

86-822-15387  
9/87

GEOCHEMICAL/GEOPHYSICAL REPORT

ON

SOIL GEOCHEMISTRY, VLF-EM & MAGNETOMETER SURVEYS

WITHIN THE

HAWK 1 CLAIM  
(Yellow Metal Prospect)

PERRY CREEK AREA

FORT STEELE MINING DIVISION

BRITISH COLUMBIA

---

PROPERTY : 28.5 km S13°W of Cranbrook, and  
3.0 km due south of peak of  
Grassy Mountain, B.C.  
: 49° 26.2' North Latitude  
: 116° ~~10'~~ West Longitude  
: N.T.S. 82F/8E  
OWNER: R.S. SIMPSON

WRITTEN FOR OPERATOR : UNIQUE RESOURCES LTD  
530-800 West Pender Street  
Vancouver, B.C., V6C 2V6

WRITTEN BY : David G. Mark, Geophys  
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DATED : December 23, 1986



GEOTRONICS SURVEYS LTD.  
Engineering & Mining Geophysicists  
VANCOUVER, CANADA

15387

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AND PETROLEUM RESOURCES  
Rec'd DEC 24 1986  
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FILE \_\_\_\_\_  
VANCOUVER, B.C.

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**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**15,387**

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SUMMARY

Soil geochemistry, VLF-EM and magnetometer surveys were carried out over portions of the Hawk #1 claim during the fall of 1986. The claims are located 28.5 km west of Cranbrook, British Columbia between the headwaters of Perry Creek and Hellroaring Creek. Access to much of the property is easily gained by a four-wheel drive vehicle. The terrain consists of moderate to steep slopes forested with light to moderately dense coniferous trees. The purpose of the surveys was to extend known zones and to locate probable zones of gold/silver mineralization both directly and through mapping the structure.

The VLF-EM and magnetometer readings were taken every 25 meters on 50- and 100-meter separated N60W - S60E lines. The data was then reduced, plotted and contoured. The soil samples were dug every 50 m on the same lines, subsequently tested for 4 metals including gold, statistically analyzed, plotted, and contoured.

**GEOCHEMICAL/GEOPHYSICAL REPORT**

**ON**

**SOIL GEOCHEMISTRY, VLF-EM & MAGNETOMETER SURVEYS**

**WITHIN THE**

**HAWK 1 CLAIM**

**(Yellow Metal Prospect)**

**ST. MARY LAKE AREA**

**FORT STEELE MINING DIVISION**

**BRITISH COLUMBIA**

---

**INTRODUCTION AND GENERAL REMARKS**

This report discusses the survey procedure, compilation of data and the interpretation of VLF-EM, magnetic and soil geochemistry surveys carried out over a portion of the Hawk 1 Claim during the period of August 5th to 26th, 1986.

The surveys were carried out by Geotronics Surveys Ltd. under the field supervision of Marc Beaupre, geophysical technician, with the aid of Sylvain Coulombe. A total of 13.04 line km of VLF-EM/magnetic survey were done and a total of 639 soil samples were picked up.

The primary purpose of the VLF-EM and magnetic surveys were to delineate geological structure as an aid in the exploration

for gold/silver mineralization with the secondary purpose being to map sulphides. That of the soil sampling was to locate gold/silver mineralization directly. Besides gold, the samples were tested for silver, lead and copper.

The surveys were done on the verbal recommendation of Alex Burton, P.Eng., consulting geological engineer to Unique Resources Ltd.

#### PROPERTY AND OWNERSHIP

The property consists of one 20-unit claim staked within the Fort Steele Mining Division as shown on Map 2 and as described below:

| <u>Claim Name</u> | <u>No. Units</u> | <u>Record No.</u> | <u>Expiry Date</u> |
|-------------------|------------------|-------------------|--------------------|
| Hawk 1            | 20               | 2283              | Sept. 23, 1991     |

The expiry date shown takes into account the surveys under discussion as being accepted for assessment credits.

The Hawk 1 Claim is owned by Unique Resources Ltd. of Vancouver, British Columbia.

#### LOCATION AND ACCESS

The property is located 28.5 km S13°W of the town of Cranbrook, and 3.0 km due south of the peak of Grassy Mountain. It is found on the ridge close to the headwaters of Perry and Hellroaring Creeks.

The geographical coordinates are 49° 26' north latitude and 116° 10' west longitude.

Access is gained by travelling north from Cranbrook on Highway #95A to for 15 km to Wycliffe. One then turns south and travels southwesterly along the Perry Creek access road to a westerly-running branch, a distance of about 19 km and about 10 km past Old Town. The Geotronics crew then used a footpath to gain access to the property. Since the work was done a 4-wheel drive road has been built to the top of the ridge within the property. However, the writer is unsure of its location.

#### PHYSIOGRAPHY

The property lies to the west of the Rocky Mountain trench within the Purcell Mountains which are physiographic divisions of the Columbia Mountain System. The terrain consists of moderate to steep slopes throughout the property. It lies across a north-trending ridge with the elevation dropping to the west into Hell-roaring Creek and to the east into Perry Creek.

Elevations vary from about 1,675 meters a.s.l. at the southeast corner of the property to 2,375 meters a.s.l. on the ridge within the southwest corner to give an elevation difference of 700 meters.

The main water sources are westerly-flowing tributaries of Hell-roaring Creek and easterly-flowing tributaries of Perry Creek as well as three small lakes within the claim.

The forest cover consists of fir, spruce and hemlock(?) and varies from closely growing, immature stands to more widely spaced, mature stands. Also bare alpine meadows occur throughout the claim.

### HISTORY OF PREVIOUS WORK

The history of the area goes back to the 1880's when prospectors working the Perry Creek placers discovered the prospects throughout the area. This may be when the prospects on the Hawk 1 Claim were discovered. The property was previously known as the Yellow Metal prospect and apparently some tonnage was mined and shipped. Numerous trenches, adits, pits and shafts occur throughout the Hawk 1 Claim.

The only previous work done since then claim was staked was some prospecting for assessment purposes carried out by the previous owner.

### GEOLOGY

#### A. Regional

The following is quoted from L. Sookchoff's 1983 Geological Evaluation report on the nearby Leader A Claim:

"The general geological setting of the area is of the Proterozoic Lower Purcell Group which is divided into three Formations. In the Hellroaring Creek - Angus Creek - Perry Creek area the Creston and Kitchener Formation predominate and are lenticularly northeasterly trending, commonly in a fault contact and bounded to the north and south by the Aldridge Formation.

"The basal Aldridge Formation - the oldest formation known to occur in the area - is composed mainly of grey to brownish grey, rusty weathering argillite and argillaceous quartzite.



"The Creston Formation is transitional from the Aldridge Formation and embraces that succession of greyish argillaceous quartzites which is included between the dark rusty weathering, argillaceous quartzites of the lower Aldridge Formation and the thin bedded, calcerous rocks of the upper Kitchener Formation. In general, the Creston Formation consists of argillaceous quartzites, purer quartzites and argillites whose beds average about one foot in thickness. Narrow beds, pods, and lenses of calcerous rocks occur in the upper part of the formation. These are more numerous toward the top of the Creston and where they are abundant, the strata are considered to belong to the overlying Kitchener Formation.

"The Creston Formation is host to gold quartz veins on Perry Creek, a northeasterly flowing tributary of the St. Mary River with the confluence 13 km northwest of Cranbrook. The deposits occur in the argillaceous quartzites which are well bedded in beds "2 inches to 2 feet" in thickness, the latter separated by thin beds of meta-argillites.

"The deposits occur as true fissure veins averaging about "8 feet" with some as wide as "20 feet". They can be traced for long distances along strike. The gold values occur as native in the outcrops and with pyrite at depth.

"The Kitchener Formation consists predominantly of impure, magnesium limestone, argillite and calcerous quartzite. Limestone and calcerous rocks compose the bulk of the formation and serve to distinguish it from the underlying formations. The upper part is generally argillaceous. Due to the formation containing easily deformed rocks, great stretches of it have been altered to chlorite and talc-carbonate schist.

"Stocks and/or plugs of Mesozoic intrusive rocks are indicated throughout the area.

#### B. Property

The best available geological description of the property is that described by Guy Royer in his report on the limited prospecting done on the Hawk 1 Claim.

"All the rocks noted are sediments and are variants of two different rock types namely quartzites and argillites. Not unexpectedly, the rocks in one outcrop are very transitional between these two rock types. Relatively pure quartzites are frequently present, these are usually pinkish grey or watery green coloured and are very hard rocks. Argillaceous quartzites are frequently buff coloured while reddish to brownish tones result from iron-staining. Indeed specularite and micaceous haematite occasionally compose 10% of rock. Other iron oxides such as limonite, magnetite, goethite, manganese oxides namely pyrolusite and perhaps titanium oxides also frequently occur. Minute flecks or pyrite frequently occur and are occasionally very abundant. One very distinctive variety of quartzite is coloured light and dark shades of purple with perfectly developed bands two to five mm wide, the bands resulting from the variant colour of the quartzites. This variety of quartzite appears more pure than most of the others. The majority of the quartzites are aphanitic with a cherty appearance though some have the texture of a sandstone.

"The argillites vary from the siliceous varieties which are often poorly bedded to the slatey types which often show perfect slatey foliation. These rocks are usually coloured various shades of grey with the slatey varieties being the darkest. Usually these variations occur in one single outcrop, and thus it is impossible to map them as separate units. Frequently the argillites are

separate from the quartzites by quite arbitrary parameters. Visible oxides occur rather infrequently in the argillites but sulphides are occasionally quite abundant.

"The structure of the rocks on the Hawk #1 claim are remarkably uniform with the strike of the sediments universally north-north-east usually 030°. The dip is some-what more variable though the direction is usually to the northwest particularly north of the lakes in the central part of the claim. The shear zones seem to contain a large amount of oxides. Some of the rocks are slightly folded and cross bedding is occasionally evident. The bedding planes in the quartzites vary from 5 to 20 cms usually but often they are indiscernable. The colour banding often displays by the quartzites rarely corresponds to bedding planes."

"Sulphides in varying quantities were frequently noted in the material adjacent to the trenches. Most of this is pyrite but a little chalcopryite, galena and sphalerite are occasionally present in some trenches, particularly in those west of the cabin. Much of the rock in the vicinity of the trenches has a microlitic appearance with the myriad cavities infilled by various iron, manganese and possibly titanium(?) oxides. These include haematite, goethite, limonite, magnetite, pyrolusite and perhaps ilmenite. These oxides sometimes compose 40% of the rock and despite its spongy appearance it is often quite heavy. Ironstones are often found in the vicinity of the trenches. Rock geochemical results revealed quite high assays in lead, copper, silver and gold. In fact one rock sample collected from the plateau northwest of the lakes, returned an assay of .891 oz of gold per ton. [Writer's note - from shaft near L-0, 0 of present grid]"

## GRID

The grid was placed while carrying out the soil sampling. It consists of three areas. The first area is the main one and occurs along the N-NE'ly-trending ridge, where to date the only significant gold assays have been obtained. The purpose of this grid was to extend the main showing. The main shaft (from where the grab sample of 0.891 oz/ton gold was obtained) was designated as 0,0. From this point the baseline was run in N30°E and S30°W directions and marked by blaze range survey flagging. The survey lines were placed in a perpendicular direction, N60°W - S60°E, and on the survey lines the survey stations were placed every 25 m and marked by blaze orange flagging as well.

The second area was placed around a gossanous zone adjacent to one of the small lakes. Its purpose was to determine whether the gossanous zone contained gold and silver mineralization. It was placed by extending L-4+00N in its N60°E direction. The grid parameters are the same as for above except all survey lines are 100 m apart.

The third area occurs off of the SE corner of the grid around the lake. Its purpose was to determine whether gold and silver mineralization occurs in a large northwesterly-trending quartz vein system. The grid parameters are the same as for the lake area grid.

## VLF-EM SURVEY

### (A) Instrumentation and Theory

A VLF-EM receiver, Model 27, manufactured by Sabre Electronic Instruments Ltd. of Burnaby, B.C. was used for the VLF-EM survey. This instrument is designed to measure the electromagnetic

component of the very low frequency field (VLF-EM), which for these surveys is transmitted at 24.8 KHz from Seattle, Washington.

In all electromagnetic prospecting, a transmitter produces an alternating magnetic field (primary) by a strong alternating current usually through a coil of wire. If a conductive mass such as a sulphide body is within this magnetic field, a secondary alternating current is induced within it which in turn induces a secondary magnetic field that distorts the primary magnetic field. It is this distortion that the EM receiver measures. The VLF-EM uses a frequency range from 16 to 24 KHz, whereas most EM instruments use frequencies ranging from a few hundred to a few thousand Hz. Because of its relatively high frequency, the VLF-EM can pick up bodies of a much lower conductivity and therefore is more susceptible to clay beds, electrolyte-filling fault or shear zones and porous horizons, graphite, carbonaceous sediments, lithological contacts as well as sulphide bodies of too low a conductivity for other EM methods to pick up. Consequently the VLF-EM has additional uses in mapping structure and in picking up sulphide bodies of too low a conductivity for conventional EM methods and too small for induced polarization. (In places it can be used instead of I.P.). However, its susceptibility to lower conductive bodies results in a number of anomalies, many of them difficult to explain and, thus, VLF-EM preferably should not be interpreted without a good geological knowledge of the property and/or other geophysical and geochemical surveys.

(B) Field Procedure

The survey over the Hawk #1 grid consisted of 13.04 line km of VLF-EM survey.

(C) Compilation of Data

The VLF-EM field results were plotted on Map 4 at a scale of 1:5,000. They were then reduced by applying the Fraser-filter and the filtered results subsequently plotted on the same sheet. The filtered data was plotted between actual reading stations. The positive dip-angle readings were then contoured at an interval of 4°.

The Fraser-filter is essentially a 4-point difference operator, which transforms zero crossings into peaks, and a low pass smoothing operator which induces the inherent high frequency noise in the data. Therefore, the noisy, non-contourable data are transformed into less noisy, contourable data. Another advantage of this filter is that a conductor that does not show up as a crossover on the unfiltered data quite often shows up on the filtered data.

MAGNETOMETER SURVEY

(A) Instrumentation and Theory

The magnetic survey was carried out with a model MP-2 proton precession magnetometer, manufactured by Scintrex Limited of Concord, Ontario. This instrument reads out directly in gammas to an accuracy of  $\pm 1$  gamma, over a range of 20,000 - 100,000 gammas. The operating temperature range is  $-35^{\circ}$  to  $+50^{\circ}$  C, and its gradient tolerance is up to 5,000 gammas per meter.

Only two commonly occurring minerals are strongly magnetic, magnetite and pyrrhotite; magnetic surveys are therefore used to detect the presence of these minerals in varying concentrations. Magnetics is also useful as a reconnaissance tool for mapping

geologic lithology and structure since different rock types have different background amounts of magnetite and/or pyrrhotite.

(B) Field Procedure

Readings of the Earth's total magnetic field were taken at the 25 m stations along the N60W-S60E lines. The diurnal variation was monitored in the field by the closed loop method to enable the variation to be removed from the raw data prior to plotting.

(C) Compilation of Data

The total magnetic field values were plotted on Map 5 at a scale of 1:5,000 and contoured at a 25-gamma interval.

**SOIL GEOCHEMISTRY**

(A) Survey Procedure

The samples were picked up at the 25-meter stations and dug with a D-handled shovel at about a 15- to 20-cm depth. The horizon sampled was B. Samples were placed in brown, wet-strength, paper bags (gussett bags) with the sample number marked thereon.

(B) Testing Procedure

All samples were tested by Chemex Labs Ltd. of North Vancouver, B.C. The sample is first thoroughly dried and then pulverized in a ring pulverizer. It was then rolled on a rolling sheet to homogenize it.

For the gold analysis, 10 grams of the sample was then fire-assayed with standard techniques. 2 mg of silver was then then

added to collect the gold. The lead button from the fire assay was then cupelled and the silver-gold prill was dissolved in aqua regia. It was next analyzed by the atomic absorption technique to a detection limit of 5 parts per billion (ppb).

For the silver, lead and copper a measured amount of the sifted material was put into a test tube with subsequent measured additions of perchloric acid and nitric acid. The mixture was next heated for a certain length of time. The parts per million (ppm) metal was then measured by atomic absorption.

(C) Treatment of Data

The values in ppm copper and lead were grouped into equal logarithmic intervals. The cumulative frequency for each interval was then calculated and then plotted against the correlating interval to obtain a logarithmic cumulative frequency graph.

The mean background value for each metal is taken at the 50% level. The sub-anomalous threshold value, (a term used by the writer to denote the minimum value that is not considered anomalous but still important as an indicator of mineralization) is taken at one standard deviation from the mean background value which is at the 16% level. The anomalous threshold value is two standard deviations away at the 2 1/2% level.

The gold and silver geochemistry data were not analyzed with a cumulative frequency graph due to the way the data were distributed. Rather, the statistical parameters for these two metals were "eye-balled."

As a result of the above, the statistical parameters for each metal are shown in the following table with the sheet number



that the geochemistry values for each of the metals were plotted on. The maps are drawn at a scale of 1:5,000.

| Metal                         | Au  | Ag  | Pb | Cu |
|-------------------------------|-----|-----|----|----|
| Sheet number                  | 5   | 6   | 7  | 8  |
| Mean background value         | <5  | 0.1 | 5  | 16 |
| Sub-anomalous threshold value | 50  | 0.2 | 9  | 24 |
| Anomalous threshold value     | 100 | 0.3 | 15 | 34 |

All values are in ppm, except for gold which is in ppb. On the eastern grids, it is felt that the sub-anomalous and anomalous threshold values for gold are lower due to deeper overburden, perhaps 25 and 50 ppb, respectively.

The gold, silver, lead and copper results were each contoured at a logarithmic contour interval beginning with the sub-anomalous contour for each metal. The sub-anomalous contour was dashed in and the anomalous contours were drawn in solid.

A compilation map, Map #9, was drawn at a scale of 1:5,000, showing the VLF-EM conductors as well as the outline of each geochemistry anomaly for each metal.

## DISCUSSION OF RESULTS

### (A) VLF-EM Survey

The major cause of VLF-EM anomalies, as a rule, are geologic structures such as fault, shear and breccia zones. It is therefore logical to interpret VLF-EM anomalies to likely be caused by these structural zones. Of course, sulphides may also be a

causative source. But in the writer's experience, when VLF-EM anomalies correlate with sulphide mineralization, the anomalies are usually reflecting the structure associated with the mineralization rather than the mineralization itself.

The major trend of the VLF-EM anomalies, as seen on Map 4, is north-northeasterly. Considering the VLF-EM anomalies are likely reflecting structure, the major strike of structure on this property is concluded to be in this direction. This correlates with the field observation of the lithological contacts being in this direction.

There is some variation in intensity from one VLF-EM anomaly to the next. This is not only due to the conductivity of a causative source, but also the direction it strikes relative to the direction to the transmitter. In other words, those conductors lying closer to the same direction as the direction to the transmitter (S55W in this case), can be picked up easier than those that are lying at a greater angle. Depending upon its conductivity, a conductor may not be picked up at all if it is at too great an angle. However, on this particular survey are some VLF-EM conductors that have strong intensity and yet are at a low optimum direction to Seattle. This is therefore an indication of the causative source being a strong conductor.

The survey has produced interesting results throughout the property, particularly the VLF-EM highs. These highs are of greater economic interest since they may be reflecting sulphides, fracturing and/or alteration any of which could be associated with gold mineralization. The highs often are at points of intersection of two or three conductors striking in two or three different directions. If the conductors are in fact geological structures, then the points of intersection become amenable to mineralizing fluids. Some of these highs do correlate with intersecting faults as mapped by Szybinski.

(C) Magnetics

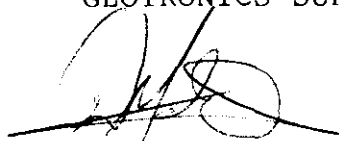
The magnetic range of the survey area is only 175 gammas varying from a low of 57,512 gammas to a high of 58,090 gammas. This is a very small range and is a reflection of the underlying sedimentary bedrock.

There is no correlation between the rock units as mapped by Szybinski and the magnetic field. There is some correlation between magnetic lows and the mapped faults.

(D) Soil Geochemistry

The soil anomalies considered to be worthy of further discussion total 10 and have been labelled by the upper case letters A to I.

Respectfully submitted,  
GEOTRONICS SURVEYS LTD.



David G. Mark,  
Geophysicist

December 23, 1986

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Minister of Mines Reports

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1932 - p. 162

1950 - p. 155

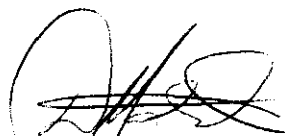
GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geophysicist of Geotronics Surveys Ltd., with offices located at #403-750 West Pender Street, Vancouver, British Columbia.

I further certify: .

1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
2. I have been practising my profession for the past 18 years and have been active in the mining industry for the past 21 years.
3. I am an active member of the Society of Exploration Geophysicists and a member of the European Association for Exploration Geophysicists.
4. This report is compiled from data obtained from VLF-EM, soil geochemistry and magnetometer surveys carried out by Geotronics Surveys Ltd., under the supervision of myself and under the field supervision of Marc Beaupre from August 6 to 26, 1986.
5. I am a director of Unique Resources Ltd. I will not, however, receive any interest as a result of writing this report.



David G. Mark  
Geophysicist

December 23, 1986

AFFIDAVIT OF EXPENSES

The soil geochemistry and VLF-EM surveys were carried out from August 6 to 26, 1986 on the Hawk #1 claim, Perry Creek, Fort Steele M.D., B.C. to the value of the following:

FIELD:

|   |                 |
|---|-----------------|
| Geologist and geophysics technician<br>181.5 hours at \$40/hour | \$ 7,260        |
| Magnetometer & VLF-EM instrument rental:                        |                 |
| Magnetometer, 2 weeks at \$125/week                             | 250             |
| VLF-EM unit, 1 week at \$125/week                               | 125             |
| Truck rental and gas  | 1,760           |
| Room and board  | 1,655           |
| Survey supplies   | 175             |
|   | <u>\$11,225</u> |

LABORATORY:

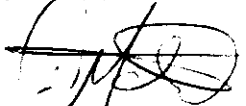
|   |       |
|---|-------|
| 581 samples at \$12.85/sample<br>(includes ring pulverizing & fire assay for<br>gold with AA finish & normal-type analysis<br>for lead, zinc, silver and copper | 7,466 |
|---|-------|

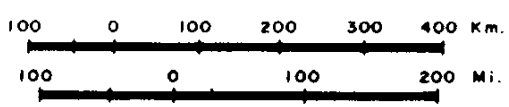
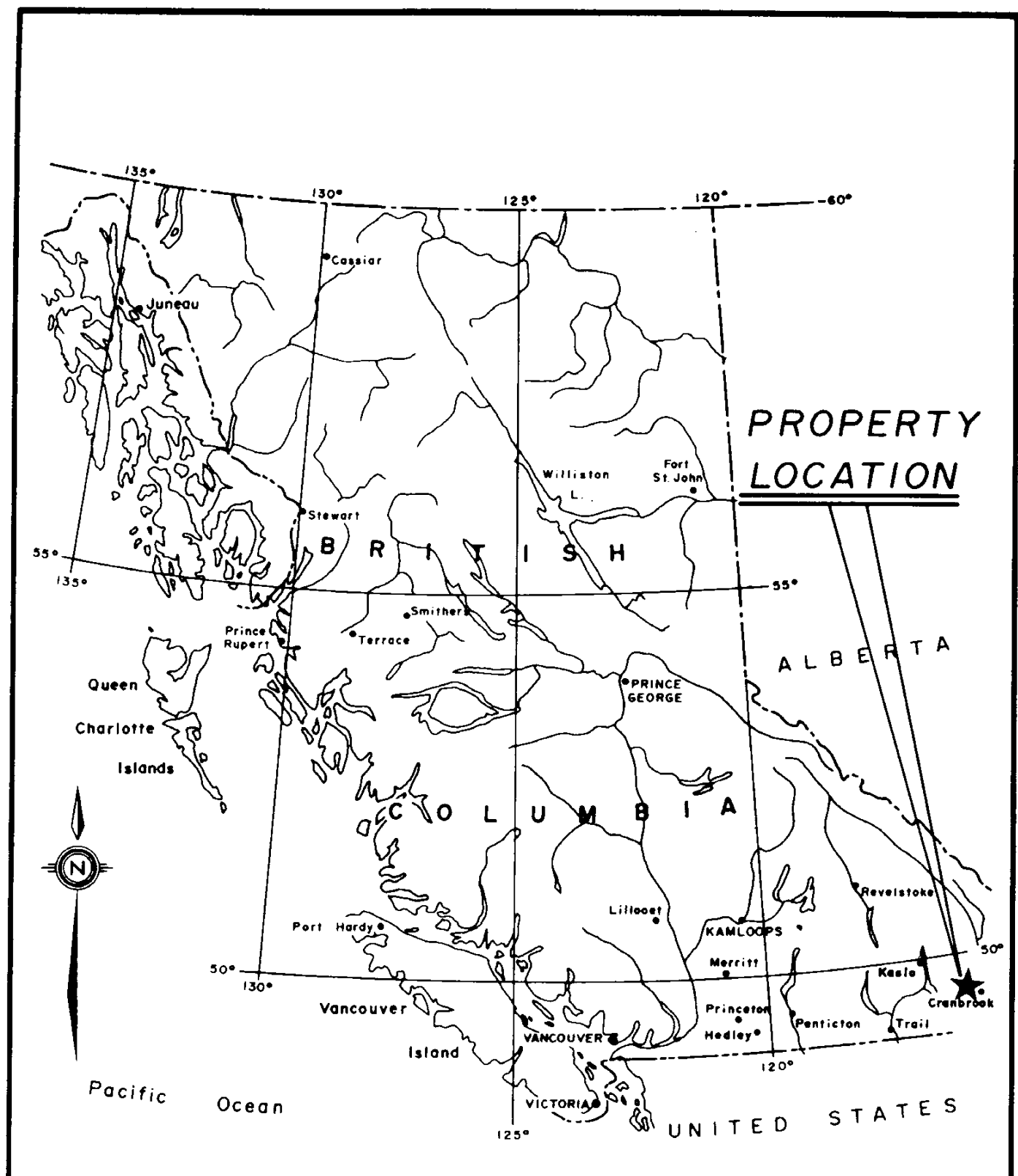
REPORT:

|   |                 |
|---|-----------------|
| Geophysicist, 15 hours at \$40/hour           | \$ 600          |
| Geologist, 32 hour at \$35/hour               | 1,120           |
| Geophysical technician, 20 hours at \$25/hour | 500             |
| Drafting and printing                         | 2,323           |
| Typing, photocopying and compilation          | 250             |
|   | <u>\$ 4,793</u> |

|             |                        |
|-------------|------------------------|
| Grand Total | <u><u>\$23,484</u></u> |
|-------------|------------------------|

Respectfully submitted,  
GEOTRONICS SURVEYS LTD.

  
David G. Mark, Geophysicist  
Manager



|  |                   |                      |                  |           |
|--|-------------------|----------------------|------------------|-----------|
| GEOTRONICS SURVEYS LTD.                  |                   |                      |                  |           |
| UNIQUE RESOURCES LTD.                    |                   |                      |                  |           |
| <b>HAWK I CLAIM</b>                      |                   |                      |                  |           |
| PERRY CREEK AREA, FORT STEELE M.D., B.C. |                   |                      |                  |           |
| <i>LOCATION MAP</i>                      |                   |                      |                  |           |
| Scale:<br>1:10,000,000                   | Date:<br>SEPT. 86 | N.T.S.<br>82 F / 8 E | Job No:<br>86-19 | Map:<br>1 |

116°10'

GRASSY MTN.

Manchester Creek

Liverpool Creek

Shorty Creek

Hellaring Creek

Creek

Perry Creek

Gilbey Creek

HAWK I CLAIM

FLETT MTN.

49° 26'



Richmond Lake

Survey Area 1986



GEOTRONICS SURVEYS LTD.

UNIQUE RESOURCES LTD.

HAWK I CLAIM

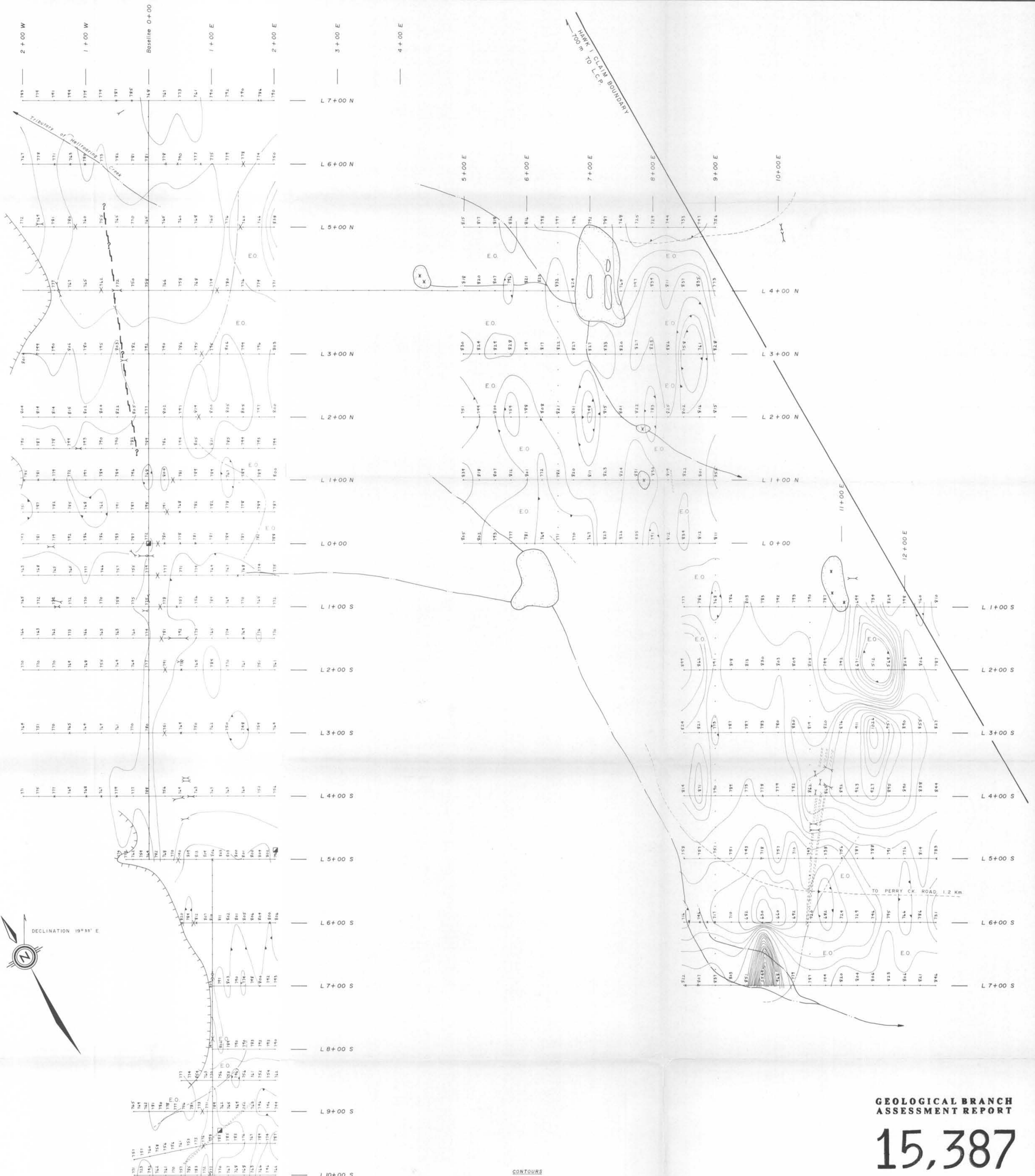
PERRY CREEK AREA

FORT STEELE M. D., B. C.

CLAIM MAP

|             |          |             |          |          |         |
|-------------|----------|-------------|----------|----------|---------|
| DRAFTED BY: | DATE:    | PROJECT No. | N.T.S.   | SCALE:   | MAP No. |
| B. D. S.    | SEPT. 86 | 86-19       | 82 F/8 E | 1:50,000 | 2       |





- SYMBOLS**
- SURVEY GRID
  - SHAFT
  - Y TRENCH
  - Y ADIT
  - CLIFF
  - - - TRAIL
  - X TOP OF RIDGE
  - LAKE
  - CREEK
  - X POND OR SWAMP
  - - - POSSIBLE VEIN
  - - - CONTACT ZONE OR FAULT
  - E.O. EXTENSIVE OUTCROP, OUTCROP

**CONTOURS**  
 CONTOUR INTERVAL - 25 GAMMAS  
 — CONTOUR LOW

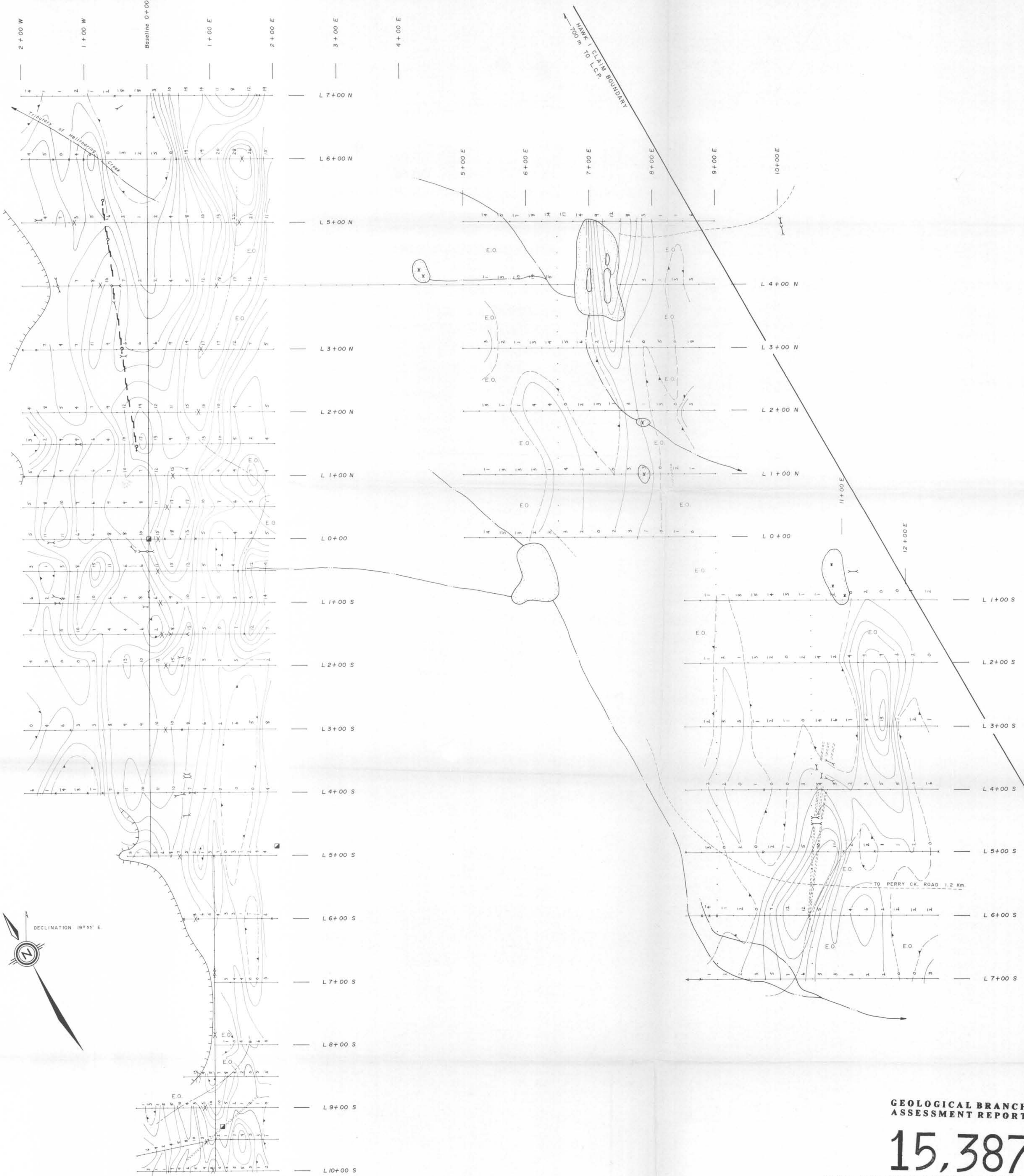


**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

**15,387**

TO ACCOMPANY GEOCHEMICAL & GEOPHYSICAL REPORT BY:  
 DAVID G. MARK, GEOPHYSICIST. DATED - SEPT. , 1986

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| UNIQUE RESOURCES LTD.                                      |          |             |          |         |         |
| HAWK I CLAIM<br>PERRY CREEK AREA<br>FORT STEELE M.O., B.C. |          |             |          |         |         |
| MAGNETOMETER SURVEY<br>DATA AND CONTOURS                   |          |             |          |         |         |
| DRAWN BY:  | DATE:    | PROJECT No. | N.T.S.   | SCALE:  | MAP No. |
| M.B.   | SEPT. 86 | 86-19       | 82 F/B E | 1:2,500 | 3       |



- SYMBOLS**
- SURVEY GRID
  - SHAFT
  - TRENCH
  - ADIT
  - CLIFF
  - TRAIL
  - TOP OF RIDGE
  - LAKE
  - CREEK
  - POND OR SWAMP
  - POSSIBLE VEIN
  - CONTACT ZONE OR FAULT
  - EXTENSIVE OUTCROP, OUTCROP

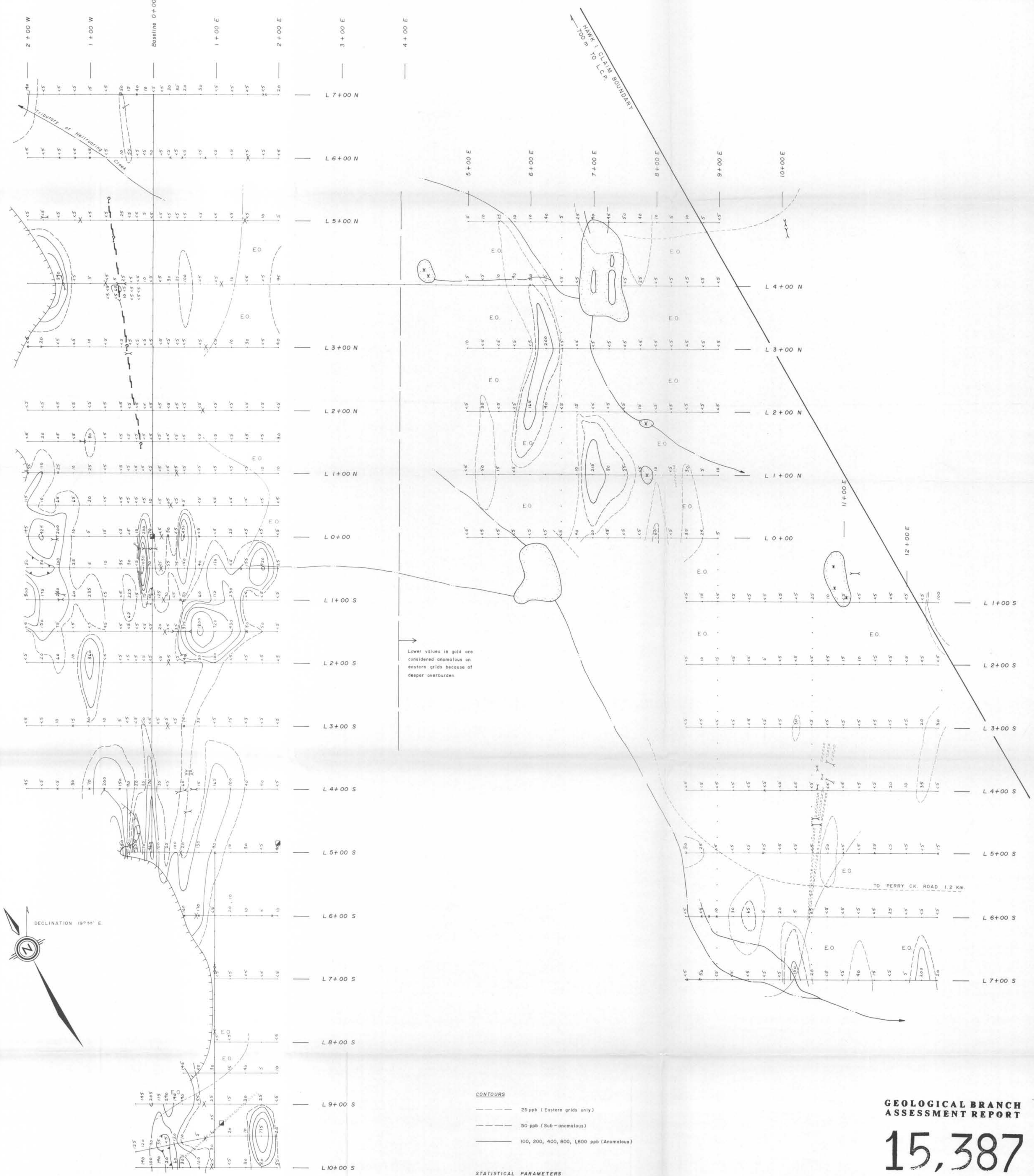


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| VLF-EM SURVEY  |          |             |          |         |         |
| FRASER FILTERED DATA & CONTOURS                            |          |             |          |         |         |
| DRAWN BY:  | DATE:    | PROJECT No. | N.T.S.   | SCALE:  | MAP No. |
| M.B.   | SEPT. 86 | 86-19       | 82 F/B E | 1:2,500 | 4       |



- SYMBOLS**
- SURVEY GRID
  - SHAFT
  - Y TRENCH
  - Y ADIT
  - CLIFF
  - TRAIL
  - X TOP OF RIDGE
  - LAKE
  - CREEK
  - Y POND OR SWAMP
  - POSSIBLE VEIN
  - CONTACT ZONE OR FAULT
  - E.O. \* EXTENSIVE OUTCROP, OUTCROP

**CONTOURS**

- 25 ppb (Eastern grids only)
- 50 ppb (Sub-anomalous)
- 100, 200, 400, 800, 1,600 ppb (Anomalous)

**STATISTICAL PARAMETERS**

- MEAN BACKGROUND VALUE - <5 ppb
- SUB-ANOMALOUS THRESHOLD VALUE - 50 ppb
- ANOMALOUS THRESHOLD VALUE - 100 ppb

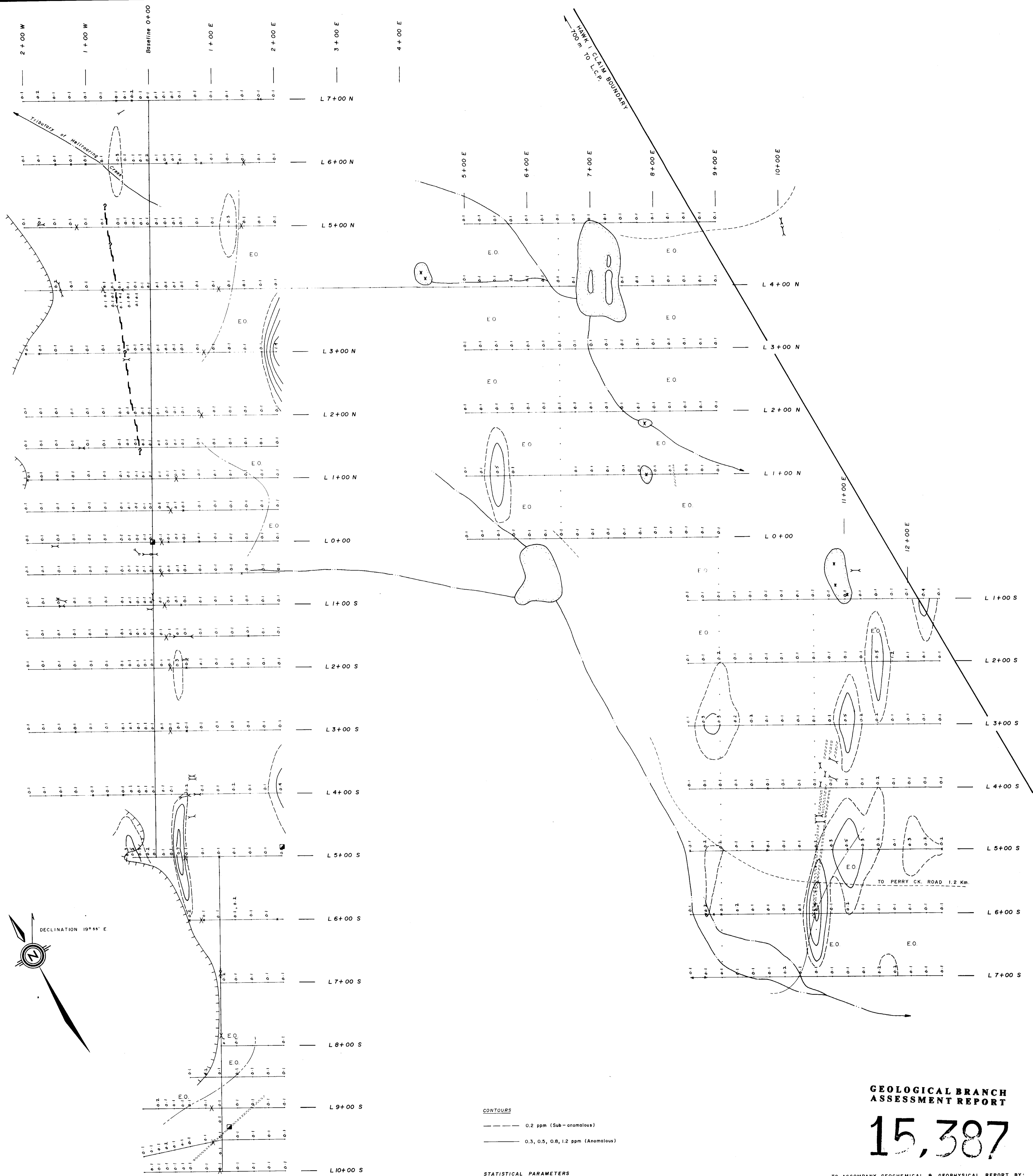


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| UNIQUE RESOURCES LTD.                                       |                   |                      |                    |                   |              |
| HAWK I CLAIM<br>PERRY CREEK AREA<br>FORT STEELE M.D., B.C.  |                   |                      |                    |                   |              |
| SOIL GEOCHEMISTRY SURVEY<br>GOLD - ppb<br>DATA AND CONTOURS |                   |                      |                    |                   |              |
| DRAWN BY:<br>M. B.  | DATE:<br>SEPT. 86 | PROJECT No.<br>86-19 | N.T.S.<br>82 F/B/E | SCALE:<br>1:2,500 | MAP No.<br>5 |



**CONTOURS**  
 - - - - - 0.2 ppm (Sub-anomalous)  
 ———— 0.3, 0.5, 0.6, 1.2 ppm (Anomalous)

**STATISTICAL PARAMETERS**  
 MEAN BACKGROUND VALUE - 0.1 ppm  
 SUB-ANOMALOUS THRESHOLD VALUE - 0.2 ppm  
 ANOMALOUS THRESHOLD VALUE - 0.3 ppm

- SYMBOLS**
- SURVEY GRID
  - ▣ SHAFT
  - X TRENCH
  - Y ADIT
  - CLIFF
  - - - TRAIL
  - X TOP OF RIDGE
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  - CREEK
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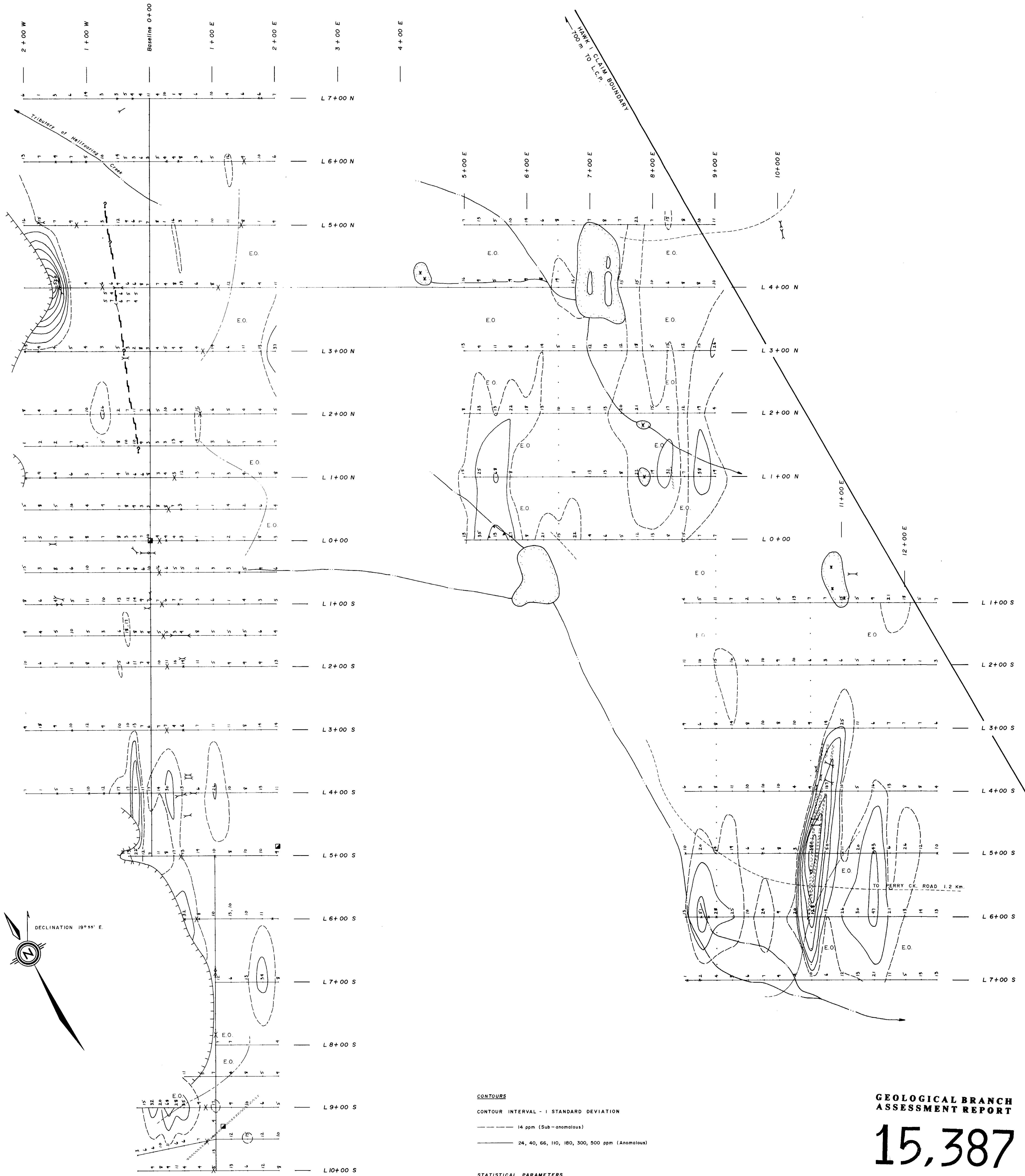
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| UNIQUE RESOURCES LTD.   |                   |                      |                    |                   |              |
| HAWK I CLAIM<br>PERRY CREEK AREA<br>FORT STEELE M.D., B.C.    |                   |                      |                    |                   |              |
| SOIL GEOCHEMISTRY SURVEY<br>SILVER - ppm<br>DATA AND CONTOURS |                   |                      |                    |                   |              |
| DRAWN BY:<br>M. G.  | DATE:<br>SEPT. 86 | PROJECT NO.<br>86-19 | N.T.S.<br>82 F/B/E | SCALE:<br>1:2,500 | MAP No.<br>6 |





**CONTOURS**  
 CONTOUR INTERVAL - 1 STANDARD DEVIATION  
 - - - - - 14 ppm (Sub-anomalous)  
 ———— 24, 40, 66, 110, 180, 300, 500 ppm (Anomalous)

**STATISTICAL PARAMETERS**  
 MEAN BACKGROUND VALUE - 8 ppm  
 SUB-ANOMALOUS THRESHOLD VALUE - 14 ppm  
 ANOMALOUS THRESHOLD VALUE - 24 ppm



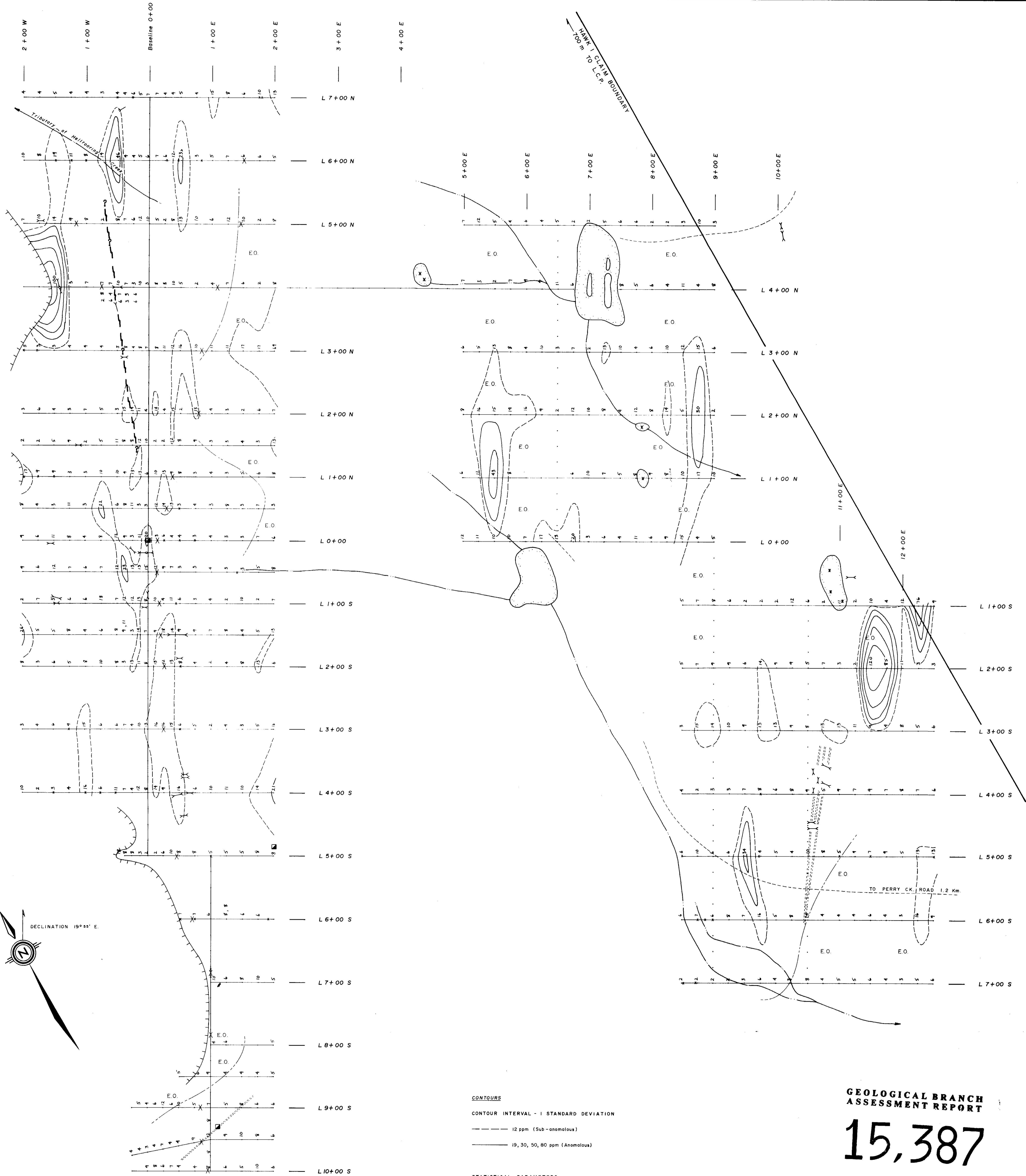
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| UNIQUE RESOURCES LTD.                                       |                   |                      |                    |                   |              |
| HAWK I CLAIM<br>PERRY CREEK AREA<br>FORT STEELE M.D., B.C.  |                   |                      |                    |                   |              |
| SOIL GEOCHEMISTRY SURVEY<br>LEAD - ppm<br>DATA AND CONTOURS |                   |                      |                    |                   |              |
| DRAWN BY:<br>M. B.  | DATE:<br>SEPT. 86 | PROJECT No.<br>86-19 | M.T.S.<br>82 F/B E | SCALE:<br>1:2,500 | MAP No.<br>7 |

- SYMBOLS**
- SURVEY GRID
  - SHAFT
  - Y TRENCH
  - Y ADIT
  - CLIFF
  - - - TRAIL
  - X TOP OF RIDGE
  - LAKE
  - CREEK
  - X POND OR SWAMP
  - - - POSSIBLE VEIN
  - - - CONTACT ZONE OR FAULT
  - E.O. EXTENSIVE OUTCROP, OUTCROP



DECLINATION 19° 33' E.

- SYMBOLS**
- SURVEY GRID
  - SHAFT
  - Y TRENCH
  - Y ADIT
  - CLIFF
  - - - TRAIL
  - X TOP OF RIDGE
  - LAKE
  - CREEK
  - Y POND OR SWAMP
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  - - - CONTACT ZONE OR FAULT
  - EO X EXTENSIVE OUTCROP, OUTCROP

**CONTOURS**  
 CONTOUR INTERVAL - 1 STANDARD DEVIATION  
 - - - 12 ppm (Sub-anomalous)  
 — 19, 30, 50, 80 ppm (Anomalous)

**STATISTICAL PARAMETERS**  
 MEAN BACKGROUND VALUE - 7 ppm  
 SUB-ANOMALOUS THRESHOLD VALUE - 12 ppm  
 ANOMALOUS THRESHOLD VALUE - 19 ppm



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| HAWK I CLAIM<br>PERRY CREEK AREA<br>FORT STEELE M.D., B.C.    |          |             |          |         |         |
| SOIL GEOCHEMISTRY SURVEY<br>COPPER - ppm<br>DATA AND CONTOURS |          |             |          |         |         |
| DRAWN BY:   | DATE:    | PROJECT No. | N.T.S.   | SCALE:  | MAP No. |
| M.B.  | SEPT. 86 | 86-19       | 82 F/8 E | 1:2,500 | 8       |



- CONTOURS**
- 25 ppb GOLD
  - 50 ppb GOLD
  - 100 ppb GOLD
  - - - 14 ppm LEAD
  - - - 24 ppm LEAD
  - ..... 0.2 ppm SILVER
  - ..... 0.3 ppm SILVER
  - - - 12 ppm COPPER
  - - - 19 ppm COPPER

- SYMBOLS**
- SURVEY GRID
  - SHAFT
  - Y TRENCH
  - Y ADIT
  - CLIFF
  - - - TRAIL
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| <b>COMPILATION MAP</b>                                       |                   |                        |                    |                   |              |
| DRAWN BY:<br>M. B.   | DATE:<br>SEPT. 86 | PROJECT No.<br>86 - 19 | N.T.S.<br>82 F/8 E | SCALE:<br>1:2,500 | MAP No.<br>9 |

