

GEOLOGICAL & GEOCHEMICAL REPORT ON THE
HEATH COPPER PROSPECT-HEATH CLAIMS 1-11 incl.

Located 85 air miles N of Endako, B.C.

Latitude $55^{\circ}15'N$; & Longitude $125^{\circ}15'W$

BY H.T. DUMMETT & J.F. ALLAN, P.ENG.(B.C.)
for Colin Campbell, Vanderhoof, B.C.

Work Carried out Between May 28 - June 8, 1969



GEOLOGICAL AND GEOCHEMICAL REPORT

On The

HEATH COPPER PROSPECT

Omineca Mining Division

55°15'N; 125°15'W

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO.

1965

MAP

Amax Exploration, Inc.

August, 1969

H.T. Dummett

J.F. Allan, P. Eng. (B.C.)

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **1965** MAP **#1**



CANADA
 DEPARTMENT OF
 MINES AND TECHNICAL SURVEYS
 SURVEYS AND MAPPING BRANCH

BRITISH COLUMBIA

SCALE 1:2,000,000
 1 inch equals approximately 32 miles

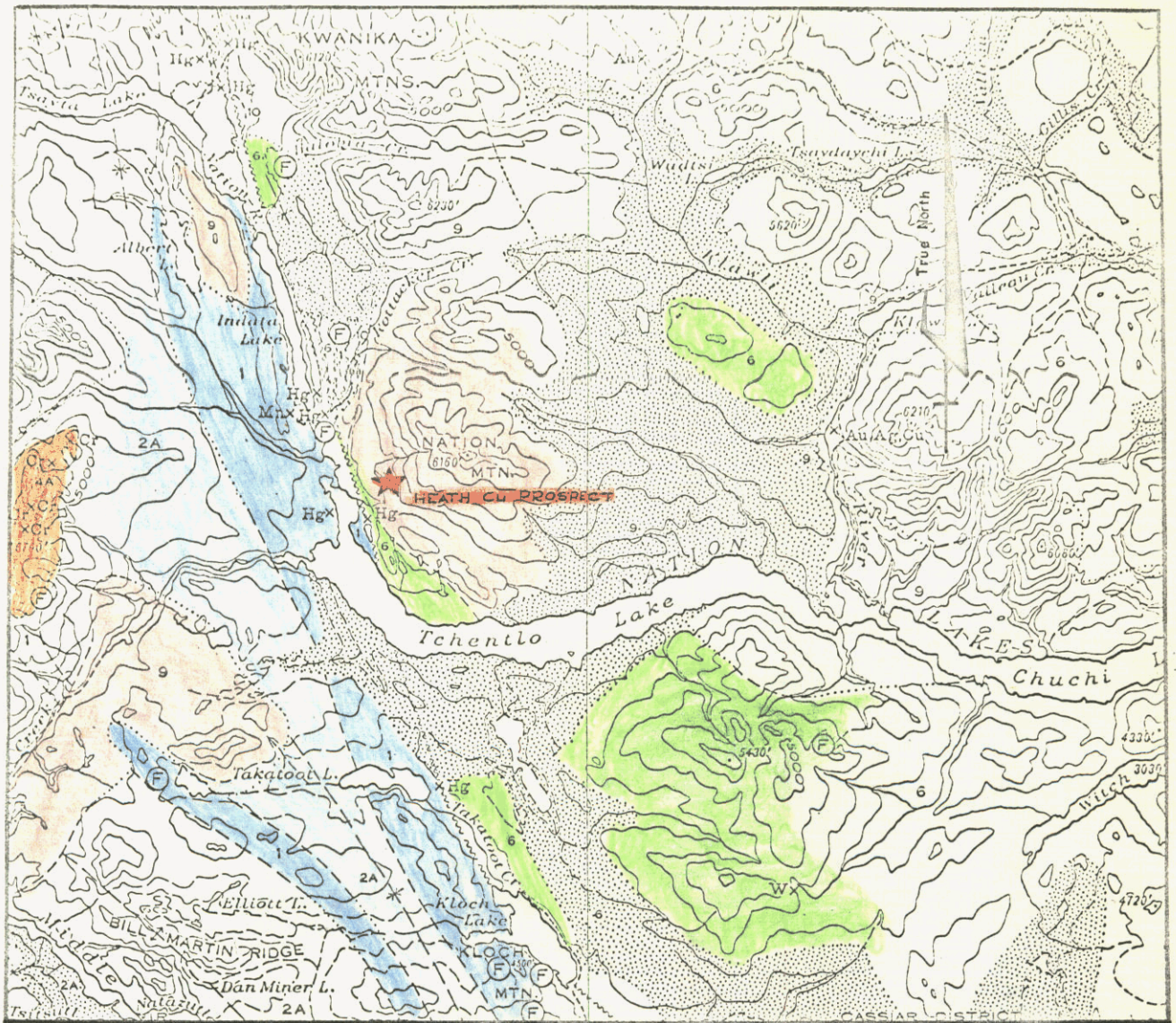
Provincial capital
 POPULATED PLACES

Over 100,000	Vancouver
25,000 to 100,000	New Westminster
2,000 to 75,000	Other towns
500 to 2,000	Small towns
Under 500	Unincorporated places

Lambert Conformal Conic Projection with Standard Parallels at 49°N and 57°N
 Reproduced from the 1:2,000,000 Map of Canada by the
 Surveys and Mapping Branch, Ottawa, 1962

**LOCATION
 MAP**

Fig. 1



Taken From G.S.C. FORT ST. JAMES - B.C. MAP 907 A

L E G E N D

- UPPER JURASSIC to LOWER CRETACEOUS - Omineca Intrusions
- 9
- Granodiorite, Quartz, diorite, minor granite, syenite, gabbro & pyroxenite.
- UPPER TRIASSIC and LATER - Takla Group
- 6
- Andesitic & basaltic flows, tuffs, breccias & agglomerates, interbedded conglomerate, shale, graywacke, limestone & local
- POST-MIDDLE PERMIAN PRE-UPPER TRIASSIC (?) - Tremblor Intrusions
- 4A
- Peridotite, dunite, minor pyroxenite, & gabbro
- PENNSYLVANIAN and PERMIAN - Cache Creek Group
- 2A
- Ribbon chert, argillaceous quartzite, argillite, slate, greenstones
- 1
- Massive limestone, minor argillite, slate, chert & greenstone

AMAX EXPLORATION INC.
OMINECA MINING DIVISION - BRITISH COLUMBIA

REGIONAL GEOLOGY

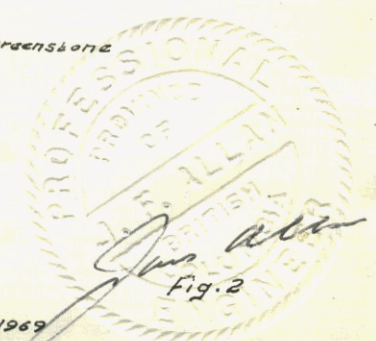
SCALE 1 inch = 6 Miles

To Accompany Report "HEATH CU PROSPECT"

By: H.T. Dummett & J.F. Allan, P. Eng.

Drawn by: N.G.B. Date Aug. 6, 1969

J.F. Allan



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 1965 MAP #2



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SUMMARY

A program of geochemical sampling and geological mapping was carried out by Amax on the Heath Copper Prospect during the period May 28 to June 8, 1969. The prospect is located 85 air miles north of Endako, B.C. at 55°15' North Latitude and 125°15' West Longitude. The property consists of eleven claims staked by Colin Campbell in August and September of 1968.

Copper mineralization has been observed over an area of one square mile as veins and fracture fillings in diorite of the Hogen Batholith. Dykes of felspar porphyry, diabase, andesite porphyry and granodiorite are also present in the mineralized area. Most of the dykes, copper-bearing veins and fractures on the property trend north-westerly.

Copper occurs as chalcopyrite and malachite. The chalcopyrite is in the form of massive segregations and discrete grains in lenticular veins. The veins vary in width from less than 1 inch to over 24 inches and in length from less than 4 feet to over 20 feet, and are widely spaced. Fracturing on the property is not intense and the diorite between the main copper-bearing veins is generally fresh and unmineralized. Magnetite and pyrite (locally very abundant) are present in the copper-bearing veins. Magnetite is also present as an abundant accessory mineral in the diorite.

Hydrothermal alteration on the property is weak to non-existent. Where observed it is in the form of widely scattered epidote-orthoclase and epidote veinlets.

A large geochemical soil anomaly (\approx 150 ppm) was outlined by the soil sampling program. This soil anomaly appears to trend north-westerly across the property.

INTRODUCTION

General Statement

A program of geological mapping and geochemical sampling was carried out from May 28 - June 8, 1969 on the Heath Copper prospect. The prospect is located 85 air miles north of Endako at the west end of Tchentlo Lake.

The copper mineralization occurs as chalcopyrite and malachite in fractures cutting diorite of the Hogem batholith. Mineralization has been observed over an area of one square mile.

Location and Access (Figures 1 and 2)

The Heath Copper prospect is on the western slope of Mt. Nation at 55°15'N Latitude and 125°15'W Longitude between elevations of 3000 and 3500 feet.

Access is by float plane or helicopter from Endako or by boat from the east end of Chuchi Lake.

Property (Figure 3)

The property consists of eleven claims (Heath #1 - #11 inclusive) staked by Colin Campbell in his own name on the 6th and 17th of August, 1968, and the 13th of September, 1968.

GEOLOGY

Regional Geology (Figure 2)

The Heath Copper prospect is located near the west margin of the Hogem Batholith at its southern end. (The Hogem Batholith is one of a number of batholiths, sills and stocks which together constitute the Omineca Intrusions). Characteristically the large batholiths of the Omineca are composed chiefly of granodiorite and quartz diorite. More basic dioritic and gabbro phases are commonly found along the margins of the batholiths.

In the vicinity of the Heath prospect the Hogem Batholith varies from rocks of gabbroic composition in the north to diorites in the south.

The Hogem Batholith is post-Upper Jurassic in age as it intrudes Takla group rocks which range in age from Upper Triassic to Upper Jurassic.

The Pinchi fault zone occurs approximately 1 1/2 miles south-west of the property and strikes north-north-west. Government geologists have suggested that the Pinchi fault is a major westerly dipping thrust fault along which the Permian Cache Creek rocks have been thrust easterly over the Mesozoic formations. The fault truncates the western margin of the batholith approximately 45 miles north of the property.

Geology of the Claim Group (Figure 4)

The claims are underlain by diorite throughout. The diorite is a medium-to coarse-grained, holocrystalline, equigranular rock composed of approximately 55% green-white plagioclase, 35% dark green hornblende and 10% magnetite. In places a coarse phase consisting of a pyroxene-felspar intergrowth occurs within the diorite. This rock type occurs in pod like masses (approximately 30 x 2 feet) and is possibly a pegmatitic phase of the diorite.

The diorite is intruded by a number of widely scattered dykes which strike north-north-west or, less frequently, west and dip steeply. The dykes are composed of feldspar porphyry, diabase, andesite porphyry and granodiorite. The feldspar porphyry and diabase dykes predominate. At present it is not known whether these dykes are peculiar to the immediate property area. The mineralized fractures have attitudes similar to those of the dykes except that a more gentle easterly dip (approximately 30°) for the mineralized fractures is recognizable in some cases.

Mineralization consists of magnetite, malachite, chalcopyrite

to chalcopyrite
1

alone in fractures. Chalcopyrite in very minor concentrations was also observed in a quartz epidote vein. Magnetite forms the largest part of the fracture fillings (with the exception of one fracture occurring immediately east of the base line at 16N which contains only chalcopyrite) while chalcopyrite and pyrite occur in subordinate amounts. Magnetite, chalcopyrite and pyrite commonly occur as massive segregations in the veins. The mineralized veins vary in width from less than an inch to over 24 inches. At surface they are traceable most frequently for approximately four feet while the two larger fractures, i.e. 10" and 24" wide respectively, may be followed along strike in excess of twenty feet. At surface some of the mineralized fractures have a dark rust-brown gossan-like appearance, and are most frequently stained by malachite. As is apparent from figure 3, the mineralized fractures are widely spaced and in addition there is no stockwork development between the main mineralized fractures.

The mineralized veins occur in the diorite only. The relationship between the dykes and mineralized veins was not established as nowhere on the property were they observed in contact. It is believed that the source of mineralization is related to the batholith as other copper occurrences in this area are confined predominantly to rocks of the Omineca Intrusions.

Hydrothermal wall rock alteration, strictly defined, is not present on the property, however, there are a significant number (i.e. these veins are readily noticeable because of their frequency) of quartz-epidote, epidote-orthoclase and epidote veins. One of these veins contains very minor concentrations of chalcopyrite.

GEOCHEMISTRY (see Figures 5, 6 & 7)

A total of 156 geochemical samples were collected as follows; 144 soil samples, 5 silt samples and 7 water samples. The sampling was done along east-west lines eight hundred feet apart. Sample interval along each line was 200 feet.

The samples were analyzed at the Amax Laboratory in North Burnaby. Soil, silt & water samples were analyzed for copper and molybdenum. Determination of pH was done for every fifth soil sample and for every water and silt sample. The sample locations, and results for the copper samples are shown on figure 5. (Molybdenum concentrations in the soils and silts were less than 4 ppm in all cases therefore molybdenum values were not plotted on the maps). The average pH of the soil is 6.6 while the average pH of the water is 7.5. The copper concentration in the soils ranges from 12 ppm to 3320 ppm. The anomalous threshold for the property was set at 150 ppm and values less than this are believed to be of minor significance. With the exception of two samples, copper was undetectable in the water samples. The copper concentration in the silts ranges from 82 ppm to 270 ppm.

Geochemical sampling has outlined an area of anomalous copper soil values (see figure 6) at least 8000 feet (NE-SW) by 6400 feet (NW-SE). The anomaly is open to the northeast while to the south it is open as a narrow zone 800 feet wide.

ASSESSMENT WORKSummary of Work

Geochemical Soil Survey - 144 locations
 Silt & Water Survey - 12 locations
 Geological Mapping - 1 square mile

Geochemical Samples Analyzed

- Soil - 144 (Cu,Mo,pH for every fifth sample)
 - Silt - 5 (Cu,Mo,pH)
 - Water- 7 (Cu,Mo,pH)

Personnel Employed

H.T. Dummett, Geologist i/c - 601-535 Thurlow St., Vancouver 5, B.C.
 C. Verro, Sr. Assistant - Titusville Heights, Poughkeepsie, New York
 W. Bawden, Sr. Assistant - R.R. #7, St. Thomas, Ontario
 P. Vaughan, Jr. Assistant - 6438 Marine Drive, West Vancouver, B.C.
 D. McIntyre, Jr. Assistant, - 69 W. 32nd Avenue, Vancouver, B.C.

Assessment Work ChargesSalaries - May 28 - June 8, 1969

C. Verro	- 4 days @ \$23/day	= \$92.00	
W. Bawden	- 4 days @ \$23/day	= \$92.00	
P. Vaughan	- 4 days @ \$16/day	= \$64.00	
D. McIntyre	- 4 days @ \$16/day	= \$64.00	\$ 312.00

Board	- 16 man days @ \$6.00/day		96.00
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Helicopter Time & Fixed Wing Time

(Access to Claims & Supplying Crews on Claims)

May 28, 1969	Otter	- 1 hour	@ \$110/hr = \$110.00	
May 28, 1969	Hiller 12 E	- 1 1/2 hrs	@ \$116/hr = \$174.00	
May 31, 1969	Bell G3B	- 1 hour	@ \$140/hr = \$140.00	
June 8, 1969	Otter	- 1 hour	@ \$110/hr = \$110.00	
				534.00

Geochemical Sample Analyses

144 soil samples	@ \$2.00/sample	= \$288.00	
5 silt "	@ \$2.00/sample	= \$ 10.00	
7 water "	@ \$2.00/sample	= \$ 14.00	312.00

Preparation of Report -			50.00
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\$1304.00

Work to be applied as 2 yrs on Heath #2 & #3 and,
 1 yr on Heath #1 and Heath 4-11 inclusive

Vancouver, B.C.
 August, 1969

H. T. Dummett
 H. T. Dummett

J. F. Allan
 J. F. Allan, P. Eng. (B.C.)

Procedures for Collection and Processing
of Geochemical Samples

Amax Exploration, Inc.

Vancouver Office

December 1968

R.F. Horsnail

SAMPLE COLLECTION

Soils

B horizon material is sampled and thus organic rich topsoil and leached upper subsoil are avoided. Occasionally organic rich samples have to be taken in swampy depressions.

Samples are taken by hand from a small excavation made with a cast iron mattock. Approximately 200 gms of finer grained material is taken and placed in a numbered, high wet-strength, Kraft paper bag. The bags are closed by folding and do not have metal tabs.

Observations as to the nature of the sample and the environment of the sample site are made in the field on standard forms, examples of which are shown overleaf.

Drainage Sediments

Active sediments are sampled with stainless steel trowels from tributary drainages which are generally of five square miles catchment or less. Composite samples are taken of the finest material available from as near as possible to the centre of the drainage channel thus avoiding collapsed banks. More than one sample is taken if marked mineralogical or textural segregation of the sediments is evident.

Some 200 gm of finer material is collected unless the sediment is unusually coarse in which case the weight is increased to 1 kg. Samples are placed in the same type of Kraft paper bag as are employed in soil sampling.

RECCE SAMP DATA SHEET

Camp _____

Collector _____

Project _____

Area (lake, highway, etc.) _____

Date _____

Plotted (map, photo) _____

MDOC

Number	Type					Location		Environment		Sample Description				Analytical Results			Remarks (Geology, Geomorph., Culture, Float)
	Sample Number	Rock	Soil	Water	Silt	Veg.	General	Sample Site	TOPO. Terrain TYPE	DIRECTION Drainage TYPE	SIZE Texture TYPE	TOPE Colour BASE	pH	Mo	Cu		
1					a b c		N	E									
2					a b c		N	E									
3					a b c		N	E									
4					a b c		N	E									
5					a b c		N	E									
6					a b c		N	E									
7					a b c		N	E									
8					a b c		N	E									
9					a b c		N	E									
10					a b c		N	E									
11					a b c		N	E									

General Remarks:

REFERENCE FOR COMPLETING RECCE SAMPLE DATA SHEET

- Code Number - Year, project, samplers initial and type of sample
 Sample Number - Each sampler is to number consecutively irrespective of sample type or area.
- Sample Type
 Rock - Put check mark in appropriate column. In case of silt (stream sediment) more than one sample is commonly taken at given site, therefore, identify different samples by subscript a,b,c, and check accordingly. If only one sample, check "a" and add subscript to number on sample envelope.
 Soil
 Water
 Silt
 Veg.
- Location - Location information is used to assist accurate plotting and re-locating site in field:
- | | |
|---|--|
| <u>General</u> | <u>Sample Site</u> |
| Given with reference to plot on map or photo, e.g., highway, lake, river, creek, mountain, traverse, etc. | Detailed location of actual sample site; e.g., side of road, mountain slope, distance from lake, stream junction, bridge, swamp, culture, etc. |
- N E
 - The "N" and "E" spaces refer to some numerical coordinate, i.e., latitude or longitude, leave blank in field, for office use later.
- Environment Terrain - Topo - mountainous, hilly, rolling, flat, dissected, (other) (specify other)
 - Type - deciduous, coniferous, grassland, swamp, cultivated, grazing, orchard, jungle, rock, (other)
- Drainage - Direction - N, NE, E, SE, S, SW, W, NW, ?
 - Type - groundwater, sheetwash: for streams-mature or meandering, youthful or eroding; PLUS size in actual feet at water level - seepage, 1 ft, 1-5 ft, 5-15 ft, over 15 ft.
- Sample Description Texture - Size - very fine, fine, medium, coarse, very coarse, unsorted, mixed, (other)
 - Type - Rock -- acid granitic, intermed. granitic, basic granitic, acid volc., basic volc., sandstone, carbonate, shale, metamorphic, (other)
 Soil -- A₀, A₁, B₁, B, C (if recognized) PLUS clay, loam, silt, sand, and approximate proportion of organic content - 1/4, 1/2, 3/4, if any
 Silt -- clay, loam, silt, sand, (other); PLUS amount of organic material-1/4,1/2,3/4, if any
- Colour - Tone - pastel, light, medium, dark, deep, speckled, spotted, (other)
 - Base - white, gray, black, brown, yellow, orange, red, mixed, (other)

NOTE: In describing Environments and Samples pick one word only for each section; (put any additional comments under the "Remarks" column).

Remarks - Any additional information not covered by other columns that may be pertinent to interpretation of results, e.g., geological features such as faults, dikes, quartz veining, geology of float, use of fertilizers on cultivated soils, sample below culvert, old mine, etc.

General Remarks - Any comments worth noting either with respect to area in general or taking and handling of samples including analytical remarks noted in lab report.

Water samples are taken at all sites where appreciable water is present. Approximately 100 mls are sampled and placed in a clean, screw sealed, polythene bottle.

Observations are made at each site regarding the environment and nature of the sample. The same standard sheet that is used for soil sampling is employed.

Rock Chips

Composite rock chip samples generally consist of some ten small fragments broken from unweathered outcrop with a steel hammer. Each fragment weighs some 50 gms. Samples are placed in strong polythene bags and sealed with non-contaminating wire tabs. Samples are restricted to a single rock type and obvious mineralization is avoided.

Soil, sediment and rock samples are packed securely in cardboard boxes or canvas sacks and dispatched by road to the AMAX geochemical laboratory in Vancouver.

SAMPLE PREPARATION

Packages of samples are opened as soon as they arrive at the laboratory and the bags placed in numerical sequence in an electrically heated sample drier (maximum temperature 70°C).

After drying soil and sediment samples they are lightly pounded with a wooden block to break up aggregates of fine particles and are then passed through a 35 mesh stainless steel sieve. The coarse material is discarded and the minus 35 mesh fraction replaced in the original bag providing that this is undamaged and

not excessively dirty.

Rock samples are exposed to the air until the outside surfaces are dry; only if abnormally wet are rocks placed in the sample drier. Rock samples are processed in such manner that a fully representative $\frac{1}{2}$ g sample can be obtained for analysis. The entire amount of each sample is passed through a jaw crusher and thus reduced to fragments of 2 mm size or less. A minimum of 1 kg is then passed through a pulverizer with plates set such that 95% of the product will pass through a 100 mesh screen. Where samples are appreciably heavier than 2 kg the material is split after jaw crushing by means of a Jones splitter. After pulverizing the sample is mixed by rolling on paper and is then placed in a Kraft paper bag.

WEIGHING AND DIGESTION FOR Cu and Mo ANALYSIS

Digestion tubes (100 x 16 mm) are marked at the 5 ml level with a diamond pencil. Tubes are cleaned with hot water and concentrated HCl. 0.5 g samples are weighed accurately, using a Fisher Dial-O-Gram balance, and placed in the appropriate tubes.

To each of the samples thus prepared are added 2 ml of an acid mixture comprising 15% nitric and 85% perchloric acids. Racks of tubes are then placed on an electrical hot plate, brought to a gentle boil ($\frac{1}{2}$ hour) and digested for $4\frac{1}{2}$ hours. Samples unusually rich in organic material are first burned in a porcelain crucible heated by a bunsen burner before the acid mixture is

added. Digestion is performed in a stainless steel fume hood.

After digestion tubes are removed from the hot plate and the volume is brought up to 5 ml with deionized water. The tubes are shaken to mix the solution and then centrifuged for one minute. The resulting clear upper layer is used for Cu and Mo determination.

MOLYBDENUM DETERMINATION

1. Transfer a 1 ml aliquot of digestion solution into a clean test tube.
2. Add 2 ml of a freshly prepared mixture comprising 1:1 5% KSCN solution and 15% SnCl₂ solution.
3. Make up to 10 mls with demineralized water.
4. Add 1 ml isopropyl ether, cork tube and shake for 45 minutes.
5. Estimate Mo content by matching intensity of amber-yellow colour in solvent phase with a standard series.

Standard Molybdenum Solutions

Stock Standard Solution (100 µg/ml) - Dissolve .015 gms of MoO₃ in 5 ml conc. NaOH and make up to 100 ml with demineralized H₂O. This solution must be made up bi-monthly.

Working Standard Solution (10 µg/ml) - Pipette 10 ml of 100 gamma/ml stock solution in a 100 ml volumetric flask and make up to 100 ml with demineralized H₂O.

Molybdenum Standards of Analyses for Soil, Silt & Rock Chip - To 11 clean 16 x 100 mm test tubes marked at 5 ml mark, pipette the following amounts of standard solution:

<u>mls of 10 µg/ml Mo Solution</u>	<u>ppm</u>
0.2	4
0.4	8
0.8	16
1.2	24
2.0	40

<u>mls of 100 µg/ml Mo Solution</u>	<u>ppm</u>
0.4	80
0.6	120
0.8	160
1.2	240
1.6	320
2.0	400

- then make up to 5 ml

To 16 x 150 ml test tubes pipette 1 ml from each of the 11 standards made above. After the standard solution has been added, the following solutions are to be pipetted in the standard tubes.

- 1) 1 ml of HCl
- 2) 2 drops of FeCl_3 (1% solution)
- 3) 1 ml of 5% KSCN solution
- 4) 1 ml of 15% SnCl_2 solution
- 5) Make up to 10 ml with H_2O
- 6) 1 ml isopropyl ether
- 7) Stopper and shake for 45 seconds.

Molybdenum Determination in Waters

- 1) Measure pH of samples with pH meter
- 2) Transfer 50 mls of sample into 125 ml separatory funnel
- 3) Add 5 mls dilute (1:1) HCl
- 4) Add 4 mls of a mixture comprising 1 part 1% FeCl_3 solution to 3 parts 5% KSCN solution and shake
- 5) Add 3 mls 15% SnCl_2
- 6) Add 2 mls isopropyl ether, shake for 30 seconds and allow phases to settle
- 7) Drain off water layers, retaining organic layer into 13 x 100 mm test tube. Compare with standards.

Molybdenum Standards - Label 10 clean test tubes 0, 4, 10, 16, 20, 40, 50, 60, 70, and 80 ppb, to the respective tubes pipette the following volumes of 1 $\mu\text{g}/\text{ml}$ Mo work solution:

<u>mls of 1 $\mu\text{g}/\text{ml}$ Mo Solution</u>	<u>ppb</u>
.20	4
.50	10
.80	16
1.00	20
2.00	40
2.50	50
3.00	60
3.50	70
4.00	80

After the standard solution has been added, the following solutions are to be pipetted into the standard tubes:

- 1) 1 ml 1:1 HCl solution
- 2) 2 drops of 1% $\text{Fe}_2(\text{SO}_4)_3(\text{NH}_4)_2\text{SO}_4$
- 3) 2 mls of 15% KSCN solution
- 4) 1 ml of 15% SnCl_2 solution
- 5) 1 ml of isopropyl ether
- 6) Stopper and shake for 45 seconds.

COPPER DETERMINATION

The digestion solution is sprayed directly into a Perkin-Elmer 290B atomic absorption spectrophotometer from which the Cu concentration is read on the scale.

Instrument settings are:

Coarse Wavelength Control	280.1
Slit Width	7 A°
Lamp Current	5 ma
Acetylene Flow	14.0
Air Flow	14.0

The instrument is calibrated such that the maximum scale reading corresponds to 20 ppm in solution ie: 200 ppm in the sample. Samples with Cu contents of over 200 ppm are diluted until a reading is obtained on the scale. It is practical to measure concentrations in the range 5 ppm to 1%.

pH MEASUREMENTS

Soil and drainage sediment samples are dampened with water in a glass beaker to a pasty consistency. Demineralized water is used for this purpose as it has a low buffer capacity and thus does not influence the pH of the sample. Measurement is made with a Fisher Acumet pH meter. Electrodes are stored in buffer overnight. A 30 minute warm up time is allowed for the instrument each morning. A 10 ml aliquot is taken from water samples for pH measurement.

APPENDIX I

SAMPLE HANDLING PROCEDURE



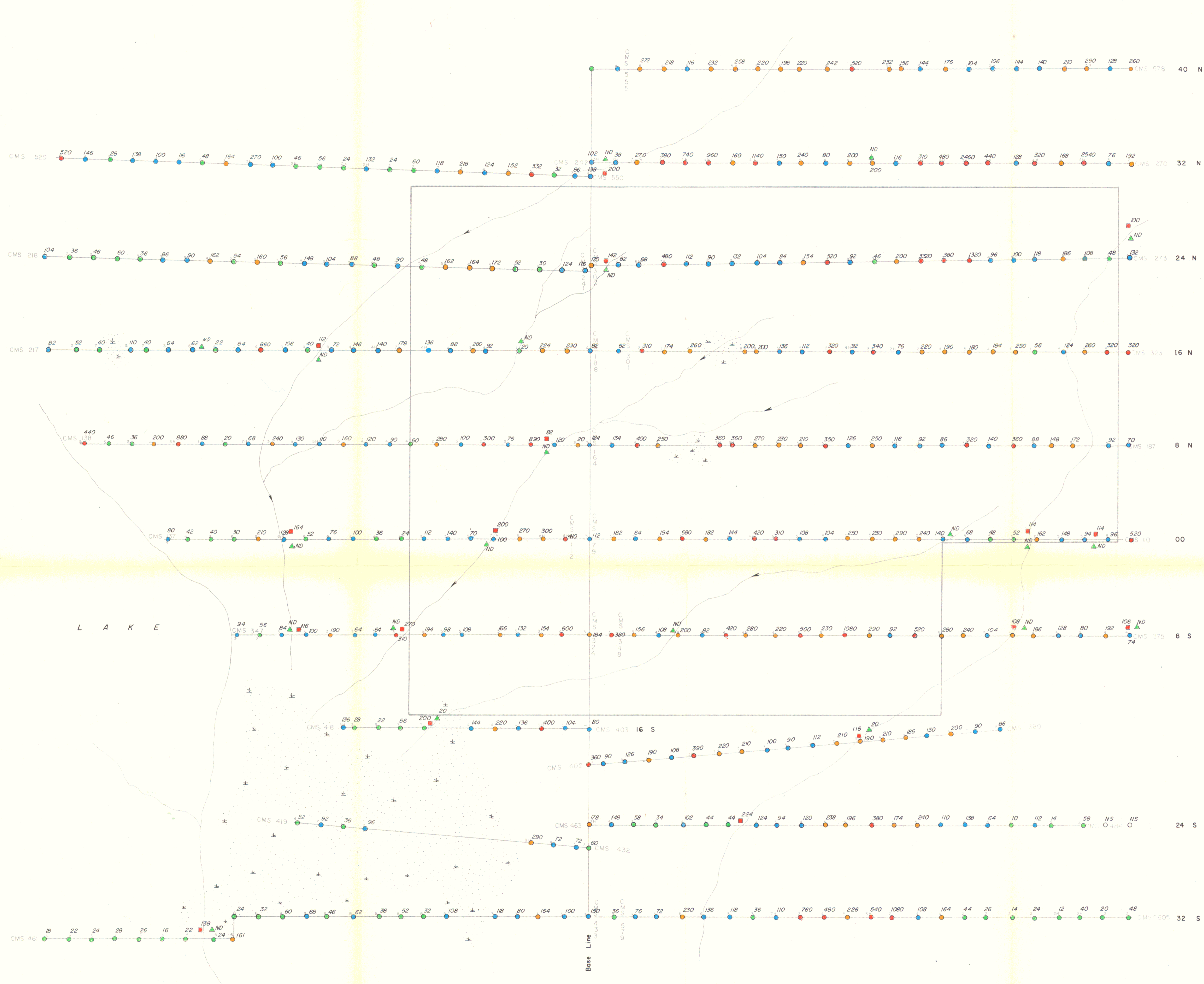
L E G E N D

	Diabase Dykes
	Andesite Porphyry Dykes
	Feldspar Porphyry Dykes
	Granodiorite Dyke
	Diorite
	Dykes
	Mineralized Fractures (With or Without Dip Indication)
*	Malachite Stained Outcrop
	Outcrop
→	Creek and Direction of Flow
	Trench

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1965 MAP #4

1965 J.F. Allan

A MAX EXPLORATION INC.			
HEATH Cu PROSPECT <small>AMERICA MINING DIVISION - BRITISH COLUMBIA</small>			
LOCAL GEOLOGY			
SCALE 1 INCH = 400 FEET			
DATE	DRAWN BY	DATE	FIG. NO.
REVISED	N GB	August 21, 1969	
PAVED	NTS File		
To Accompany Report "HEATH Cu PROSPECT" by H. T. Dummett and J. F. Allan Date Aug. 21, 1969			



GEOCHEMICAL LEGEND

- SOIL SAMPLE (ppm Cu)**
- < 60 Background
 - 60 - 150 Positive
 - 151 - 300 Anomalous
 - > 300 Highly Anomalous
- SILT SAMPLE (ppm Cu)**
- < 60 Background
 - > 60 Anomalous
- WATER SAMPLE (ppb Cu)**
- △ N.D. to 20 (N.D. = Not Detectable)

S Y M B O L S

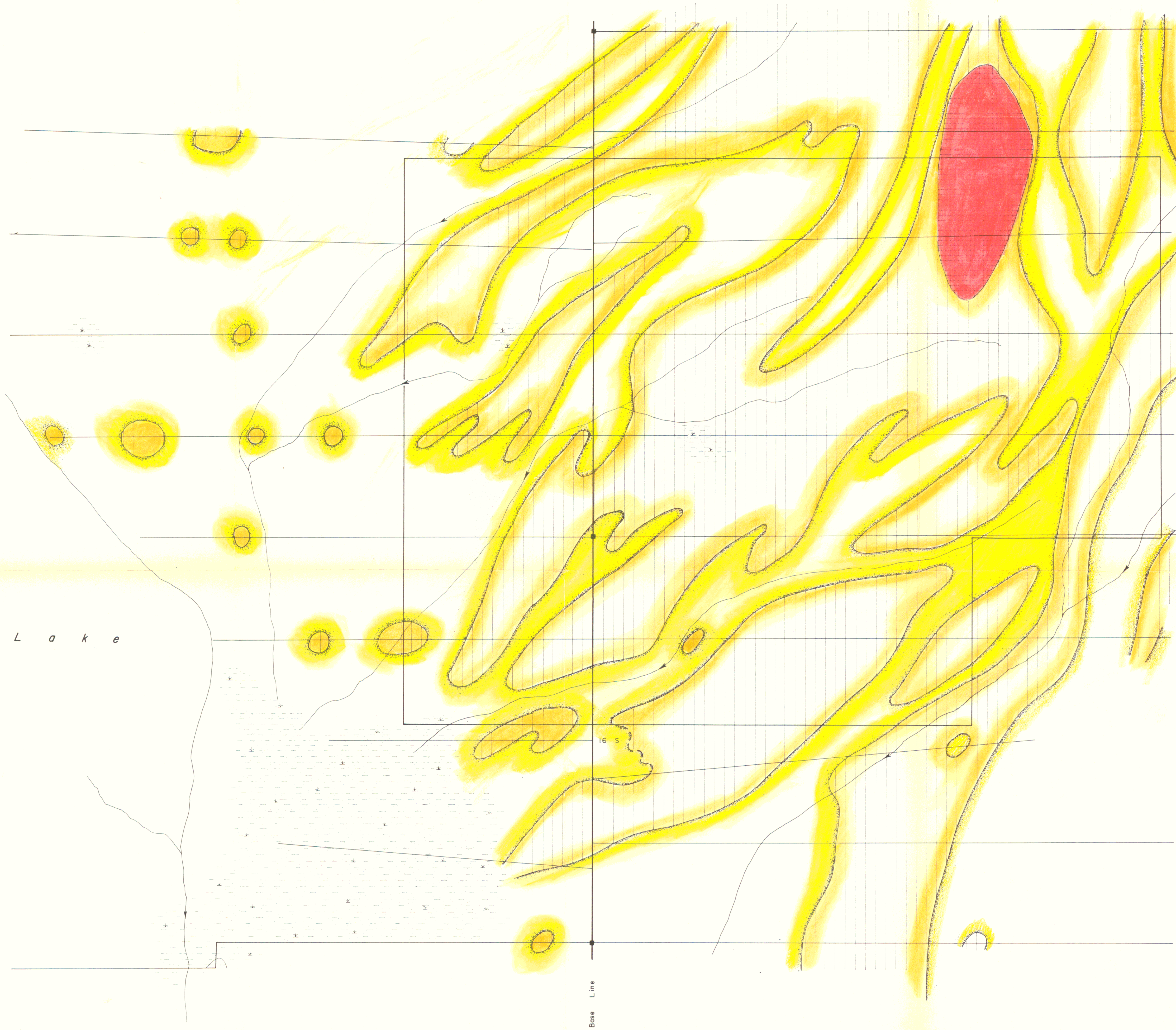
- Soil Sample Site
- Silt Sample Site
- △ Water Sample Site
- Claim Group Boundary
- ⊕ Swamp Area
- Creek and Direction of Flow

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 1965 MAP #5

1965

J. Allen

AMAX EXPLORATION INC.			
HEATH Cu PROSPECT QUINCY MINING DIVISION - BRITISH COLUMBIA			
GEOCHEMISTRY			
SAMPLE RESULTS AND LOCATION			
SCALE 1 INCH = 400 FEET			
DATE REVISED:	DATE PRINTED:	DRAWN BY: N. SB	DATE: August 12, 1969
			N.T.S. File
To Accompany Report "HEATH Cu PROSPECT"			Fig. 5
by H.T. Dummett and J.F. Allan			Date Aug. 11, 1969



40 N
32 N
24 N
16 N
8 N
00
8 S
24 S
32 S

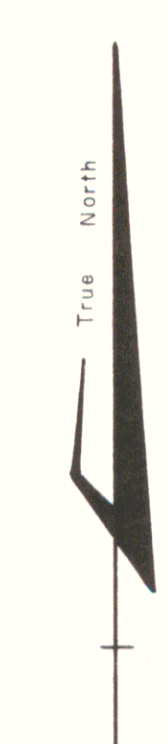
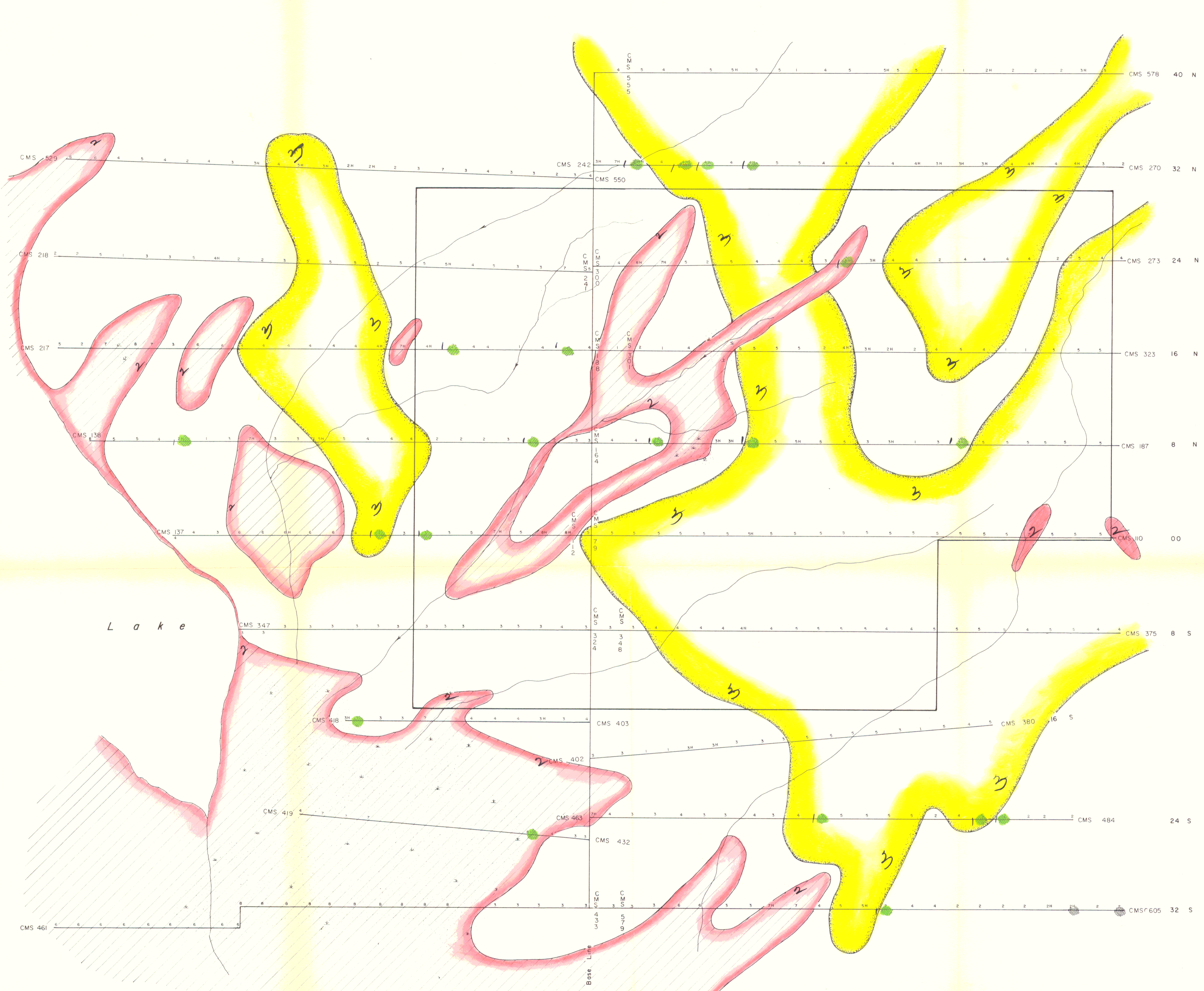
L E G E N D

- ≥ 300 ppm Cu (100 % of values in this range)
- ≥ 150 ppm (includes values ≥ 300 ppm Cu)
- ≥ 150 ppm Cu
- Boundary Sample Line and Number
- Claim Group Boundary
- Creek and Direction of flow
- Swamp Area
- Claim Post

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ASSESSMENT REPORT
NO. **1965** MAP #6

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A MAX EXPLORATION INC.	
HEATH Cu PROSPECT OMINECA MINING DIVISION - BRITISH COLUMBIA	
GEOCHEMISTRY	
ANOMALY DISTRIBUTION	
SCALE 1 INCH = 400 FEET	
DATE RECEIVED	Drawn by: N.G.B.
DATE PRINTED	Date: August 12 1969
	N.T.S. File
	Fig. 6
To Accompany Report "HEATH Cu PROSPECT" by H.T. Dummett and J.F. Allan Date Aug. 12, 1969	



L E G E N D

- 3 Moderate to steep sloping topography
- 2 Low lying, flat topography
- 1 Organics detected by lab technician
- Creek and direction of flow
- Traverse line
- CMS 403 Sample number

L A N D S C A P E

- 1 Hill top level
- 2 Hill top 1/2° Slope
- 3 Valley slope - gentle - 0° - 5°
- 4 Valley slope - moderate 5° - 10°
- 5 Valley slope - steep 10° +
- 6 Valley bottom - dry
- 7 Valley bottom - damp
- 8 Valley bottom - swampy

S T R E A M W A T E R p H

- Note
- Stream water ph
 - Blue - Acid (pH > 7)
 - Red - Alkaline (pH < 7)
 - Green - Neutral (pH = 7)

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 1965 MAP #7

1965

J.F. Allan

AMAX EXPLORATION INC.			
HEATH Cu PROSPECT MIVECA MINING DIVISION - BRITISH COLUMBIA			
GEOCHEMISTRY			
SAMPLE ENVIROMENT			
SCALE 1 INCH = 400 FEET			
DATE PRINTED	DRAWN BY N.G.B.	DATE - Aug 10, 1969	Fig. 7
DATE REVISED	BY H.T. Dummett and J.F. Allan	DATE Aug 11 1969	