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C R E A M S I L V E R M I N E S L T D.

MAGNETOMETER SURVEY REPORT
 ON THE YAM 3 MINERAL CLAIM
 ATLIN MINING DIVISION
 NTS 104 N/11W

BY

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

OCTOBER, 1985

CLAIM WORKED

Claim Name	Units	Record No.	Anniversary Date
YAM 3	20	2344	AUGUST 10

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

13,918

LOCATION: 59°36' N, 133° 29' W

OWNERS: CREAM SILVER MINES LTD.

OPERATOR: CREAM SILVER MINES LTD.

CONSULTANT: ARCHEAN ENGINEERING LTD.

PROJECT GEOLOGIST: L. DANDY, B.Sc., of MARK MANAGEMENT LTD.



**MAGNETOMETER SURVEY REPORT
ON THE YAM 3 MINERAL CLAIM
ATLIN MINING DIVISION
NTS 104 N/11W**

SUMMARY

The **YAM 3 Mineral Claim** is a road accessible prospect located approximately 12 kilometres east of the town of Atlin in northwestern British Columbia. A small programme consisting of a ground magnetometer survey was carried out over the southern portion of the property for the purpose of confirming and better delineating anomalous areas identified by a previous airborne magnetic survey. Work on a property immediately west of the Cream Silver property has successfully demonstrated that gold mineralization is associated with a magnetic low along the flanks of a magnetic high. The 1985 magnetometer survey was designed to determine if a similar magnetic feature extends onto the YAM Claims.

Results of our magnetometer survey confirm the presence of a northeast trending magnetic signature which appears to be associated with a similar trend on claims immediately west of the Cream Silver Property. The cause and economic significance of this trend, however, is not fully understood. It appears that the highest magnetic readings are in areas known to be underlain by ultramafic rocks. The magnetic lows flanking the magnetic high may represent areas of intense alteration within the ultramafics and are, therefore, excellent exploration targets.

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**MAGNETOMETER SURVEY REPORT
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ATLIN MINING DIVISION
NTS 104 N/11W**

1.0 INTRODUCTION

This report is based on twelve man-days of field work done between June 19 and June 22, 1985. The work programme was undertaken with the objective of carrying out a ground magnetometer survey 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 18 line km of grid lines were cut, flagged, and surveyed using a Geometrics portable Proton Magnetometer, model G-826. Geologists in the field were Linda Dandy and Perry Grunenburg assisted by prospector Collin Little of Agassiz, B.C. The survey was conducted along lines spaced at 100 m with recording stations at 25 m intervals. The results of this survey gave sufficiently encouraging results to warrant additional systematic exploration.

1.1 LOCATION AND ACCESS

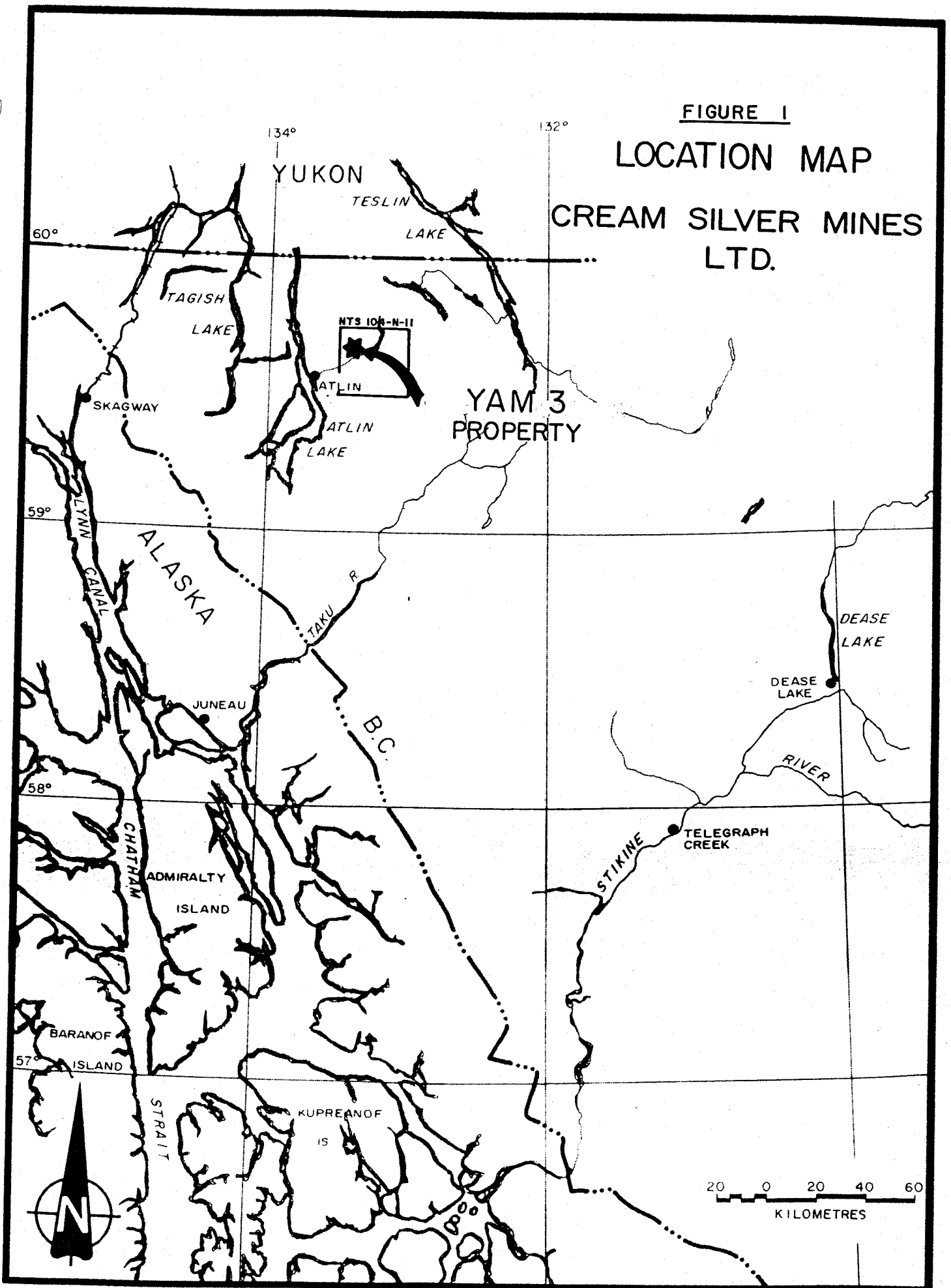
The **YAM 3 Mineral Claim** is located approximately 12 kilometres east of Atlin. The claims are centred at latitude $59^{\circ} 36'$ and longitude $133^{\circ} 29'$ on NTS map sheets 104 N/11W (Fig. 2). The property is accessible by the all-weather, Atlin-Surprise Lake Road. This road, which parallels Pine Creek, traverses the claim block in an east-west direction.

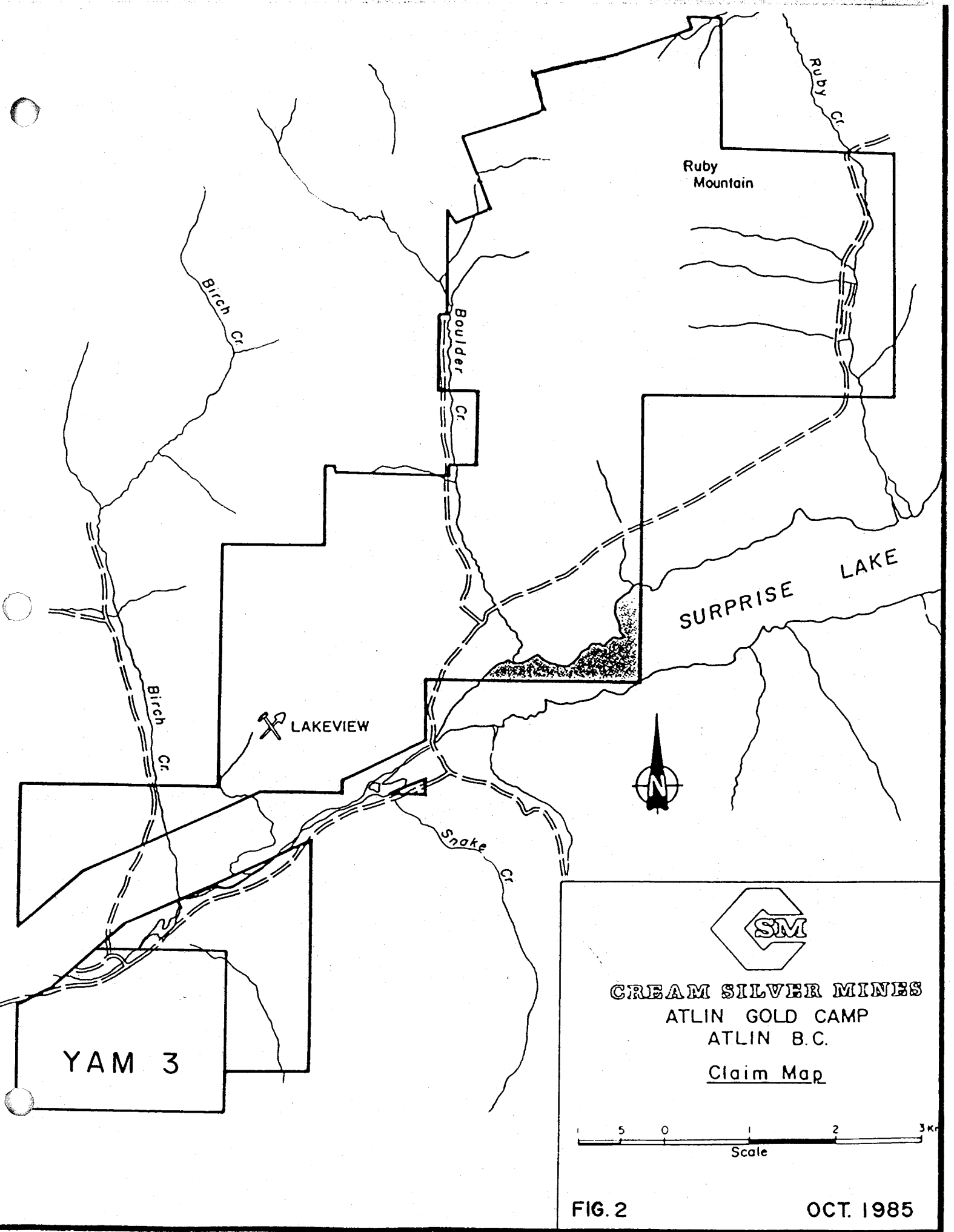
Atlin may be reached by car from Jake's Corner on the Alaska Highway (Mile 865), a distance of about 98 kilometres, along Highway 7. The distance from Jake's Corner to the major northern city of Whitehorse is about 84 kilometres along the Alaska Highway, which is paved over this entire length. Whitehorse is served with several flights a day from other major centres in Canada and Alaska.

FIGURE 1

LOCATION MAP

CREAM SILVER MINES LTD.



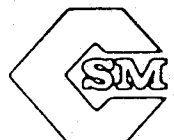


YAM 3

LAKEVIEW

Ruby Mountain

SURPRISE LAKE



CREAM SILVER MINES
 ATLIN GOLD CAMP
 ATLIN B.C.
Claim Map

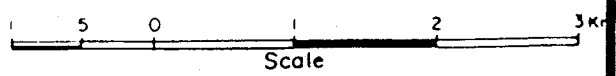


FIG. 2

OCT. 1985

1.2 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 Cream Silver property. Relief is on the order of 1,200 m (4,000 feet) with slopes of up to 15° rising from the Pine Creek Valley at an elevation of 760 m (2,500 feet) to the peaks surrounding Ruby Mountain which reach an elevation well over 2,000 m (6,500 feet). Topography on the Yam 3 Claim varies from 880 m (2900 feet) to about 1310 m (4300 feet). Most of the claim is in relatively gentle ground in the Pine Creek valley bottom; however, the southern portion of the claim is along the northwestern flank of Spruce Mountain, and the slopes are moderately rugged. Prominent 50 m (175 foot) cliffs of cross-bedded glaciofluvial material occur along Pine Creek below the Yam 3 Claim. An unknown thickness of till extensively covers most of the property.

The claims are forested with lodgepole pine, black spruce, aspen and scrub birch with growths of alder and buckbrush in the valleys.

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 has been measured at 279.4 millimetres of moisture. "Winter" conditions can be expected from October to April.

1.3 CLAIM INFORMATION

Cream Silver's property is located in the Atlin Mining Division and consists of 15 Modified Grid Claims, one 2-post Claim, and one Fractional Claims. The **YAM 3 Mineral Claim** is centred at 59° 36' North Latitude and 133° 29' West Longitude on NTS Map Sheet 104N/11W (Figure 2). Claim information is listed in Table 1.

TABLE 1
CLAIM STATUS

<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>ANNIVERSARY DATE</u>	
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

TABLE 1
CLAIM STATUS

<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>ANNIVERSARY DATE</u>
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 3	4	2341	August 10
GDC 5	6	1975	August 2
YAM 1	20	2342	August 10
YAM 2	20	2343	August 10
YAM 3	<u>20</u>	2344	August 10
TOTAL UNITS	218		

1.4 HISTORY

Gold was first discovered in the Atlin area in 1897 by Fritz Miller while en route to Dawson. The first workings were on Pine Creek and by the end of 1898, more than 3,000 people were camped in the Atlin area. 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 2 shows the gold production from the main creeks for the period up to 1946, the last year for which individual creek recoveries were obtained.

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.

In 1983, Standard Gold Mines Ltd. announced a new lode gold discovery six kilometres to the southwest. News of the discovery and the similarity of geology prompted Cream Silver Mines Ltd. to add to its land position as adjacent ground became open to staking.

Since 1983, addition lode-gold discoveries, on ground with geology similar to that underlying the Cream Silver holding, has sparked renewed interest in the Atlin area.

TABLE 2
(from Holland, 1950)

Gold Recovery from Productive Creeks, Atlin Area, 1898-1946.

Stream Name	Ounces of Gold Produced
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)	15,624
TOTAL PRODUCTION	634,147

2.0 GEOLOGY

2.1 REGIONAL GEOLOGY

Geologic mapping of the Atlin 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.

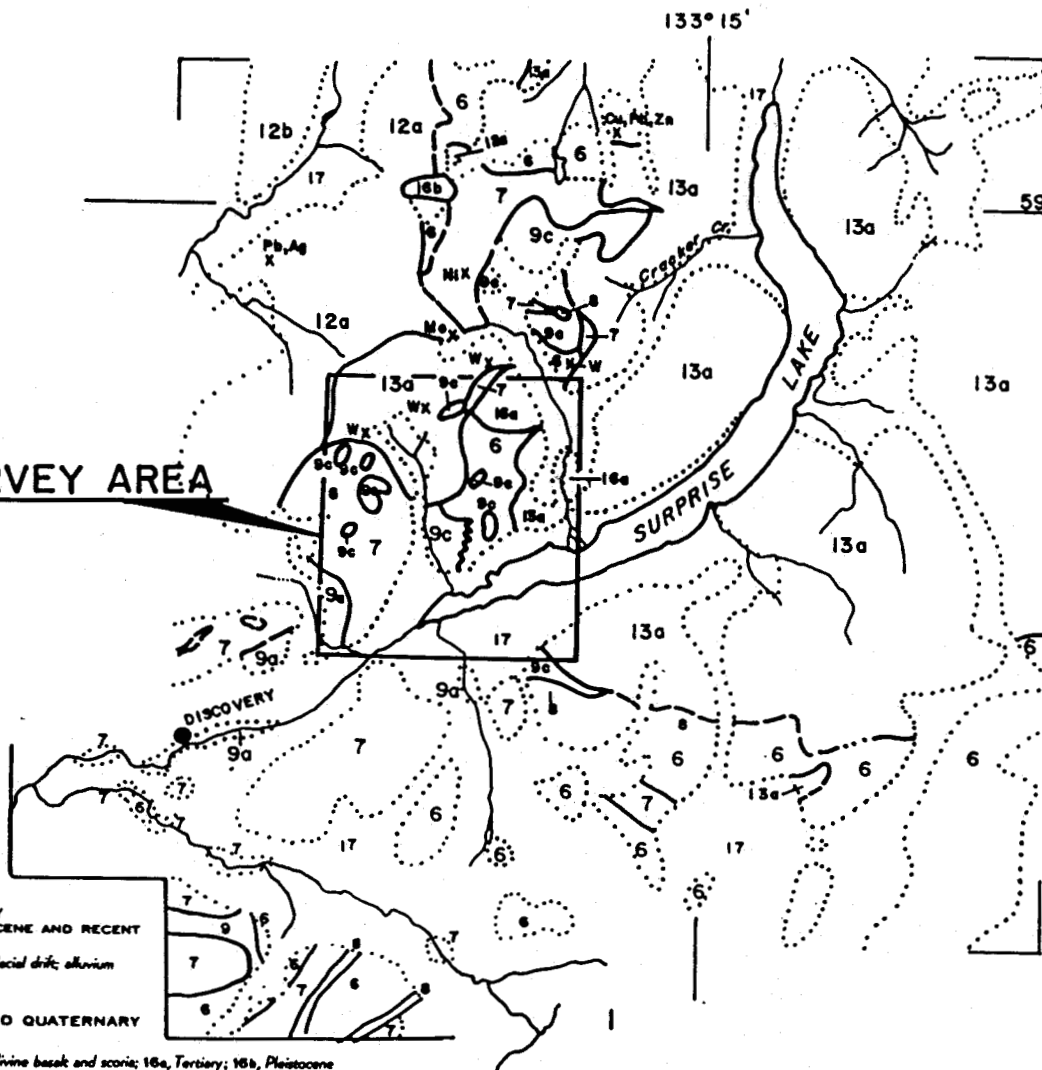
The Atlin Terrane is bounded on the northeast by a northwest striking vertical fault and on the southwest by a northwest striking reverse fault. Structurally, the terrane is characterized by compressional deformation which is similar in style and trend to the southwest bounding faults (Monger, 1975).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

2.2 PROPERTY GEOLOGY

Detailed geologic mapping was carried out over the Pine Creek Valley extending up Birch, Boulder, and Ruby Creeks at a scale of 1:2,000. Outcrop exposure accounts for less than 5 per cent of the surface area over the entire property. Felsenmeer is present in areas of no outcrop, especially at higher elevations, and is assumed to be close to outcrop. Tailings from old placer workings extensively cover the valley bottoms and obscure any outcrops which may have been present in the active stream channels. In addition to the tailings, the valley bottoms are covered by a thick blanket of unconsolidated auriferous gravels and minor glacial till.

The **YAM 3 Mineral Claim** is underlain by Cache Creek Group volcanics and sediments intruded by Pennsylvanian and Permian talc-bearing ultramafics.

Cache Creek volcanics consist mainly of andesite and is typically drab grey-green in colour, siliceous, sometimes weakly carbonatized and generally contains 1% primary pyrite.



SURVEY AREA

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
BLOCK GROUP
Andesite, basalt; albite tachyite, albite 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, alkaline granite | |
| | 11 | JURASSIC
LABERGE GROUP
Volcanic greywacke, siltstone, mudstone, shale, conglomerate; minor concretionary sandy limestone | |
| | 10 | TRIASSIC (T)
Greywacke, chert, argillite, conglomerate, tuff, slate, greenstone, impure limestone, jasper | |
| | PALEOZOIC | 9 | PENNSYLVANIAN AND PERMIAN
ATLIN INTRUSIONS
Pentadite; meta-diorite and meta-gabbro; 9a, serpentinite; 9b, carbonized serpentinite; 9c, talc-bearing (steatized) ultramafic rocks |
| | | 8 | CACHE CREEK GROUP
6. Chert, argillite, chert-pebble conglomerate and chert breccia; derived quartzite and schist; minor 7 and 8 |
| 7 | | 7. Greenstone and volcanic greywacke; derived amphibolite; minor 6 and 8 | |

x MINERAL OCCURENCE

CREAM SILVER MINES LTD.

ATLIN M.D.—B.C. NTS 104-N-11,12

GENERAL GEOLOGY MAP

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

DATE: OCT. 1985

R.G./r.w.r.

AFTER GSC MAP 1082A

FIGURE 3

Cache Creek sediments appear to be confined to the southwest corner of the Yam 3 Claim. Although no betrock was seen, these sediments generally consists of limestone, chert, and quartzite. The limestone is often fetid, light ash grey in colour, and commonly exhibits a saccharoidal texture. The chert is typically dark grey to black and locally interlayered with argillite. The quartzite is light coloured, massive and fine-grained.

Ultramafics, part of the Atlin Intrusions, are the dominant rock type on the YAM 3 Claim; they are composed of peridotite and serpentinite. The ultramafics are usually dark green to dull waxy green in colour and locally talcose. Alteration of the ultramafics is extensive, and most of the rocks have been subject to varying intensities of serpentinitization (20 to 100%) or carbonatization. The carbonatized ultramafics are characterized by rusty-orange brown weathering and a topographically recessive nature.

2.3 ECONOMIC GEOLOGY

The Atlin area has enjoyed a history of productive placer mining and to a lesser extent, hard rock mining.

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 (GDC Claims). Since that time, addition lode-gold discoveries, on ground with geology similar to that underlying the Cream Silver holding, has sparked renewed interest in the Atlin area.

In 1983, Standard Gold Mines Ltd. announced a new lode gold showing southwest of the YAM Claims. Work by Standard Gold indicated that the gold occurred in a quartz stockwork hosted by carbonatized ultramafic.

The **YAM 3 Mineral Claim** is underlain mainly by ultramafics which appear to be genetically related to the occurrence of gold. These ultramafics are usually clearly delineated by distinct magnetic highs and represent the best potential exploration targets. Results over the area covered by this programme appear to have delineated the extent of the near surface limits of the ultramafic unit.

The area west of the Yam claim is presently being drilled by Tri-Pacific Resources and Canova Resources. They have been successful in intersecting gold mineralization associated with magnetic lows adjacent to magnetic highs. Therefore, careful scrutiny should be given to all areas of high magnetic responses especially if a corresponding magnetic low is associated. Prospecting and geologic mapping in these areas, to determine overburden thickness and underlying geology, would be a prerequisite to any ground follow-up.

3.0 GEOPHYSICS

3.1 G-816 MAGNETOMETER SYSTEM

Two Model G-816 Proton Precision Magnetometers manufactured by Geometrics were utilized on this programme. The G-816 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. One G-816 was used for field measurements while the second unit was combined with an automatic analog recording device (Model G-826, Base Station System) to monitor the earth's total magnetic field including time variations and magnetic storms. All values recorded on grid lines were corrected for diurnal and day to day variations. All readings were recorded at 25 metre intervals along the grid lines.

3.2 FIELD PROCEDURES

The technique employed for the airborne follow-up consisted of constructing 13 chained and flagged lines across the suspected strike of the magnetic axis. The grid lines were spaced at 200 m intervals; line spacing was controlled by an east-west perpendicular Base Line which is also the southern boundary of the Yam 3 Claim. Ground follow-up covered nearly 16 line km. Approximately 630 individual magnetometer responses were recorded within the survey block. The corrected data is presented on Figure 4 as contoured data.

3.3 DISCUSSION OF RESULTS

The results of the ground follow-up, although satisfactory, have not delineated any new targets. The follow-up programme did confirm the existence and position, relative to the claim boundaries, of several magnetic anomalies identified by the airborne survey. The overall magnetic trend appears to correlate with our present understanding of the underlying geology. The 1000 gamma (58000 Gammas-Total Field) contour very closely outlines the boundary between ultramafics and andesitic volcanics. The sharp decrease in magnetic reading in the southwest corner of the YAM 3 Claim is in an area underlain by an alaskite intrusive. Within the area outlined by the 1000 gamma contour are small patches of anomalously low magnetics. The reason for these lows is not fully understood; however, it is possible that these lows are related to areas of intense alteration. The claims located immediately west of the Yam 3 Claim is presently being drilled and gold mineralization is reported to be associated with areas of low magnetic response adjacent to magnetic highs. It is not clear whether or not this same feature is present on the Yam 3 Claim.

In order to better evaluate the potential for this property, greater geological scrutiny will be required on any future mapping programmes.

4.0 CONCLUSIONS

Previous geologic studies on the **YAM 3 Mineral Claims** and surrounding area have indicates that the property is underlain by an assemblage of Cache Creek Group rocks intruded by a similar aged ultramafic sequence. Results of the present survey have located and confirmed the presence of northeast trending magnetic bodies on the YAM 3 Claim. These are believed to be tabular intrusive bodies of ultramafic rocks. Work by Standard Gold Mines Ltd., Tri-Pacific Resources, and Canova Resources has shown that shears and fractures near the contacts of the ultramafic rocks are important controls for mineralization as they provide pathways for percolating hydrothermal fluids. Further work on this property should entail mapping and prospecting the margins of the magnetic bodies defined by the present survey.

Respectfully submitted,

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

5.0 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.

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.

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.

6.0 COSTS STATEMENT

CREAM SILVER MINES LTD
YAM 3 MINERAL CLAIM
GROUND FOLLOW-UP MAGNETOMETER SURVEY
19 JUNE - 28 JUNE 1985

SALARIES AND WAGES:		
3 Pers, 11 man days @ \$ 86.55/day		\$ 952.00
BENEFITS: @ 20.0%		190.40
FOOD & ACCOMMODATION:		
33 Man Days @ \$8.13/day.		89.45
SUPPLIES:		19.94
FUEL:		47.22
SHIPPING/POSTAGE		8.00
RENTALS:		
Mark's 4WD Bronco, 2 days @ \$43.00/day	\$ 86.00	
Kangeld's Base Station Proton Magnetometer 2 days @ 27.00/day	54.00	
Kangeld's Geometrix G-816 Proton Magnetometer 2 days @\$27.00/day	54.00	
Kangeld's Scintrex Proton Magnetometer 3 days @\$27.00/day	81.00	
Ezekiel Camp Equipment, 12 man days @ \$6/day	<u>203.00</u>	433.00
TELEPHONE (Field):		22.00
CONSULTANT FEES:		
Archean Engineering Ltd.		1,630.20
REPORT PREPARATION:		<u>2,116.39</u>
TOTAL GEOPHYSICAL SURVEY:		<u><u>\$5,508.60</u></u>

7.0 STATEMENT OF PROFESSIONAL QUALIFICATIONS

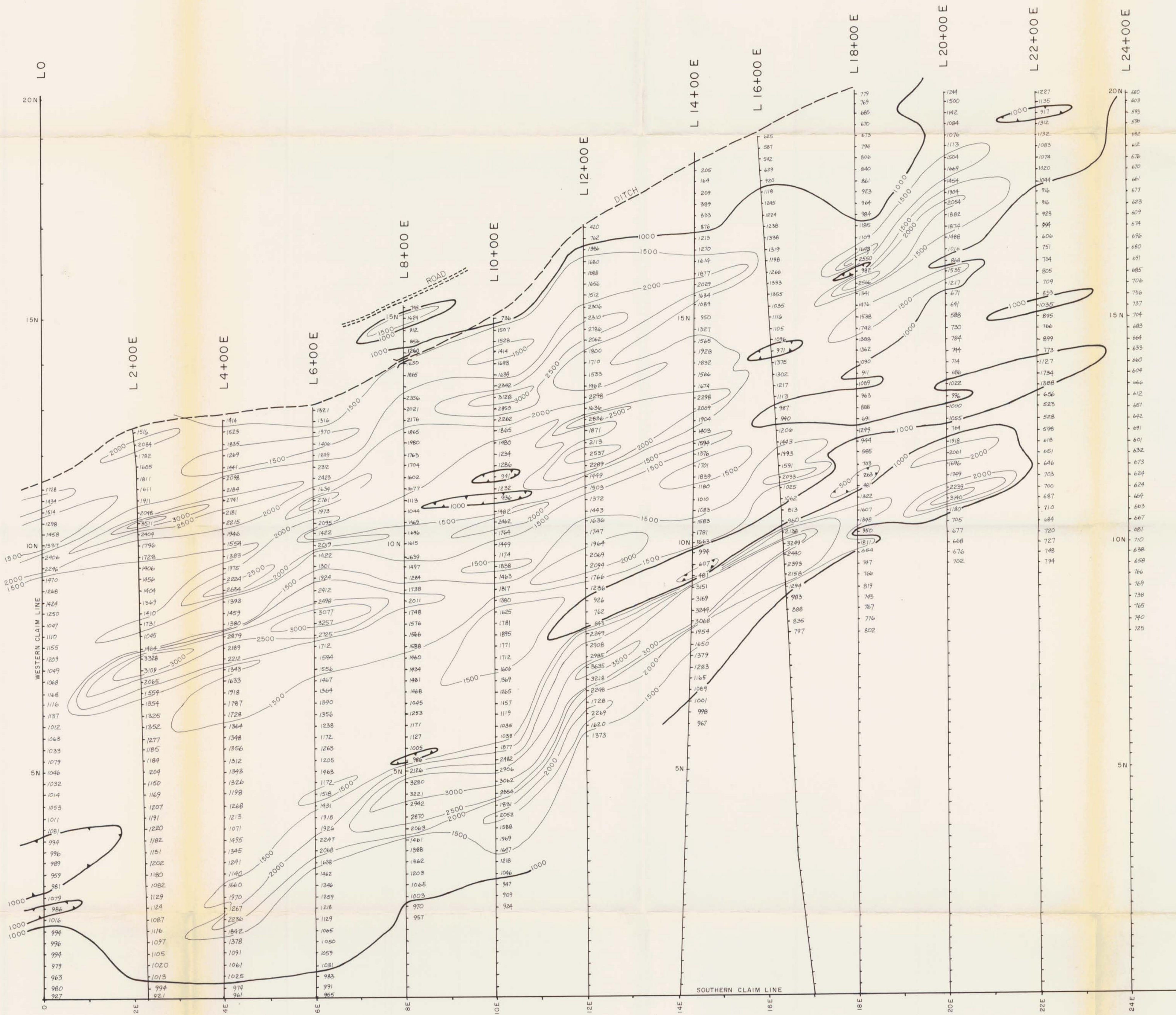
R.A. GONZALEZ, M.Sc., F.G.A.C., P.Eng.

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



GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,918

LEGEND

- 999 MAGNETOMETER READING (GAMMAS)
- CONTOUR INTERVAL = 500 GAMMAS
- NOTE: 0 = 57000 GAMMAS
- INSTRUMENT:

CREAM SILVER MINES LTD.
YAM 3 CLAIM
ATLIN MINING DIVISION - B.C.
MAGNETOMETER SURVEY
(CONTOURS)

