

1704

~~GEOCHEMICAL~~

GEOCHEMICAL SURVEY

CARIBOO M.D.

52°53' - 121° S.E.

For

MONTE CRISTO MINES LTD. N.P.L.
19-9-68; 9-10-68 A.R. Allen, P.Eng.

December 1st, 1968

Allen Geological Engineering Ltd.
507 - 789 West Pender Street
Vancouver 1, B. C.

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SPOUT LAKE PROPERTY
OF
MONTE CRISTO MINES
GEOCHEMICAL SURVEY

INTRODUCTION

A soil sampling survey was conducted over a grid pattern on the Spout Lake property of Monte Cristo Mines Ltd., comprising the SS 1 to 40 and Contact 1 to 6 claims, starting September 19th and terminating October 24th, 1968.

The field party consisted of Tom Thomas, Terry Thomas, Joe Hunyadi, Murray Mills, Chris. Hart, Jim Nasa-Dyke and A. R. Berry.

The survey crew were stationed at the Ten-ee-ah Camp on Spout Lake. Rented 4-wheel-drive and light truck vehicles were used for transporting the crew to the property. Chain and transit were used for base line surveying, and cross lines were run with chain and Brunten compass.

The survey was considered advisable because copper mineralization had been found at several places where bedrock is exposed, and no bedrock information was available on the

sizeable intermediate areas covered with glacial till and forest debris. The object of the survey was to test soil samples for copper content and thereby detect and map any areas of overburden which carry higher than normal quantities of that mineral.

LOCATION AND ACCESSIBILITY

The property is located in south central British Columbia about 25 miles northeasterly from Lac La Hache by secondary road. Lac La Hache is on Highway 97, 315 miles north of Vancouver.

PROPERTY

The property comprises the following adjoining located mineral claims.

| | | |
|------------------------|-------------|---------------|
| . SS 1 to 40 inclusive | Record Nos. | 38000 - 38039 |
| Contact 1 to 6 " | " " | 44068 - 44073 |

The claim posts have been examined and staking is in accordance with the requirements of the laws of British Columbia.

The approximate (unsurveyed) position of the claims are shown on the geophysical map accompanying this report. ?

TOPOGRAPHY

The area is a part of the interior plateau region of British Columbia. Lac La Hache is 2,768 feet and Spout Lake is 3,532 feet above sea level. Two miles north of the east end of Spout Lake a rounded hilltop is just over 4,500 feet above sea level. The hillside between the top and the lake is fairly even and the grade is a drop of close to 500 feet per mile. The north side of the hill is considerably steeper and the valley is occupied by Canim Creek.

GEOLOGY

Large areas of the property are covered with overburden. Preliminary mapping indicates, however, that the claims are located entirely upon an intrusive complex composed largely of hornblende-biotite granodiorite. To the west

of the property, on the hilltop and west ridge, an area two by three miles is capped with basalt and minor tuff, conglomerate and sandstone. There is a large area south of Spout Lake underlain by Nicola volcanics and the contact between these and the granodiorite extends southeasterly from the east end of the lake. The basalt capping is miocene and/or later, the granodiorite Upper Triassic or Lower Jurassic, and the Nicola volcanics Upper Triassic.

Copper mineralization, associated with sheared and altered zones in the granodiorite, has been noted at several locations. On the SS 15 claim one rock trench has been excavated into a shear zone containing chalcopyrite and pyrite, and 1000 feet to the south on the SS 16 claim three trenches within a radius of 20 feet expose shears containing bornite, chalcopyrite, magnetite, pyrite and malachite. The adjoining altered granodiorite is brecciated for a distance of at least 40 feet from the mineralized shears, and minor disseminated chalcopyrite and pyrite occur in this zone.

GEOCHEMICAL SURVEY

The geochemical survey was conducted over a grid set out in a north-south direction over the claims area.

The base line for the grid was surveyed by chain and transit in an easterly direction through the approximate middle portion of the claims area. From stations staked along the base line, at 300-foot intervals, cross lines were extended north and south by chain and Brunton compass to the property boundaries. Along each grid line stations were staked at 100-foot intervals. Stakes at all stations were marked in accordance with the grid number system.

Samples composed of a small handful of soil, taken from a depth of about six inches at each station were placed in paper bags. Each bag was clearly marked with the station number. So far as practicable grass, twigs, rootlets, needles and humus were not included with the soil sample.

The samples were taken to Langley, B. C., dried and tested by the Rubianic Acid process for the detection of copper. The results were classified as nil, weak, medium and strong for each sample and so recorded in notebook and on the map accompanying this report.

SURVEY RESULTS

Numerous "spot" mediums and strong samples lie on the eastern one third of the claims area. Four such locations on the SS 18, 19, 20, 39 and 40 may be checked to advantage if the overburden cover in this area is found to be shallow.

A barren zone extends along the drainage area from the small unnamed lake westerly and southwesterly to Spout Lake. Similarly from the small lake zones of weak to nil samples extend easterly to the boundary of the property.

On the south side of the small lake there are four irregularly shaped areas, trending in a general westerly to northwesterly direction, from which medium to strong samples were derived. This includes the SS 9, 11, 10, 12 and 14 claims areas. The largest areas of strong copper content within this general zone are along both sides of the base line, stations 87, 90 and 93; and from 4 to 8 south of base line on lines 57 and 60.

West of the small lake a large and irregular zone of medium to strong samples extends northwesterly across claims SS 24, 25, 26. Six areas are classed as highs, surrounded by sizeable areas of medium strength.

The third large area showing medium to strong sample results extends from the base line south to Spout Lake, along lines 24, 27 and 30. The largest area of high copper content is 500 feet south of the base line, extending from line 24 to line 27. This large zone is terminated on both north and south by topographic features, i.e. the drainage area between the lakes and Spout Lake.

In general the western half of the property appears to show more areas of important copper content in the soil, and in this regard additional 28 claims have been staked along the west and north boundaries.

RECOMMENDATIONS

It is herewith recommended that the following works programme be conducted over the SS and Contact groups of mineral claims.

Estimated Costs

1. Establish a field camp on the property suitable access road to same, \$ 2,500.00

| | |
|---|------------------------|
| 2. Conduct a geological survey over the property, | \$ 3,000.00 |
| 3. Extend the geochemical survey at least 3000 feet west and north of the present survey boundaries, | 4,000.00 |
| 4. Have an Induced Polarisation Survey made over selected areas, | 8,000.00 |
| 5. Where possible expose selected areas to bedrock by stripping off overburden with a bulldozer, | 12,500.00 |
| 6. In order to map and sample known and newly exposed mineralised zones, crosscut same by rock trenching, | 7,000.00 |
| 7. Check to shallow depths zones of mineralization by diamond drilling, | 25,000.00 |
| 8. Office, overhead and supervision, | 15,000.00 |
| 9. Contingencies fund, | <u>10,000.00</u> |
| Total estimated costs, | <u>\$87,000.00</u> |

This field programme should not require more than eight months.

Respectfully submitted,

per W. J. Allen P. Eng.

Vancouver, B. C.
December 1, 1968

ALLEN GEOLOGICAL ENGINEERING LTD.

REFERENCES

- Campbell, R. B. Geological Survey of Canada, Map 59--1959
Campbell, R. B. Geological Survey of Canada, Map 3--1961
Campbell, R. B. &
Tipper, H. W. Geological Survey of Canada, Map 3--1966

DOMINION OF CANADA
PROVINCE OF BRITISH COLUMBIA

IN THE MATTER OF
THE MINERAL ACT

TO WIT:

1. Alfred R. Allen of the Province of British Columbia, City of Vancouver


Do Solemnly declare that:

1. I am a consulting geological engineer, member of the association of Professional Engineers of B. C. AND that the geochemical survey over the SS 1 - 40 and Contact 1 to 6 mineral claims, Cariboo Mining Division, was under my supervision.
2. The statement hereto annexed and marked "Exhibit A" to this my declaration is a true and accurate statement of expenditures made by me on behalf of Monte Christo Mines Ltd. N.P.L., on the geochemical survey of SS 1 - 40 and Contact 1 to 6 claims inclusive between the dates September 19th and October 24th, 1968.
3. The listed expenditures are exclusive of all other expenditures connected with the survey, including transportation, supplies and accommodation to and from the property.

AND I make this solemn declaration, declaring it to be true and correct statement of the same force and effect as if made under oath, by virtue of the Canadian Evidence Act.

DECLARED before me at
THE CITY OF VANCOUVER
in the Province of British Columbia
this 10th day of December 1968 A.D.

Alfred R. Allen


A Commissioner for Taking Affidavits and
for the Province of British Columbia

ALFRED R. ALLEN

EXHIBIT "A"

December 10th, 1968

GEOCHEMICAL SURVEY

Geochemical survey over grid on SS 1 - 40 and Contact 1 - 6 claims, Record Numbers 38000 to 38039 and 44068 to 44073 inclusive; situated on northeast end of Spout Lake, 25 miles northeast of Lac La Hache, B. C., in the Cariboo Mining Division.

Alfred R. Allen, Consulting Engineer, Vancouver, B. C.
Thomas Thomas, Operator, Langley, B. C.
J. Hunyadi, Operator, Vancouver, B. C.
Terry Thomas, Assistant, Langley, B. C.
Murray Mills, Assistant, Langley, B. C.
Chris Hart, Assistant, Langley, B. C.
Jim Nasa-Dyke, Assistant, Vancouver, B. C.
A. R. Berry, Assistant, Vancouver, B. C.

| | |
|--|-------------------|
| A. R. Allen, Sept. and Oct. | \$ 490.00 |
| Thomas Thomas, Sept. 19 - 24, Oct. 19 - 24 | 426.00 |
| J. Hunyadi, Sept. 19 - 30, Oct. 1 - 9 | 630.00 |
| Terry Thomas, Sept. 19 - 30, Oct. 1 - 9, 15 - 19, 21 & 22 | 580.00 |
| M. Mills, Sept. 22 - 30, Oct. 1 - 8 | 340.00 |
| C. Hart, Sept. 22 - 30, Oct. 1 - 8 | 340.00 |
| J. Nasa-Dyke, Sept. 22 - 30, Oct. 1 - 8 | 340.00 |
| A. R. Berry, Sept. 22 - 30, Oct. 1 - 8 | 425.00 |
| Camp accommodation and vehicle costs | 1,096.88 |
| Chemical supplies | 91.37 |
| | <u>\$4,759.85</u> |

Alfred R. Allen



121° 15'

MONTE CHRISTO MINES LTD., N. P. L.
 LOCATION MAP
 LAC LA HACHE, B. C.
 CARIBOO M. D.

Dec. 1, 1958

ALLEN GEOLOGICAL ENGINEERING LTD.

Scale 1:250,000 or approximately 1 inch to 4 Miles

Geochemical Survey, SS 1 - 40 Contact 1 - 6

September 19th -- October 24th, 1968

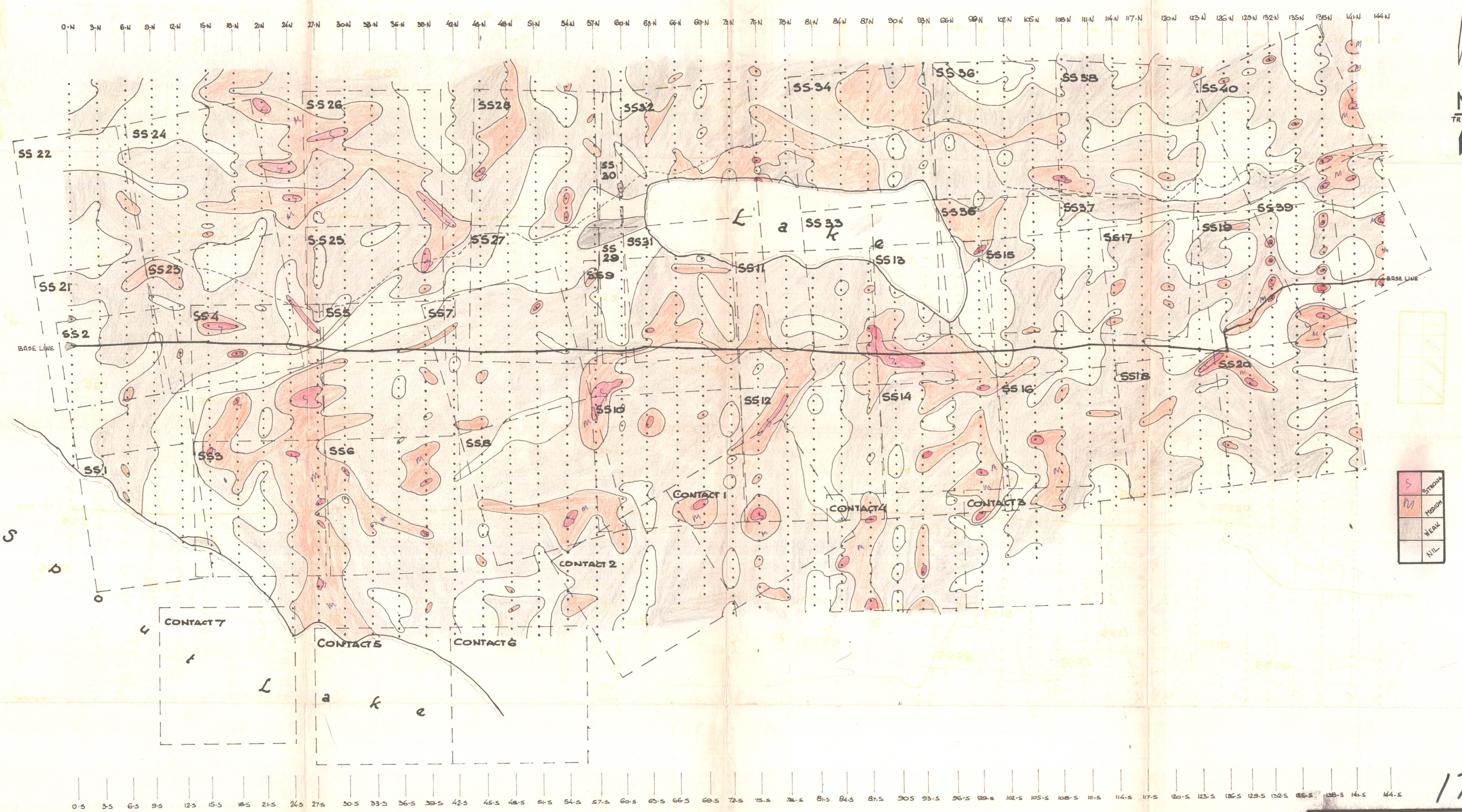
FIELD CREW

Alfred R. Allen, P. Eng.
Consulting Engineer

Tom Thomas, trained for 12 years by A. R. Allen on all phases
Operator of surveying and soil sampling.

J. Hunyadi, trained for 5 years by A. R. Allen on all phases
Operator of surveying and soil sampling.

Remainder of Crew (5 men) -- field assistants



1704

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1704 MAP 1

MONTE CRISTO MINES LTD. NPL.

GEOCHEMICAL SURVEY

Scale: 1" = 500'

| | | | |
|-----------------------|----------------------|--------------------------|--------------------------|
| Drawn by A. Fustós | Date 5th Dec 1968 | Checked by A.R. Allen | Checked by A.R. Allen |
|-----------------------|----------------------|--------------------------|--------------------------|