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# GEOCHEMICAL AND GEOPHYSICAL REPORT

# ON THE ROSE CLAIMS OF

# CREAM SILVER MINES LTD. (NPL)

# HART RIVER AREA

# MAYO MINING DIVISION, Y.T.

September, 1972

Vancouver, B.C.

AGILIS EXPLORATION SERVICES LTD.
CONSULTING ENGINEERS & GEOLOGISTS
107 - 325 HOWE STREET, VANCOUVER 1, B.C.

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| Geochemical Survey (Zinc) | 1" = 100 feet |
| Grid No. 3 | |
| Magnetometer Survey | 1" = 100 feet |
| E.M. Survey | 1" = 100 feet |
| Geochemical Survey (Copper) | 1" = 100 feet |
| Geochemical Survey (Lead) | 1" = 100 feet |
| Geochemical Survey (Zinc) | 1" = 100 feet |

REPORT ON THE ROSE CLAIMS,

HART RIVER AREA

MAYO MINING DIVISION

FOR CREAM SILVER MINES LTD. (NPL)

## INTRODUCTION

The Rose Claim Group is located in the Hart River area, 85 miles easterly from Dawson City, Yukon Territory. Cream Silver Mines acquired the property in the Spring of 1968. The results of exploration work done by Hart River Mines on an adjoining property had created considerable interest in the area at that time. Hart River Mines has since developed a tonnage of sulphides through a program of extensive diamond drilling and underground development, but work on their property is at present suspended.

During August of 1968 an exploration program consisting of trenching, geological, geochemical and geophysical surveys, was carried out under the supervision of F. Holcapek. Details of this work are covered in his report of November 12, 1968.

Work conducted on the property in August, 1972, consisted of trenching, geochemical and geophysical surveys on extensions of previous grid systems to evaluate anomalous conditions located by the work of 1968.

## LOCATION & ACCESS

The Rose property is situated at latitude 64°41', longitude 136°52', approximately 85 miles ENE of Dawson City and 75 miles NNW of Mayo, Yukon Territory.

Access is by float equipped aircraft to Mark Lake 10 miles NE of the property or Two Beaver Lake 18 Miles WNW, then by helicopter to the claims. Loaded take offs should be from Two Beaver Lake. The airfield at Hart River Mines property in August, 1972 was in good condition for small wheel equipped aircraft.

## PHYSIOGRAPHY

Elevations on the Rose group vary from 3000 feet to over 5500 feet above sea level. The slopes are very steep at higher elevations and covered with talus which extends into a broad north trending valley lying on the east side of the Rose Group.

Timber is found on the lower slopes on the south and east

sides of the group. Elsewhere at higher levels the ground is either barren or covered with low brush. Permafrost occurs throughout the area.

Surface exploration is feasible for only about three months in summer due to severe winters.

## CLAIMS DESCRIPTION

| Claim Name | Record Number |
|---|---|
| Rose 1-24 | Y27409-32 |
| John 1-5 | Y269267-71 |
| Ry 6 and 7 | Y27495 and Y27496 |

Claims R-1 to R-5 were restaked in August to cover Fractions on the Rose Group.

## HISTORY

### Regional Exploration

The Geological Survey of Canada, Paper 62-7, published in 1962, mentions copper deposits in the Hart River area. Trenching was done by Asbestos Corporation in 1956 on a copper showing 2 miles west of the Rose group and Conwest Explorations drilled a copper prospect approximately 21 miles SE in the 1960's.

A new sulphide deposit was discovered in 1966 and development work started on it by Hart River Mines in 1967. Since that time considerable work has been done consisting of various surveys, drilling and extensive underground development. Work here is at present suspended.

During 1967 and 1968 several groups of claims were staked in the area by a number of individuals or companies.

The Rose claims were staked in 1968 and during August, 1968 an exploration program of trenching, geological, geochemical and geophysical surveys were carried out by F. Holcapek.

During Agust of 1972 the work described in this report was done to test extensions of mineralized zones found by previous work.

## GEOLOGY

### General

Regional mapping was carried out by the Geological Survey of Canada and published in paper 62-7, Map 14-1962, on a scale of 1" = 4 miles. The area is generally underlain by a strongly deformed northwesterly trending series of Precambrian and Early Palaeozoic sediments, intruded by several small intermediate to basic sills and stocks.

The rock types are described as follows:

Cretaceous: orange to brown weathering diorite and gabbro, and altered equivalents.

Cambrian, Ordovician and Silurian: grey to buff weathering dolomite and limestone, medium to thick bedded, minor platy argillaceous limestone.

Precambrian: orange weathering, platy, grey green dolomite, dark slate, minor phyllite and quartzite.

dark grey, grey green, and black bedded argillite slate and phyllite; minor quartzites and orange weathering dolomites; thinly laminated silicated limestone.

### Local Geology

Quartzites, argillites, phyllites, limestone and dolomites

predominate in the immediate area with sills of andesitic to dioritic composition.

Mapping on the Rose Group by F. Holcapek at a scale of 1" = ¼ mile, indicates grey-green to black phyllitic argillites predominating in the north and south part of the Claim group. This unit is strongly sheared with thin interbeds and pools of dolomite or limestone with occasional quartz stockwork. The strike varies from NW to SW with the dip changing frequently from 40°N to 40°S.

The centre part of the group is underlain by a massive fine to medium grained, strongly chloritized, andesite sill, possibly grading to diorite in places, which trends westerly through the area. Chilled contacts were noted on the north and south boundaries of the andesite.

Folding and faulting have been extensive. A tight syncline is indicated in the southern part of the claims, and a synform north of the andesite sill. The main faults trend NW and N, with steep dips to E or W.

## MINERALIZATION

In the general area sulphides occur as massive pods, veins and lenses in phyllites and andesites on the Zebra Group to the W and NW of the Rose Group. The mineralized zone of Hart

River Mines 1 3/4 miles south of the Rose Claim consists of large massive pods of sulphides containing values in lead, zinc, copper, silver and gold. It occurs within a faulted zone in argillites and phyllites in contact with a diorite sill.

On the Rose claims three types of mineralization occur. Disseminated lead-zinc sulphides in limestone or siltstone lenses near the andesite contact; copper, lead, zinc sulphide stringers and disseminations in limestone float near the south contact of the andesite sill; and as chalcopyrite, with considerable malchite and azurite, in rusted phyllitic argillites, wherever quartz stockwork or quartz healed breccia occurs in the NW part of the group. The rusted quartz zones appear to occur erratically as small pods generally along a NNW shear system. Minor sulphides and occasional magnetite also occurs at various places disseminated in the andesite.

## RESULTS OF PREVIOUS WORK (1968)

A total of 14 open cuts were made over a distance of 800 feet to evaluate lead zinc mineralization along the south andesite contact. 760 cubic feet of rock and earth were moved by Cobra drill, blasting, and pick and shovel. The trenching was largely unsuccessful due to permafrost and talus and only minor sulphides were found.

A total of 7 miles of flagged line was run on three small grids. Grid 1 lies along the southern contact of andesite sill, Grid 2 in a creek valley near the N contact, and Grid 3 in a saddle on top of the ridge N of Grid 2 in the vicinity of the NNW shear system containing quartz-copper pods.

Grid 1 - a strong copper geochemical anomaly, coincident with a magnetic high and partly with lead and zinc anomalies, was partially outlined east of the trenching. Anomalous values with a peak of 710 ppm copper occur for approximately 1100 feet near the southern edge of the grid, while electromagnetic results indicated trends E and W of this. The grid system did not cover these zones.

Grid 2 - only weak copper, lead, zinc anomalies were indicated here.

Grid 3 - the grid covers an area of about 1000 by 400 feet in the saddle, over a NNW shear system. Coincident copper, lead and zinc anomalies occur in an area of malachite-azurite float in phyllites about 300 feet in diameter, which trend NW beyond the gridded area.

## DESCRIPTION OF PRESENT WORK (AUGUST, 1972)

Between July 24 and August 20, 1972 a follow up program was carried out to extend the previous works. This consisted of trenching, geochemical and geophysical surveys on extensions of Grids 1 and 3. Grid 2 was not extended.

Grid 1 Extension

Copper: of 299 samples, 273 have values in a background range of from 0-40 ppm, 24 in the mixed range of 40-90 ppm, and 2 in the peak anomalous range of 90-250 ppm.
Lead: of 299 samples, 247 are in the background range of 0-30 ppm, 49 in the mixed range of 30-70 ppm, and 3 in the peak anomalous range of 70-100 ppm.
Zinc: of 299 samples, 221 are in the background range of 10-70 ppm, 59 in the mixed range of 70-120 ppm and 19 in the peak anomalous range of 120-300 ppm.

Grid 3 Extension

Copper: of 223 samples, 182 have values in the background range of 0-100 ppm, 16 in the mixed range of 100-150 ppm and 25 in the peak anomalous range of 150-500+ ppm. Erratic values occur in this range to 2,000 ppm.
Lead: of 223 samples, 174 occur in the background range of 0-70 ppm, 45 in the mixed range of 70-200 ppm and 4 in the peak range of 200-500+ ppm with erratic values to 450 ppm.

## CONTROL GRID

A total of approximately 10.5 miles of grid line, 6 miles south of Grid 1 and 4.5 miles surrounding Grid 3, was established by chain and compass and flagging. Soil samples were taken at 100 foot intervals on lines 100 feet apart on Grid 1 extension and 200 feet on Grid 3 extension. Magnetometer and EM readings were taken on a 100 x 100 foot grid on the N part of Grid 1 extension and elsewhere at 200 x 200 feet.

## GEOCHEMICAL SURVEY

### Field Procedure

A total of 522 soil samples were taken from the residual soil (B-horizon), immediately below the organic layer, at 100 foot intervals. 299 samples were taken on Grid 1 and 223 on Grid 3.

### Testing Procedure

The samples were tested by Core Laboratories, Howe Street, Vancouver, using the atomic absorption method. All were tested for copper, lead, and zinc with values reported in parts per million

### Results

Results were plotted on a scale of 1" = 100' and statistically analysed. Population distribution analysis indicates the following results:

Zinc: of 223 samples, 104 occur in the background range of 20-90 ppm, 88 in the mixed range of 90-200 ppm, and 31 in the peak range of 200-500+ ppm with erratic values to 850 ppm.

## INTERPRETATION

### Grid 1 Extension

Most of the anomalous values appear to lie on Grid 1. On the extended portion there are only isolated high values which occur near spotty mineralization in the phyllites or near the andesite contacts.

### Grid 3 Extension

Two general anomalous areas occur here, one in the NW section of the grid with more or less coincident lead, zinc, copper values and a zone of weakly anomalous zinc values along the andesite contact in the SW part. The values in the NW appear to be due to erratic isolated pods and shears in the phyllites with quartz, limonite and malachite and azurite which would give rise to occasional very high copper values. Very steep slopes here would cause considerable dispersion from a small zone of mineralization.

## MAGNETOMETER SURVEY

### Instrument

A Sabre Mark III Magnetometer was used for this survey. This instrument is a direct reading vertical component magnetometer measuring total magnetic field.

### Field Method

The survey was conducted using the usual method of establishing accurate base stations, checking them approximately every hour to acquire an estimate of drift and short term field variations and correcting the readings accordingly.

### Results

On both Grid 1 and Grid 3 extensions only very weak anomalous conditions, with a relief of 50-100 gammas occur and no significant trends are indicated.

## ELECTRO MAGNETIC SURVEY

### Instrument

A Ronka EM 16 instrument was used. This instrument is designed to use as a transmitter the low frequency, (V.L.F.) stations which are employed in submarine control.

### Field Procedure

The Seattle station with a frequency of 18.6 kilocycles was used as a transmitter. The instrument was oriented to obtain

maximum signal strength and the same orientation kept for each reading.

Results

On both grid extensions, small, isolated crossovers occur. However, no continuous trend of any significance is apparent.

## TRENCHING

A total of 14 open cuts were made, 12 on the anomalous area in the NW part of Grid 3 and 2 on an area of Grid 1 where chalcopyrite was noted in a dolomite lense in the phyllites. The trenching was using a Cobra drill, dynamite and pick and shovel.

The total volume of earth and rock moved was 8,213 cubic feet or 304 cubic yards.

## DESCRIPTION OF TRENCHES

Grid 3 Extension:

Trench No. 1: 80 x 10 x 5 - phyllite bedrock with several quartz pods and shears with limonite, malachite and azurite.

Trench No. 2: 20 x 3 x 2 - grey phyllite bedrock and talus. Float of malachite, azurite and quartz.

Trench No. 3: 16 x 3 x 2 - grey phyllite bedrock and talus. Float of quartz and copper carbonates.

Trench No. 4: 15 x 3 x 3 - grey phyllite bedrock and talus. Copper carbonate float.

Trench No. 5: 15 x 1 x 1 - barren phyllite bedrock.

Trench No. 6: 3 x 3 x 3 - barren phyllite bedrock.

Trench No. 7: 3 x 3 x 2 - barren phyllite bedrock.

Trench No. 8: 20 x 3 x 2 - phyllite-argillite talus.

Trench No. 9: 22 x 2 x 2 - phyllite-argillite talus.

Trench No. 10: 18 x 3 x 2 - phyllite-argillite talus.

Trench No. 11: 15 x 3 x 2 - phyllite-argillite talus.

Trench No. 12: 16 x 13 x 2 - phyllite-argillite talus.

Grid 1 Extension:

Trench No. 13: 30 x 10 x 10 - dolomite lense in phyllite with specks of magnetite, chalcopyrite and pyrite.

Trench No. 14: 15 x 2 x 10 - barren grey phyllite bedrock.

## CONCLUSIONS

Only very weak anomalous zones and no strong or consistent trends were indicated on either grid by the magnetic and electro magnetic surveys.

Geochemical results on Grid 1 South Extension were uniformly low except for a few isolated high values. This would indicate that most of the mineralization, which is minor and erratic, occurs near the andesite contact on the original Grid 1.

On Grid 3 Extension, frequent but erratic high values were obtained. One Zone of weakly anomalous zinc values occurs along the andesite contact in the southwest. In the anomalous zone to the NNW trenching indicates copper values to be due to quartz lenses and pods and narrow discontinuous shears in phyllite mineralized with minor sulphide and considerable malachite and azurite. The high values are due to high grade carbonates and the apparent size of the zones is due to considerable dispersion down very steep slopes. All the mineralized zones are small and quite widely separated and no mineralization of commercial importance was found.

## RECOMMENDATIONS

Unless further and more encouraging information is acquired in the future, it is recommended that no more money be spent on these claims, particularly in the Grid areas.

Submitted by R.G. Hawley, Geologist

Garth Hawley

October, 1972 Vancouver, B. C.

Endorsed by:

R.H.D. Philp, P. Eng.

# CERTIFICATE

I, Ronald H. D. Philp, of 107 - 325 Howe Street, Vancouver, British Columbia, do hereby certify that:

1. I am a registered Professional Engineer of the Province of British Columbia.

2. I am a graduate from the University of British Columbia (B.A. Sc. 1961).

3. I have practiced my profession since 1961 while employed with Caseco Consultants Ltd., Asbestos Corporation (Explorations) Ltd., Alrae Explorations Limited, and Agilis Exploration Services Ltd.

4. I have been associated with Mr. R. G. Hawley in a business capacity for ten years and can vouch for his qualifications as a competent geologist fully capable of conducting the program outlined in this report. I personally planned and outlined the program.

R. H. D. Philp, P. Eng.

January 18, 1973 Vancouver, B. C.

January 18, 1973

CREAM SILVER MINES LTD. (NPL)

Re: Work done on the Hart River Property, Yukon Territory

**Personnel:**

| | | |
|---|---|---|
| Kerry Hawley | - 4481-232nd St., RR 3, Langley 30 days @ 35/day | $ 1,050.00 |
| W. Hawley | - 4481-232nd St., RR 3, Langley 30 days @ 35/day | 1,050.00 |
| T. Humbly | - 1921 Belmont, Victoria 30 days @ 35/day | 1,050.00 |
| R.G. Hawley | - 4481-232nd St., RR 3, Langley 40 days @ 87.94/day | 3,517.50 |
| R. Philp | - c/o 107 - 325 Howe, Vancouver 5 days @ 125/day | 625.00 |
| B. Talbot | - draughting 423 East 4th, North Vancouver 72½ hours @ 8.50/hour | 616.25 |
| | | $ 7,908.75 |

**Disbursements:**

| | | |
|---|---|---|
| Meals and accomodation | $1,069.41 | |
| Supplies, groceries and gas | 3,841.91 | |
| Miscellaneous - telegrams, telephone, repairs, taxi, bus, shipping, etc. | 241.13 | |
| Airfare | 998.85 | |
| Helicopter and chartered aircraft | 5,288.41 | |
| Truck and car rental | 562.11 | |
| Prints | 107.72 | |
| Laboratory | 942.80 | $13,052.34 |
| Plus 10% overhead on disbursements | | 1,305.23 |
| TOTAL INVOICE | | $22,266.32 |

AGILIS EXPLORATION SERVICES LTD.
CONSULTING ENGINEERS & GEOLOGISTS
107 - 325 HOWE STREET, VANCOUVER 1, B.C.

DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA.

TO WIT:

In the Matter of THE WORK CONDUCTED DURING 1972 ON THE ROSE CLAIMS OF CREAM SILVER MINES LTD. (NPL), HART RIVER AREA, MAYO MINING DIVISION, YUKON TERRITORY (ROSE 1-24, JOHN 1-5, RY 6 & 7)

I, R. GARTH HAWLEY

of 4421 - 232nd Street, Langley, B. C.

in the Province of British Columbia, do solemnly declare that the attached costs were incurred in conducting the work.

# In the Matter of

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## Statutory Declaration

(CANADA EVIDENCE ACT)

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DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA. } In the Matter of THE WORK CONDUCTED DURING 1972
ON THE ROSE CLAIMS OF CREAM SILVER MINES LTD.
(NPL), HART RIVER AREA, MAYO MINING DIVISION,
YUKON TERRITORY (ROSE 1-24, JOHN 1-5, RY 6 & 7)

TO WIT:

I, R. GARTH HAWLEY

of 4491 - 232nd Street, Langley, B. C.

in the Province of British Columbia, do solemnly declare that the attached costs were incurred in conducting the work.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 21st day of February, 1973, A.D.

R. Garth Hawley

*A Commissioner for taking Affidavits for British Columbia or*
*A Notary Public in and for the Province of British Columbia.*

# YUKON TERRITORY

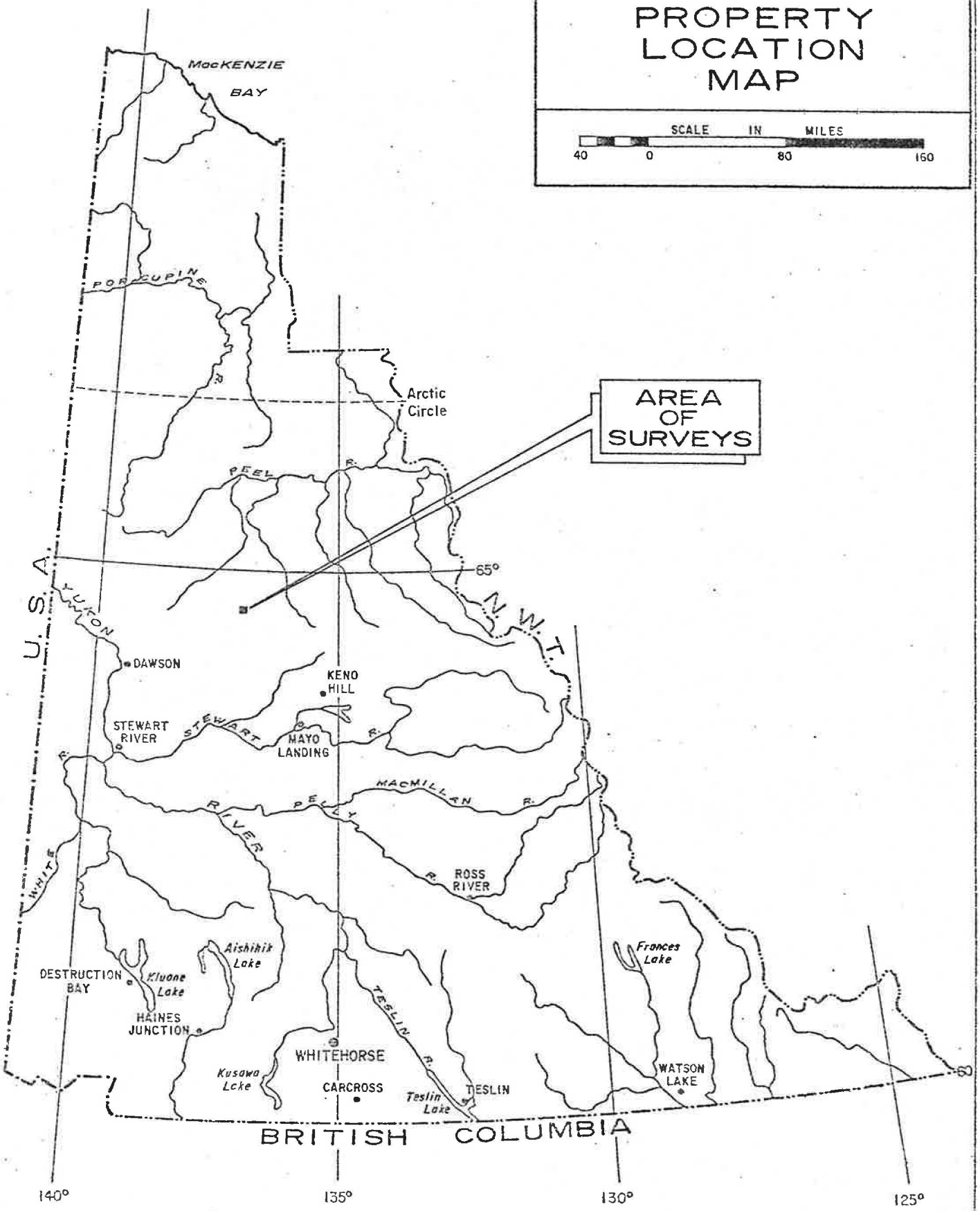
## CREAM SILVER MINES LTD. (NPL)

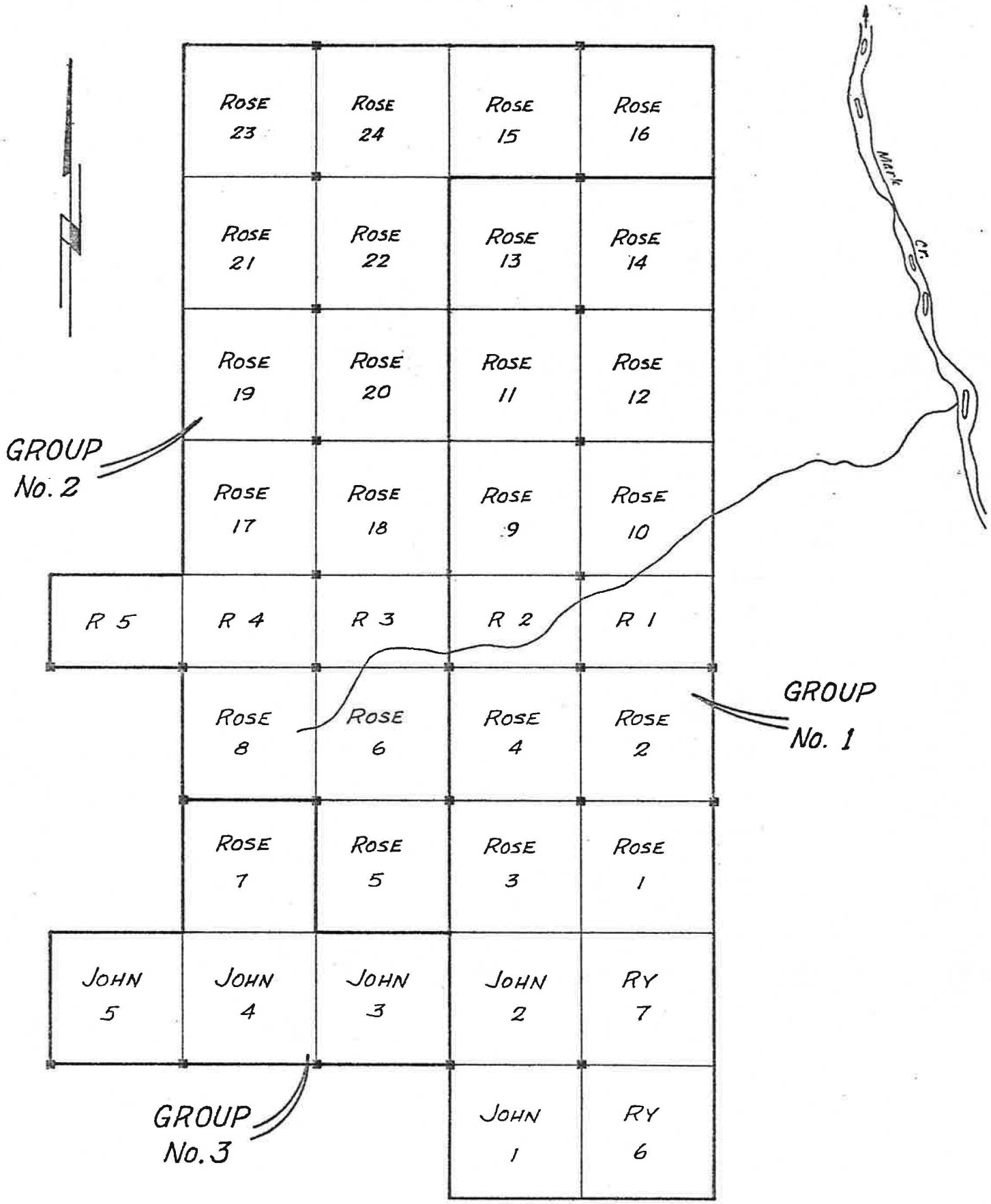
HART RIVER PROPERTY

## PROPERTY LOCATION MAP

SCALE IN MILES

40 0 80 160






CREAM SILVER MINES LTD. — HART RIVER PROPERTY

# CLAIM GROUP SKETCH

SCALE — 1" = 1500 FT.

136°57'30"

64°40'

Cr.

Mark Cr.

Rose 9-16

Rose 17-24

Rose 1-8

Ry 6&7

John 1-5

GRID No. 3

GRID No. 2

GRID. No. 1

Trenches

Pb.

Cu in Talus

Pb., Zn. float

Pb., Zn.

Cu.

Cu. float

Pb., Zn. float

70°
47°
70°
75°
55°
70°
65°
65°
57°
56°
65°
34°
34°
40°
60°
80°
40°
65°
80°
75°
65°
70°
80°
85°
65°
60°
50°
45°
65°
65°
45°
85°
65°
56°
80°
80°
45°
60°

## Legend

- Andesite, Gabbroic in place
- Thin bedded red and green banded Quartzites
- Siltstone, Dolomite & Quartzite thinly interbedded.
- Orange weathering
- Light blue to light grey Dolomite
- Phyllitic Argillite
- Area of surveys, 1968
- × Mineralization float, Pb., Zn., Cu.
- ● Mineralization in place, Pb., Zn., Cu.
- Dip – strike
- ~~ Fault observed
- ~~?~~ Fault inferred
- — — — Claims boundary (approx.)
- Boundary of survey, 1972

*Revised, Septemb*

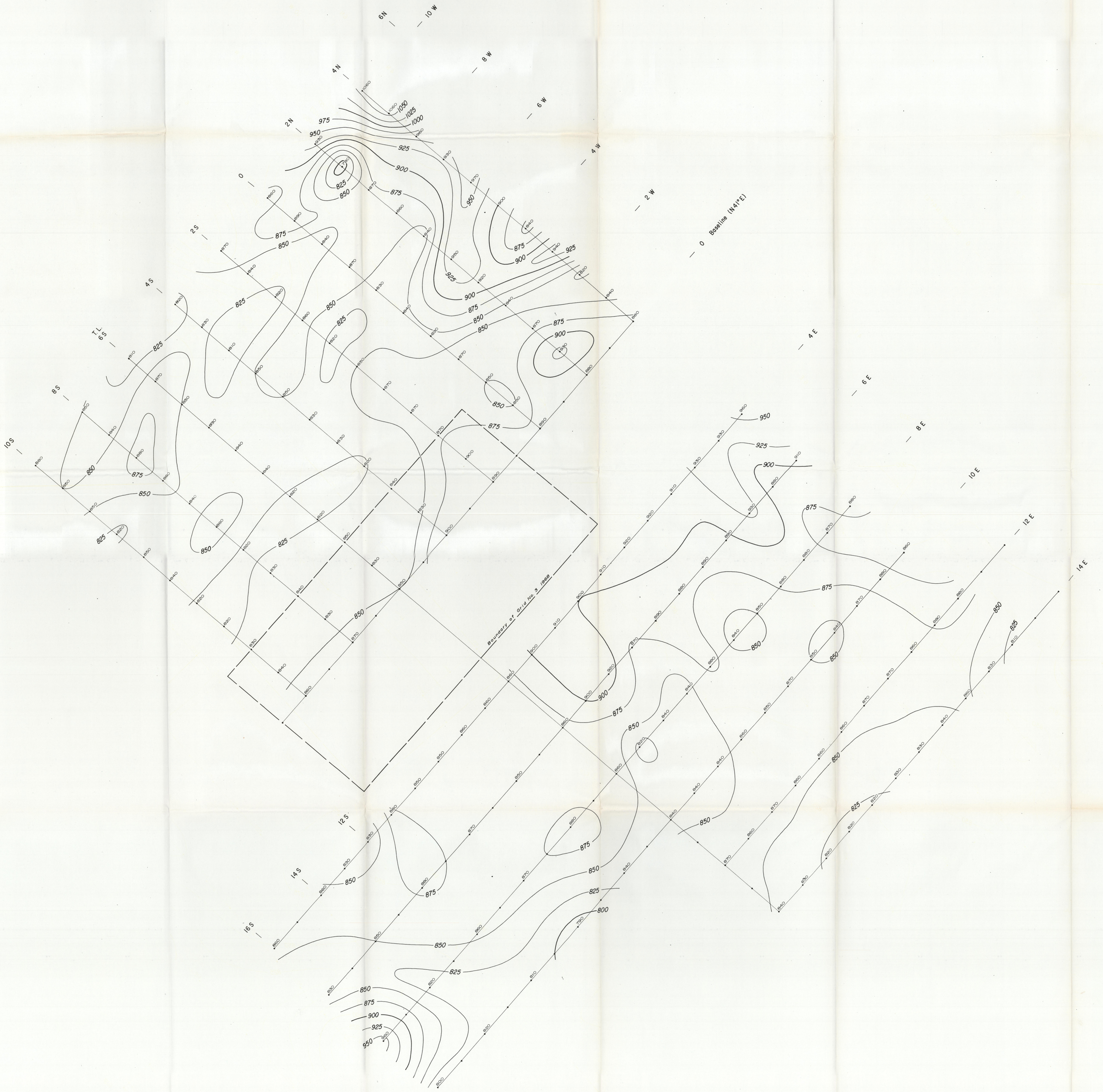
AGILIS EXPLORATION SERVICES LTD.

# CREAM SILVER MINES LTD. (N

HART RIVER PROPERTY

# Regional Geology Map

| | |
|---|---|
| DRAWN BY: K. K. | SCALE: 1" = 1/4 |
| MAPPED BY: F. Holcapek | DATE: October , 1 |




AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (NPL)
HART RIVER PROPERTY, Y.T.

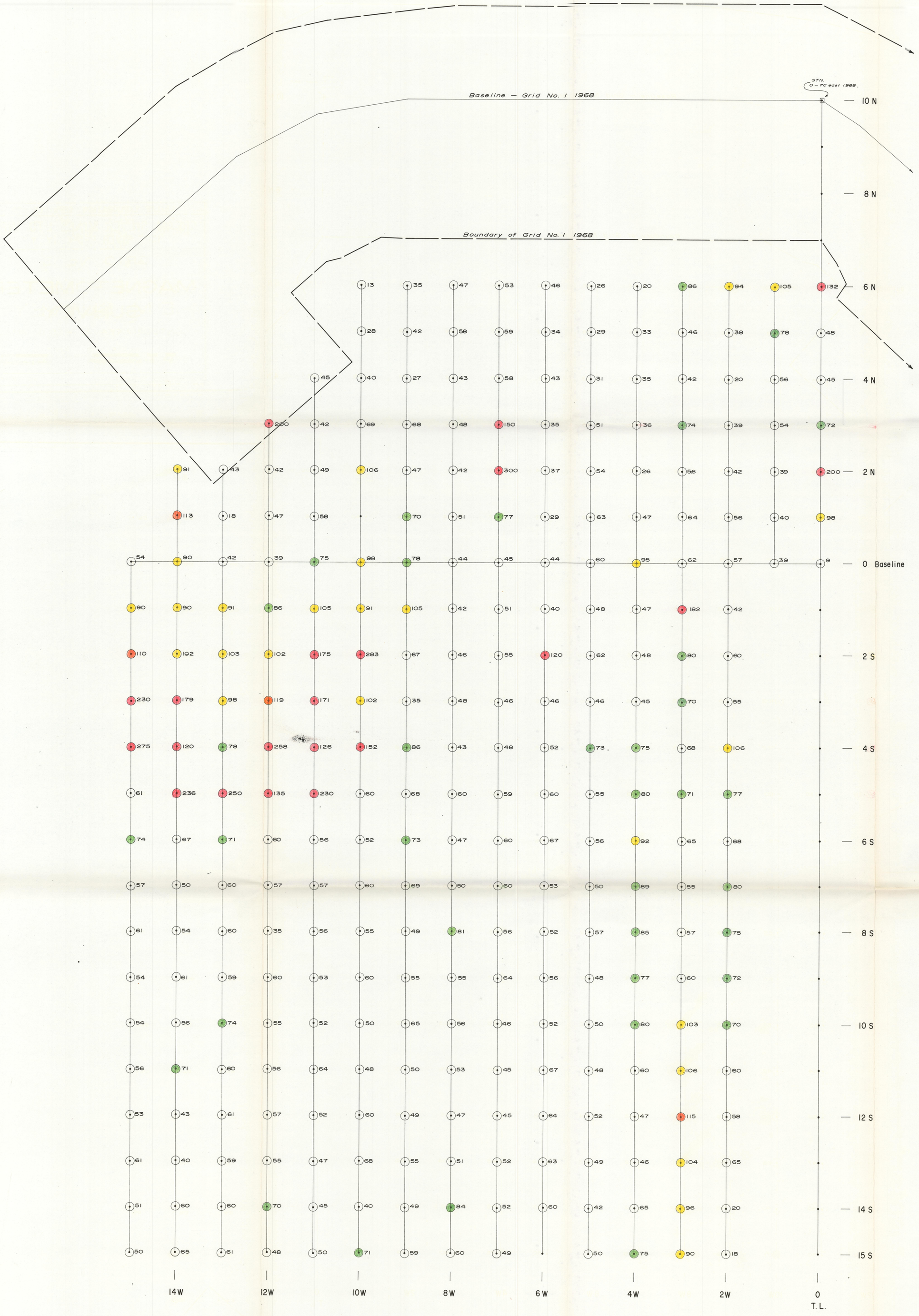
GRID No. 3

# MAGNETOMETER SURVEY

CONTOUR INTERVAL – 25 GAMMAS

SCALE IN FEET
100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972



LEGEND

- ≥ 120 ppm
- 110 – 119 ppm
- 90 – 109 ppm
- 70 – 89 ppm

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CREAM SILVER MINES LTD. (NPL)

HART RIVER PROPERTY, Y.T.

GRID No. 1

(SOUTH EXTENSION)

# GEOCHEMICAL SURVEY

(ZINC PPM)

SCALE IN FEET

100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972

Baseline — Grid No. 1 1968

Boundary of Grid No. 1 1968

STN. 0 – 7C east 1968

| 14W | 12W | 10W | 8W | 6W | 4W | 2W | 0 T.L. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 5 | 10 N |
| | | | | | | | 21 -15 | |
| | | | | | | | 24 -27 | 8 N |
| | | | | | | | 20 -25 | |
| -10 15 | -6 6 | 4 -1 | 5 -2 | 4 7 | | | 4 11 | 6 N |
| -14 14 | -9 11 | -1 -4 | 0 5 | 6 2 | | | 8 8 | |
| -14 10 | -10 13 | -4 5 | -2 5 | 1 3 | | | 8 8 | 4 N |
| -18 12 | -11 8 | -6 2 | -4 7 | 1 5 | | | 4 6 | |
| -22 4 | -14 7 | -16 8 | -10 5 | -6 2 | -6 4 | -3 2 | 4 6 | 2 N |
| -25 0 | -20 2 | -16 -2 | -14 2 | -7 -2 | -3 -1 | -6 4 | -2 7 | |
| -22 -9 | -19 -4 | -21 -1 | -19 4 | -8 -2 | -7 1 | -6 -1 | -3 4 | 0 Baseline |
| -24 -13 | -21 -9 | -21 -6 | -20 1 | -14 2 | -9 -2 | -10 -3 | -5 -1 | |
| -32 -12 | -26 -13 | -22 -12 | -18 -3 | -14 1 | -10 -6 | -10 -4 | -7 -6 | 2 S |
| -33 -24 | -31 -14 | -23 -19 | -20 -9 | -23 4 | -16 -7 | -12 -3 | -8 -6 | |
| -26 -24 | -26 -19 | -22 -26 | -26 -15 | -27 2 | -14 -12 | -9 -15 | -12 -3 | 4 S |
| -23 -28 | -25 -30 | -25 -29 | -25 -29 | -30 -4 | -10 -18 | -10 -15 | -5 -13 | |
| -23 -32 | -22 -31 | -19 -30 | -20 -29 | -20 -19 | -9 -19 | -7 -16 | -6 -15 | 6 S |
| -18 -37 | -24 -34 | -23 -30 | -13 -29 | -7 -26 | -8 -17 | -8 -11 | -5 -19 | |
| -18 -29 | -25 -18 | -15 -29 | -13 -30 | -7 -27 | -6 -16 | -10 -4 | -4 -8 | 8 S |
| -38 -22 | -20 -14 | -10 -31 | -9 -35 | -9 -29 | -6 -15 | -10 -3 | -10 1 | |
| -20 -6 | -14 -14 | -7 -36 | -4 -36 | -5 -30 | -7 -16 | -4 -8 | -8 -2 | 10 S |
| -19 0 | -12 -14 | -2 -40 | -11 -31 | -2 -32 | -5 -19 | 0 -16 | -4 -9 | |
| -14 0 | -10 -15 | -5 -25 | -8 -30 | -6 -33 | -7 -22 | -2 -21 | -11 -13 | 12 S |
| -15 3 | -8 -17 | -10 -11 | -10 -27 | -10 -36 | -8 -21 | -1 -29 | 1 -16 | |
| -11 6 | -8 -17 | -6 -28 | -6 -29 | -5 -37 | -3 -29 | 2 -32 | 0 -20 | 14 S |
| -10 -4 | -10 -14 | -12 -18 | -9 -33 | -6 -36 | -4 -32 | 5 -37 | 3 -26 | 15 S |

## LEGEND

-12 -3 Quadrature / In phase (%)

In phase profile

Quadrature profile

Negative profile | Positive profile

AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (NPL)

HART RIVER PROPERTY, Y.T.

# GRID No. 1 (SOUTH EXTENSION)

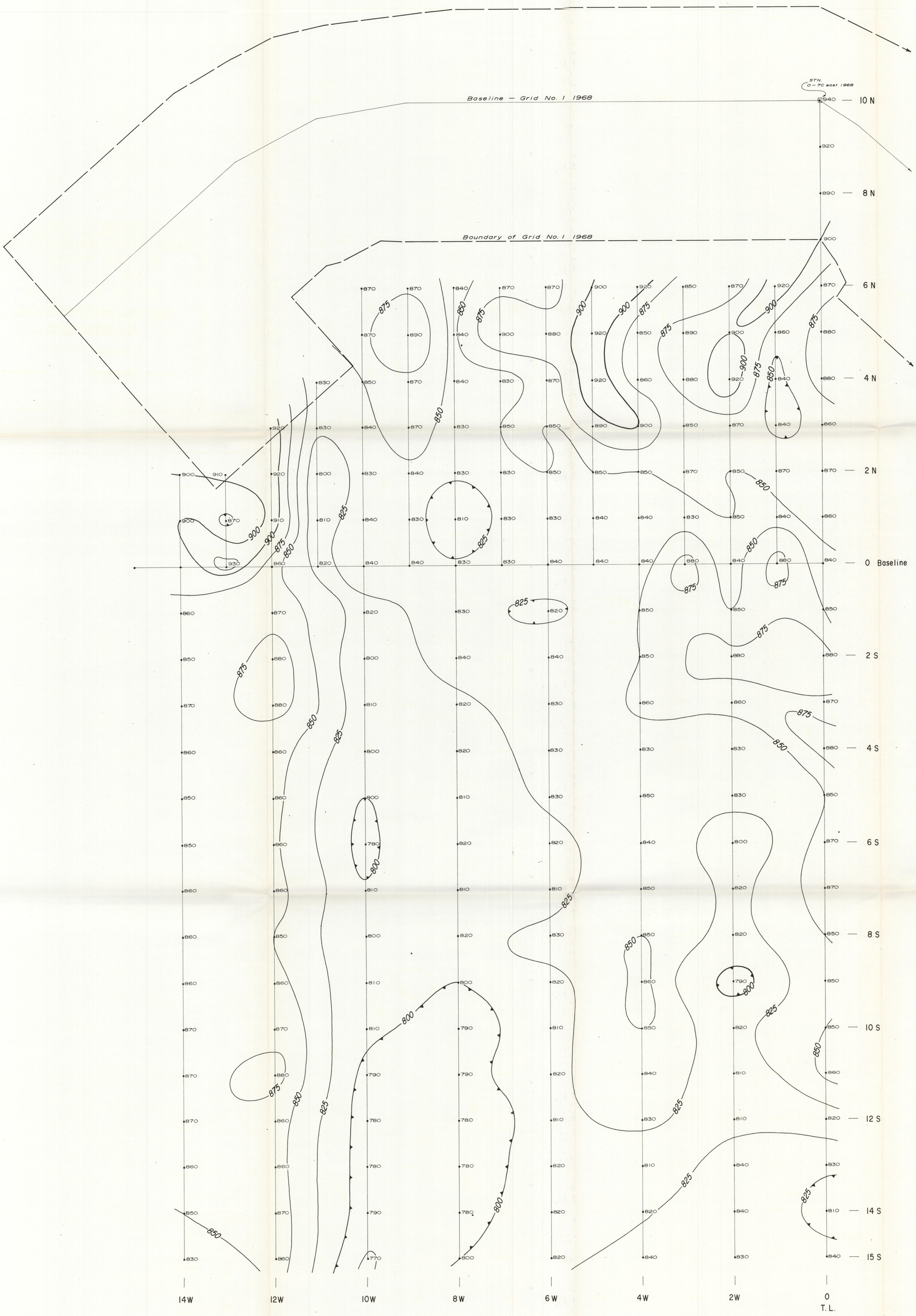
# EM SURVEY

(RONKA E M 16)

SCALE IN FEET

100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972




AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (NPL)

HART RIVER PROPERTY, Y.T.

GRID No. 1

(SOUTH EXTENSION)

# MAGNETOMETER SURVEY

CONTOUR INTERVAL – 25 GAMMAS

SCALE IN FEET

100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972

Baseline — Grid No. 1 1968

STN. 0 – 7C east 1968

Boundary of Grid No. 1 1968

| 14W | 12W | 10W | 8W | 6W | 4W | 2W | 0 T.L. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 10 N |
| | | | | | | | | 8 N |
| 26 | 38 | 22 | 34 | 19 | 24 | 25 | 30 | 26 | 28 | 24 | 6 N |
| 12 | 28 | 28 | 31 | 13 | 30 | 21 | 26 | 30 | 35 | 20 | |
| 30 | 32 | 22 | 28 | 31 | 26 | 19 | 25 | 23 | 17 | 25 | 27 | 4 N |
| 20 | 29 | 23 | 20 | 32 | 71 | 27 | 19 | 35 | 23 | 27 | 18 | 33 | |
| 38 | 16 | 18 | 23 | 30 | 18 | 20 | 30 | 27 | 28 | 26 | 22 | 26 | 28 | 73 | 2 N |
| 35 | 16 | 25 | 17 | | 27 | 27 | 25 | 27 | 23 | 27 | 32 | 27 | 21 | 33 | |
| 25 | 22 | 17 | 15 | 22 | 25 | 21 | 20 | 16 | 17 | 18 | 35 | 16 | 16 | 16 | 6 | 0 Baseline |
| 32 | 27 | 27 | 26 | 30 | 32 | 28 | 15 | 20 | 20 | 14 | 19 | 42 | 25 | | |
| 30 | 30 | 30 | 34 | 30 | 61 | 18 | 17 | 19 | 31 | 20 | 19 | 29 | 13 | | 2 S |
| 65 | 25 | 29 | 35 | 25 | 31 | 19 | 17 | 20 | 19 | 16 | 16 | 26 | 18 | | |
| 62 | 29 | 22 | 61 | 33 | 40 | 18 | 14 | 16 | 20 | 43 | 46 | 20 | 95 | | 4 S |
| 32 | 59 | 60 | 29 | 58 | 18 | 20 | 19 | 40 | 21 | 15 | 49 | 47 | 18 | | |
| 22 | 18 | 20 | 30 | 26 | 32 | 43 | 15 | 46 | 45 | 16 | 22 | 17 | 19 | | 6 S |
| 25 | 23 | 29 | 30 | 31 | 50 | 45 | 15 | 28 | 14 | 10 | 19 | 16 | 18 | | |
| 29 | 30 | 32 | 30 | 29 | 25 | 30 | 14 | 24 | 15 | 12 | 19 | 15 | 22 | | 8 S |
| 27 | 27 | 29 | 32 | 28 | 30 | 33 | 19 | 26 | 10 | 11 | 17 | 16 | 24 | | |
| 29 | 27 | 38 | 27 | 27 | 28 | 29 | 18 | 19 | 15 | 20 | 18 | 30 | 30 | | 10 S |
| 28 | 25 | 23 | 27 | 29 | 26 | 30 | 19 | 18 | 20 | 19 | 19 | 26 | 29 | | |
| 40 | 18 | 24 | 18 | 15 | 18 | 31 | 17 | 19 | 20 | 21 | 14 | 33 | 30 | | 12 S |
| 16 | 12 | 23 | 17 | 12 | 15 | 21 | 17 | 21 | 18 | 20 | 17 | 27 | 30 | | |
| 16 | 25 | 24 | 16 | 14 | 14 | 29 | 20 | 19 | 18 | 21 | 24 | 27 | 15 | | 14 S |
| 15 | 30 | 21 | 14 | 17 | 13 | 31 | 19 | 18 | | 18 | 25 | 26 | 16 | | 15 S |

## LEGEND

- ≥ 70 ppm
- 60 - 69 ppm
- 41 - 59 ppm
- 30 - 40 ppm

AGILIS EXPLORATION SERVICES LTD.

# CREAM SILVER MINES LTD. (NPL)

HART RIVER PROPERTY, Y.T.

## GRID No. 1

(SOUTH EXTENSION)

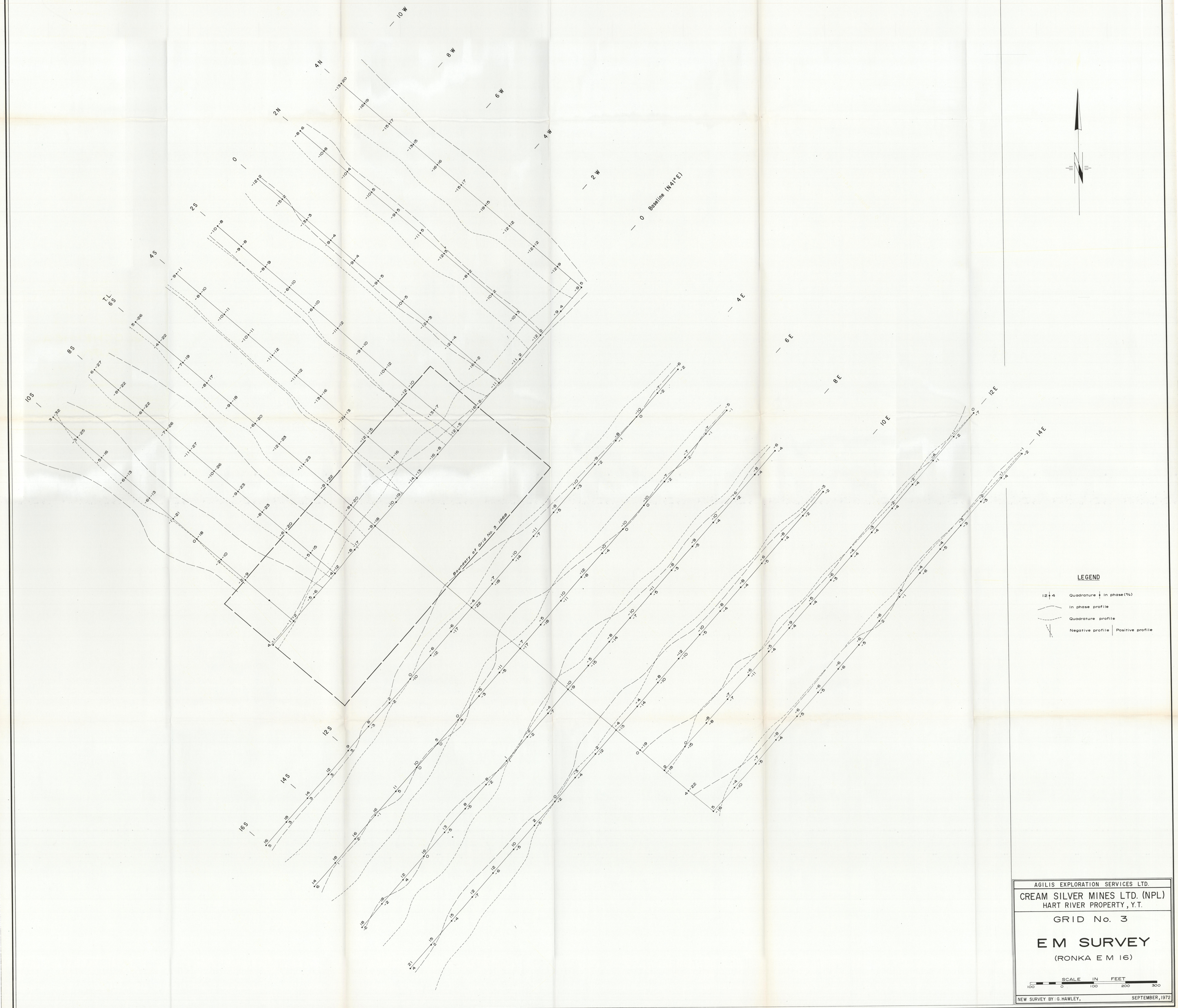
# GEOCHEMICAL SURVEY

(LEAD PPM)

SCALE IN FEET

100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972




LEGEND

12 | 4 Quadrature | In phase (%)

In phase profile

Quadrature profile

Negative profile | Positive profile

AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (NPL)
HART RIVER PROPERTY, Y.T.

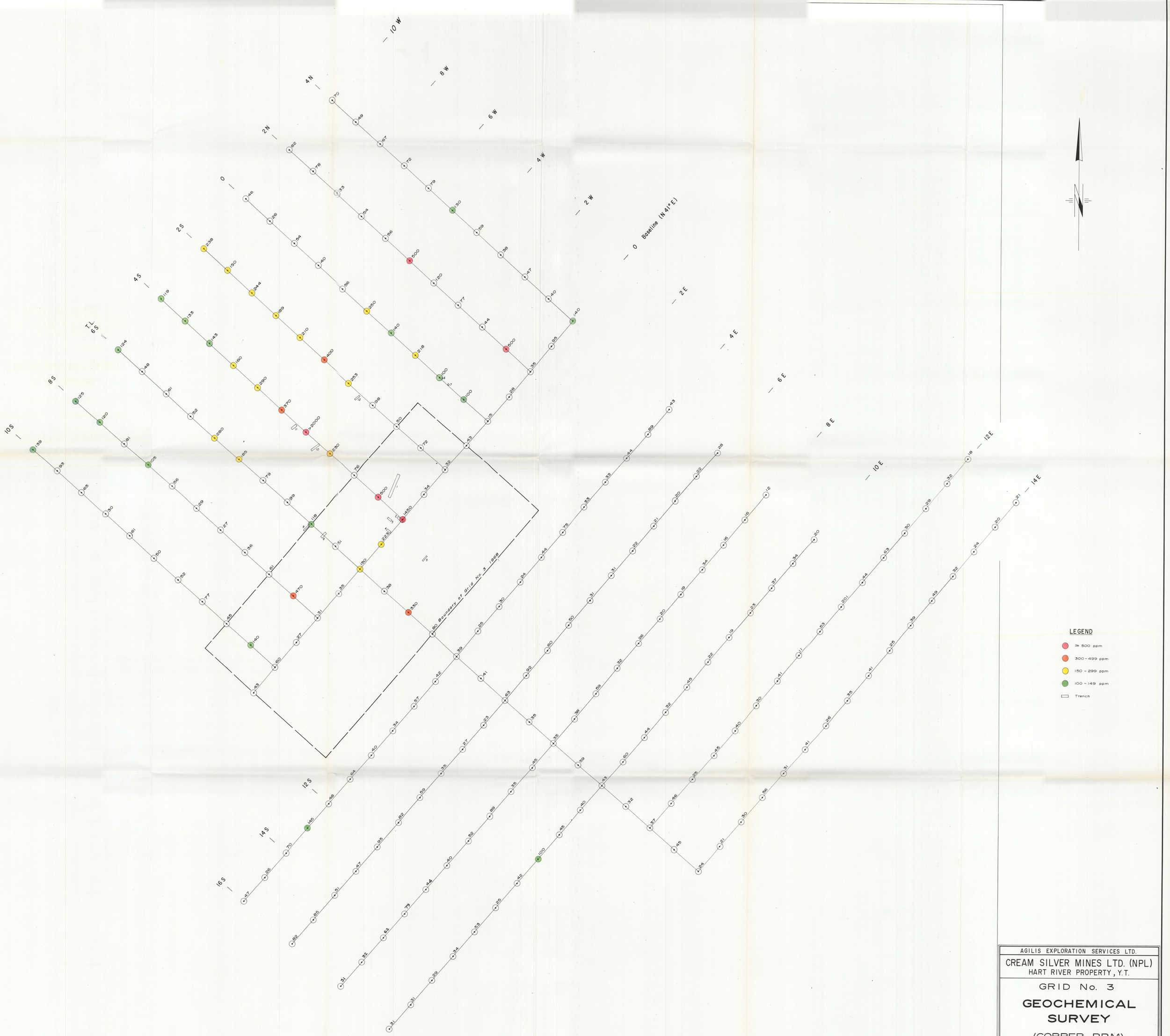
GRID No. 3

# EM SURVEY

(RONKA E M 16)

SCALE IN FEET
100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972




AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (NPL)
HART RIVER PROPERTY, Y.T.

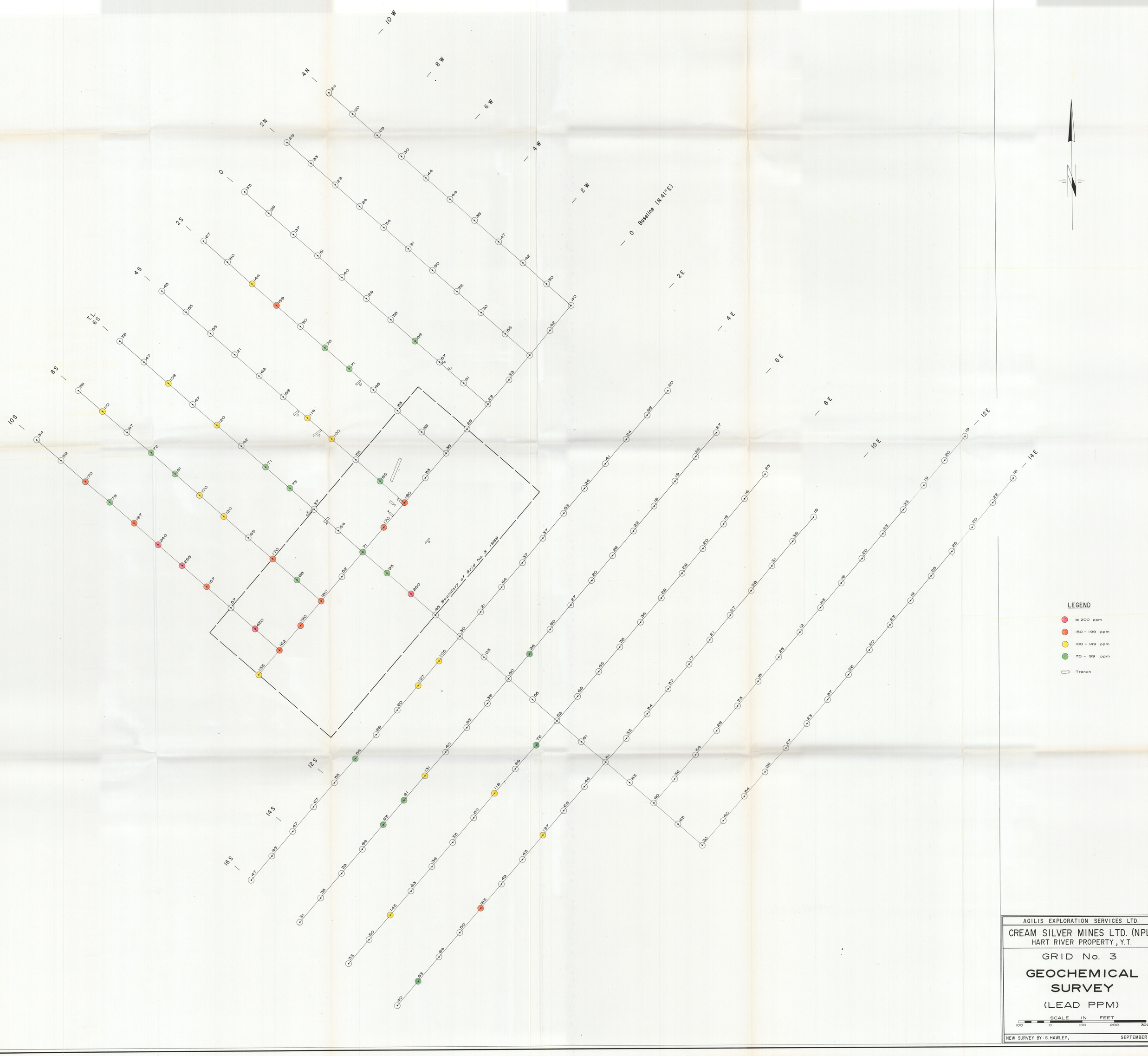
GRID No. 3

# GEOCHEMICAL SURVEY

(COPPER PPM)

SCALE IN FEET
100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972




AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (NPL)
HART RIVER PROPERTY, Y.T.

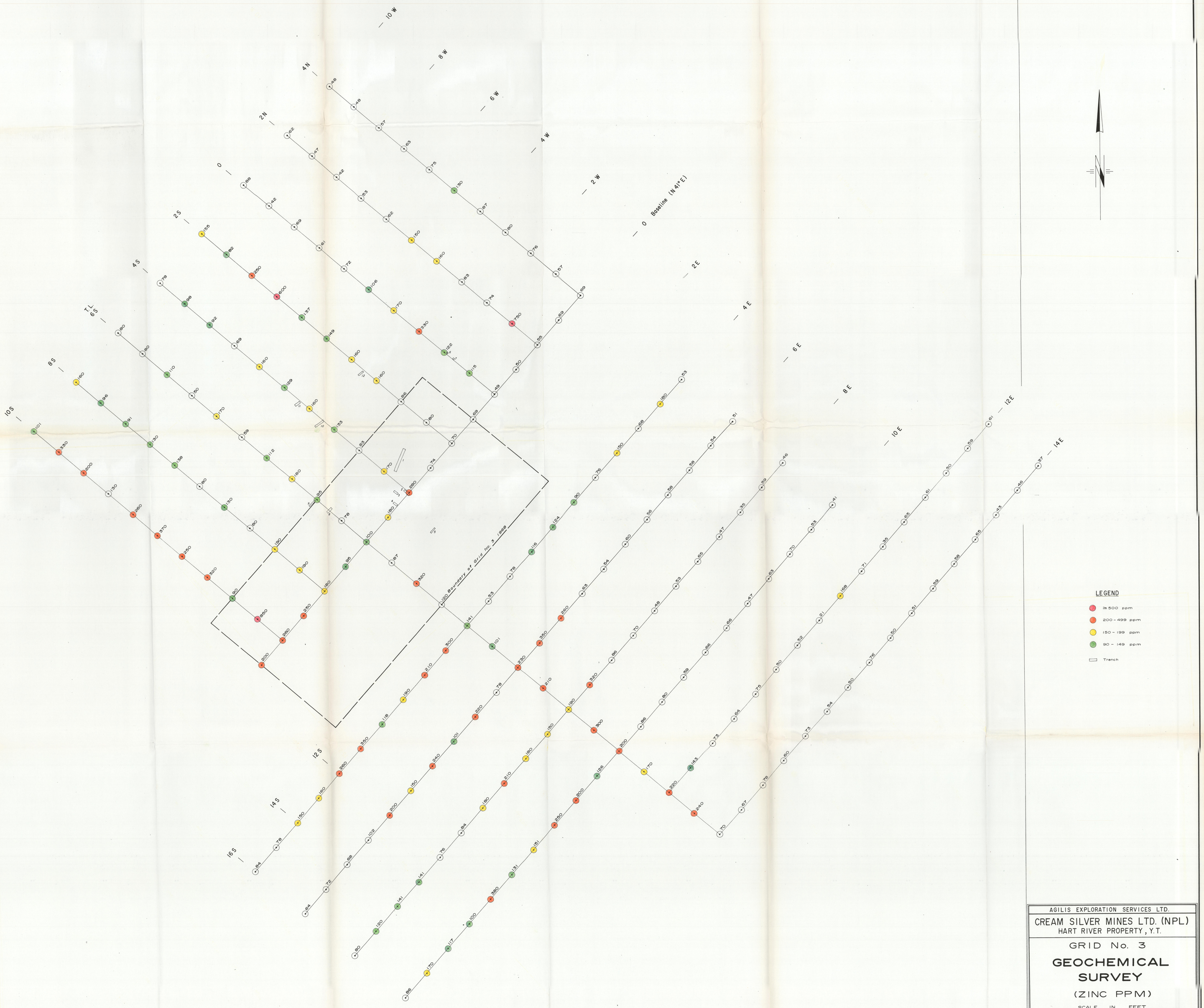
GRID No. 3

# GEOCHEMICAL SURVEY

(LEAD PPM)

SCALE IN FEET
100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972




AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (NPL)
HART RIVER PROPERTY, Y.T.

GRID No. 3

# GEOCHEMICAL SURVEY

(ZINC PPM)

SCALE IN FEET
100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972

STN. 0 – 7C east 1968

Baseline – Grid No. 1 1968

Boundary of Grid No. 1 1968

| 14W | 12W | 10W | 8W | 6W | 4W | 2W | 0 T.L. | |
|---|---|---|---|---|---|---|---|---|
| 14 | 33 | 22 | 29 | 33 | 16 | 33 | 24 | 25 | 59 | 25 | 10 N |
| 21 | 28 | 23 | 26 | 25 | 10 | 25 | 25 | 29 | 250 | 26 | |
| 19 | 39 | 35 | 41 | 25 | 22 | 15 | 27 | 16 | 19 | 89 | 33 | 4 N |
| 17 | 22 | 32 | 22 | 32 | 71 | 19 | 20 | 33 | 50 | 32 | 15 | 38 | |
| 36 | 16 | 15 | 34 | 42 | 21 | 24 | 54 | 21 | 22 | 19 | 17 | 23 | 15 | 35 | 2 N |
| 33 | 19 | 17 | 24 | | 21 | 27 | 19 | 15 | 56 | 19 | 12 | 25 | 18 | 88 | |
| 27 | 36 | 15 | 29 | 22 | 32 | 39 | 44 | 32 | 21 | 68 | 33 | 19 | 34 | 23 | 5 | 0 Baseline |
| 30 | 30 | 32 | 30 | 27 | 24 | 19 | 21 | 24 | 40 | 45 | 20 | 28 | 26 | | | |
| 64 | 33 | 35 | 30 | 25 | 39 | 47 | 26 | 18 | 81 | 76 | 23 | 29 | 25 | | | 2 S |
| 26 | 26 | 62 | 27 | 27 | 120 | 12 | 24 | 17 | 42 | 24 | 17 | 15 | 21 | | | |
| 59 | 30 | 53 | 60 | 28 | 35 | 24 | 26 | 11 | 20 | 33 | 31 | 19 | 50 | | | 4 S |
| 34 | 38 | 37 | 37 | 35 | 38 | 21 | 28 | 21 | 21 | 21 | 32 | 32 | 29 | | | |
| 32 | 32 | 32 | 29 | 25 | 30 | 23 | 35 | 22 | 30 | 17 | 33 | 18 | 26 | | | 6 S |
| 29 | 26 | 30 | 28 | 30 | 50 | 31 | 19 | 25 | 17 | 9 | 30 | 18 | 29 | | | |
| 30 | 25 | 30 | 27 | 29 | 30 | 23 | 20 | 23 | 18 | 11 | 30 | 18 | 30 | | | 8 S |
| 30 | 26 | 29 | 29 | 27 | 36 | 25 | 23 | 24 | 17 | 6 | 23 | 21 | 30 | | | |
| 31 | 25 | 40 | 28 | 26 | 26 | 28 | 22 | 27 | 19 | 17 | 25 | 22 | 31 | | | 10 S |
| 31 | 29 | 31 | 27 | 40 | 25 | 27 | 20 | 24 | 27 | 14 | 39 | 25 | 29 | | | |
| 48 | 20 | 24 | 23 | 20 | 16 | 24 | 20 | 29 | 26 | 16 | 18 | 28 | 28 | | | 12 S |
| 36 | 40 | 27 | 25 | 17 | 19 | 35 | 20 | 26 | 24 | 15 | 25 | 28 | 31 | | | |
| 26 | 29 | 28 | 18 | 18 | 22 | 24 | 23 | 25 | 26 | 14 | 28 | 23 | 17 | | | 14 S |
| 23 | 30 | 28 | 24 | 22 | 13 | 26 | 22 | 27 | | 14 | 28 | 18 | 18 | | | 15 S |

**LEGEND**

- ≥ 90 ppm
- 70 – 89 ppm
- 50 – 69 ppm
- 40 – 49 ppm

AGILIS EXPLORATION SERVICES LTD.

CREAM SILVER MINES LTD. (NPL)
HART RIVER PROPERTY, Y.T.

GRID No. 1
(SOUTH EXTENSION)

# GEOCHEMICAL SURVEY

(COPPER PPM)

SCALE IN FEET
100 0 100 200 300

NEW SURVEY BY: G. HAWLEY, SEPTEMBER, 1972