

Owner. CREAM SILVER MINES LTD.

GEOLOGICAL, GEOCHEMICAL, AND GROUND MAGNETOMETER SURVEY  
ON THE RUBY MOUNTAIN SILVER-TUNGSTEN PROPERTY  
ATLIN MINING DIVISION, B.C.  
NTS 104 N/11W

FILMED

BY

R.A. GONZALEZ, M.Sc., F.G.A.C., P.ENG.

JANUARY, 1986

CLAIM	UNITS	RECORD NO.	ANNIVERSARY DATE
B-2	20	1375	JULY 29
BEFORE	20	2502	JUNE 20
B-5	12	2501	JUNE 20
B-6	9	2494	JUNE 20
B-7	4	2504	AUGUST 7
B-7 FR	1	2505	AUGUST 7
B-8	1	2506	AUGUST 7

LOCATION: <sup>41.5'</sup> 59° ~~40'~~ NORTH LATITUDE - <sup>23.5'</sup> 133° ~~21'~~ WEST LONGITUDE

OPERATOR: MARK MANAGEMENT LTD.

CONSULTANT: ARCHEAN ENGINEERING LIMITED.

PROJECT GEOLOGIST: R.A. GONZALEZ

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

14438

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ON THE RUBY MOUNTAIN SILVER-TUNGSTEN PROPERTY  
ATLIN MINING DIVISION, B.C.  
NTS 104 N/11W**

**SUMMARY**

The Ruby Mountain Silver-Tungsten Property was staked to cover a large area underlain by mineralized skarn zones. The area surrounds a cinder-cone with associated basaltic flows and part of an alaskite stock exposed between Boulder Creek and Ruby Creek approximately 35 km east of the town of Atlin in northwestern British Columbia. A ground magnetometer survey was done in conjunction with geologic mapping to aid in the interpretation of geologic contacts in areas of minimum outcrop.

A soil geochemical programme was initiated to determine if the silver, lead, zinc, tin, and tungsten soil anomaly discovered in the original programme of 1983-84 extended to the north. The results of the 1985 programme extended the 1983-84 soil anomaly northward and now outlines an anomalous area approximately 2500 m (8200 feet) long and up to 600 m (2000 feet) wide. Furthermore, it appears that this anomalous zone is open both northward and eastward where it is masked by an apparently thin layer of volcanic rocks.

Old showing in the area include uranium mineralization in the alaskite, wolframite and cassiterite associated with quartz veins in granitic rocks, disseminated molybdenite with minor chalcopyrite in granitic rocks, and copper-lead-zinc-silver-tungsten mineralization in skarn zones. The silver-tungsten (copper-lead-zinc) mineralization in skarn zones were the main target of this investigation.

This work programme was done at the request of the registered holder, Cream Silver Mines Ltd. Results of the programme outlined areas which could have a potential for hosting silver-tungsten with minor copper-lead-zinc mineralization in skarn zones and it is recommended that additional, systematic exploration should continue.

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## 1. INTRODUCTION

This report is based on thirty-three days of field work done between July 27 and August 7 and between September 4 and September 24, 1985. The work programme was undertaken with the objective of carrying out geological mapping and geochemical sampling along grid lines in order to evaluate the mineral potential of the claims and provide a basis for follow-up work if warranted. A total of 205 soil samples and 6 rock chip or grab samples were collected and sent to Chemex Labs. for analysis. Geologist in the field was R.A. Gonzalez assisted by prospector Jerry Broswick (present only during the first work phase) of Whitehorse. Mapping was along the soil sampling lines with a line spacing of 200 m and sample sites at 50 m; a 1:5000 scale geologic map was prepared by enlarging the 1:50000 NTS 104N/11W topographic map. The results of this survey gave sufficiently encouraging results to warrant additional systematic exploration.

### 1.1 LOCATION and ACCESS

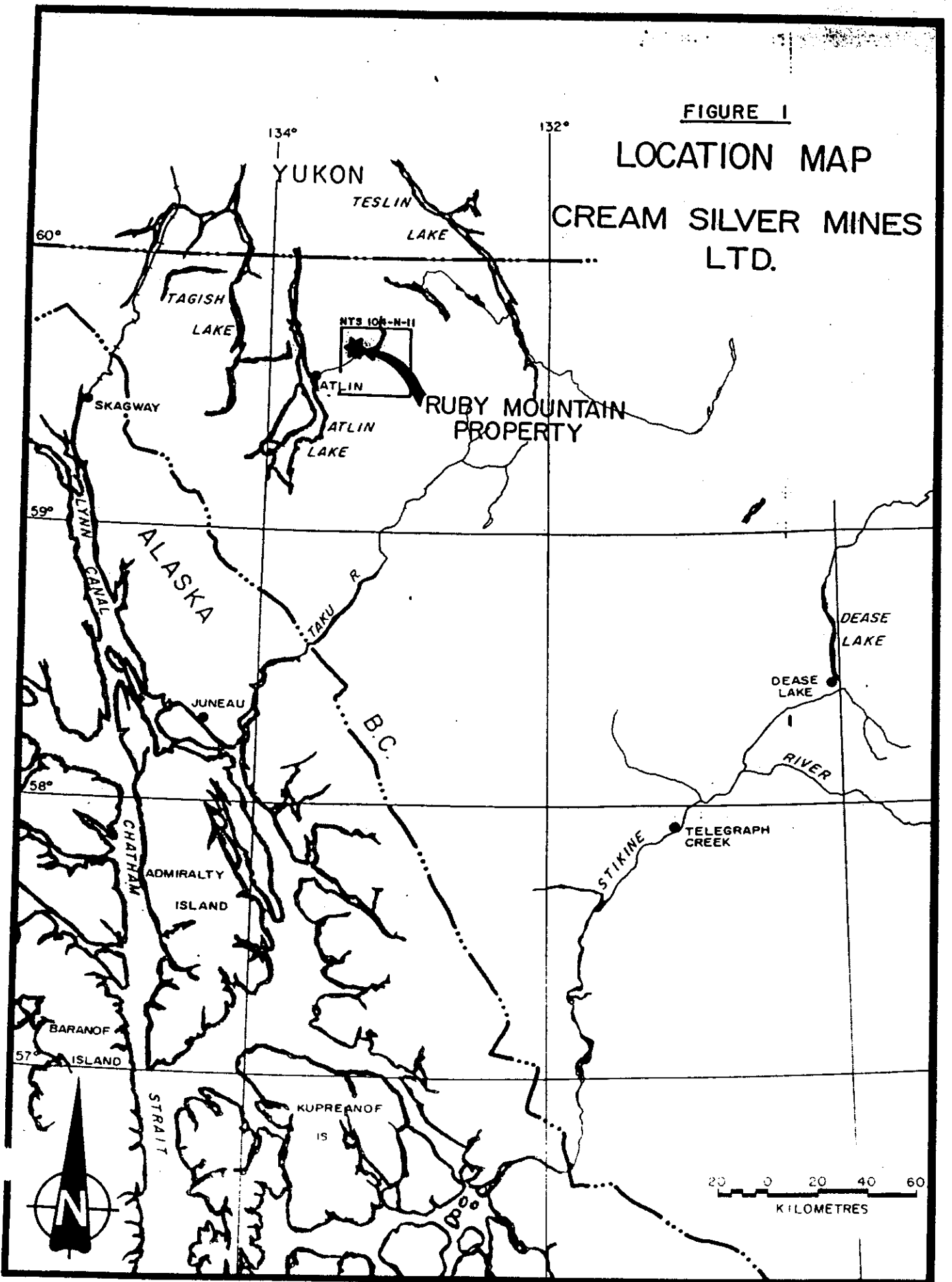
The Ruby Mountain gold property is located on the north side of Surprise Lake approximately 32 kilometres by road northeast of the town of Atlin and covers an area of approximately 40 square kilometres over the valleys of Boulder, Ruby and Pine Creeks (Figure 1).

Atlin is, and has been since the early days of the Klondike Gold Rush of 1897 and 1898, the principal population and supply centre of northwestern British Columbia. It is approximately 150 kilometres south of Whitehorse, the capital and principal Yukon city. Atlin, since 1949, has had a road connecting it with Jakes Corners on the Alaska Highway in the Yukon Territory. This road is open all year except for short periods when some of the hills are iced over. From Jakes Corners another road goes to Carcross, Y.T. The Alaska Highway extends from Dawson Creek, B.C., to Whitehorse, Y.T., and beyond to Alaska and is open all year. Both Carcross and Whitehorse are on the White Pass and Yukon Railway line, which extends from Skagway, U.S.A. to Whitehorse; however, at present the railroad is not in service. Skagway is the terminus for several coastal lines; and, until the closure of the rail line in late 1982, most heavy freight to the area went by boat to Skagway, thence by train to Carcross and thence by truck to Atlin. Now that the White Pass and Yukon Railway is closed all heavy cargo must be transported by truck from Skagway or from the east along the Alaska Highway. For passengers traveling to the area, it is best to fly to Whitehorse and go from there to Atlin by plane, car, or bus. Whitehorse is served by scheduled flights from both Vancouver and Edmonton. Aircraft for charter trips are available at Atlin, Whitehorse, and Lower Post on the Dease River. Helicopters are available in Atlin on a year round basis.

FIGURE 1

LOCATION MAP

CREAM SILVER MINES LTD.



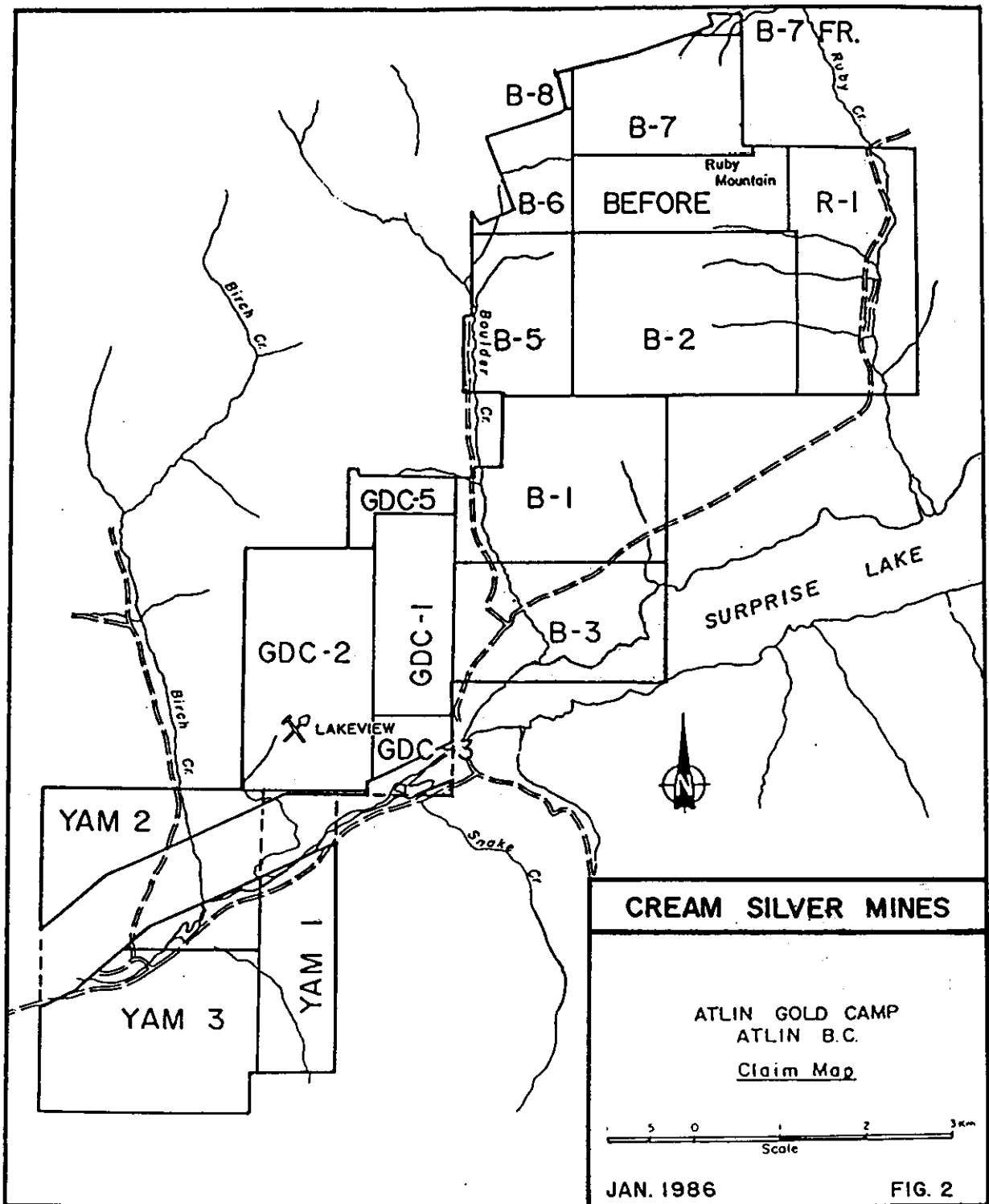
Excellent access to the property is provided by good gravel roads that service placer operations along Boulder and Ruby Creeks. A 4-wheel drive vehicle is required to gain access to the tungsten showing north of Ruby Mountain.

## 1.2 CLAIM INFORMATION

The property is located in the Atlin Mining Division and consists of thirteen modified grid claims totalling 146 units and one 2-post claim and a 2-post fractional claim. The claims are centred at latitude  $59^{\circ}40'$  and longitude  $133^{\circ}22'$  on NTS map sheet 104N/11W (Figure 2). Claim information is listed in Table 1.

**TABLE 1  
CLAIM STATUS**

CLAIM	UNITS	RECORD NO.	ANNIVERSARY DATE	
B-1	20	1373	July	29
B-2	20	1375	July	29
B-3	15	1391	August	4
BEFORE	20	2502	June	20
B-5	12	2501	June	20
B-6	9	2494	June	20
B-7	4	2504	August	7
B-7 FR	1	2505	August	7
B-8	1	2506	August	7
R-1	18	1374	July	29
GDC 1	10	2176	February	8
GDC 2	18	2177	February	8
GDC 5	6	1975	August	2
	146			





### 1.3 PHYSIOGRAPHY, VEGETATION AND CLIMATE

The Atlin area is located just east of the Coast Mountains on the Teslin Plateau. The town of Atlin lies on the east shore of Atlin Lake, the largest natural lake in British Columbia, at an elevation of 670 m (2,200 feet). The topography is moderately rugged on the Ruby Mountain property. Relief is on the order of 900 m (3,000 feet) with slopes of up to 30° rising from Surprise Lake at an elevation of 910 m (2,985 feet) to the peak of Ruby Mountain at 1900 m (6,231 feet). Pleistocene valley glaciation produced the north-south trending Boulder and Ruby Creek valleys. Till cover is thin or non-existent above the valley floor, giving way to felsenmeer and outcrop at higher elevations.

The tree line is at approximately 1220 m (4,000 feet) on north facing slopes and 1525 m (5,000 feet) on south facing slopes. Below 1220 m (4,000 feet), the valleys are forested with lodgepole pine, black spruce, aspen and dwarf birch. Mountain alder and willow grow near streams with stunted buckbrush covering the hills above tree line.

Atlin enjoys a pleasant summer climate with temperatures averaging 20°C and little precipitation. Winter temperatures average -15°C in January with moderate snowfall. Total annual precipitation averages 279.4 millimetres of moisture. "Winter" conditions can be expected from October to April.

### 1.4 HISTORY

Before 1898 very little was known of the Atlin country beyond the fact that it contained fur, big game, and a number of large lakes, the largest of which was called "Atlin," meaning "Big Water," by the Tlinkit-Tagish Indians. According to the most authenticated sources, B.C. Dept. of Mines, Annual Reports for 1900, 1904, 1932, and 1936, gold was first discovered on Pine Creek about July, 1897, by a man named Miller while driving cattle into Dawson and the Klondike Gold Fields. The information, together with a rough map, was passed on to Miller's brother, Fritz, in Juneau, who together with Kenny McLaren, a Canadian prospector named Hans Gunderson, and another, were on their way to the Klondike. These men decided to investigate and with the aid of the map were able to locate the creek with little difficulty and staked the first claims about July 8, 1898. Public information concerning the new strike reached Alaskan ports on August 5th, and Victoria, B.C. on August 13th, 1898, and resulted in a rush to the area. The first workings were on Pine Creek and by the end of 1898, more than 3,000 people were camped in the Atlin area. Only eight creeks, Spruce, Pine, Birch, Boulder, Ruby, Otter, Wright and McKee, have been important producers in the Atlin camp, although gold has been produced along 21 other creeks including Dominion, Eldorado, Feather, Fox, Rose, Slate, Snake, and O'Donnel River.

Uninterrupted placer mining in the Atlin camp has produced an estimated one million ounces of gold since 1898. Spruce Creek, the richest stream in the camp, has yielded more than 40 per cent of this gold. The pay streak along Spruce Creek is over 5 kilometres long, approximately 2 m thick, and up to 60 m wide. Near the southern end of the pay streak, the gravels are reported to have averaged about 80 gm of gold to the cubic metre along a 600 m section of the creek. Table II shows the gold production from the main creeks for the period up to 1946, the last year for which individual creek recoveries were obtained.

**TABLE 2 (from Holland, 1950 and Black, 1953)**

**GOLD RECOVERY FROM PRODUCTIVE CREEKS, ATLIN AREA, 1898-1946.**

<b>STREAM NAME</b>	<b>OUNCES OF GOLD PRODUCED</b>
Spruce Creek	262,603
Pine Creek	138,144
Boulder Creek	67,811
Ruby Creek	55,272
McKee Creek	46,953
Otter Creek	20,113
Wright Creek	14,729
Birch Creek	12,898
All Others (21 creeks)	<u>15,624</u>
<b>TOTAL PRODUCTION</b>	<b>634,147</b>

Note: B.C. Dept. of Mines records show that for this same period 705,229 ounces of gold was sold from the Atlin area suggesting that not all gold production was reported.

Since the late 70's interest and activity in the placer deposits has increase with the increase in the price of gold. Today the area is swarming with activity, and for five months a year the area is alive with small- and medium-sized operations re-working or re-examining the area.

Gold-bearing quartz veins were first discovered in the Atlin area in 1899, and by 1905 most of the known showings had been discovered. Although the original showings have been repeatedly worked and re-examined there is no record of regional exploration for lode mineralization since 1905. In 1981, Yukon Revenue Mines Ltd. acquired and re-examined the old Lakeview property. Work done by Yukon Revenue showed low-grade gold values over an extensive but delicate stockwork of carbonatized and silicified andesite adjacent to a serpentinite intrusive.

The discovery by Yukon Revenue Mines Ltd., in 1981, focused interest in the area. This renewed interest, along with the similarity of geology in the vicinity of major placer gold producing streams, prompted Cream Silver Mines Ltd. to stake the "B" and "R" Claims; when Yukon Revenue allowed their Lakeview Property to lapse, Cream Silver immediately acquired the ground by staking. When Cominco allowed its claims surrounding Ruby Mountain to lapse in 1985, Cream Silver acquired the ground by staking.

Exploration for other minerals has increased along with the interest in gold. The ground around Ruby Mountain has been held at various times by Adanac Mines, Johns-Manville Canada Inc., Yukon Revenue, and Cominco. Adanac drilled the granitic rocks to the north as part of the definition drill for their large but low-grade molybdenum deposit. Although no assessment work was ever filed, Yukon Revenue drill several short holes in skarn material approximately one km north of Ruby Mountain. Apparently the drilling was done on a slump block with negative results. Cominco held the ground for several years; their work included underground sampling at the Black Diamond Mine. Cominco geologically mapping and geochemically sampled the present property.

## 2.0 GEOLOGY

### 2.1 REGIONAL GEOLOGY

Geologic mapping of this area was undertaken in 1951-55 by J.D. Aitken of the Geological Survey of Canada (GSC) and compiled as Map 1082A (Figure 3). In 1966-68, J.W.H. Monger, also of the GSC, selectively mapped the Atlin area and published his findings in GSC Paper 74-47.

The Atlin region is located in a eugeosynclinal area composed of three distinct northwest striking tectonic belts; the St. Elias and Insular Belt, Coast and Cascades Belt, and Intermontane Belt. The rocks of the area belong to the Atlin Terrane, which represents an independent tectonic entity of the oceanic sequence of the Intermontane Belt in the Canadian Cordillera. The Atlin Terrane consists of upper Paleozoic age radiolarian cherts, pelites, carbonates, volcanics, and ultramafics. These rocks are intruded by Mesozoic granite, alaskite and quartz monzonite. The youngest rocks of the Atlin Terrane are composed of Tertiary and Quaternary volcanics. Till deposited by receding Pleistocene glaciers extensively covers the valleys.

The Atlin Terrane is bounded on the northeast by a northwest striking vertical fault and on the southwest by a northwest striking reverse fault. Structurally, the terrane is characterized by compressional deformation which is similar in style and trend to the southwest bounding faults (Monger, 1975). Minor fold axes generally strike northwest or trend southwest.

### 2.2 PROPERTY GEOLOGY

Geologic mapping indicates that the property is underlain by metasediments of the Cache Creek Group, mostly argillite and chert, intruded by Late Paleozoic talc-bearing ultramafics and a Cretaceous aged composite batholith (the Surprise Lake Batholith). Coarse-grained porphyritic granite is exposed along the northern boundaries of the claims and a small Alaskite stock, which is considered to be a phase of the Surprise Lake Batholith, is exposed south and east of Ruby Mountain. In topographically lower areas the metasediments and intrusives are capped by unconsolidated auriferous gravels and minor glacial till. Soil cover is minimal and consists of glacial till and loess. In the northeastern and eastern half of the area, these units are capped by olivine basalt flows, scoria, and explosive or collapse scoria ejected from the large cinder-cone that forms Ruby Mountain. Scoria is extensive and at least three explosive events and resulting crater collapses have occurred.

Outcrop exposure accounts for 5 per cent of the surface area on the entire property. Felsenmeer is present in areas of no outcrop and is assumed to be close to outcrop. Till covers the valleys below 1370 m

(4,500 feet) elevation.

### **Metasediments and Volcanics:**

The Cache Creek Group metasediments and volcanics comprise the oldest rocks exposed in the area. This Group consists of an interbedded sequence of grey to rusty weathering chert and siltstones, dark grey carbonaceous argillites, grey cherty argillite, well bedded impure carbonate, and an unknown thickness of basic volcanic rocks. Monger (1975) classifies the limestone, argillite, and chert as forming part of the Kedahda Formation and the andesite as part of the Nakina Formation. Cherty units are typically dark grey to black in colour and locally is interlayered with argillite containing beds of graphite. The basic volcanics (probably andesite) is typically drab grey-green in colour, siliceous, sometimes weakly carbonatized and contains 1% primary pyrite. The carbonate sequence is massive and ash grey in colour. This unit has been metamorphosed to a skarn at the southern contact with the Surprise Lake Batholith. This skarn (which varies in width from 15 to 50 m) is comprised of well banded to massive diopside-tremolite-garnet rock and amphibolite. The banded skarn is marked by cherty laminations and often contains lenses of coarsely crystalline grey marble 2 to 10 m wide. South of the southern contact with the batholith, the carbonate content of the sequence decreases and the chert and argillite content increases.

The Cache Creek Group is intruded by Pennsylvanian and Permian talc-bearing ultramafics and a complex Cretaceous batholith.

### **Intrusive Rocks:**

Pennsylvanian and Permian ultramafics represent part of the Atlin Intrusions and consist of peridotite and serpentinite. These ultramafic rocks are present as sills, dykes, and stocks that range in size from lenses a few tens of metres long to stocks several km in diameter. In a general way the large stock-like masses occur near the axis of synclines, whereas the small, lenticular, highly serpentinitized bodies, are found on the limbs.

The ultramafics weather to a distinctive rusty-orange brown colour. Lack of vegetation cover and its topographically recessive nature makes outcrops of these rocks conspicuous. On a fresh surface, ultramafics are generally dark green, dull waxy green, or black in colour. Alteration of the ultramafic is extensive, and most of the rocks have been subject to varying intensities of serpentinitization (20 to 100%) or carbonatization.

Much of the area surrounding Ruby Mountain is underlain by Cretaceous intrusives representing part of the Surprise Lake Batholith. At least two phases of this complex batholith are present and comprise an alaskite phase and a coarse-grained porphyry phase. The alaskite is

predominantly light coloured and varies in texture from coarse-grained to fine-grained. The fine-grained variety is most common and consists of phenocrysts of smoky quartz and minor orthoclase in a fine-grained quartz-feldspar matrix. The coarse-grained variety contains similar minerals but is more equigranular. Transitions between the two extreme varieties occur and often over short distances. Both varieties of the alaskite are distinguished by the absence of mafic minerals.

The coarse-grained porphyry phase differs from the alaskite by an increase in mafic minerals. The predominant mafic mineral is biotite and constitutes approximately 5 to 10 per cent of the total volume. Quartz veins are common and occasionally contain pyrrhotite, arsenopyrite, and tourmaline.

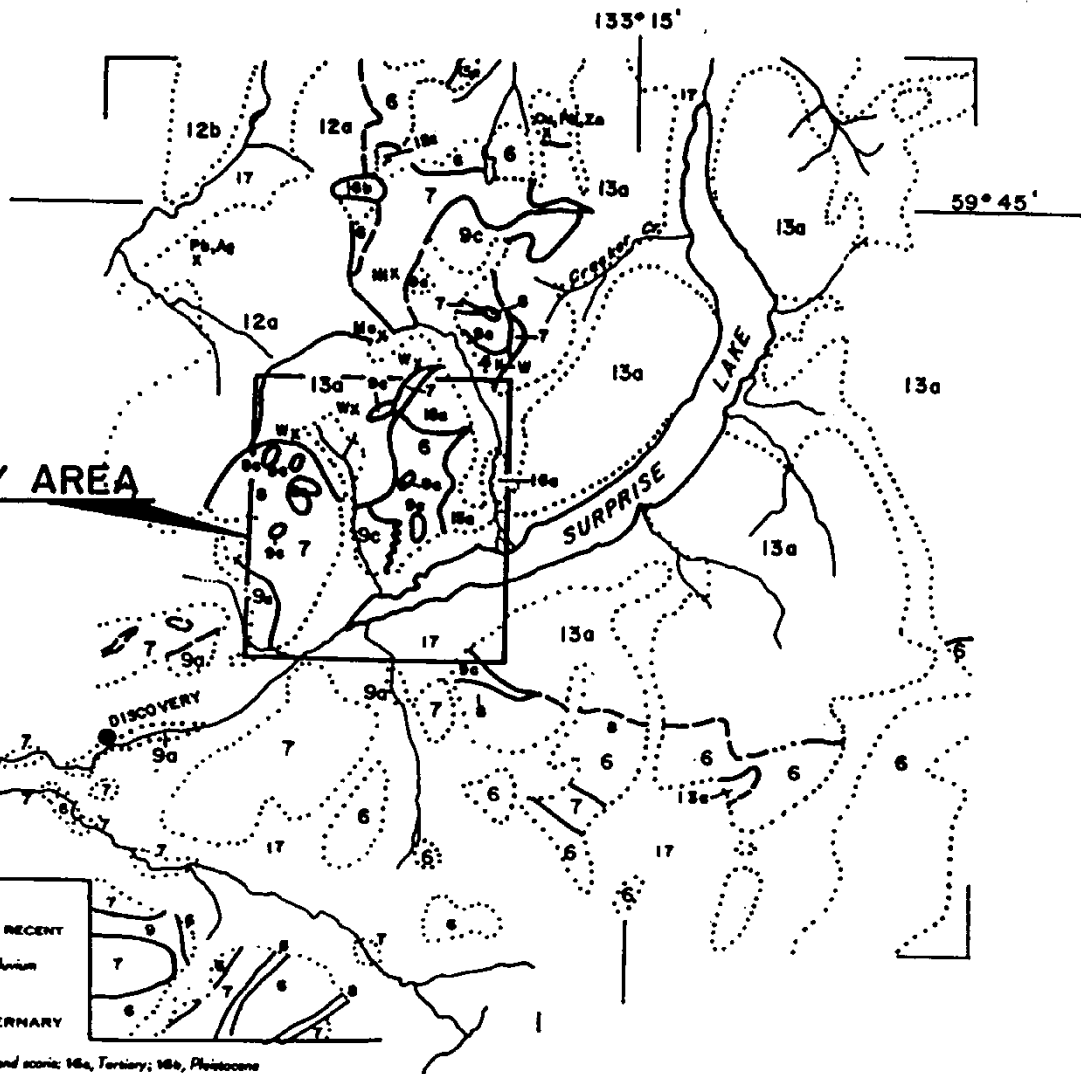
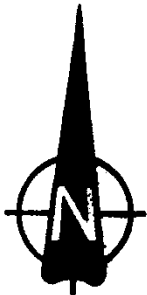
#### **Extrusives:**

Locally, especially in the eastern portion of the claims, older rocks are capped by Tertiary olivine basalt flows and scoria ejected from a large cinder cone that forms Ruby Mountain. Flows exposed along Ruby Creek, southeast of the B Claims, have been age dated 100,000 years B.P. (Proudlock and Proudlock, 1976). In several areas the flow rocks are covered by scoria indicating the Ruby Mountain has been active well into Recent time. The landform along the northern side of Ruby Mountain indicates that the cone was much steeper and it has suffered a number of periods of landslide movement.

#### **Recent Sediments:**

In topographically lower areas the Cache Creek and the intrusive rocks are capped by unconsolidated auriferous gravels and minor glacial till. The stratigraphic sequence exposed on the claims is as follows:

Recent	Glacial till and fluvial gravel
Pleistocene and Recent	Olivine basalt flows and scoria
Pleistocene (Late ?)	Glacial fluvial sediments
Cretaceous	Alaskite and skarn rocks
Pennsylvanian and Permian	Cache Creek Group: metasediments, including chert, argillite, impure siliceous carbonates, and amphibolite and time equivalent metavolcanics.



**LEGEND:**

CENOZOIC	17	QUATERNARY PLEISTOCENE AND RECENT Glacial drift, alluvium	
	16	TERTIARY AND QUATERNARY Olivine basalt and scoria; 16a, Tertiary; 16b, Pleistocene	
	15	TERTIARY (T) 15a, quartz monzonite; 15b, gneophyre; 15c, gabbro and diorite	
	14	CRETACEOUS OR TERTIARY SLERSO GROUP Andesite, basalt, alkali trachyte, alkali rhyolite, dacite, and related pyroclastic rocks; conglomerate, sandstone	
	13	CRETACEOUS 13a, slate; 13b, quartz monzonite	
	12	JURASSIC (May be in part older and younger) COAST INTRUSIONS Undifferentiated granitic rocks; 12a, Black Mountain body; 12b, Fourth of July Creek body; 12c, pink granite; 12d, Mount McMaster body; 12e, diorite; 12f, alkali granite	
	11	JURASSIC LABERGE GROUP Volcanic gneiss, silts, mudstone, shale, conglomerate; minor concretionary sandy limestone	
	10	TRIASSIC (T) Gneiss, chert, argillite, conglomerate, silt, slate, granitoid, impure limestone, Jasper	
	PALEOZOIC	9	PENNSYLVANIAN AND PERMIAN ATLIN INTRUSIONS Porphyrite, meta-diorite and meta-gabbro; 9a, serpentinite; 9b, carbonized serpentinite; 9c, calc-bearing (concretized) ultramafic rocks
		6 7 8	CACHE CREEK GROUP 6. Chert, argillite, chert-pebble conglomerate and chert breccia; derived quartzite and schist; minor 7 and 8 7. Greenstone and volcanic gneiss; derived amphibolite; minor 6 and 8 8. Limestone and limestone breccia

x MINERAL OCCURENCE

CREAM SILVER MINES LTD.  
B, R & GDC MINERAL CLAIMS  
ATLIN M.D.—BC NTS 104-N-11,12

GENERAL GEOLOGY MAP  
SCALE 1:253,440 (1"=4 Miles)

DATE: OCT. 25, 1983

C.W./r.w.r.

AFTER SBC MAP 1092A

FIGURE 3

The area south and west of Ruby Mountain (on the R-1 Claim Block) is partly underlain by a Cretaceous alaskite body that represents a portion of the Surprise Lake Batholith. This rock unit is light coloured and varies in texture from coarse-grained to the more common fine-grained variety. Uranium mineralization are reported to be associated with this intrusion.

Because of the limited outcrop exposures it is difficult to obtain specific structural information, however, it appears that the metasediments and notably the limestone beds have northeasterly strikes and dip steeply to the northwest. There is no evidence of isoclinal folding in the area and it is assumed that the exposed rock sequence is a normal one. Faulting is not uncommon and several shears have been recorded although their extent is limited by poor exposures. The old Black Diamond Tungsten Mine appears to lie along a fault striking approximately  $015^{\circ}$  and dipping to the southeast. This fault marks the contact between the Surprise Lake Batholith and serpentized and talcose ultramafic rocks of the Atlin Intrusions.



### 3.0 GEOCHEMISTRY

#### 3.1 SOIL AND ROCK CHIP SAMPLING

##### 3.1.1 SAMPLING AND SAMPLE TREATMENT

A total of 205 soil samples were collected from a grid that was established to cover the area believed to have the best economic potential. Sample collection was part of the general geologic mapping programme. Soil samples were collected at 25 m intervals along cross lines 200 m apart. The purpose of this sampling programme was to see if there is any significant geochemical signature across areas covered by slide material or overburden. The programme was designed to collect samples, whenever possible, from the B soil horizon; however, generally the soil development was poor and the desired horizon was seldom available. The only sampling medium available was either loess or the C soil horizon. Samples were collected using either a shovel or a prospector's pick and placed into Kraft wet-strength paper envelopes. After air drying for several days the samples were boxed and shipped to Chemex Labs. Ltd. in North Vancouver, B.C.

At Chemex Labs. Ltd. the samples were analyzed for 30 elements using the I.C.P. technique. In addition, gold was analyzed by standard atomic absorption after pre-concentration by Fire Assay extraction.

Results for the soil samples were tabulated for each element and are summarized in Appendix A. The results for copper, lead, and zinc are presented on Figure 4 and for tin, tungsten, and silver on Figure 5.

The rock chip sampling programme was designed to test the economic potential of some of the skarn outcrops. Typically the samples consisted of several golfball-sized representative specimens. Sample locations are identified by their grid location.

##### 3.1.2 DISCUSSION OF RESULTS

Figures 4 and 5 show the contoured geochemical results for copper, lead, zinc, and tin, tungsten, silver, respectively. The results of the 1985 programme extend northward anomalous soil outlined in a previous survey. The most recent programme outlines an anomalous area approximately 2500 m (8200 feet) long and up to 600 m (2000 feet) wide. Present indications suggest that this anomalous zone is open both northward and eastward where it is masked by an apparently thin layer of volcanic rocks. Some of the high soil sample values include 3750 ppm Cu, 2460 ppm Pb, 4750 ppm Zn, 200 ppm Ag, 1000 ppm Sn, and 1100 ppm W. Statistical treatment of soil samples collected since 1983 suggest that the anomalous threshold for the background population is: 1500 ppm Cu, 200 ppm Pb, 500 ppm Zn, 1.0 ppm Ag, and 20 ppm for Sn and

tungsten.

Although anomalous samples overlap geologic contacts, it appears that most high values are confined to the metasediments. The one exception is tungsten which outlines significant areas underlain by both metasediments and granitic rocks.

Rock chip sampling of some of the mineralized rocks returned metal values in excess of 1.0% lead and zinc, 4.5 oz/t silver, 0.6% copper, 0.18% tungsten, and 0.1% tin.

## 4.0 MAGNETOMETER SURVEY

### 4.1 SCINTREX MAGNETOMETER SYSTEM THEORY AND FIELD PROCEDURES

The magnetic method of applied geophysics consists of measuring accurately the resultant magnetic field of the earth's magnetism acting on rock formations having different magnetic properties and configurations. The resultant field is the vector sum of induced and remanent magnetism. Thus, there are three factors, excluding geometrical factors, which determine the magnetic field at any particular locality. These are the strength of the earth's magnetic field, the magnetic susceptibility of rocks, and their remanent magnetism.

A Model SP Portable Proton Magnetometers manufactured by Scintrex of Concord, Ontario was utilized on this programme. The SP magnetometer is designed for precise mapping of very small or large amplitude anomalies and is ideal for detail follow-up of aeromagnetic reconnaissance surveys. Total Field measurements can be read with a resolution of about 1 gamma throughout the instruments measuring range.

The technique employed for the ground survey was designed to aid geologic mapping by helping to follow rock units in overburden covered areas. Readings were taken along the same chained and flagged lines used for the geochemical survey. All readings were recorded at 25 metre intervals along the grid lines. A centrally located base station was established and loop traverses were designed to re-occupy the base station at hourly intervals. Field measurements were recorded on paper so that a permanent record was maintained. All values recorded on grid lines were corrected for diurnal and day to day variations and are presented on Figure 7.

### 4.2 DISCUSSION OF RESULTS

The results of the ground magnetometer survey were very satisfactory in extending geologic contacts in areas of slide or overburden cover. The overall magnetic trend appears to correlate with our present understanding of the underlying geology.


## 5.0 CONCLUSIONS

The 1985 field work was undertaken primarily to study the economic potential of the tin, tungsten, silver mineralization surrounding Ruby Mountain. Geochemical sampling has outlined an area approximately 2500 m (8200 feet) long and up to 600 m (2000 feet) wide which contains some highly anomalous soil sample values ranging up to 3750 ppm Cu, 2460 ppm Pb, 4750 ppm Zn, 200 ppm Ag, 1000 ppm Sn, and 1100 ppm W. The geochemical programme suggests that this anomalous zone is open both northward and eastward where it is masked by a thin layer of volcanic rocks. Rock chip sampling of some of the mineralized rocks within the anomalous area returned metal values in excess of 1.0% lead and zinc, 4.5 oz/t silver, 0.6% copper, 0.18% tungsten, and 0.1% tin.

The ground magnetometer survey was useful as a field aid to geologic mapping. A compilation of all work suggest that the anomalous geochemical samples overlap geologic contacts; however, with the exception of tungsten, all highly anomalous values are confined to the metasedimentary unit.

The results of the geologic and geochemical programme and a concomitant I.P survey have narrowed the broad anomalous zone into specific target areas. The results of the 1985 exploration work have outlined targets which warrant a modest diamond drilling programme.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'Rafael Gonzalez'.

R.A. Gonzalez, MSc., F.G.A.C., P.Eng.

## 6.0 REFERENCES

- Aitken, J.D., 1960, Geology, Atlin, Cassiar District, British Columbia: Geological Survey of Canada, Map 1082A, Scale 1:253,440.
- Gonzalez, R.A. and Wong, C., 1984, Assessment Report for Geological, Geochemical, and Trenching on the Ruby Mountain Property, Atlin Mining Division, B.C.: Assessment Report Dated December 1984.
- Gupta, U. Das, 1978, Geological and Geochemical Assessment Report Dambouleo Claim Group, Atlin M.D.: Assessment Report Dated November, 1978.
- Holland, S.S., 1950, Placer Gold Production of British Columbia: B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 28, 89 p.
- Monger, J.W.H., 1975, Upper Paleozoic Rocks of the Atlin Terrane, Northwestern British Columbia and South-Central Yukon: Geological Survey of Canada, Paper 74-47, 63 p. and maps.
- Proudlock, P.J., and Proudlock, W.M., 1976, Stratigraphy of the Placers in the Atlin Placer Mining Camp: B.C. Ministry of Mines and Petroleum Resources, 69 p.
- Troup, A.G., 1983, Report on the Ruby Mountain Property, Atlin Mining Division-British Columbia NTS 104N/11: Engineer's Report dated May, 1983.
- Troup, A.G. and Wong, C., 1983, Geochemical, Geological and Geophysical Report on the Shuksan Property: Assessment Report dated October 1983.

## 9.0 STATEMENT OF PROFESSIONAL QUALIFICATIONS

R.A. GONZALEZ, M.Sc., F.G.A.C., P.Eng.

### ACADEMIC

1965	B.Sc. in Geology	The University of New Mexico, U.S.A.
1968	M.Sc. in Geology	The University of New Mexico, U.S.A.

### PROFESSIONAL

1983	Archean Engineering Limited	Overseas Manager
1983	Registered Fellow in the Geological Association of Canada	
1980-1983	Placer Development y Cia. Ltd. (Chile)	Ass't Exploration Manager
1977-1980	Consultant attached to the Geological Survey of Malaysia	Ass't Project Manager on a C.I.D.A. supported mineral exploration survey over Peninsular Malaysia
1977	Registered Professional Engineer in the Province of Manitoba	
1975-1977	Province of Manitoba	Resident Geologist for the Manitoba Dept. of Mines.
1971-1975	Giant Mascot Mines Limited	Senior Geologist
1970-1971	New Jersey Zinc (Canada) Ltd.	Exploration Geologist
1968-1970	Anaconda American Brass Ltd.	Research Geologist
1965-1966	Mex-Tex Mining Co.(U.S.A)	Geologist

## 8.0 COSTS STATEMENT

CREAM SILVER MINES LTD  
RUBY MOUNTAIN PROPERTY  
GEOLOGICAL MAPPING, GEOCHEMICAL, AND GEOPHYSICAL SURVEY COSTS  
25 JULY TO 24 SEPTEMBER 1985

## GENERAL COSTS

<b>FOOD &amp; ACCOMMODATION:</b>		
2 persons, 47.5 man days @ \$19.92/m-day		\$ 946.39
<b>SUPPLIES:</b>		391.18
<b>FIXED WING</b>		
CP Air, 24 July, 4 Sept: VCR-WTH return		1,299.05
<b>RENTALS:</b>		
Ford Rent-A-Car, 4WD Ranger PU		
5-8 Aug; 3 days @ \$99.08/day	\$ 297.24	
Whitehorse Motors, Sedan, 26 July 1 day	57.02	
J. Broswick 1 Ton F150 Truck		
27 July-4 Aug; 7 days @ 106.93	748.50	
Tilden 4WD Chev. PU 4 to 24 Sept @ \$85.50/day	1,748.50	
Ezekiel Field Equipment, 48 man days @ \$6/day	<u>288.00</u>	3,101.44
<b>FUEL:</b>		634.33
<b>MAINTENANCE</b>		80.40
<b>SHIPPING/POSTAGE</b>		438.88
<b>TELEPHONE (Field):</b>		21.00
<b>PROJECT PREPARATION</b>		652.67
<b>CONSULTANT FEES:</b>		
Archean Engineering Ltd.		3,047.50
<b>REPORT PREPARATION:</b>		<u>1,920.19</u>
<b>TOTAL GENERAL COSTS</b>		<u><u>\$ 12,533.03</u></u>

## GEOLOGICAL MAPPING COSTS

<b>SALARIES AND WAGES:</b>		
2 Pers, 24.5 man days @ \$ 222.96/day		\$ 5,458.33
<b>GENERAL COSTS APPORTIONED</b>		
24.5/47.5 X \$12,533.03		<u>6,464.40</u>
<b>TOTAL GEOLOGICAL MAPPING COSTS</b>		<u><u>\$ 11,922.73</u></u>

## GEOCHEMICAL SURVEY COSTS

**SALARIES & WAGES**

2 persons, 18 man days @ 207.96/day	3,743.33
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**ASSAYS & ANALYSES**

Soils: 13 for Sn & 30 Elem ICP @ \$11.20	\$ 145.60	
1 for Au & 30 Elem ICP	14.75	
151 for Sn @ \$4.70	709.70	
3 for Sn @ \$6.00	18.00	
154 for 30 Elem ICP @ \$13	2,002.00	
38 for Sn & 24 Elem ICP @ \$17.70	672.60	
Pulps: 9 for Au @ \$6.25	56.25	
Rocks: 5 for Sn & 24 Elem ICP @ \$19.50	97.50	
1 for Sn	6.50	
	3,722.90	

**GENERAL COSTS APPORTIONED**

18/47.5 X \$12,533.03	4,749.36
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**TOTAL GEOCHEMICAL SURVEY COSTS**

<u>\$12,215.59</u>
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## GEOPHYSICAL SURVEY COSTS:

**SALARIES & WAGES**

1 person for 5 man days @ \$246.66/day	1,233.33
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**RENTALS:**

Kangeld's Proton Mag., 5 days @ \$27/day	135.00
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**GENERAL COSTS APPORTIONED**

5/47.5 X \$12,533.03	1,319.27
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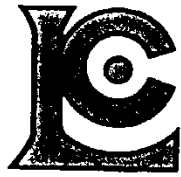
**TOTAL GEOPHYSICAL SURVEY COSTS:**

<u>\$ 2,687.60</u>
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APPENDIX A

SOIL SAMPLE RESULTS



# Chemex Labs Ltd.

-Analytical Chemists -Geochemists -Registered Assayers

212 Brooksbank Ave.  
North Vancouver, B.C.  
Canada V7J 2C1

Telephone: (604) 984-0221  
Telex: 043-52597

## CERTIFICATE OF ANALYSIS

TO : CREAM SILVER MINES LTD.  
1500 - 675 WEST HASTINGS ST.  
VANCOUVER, B.C.  
V6B 1N2

CERT. # : A8514919-002-A  
INVOICE # : 18514919  
DATE : 15-AUG-85  
P.O. # : ATLIN  
ATLIN

ATTN: R. GONZALEZ & ART TROUP

Sample description	Mo ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Mg % (ICP)	V ppm (ICP)	Al % (ICP)	Be ppm (ICP)	Ca % (ICP)	Cu ppm (ICP)	Ag ppm AAS	Ti % (ICP)	Sr ppm (ICP)	Na % (ICP)	K % (ICP)
L06+50N 2+00W	9	<10	275	720	70	4	1.5	46	178	645	4.75	2640	295	2.78	78	5.84	7.5	0.73	205	1.8	0.390	105	0.90	1.55
L06+50N 2+50W	10	1100	1330	805	725	520	8.0	8	104	350	18.80	810	260	1.93	63	3.52	54.5	0.69	1500	>200.0	0.279	62	0.60	1.09
L08+00N 0+50E	<1	<10	685	1080	580	11	7.5	43	78	425	6.48	2710	87	2.05	93	7.28	26.0	0.87	585	5.4	0.410	119	0.66	1.56
L08+00N 1+00E	1	<10	4750	2620	415	<2	27.0	31	96	460	8.25	1710	170	2.86	131	8.62	12.0	2.12	540	3.2	0.992	415	1.35	1.26
L08+00N 1+50E	2	225	650	990	345	35	10.5	37	250	495	5.70	2110	300	3.96	104	4.84	25.5	0.93	730	10.4	0.382	74	0.37	1.79
L08+00N 3+50E	<1	15	197	950	220	3	<0.5	5	32	370	4.64	475	71	0.94	40	8.60	5.0	0.58	250	2.2	0.321	91	2.25	2.80
L08+00N 0+00	3	<10	840	905	580	5	7.0	25	48	540	5.13	2030	125	1.71	94	6.08	20.5	1.20	320	5.0	0.417	141	0.63	1.80
L08+00N 0+50W	<1	<10	3050	1070	2460	27	25.5	42	188	385	6.83	2200	145	2.48	88	6.50	33.0	1.86	835	19.6	0.508	200	1.31	1.54
L08+00N 1+00W	1	<10	1350	970	1700	10	6.5	71	300	315	8.21	2110	260	4.40	150	6.90	12.0	3.06	605	11.2	0.641	300	1.23	1.32
L08+00N 1+50W	6	<10	365	505	106	<2	4.0	20	101	425	2.78	1000	105	1.55	51	3.39	9.0	0.60	215	2.2	0.281	85	0.37	0.96
L08+00N 2+00W	10	<10	255	505	56	<2	1.0	25	205	800	3.89	1240	405	4.29	90	4.58	5.5	1.26	133	1.2	0.298	105	0.75	1.84
L08+00N 2+50W	<1	<10	225	745	38	<2	<0.5	50	685	310	5.46	1200	765	10.60	96	4.66	5.0	2.20	135	0.8	0.463	87	1.09	0.95
L08+00N 4+00W	<1	<10	131	425	138	4	<0.5	3	24	315	3.05	270	54	0.68	24	6.99	3.5	0.47	164	0.8	0.194	72	2.18	2.64
L08+00N 4+50W	1	<10	101	725	104	6	<0.5	3	18	315	3.16	225	37	0.55	20	7.63	4.0	0.40	130	0.6	0.179	58	2.64	3.26
L08+00N 5+00W	<1	<10	300	850	86	3	<0.5	6	38	395	4.50	415	76	1.22	37	7.93	4.5	0.76	193	0.4	0.322	111	2.37	2.70
L08+00N 5+50W	<1	<10	140	1230	48	<2	<0.5	12	85	385	4.66	515	140	2.52	62	7.09	3.5	1.28	77	<0.2	0.469	176	2.15	2.06
L10+00N 0+00	<1	<10	101	2990	20	<2	<0.5	24	93	460	6.82	890	215	4.60	126	6.93	0.5	4.30	99	<0.2	1.200	695	2.31	1.19
L10+00N 0+50W	5	<10	840	1690	375	<2	4.0	34	215	545	6.39	1510	285	4.23	121	6.95	11.0	2.19	415	3.0	0.743	280	1.49	1.29
L10+00N 1+00W	4	20	545	1070	205	<2	4.0	34	290	545	5.90	1280	375	5.19	121	6.06	6.0	2.34	340	2.8	0.698	171	1.27	1.34
L10+00N 1+50W	<1	<10	220	1140	52	3	<0.5	11	119	450	4.52	635	150	2.07	82	7.86	4.5	1.09	134	1.6	0.506	123	2.20	2.34
L10+00N 2+00W	<1	<10	177	955	64	7	<0.5	9	71	390	3.94	585	110	1.53	61	7.41	4.0	0.90	135	2.0	0.369	106	2.17	2.55
L10+00N 2+50W	<1	50	166	935	84	13	<0.5	18	144	405	5.42	800	210	3.21	104	7.72	4.0	1.81	144	2.2	0.624	142	2.23	2.21
L10+00N 3+00W	<1	120	164	590	102	24	<0.5	14	112	415	5.13	715	190	2.75	82	7.85	3.0	1.39	142	2.2	0.500	110	2.48	2.66
L10+00N 3+50W	<1	65	114	1090	70	10	<0.5	10	97	380	4.33	700	200	2.38	104	6.19	3.5	1.71	88	0.8	0.492	124	2.14	1.82
L10+00N 4+00W	<1	45	230	1030	84	13	<0.5	20	210	385	5.25	790	210	3.54	104	6.73	3.0	1.39	141	1.8	0.479	120	1.92	1.54
L10+00N 4+50W	<1	15	310	1030	130	21	<0.5	23	188	430	5.85	910	195	3.50	117	7.91	3.5	1.48	186	1.6	0.503	131	1.97	1.77
L10+00N 5+00W	<1	25	295	490	34	6	<0.5	31	430	445	5.33	1080	580	7.45	96	6.02	2.5	2.32	84	0.4	0.462	133	2.14	1.54
L10+00N 5+50W	<1	<10	102	900	8	<2	<0.5	48	790	325	5.12	895	680	10.70	95	5.31	1.0	2.30	75	<0.2	0.523	178	1.67	0.91
L10+00N 6+00W	<1	<10	171	545	12	<2	<0.5	59	820	300	4.74	1350	645	11.80	81	4.82	3.0	2.53	139	0.6	0.387	107	1.41	0.86
L12+00N 0+50E	<1	<10	325	2200	98	<2	<0.5	18	163	550	5.77	805	215	2.94	105	7.92	4.5	1.51	175	1.6	0.759	215	1.99	1.61
L12+00N B10+00	<1	35	275	1720	40	8	2.5	18	182	475	4.64	1330	170	1.53	44	8.19	5.0	0.56	171	0.4	0.321	95	1.70	2.07
L12+00N 0+50W	<1	40	97	1050	36	<2	<0.5	11	64	460	3.83	550	135	1.70	60	6.81	2.5	0.78	52	0.4	0.501	102	2.20	2.67
L12+00N 1+50W	<1	20	100	705	32	<2	<0.5	5	19	605	2.96	495	74	0.62	45	6.88	3.0	0.77	60	0.4	0.320	129	2.27	2.69
L12+00N 2+00W	<1	<10	80	920	32	<2	<0.5	6	27	475	3.12	530	91	0.79	54	6.21	1.5	0.62	42	0.4	0.381	103	2.03	2.44
L12+00N 2+50W	<1	90	71	405	26	<2	<0.5	6	30	480	2.79	385	63	0.98	38	7.55	2.5	0.69	63	<0.2	0.276	123	2.45	3.26
L12+00N 3+00W	<1	<10	73	920	30	<2	<0.5	4	15	740	3.03	370	75	0.66	61	7.36	2.0	0.89	51	0.4	0.368	181	2.42	2.70
L12+00N 3+50W	<1	<10	77	1240	24	<2	<0.5	4	15	710	3.30	390	77	0.70	59	7.18	1.5	0.89	51	0.4	0.369	173	2.21	2.63
L12+00N 4+00W	<1	20	105	615	22	<2	<0.5	5	23	625	2.88	395	76	0.89	53	7.08	2.5	0.91	69	<0.2	0.331	168	2.31	2.55
L12+00N 4+50W	<1	<10	60	1150	16	<2	<0.5	2	10	655	2.52	275	64	0.43	55	5.58	1.0	0.63	32	<0.2	0.334	129	1.98	2.28
L12+00N 5+00W	3	<10	250	1470	68	3	<0.5	5	20	400	4.93	575	64	0.90	46	8.14	3.0	0.36	152	1.2	0.322	67	1.34	1.80

Certified by *[Signature]*

SYSTEMS BUSINESS FORMS LIMITED VANCOUVER TR202840



# Chemex Labs Ltd.

Analytical Chemists    Geochemists    Registered Assayers

212 Brooksbank Ave.  
North Vancouver, B.C.  
Canada    V7J 2C1

Telephone: (604) 984-0221  
Telex: 043-52597

## CERTIFICATE OF ANALYSIS

TO : CREAM SILVER MINES LTD.

1500 - 675 WEST HASTINGS ST.  
VANCOUVER, B.C.  
V6B 1N2

CERT. # : A8514919-001-A  
INVOICE # : 18514919  
DATE : 15-AUG-85  
P.O. # : ATLIN  
ATLIN

ATTN: R. GONZALEZ & ART TROUP

Sample description	Mo ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Hg % (ICP)	V ppm (ICP)	Al % (ICP)	Be ppm (ICP)	Ca % (ICP)	Cu ppm (ICP)	Ag ppm AAS	Ti % (ICP)	Sr ppm (ICP)	Na % (ICP)	K % (ICP)
L02+00N 0+50E	<1	<10	135	1750	60	<2	<0.5	22	120	405	5.01	720	370	2.87	103	6.07	0.5	1.89	76	0.8	0.460	127	1.63	0.89
L02+00N 1+00E	<1	<10	182	870	48	<2	<0.5	26	148	525	5.37	815	385	3.91	116	7.45	1.0	2.44	98	1.2	0.505	173	2.08	1.32
L02+00N 1+50E	<1	<10	815	1670	370	8	8.0	32	148	535	7.53	1500	375	3.46	162	8.97	2.0	2.23	174	7.6	0.987	179	2.14	1.92
L02+00N 2+00E	<1	15	166	1470	44	<2	<0.5	24	205	515	5.45	900	260	4.25	120	7.07	2.5	2.05	101	0.8	0.763	225	1.95	1.49
L02+00N 2+50E	<1	<10	210	2710	46	<2	<0.5	22	116	455	5.62	1080	155	2.42	130	7.30	3.0	1.46	144	1.8	0.803	168	1.62	0.92
L02+00N 3+00E	<1	<10	111	2700	12	<2	<0.5	22	118	445	5.54	845	200	3.69	104	6.52	1.0	2.43	50	0.8	0.873	395	1.72	0.78
L02+00N 3+50E	<1	<10	80	4600	4	<2	<0.5	13	26	410	4.00	1210	63	0.98	106	7.59	1.0	1.57	93	0.6	0.688	315	1.22	0.49
L04+00N 0+50E	<1	10	119	2710	64	<2	<0.5	16	67	375	4.98	1120	150	2.52	138	7.86	4.0	2.16	96	1.0	0.750	225	1.93	1.14
L04+00N 1+00E	<1	<10	240	1630	114	<2	<0.5	22	83	525	5.55	1110	170	2.65	143	8.57	5.5	1.76	250	1.6	0.651	194	1.89	1.44
L04+00N 1+50E	<1	<10	117	2780	16	<2	<0.5	20	90	575	6.10	865	195	3.20	121	8.03	1.0	2.92	56	0.6	1.030	515	2.05	1.16
L04+00N 2+00E	<1	<10	86	2410	14	<2	<0.5	17	67	620	5.42	795	175	2.56	106	7.44	0.5	2.39	48	0.4	0.851	390	1.94	1.09
L04+00N 2+50E	<1	<10	98	2890	10	<2	<0.5	16	69	485	4.86	850	155	2.49	107	6.55	0.5	2.51	49	0.4	0.823	425	1.78	0.86
L04+00N 0+00	<1	<10	145	1290	74	4	<0.5	18	71	510	4.68	900	150	2.37	134	7.35	5.0	2.06	240	2.0	0.604	220	2.02	1.31
L04+00N 0+50W	<1	35	255	1070	76	8	<0.5	31	255	600	5.73	1040	350	4.26	144	7.88	7.0	2.15	320	2.0	0.372	220	1.94	1.58
L04+00N 1+00W	<1	30	445	1020	126	<2	1.0	36	380	490	5.32	1250	475	4.76	107	6.48	10.5	1.96	245	2.4	0.489	161	1.78	1.49
L04+00N 1+50W	<1	<10	77	1930	14	<2	<0.5	9	57	415	2.88	650	140	1.51	81	4.77	1.0	2.44	70	0.8	0.465	161	1.44	0.78
L04+00N 2+00W	<1	<10	98	1680	28	<2	<0.5	12	94	745	3.40	820	165	2.04	88	5.84	1.0	1.35	61	0.8	0.495	182	1.69	1.41
L04+00N 2+50W	<1	<10	67	875	14	<2	<0.5	16	154	695	3.16	805	210	2.82	81	6.42	1.0	1.50	55	<0.2	0.410	210	1.96	1.72
L04+00N 3+00W	<1	<10	123	850	16	<2	<0.5	28	220	470	5.85	970	270	4.88	170	7.37	4.0	2.24	265	0.6	0.676	190	2.19	1.81
L04+00N 3+50W	<1	<10	180	965	24	<2	<0.5	29	305	505	5.06	825	400	4.94	127	6.52	1.5	1.65	138	1.0	0.490	133	1.99	1.45
L04+00N 4+00W	<1	<10	138	3350	36	<2	<0.5	36	370	400	3.63	1030	395	4.85	75	4.37	0.5	1.40	93	1.2	0.265	109	1.17	0.68
L04+00N 4+50W	<1	30	245	565	64	4	<0.5	8	48	645	3.09	520	110	1.49	80	6.52	1.5	1.01	113	1.8	0.353	133	2.20	2.14
L04+00N 5+00W	<1	<10	81	2910	86	<2	<0.5	3	14	405	2.16	670	45	0.43	42	6.01	2.0	0.61	54	1.6	0.250	125	1.89	1.89
L04+00N 5+50W	<1	20	56	1410	28	<2	<0.5	2	7	315	1.44	695	26	0.20	24	7.06	4.0	0.31	25	0.6	0.174	60	2.51	2.97
L04+00N 6+00W	<1	<10	63	695	52	<2	<0.5	3	12	545	2.48	360	56	0.57	50	6.36	1.5	0.71	41	0.6	0.300	134	2.18	2.36
L06+00N 4+00W	<1	<10	90	625	22	<2	<0.5	26	405	520	3.37	785	340	5.30	70	5.88	1.5	1.38	28	0.6	0.322	176	1.97	1.60
L06+00N 4+50W	<1	35	92	610	110	39	<0.5	3	29	490	3.55	310	135	1.23	53	5.90	2.0	0.82	135	3.2	0.300	152	1.87	2.52
L06+00N 5+00W	<1	<10	84	750	150	<2	<0.5	4	17	600	3.10	360	59	0.71	56	7.73	2.5	0.96	103	2.0	0.314	181	2.41	2.67
L06+00N 5+50W	<1	<10	69	615	94	<2	<0.5	4	21	745	3.51	385	73	0.81	56	7.67	2.0	1.02	98	1.4	0.363	182	2.38	2.64
L06+00N 6+00W	13	<10	94	580	76	2	<0.5	3	17	630	4.22	310	58	0.63	49	8.38	3.5	0.78	180	1.0	0.316	163	2.52	2.97
L06+00N 6+50W	<1	<10	66	640	70	<2	<0.5	4	22	770	3.07	380	69	0.85	64	7.52	1.5	1.07	93	0.8	0.352	200	2.34	2.43
L06+00N 7+00W	<1	<10	72	520	72	<2	<0.5	3	21	565	2.76	345	61	0.73	48	6.60	2.0	0.97	69	0.8	0.295	160	2.31	2.30
L06+00N 7+50W	<1	<10	52	570	32	<2	<0.5	3	17	600	2.31	300	56	0.65	46	6.40	1.5	0.94	30	0.4	0.273	164	2.34	2.22
L06+50N 0+50E	75	125	2560	1540	2400	55	27.0	95	186	570	8.99	4000	170	2.15	114	6.73	35.0	1.20	3750	27.4	0.336	121	0.59	1.48
L06+50N 1+00E	<1	515	870	1040	550	60	10.5	40	410	410	7.39	1970	420	5.64	101	5.02	39.5	1.02	1050	16.2	0.356	68	0.46	1.79
L06+50N 1+50E	1	60	350	2430	124	<2	<0.5	50	174	370	6.88	1320	245	4.09	130	6.90	7.5	3.05	395	1.8	1.010	465	1.84	1.06
L06+50N 2+00E	<1	205	560	2620	315	<2	2.5	40	155	360	7.75	1080	240	4.44	142	8.14	8.5	4.17	460	7.8	1.160	635	2.14	1.21
L06+50N 0+00	4	<10	445	3230	350	<2	2.0	26	97	465	7.50	1230	180	3.51	134	7.96	3.5	3.36	192	1.8	1.220	665	2.12	1.83
L06+50N 0+50W	1	<10	215	760	44	<2	2.0	42	555	260	4.44	1250	440	8.61	99	5.92	2.0	4.61	143	0.8	0.396	210	1.01	0.68
L06+50N 1+00W	6	<10	605	2120	225	<2	4.0	46	183	850	6.75	2640	305	3.70	121	7.65	13.0	1.72	490	3.2	0.839	220	1.36	1.17

Certified by *[Signature]*

SYSTEMS BUSINESS FORMS LIMITED VANCOUVER TR201840



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## CERTIFICATE OF ANALYSIS

TO : CREAM SILVER MINES LTD.

1500 - 675 WEST HASTINGS ST.  
VANCOUVER, B.C.  
V6B 1N2

CERT. # : A8514969-001-A  
INVOICE # : I8514969  
DATE : 18-AUG-85  
P.O. # : NONE  
ATLIN

ATTN: R. GONZALEZ & ART TROUP

Sample description	Mo ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Mg % (ICP)	V ppm (ICP)	Al % (ICP)	Be ppm (ICP)	Ca % (ICP)	Cu ppm (ICP)	Ag ppm AAS	Ti % (ICP)	Sr ppm (ICP)	Na % (ICP)	K % (ICP)
L2+00N 0+00W	<1	15	335	1190	130	<2	<0.5	30	143	560	4.99	785	390	3.31	124	7.38	2.5	2.34	171	1.6	0.519	173	2.07	1.29
L2+00N 0+50W	<1	<10	103	795	32	<2	<0.5	19	127	715	4.87	765	270	3.01	127	7.61	1.5	2.10	61	0.4	0.730	235	2.30	1.64
L2+00N 1+00W	<1	<10	121	1030	38	<2	<0.5	25	255	655	5.17	830	385	3.99	119	7.04	2.0	1.77	94	0.6	0.733	195	1.97	1.37
L2+00N 1+50W	<1	<10	95	1150	44	<2	<0.5	12	124	670	3.62	595	185	2.19	88	5.94	1.5	1.40	50	<0.2	0.480	179	1.89	1.59
L2+00N 2+00W	1	<10	235	1720	88	<2	<0.5	23	146	710	5.55	920	185	2.58	125	7.97	3.0	1.22	144	<0.2	0.692	165	1.89	1.68
L2+00N 2+50W	<1	<10	171	1750	68	<2	<0.5	20	142	640	5.22	885	195	2.64	120	7.08	2.5	1.41	92	<0.2	0.751	172	1.83	1.44
L2+00N 3+00W	<1	15	116	1150	64	<2	<0.5	19	205	635	4.43	800	240	3.37	105	6.82	3.5	1.62	66	0.4	0.601	195	2.01	1.61
L2+00N 3+50W	<1	<10	134	880	38	<2	<0.5	14	146	655	3.73	755	225	2.84	98	6.17	3.0	1.79	74	0.6	0.517	187	1.80	1.40
L2+00N 4+00W	<1	<10	81	1510	18	<2	<0.5	16	166	735	3.91	885	255	2.93	98	6.19	1.5	1.37	51	0.4	0.521	164	1.80	1.53
L2+00N 4+50W	<1	<10	135	1180	32	<2	<0.5	24	205	620	5.51	395	245	3.93	157	7.79	2.0	1.91	205	<0.2	0.625	184	2.13	1.53
L2+00N 5+00W	<1	<10	127	1990	64	<2	<0.5	18	153	710	4.27	330	290	3.08	105	7.59	1.5	1.58	120	0.4	0.510	168	2.01	1.63
L2+00N 5+50W	<1	<10	118	785	92	6	<0.5	6	46	625	3.02	445	120	1.23	66	6.88	2.0	0.91	102	0.4	0.343	135	2.07	2.45
L2+00N 6+00W	1	<10	136	2720	78	<2	4.5	7	17	510	2.40	1860	54	0.54	44	6.28	2.5	0.74	46	0.8	0.290	150	1.97	2.05
L2+00N 6+50W	<1	<10	69	1060	54	<2	<0.5	3	12	700	2.35	380	61	0.43	53	7.39	2.0	0.73	37	0.6	0.329	161	2.40	2.92
L2+00N 7+00W	<1	<10	65	645	60	<2	<0.5	1	10	550	2.12	340	63	0.37	48	7.43	2.5	0.67	58	0.4	0.276	139	2.49	2.82
L2+00N 7+50W	<1	<10	62	320	94	<2	<0.5	3	17	710	2.71	325	69	0.62	62	8.09	2.0	0.90	38	0.4	0.338	186	2.40	2.91
L6+00W 0+00S	<1	<10	95	745	78	<2	<0.5	6	40	670	2.70	445	105	1.11	62	8.05	2.5	0.96	68	0.6	0.352	172	2.39	2.87
L6+00W 0+50S	<1	<10	105	790	56	<2	<0.5	12	115	780	3.26	675	190	3.24	80	6.92	2.5	1.35	54	0.4	0.463	176	2.12	2.16
L6+00W 1+00S	<1	<10	68	1190	26	<2	<0.5	7	68	800	3.04	620	170	1.51	85	7.13	3.0	1.42	36	0.8	0.440	240	2.26	2.34
L6+00W 1+50S	<1	<10	260	795	192	<2	1.5	7	46	1140	3.20	585	135	1.34	78	7.09	3.5	1.17	50	0.4	0.420	178	2.02	2.43
L6+00W 2+00S	3	<10	197	1240	245	<2	1.0	5	35	1020	2.84	475	100	1.03	72	6.85	2.0	0.96	52	4.8	0.342	178	1.92	1.85
L6+00W 2+50S	<1	<10	109	3670	118	<2	1.0	8	42	1050	3.72	800	135	1.21	93	6.56	2.0	1.09	46	<0.2	0.498	137	1.87	2.16
L6+00W 3+00S	<1	<10	97	1260	124	<2	<0.5	6	36	1070	3.29	660	125	1.25	94	6.54	1.5	1.37	41	0.6	0.476	205	2.01	1.94
L6+00W 3+50S	<1	<10	106	920	132	<2	<0.5	9	51	990	3.55	705	135	1.62	95	6.93	1.5	1.55	50	0.4	0.459	230	2.06	1.90
L6+00W 4+00S	<1	<10	72	1690	66	<2	<0.5	4	37	850	3.42	395	135	1.02	101	5.10	1.0	0.90	36	<0.2	0.435	129	1.48	1.66
L6+00W 4+50S	<1	<10	295	1560	144	<2	<0.5	19	115	950	4.93	1530	185	2.39	128	7.74	2.5	1.19	106	1.8	0.585	169	1.71	1.52
L6+00W 5+00S	<1	<10	164	1250	46	<2	<0.5	20	122	675	5.11	1020	205	3.04	145	8.20	1.0	2.19	86	1.0	0.679	195	2.07	1.41
L8+00W 0+00S	<1	<10	107	935	80	<2	<0.5	4	25	640	2.72	490	82	0.65	62	7.69	2.5	0.71	81	0.4	0.361	137	2.25	2.93
L8+00W 0+50S	<1	<10	182	1520	140	<2	1.5	9	37	650	3.41	1330	100	0.90	69	7.60	3.5	0.77	94	0.6	0.412	130	2.16	2.50
L8+00W 1+00S	<1	<10	137	325	88	<2	<0.5	4	28	615	2.52	365	82	0.73	50	8.35	3.5	0.77	61	0.6	0.305	140	2.61	3.08
L8+00W 1+50S	<1	<10	395	880	180	10	4.5	4	32	595	2.32	290	82	0.70	46	8.08	3.5	0.76	149	4.4	0.282	170	2.13	2.25
L8+00W 2+00S	<1	<10	95	595	64	<2	<0.5	8	50	1000	2.87	470	135	1.40	85	7.56	2.0	1.40	35	0.4	0.391	225	2.25	2.26
L8+00W 2+50S	<1	<10	101	535	60	<2	<0.5	7	56	820	2.85	450	150	1.36	75	6.93	2.5	1.15	32	0.4	0.364	162	2.09	2.28
L8+00W 3+00S	<1	<10	102	1000	44	<2	<0.5	8	58	655	3.06	630	140	1.33	77	6.52	2.0	1.04	34	0.4	0.383	142	1.98	1.91
L8+00W 3+50S	<1	<10	129	1160	60	<2	<0.5	7	56	720	3.07	710	140	1.28	84	6.63	2.0	1.02	35	<0.2	0.441	152	1.98	1.92
L8+00W 4+00S	<1	<10	198	645	56	<2	1.0	3	36	585	2.30	365	105	1.00	60	7.48	2.5	0.96	21	1.2	0.379	153	2.11	2.10
L8+00W 4+50S	<1	<10	90	785	22	<2	<0.5	11	100	515	3.27	520	185	2.14	86	6.28	1.5	1.42	37	0.4	0.419	144	1.95	1.61
L8+00W 5+00S	<1	<10	96	1290	40	<2	<0.5	9	62	600	3.63	720	170	1.49	101	6.23	1.5	1.13	38	<0.2	0.532	136	1.85	1.83

Certified by *[Signature]*

SYSTEMS BUSINESS FORMS LIMITED VANCOUVER TR8101840





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## CERTIFICATE OF ANALYSIS

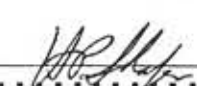
TO : CREAM SILVER MINES LTD.

1500 - 675 WEST HASTINGS ST.  
VANCOUVER, B.C.  
V6B 1N2

CERT. # : A8514919-004-A  
INVOICE # : I8514919  
DATE : 15-AUG-85  
P.O. # : ATLIN  
ATLIN

ATTN: R. GONZALEZ & ART TROUP

Sample description	Mo ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Mg % (ICP)	V ppm (ICP)	Al % (ICP)	Be ppm (ICP)	Ca % (ICP)	Cu ppm (ICP)	Ag ppm AAS	Ti % (ICP)	Sr ppm (ICP)	Na % (ICP)	K % (ICP)
L16+00N 5+50W	<1	<10	205	1520	20	<2	<0.5	12	45	530	5.04	675	115	1.61	80	7.67	2.5	1.26	129	0.4	0.668	230	2.03	1.98
L16+00N 6+00W	<1	<10	187	1940	16	<2	<0.5	16	65	370	5.50	720	145	2.33	87	8.93	3.0	1.61	103	0.4	0.815	325	2.16	2.36
L16+00N 6+50W	<1	30	215	1250	24	3	<0.5	10	43	390	4.90	645	91	1.40	56	8.77	4.0	0.66	135	0.4	0.549	121	2.28	2.88
L16+00N 7+00W	<1	<10	162	1320	26	<2	<0.5	7	35	570	4.42	540	81	1.02	62	8.62	4.0	0.81	121	<0.2	0.518	170	2.45	2.72
L16+00N 7+50W	<1	<10	148	1960	36	<2	<0.5	8	36	605	5.50	590	88	1.10	85	9.59	3.0	0.88	167	0.6	0.708	200	2.19	2.40
L18+00N 0+60E	18	135	425	375	188	57	0.5	21	245	315	9.18	1290	355	3.90	49	8.41	9.0	0.66	710	2.2	0.227	49	2.11	3.60
L18+00N 1+00E	28	95	530	865	42	32	3.0	47	430	445	8.56	2760	445	5.13	105	6.97	16.5	0.89	1010	1.8	0.362	26	0.93	3.37
L18+00N 1+75E	14	140	325	535	92	43	<0.5	20	190	410	7.85	1770	245	3.00	52	7.65	8.0	0.46	525	1.6	0.272	72	1.98	3.52
L18+00N 2+80E	<1	<10	127	990	20	<2	<0.5	44	615	520	5.29	2760	555	7.30	92	5.17	3.0	1.12	112	0.6	0.297	74	0.81	1.12
L18+00N 1+50W	<1	<10	73	890	26	<2	<0.5	6	32	545	3.04	575	66	0.93	51	6.97	2.0	0.99	100	0.4	0.294	200	2.30	2.74
L18+00N 2+00W	<1	<10	130	1520	40	8	<0.5	6	25	575	4.52	520	68	0.86	71	7.76	3.5	0.92	275	0.6	0.433	190	2.13	2.30
L18+00N 2+50W	<1	<10	74	1560	28	3	<0.5	3	14	560	3.36	445	55	0.57	58	6.64	2.0	0.85	71	<0.2	0.353	198	2.19	2.38
L18+00N 3+00W	<1	<10	74	885	20	<2	<0.5	4	18	595	3.37	395	66	0.74	65	7.28	2.5	1.00	85	0.4	0.396	210	2.29	2.50
L18+00N 3+50W	<1	<10	91	880	40	<2	<0.5	6	27	660	3.68	495	74	1.02	74	7.51	2.0	1.24	148	<0.2	0.415	255	2.21	2.34
L18+00N 4+00W	<1	<10	56	815	32	<2	<0.5	5	18	675	3.48	430	78	0.67	71	6.63	2.5	1.17	77	0.4	0.382	193	2.14	2.39
L18+00N 4+50W	<1	<10	101	1100	36	5	<0.5	5	18	560	3.48	485	61	0.54	57	5.84	2.0	0.95	132	0.4	0.318	143	1.79	2.08
L18+00N 5+00W	<1	20	88	1000	32	6	<0.5	8	21	395	3.15	930	43	0.48	30	6.76	3.5	0.46	144	<0.2	0.228	71	2.11	3.14
L18+00N 5+50W	1	<10	86	1420	40	5	<0.5	7	27	425	4.00	475	65	0.71	50	7.23	3.0	0.58	149	0.4	0.359	86	2.02	2.79
L18+00N 6+00W	1	25	107	1320	36	<2	<0.5	11	51	470	4.66	700	105	1.51	66	7.88	4.0	1.03	115	<0.2	0.503	125	2.35	3.01
L18+00N 6+50W	3	20	118	1490	44	5	<0.5	6	27	630	4.23	500	75	0.71	72	8.15	3.5	0.75	87	<0.2	0.520	135	2.11	2.76
L18+00N 7+00W	7	50	132	1040	44	10	<0.5	8	36	600	4.02	535	89	0.98	68	7.53	3.0	0.84	94	<0.2	0.487	137	2.13	2.82
L18+00N 7+50W	1	<10	100	1160	30	<2	<0.5	8	30	710	3.89	570	86	0.85	82	7.73	2.5	0.98	92	<0.2	0.482	182	2.12	2.52
L20+00N BLO+00	<1	20	79	940	42	9	<0.5	7	26	515	3.70	490	73	0.72	54	6.93	2.0	0.83	295	0.4	0.311	138	2.19	2.88
L20+00N 0+50W	<1	25	64	790	42	16	<0.5	5	22	560	3.36	350	67	0.72	53	7.10	2.0	1.04	280	0.4	0.298	167	2.27	2.97
L20+00N 1+00W	<1	40	72	1010	36	8	<0.5	10	44	610	3.81	540	98	1.24	66	6.67	2.0	1.18	193	<0.2	0.375	180	2.14	2.64
L20+00N 1+50W	2	35	87	910	48	7	<0.5	7	28	650	4.37	560	82	0.88	67	7.61	2.5	1.21	610	1.0	0.375	199	2.23	2.94
L20+00N 2+00W	<1	30	66	995	32	7	<0.5	8	39	575	4.05	485	99	1.04	65	6.96	2.5	0.93	183	0.4	0.404	140	2.20	2.79
L20+00N 2+50W	<1	15	68	1090	38	5	<0.5	5	19	620	4.15	430	74	0.66	70	6.74	1.0	0.86	205	0.4	0.354	167	2.05	2.40
L20+00N 3+00W	16	110	39	285	62	12	<0.5	2	7	415	5.28	320	33	0.57	24	7.87	2.0	0.46	295	0.6	0.167	89	1.93	3.25
L20+00N 3+50W	2	55	83	830	94	9	<0.5	6	20	485	4.60	425	67	0.63	50	7.24	3.0	0.73	405	1.0	0.289	119	2.13	2.98
L20+00N 4+50W	<1	30	102	955	52	4	<0.5	10	45	605	4.27	530	105	1.31	70	7.88	3.0	1.04	200	0.6	0.470	167	2.13	2.85
L20+00N 6+50W	1	<10	133	1360	40	<2	<0.5	17	86	620	5.62	720	175	2.53	108	8.01	2.0	1.44	130	0.2	0.745	172	2.02	2.32
L20+00N 7+00W	2	35	84	850	40	4	<0.5	10	40	795	3.79	580	100	1.17	78	8.45	2.0	1.13	143	0.4	0.454	215	2.26	3.02
L20+00N 7+50W	8	140	79	755	38	28	<0.5	6	27	610	4.97	435	74	0.86	56	7.52	2.0	1.01	465	0.4	0.305	172	2.24	2.95

Certified by 



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.  
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Telephone: (604) 984-0221  
Telex: 043-52597

## CERTIFICATE OF ANALYSIS

TO : CREAM SILVER MINES LTD.

1500 - 675 WEST HASTINGS ST.  
VANCOUVER, B.C.  
V6B 1N2

CERT. # : A8514919-003-A  
INVOICE # : 18514919  
DATE : 15-AUG-85  
P.O. # : ATLIN  
ATLIN

ATTN: R. GONZALEZ & ART TROUP

200 ?  
500 ?  
20  
20

Sample description	Mo ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Mg % (ICP)	V ppm (ICP)	Al % (ICP)	Be ppm (ICP)	Ca % (ICP)	Cu ppm (ICP)	Ag ppm AAS	Ti % (ICP)	Sr ppm (ICP)	Na % (ICP)	K % (ICP)
L12+00N 5+50W	4	<10	150	510	36	5	<0.5	5	27	615	3.47	415	80	0.97	53	7.18	3.0	0.94	255	<0.2	0.307	158	2.24	2.33
L12+00N 6+00W	<1	20	111	560	42	4	<0.5	8	38	600	4.15	420	100	1.35	53	8.44	3.0	0.93	169	0.6	0.387	141	2.46	2.88
L12+00N 6+50W	<1	20	124	1140	60	8	<0.5	8	36	580	4.90	555	115	1.25	68	8.38	2.5	0.90	162	0.6	0.500	139	2.30	2.52
L12+00N 7+00W	<1	<10	163	745	84	11	<0.5	8	36	675	4.91	500	110	1.33	65	7.47	2.5	1.16	171	1.2	0.432	172	2.30	2.27
L12+00N 7+50W	<1	<10	173	690	36	<2	<0.5	6	29	685	4.18	405	87	1.04	59	7.64	2.5	1.06	197	0.6	0.366	183	2.40	2.32
L14+00N 0+50E	<1	60	182	1000	76	16	<0.5	20	220	550	5.16	805	220	3.85	73	6.73	4.5	1.05	86	0.8	0.456	124	1.84	2.33
L14+00N 1+00E	12	160	850	1310	600	21	2.5	27	245	460	8.42	2300	330	4.16	114	7.30	15.5	1.02	280	2.4	0.526	93	1.21	2.23
L14+00N 1+50E	4	50	920	2060	490	4	3.5	20	152	625	7.05	1850	220	3.33	123	8.42	12.0	2.32	187	2.4	0.796	315	1.92	2.04
L14+00N 2+00E	<1	<10	600	1540	176	7	1.0	24	240	565	5.71	800	270	4.01	109	7.24	6.5	2.03	220	2.2	0.623	355	1.83	1.78
L14+00N 0+00	<1	70	151	895	38	12	<0.5	15	190	615	4.16	645	225	3.14	64	6.36	3.5	1.15	53	0.4	0.387	151	2.03	2.13
L14+00N 0+50W	<1	55	84	1340	28	6	<0.5	4	23	605	3.31	435	90	0.75	63	7.36	2.5	0.74	66	0.4	0.416	132	2.19	2.69
L14+00N 1+00W	<1	<10	67	845	24	3	<0.5	3	13	665	3.23	310	80	0.50	56	5.74	1.5	0.76	48	0.4	0.365	134	2.07	2.24
L14+00N 1+50W	<1	<10	78	735	16	3	<0.5	5	20	815	3.33	375	90	0.78	58	6.21	1.5	1.09	49	<0.2	0.350	189	2.23	2.10
L14+00N 2+00W	<1	35	112	590	18	5	<0.5	5	18	740	3.58	435	89	0.73	56	6.79	2.0	0.95	69	<0.2	0.355	157	2.25	2.41
L14+00N 2+50W	<1	<10	97	625	16	<2	<0.5	6	25	700	3.29	375	78	0.92	49	6.24	1.5	1.00	57	<0.2	0.291	163	2.17	2.21
L14+00N 3+00W	<1	<10	67	905	18	<2	<0.5	4	12	710	3.26	430	73	0.57	60	5.98	1.0	0.91	37	<0.2	0.349	162	2.08	2.13
L14+00N 3+50W	<1	15	116	775	30	3	<0.5	7	30	675	3.54	470	84	1.06	54	7.05	2.5	1.06	68	0.4	0.337	169	2.35	2.55
L14+00N 4+00W	<1	<10	128	1430	30	4	<0.5	6	16	435	3.95	640	61	0.66	44	7.81	3.0	0.46	74	0.4	0.324	73	2.14	2.79
L14+00N 4+50W	<1	25	89	810	18	<2	<0.5	10	46	875	3.77	520	125	1.71	68	7.02	1.5	1.54	43	<0.2	0.422	240	2.37	2.18
L14+00N 5+00W	<1	<10	196	690	30	<2	<0.5	7	31	555	3.54	620	82	1.10	45	7.05	4.5	0.94	115	<0.2	0.317	130	2.27	2.80
L14+00N 5+50W	<1	55	129	1250	36	10	<0.5	9	45	620	4.36	640	105	1.45	83	7.31	2.5	1.36	155	0.6	0.479	250	2.29	2.36
L14+00N 6+00W	<1	<10	167	1130	28	<2	<0.5	9	44	640	4.34	580	100	1.46	75	7.75	3.5	1.37	120	<0.2	0.473	260	2.48	2.56
L14+00N 6+50W	<1	30	210	1170	30	34	<0.5	10	46	555	5.86	610	115	1.60	76	8.04	4.5	1.42	240	0.6	0.548	280	2.50	2.57
L14+00N 7+00W	<1	20	198	1440	36	8	<0.5	10	44	515	5.45	630	105	1.43	74	8.13	4.5	1.19	240	0.8	0.571	225	2.34	2.64
L14+00N 7+50W	<1	30	120	1030	60	11	<0.5	8	37	475	5.49	480	90	1.19	58	8.02	3.5	0.92	210	0.8	0.447	175	2.30	2.94
L16+00N 0+00E	13	260	172	1130	60	58	0.5	11	37	455	5.26	1210	66	0.69	38	7.15	3.5	0.51	132	<0.2	0.264	77	2.12	3.23
L16+00N 0+50E	1	220	590	645	370	27	1.5	48	653	180	8.50	2450	570	8.78	144	5.78	9.0	2.02	330	2.0	0.633	58	1.07	2.59
L16+00N 1+00E	3	295	620	1050	620	23	2.0	39	300	240	10.70	2490	410	5.62	162	6.28	13.0	1.77	350	2.4	0.852	97	1.23	2.67
L16+00N 1+50E	<1	230	435	670	110	27	<0.5	54	545	235	7.29	2150	545	7.80	122	5.58	11.0	1.86	198	0.4	0.556	74	1.16	2.42
L16+00N 2+00E	3	375	360	725	30	27	<0.5	38	335	345	6.62	1910	350	5.16	110	6.32	9.0	1.56	220	0.6	0.552	113	1.72	2.64
L16+00N 0+50W	6	135	56	475	30	36	<0.5	5	27	645	3.79	405	75	0.87	59	6.38	1.5	1.07	83	<0.2	0.328	225	2.23	2.48
L16+00N 1+00W	20	515	133	655	152	92	<0.5	6	30	530	6.55	470	75	0.76	56	6.24	2.5	0.83	350	0.6	0.341	161	2.03	2.55
L16+00N 1+50W	<1	20	51	960	32	11	<0.5	4	18	590	3.17	395	67	0.68	60	6.02	1.0	0.98	60	<0.2	0.335	205	2.11	3.22
L16+00N 2+00W	4	80	89	805	80	33	<0.5	8	34	620	5.19	505	80	1.05	65	7.35	3.0	1.09	235	0.6	0.408	198	2.26	2.80
L16+00N 2+50W	<1	10	64	780	16	5	<0.5	6	27	670	3.38	410	70	0.95	64	6.45	1.0	1.24	101	<0.2	0.346	255	2.21	2.21
L16+00N 3+00W	<1	<10	66	1340	18	<2	<0.5	3	15	530	3.12	390	62	0.49	63	5.27	1.5	0.84	55	0.4	0.359	182	1.98	1.93
L16+00N 3+50W	<1	<10	62	965	18	<2	<0.5	5	21	690	3.32	460	76	0.83	70	6.00	2.0	1.20	48	0.4	0.378	240	2.17	2.11
L16+00N 4+00W	<1	40	109	970	22	45	<0.5	6	27	575	3.76	435	77	0.89	71	5.95	1.5	1.00	240	0.6	0.385	198	1.94	1.69
L16+00N 4+50W	<1	<10	250	580	30	<2	<0.5	5	19	565	5.59	450	58	0.78	49	8.26	4.5	0.78	335	0.6	0.332	168	2.31	2.53
L16+00N 5+00W	<1	<10	162	735	18	<2	<0.5	11	50	695	4.24	525	115	1.68	67	6.89	2.5	1.31	118	0.6	0.468	225	2.27	2.08

Certified by *[Signature]*

SYSTEMS BUSINESS FORMS LIMITED VANCOUVER TR301944





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## CERTIFICATE OF ANALYSIS

TO : MARK MANAGEMENT LIMITED

1500 - 675 WEST HASTINGS ST.  
VANCOUVER, B.C.  
V6B 1N2

CERT. # : A8517181-001-A  
INVOICE # : I8517181  
DATE : 17-OCT-85  
P.O. # : NONE  
GEM/RUBY

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :  
ATTN: ART TROUP    CC: R. GONZALEZ

Sample description	Sn ppm	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	
16N 3+00E	1	0.55	0.4	20	200	<0.5	<2	0.42	<0.5	6	21	<1	1.13	<10	0.08	<10	0.16	290	1	0.01	17	2870	22	<10	86	0.05	<10	<10	15	<10	90	--
16N 3+50E	1	3.42	0.2	10	140	<0.5	<2	0.61	<0.5	35	110	119	6.10	10	0.07	20	2.41	784	1	0.08	121	1950	24	10	37	0.58	<10	<10	118	<10	130	--
16N 4+00E	1	3.44	0.4	20	260	<0.5	2	0.51	<0.5	29	109	104	4.92	10	0.16	30	1.69	907	3	0.08	122	2390	74	10	48	0.45	<10	<10	104	<10	260	--
16N 4+50E	1	2.33	0.2	10	280	<0.5	<2	0.50	<0.5	31	92	47	5.18	<10	0.05	20	2.10	725	<1	0.10	93	2230	10	10	59	0.53	<10	<10	102	<10	90	--
16N 5+00E	1	1.65	0.2	10	100	<0.5	<2	0.16	<0.5	6	33	9	2.04	<10	0.03	10	0.17	202	1	0.01	17	1740	8	<10	31	0.14	<10	<10	42	<10	30	--
16N 5+50E	1	2.19	0.2	<10	140	<0.5	<2	0.28	<0.5	22	78	32	5.31	10	0.04	10	0.72	1126	2	0.02	47	1600	6	10	46	0.51	<10	<10	143	<10	100	--
16N 6+00E	1	1.07	0.2	10	200	<0.5	<2	0.44	0.5	12	31	<1	2.07	<10	0.06	10	0.51	353	1	0.02	36	1820	20	<10	83	0.16	<10	<10	45	<10	60	--
16N 6+50E	1	3.01	0.2	10	180	<0.5	<2	0.66	<0.5	32	81	40	4.82	10	0.06	30	2.06	869	1	0.09	92	2500	12	10	34	0.51	<10	<10	103	<10	110	--
16N 7+00E	1	4.44	0.2	<10	200	<0.5	<2	0.71	<0.5	38	70	32	6.76	<10	0.10	40	2.08	1088	2	0.21	96	2740	<2	10	91	0.90	<10	<10	121	<10	100	--
16N 7+50E	1	3.32	0.2	<10	170	<0.5	<2	0.49	<0.5	29	68	34	5.70	<10	0.02	20	1.25	1032	1	0.04	63	1890	4	10	80	0.56	<10	<10	104	<10	80	--
16N 8+00E	1	1.35	0.2	10	160	<0.5	<2	0.34	<0.5	17	42	21	3.96	<10	0.03	10	0.33	800	<1	0.02	28	1480	8	<10	59	0.34	<10	<10	94	<10	70	--
16N 8+50E	1	3.46	0.2	<10	70	<0.5	<2	0.77	<0.5	24	34	33	3.62	<10	0.02	20	1.31	644	1	0.13	59	2100	4	<10	26	0.34	<10	<10	79	<10	60	--
16N 9+00E	1	0.76	0.2	10	140	<0.5	<2	0.36	<0.5	11	29	11	2.32	<10	0.06	10	0.23	509	<1	0.02	23	1720	8	<10	59	0.20	<10	<10	51	<10	50	--

Certified by *Hart Bichler*



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## CERTIFICATE OF ANALYSIS

TO : CREAM SILVER MINES LTD.

1500 - 675 WEST HASTINGS ST.  
VANCOUVER, B.C.  
V6B 1N2

CERT. # : A8515093-001-A  
INVOICE # : 18515093  
DATE : 18-AUG-85  
P.O. # : NONE  
ATLIN

ATTN: R. GONZALEZ & ART TROUP

Sample description	Mo ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Bi ppm (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Ni ppm (ICP)	Ba ppm (ICP)	Fe % (ICP)	Mn ppm (ICP)	Cr ppm (ICP)	Mg % (ICP)	V ppm (ICP)	Al % (ICP)	Be ppm (ICP)	Ca % (ICP)	Cu ppm (ICP)	Ag ppm AAS	Ti % (ICP)	Sr ppm (ICP)	Na % (ICP)	K % (ICP)
34401	<1	190	>10000	55	6	53	205.0	28	10	20	14.70	>10000	28	0.37	<1	0.50	26.0	15.40	97	1.2	0.001	5	0.09	0.02
34402	14	350	7620	560	22	1830	80.0	9	9	20	7.67	>10000	43	1.65	<1	4.68	12.5	18.70	14	4.0	0.121	11	0.09	0.02
34403	<1	925	>10000	110	44	370	265.0	15	8	15	14.00	>10000	33	0.69	<1	0.64	108.0	17.50	380	6.8	0.005	6	0.07	0.02
34404	<1	65	2130	600	168	23	21.5	41	500	190	6.10	>10000	625	6.29	21	4.20	18.5	3.55	260	2.6	0.224	64	0.55	3.11
34405	<1	<10	225	16	24	20	2.5	2	57	195	0.98	3060	140	1.57	2	5.52	2.5	0.46	59	2.4	0.054	16	1.59	3.40
34406	4	1800	800	130	>10000	57	32.0	3	6	35	8.04	310	170	0.06	9	0.40	<0.5	0.01	6120	144.0	0.006	4	0.02	0.11

Certified by ... *[Signature]* .....

SYSTEMS BUSINESS FORMS LIMITED VANCOUVER TR2010840





# Chemex Labs Ltd.

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## CERTIFICATE OF ANALYSIS

TO : KANGELD RESOURCES LTD.

1500 - 675 W. HASTINGS ST.  
VANCOUVER, B.C.  
V6B 1N2

CERT. # : A8518159-001-A  
INVOICE # : I8518159  
DATE : 14-NOV-85  
P.O. # : NONE  
DEACON CREEK

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :  
ATTN: ART TROUP

Sample description	Au ppb FA+AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	
L15N 0+00	<5	0.95	0.2	<10	70	<0.5	<2	0.44	<0.5	5	26	11	1.65	<10	0.03	10	0.25	355	<1	<0.01	14	350	6	<10	28	0.12	<10	<10	49	<10	40	--
L15N 01E	<5	0.67	0.2	<10	100	<0.5	<2	0.33	<0.5	6	22	5	1.42	<10	0.05	<10	0.12	515	<1	<0.01	9	600	6	<10	19	0.08	<10	<10	37	<10	40	--
L15N 02E	<5	0.71	0.2	<10	200	<0.5	<2	0.50	<0.5	5	25	12	1.54	<10	0.05	10	0.17	1084	<1	<0.01	12	1050	4	<10	30	0.07	<10	<10	40	<10	90	--
L15N 03E	<5	1.07	0.2	<10	140	<0.5	<2	0.42	<0.5	9	42	19	2.38	<10	0.08	10	0.33	458	<1	<0.01	24	860	4	<10	28	0.10	<10	<10	57	<10	50	--
L15N 04E	<5	1.04	0.4	<10	90	<0.5	<2	0.38	<0.5	8	35	13	1.94	<10	0.06	10	0.32	335	<1	<0.01	18	470	8	<10	23	0.09	<10	<10	51	<10	50	--
L15N 05E	<5	0.78	0.2	<10	80	<0.5	<2	0.39	<0.5	5	26	9	1.46	<10	0.05	10	0.23	342	<1	<0.01	12	290	6	<10	23	0.09	<10	<10	39	<10	40	--
L15N 06E	<5	1.05	0.4	<10	100	<0.5	<2	0.40	<0.5	8	35	12	2.28	<10	0.03	10	0.31	516	<1	<0.01	20	710	8	<10	22	0.10	<10	<10	55	<10	60	--
L15N 07E	<5	1.20	0.2	<10	100	<0.5	<2	0.40	<0.5	9	39	14	2.22	<10	0.06	10	0.43	336	<1	<0.01	26	660	6	<10	22	0.11	<10	<10	54	<10	60	--
L15N 08E	<5	0.93	0.2	<10	100	<0.5	<2	0.30	<0.5	9	29	9	1.68	<10	0.03	10	0.24	751	<1	<0.01	15	360	9	<10	20	0.10	<10	<10	45	<10	40	--
L15N 09E	<5	0.68	0.2	<10	70	<0.5	<2	0.30	<0.5	4	26	7	1.30	<10	0.03	10	0.16	193	<1	<0.01	10	250	6	<10	19	0.10	<10	<10	39	<10	30	--
L15N 10E	<5	0.66	0.2	<10	60	<0.5	2	0.33	<0.5	4	30	6	1.29	<10	0.04	10	0.17	136	<1	<0.01	10	270	6	<10	20	0.11	<10	<10	39	<10	30	--
L15N 01W	<5	1.21	0.4	<10	90	<0.5	<2	0.40	<0.5	8	39	18	2.06	<10	0.06	10	0.34	356	<1	0.01	23	330	6	<10	24	0.11	<10	<10	52	<10	50	--
L15N 02W	<5	1.44	0.2	<10	140	<0.5	<2	0.50	<0.5	11	48	12	2.45	10	0.08	10	0.39	766	<1	0.01	24	660	8	<10	34	0.13	<10	<10	62	<10	90	--
L15N 03W	<5	1.21	0.2	<10	130	<0.5	<2	0.41	<0.5	8	39	11	1.99	10	0.06	10	0.32	333	<1	0.01	18	570	8	<10	30	0.13	<10	<10	54	<10	90	--
L15N 04W	<5	1.75	0.2	10	110	<0.5	<2	0.42	<0.5	8	52	19	2.17	10	0.08	10	0.44	189	<1	0.01	30	550	10	<10	28	0.13	<10	<10	51	<10	60	--
L15N 05W	<5	1.29	0.2	10	140	<0.5	<2	0.41	<0.5	9	40	9	2.11	10	0.07	10	0.26	416	<1	<0.01	19	1010	10	<10	28	0.11	<10	<10	52	<10	90	--
L15N 06W	<5	1.15	0.2	<10	120	<0.5	<2	0.44	<0.5	8	40	10	2.04	10	0.11	10	0.28	549	<1	0.01	19	790	6	<10	28	0.11	<10	<10	54	<10	70	--
L15N 07W	<5	1.30	0.2	10	140	<0.5	<2	0.40	<0.5	8	43	11	2.29	10	0.06	10	0.30	296	<1	<0.01	22	860	6	<10	28	0.11	<10	<10	59	<10	60	--
L15N 08W	<5	1.10	0.2	<10	140	<0.5	<2	0.56	<0.5	7	40	10	2.14	10	0.12	10	0.30	287	<1	<0.01	20	1250	10	<10	42	0.11	<10	<10	51	<10	50	--
L15N 09W	<5	1.10	0.2	10	130	<0.5	<2	0.78	<0.5	10	44	17	2.59	10	0.16	10	0.45	361	<1	0.01	22	1450	8	<10	47	0.11	<10	<10	62	<10	50	--
L15N 10W	<5	1.21	0.2	10	140	<0.5	<2	0.71	<0.5	12	44	25	2.85	10	0.18	10	0.52	625	<1	0.01	30	710	9	<10	42	0.12	<10	<10	65	<10	60	--
L15N 11W	<5	0.98	0.2	10	160	<0.5	<2	0.79	<0.5	11	38	20	2.47	<10	0.12	10	0.45	767	<1	0.01	23	990	8	<10	48	0.10	<10	<10	55	<10	70	--
L15N 12W	<5	1.13	0.2	10	150	<0.5	<2	0.61	<0.5	13	45	26	3.02	<10	0.11	10	0.62	468	<1	<0.01	34	1080	8	<10	38	0.09	<10	<10	64	<10	80	--
L15N 13W	<5	1.27	0.2	10	130	<0.5	<2	2.20	<0.5	13	45	38	2.94	10	0.14	10	0.73	517	<1	0.01	36	890	8	<10	61	0.10	<10	<10	63	<10	60	--

Certified by

*Hart Bichler*





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

14,438

CREAM SILVER MINES LTD.  
— RUBY MOUNTAIN PROPERTY —  
ATLIN M.D. - B.C., N.T.S. 104 N/11W

### GEOLOGY

**LEGEND:**

**QUATERNARY**

7 BASALT AND SCORIA

6 SKARNIFIED DEPOSITS

5 ALASKITE AND RELATED GRANITIC ROCKS

**PENNSYLVANIAN AND PERMIAN**

4 ULTRAMAFIC, COMMONLY SERPENTIZED

2 CHERT AND QUARTZITE

1 LIMESTONE

**SYMBOLS:**

○ OUTCROP

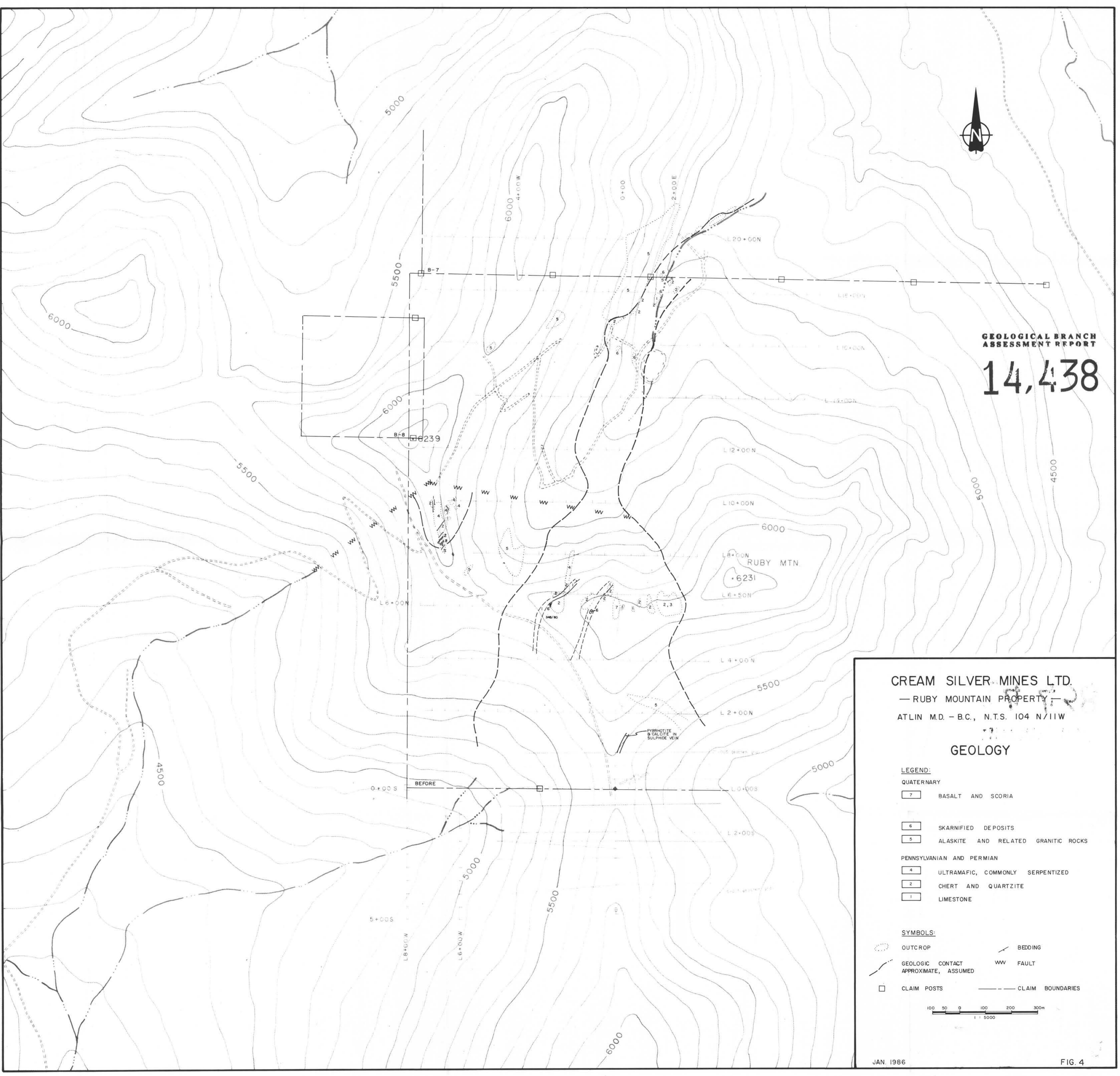
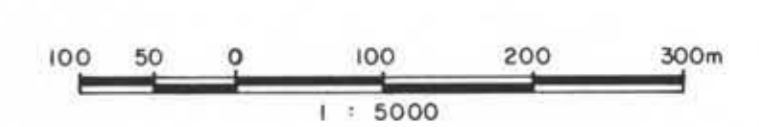
— GEOLOGIC CONTACT  
APPROXIMATE, ASSUMED

□ CLAIM POSTS

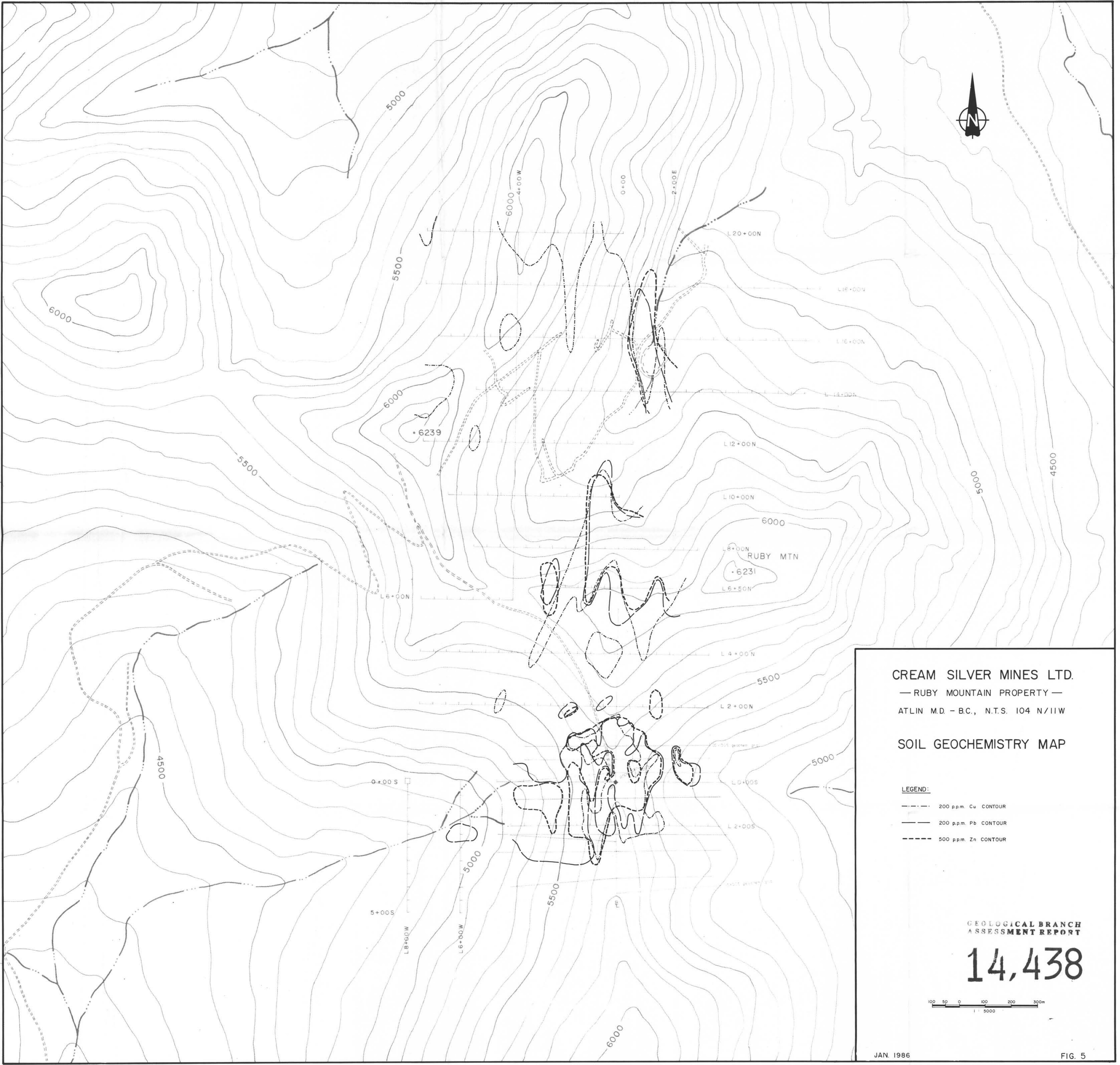
— BEDDING

W W FAULT

— CLAIM BOUNDARIES







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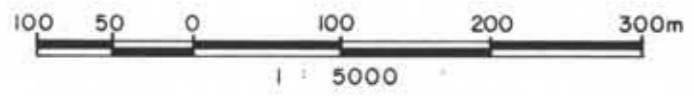
SOIL GEOCHEMISTRY MAP

LEGEND:

- - - - - 200 p.p.m. Cu CONTOUR
- 200 p.p.m. Pb CONTOUR
- · - · - 500 p.p.m. Zn CONTOUR

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

14,438







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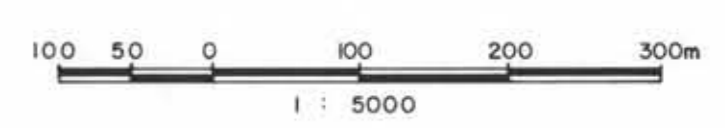
14,438

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— RUBY MOUNTAIN PROPERTY —  
ATLIN M.D - B.C., N.T.S. 104 N/11W

SOIL GEOCHEMISTRY MAP

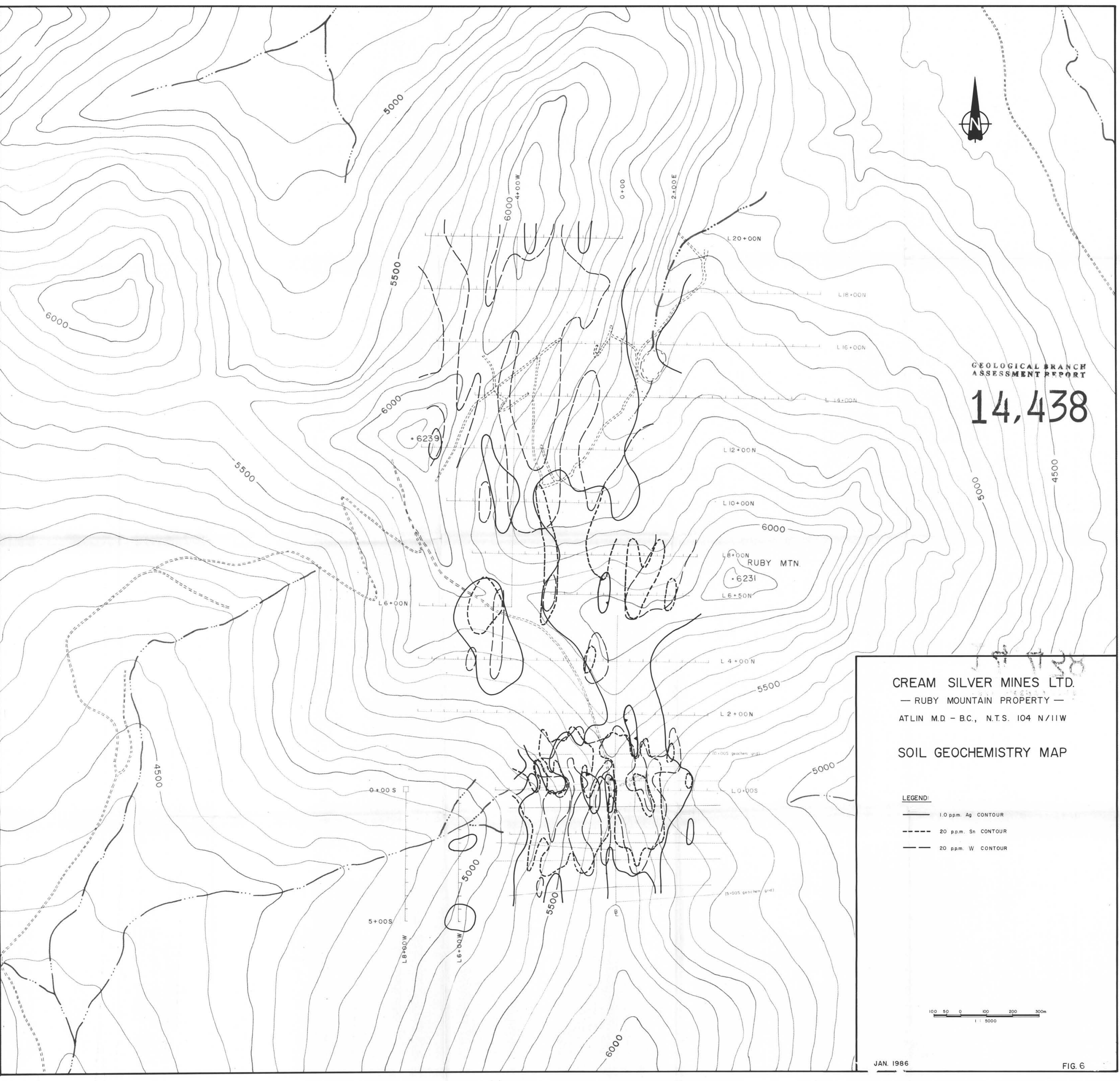
LEGEND:

- 1.0 ppm. Ag CONTOUR
- - - 20 ppm. Sn CONTOUR
- 20 ppm. W CONTOUR



JAN. 1986

FIG. 6





GEOLOGICAL BRANCH  
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CREAM SILVER MINES LTD.  
—Ruby Mountain Property—  
Atlin M.D.—BC, NTS. 104N/11W

TOTAL FIELD  
MAGNETOMETER SURVEY

50000 gammas base

