |
| 14S 5 E    | .365 | 3  | 29  | 8  | 81  | .3  | 20 | 12 | 56  | 2  | 1  |
| 14S 0+50 W | .035 | 3  | 60  | 16 | 80  | .1  | 28 | 15 | 79  | 2  | 1  |
| 1          | .075 | 4  | 101 | 16 | 76  | .6  | 33 | 22 | 73  | 2  | 1  |
| 1+50       | .115 | 2  | 40  | 11 | 107 | .1  | 23 | 13 | 41  | 2  | 1  |
| 2          | .035 | 4  | 75  | 7  | 85  | .2  | 39 | 19 | 62  | 2  | 1  |
| 2+50       | .035 | 3  | 69  | 10 | 88  | .1  | 33 | 17 | 61  | 2  | 1  |
| 3          | .045 | 2  | 51  | 10 | 95  | .1  | 29 | 14 | 42  | 2  | 1  |
| 3+50       | .035 | 2  | 55  | 15 | 129 | .1  | 34 | 19 | 116 | 2  | 1  |
| 4          | .105 | 2  | 51  | 15 | 150 | .2  | 27 | 20 | 97  | 2  | 1  |
| 4+50       | .065 | 5  | 40  | 12 | 267 | 1.7 | 36 | 26 | 114 | 2  | 2  |
| 5          | .005 | 2  | 38  | 24 | 339 | .2  | 39 | 16 | 27  | 2  | 1  |
| 5+50       | .005 | 2  | 20  | 14 | 204 | .1  | 24 | 15 | 14  | 2  | 1  |
| 6          | .005 | 3  | 73  | 22 | 85  | .1  | 38 | 22 | 21  | 3  | 1  |
| 6+50       | .195 | 2  | 24  | 11 | 82  | .1  | 22 | 14 | 27  | 2  | 1  |
| 7          | .050 | 3  | 36  | 8  | 82  | .1  | 24 | 12 | 30  | 2  | 1  |
| 7+50       | .035 | 3  | 58  | 13 | 77  | .1  | 31 | 14 | 44  | 2  | 1  |
| 8          | .095 | 3  | 65  | 14 | 81  | .1  | 40 | 17 | 49  | 2  | 1  |
| 14S 8+50 W | .035 | 2  | 50  | 19 | 196 | .1  | 36 | 18 | 57  | 2  | 1  |
| 16S 0+50 E | .045 | 6  | 99  | 14 | 84  | .1  | 46 | 27 | 112 | 2  | 1  |
| 1          | .005 | 4  | 53  | 20 | 98  | .2  | 29 | 19 | 79  | 2  | 1  |
| 1+50       | .005 | 2  | 35  | 18 | 97  | .1  | 25 | 16 | 59  | 2  | 1  |
| 2          | .060 | 3  | 54  | 16 | 91  | .1  | 34 | 19 | 93  | 2  | 1  |
| 2+50       | .045 | 3  | 57  | 18 | 108 | .1  | 32 | 17 | 90  | 2  | 1  |
| 16S 3 E    | .060 | 5  | 74  | 10 | 77  | .1  | 35 | 19 | 118 | 2  | 1  |
| 16S 0+50 W | .055 | 4  | 80  | 23 | 94  | .3  | 37 | 22 | 98  | 2  | 1  |
| 1          | .050 | 2  | 27  | 12 | 119 | .1  | 20 | 13 | 39  | 2  | 1  |
| 16S 1+50 W | .065 | 4  | 34  | 8  | 68  | .1  | 24 | 12 | 92  | 2  | 1  |
|            |      | ✓  | ✓   | ✓  | ✓   | ✓   | ✓  | ✓  | ✓   |    | 40 |

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DIGESTION:.....

DETERMINATION:.....

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DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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



To: Carlin Mines Ltd.,

File No. 81-1903

## GEOCHEMICAL ASSAY CERTIFICATE

C.G.

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

| 20 | SAMPLE No. |        | Au   | Mo | Cu  | Pb | Zn  | Aq  | Ni | Co | As   | Sb   | W |    |
|----|------------|--------|------|----|-----|----|-----|-----|----|----|------|------|---|----|
|    | 16S        | 2 W    | .025 | 4  | 45  | 6  | 95  | .1  | 30 | 16 | 42   | 2    | 1 | 1  |
|    | 2+50       |        | .145 | 2  | 19  | 7  | 70  | .2  | 16 | 11 | 25   | 2    | 1 | 2  |
|    | 3          |        | .005 | 1  | 25  | 11 | 74  | .3  | 22 | 14 | 39   | 2    | 1 | 3  |
|    | 3+50       |        | .020 | 2  | 56  | 12 | 149 | .3  | 34 | 18 | 69   | 3    | 1 | 4  |
|    | 4          |        | .005 | 3  | 26  | 12 | 144 | .2  | 32 | 19 | 27   | 2    | 1 | 5  |
|    | 4+50       |        | .095 | 4  | 85  | 7  | 163 | .2  | 44 | 24 | 83   | 2    | 2 | 6  |
|    | 5          |        | .015 | 4  | 70  | 14 | 223 | .6  | 47 | 29 | 84   | 2    | 1 | 7  |
|    | 5+50       |        | .005 | 2  | 33  | 11 | 169 | .3  | 33 | 18 | 44   | 2    | 1 | 8  |
|    | 6          |        | .045 | 4  | 109 | 22 | 159 | .6  | 46 | 27 | 132  | 2    | 1 | 9  |
|    | 6+50       |        | .005 | 2  | 48  | 11 | 160 | .4  | 49 | 21 | 55   | 2    | 1 | 10 |
|    | 16S        | 7 W    | .005 | 4  | 46  | 5  | 163 | .1  | 45 | 20 | 44   | 2    | 1 | 11 |
|    | 18S        | 0+50 E | .075 | 1  | 17  | 12 | 85  | .2  | 20 | 10 | 56   | 2    | 1 | 12 |
|    | 1          |        | .025 | 3  | 79  | 11 | 64  | .3  | 37 | 14 | 67   | 2    | 1 | 13 |
|    | 1+50       |        | .035 | 2  | 42  | 15 | 49  | .3  | 20 | 13 | 315  | 5    | 1 | 14 |
|    | 2          |        | .005 | 3  | 72  | 9  | 30  | .2  | 9  | 10 | 255  | 2    | 1 | 15 |
|    | 2+50       |        | .345 | 8  | 197 | 17 | 32  | 1.1 | 8  | 17 | 1656 | (28) | 1 | 16 |
|    | 18S        | 3 E    | .095 | 7  | 225 | 15 | 59  | 1.2 | 23 | 18 | 338  | (22) | 1 | 17 |
|    | 18S        | 0+50 W | .005 | 1  | 55  | 15 | 139 | .6  | 42 | 20 | 72   | 2    | 1 | 18 |
|    | 1          |        | .065 | 3  | 60  | 18 | 82  | .9  | 45 | 23 | 76   | 2    | 1 | 19 |
|    | 2+50       |        | .050 | 3  | 35  | 15 | 109 | .3  | 33 | 25 | 89   | 2    | 1 | 20 |
|    | 3          |        | .005 | 6  | 108 | 5  | 245 | .1  | 51 | 30 | 79   | 2    | 2 | 21 |
|    | 18S        | 3+50 W | .005 | 2  | 55  | 9  | 145 | .5  | 33 | 22 | 83   | 2    | 1 | 22 |
|    |            |        |      |    |     |    |     | ✓   |    |    | ✓    |      |   | 23 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 24 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 25 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 26 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 27 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 28 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 29 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 30 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 31 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 32 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 33 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 34 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 35 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 36 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 37 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 38 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 39 |
|    |            |        |      |    |     |    |     |     |    |    |      |      |   | 40 |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

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ASSAYER

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



To Carolin Mines Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

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

phone: 253-3158

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

N.G.

21

| SAMPLE No. | Au     | Mo   | Cu  | Pb  | Zn | Aq  | Ni  | Co | As | Sb | W |    |
|------------|--------|------|-----|-----|----|-----|-----|----|----|----|---|----|
| 0+00       | 0+00   | .015 | 4   | 42  | 5  | 84  | .1  | 30 | 19 | 19 | 2 | 1  |
|            | 0+50 S | .010 | 3   | 57  | 13 | 63  | .3  | 27 | 16 | 25 | 3 | 1  |
| 1          |        | .015 | 4   | 52  | 14 | 67  | .2  | 27 | 16 | 19 | 3 | 1  |
| 1+50       |        | .015 | 3   | 45  | 25 | 147 | .2  | 27 | 18 | 24 | 2 | 1  |
| 2          |        | .025 | 4   | 88  | 16 | 56  | .2  | 35 | 21 | 35 | 2 | 1  |
| 2+50       |        | .015 | 4   | 51  | 6  | 82  | .1  | 32 | 20 | 25 | 2 | 2  |
| 3          |        | .025 | 4   | 69  | 14 | 55  | .3  | 34 | 22 | 38 | 2 | 1  |
| 3+50       | 1.380  | 3    | 80  | 15  | 59 | .3  | 35  | 21 | 42 | 2  | 1 | 8  |
| 4          |        | .025 | 3   | 25  | 10 | 70  | .2  | 20 | 15 | 21 | 2 | 1  |
| 4+50       |        | .030 | 4   | 270 | 26 | 143 | 1.0 | 64 | 33 | 76 | 2 | 1  |
| 5          |        | .005 | 5   | 73  | 8  | 133 | .2  | 57 | 40 | 42 | 2 | 1  |
| 5+50       |        | .065 | 4   | 56  | 16 | 83  | .1  | 34 | 23 | 80 | 2 | 1  |
| 6          |        | .050 | 3   | 68  | 17 | 77  | .1  | 38 | 23 | 64 | 2 | 1  |
| 6+50       |        | .005 | 3   | 45  | 16 | 97  | .1  | 48 | 20 | 48 | 2 | 1  |
| 7          |        | .035 | 4   | 65  | 17 | 66  | .1  | 36 | 22 | 41 | 2 | 1  |
| 7+50       |        | .015 | 4   | 50  | 7  | 81  | .1  | 30 | 23 | 32 | 2 | 1  |
| 8          |        | .015 | 3   | 50  | 16 | 80  | .1  | 34 | 23 | 35 | 2 | 1  |
| 8+50       |        | .055 | 4   | 45  | 12 | 99  | .1  | 31 | 18 | 19 | 2 | 1  |
| 9          |        | .005 | 4   | 20  | 9  | 73  | .1  | 18 | 10 | 15 | 2 | 1  |
| 9+50       |        | .025 | 3   | 39  | 12 | 94  | .1  | 30 | 20 | 30 | 2 | 1  |
| 10         |        | .010 | 4   | 48  | 7  | 79  | .1  | 29 | 20 | 20 | 2 | 1  |
| 14         |        | .005 | 4   | 33  | 11 | 108 | .1  | 26 | 15 | 30 | 2 | 1  |
| 14+50      |        | .005 | 4   | 33  | 17 | 144 | .3  | 34 | 18 | 34 | 2 | 1  |
| 15         |        | .005 | 4   | 43  | 12 | 127 | .1  | 29 | 16 | 36 | 2 | 1  |
| 15+50      |        | .005 | 4   | 45  | 12 | 77  | .1  | 29 | 14 | 32 | 2 | 1  |
| 16         |        | .015 | 4   | 32  | 7  | 95  | .1  | 25 | 16 | 35 | 2 | 2  |
| 16+50      |        | .005 | 3   | 20  | 10 | 87  | .1  | 20 | 10 | 21 | 2 | 1  |
| 17         |        | .015 | 2   | 16  | 8  | 47  | .1  | 14 | 7  | 35 | 2 | 1  |
| 17+50      |        | .025 | 3   | 39  | 11 | 70  | .1  | 30 | 15 | 36 | 2 | 1  |
| 18         |        | .005 | 3   | 51  | 14 | 74  | .2  | 27 | 15 | 35 | 2 | 1  |
| 18+50      |        | .005 | 3   | 31  | 5  | 75  | .2  | 24 | 16 | 24 | 2 | 1  |
| 19         |        | .005 | 3   | 43  | 10 | 60  | .2  | 27 | 12 | 31 | 2 | 1  |
| 19+50      |        | .035 | 3   | 53  | 13 | 64  | .3  | 29 | 19 | 22 | 2 | 1  |
| 0+00       | 20 S   | .005 | 3   | 64  | 15 | 96  | .3  | 30 | 16 | 36 | 2 | 1  |
| 0+00       | 1 W    | .025 | 3   | 48  | 13 | 87  | .2  | 29 | 14 | 34 | 2 | 1  |
| 0+00       | 1+50   | .025 | 3   | 70  | 6  | 79  | .1  | 34 | 21 | 28 | 2 | 1  |
| 0+00       | 2 W    | .015 | ✓ 3 | 51  | 14 | 86  | .3  | 30 | 20 | 33 | 2 | 1  |
|            |        |      | ✓   |     |    | ✓   | ✓   | ✓  | ✓  | ✓  |   | 40 |

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ASSAYER

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

To Carolin Mines Ltd.,

File No. 81-1903

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

N.G.

22

| SAMPLE No. |        | Au    | Mo | Cu | Pb | Zn  | Ag  | Ni | Co | As  | Sb | W |    |
|------------|--------|-------|----|----|----|-----|-----|----|----|-----|----|---|----|
| 0+00       | 3 N    | .030  | 4  | 78 | 6  | 82  | .1  | 37 | 25 | 52  | 2  | 1 | 1  |
| >          | 3+50   | .005- | 3  | 23 | 12 | 62  | .1  | 18 | 12 | 34  | 2  | 1 | 2  |
| >          | 4+50   | .035  | 2  | 42 | 9  | 65  | .3  | 31 | 15 | 36  | 2  | 1 | 3  |
|            | 5      | .050  | 3  | 50 | 13 | 107 | .2  | 31 | 18 | 40  | 2  | 1 | 4  |
| 0+00       | 5+50 W | .005- | 2  | 23 | 5  | 89  | .2  | 18 | 10 | 23  | 2  | 2 | 5  |
|            |        |       |    |    |    |     |     |    |    |     |    |   | 6  |
| 0+00       | 0+50 E | .065  | 3  | 22 | 15 | 59  | .1  | 16 | 10 | 27  | 2  | 1 | 7  |
|            | 1      | .035  | 2  | 40 | 12 | 49  | .2  | 23 | 15 | 20  | 2  | 1 | 8  |
|            | 1+50   | .025  | 3  | 37 | 9  | 61  | .1  | 24 | 13 | 24  | 2  | 1 | 9  |
|            | 2      | .015  | 3  | 36 | 5  | 79  | .3  | 23 | 15 | 18  | 2  | 1 | 10 |
|            | 2+50   | .025  | 3  | 41 | 15 | 49  | .3  | 29 | 16 | 41  | 2  | 1 | 11 |
|            | 3      | .025  | 3  | 67 | 19 | 65  | .4  | 35 | 22 | 43  | 2  | 1 | 12 |
|            | 3+50   | .035  | 3  | 71 | 21 | 76  | 1.7 | 30 | 23 | 41  | 4  | 1 | 13 |
|            | 4      | .045  | 3  | 70 | 15 | 83  | .5  | 43 | 29 | 48  | 3  | 1 | 14 |
|            | 4+50   | .030  | 4  | 72 | 16 | 68  | .3  | 43 | 27 | 41  | 2  | 1 | 15 |
|            | 5      | .020  | 3  | 58 | 16 | 69  | .3  | 30 | 15 | 36  | 2  | 1 | 16 |
|            | 5+50   | .025  | 2  | 75 | 15 | 89  | .4  | 37 | 21 | 40  | 2  | 1 | 17 |
|            | 6      | .035  | 4  | 75 | 17 | 85  | .5  | 37 | 19 | 55  | 2  | 1 | 18 |
| >          | 6+50   | .035  | 4  | 31 | 14 | 66  | .2  | 28 | 15 | 43  | 2  | 1 | 19 |
| >          | 7+50   | .020  | 4  | 46 | 10 | 16  | .1  | 31 | 16 | 63  | 2  | 1 | 20 |
| 0+00       | 8 E    | .015  | 4  | 25 | 12 | 57  | 1.0 | 22 | 11 | 50  | 2  | 1 | 21 |
|            |        |       |    |    |    |     |     |    |    |     |    |   | 22 |
| 0+00       | 0+50 N | .025  | 3  | 43 | 9  | 62  | .2  | 27 | 17 | 23  | 2  | 1 | 23 |
|            | 1      | .010  | 3  | 39 | 8  | 62  | .2  | 25 | 13 | 20  | 2  | 1 | 24 |
|            | 1+50   | .015  | 2  | 31 | 6  | 47  | .2  | 24 | 10 | 11  | 2  | 1 | 25 |
|            | 2      | .025  | 3  | 33 | 10 | 55  | .2  | 24 | 13 | 14  | 2  | 1 | 26 |
|            | 2+50   | .010  | 3  | 27 | 8  | 53  | .1  | 23 | 13 | 15  | 2  | 1 | 27 |
|            | 3      | .015  | 3  | 28 | 10 | 61  | .2  | 23 | 14 | 20  | 2  | 1 | 28 |
|            | 3+50   | .005- | 3  | 17 | 10 | 60  | .1  | 16 | 11 | 13  | 2  | 1 | 29 |
|            | 4      | .005- | 2  | 44 | 12 | 65  | .2  | 25 | 14 | 13  | 2  | 1 | 30 |
|            | 4+50   | .005- | 3  | 90 | 14 | 88  | .2  | 39 | 36 | 17  | 2  | 1 | 31 |
|            | 5      | .035  | 3  | 46 | 13 | 73  | .2  | 23 | 16 | 11  | 2  | 1 | 32 |
|            | 5+50   | .020  | 4  | 56 | 14 | 72  | .2  | 27 | 19 | 19  | 2  | 1 | 33 |
|            | 6      | .010  | 3  | 59 | 12 | 87  | .3  | 30 | 17 | 28  | 2  | 1 | 34 |
|            | 6+50   | .025  | 4  | 56 | 6  | 86  | .1  | 30 | 22 | 22  | 2  | 1 | 35 |
|            | 7      | .025  | 3  | 37 | 12 | 78  | .2  | 20 | 14 | 17  | 2  | 1 | 36 |
|            | 7+50   | .005- | 3  | 33 | 11 | 60  | .3  | 25 | 14 | 36  | 2  | 1 | 37 |
| 0+00       | 8 N    | .005- | 3  | 48 | 18 | 77  | .2  | 22 | 24 | 541 | 2  | 1 | 38 |
|            |        |       |    | ✓  | ✓  | ✓   | ✓   | ✓  | ✓  | ✓   |    |   | 39 |
|            |        |       |    |    |    |     |     |    |    |     |    |   | 40 |

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All results are in PPM.

DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

DATE SAMPLES RECEIVED Dec. 7, 1981

DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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

81-1903

File No.

Type of Samples

Disposition

N.G.

## GEOCHEMICAL ASSAY CERTIFICATE

| 23    | SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag   | Ni | Co | As  | Sb | W |    |
|-------|------------|------|----|-----|----|-----|------|----|----|-----|----|---|----|
| 0+00  | 8+50 N     | .045 | 3  | 41  | 6  | 53  | 1.21 | 27 | 17 | 37  | 2  | 1 | 1  |
| 9     |            | .005 | 3  | 14  | 6  | 54  | .1   | 10 | 10 | 26  | 2  | 1 | 2  |
| 9+50  |            | .025 | 3  | 28  | 9  | 55  | .1   | 22 | 13 | 19  | 2  | 1 | 3  |
| 10    |            | .025 | 2  | 41  | 13 | 71  | .3   | 27 | 18 | 22  | 4  | 1 | 4  |
| 10+50 |            | .035 | 4  | 31  | 11 | 56  | .1   | 22 | 13 | 10  | 5  | 1 | 5  |
| 11    |            | .045 | 2  | 16  | 5  | 40  | .1   | 13 | 8  | 17  | 2  | 1 | 6  |
| 11+50 |            | .015 | 2  | 53  | 10 | 59  | .2   | 26 | 21 | 26  | 5  | 1 | 7  |
| 12    |            | .010 | 3  | 74  | 12 | 52  | .2   | 27 | 16 | 25  | 7  | 1 | 8  |
| 12+50 |            | .095 | 4  | 50  | 13 | 86  | .2   | 27 | 26 | 27  | 5  | 1 | 9  |
| 13    |            | .005 | 2  | 15  | 8  | 62  | .1   | 15 | 9  | 9   | 2  | 1 | 10 |
| 13+50 |            | .005 | 3  | 26  | 7  | 62  | .1   | 15 | 18 | 40  | 4  | 2 | 11 |
| 0+00  | 14 N       | .010 | 3  | 36  | 12 | 57  | .3   | 25 | 23 | 25  | 5  | 1 | 12 |
| 2S    | 0+50 E     | .020 | 3  | 63  | 15 | 67  | .2   | 33 | 20 | 26  | 4  | 1 | 13 |
| 1     |            | .065 | 2  | 59  | 12 | 62  | .3   | 37 | 19 | 23  | 5  | 1 | 14 |
| 1+50  |            | .005 | 3  | 31  | 6  | 67  | .2   | 24 | 17 | 30  | 2  | 1 | 15 |
| 2     |            | .020 | 3  | 59  | 13 | 55  | .2   | 34 | 18 | 29  | 4  | 1 | 16 |
| 2+50  |            | .005 | 3  | 45  | 14 | 73  | .3   | 34 | 18 | 35  | 5  | 1 | 17 |
| 3     |            | .005 | 2  | 40  | 10 | 87  | .3   | 30 | 17 | 24  | 9  | 1 | 18 |
| 3+50  |            | .025 | 3  | 55  | 10 | 73  | .4   | 34 | 17 | 41  | 9  | 1 | 19 |
| 4     |            | .025 | 4  | 36  | 7  | 110 | .5   | 59 | 23 | 52  | 3  | 2 | 20 |
| 4+50  |            | .025 | 4  | 43  | 11 | 57  | .2   | 32 | 17 | 35  | 6  | 1 | 21 |
| 5     |            | .085 | 4  | 52  | 22 | 66  | 1.2  | 42 | 32 | 49  | 6  | 1 | 22 |
| 5+50  |            | .020 | 3  | 46  | 18 | 56  | .4   | 38 | 27 | 32  | 5  | 1 | 23 |
| 6     |            | .005 | 3  | 29  | 14 | 54  | .2   | 26 | 17 | 27  | 5  | 1 | 24 |
| 6+50  |            | .005 | 3  | 38  | 10 | 75  | .3   | 31 | 20 | 47  | 2  | 1 | 25 |
| 2S    | 7 E        | .005 | 2  | 29  | 13 | 80  | .2   | 27 | 17 | 43  | 3  | 1 | 26 |
| 2S    | 0+50 W     | .020 | 3  | 77  | 11 | 55  | .3   | 34 | 21 | 30  | 7  | 1 | 27 |
| 1     |            | .020 | 4  | 47  | 13 | 60  | .3   | 27 | 16 | 29  | 5  | 1 | 28 |
| 1+50  |            | .010 | 4  | 66  | 6  | 82  | .1   | 38 | 23 | 41  | 2  | 2 | 29 |
| 2     |            | .005 | 3  | 29  | 10 | 75  | .3   | 18 | 16 | 19  | 2  | 1 | 30 |
| 2+50  |            | .025 | 2  | 59  | 11 | 54  | .1   | 31 | 17 | 56  | 7  | 1 | 31 |
| 3     |            | .080 | 4  | 19  | 9  | 57  | .1   | 14 | 8  | 18  | 5  | 1 | 32 |
| 3+50  |            | .015 | 3  | 38  | 11 | 82  | .2   | 30 | 17 | 42  | 4  | 1 | 33 |
| 4     |            | .025 | 2  | 38  | 3  | 46  | .1   | 27 | 17 | 34  | 2  | 1 | 34 |
| 4+50  |            | .020 | 3  | 180 | 26 | 132 | 1.2  | 69 | 32 | 114 | 7  | 1 | 35 |
| 5     |            | .025 | 2  | 63  | 12 | 68  | .2   | 29 | 19 | 35  | 5  | 1 | 36 |
| 5+50  |            | .015 | 3  | 36  | 13 | 87  | .2   | 33 | 17 | 56  | 5  | 1 | 37 |
| 2S    | 6 W        | .005 | 3  | 38  | 7  | 67  | .4   | 29 | 16 | 37  | 2  | 1 | 38 |

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DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Dec. 7, 1981

DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

*D. Beyle*

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



To: Carolin Mines Ltd.,

File No. 81-1903

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

N.G.

24

| SAMPLE No. | Au     | Mo | Cu  | Pb | Zn  | Ag  | Ni | Co | As | Sb | W |    |
|------------|--------|----|-----|----|-----|-----|----|----|----|----|---|----|
| 2N 0+50 E  | .005 - | 2  | 17  | 5  | 50  | .1  | 17 | 11 | 10 | 2  | 1 | 1  |
| 1          | .025   | 3  | 18  | 7  | 46  | .1  | 16 | 9  | 11 | 2  | 1 | 2  |
| 1+50       | .005 - | 3  | 30  | 10 | 53  | .1  | 27 | 12 | 18 | 2  | 1 | 3  |
| 2          | .005 - | 3  | 26  | 11 | 61  | .2  | 22 | 12 | 20 | 2  | 1 | 4  |
| 2+50       | .015   | 2  | 40  | 14 | 74  | .3  | 32 | 18 | 25 | 2  | 1 | 5  |
| 3          | .030   | 3  | 38  | 7  | 71  | .2  | 29 | 16 | 26 | 2  | 1 | 6  |
| 3+50       | .025   | 2  | 51  | 14 | 50  | .1  | 29 | 21 | 46 | 2  | 1 | 7  |
| 4          | .015   | 2  | 39  | 11 | 66  | .3  | 30 | 21 | 27 | 2  | 1 | 8  |
| 4+50       | .010   | 3  | 52  | 13 | 63  | .2  | 30 | 22 | 29 | 2  | 1 | 9  |
| 5          | .005 - | 3  | 35  | 14 | 76  | .1  | 26 | 16 | 30 | 2  | 1 | 10 |
| 5+50       | .030   | 3  | 32  | 6  | 66  | .1  | 27 | 18 | 39 | 2  | 1 | 11 |
| 6          | .010   | 3  | 62  | 14 | 59  | .3  | 29 | 17 | 56 | 2  | 1 | 12 |
| 2N 6+50 E  | .020   | 3  | 62  | 18 | 66  | .4  | 32 | 19 | 68 | 2  | 1 | 13 |
| 2N 0+50 W  | .015   | 3  | 40  | 11 | 64  | .2  | 29 | 17 | 21 | 2  | 1 | 14 |
| 1          | .035   | 3  | 56  | 6  | 52  | .1  | 33 | 22 | 30 | 2  | 1 | 15 |
| 2          | .005 - | 2  | 23  | 13 | 32  | .1  | 18 | 11 | 15 | 2  | 1 | 16 |
| 2+50       | .005 - | 3  | 47  | 13 | 53  | .2  | 30 | 17 | 35 | 2  | 1 | 17 |
| 3          | .005 - | 2  | 19  | 11 | 52  | .1  | 18 | 10 | 20 | 2  | 1 | 18 |
| 3+50       | .025   | 2  | 20  | 9  | 40  | .2  | 17 | 8  | 14 | 2  | 1 | 19 |
| 4          | .010   | 3  | 47  | 5  | 82  | .2  | 30 | 19 | 21 | 2  | 1 | 20 |
| 4+50       | .015   | 3  | 45  | 11 | 61  | .2  | 29 | 17 | 33 | 2  | 1 | 21 |
| 5          | .005 - | 3  | 47  | 12 | 79  | .5  | 31 | 18 | 36 | 2  | 1 | 22 |
| 5+50       | .025   | 3  | 133 | 19 | 75  | .5  | 55 | 35 | 89 | 2  | 1 | 23 |
| 2N 6 W     | .010   | 3  | 64  | 16 | 97  | .5  | 41 | 21 | 60 | 2  | 1 | 24 |
| 2N 6 E     | .010   | 3  | 64  | 16 | 97  | .5  | 41 | 21 | 60 | 2  | 1 | 25 |
| 4S 0+50 E  | .005 - | 4  | 46  | 5  | 101 | .2  | 31 | 21 | 38 | 2  | 1 | 26 |
| 1          | .065   | 4  | 83  | 17 | 61  | .3  | 36 | 26 | 42 | 2  | 1 | 27 |
| 1+50       | .075   | 3  | 32  | 10 | 75  | .1  | 21 | 18 | 24 | 2  | 1 | 28 |
| 2          | .045   | 2  | 236 | 27 | 139 | 1.2 | 70 | 40 | 85 | 2  | 1 | 29 |
| 2+50       | .015   | 3  | 76  | 12 | 67  | .3  | 41 | 27 | 41 | 2  | 1 | 30 |
| 3          | .025   | 4  | 56  | 2  | 67  | .1  | 33 | 21 | 58 | 2  | 1 | 31 |
| 3+50       | .015   | 2  | 34  | 12 | 62  | .1  | 24 | 20 | 27 | 2  | 1 | 32 |
| 4          | .025   | 4  | 64  | 12 | 80  | .2  | 35 | 22 | 39 | 2  | 1 | 33 |
| 4+50       | .055   | 3  | 61  | 13 | 66  | .2  | 35 | 20 | 60 | 2  | 1 | 34 |
| 5          | .545   | 4  | 56  | 11 | 78  | 2.7 | 42 | 24 | 60 | 2  | 1 | 35 |
| 5+50       | .010   | 4  | 68  | 12 | 89  | .3  | 39 | 27 | 50 | 2  | 1 | 36 |
| 4S 6 E     | .005 - | 3  | 57  | 14 | 61  | .2  | 36 | 20 | 47 | 2  | 1 | 37 |
|            |        |    | ✓   | ✓  | ✓   | ✓   | ✓  | ✓  | ✓  |    |   | 38 |
|            |        |    |     |    |     |     |    |    |    |    |   | 39 |
|            |        |    |     |    |     |     |    |    |    |    |   | 40 |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

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DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

N.G.

25

| SAMPLE No. | Au   | Mo | Cu | Pb | Zn  | Ag | Ni | Co | As | Sb | W |    |
|------------|------|----|----|----|-----|----|----|----|----|----|---|----|
| 4S 6+50 E  | .075 | 2  | 50 | 12 | 61  | .1 | 31 | 15 | 60 | 2  | 1 | 1  |
| 7          | .005 | 2  | 48 | 10 | 57  | .1 | 34 | 19 | 58 | 2  | 1 | 2  |
| 7+50       | .005 | 2  | 49 | 9  | 44  | .2 | 32 | 15 | 63 | 2  | 1 | 3  |
| 4S 8 E     | .065 | 3  | 39 | 5  | 53  | .2 | 31 | 13 | 42 | 2  | 1 | 4  |
| 4S 0+50 W  | .050 | 2  | 64 | 10 | 59  | .4 | 32 | 27 | 44 | 2  | 1 | 5  |
| 1          | .085 | 2  | 71 | 10 | 54  | .2 | 34 | 24 | 38 | 2  | 1 | 6  |
| 1+50       | .005 | 2  | 41 | 8  | 104 | .3 | 32 | 19 | 30 | 2  | 1 | 7  |
| 2          | .005 | 2  | 22 | 5  | 56  | .2 | 18 | 11 | 18 | 2  | 1 | 8  |
| 2+50       | .005 | 2  | 45 | 8  | 59  | .2 | 30 | 19 | 44 | 2  | 1 | 9  |
| 3          | .005 | 2  | 60 | 7  | 47  | .1 | 31 | 17 | 50 | 2  | 1 | 10 |
| 3+50       | .020 | 2  | 53 | 8  | 41  | .2 | 29 | 16 | 44 | 2  | 1 | 11 |
| 4          | .005 | 2  | 41 | 7  | 60  | .3 | 26 | 15 | 26 | 2  | 1 | 12 |
| 4+50       | .005 | 4  | 59 | 9  | 64  | .2 | 35 | 25 | 53 | 2  | 1 | 13 |
| 5          | .010 | 3  | 58 | 10 | 65  | .4 | 31 | 22 | 58 | 2  | 1 | 14 |
| 5+50       | .005 | 3  | 34 | 7  | 59  | .2 | 26 | 15 | 40 | 2  | 1 | 15 |
| 4S 6 W     | .005 | 4  | 65 | 10 | 69  | .5 | 37 | 20 | 61 | 2  | 1 | 16 |
|            |      |    |    |    |     |    |    |    |    |    |   | 17 |
| 4N 0+50 E  | .005 | 3  | 20 | 6  | 54  | .2 | 23 | 13 | 15 | 2  | 2 | 18 |
| 1          | .005 | 3  | 28 | 10 | 59  | .2 | 27 | 15 | 21 | 2  | 1 | 19 |
| 1+50       | .005 | 2  | 20 | 8  | 66  | .1 | 20 | 13 | 20 | 2  | 1 | 20 |
| 2          | .005 | 3  | 34 | 9  | 59  | .2 | 29 | 15 | 23 | 2  | 1 | 21 |
| 2+50       | .005 | 3  | 42 | 8  | 67  | .6 | 35 | 18 | 33 | 2  | 1 | 22 |
| 3          | .005 | 3  | 55 | 7  | 69  | .3 | 42 | 19 | 34 | 2  | 1 | 23 |
| 3+50       | .030 | 3  | 70 | 7  | 99  | .4 | 29 | 30 | 40 | 3  | 1 | 24 |
| 4          | .020 | 2  | 76 | 9  | 69  | .3 | 40 | 28 | 45 | 3  | 1 | 25 |
| 4+50       | .005 | 3  | 75 | 10 | 73  | .2 | 42 | 25 | 32 | 3  | 1 | 26 |
| 5          | .005 | 3  | 29 | 11 | 69  | .3 | 27 | 15 | 39 | 2  | 1 | 27 |
| 5+50       | .005 | 3  | 20 | 5  | 66  | .4 | 23 | 10 | 26 | 2  | 1 | 28 |
| 6          | .005 | 3  | 33 | 7  | 45  | .2 | 28 | 12 | 44 | 2  | 1 | 29 |
| 6+50       | .005 | 3  | 30 | 10 | 57  | .2 | 25 | 15 | 53 | 2  | 1 | 30 |
| 7          | .005 | 3  | 25 | 12 | 56  | .1 | 25 | 13 | 35 | 2  | 1 | 31 |
| 7+50       | .005 | 3  | 49 | 14 | 88  | .4 | 37 | 20 | 70 | 2  | 1 | 32 |
| 4N 8 E     | .005 | 4  | 48 | 8  | 62  | .4 | 33 | 16 | 53 | 2  | 1 | 33 |
|            |      |    |    |    |     |    |    |    |    |    |   | 34 |
| 4N 0+50 W  | .005 | 2  | 35 | 10 | 66  | .1 | 22 | 17 | 14 | 2  | 1 | 35 |
| 1          | .015 | 2  | 22 | 27 | 103 | .5 | 15 | 18 | 17 | 2  | 1 | 36 |
| 1+50       | .010 | 3  | 35 | 14 | 70  | .1 | 22 | 18 | 22 | 2  | 1 | 37 |
| 4N 2 W     | .015 | 3  | 42 | 6  | 49  | .1 | 28 | 18 | 31 | 2  | 2 | 38 |
|            |      |    |    |    |     |    |    |    |    |    |   | 39 |
|            |      |    |    |    |     |    |    |    |    |    |   | 40 |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

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DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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

To: Carolin Mines Ltd.,

Assaying &amp; Trace Analysis

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

phone: 253 - 3158

File No. 81-1903

Type of Samples

Disposition

N.G.

## GEOCHEMICAL ASSAY CERTIFICATE

26

|      | SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As  | Sb | W |    |
|------|------------|------|----|-----|----|-----|----|----|----|-----|----|---|----|
| 4N   | 2+50 W     | .005 | 2  | 20  | 4  | 61  | .1 | 19 | 11 | 15  | 2  | 1 | 1  |
| 3    |            | .005 | 2  | 21  | 10 | 48  | .1 | 21 | 13 | 19  | 2  | 1 | 2  |
| 3+50 |            | .010 | 2  | 43  | 12 | 43  | .1 | 26 | 16 | 32  | 2  | 1 | 3  |
| 4    |            | .025 | 1  | 31  | 11 | 53  | .1 | 25 | 16 | 24  | 2  | 1 | 4  |
| 4+50 |            | .015 | 3  | 43  | 9  | 44  | .1 | 26 | 15 | 25  | 2  | 1 | 5  |
| 5    |            | .005 | 3  | 33  | 7  | 57  | .1 | 29 | 18 | 31  | 2  | 1 | 6  |
| 5+50 |            | .005 | 3  | 58  | 14 | 65  | .4 | 37 | 21 | 41  | 2  | 1 | 7  |
| 4N   | 6 W        | .550 | 2  | 21  | 9  | 58  | .1 | 21 | 16 | 28  | 2  | 1 | 8  |
| 6S   | 0+50 E     | .025 | 2  | 22  | 9  | 67  | .1 | 19 | 17 | 22  | 2  | 1 | 10 |
| 1    |            | .005 | 4  | 37  | 6  | 90  | .1 | 26 | 28 | 24  | 2  | 1 | 11 |
| 1+50 |            | .005 | 2  | 39  | 14 | 80  | .1 | 21 | 31 | 33  | 2  | 1 | 12 |
| 2    |            | .005 | 2  | 30  | 12 | 73  | .1 | 23 | 18 | 40  | 2  | 1 | 13 |
| 2+50 |            | .005 | 3  | 46  | 16 | 58  | .1 | 29 | 21 | 41  | 3  | 1 | 14 |
| 3    |            | .005 | 3  | 148 | 21 | 79  | .1 | 52 | 36 | 99  | 2  | 1 | 15 |
| 3+50 |            | .025 | 3  | 39  | 7  | 67  | .1 | 28 | 18 | 37  | 2  | 1 | 16 |
| 4+50 |            | .075 | 2  | 114 | 34 | 225 | .1 | 65 | 47 | 61  | 15 | 1 | 17 |
| 5+50 |            | .025 | 2  | 70  | 18 | 57  | .3 | 37 | 38 | 137 | 7  | 1 | 18 |
| 6S   | 6 E        | .045 | 2  | 103 | 32 | 71  | .1 | 56 | 43 | 51  | 7  | 1 | 19 |
| 6S   | 0+50 W     | .005 | 3  | 38  | 6  | 68  | .2 | 24 | 18 | 29  | 2  | 2 | 21 |
| 1    |            | .005 | 3  | 59  | 15 | 89  | .3 | 30 | 24 | 28  | 2  | 1 | 22 |
| 1+50 |            | .005 | 3  | 51  | 14 | 94  | .4 | 29 | 22 | 33  | 2  | 1 | 23 |
| 2    |            | .005 | 3  | 33  | 11 | 84  | .2 | 27 | 17 | 46  | 2  | 1 | 24 |
| 2+50 |            | .005 | 2  | 36  | 12 | 61  | .1 | 30 | 18 | 50  | 2  | 1 | 25 |
| 3    |            | .005 | 3  | 28  | 2  | 72  | .2 | 30 | 18 | 33  | 2  | 1 | 26 |
| 3+50 |            | .005 | 2  | 25  | 12 | 64  | .1 | 22 | 15 | 29  | 2  | 1 | 27 |
| 4    |            | .005 | 3  | 58  | 14 | 76  | .5 | 34 | 22 | 48  | 2  | 1 | 28 |
| 4+50 |            | .005 | 2  | 31  | 10 | 82  | .3 | 24 | 19 | 27  | 2  | 1 | 29 |
| 5    |            | .005 | 3  | 82  | 16 | 82  | .5 | 40 | 22 | 58  | 2  | 1 | 30 |
| 5+50 |            | .005 | 3  | 39  | 7  | 76  | .2 | 34 | 22 | 36  | 2  | 1 | 31 |
| 6S   | 6 W        | .005 | 2  | 33  | 8  | 106 | .3 | 30 | 21 | 42  | 2  | 1 | 32 |
| 6N   | 0+50 E     | .005 | 2  | 10  | 4  | 38  | .2 | 9  | 8  | 11  | 2  | 1 | 33 |
| 1    |            | .005 | 3  | 17  | 6  | 63  | .3 | 17 | 11 | 14  | 2  | 1 | 34 |
| 1+50 |            | .005 | 2  | 16  | 8  | 62  | .1 | 17 | 11 | 20  | 2  | 1 | 35 |
| 2    |            | .005 | 2  | 33  | 7  | 56  | .2 | 25 | 14 | 30  | 2  | 1 | 36 |
| 2+50 |            | .005 | 2  | 100 | 13 | 100 | .1 | 30 | 35 | 146 | 2  | 1 | 37 |
| 6N   | 3 E        | .005 | 4  | 55  | 8  | 77  | .4 | 38 | 24 | 31  | 2  | 2 | 38 |
|      |            |      | v  | v   | v  | v   | v  | v  | v  | v   | v  | v | 40 |

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DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

DIGESTION:

DETERMINATION:

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



To: Carolin Mines

ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

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

phone: 253 - 3158

File No. 81-1903

Type of Samples

Disposition

N.G.

## GEOCHEMICAL ASSAY CERTIFICATE

27

| SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As | Sb | W |    |
|------------|------|----|-----|----|-----|----|----|----|----|----|---|----|
| GN 3+50 E  | .005 | 3  | 21  | 3  | 57  | .2 | 22 | 12 | 12 | 2  | 1 | 1  |
| 4          | .025 | 3  | 69  | 13 | 56  | .2 | 35 | 18 | 42 | 2  | 1 | 2  |
| 4+50       | .005 | 3  | 86  | 19 | 84  | .5 | 35 | 22 | 28 | 2  | 1 | 3  |
| 5          | .005 | 2  | 95  | 24 | 103 | .3 | 16 | 21 | 16 | 2  | 1 | 4  |
| 5+50       | .020 | 1  | 38  | 12 | 87  | .8 | 30 | 16 | 55 | 2  | 1 | 5  |
| 6          | .015 | 3  | 49  | 6  | 51  | .2 | 38 | 16 | 52 | 2  | 1 | 6  |
| 6N 6+50 E  | .005 | 2  | 39  | 14 | 68  | .2 | 29 | 12 | 48 | 2  | 1 | 7  |
| 6N 0+50 W  | .005 | 2  | 31  | 12 | 66  | .1 | 22 | 13 | 15 | 2  | 1 | 9  |
| 1          | .095 | 3  | 52  | 13 | 54  | .1 | 30 | 21 | 25 | 2  | 1 | 10 |
| 1+50       | .025 | 2  | 19  | 6  | 48  | .1 | 20 | 11 | 10 | 2  | 1 | 11 |
| 2          | .165 | 1  | 22  | 13 | 67  | .2 | 21 | 12 | 16 | 2  | 1 | 12 |
| 2+50       | .005 | 2  | 31  | 11 | 51  | .1 | 28 | 17 | 18 | 2  | 1 | 13 |
| 3          | .035 | 2  | 35  | 13 | 58  | .2 | 29 | 14 | 26 | 2  | 1 | 14 |
| 3+50       | .035 | 2  | 43  | 12 | 73  | .2 | 31 | 20 | 26 | 2  | 1 | 15 |
| 4          | .020 | 3  | 35  | 7  | 49  | .1 | 25 | 18 | 21 | 2  | 1 | 16 |
| 4+50       | .025 | 2  | 42  | 13 | 51  | .2 | 27 | 16 | 28 | 2  | 1 | 17 |
| 5          | .005 | 3  | 37  | 16 | 52  | .2 | 25 | 16 | 27 | 2  | 1 | 18 |
| 6          | .005 | 3  | 55  | 14 | 83  | .2 | 37 | 23 | 46 | 2  | 1 | 19 |
| 6N 6 AW    | .005 | 4  | 152 | 7  | 76  | .5 | 45 | 25 | 33 | 2  | 2 | 20 |
| 8S 1 E     | .035 | 3  | 72  | 15 | 81  | .2 | 38 | 26 | 37 | 2  | 1 | 21 |
| 1+50       | .025 | 2  | 52  | 19 | 82  | .2 | 30 | 23 | 34 | 2  | 1 | 22 |
| 2          | .025 | 2  | 40  | 13 | 80  | .2 | 24 | 19 | 38 | 2  | 1 | 23 |
| 2+50       | .020 | 4  | 73  | 2  | 58  | .1 | 45 | 26 | 68 | 2  | 1 | 24 |
| 3          | .010 | 2  | 31  | 12 | 75  | .3 | 26 | 17 | 34 | 2  | 1 | 25 |
| 3+50       | .065 | 2  | 33  | 15 | 71  | .1 | 23 | 21 | 34 | 2  | 1 | 26 |
| 4          | .015 | 1  | 31  | 14 | 92  | .5 | 23 | 20 | 21 | 2  | 1 | 27 |
| 4+50       | .025 | 5  | 69  | 6  | 78  | .1 | 39 | 32 | 83 | 3  | 1 | 28 |
| 5          | .005 | 4  | 62  | 23 | 116 | .1 | 41 | 33 | 49 | 2  | 1 | 29 |
| 6+50       | .005 | 2  | 43  | 11 | 72  | .1 | 28 | 17 | 25 | 2  | 1 | 30 |
| 7          | .005 | 3  | 68  | 16 | 64  | .3 | 49 | 31 | 41 | 2  | 1 | 31 |
| 8S 7+50 E  | .005 | 3  | 57  | 7  | 70  | .2 | 40 | 28 | 37 | 2  | 1 | 32 |
| 8S 0+50 W  | .015 | 2  | 29  | 11 | 118 | .2 | 22 | 15 | 28 | 2  | 1 | 33 |
| 1          | .005 | 1  | 20  | 12 | 91  | .1 | 20 | 16 | 23 | 2  | 1 | 34 |
| 1+50       | .005 | 2  | 29  | 12 | 94  | .2 | 27 | 16 | 31 | 2  | 1 | 35 |
| 2          | .025 | 2  | 41  | 9  | 63  | .1 | 30 | 15 | 30 | 2  | 1 | 36 |
| 8S 2+50 W  | .005 | 3  | 40  | 5  | 58  | .2 | 26 | 17 | 30 | 2  | 1 | 37 |
|            | ✓    | ✓  | ✓   | ✓  | ✓   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓ | 40 |

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All results are in PPM.

DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Dec. 7, 1981

DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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



To Carolin Mines Ltd.,

File No. 81-1003-

## GEOCHEMICAL ASSAY CERTIFICATE

N.G.

Type of Samples \_\_\_\_\_  
Disposition \_\_\_\_\_

28

| SAMPLE No. |        | Au    | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As | Sb | W |    |
|------------|--------|-------|----|-----|----|-----|----|----|----|----|----|---|----|
| 8S         | 3 W    | .005  | 3  | 34  | 4  | 64  | .1 | 22 | 15 | 22 | 2  | 1 | 1  |
|            | 3+50   | .005  | 3  | 36  | 10 | 60  | .1 | 26 | 19 | 37 | 2  | 1 | 2  |
|            | 4      | .005  | 3  | 64  | 15 | 64  | .4 | 33 | 20 | 49 | 2  | 1 | 3  |
|            | 4+50   | .005  | 3  | 46  | 9  | 61  | .2 | 31 | 22 | 41 | 2  | 1 | 4  |
|            | 5      | .045  | 4  | 65  | 15 | 71  | .5 | 36 | 21 | 54 | 2  | 1 | 5  |
|            | 5+50   | .005  | 6  | 137 | 8  | 103 | .7 | 49 | 28 | 59 | 2  | 2 | 6  |
| 8S         | 6 W    | .005  | 3  | 55  | 16 | 74  | .3 | 36 | 24 | 55 | 2  | 1 | 7  |
| 8N         | 0+50 E | .015  | 2  | 35  | 12 | 39  | .1 | 16 | 12 | 18 | 2  | 1 | 9  |
|            | 1      | .005  | 2  | 25  | 14 | 71  | .2 | 20 | 13 | 20 | 2  | 1 | 10 |
|            | 1+50   | .005  | 2  | 22  | 5  | 37  | .1 | 14 | 9  | 19 | 2  | 2 | 11 |
|            | 2      | .025  | 3  | 51  | 14 | 54  | .2 | 32 | 17 | 29 | 4  | 1 | 12 |
|            | 2+50   | .015  | 2  | 38  | 11 | 81  | .2 | 32 | 16 | 28 | 2  | 1 | 13 |
|            | 3      | .005  | 3  | 57  | 16 | 69  | .1 | 32 | 22 | 32 | 2  | 1 | 14 |
|            | 3+50   | .005  | 2  | 38  | 15 | 62  | .1 | 26 | 18 | 32 | 2  | 1 | 15 |
|            | 4      | .005  | 4  | 75  | 10 | 80  | .4 | 37 | 25 | 33 | 2  | 2 | 16 |
|            | 4+50   | .005  | 4  | 109 | 20 | 94  | .2 | 40 | 32 | 31 | 2  | 1 | 17 |
|            | 5      | .005  | 2  | 33  | 13 | 31  | .1 | 17 | 14 | 11 | 2  | 1 | 18 |
|            | 5+50   | .005  | 1  | 30  | 15 | 57  | .1 | 29 | 14 | 15 | 2  | 1 | 19 |
| 8N         | 6+50 E | .025  | 3  | 16  | 6  | 51  | .1 | 20 | 9  | 15 | 2  | 2 | 20 |
| 8N         | 0+50 W | 1.400 | 2  | 40  | 14 | 63  | .3 | 28 | 22 | 31 | 2  | 1 | 22 |
|            | 1      | .140  | 2  | 41  | 29 | 144 | .3 | 26 | 22 | 34 | 2  | 1 | 23 |
|            | 1+50   | .025  | 2  | 45  | 10 | 63  | .2 | 28 | 15 | 19 | 2  | 1 | 24 |
|            | 2      | .020  | 3  | 36  | 6  | 48  | .2 | 24 | 15 | 25 | 2  | 2 | 25 |
|            | 2+50   | .005  | 2  | 29  | 9  | 62  | .1 | 26 | 14 | 23 | 2  | 1 | 26 |
|            | 3      | .015  | 2  | 25  | 9  | 72  | .1 | 21 | 13 | 10 | 2  | 1 | 27 |
|            | 3+50   | .005  | 1  | 37  | 11 | 42  | .1 | 34 | 18 | 25 | 2  | 1 | 28 |
|            | 4      | .045  | 1  | 28  | 10 | 46  | .1 | 30 | 15 | 21 | 2  | 1 | 29 |
|            | 4+50   | .005  | 3  | 18  | 8  | 50  | .2 | 23 | 14 | 17 | 2  | 1 | 30 |
|            | 5      | .005  | 3  | 71  | 12 | 62  | .1 | 34 | 22 | 27 | 2  | 1 | 31 |
|            | 5+50   | .165  | 2  | 21  | 17 | 122 | .2 | 25 | 15 | 30 | 2  | 1 | 32 |
|            | 6      | .005  | 2  | 51  | 15 | 51  | .2 | 30 | 21 | 34 | 2  | 1 | 33 |
| 8N         | 6+50 W | .005  | 2  | 18  | 6  | 45  | .1 | 20 | 11 | 13 | 2  | 2 | 34 |
| 10S        | 0+50 E | .005  | 3  | 56  | 38 | 72  | .2 | 32 | 23 | 17 | 2  | 1 | 36 |
|            | 1      | .005  | 1  | 58  | 14 | 78  | .1 | 32 | 27 | 28 | 2  | 1 | 37 |
| 10S        | 1+50   | .025  | 2  | 42  | 10 | 62  | .2 | 29 | 19 | 23 | 2  | 1 | 38 |
| 10S        | 2 E    | .005  | 3  | 28  | 4  | 78  | .2 | 22 | 21 | 18 | 2  | 2 | 39 |
|            |        | V     | V  | V   | V  | V   | V  | V  | V  | V  | V  | V | 40 |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

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DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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

## ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

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

phone: 253 - 3158

81-1003

File No.

Type of Samples

Disposition

N.G.

## GEOCHEMICAL ASSAY CERTIFICATE

To: Carolin Mines Ltd.,

29

| SAMPLE No. | Au   | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As | Sb | W |    |
|------------|------|----|-----|----|-----|----|----|----|----|----|---|----|
| 10S 2+50 E | .005 | 5  | 60  | 6  | 90  | .1 | 37 | 37 | 17 | 2  | 2 | 1  |
| 3          | .005 | 4  | 38  | 17 | 76  | .2 | 29 | 21 | 44 | 2  | 1 | 2  |
| 3+50       | .005 | 2  | 19  | 12 | 54  | .2 | 16 | 15 | 20 | 2  | 1 | 3  |
| 4          | .005 | 3  | 32  | 29 | 86  | .3 | 29 | 23 | 28 | 2  | 1 | 4  |
| 4+50       | .005 | 4  | 69  | 17 | 78  | .1 | 52 | 40 | 52 | 2  | 1 | 5  |
| 10S 5 E    | .005 | 5  | 34  | 6  | 73  | .1 | 29 | 33 | 29 | 3  | 2 | 6  |
| 10S 0+50 W | .005 | 4  | 44  | 16 | 82  | .2 | 26 | 24 | 27 | 2  | 1 | 8  |
| 1          | .005 | 5  | 29  | 12 | 99  | .3 | 23 | 17 | 20 | 2  | 1 | 9  |
| 1+50       | .005 | 4  | 88  | 16 | 101 | .5 | 40 | 33 | 30 | 2  | 1 | 10 |
| 2          | .005 | 4  | 48  | 7  | 80  | .1 | 33 | 22 | 40 | 2  | 1 | 11 |
| 2+50       | .005 | 4  | 93  | 15 | 76  | .4 | 37 | 30 | 63 | 2  | 1 | 12 |
| 3          | .005 | 4  | 42  | 14 | 86  | .2 | 26 | 20 | 38 | 2  | 1 | 13 |
| 3+50       | .005 | 2  | 30  | 11 | 72  | .2 | 22 | 14 | 25 | 2  | 1 | 14 |
| 4          | .005 | 3  | 65  | 16 | 81  | .4 | 30 | 27 | 30 | 2  | 1 | 15 |
| 4+50       | .005 | 4  | 49  | 10 | 74  | .2 | 26 | 23 | 41 | 2  | 2 | 16 |
| 10S 5 W    | .005 | 4  | 46  | 19 | 84  | .3 | 31 | 21 | 37 | 2  | 1 | 17 |
| 10N 0+50 E | .005 | 4  | 29  | 13 | 46  | .1 | 19 | 17 | 18 | 2  | 1 | 19 |
| 1          | .005 | 4  | 51  | 13 | 57  | .2 | 32 | 19 | 31 | 2  | 1 | 20 |
| 1+50       | .005 | 6  | 138 | 12 | 76  | .6 | 58 | 35 | 67 | 2  | 2 | 21 |
| 2          | .020 | 4  | 66  | 15 | 64  | .3 | 42 | 25 | 36 | 2  | 1 | 22 |
| 2+50       | .005 | 4  | 49  | 10 | 72  | .2 | 34 | 33 | 35 | 2  | 1 | 23 |
| 3          | .005 | 3  | 39  | 9  | 57  | .1 | 23 | 14 | 35 | 2  | 1 | 24 |
| 10N 3+50 E | .005 | 4  | 27  | 5  | 75  | .1 | 24 | 17 | 36 | 2  | 1 | 25 |
| 10N 0+50 W | .005 | 3  | 36  | 10 | 62  | .1 | 29 | 15 | 16 | 2  | 1 | 27 |
| 1          | .085 | 3  | 43  | 14 | 48  | .1 | 27 | 19 | 21 | 2  | 1 | 28 |
| 1+50       | .005 | 4  | 44  | 8  | 64  | .2 | 35 | 26 | 39 | 2  | 1 | 29 |
| 2          | .150 | 4  | 44  | 8  | 64  | .2 | 35 | 26 | 39 | 2  | 1 | 30 |
| 2+50       | .020 | 5  | 47  | 13 | 51  | .1 | 26 | 21 | 29 | 2  | 1 | 31 |
| 3          | .005 | 3  | 44  | 13 | 91  | .3 | 27 | 19 | 17 | 2  | 1 | 32 |
| 3+50       | .030 | 4  | 26  | 10 | 58  | .1 | 21 | 13 | 8  | 2  | 1 | 33 |
| 4          | .005 | 4  | 66  | 17 | 72  | .1 | 28 | 27 | 48 | 2  | 1 | 34 |
| 4+50       | .055 | 3  | 57  | 5  | 51  | .1 | 31 | 21 | 28 | 2  | 1 | 35 |
| 5          | .005 | 4  | 35  | 11 | 43  | .1 | 28 | 16 | 18 | 2  | 1 | 36 |
| 5+50       | .005 | 3  | 27  | 12 | 63  | .1 | 29 | 15 | 22 | 2  | 1 | 37 |
| 6          | .005 | 2  | 31  | 11 | 58  | .1 | 25 | 12 | 25 | 2  | 1 | 38 |
| 6+50       | .005 | 2  | 16  | 11 | 88  | .1 | 21 | 14 | 18 | 2  | 1 | 39 |
| 10N 7 W    | .005 | 3  | 28  | 5  | 52  | .1 | 23 | 17 | 23 | 2  | 1 | 40 |

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Dec. 7, 1981

DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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

To: Carolin Mines Ltd.,

Assaying &amp; Trace Analysis

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

phone: 253 - 3158

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

N.G.

30

|      | SAMPLE No. | Au    | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As | Sb | H |    |
|------|------------|-------|----|-----|----|-----|----|----|----|----|----|---|----|
| 12N  | 0+50 E     | .005  | 3  | 26  | 4  | 56  | .2 | 23 | 12 | 24 | 2  | 2 | 1  |
| 1    |            | .035  | 2  | 35  | 8  | 59  | .1 | 25 | 15 | 40 | 2  | 1 | 2  |
| 1+50 |            | .015  | 1  | 25  | 7  | 48  | .1 | 22 | 19 | 30 | 2  | 1 | 3  |
| 2    |            | 9.500 | 3  | 50  | 8  | 58  | .1 | 29 | 20 | 36 | 2  | 1 | 4  |
| 2+50 |            | .015  | 4  | 50  | 10 | 54  | .1 | 28 | 16 | 41 | 2  | 1 | 5  |
| 3    |            | .005  | 2  | 22  | 7  | 87  | .1 | 24 | 13 | 10 | 2  | 1 | 6  |
| 3+50 |            | .010  | 3  | 37  | 8  | 45  | .1 | 25 | 14 | 27 | 2  | 1 | 7  |
| 4    |            | .065  | 4  | 23  | 9  | 38  | .1 | 17 | 10 | 26 | 2  | 1 | 8  |
| 4+50 |            | .005  | 3  | 14  | 7  | 42  | .1 | 20 | 11 | 12 | 2  | 1 | 9  |
| 12N  | 5 E        | .005  | 5  | 70  | 5  | 114 | .1 | 22 | 22 | 23 | 5  | 3 | 10 |
|      |            |       |    |     |    |     |    |    |    |    |    |   | 11 |
| 12N  | 0+50 W     | .005  | 4  | 59  | 10 | 50  | .1 | 25 | 17 | 19 | 2  | 1 | 12 |
| 1    |            | .005  | 3  | 50  | 9  | 54  | .1 | 26 | 17 | 26 | 2  | 1 | 13 |
| 1+50 |            | .075  | 1  | 49  | 10 | 63  | .1 | 24 | 19 | 16 | 2  | 1 | 14 |
| 2    |            | .005  | 3  | 25  | 7  | 75  | .2 | 16 | 12 | 15 | 2  | 1 | 15 |
| 2+50 |            | .060  | 2  | 22  | 6  | 59  | .1 | 23 | 17 | 21 | 2  | 1 | 16 |
| 3    |            | .005  | 3  | 19  | 6  | 56  | .1 | 18 | 16 | 16 | 2  | 1 | 17 |
| 3+50 |            | .030  | 2  | 39  | 7  | 59  | .1 | 24 | 17 | 20 | 2  | 1 | 18 |
| 4+50 |            | .005  | 3  | 69  | 10 | 54  | .1 | 28 | 20 | 28 | 2  | 1 | 19 |
| 5    |            | .005  | 3  | 44  | 6  | 82  | .1 | 21 | 17 | 16 | 2  | 1 | 20 |
| 5+50 |            | .005  | 2  | 27  | 8  | 63  | .1 | 18 | 13 | 14 | 2  | 1 | 21 |
| 6    |            | .005  | 3  | 19  | 6  | 47  | .1 | 19 | 11 | 16 | 2  | 1 | 22 |
| 6+50 |            | .005  | 3  | 17  | 11 | 88  | .1 | 17 | 13 | 27 | 2  | 1 | 23 |
| 12N  | 7 W        | .025  | 2  | 25  | 10 | 158 | .1 | 21 | 21 | 12 | 2  | 1 | 24 |
|      |            |       |    |     |    |     |    |    |    |    |    |   | 25 |
| 14S  | 0+50 E     | .005  | 5  | 29  | 10 | 99  | .4 | 27 | 19 | 32 | 2  | 1 | 26 |
| 1    |            | .005  | 3  | 7   | 7  | 49  | .2 | 9  | 6  | 8  | 2  | 1 | 27 |
| 1+50 |            | .015  | 3  | 17  | 9  | 59  | .1 | 19 | 12 | 32 | 2  | 1 | 28 |
| 2    |            | .125  | 2  | 119 | 15 | 69  | .1 | 49 | 35 | 36 | 2  | 1 | 29 |
| 2+50 |            | .190  | 4  | 67  | 7  | 60  | .1 | 31 | 23 | 41 | 2  | 2 | 30 |
| 3    |            | .025  | 3  | 63  | 12 | 59  | .1 | 36 | 27 | 38 | 2  | 1 | 31 |
| 3+50 |            | .495  | 3  | 29  | 9  | 67  | .1 | 29 | 17 | 30 | 2  | 1 | 32 |
| 4    |            | .005  | 4  | 27  | 6  | 69  | .1 | 22 | 16 | 35 | 2  | 1 | 33 |
| 4+50 |            | .020  | 4  | 59  | 11 | 69  | .1 | 37 | 24 | 51 | 2  | 1 | 34 |
| 5    |            | .160  | 4  | 61  | 9  | 68  | .2 | 40 | 24 | 44 | 2  | 1 | 35 |
| 5+50 |            | .030  | 2  | 67  | 9  | 69  | .1 | 34 | 24 | 43 | 2  | 1 | 36 |
| 6    |            | .005  | 2  | 39  | 12 | 74  | .1 | 29 | 17 | 37 | 2  | 1 | 37 |
| 6+50 |            | .005  | 4  | 49  | 11 | 69  | .1 | 37 | 22 | 37 | 2  | 1 | 38 |
| 14S  | 7 E        | .005  | 5  | 45  | 5  | 87  | .1 | 33 | 21 | 38 | 2  | 2 | 39 |
|      |            |       |    |     |    |     |    |    |    |    |    |   | 40 |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

DATE SAMPLES RECEIVED Dec. 7, 1981

Dec. 23, 1981

DATE REPORTS MAILED \_\_\_\_\_

ASSAYER \_\_\_\_\_

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

## ACME ANALYTICAL LABORATORIES LTD.

To: Carolin Mines Ltd.,

Assaying &amp; Trace Analysis

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

phone: 253 - 3158

81-1903

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

N.G.

| 31   | SAMPLE No. | Au   | Mo | Cu | Pb  | Zn  | Ag | Ni | Co | As | Sb | W |    |
|------|------------|------|----|----|-----|-----|----|----|----|----|----|---|----|
| 14S  | 7+50 E     | .005 | 4  | 46 | 4   | 82  | .1 | 40 | 26 | 39 | 2  | 2 | 1  |
| 14S  | 8 E        | .005 | 4  | 55 | 14  | 97  | .2 | 39 | 28 | 40 | 2  | 1 | 2  |
| 14N  | 0+50 E     | .005 | 3  | 52 | 13  | 53  | .2 | 33 | 17 | 30 | 2  | 1 | 4  |
| 1    |            | .005 | 2  | 39 | 12  | 51  | .1 | 29 | 19 | 32 | 2  | 1 | 5  |
| 1+50 |            | .005 | 3  | 40 | 4   | 51  | .1 | 25 | 16 | 26 | 2  | 2 | 6  |
| 2    |            | .005 | 3  | 60 | 18  | 60  | .2 | 33 | 25 | 21 | 2  | 1 | 7  |
| 2+50 |            | .005 | 3  | 27 | 13  | 67  | .1 | 23 | 14 | 15 | 2  | 1 | 8  |
| 3    |            | .005 | 4  | 28 | 16  | 66  | .1 | 31 | 15 | 27 | 2  | 1 | 9  |
| 3+50 |            | .005 | 3  | 59 | 18  | 167 | .2 | 32 | 34 | 27 | 2  | 1 | 10 |
| 14N  | 4 E        | .005 | 5  | 53 | 8   | 87  | .1 | 10 | 24 | 33 | 7  | 2 | 11 |
|      |            |      |    |    |     |     |    |    |    |    |    |   | 12 |
| 14N  | 0+50 W     | .005 | 2  | 19 | 8   | 76  | .1 | 17 | 13 | 13 | 2  | 1 | 13 |
| 1    |            | .005 | 3  | 65 | 16  | 57  | .4 | 27 | 15 | 18 | 2  | 1 | 14 |
| 1+50 |            | .085 | 3  | 39 | 12  | 52  | .1 | 22 | 13 | 16 | 2  | 1 | 15 |
| 2    |            | .005 | 3  | 51 | 5   | 64  | .2 | 23 | 16 | 11 | 2  | 2 | 16 |
| 2+50 |            | .005 | 3  | 50 | 101 | 178 | .4 | 32 | 48 | 38 | 2  | 1 | 17 |
| 3    |            | .005 | 3  | 45 | 14  | 62  | .2 | 29 | 17 | 38 | 2  | 1 | 18 |
| 3+50 |            | .005 | 5  | 27 | 14  | 73  | .2 | 19 | 20 | 29 | 2  | 1 | 19 |
| 4    |            | .005 | 4  | 37 | 16  | 92  | .3 | 24 | 25 | 54 | 2  | 1 | 20 |
| 4+50 |            | .005 | 6  | 90 | 5   | 55  | .1 | 45 | 25 | 55 | 2  | 2 | 21 |
| 5    |            | .005 | 3  | 42 | 9   | 94  | .2 | 24 | 18 | 19 | 2  | 1 | 22 |
| 5+50 |            | .045 | 3  | 16 | 8   | 31  | .1 | 7  | .6 | 10 | 2  | 1 | 23 |
| 6    |            | .005 | 4  | 42 | 8   | 57  | .1 | 28 | 17 | 26 | 2  | 1 | 24 |
| 6+50 |            | .005 | 3  | 19 | 11  | 70  | .1 | 17 | 12 | 13 | 2  | 1 | 25 |
| 14N  | 7 W        | .045 | 5  | 62 | 7   | 78  | .3 | 36 | 23 | 32 | 2  | 1 | 26 |
|      |            |      |    |    |     |     |    |    |    |    |    |   | 27 |
| 16S  | 0+50 E     | .005 | 4  | 17 | 11  | 63  | .2 | 18 | 9  | 14 | 2  | 1 | 28 |
| 1    |            | .005 | 3  | 20 | 9   | 66  | .2 | 18 | 10 | 21 | 2  | 1 | 29 |
| 2    |            | .005 | 2  | 32 | 10  | 75  | .2 | 24 | 12 | 26 | 2  | 1 | 30 |
| 2+50 |            | .005 | 3  | 34 | 11  | 52  | .2 | 21 | 11 | 31 | 2  | 1 | 31 |
| 3    |            | .010 | 3  | 33 | 5   | 61  | .2 | 29 | 16 | 28 | 2  | 2 | 32 |
| 3+50 |            | .005 | 3  | 38 | 11  | 63  | .2 | 30 | 18 | 33 | 2  | 1 | 33 |
| 4    |            | .005 | 4  | 39 | 13  | 63  | .3 | 30 | 17 | 30 | 2  | 1 | 34 |
| 4+50 |            | .005 | 3  | 23 | 11  | 60  | .2 | 22 | 14 | 30 | 2  | 1 | 35 |
| 5    |            | .005 | 4  | 23 | 11  | 85  | .1 | 19 | 14 | 28 | 2  | 1 | 36 |
| 5+50 |            | .005 | 3  | 37 | 7   | 62  | .1 | 31 | 22 | 33 | 2  | 1 | 37 |
| 16S  | 6 E        | .035 | 4  | 31 | 11  | 66  | .1 | 21 | 16 | 35 | 2  | 1 | 38 |
|      |            |      |    |    |     |     |    |    |    |    |    |   | 39 |
|      |            |      |    |    |     |     |    |    |    |    |    |   | 40 |

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DIGESTION: \_\_\_\_\_

DETERMINATION: \_\_\_\_\_

DATE SAMPLES RECEIVED Dec. 7, 1981

DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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

81-1903

File No.

Type of Samples

Disposition

N.G.

## GEOCHEMICAL ASSAY CERTIFICATE

32

| SAMPLE No. | Au    | Mo | Cu  | Pb | Zn  | Ag | Ni | Co | As | Sb | W |    |
|------------|-------|----|-----|----|-----|----|----|----|----|----|---|----|
| 16S 6+50 E | .005  | 3  | 33  | 6  | 60  | .2 | 25 | 18 | 25 | 2  | 1 | 1  |
| 7          | .005  | 2  | 37  | 14 | 64  | .2 | 24 | 18 | 38 | 2  | 1 | 2  |
| 7+50       | .005  | 3  | 35  | 13 | 77  | .2 | 27 | 16 | 41 | 2  | 1 | 3  |
| 8          | .005  | 2  | 54  | 15 | 64  | .4 | 34 | 18 | 49 | 2  | 1 | 4  |
| 8+50       | 1.200 | 3  | 56  | 17 | 61  | .7 | 37 | 23 | 48 | 2  | 1 | 5  |
| 9          | .005  | 3  | 21  | 5  | 80  | .2 | 21 | 13 | 42 | 2  | 1 | 6  |
| 9+50       | .005  | 3  | 23  | 14 | 58  | .2 | 21 | 16 | 34 | 2  | 1 | 7  |
| 16S 10 E   | .005  | 2  | 46  | 11 | 107 | .3 | 40 | 20 | 65 | 2  | 1 | 8  |
| 16S 0+50 W | .005  | 2  | 34  | 9  | 66  | .1 | 23 | 13 | 23 | 2  | 1 | 9  |
| 16S 1 W    | .005  | 3  | 32  | 5  | 54  | .1 | 25 | 15 | 39 | 2  | 1 | 10 |
| 18S 0+50 E | .010  | 2  | 30  | 9  | 60  | .1 | 21 | 21 | 22 | 2  | 1 | 13 |
| 1          | .005  | 2  | 33  | 14 | 73  | .2 | 26 | 20 | 29 | 2  | 1 | 14 |
| 1+50       | .005  | 2  | 22  | 10 | 67  | .2 | 20 | 10 | 20 | 2  | 1 | 15 |
| 2          | .010  | 3  | 22  | 7  | 63  | .3 | 22 | 15 | 16 | 2  | 1 | 16 |
| 2+50       | .005  | 2  | 12  | 9  | 42  | .1 | 37 | 14 | 20 | 2  | 1 | 17 |
| 3          | .020  | 2  | 32  | 9  | 63  | .2 | 23 | 13 | 19 | 2  | 1 | 18 |
| 3+50       | .005  | 2  | 44  | 16 | 48  | .2 | 26 | 18 | 27 | 2  | 1 | 19 |
| 4          | .005  | 2  | 14  | 8  | 61  | .1 | 13 | 13 | 13 | 2  | 1 | 20 |
| 4+50       | .005  | 3  | 43  | 8  | 58  | .3 | 26 | 19 | 35 | 2  | 1 | 21 |
| 5          | .005  | 3  | 46  | 14 | 68  | .4 | 33 | 22 | 36 | 2  | 1 | 22 |
| 6          | .005  | 3  | 61  | 14 | 59  | .2 | 32 | 19 | 46 | 2  | 1 | 23 |
| >6+50      | .005  | 2  | 34  | 8  | 64  | .2 | 22 | 15 | 29 | 2  | 1 | 24 |
| 8          | 1.000 | 2  | 47  | 16 | 57  | .3 | 25 | 13 | 26 | 2  | 1 | 25 |
| 8+50       | .005  | 3  | 32  | 6  | 74  | .1 | 25 | 19 | 29 | 2  | 1 | 26 |
| 9          | .005  | 3  | 45  | 14 | 71  | .2 | 26 | 20 | 40 | 2  | 1 | 27 |
| 18S 9+50 E | .005  | 3  | 42  | 11 | 86  | .3 | 26 | 15 | 55 | 2  | 1 | 28 |
| 18S 0+50 W | .005  | 3  | 29  | 13 | 129 | .4 | 22 | 14 | 18 | 2  | 1 | 29 |
| 1          | .005  | 5  | 67  | 8  | 67  | .2 | 40 | 25 | 82 | 2  | 1 | 30 |
| 18S 1+50 W | .005  | 4  | 88  | 16 | 64  | .3 | 37 | 20 | 94 | 2  | 1 | 31 |
| 20S 0+50 E | .005  | 2  | 31  | 16 | 94  | .3 | 26 | 18 | 28 | 2  | 1 | 33 |
| 1          | .025  | 3  | 41  | 11 | 67  | .1 | 28 | 18 | 37 | 2  | 1 | 34 |
| 1+50       | .005  | 4  | 73  | 7  | 71  | .3 | 43 | 23 | 62 | 2  | 1 | 35 |
| 2          | .005  | 3  | 139 | 23 | 92  | .7 | 52 | 30 | 68 | 2  | 1 | 36 |
| 2+50       | .005  | 3  | 135 | 24 | 108 | .6 | 52 | 32 | 69 | 2  | 1 | 37 |
| 20S 3 E    | .005  | 4  | 52  | 6  | 63  | .5 | 34 | 21 | 35 | 2  | 2 | 38 |
|            |       |    |     |    |     |    |    |    |    |    |   | 39 |
|            |       |    |     |    |     |    |    |    |    |    |   | 40 |

All reports are the confidential property of clients  
All results are in PPM.

DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Dec. 7, 1981  
DATE REPORTS MAILED Dec. 23, 1981

ASSAYER

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



## ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

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

phone: 253 - 3158

File No. 81-1903

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

## GEOCHEMICAL ASSAY CERTIFICATE

N.G.

33

| SAMPLE No. |        | Au   | Mo | Cu | Pb | Zn  | Ag  | Ni | Co | As | Sb | W |    |
|------------|--------|------|----|----|----|-----|-----|----|----|----|----|---|----|
| 20S        | 3+50 E | .005 | 3  | 43 | 8  | 56  | .5  | 32 | 21 | 31 | 2  | 1 | 1  |
|            | 4      | .005 | 2  | 34 | 12 | 64  | .2  | 25 | 14 | 27 | 2  | 1 | 2  |
|            | 4+50   | .005 | 3  | 50 | 12 | 64  | .2  | 33 | 20 | 38 | 2  | 1 | 3  |
|            | 5      | .080 | 3  | 49 | 12 | 75  | .3  | 31 | 19 | 40 | 2  | 1 | 4  |
|            | 5+50   | .110 | 4  | 62 | 14 | 61  | .3  | 41 | 21 | 57 | 2  | 1 | 5  |
|            | 6      | .005 | 4  | 52 | 5  | 62  | .3  | 36 | 19 | 48 | 2  | 2 | 6  |
|            | 6+50   | .005 | 4  | 79 | 15 | 68  | .3  | 38 | 26 | 75 | 2  | 1 | 7  |
|            | 7+50   | .005 | 2  | 20 | 9  | 67  | .3  | 18 | 10 | 17 | 2  | 1 | 8  |
|            | 8      | .005 | 2  | 33 | 15 | 76  | .3  | 25 | 14 | 25 | 2  | 1 | 9  |
|            | 8+50   | .005 | 3  | 54 | 18 | 83  | .4  | 33 | 34 | 47 | 2  | 1 | 10 |
|            | 9      | .010 | 4  | 58 | 6  | 72  | .2  | 34 | 18 | 51 | 2  | 2 | 11 |
|            | 9+50   | .005 | 2  | 41 | 15 | 89  | .3  | 23 | 21 | 29 | 2  | 1 | 12 |
| 20S        | 10 E   | .025 | 3  | 55 | 17 | 72  | .3  | 36 | 19 | 60 | 2  | 1 | 13 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 14 |
| 20S        | 0+50 W | .005 | 3  | 54 | 15 | 101 | .3  | 33 | 16 | 36 | 2  | 1 | 15 |
|            | 1      | .005 | 3  | 29 | 6  | 113 | .4  | 27 | 14 | 25 | 2  | 1 | 16 |
|            | 1+50   | .005 | 3  | 50 | 12 | 83  | .3  | 29 | 20 | 44 | 2  | 1 | 17 |
|            | 2      | .005 | 3  | 60 | 16 | 73  | .4  | 29 | 21 | 39 | 2  | 1 | 18 |
|            | 2+50   | .030 | 2  | 32 | 18 | 205 | .5  | 29 | 15 | 26 | 2  | 1 | 19 |
|            | 3      | .005 | 2  | 34 | 14 | 112 | .2  | 27 | 14 | 28 | 2  | 1 | 20 |
|            | 3+50   | .020 | 3  | 40 | 6  | 53  | .2  | 26 | 15 | 36 | 2  | 2 | 21 |
|            | 4      | .005 | 3  | 64 | 18 | 76  | .5  | 37 | 22 | 46 | 2  | 1 | 22 |
|            | 4+50   | .005 | 3  | 97 | 23 | 138 | 1.0 | 52 | 25 | 71 | 2  | 1 | 23 |
| 20S        | 5 W    | .005 | 2  | 45 | 16 | 104 | .8  | 35 | 17 | 37 | 2  | 1 | 24 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 25 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 26 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 27 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 28 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 29 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 30 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 31 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 32 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 33 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 34 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 35 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 36 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 37 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 38 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 39 |
|            |        |      |    |    |    |     |     |    |    |    |    |   | 40 |

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DETERMINATION:.....

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ASSAYER

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

## APPENDIX III

### ANALYTICAL PROCEDURES

Acme Analytical Laboratories Ltd.  
852 East Hastings Street,  
Vancouver, B.C.  
V6A 1R6

ACME ANALYTICAL LABORATORIES LTD.

852 East Hastings Street,  
Vancouver, B.C.

GEOCHEMICAL ANALYSIS PROCEDURE

GOLD

The samples are ignited overnight at 600°C. The minus 80 mesh portion is ground in a ring grinder and 10 grams are digested with dilute hot aqua regia. The clear solution is extracted with methyl isobutyl ketone. Gold is determined in the methyl isobutyl ketone extract by atomic absorption. The remaining ground pulp is then set aside and saved for use in other analytical methods or to check initial results.

ACME ANALYTICAL LABORATORIES LTD.  
 Assaying & Trace Analysis  
 852 E. Hastings St., Vancouver, B.C. V6A 1R6  
 Telephone : 253-3158

Multi Element Analysis by ICP

Digestion of Sample

*ALL samples were sieved to -80 mesh;  
 + pulverized to -150 mesh.*

0.5 gram samples are digested with hot aqua regia for one hour and the sample is diluted to 10 ml. The diluted sample is aspirated by ICP and the analytical results are printed by Telex, either in percent or ppm as shown.

Please Note : This digestion is partial for Al, Ca, La, Mg, P  
 Ti, W and very little Ba is dissolved.

Report Format

H0/22N 3850W  
 EGC

BURN # 1 GE16 15:46 3FEB1981

IS  
 1357

| MO   | CU   | PB    | ZN    | AG    | NI   | CO    | MN   | FE%   | AS   |
|------|------|-------|-------|-------|------|-------|------|-------|------|
| 3.92 | 41.5 | 9.00  | 136   | .332  | 15.3 | 5.70  | 312  | 3.167 | 5.73 |
| U    | IS   | TH    | IS    | CD    | SB   | BI    | V    | CA%   | P%   |
| 4.11 | .371 | .424  | 1073  | .960  | 1.94 | 4.51  | 52.7 | 1.107 | .206 |
| LA   | IN   | MG%   | BA%   | TI%   | B    | AL%   | IS   | IS    | W    |
| 22.1 | 3.50 | .2589 | .0184 | .0014 | -.05 | 1.720 | 0    | 3.06  | .276 |

\*0/M1  
 EGC

BURN # 1 GE16 15:48 3FEB1981

1358

|      |      |       |       |       |      |       |      |       |      |
|------|------|-------|-------|-------|------|-------|------|-------|------|
| .563 | 29.3 | 34.6  | 171   | .154  | 33.4 | 11.5  | 794  | 2.536 | 8.77 |
| 3.57 | .044 | 2.79  | 765   | 1.08  | .635 | 4.25  | 54.8 | .6452 | .109 |
| 6.42 | 2.88 | .6008 | .0252 | .0753 | -.37 | 1.944 | 0    | 2.32  | -.61 |

Code :

H0, \*0, EGC  
 /22N 3850 W  
 /M1  
 15:46 3FEB1981  
 BURN # 1 GE16  
 IS

Computer Instructions.  
 Sample Number.  
 ACME Geochem standard for quality control.  
 Time and Date of Analysis.  
 Geochem Computer Program.  
 Internal Standard.

**ACME ANALYTICAL LABORATORIES LTD.**  
**Assaying & Trace Analysis**  
852 E. Hastings St., Vancouver, B.C. V6A 1R6  
Telephone : 253 - 3158

Interpretation of Results

Standard M-1 is a certified geochem standard used to monitor the results. M-1 has the following analysis.

|     |    |   |                    |    |       |     |
|-----|----|---|--------------------|----|-------|-----|
| 1.  | Mo | : | in ppm             | M1 | 2.    | ppm |
| 2.  | Cu | : | in ppm             | M1 | 28.   | ppm |
| 3.  | Pb | : | in ppm             | M1 | 38.   | ppm |
| 4.  | Zn | : | in ppm             | M1 | 180.  | ppm |
| 5.  | Ag | : | in ppm             | M1 | 0.3   | ppm |
| 6.  | Ni | : | in ppm             | M1 | 32.   | ppm |
| 7.  | Co | : | in ppm             | M1 | 12.   | ppm |
| 8.  | Mn | : | in ppm             | M1 | 800.  | ppm |
| 9.  | Fe | : | in %               | M1 | 2.5   | %   |
| 10. | As | : | in ppm             | M1 | 8.    | ppm |
| 11. | U  | : | in ppm             | M1 | 3.    | ppm |
| 12. | IS | : | Internal Standard. |    |       |     |
| 13. | Th | : | in ppm             | M1 | 3.    | ppm |
| 14. | IS | : | Internal Standard. |    |       |     |
| 15. | Cd | : | in ppm             | M1 | 2.    | ppm |
| 16. | Sb | : | in ppm             | M1 | 3.    | ppm |
| 17. | Bi | : | in ppm             | M1 | 2.    | ppm |
| 18. | V  | : | in ppm             | M1 | 54.   | ppm |
| 19. | Ca | : | in %               | M1 | 0.62  | %   |
| 20. | P  | : | in %               | M1 | 0.11  | %   |
| 21. | La | : | in ppm             | M1 | 8.    | ppm |
| 22. | In | : | in ppm             | M1 | 2.    | ppm |
| 23. | Mg | : | in %               | M1 | 0.67  | %   |
| 24. | Ba | : | in %               | M1 | 0.023 | %   |
| 25. | Ti | : | in %               | M1 | 0.07  | %   |
| 26. | B  | : | in ppm             | M1 | 12.   | ppm |
| 27. | Al | : | in %               | M1 | 1.9   | %   |
| 28. | IS | : | Internal Standard. |    |       |     |
| 29. | IS | : | Internal Standard. |    |       |     |
| 30. | W  | : | in ppm             | M1 | 1.    | ppm |

Notes:

1. Zinc over 5000 ppm interferes on W channel.
2. Iron over 1. % interferes on In and Sb channel.

Monitoring of Results:

If analysis of standard M-1 is different than the certification, then compensate (add or subtract) samples appropriately.

Standardization:

Complete set of USGS standards, Canadian Certified Reference Materials and 72 specpure metals from Johnson Matthey.

APPENDIX IV

HISTOGRAMS OF GEOCHEMICAL DATA

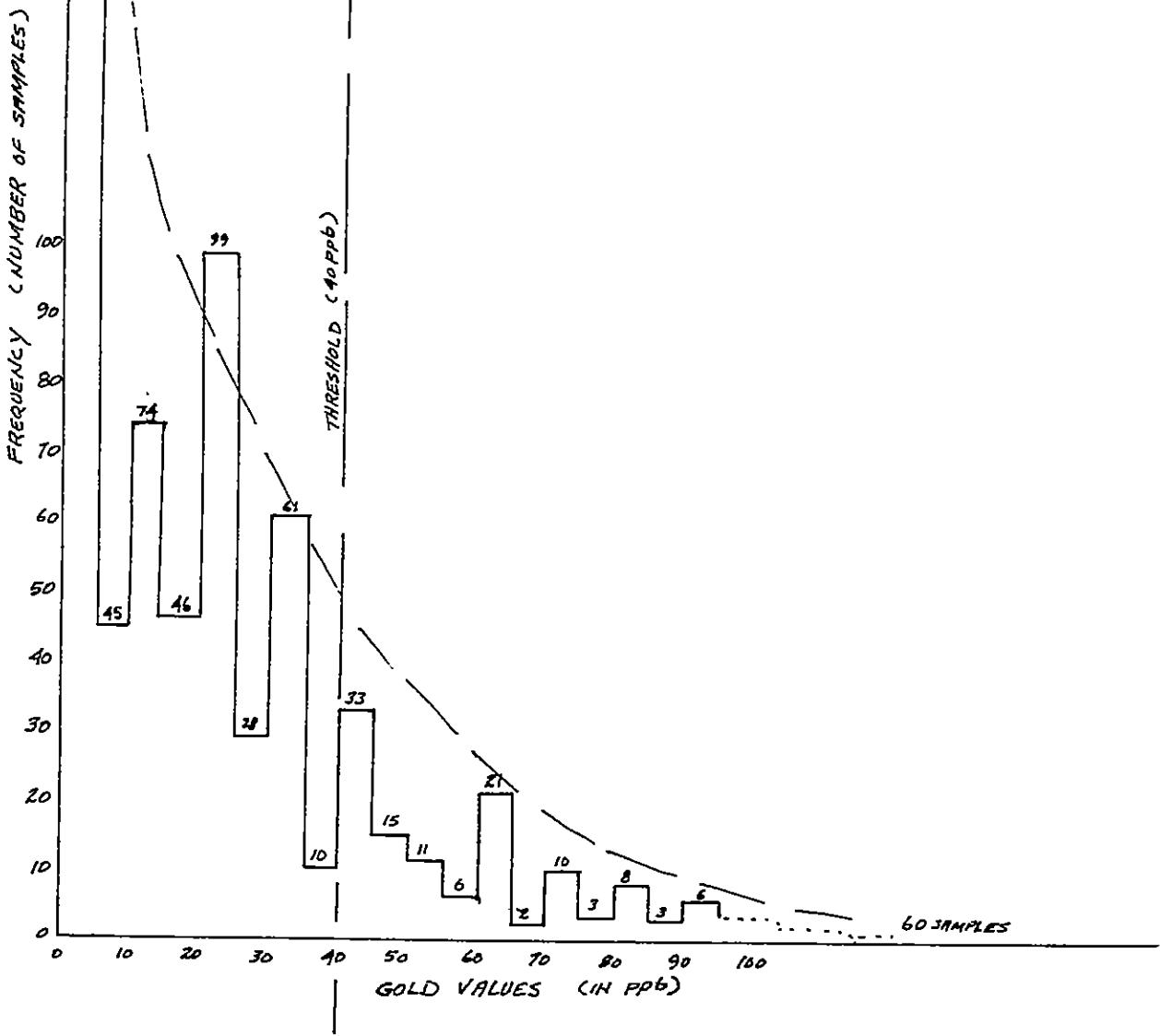
GOLD VALUES VS FREQUENCY  
IN SOIL

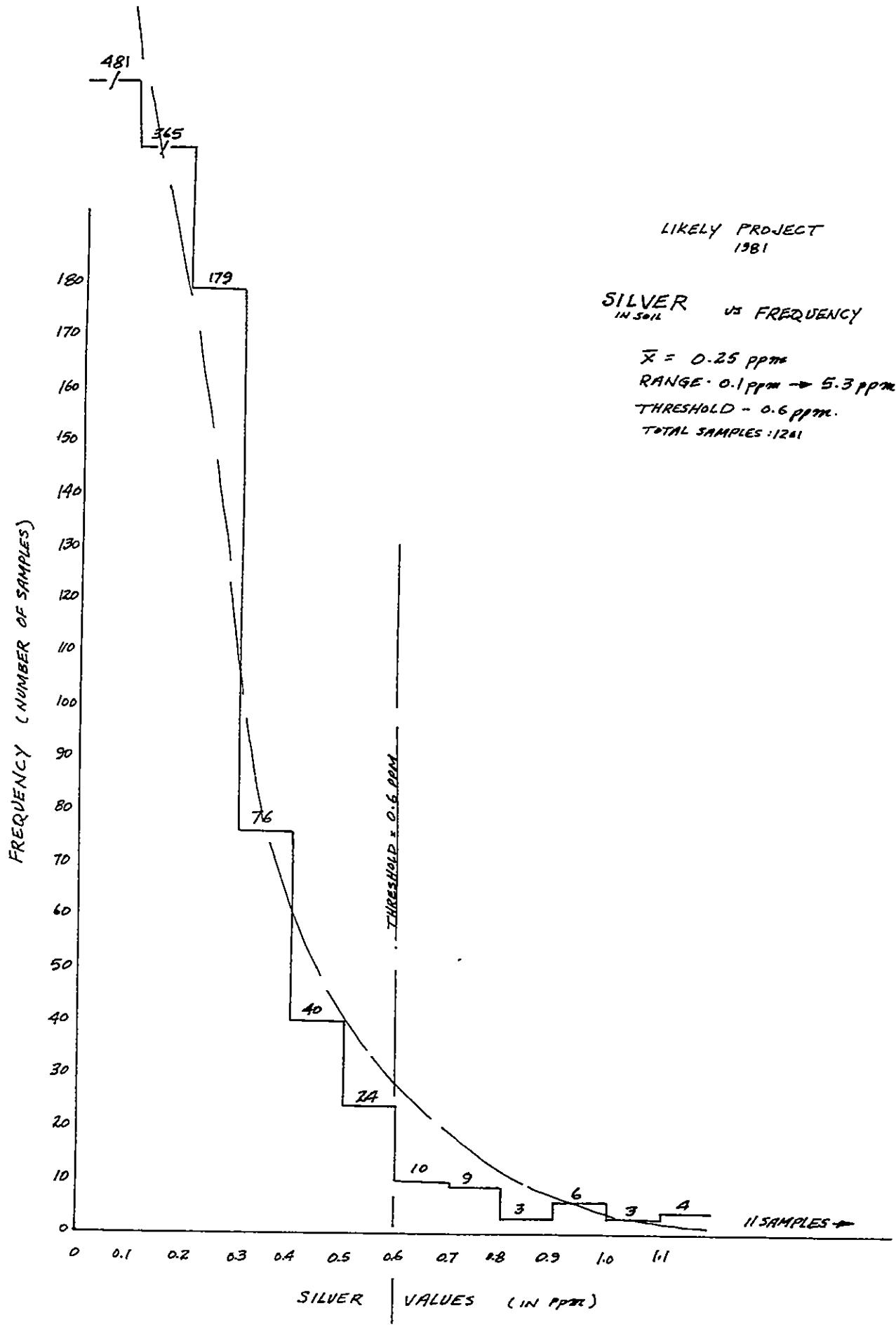
LIKELY PROJECT 1981  
1201 SAMPLES

$$\bar{x} = 40.05 \text{ ppb.}$$

Range 5 ppb - 9,500 ppb.

Threshold : 40 ppb.

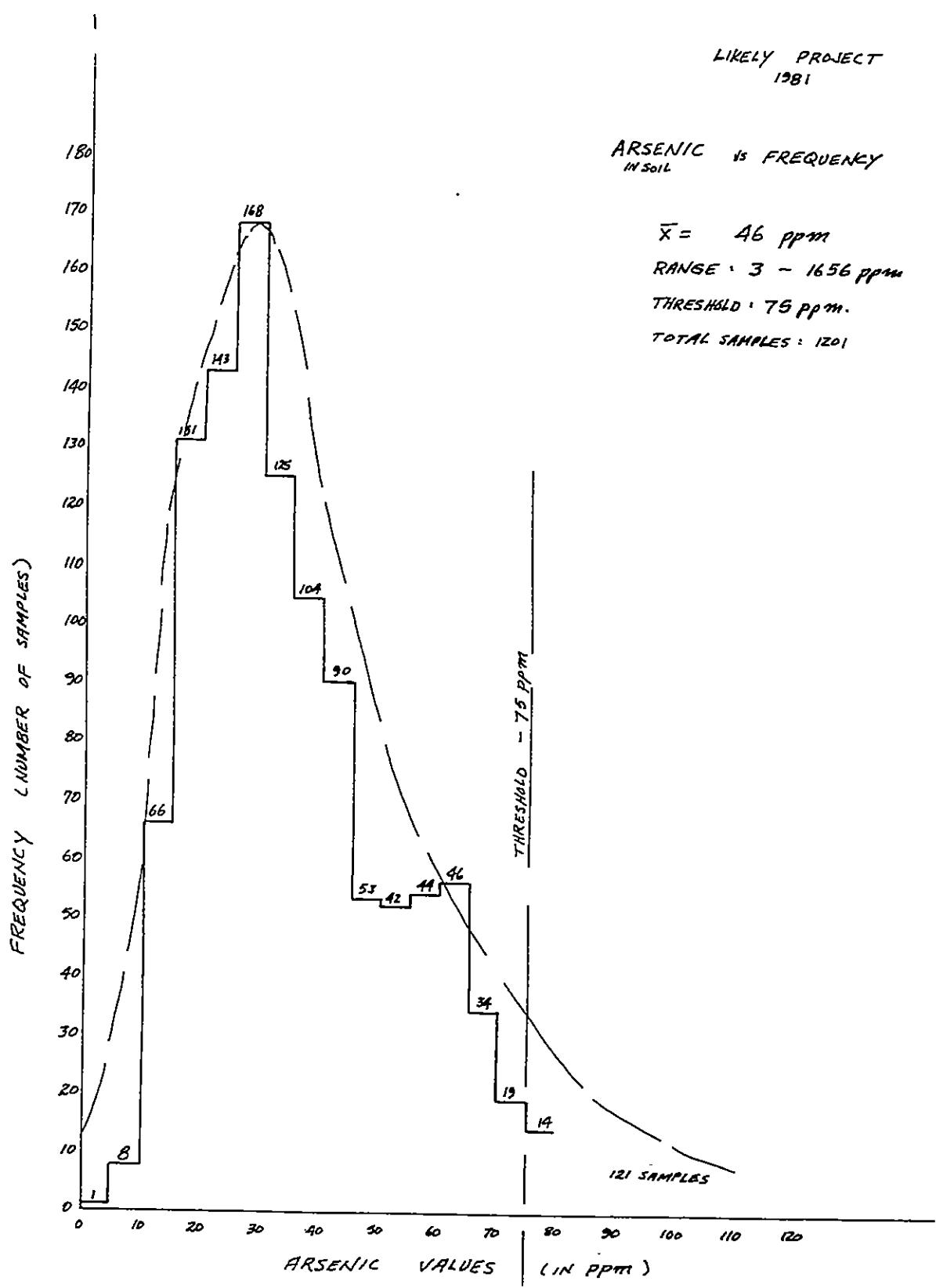




LIKELY PROJECT  
1981

ARSENIC IN SOIL vs FREQUENCY

$\bar{x} = 46 \text{ ppm}$   
RANGE : 3 - 1656 ppm  
THRESHOLD : 75 ppm.  
TOTAL SAMPLES : 1201



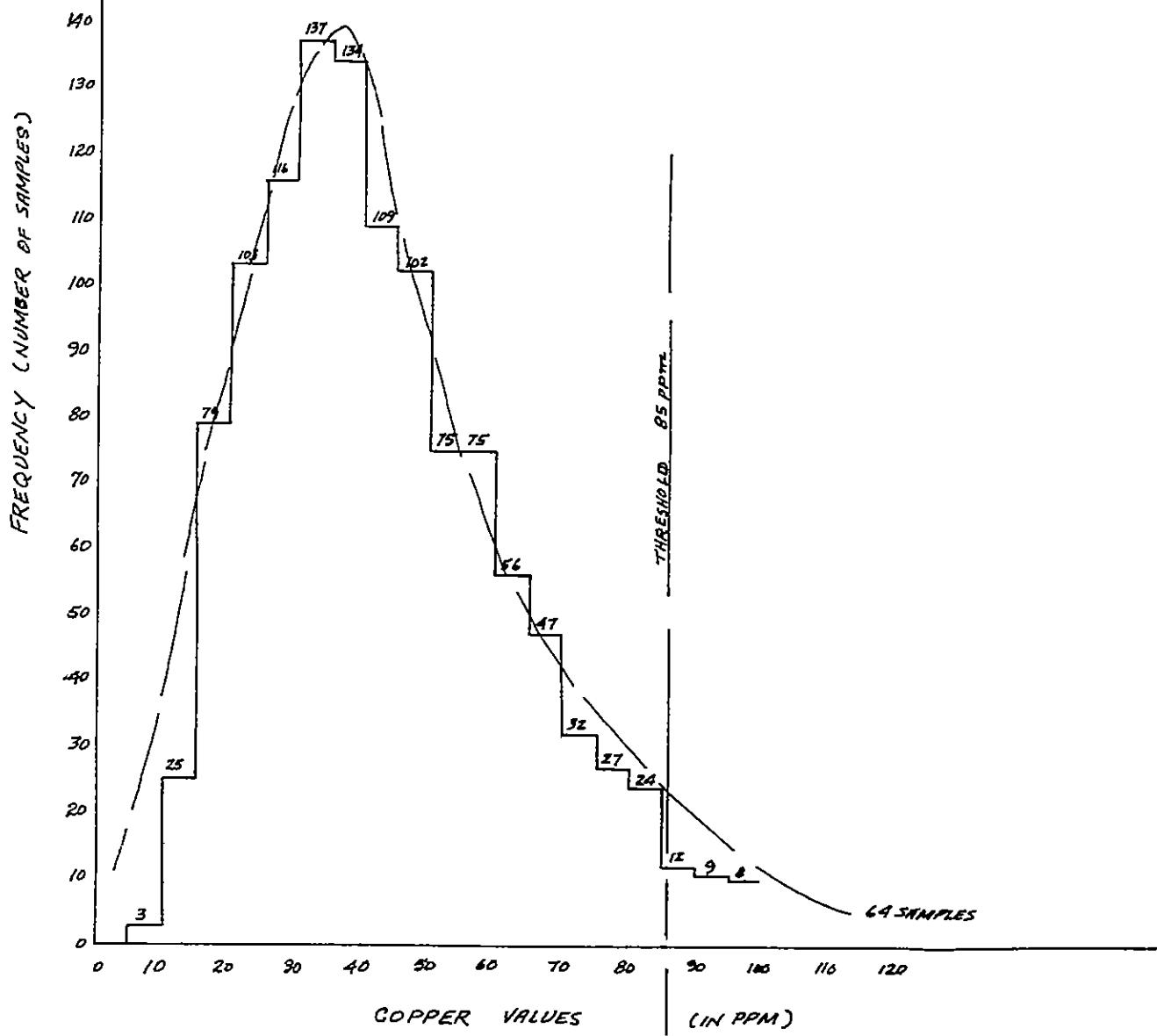
LIKELY PROJECT  
1981

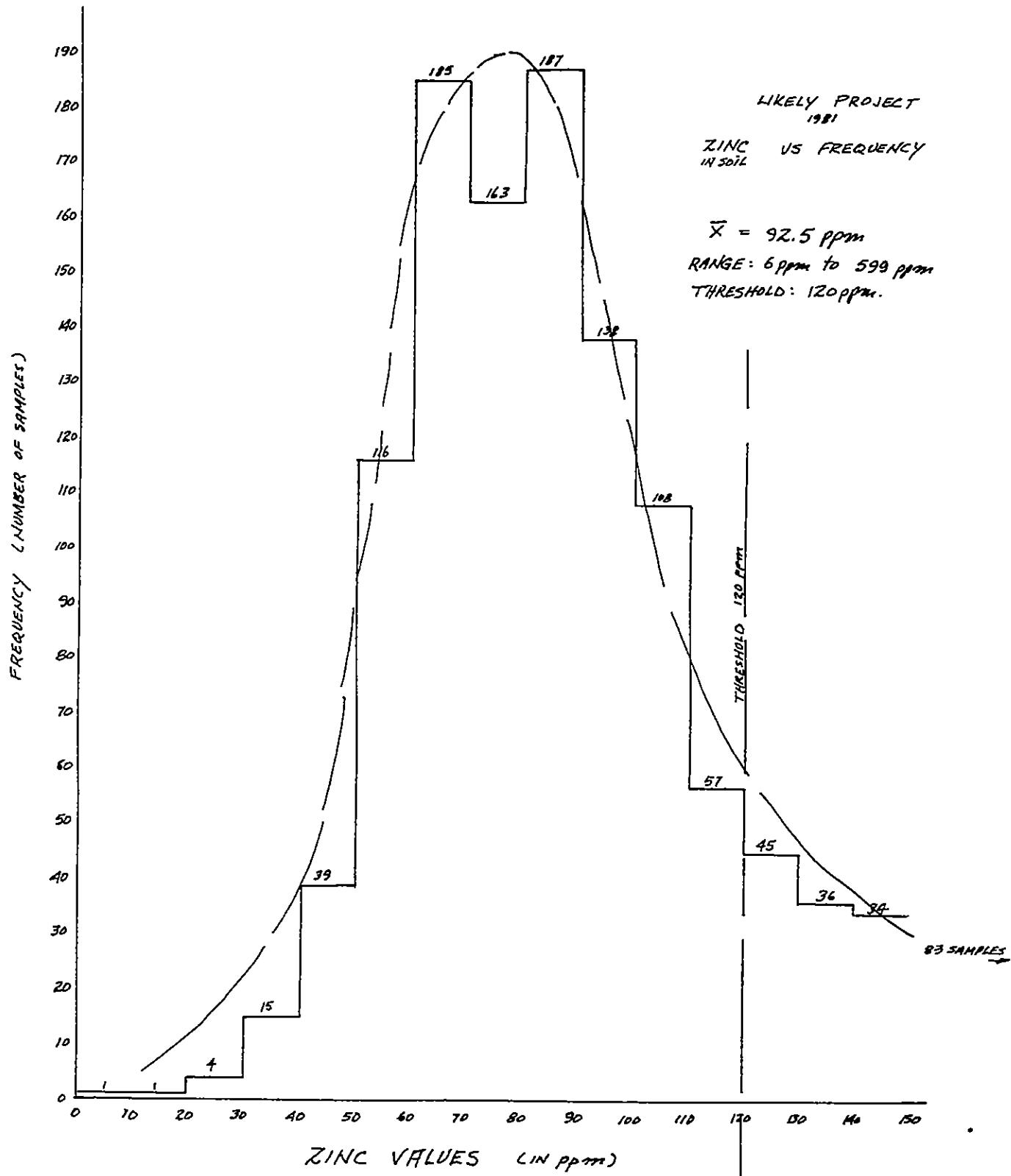
COPPER  
IN SOIL VS FREQUENCY

$$\bar{x} = 48.6 \text{ ppm}$$

RANGE 6 ppm to 779 ppm

THRESHOLD = 85 ppm.



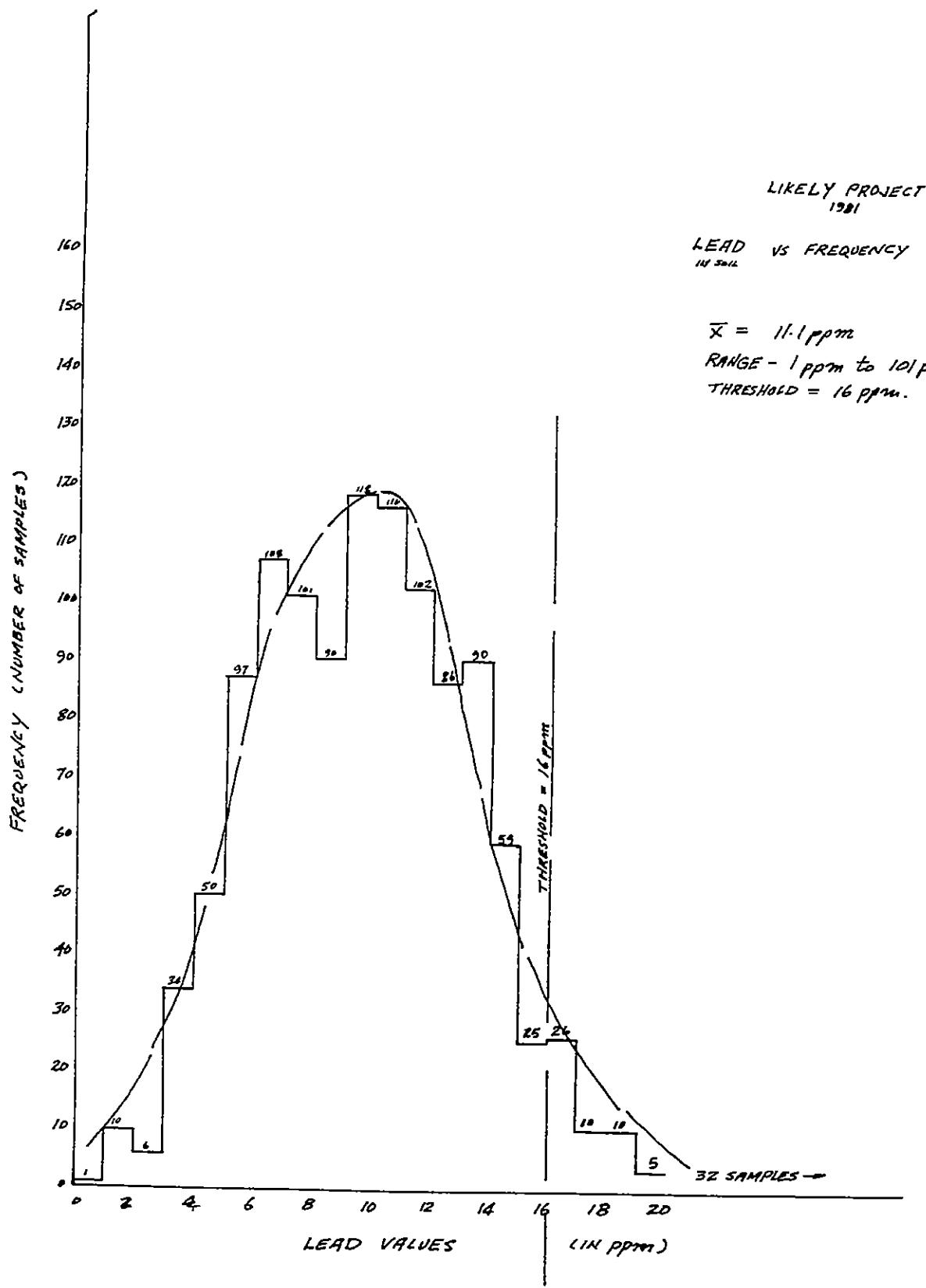


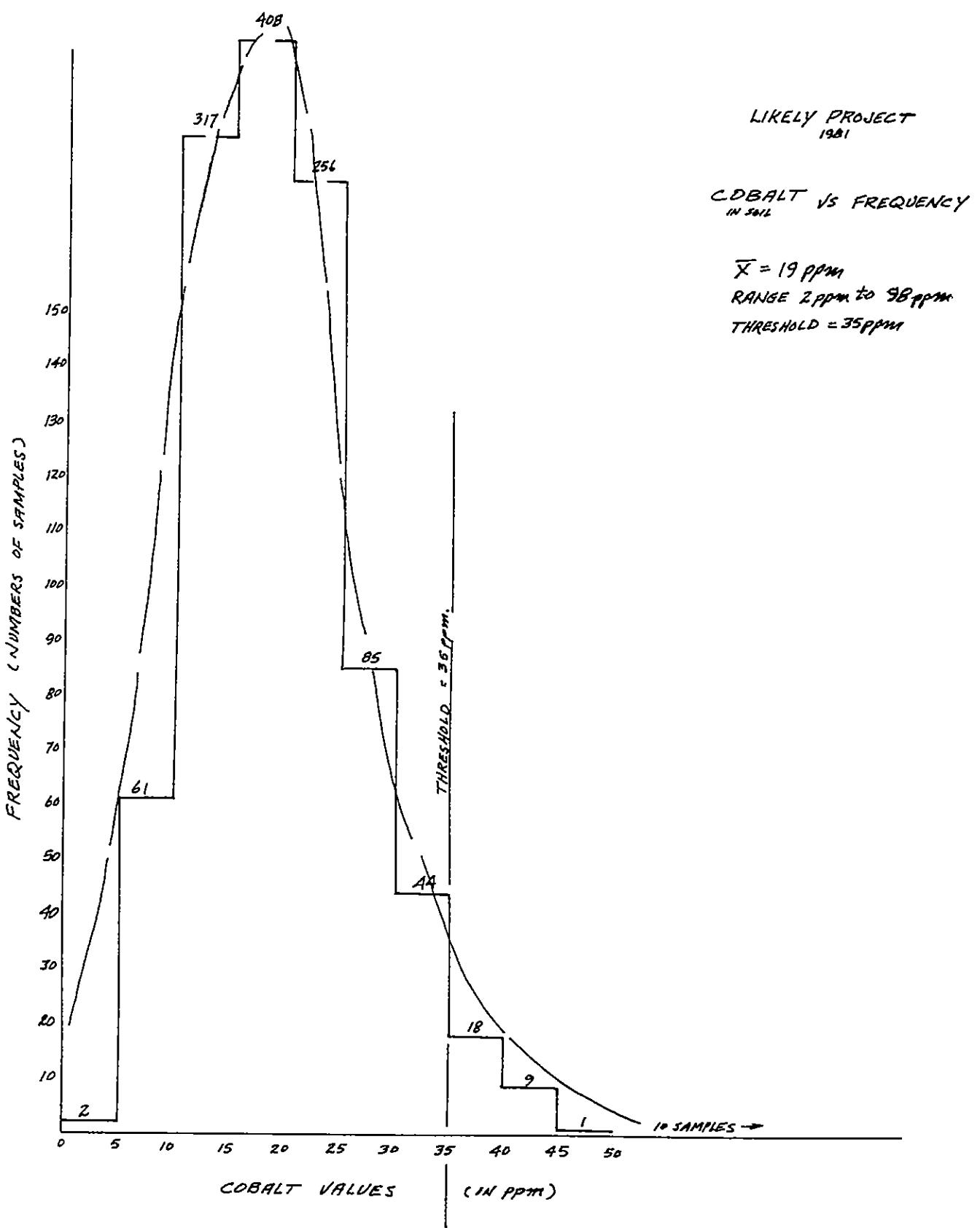
C  
C

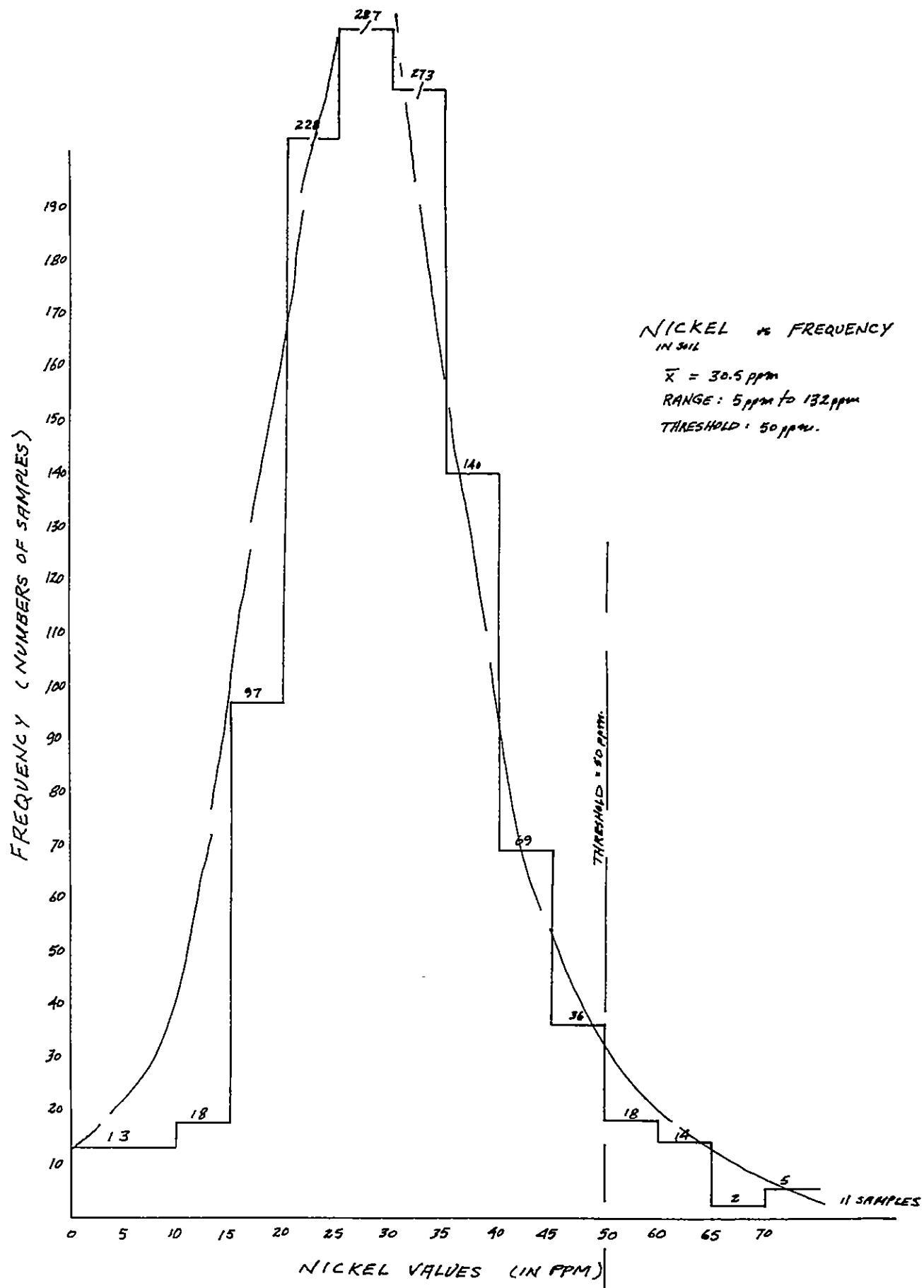
LIKELY PROJECT  
1981

LEAD VS FREQUENCY  
IN ppm

$\bar{x} = 11.1 \text{ ppm}$   
RANGE - 1 ppm to 101 ppm  
THRESHOLD = 16 ppm.







APPENDIX V

STATEMENT OF COSTS

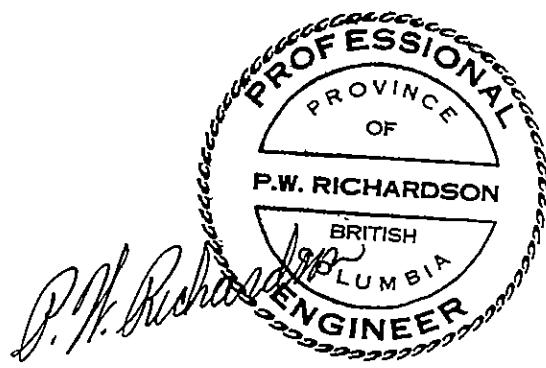
## APPENDIX V

## STATEMENT OF COSTS

| <u>ITEM</u>                       | <u>DATE</u> | <u>COST</u> | <u>COST APPLICABLE<br/>TO ASSESSMENT CREDIT</u> |
|-----------------------------------|-------------|-------------|---|
|                                   |             | \$          |   |
| A. DeLeen Consultants             | July 1981   | 862.74      | \$ 862.74                                       |
| R. A. Hrkac*                      | July 1981   | 2,794.29    | 1,397.15  |
| Expenses,                         |             |             |   |
| P. W. Richardson                  | July 1981   | 66.00       | 66.00   |
| DeLeen Consultants                | Aug. 1981   | 878.59      | 878.59  |
| R. A. Hrkac*                      | Aug. 1981   | 885.80      | 442.90  |
| Supplies, Pacific Survey          | Aug. 1981   | 73.47       | 73.47   |
| Supplies,                         |             |             |   |
| Western Reproducers               | Aug. 1981   | 9.24        | 9.24  |
| Loomis Courier Service            | Aug. 1981   | 8.32        | 8.32  |
| Drafting, Altair                  |             |             |   |
| Drafting                          | Sept. 1981  | 606.58      | 606.58  |
| R. A. Hrkac*                      | Oct. 1981   | 890.92      | <u>445.46</u>                                   |
|                                   |             | Sub Total   | \$ 4,790.45                                     |
| B. Amex Exploration Services Ltd. |             |             | -   |
| November 3 - December 7, 1981     |             |             |   |
| 66 km grid layout and chainage    |             |             |   |
| (Easy 6 - 5.4 km )                |             |             |   |
| Total = 60.60 km @ \$269.56/km =  | 17,790.96   |             | 16,335.34                                       |
| 66 km of soil collection          |             |             |   |
| @ \$ 83.44/km =                   | 5,507.04    |             | 5,056.46  |
| Power Saw Crew 16 days            |             |             |   |
| @ \$211.80/day                    |             |             |   |
| @ 91.8% =                         | 3,388.80    |             | 3,110.90  |
| Freight to Acme Lab & return to   |             |             |   |
| Kamloops                          | 160.00      |             | <u>160.00</u>                                   |
|                                   |             | Sub Total   | \$ 24,662.70                                    |
| C. Supervision, P. W. Richardson  |             | 2,500.00    | 2,500.00  |
| Drafting, 36 hours @ \$15/hour    |             |             |   |
| D. Phillips                       | 540.00      |             | 540.00  |
| Report Preparation, J.T. Shearer  | 400.00      |             | 400.00  |
| Typing and Reproduction           | 300.00      |             | <u>300.00</u>                                   |
|                                   |             | Sub Total   | \$ 3,740.00                                     |

\* R.A. Hrkac's time has been reduced due to the November anniversary date of the Easy claims. No credit has been claimed for the Easy 6 claim which has an anniversary date of December 6.

| <u>COST</u>  | <u>COST APPLICABLE<br/>TO ASSESSMENT CREDIT</u> |
|--|---|
| D. Acme Analytical Laboratories Ltd.   | \$  |
| Easy 6 = 67 soils  |   |
| Rose 3 & 4 Fr. = 147 soils   |   |
| 1201 gold assays, samples<br>pulverized and soil<br>preparations @ \$4.65/sample =               | 5,584.65  |
| 987 @ \$4.65   | = 4,589.55                                      |
| 1201 geochemical assays<br>Mo, Cu, Pb, Zn, Ag, Ni, Co,<br>As, Sb and W by ICP @<br>\$4.50/sample | = 5,404.50                                      |
| 987 @ \$4.50   | <u>4,441.50</u>                                 |
|  | Sub Total                                       |
|  | \$ 9,031.05                                     |
|  | GRAND TOTAL                                     |
|  | <u>\$ 42,224.20</u>                             |



APPENDIX VI

ALLOCATION OF COST TO CLAIM GROUPS

## APPENDIX VI

### ALLOCATION OF COST TO CLAIM GROUPS

#### GROUP 1

18.07% of soils collected

|   |                 |
|---|-----------------|
| 18.07% of support costs @ \$4,790.45                        | \$ 865.63       |
| 18.07% of line cutting & sampling collection @ \$24,662.70= | 4,456.55        |
| 18.07% of supervision & report preparation @ \$ 3,740.00=   | 675.82          |
| 18.07% of analytical @ \$ 9,031.05=                         | <u>1,631.91</u> |
| Total \$ 7,629.91   |                 |
| + 30% PAC Account Withdrawal                                | <u>2,288.97</u> |
| GRAND TOTAL GROUP 1   | \$ 9,918.88     |

#### GROUP 2

25.56% of soils collected

|   |                 |
|---|-----------------|
| 25.56% of support costs @ \$4,790.45                        | \$ 1,224.44     |
| 25.56% of line cutting & sampling collection @ \$24,662.70= | 6,303.79        |
| 25.56% of supervision & report preparation @ \$ 3,740.00=   | 955.94          |
| 25.56% of analytical @ \$ 9,031.05=                         | <u>2,308.34</u> |
| \$10,792.51   |                 |
| + 30% PAC Account Withdrawal                                | <u>3,237.75</u> |
| GRAND TOTAL GROUP 2   | \$14,030.26     |

#### GROUP 3

47.63% of soils collected

|   |                 |
|---|-----------------|
| 47.63% of support costs @ \$4,790.45                        | \$ 2,281.69     |
| 47.63% of line cutting & sampling collection @ \$24,662.70= | 11,746.84       |
| 47.63% of supervision & report preparation @ \$3,740.00 =   | 1,781.36        |
| 47.63% of analytical @ \$9,031.05 =                         | <u>4,301.49</u> |
| \$20,111.38   |                 |
| + 30% PAC Account Withdrawal                                | <u>6,033.41</u> |
| GRAND TOTAL GROUP 3   | \$26,144.79     |

LIKELY PROJECT

ALLOCATION OF COST TO CLAIM GROUPS

( 2 )

GROUP 4

8.74% of soils collected

|   |                 |
|---|-----------------|
| 8.74% of support costs @ \$4,790.45                         | \$ 418.69       |
| 8.74% of line cutting & sampling collection @ \$24,662.70 = | 2,155.52        |
| 8.74% of supervision & report preparation @ \$3,740.00 =    | 326.88          |
| 8.74% of analytical @ \$9,031.05 =                          | <u>789.31</u>   |
|   | \$ 3,690.40     |
| + 30% PAC Account Withdrawal                                | <u>1,107.12</u> |
| GRAND TOTAL GROUP 4   | \$ 4,797.52     |

