THE COLORADO CORPORATION

M.C. GROUP

104-K-8, Atlin M.D., B.C.

58°, 132° SE

104 K / 8E

GEOCHEMICAL REPORT

Department of

Mines and Petroleum Resources

ASSESSMENT REPORT

NO 8075 MAP

ьу

V. Cukor, P.Eng.

<u>and</u>

P.H. Sevensma, Ph.D., P.Eng.

PETER H. SEVENSMA CONSULTANTS LTD.

September 22, 1970.

APPENDIX "A"

Costs of M.C. Project July 3 - September 23, 1970

Wages and fees	\$2,520.00
Camp operation, 33 man-days \$10.00	330.00
Transportation (estimated)	400.00
Geochemical assays, 318 samples	872.00
Rock assays, 18 samples @ \$23.50	423.00
Total	\$4,545.00

Vancouver, B.C. June 11, 1971.

Declared before me at the

, in the

Province of British Columbia, this

day of June, 1971

, A.D.

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

SUB-MINING RECORDER

APPENDIX "B"

List of Personnel Employed and of Wages and Fees Paid on the M.C. Group Project July 3 to 13, 1970.

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Name	Occupation	No. Days	Rate		Total	_
Andy Giesbrecht	Prospector	11	\$50.00 per	day	\$550.00	
Ronald Woods	Prospector's helper	111	\$20.00 "	ti	220.00	2.
E. Etzertra	Prospector's helper	11	\$20.00 "	11	220.00	
V. Cukor	Geologist	1 .	\$80.00 "	n	80.00	
P.H. Sevensma	Geologist	1	\$180.00 "	ti.	180.00	
				45	4 250 00	

Total direct labour cost \$1,250.00

2. OFFICE WORK

Name	Occupation	Period	No. Davs	Rate	Total
P.H. Sevensma	Geologist	Sept. 16-23/70	2	\$180.00 p.d.	\$360.00
V. Cukor	Geologist	Sept. 16-23/70	6	\$ 80.00 "	480.00
A. Oliveric	Draftswoman	Aug. 1-Sept.23/7	0 7	\$ 55.00 "	385.00
J. Scobie	Stenographer	Sept. 16-23/70	1.	\$ 45.00 "	45.00
		Total office	work cost		\$1,270.00

1. Field Work \$1,250.88 2. Office Work 1,270.88

Total Wages and Fees \$2,520.00

Vancouver, B.C. June 11, 1971.

Declared before me at the

of Vancouver

, in the

Province of British Columbia, this

day of

June, 1971

, A.D.

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A Notary Public in and for the Province of British Columbia.

SUB-MINING RECORDER

DOMINION OF CANADA
PROVINCE OF BRITISH COLUMBIA
TO WIT

IN THE MATTER OF, expenditures and personnel for a geochemical survey on the M.C. 1 - 15 group of claims in the Atlin Mining Division.

I, PIETER H. SEVENSMA, of 715 - 850 West Hastings St., Vancouver, B.C., DO SOLEMNLY DECLARE:

THAT hereto, my affidavit and marked Appendix "A" and Appendix "B" are attached statements of the personnel employed in conducting the said work and expenditures incurred in carrying out this work.

I declare the above to be true and accurate to the best of my knowledge and I make this solemn declaration concientiously 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.

P.H. Sevensma, Ph.D. P.Eng.

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ILLUSTRATIONS

M.C. GROUP

104-K-8, Atlin M.D., B.C.

58°, 132° 5E

GEOCHEMCIAL REPORT

1. INTRODUCTION

The property was staked during June and early July, 1970. Initial exploration work, consisting of prospecting, grid construction and soil sampling under geological supervision was conducted on the claims as part of a large exploration program in the general area. The work was carried out by prospector A. Giesbrecht from July 3 - 13, 1970, from a fly camp and using a helicopter from the base camp on Hackett River.

The project was conducted under superivsion of V. Cukor and both writers of this report examined the property after receiving the results of the geochemical survey of the claim area.

2. PROPERTY, LOCATION, ACCESS

The property consists of the following 21 mineral

claims:

Claim	Record No.	Tag No.	Date of Staking	Date of <u>Recording</u>
M.C. 1-15	·	977902 - 977916	June 7/70	June 17/70
M.C. 16-21	4	977941 - 977946	July 13/70	July 15/70

The group is located about 45 miles NW of Telegraph Creek at latitude 58° 22' N and longitude 132° 14' W at elevations of approximately 4,000' - 5,300' (see figure 1). The group of claims lie on N.T.S. sheet 104-K-8, in the Atlin M.D., B.C.

The best access is by float plane to Tatsamenie Lake and pack horses to the property (about 3 miles horizontal distance, and about 1,000' elevation difference). Water is available from a small lake and a few creeks, but there is no timber on the property.

There is however, abundant water and timber in the 6 mile distant Sheslay River valley, a major valley at elevation 1,800°.

Upstream, this valley provides a low level access to Talegraph Creek and Dease Lake via the Hackett River valley.

Downstream, the Sheslay River joins the Inklin River, which flows into the Taku River.

The approximate road distance to the projected railhead at Dease Lake is about 100 miles, along easy grades.

In addition to the M.C. group, there are several prospects with a promise of large mineral deposits along the Sheslay - Hackett River route.

GEOLOGY

No detailed geological mapping was done on the property.

According to the G.S.C. geological map 6-1960, Tulsequah, (see fig. 1)

the area is underlain by district intrusives forming part of the

Coast Batholith and intruded into a permo-triassic sedimentary

volcanic complex. From very general observations, at least two

different types of intrusive rock are present on the property, but

detailed geological mapping should be done to unravel their distribution and relationship. It appears that antimony - silver - lead
copper mineralization is related to quartz veins cutting volcanic
sedimentary rocks, and copper - molybdenum to intrusives.

Extensive pyritization is present in the area, both in the intrusives and the sedimentary-volcanic complex.

On the North side of Tatsamenie Lake, the senior writer has examined in detail a large limonitized area, consisting mostly of ferro-dolomite without any significant signs of mineralization.

The M.C. group lies within a large altered area, some of which carries dark limonite derived from extensive but weak pyritization. Other parts of this area show the typical creamish coloured alteration carrying argillic minerals and jarosite.

From an economic point of view, this setting is most promising and any occurrence of this type along the Easterly fringe of the Coast Batholith warrants detailed prospecting.

Significant differentiation, from gabbro to monzonite, has been noted by P.H. Sevensma a number of years ago in the area immediately surrounding Tatsamenie Lake.

4. MINERAL SHOWINGS

During his field work, prospector A. Gissbrecht found a number of mineral showings. Eighteen grab samples were taken and assayed in Crest Laboratories Ltd. (Certificate No. 1208, August 12, 1970). Although some of the results were very good, the width of the scattered occurrences was not always recorded. The results were as shown in the following table:

Tag No.	Showing No.	Width	Aq. oz/t.	<u>Cu %</u>	Pb %	<u>Zn %</u>	<u>Sb %</u>
2852	3 - 1M		tr.	.02	.02	.01	.25
2853	3 - 2M	3' - 5'	1.0	.32	.73	.14	.35
2854	3 - 3M		2.3	.23	1.60	2.48	4.65
2855	5 - 4N		.1	.02	.18	.04	.25
2856	5 - 6N	21/21	•2	.08	.30	.40	.45
2857	6 - 1 <u>0</u>	21 - 41	.6	.02	1.28	.31	2.10
2858	6 - 2 <u>0</u>		.1	.78	.03	•03	.40
2859	6 - 4 <u>0</u>		.1	.06	.04	.06	4,50
2860	7 - 1P		tr.	.03	.02	•01	.45
2861	7 - 2P	i	tr.	.02	.01	tr.	.20
2862	7 - 3P		24.6	2.80	2,52	.32	1.90
2863	7 - 4P	6"	6.0	1.32	1.76	.85	1.60
2864	7 - 4PA		.1	•04	.04	.01.	.30
2865	7 - 5P	21	.8	3.12	.03	.05	.25
2866	8 - 3Q		.3	.67	.02	.01	.20
2867	9 - 2R	2" - 1'	5.9	•53	.10	.14	.35
2868	х3		tr.	.03	.02	.01	tr.
2869	X4	•	tr.	1.24	.02	.02	.20

Sample locations are shown in attached map (see fig. 2).

These assays demonstrate the widespread presence of complex base-metal-antimony mineralization as may be found in the halo of a

porphyry-type copper-molybdenum occurrence.

The widespread alteration is of the type suggesting an occurrence where molybdenite would be expected to predominate over copper.

This led to the decision to carry out a geochemical soil sampling program.

5. GEOCHEMISTRY

For the purpose of geochemical, geological and possible geophysical exploration, a grid has been laid out covering a part of the property. A length of baseline was picketed about 3,600 feet following approximately a North - South direction. Eight crosslines of 3,500 feet long and two of 6,000 feet long were picketed 400 feet apart and samples were taken with 100' spacing. The property is in an area with very poor vegetation. The slopes are fairly steep, and overburden mostly consists only of shallow residual soil and/or fine to coarse grained talus.

The soil samples were taken from shallow holes, from the "B" horizon, where developed, with a stainless steel mattock. Standard paper bags were used and samples were partly dried in the camp by hanging at room temperature. All samples were assayed at Vancouver Geochemical Laboratories Ltd. for Cu, Mo, Pb and Zn. Results of assaying a total of 318 samples were reported in Geochemical Analytical Report No. 70-82-016 on July 22, 1970.

In the laboratory, the following standard procedure was used:

- 1. Samples sifted or ground to -80 mesh.
- 2. Weight used: 0.5 g.
- Extraction: HClO₄ and HNO3.
- 4. Volume used: 10 ml.
- 5. Method of analysis: Atomic absorption.
- 6. Instrument: Techtron AA4 and AA5.

All results have been plotted on maps on a scale of 1" = 200' and contouring was done on a scale of 1" = 500' (see figures 3 - 6). The distribution of anomalous values for Cu, Mo and Pb is shown on a composite geochemcial map (figure 7). As discussed before (see report of P.H. Sevensma, May - July 1970) for the wider area, metal values may be grouped as shown in the following table.

	Cu p.p.m.	Pb p.p.m.	Zn p.p.m.	Mo p.p.m.
Background	< 50	< 50	< 100	< 6
Threshold zone	51 - 100	51 - 100	101 - 300	6 - 10
Anomalous	101 - 300	101 - 300	301 - 600	11 - 30
Significantly anomalous	301 - 600	301 - 400	601 -1200	31 - 100
Major anomaly	> 600	> 400	> 1200	> 100

In the case under consideration, a change in grouping was made for Mo, taking higher values for background and threshold zone.

It is still debateable if values of 50 and 100 p.p.m. Cu taken as a cut-off for the background and the threshold zones are not too high, but the position and the dimensions of the grid caused that a total of 130 samples out of 318, or 41.1%, assayed 300 p.p.m. Cu or better, and 91 samples or 28.8% assayed over 30 p.p.m. Mo.

As discussed, Cu content in the soil is rather high, ranging from 44 p.p.m. up to 4050 p.p.m. Nearly the whole grid area shows anomalous readings over 100 p.p.m., but the significantly anomalous area (over 300 p.p.m.) with a major anomaly-core (over 600 p.p.m.), extends in width from 700' to over 2,000' and a length of over 4,000', trending generally NW — SE. The anomaly is still open on both sides, on the NW and SE grid corners (see figure 3).

Mo content is also high, 1 - 620 p.p.m. The anomalous readings correspond with high Cu, but the area is slightly smaller. The area outlined with the significantly anomalous 30 p.p.m. Mo contour is about 400' to 1,800' wide and over 4,000' long, and open towards the NW and SE.

Pb values are mostly in threshold and weak anomalous ranges with few isolated high or very high readings, with 2750 p.p.m. as peak. Although results generally are not very high, the peripheral position of the weak anomalous zone, around strong Cu and Mo anomalies, could be very significant.

Zn values generally are not above background or threshold ranges, excluding a few isolated high values. As found elsewhere in the district, the zinc distribution does not contribute much to an evaluation of the mineralized area.

Field examination indicated only weak pyritization in the copper-molybdenum area. Leaching of in-place mineralization is very obvious, but neither enrichment of molybdenum nor transportation of copper appear to be prominent.

6. SUMMARY

The property is located over a highly altered part of a granodiorite intrusive and partly over roofpendants of sedimentary rocks. Regionally, the intrusive is highly differentiated.

Geochemical exploration has outlined areas of interest approximately 700' - 2,000' wide and over 4,000' long, still open towards the NW and SE, with significant high Cu and Mo and weak peripheral Pb anomalies. Distribution of high values seems to reflect areas of significant primary concentration, and the results are considered very encouraging. Especially the molybdenum values are comparable to those occurring over other large occurrences of probable economic grade in the 0.15 - 0.25% MoS₂ range. A number of minor antimony showings are reminiscent of halo-mineralization around a significant copper-molybdenum porphyry-type occurrence.

This property is considered to cover an outstanding exploration target with a high probability of economic success.

7. * RECOMMENDATIONS

Detailed geological mapping using an air-photo topographical base map on a scale of 1" = 400' is recommended, conducted in conjunction with soil sampling along extensions of the existing grid.

There is no doubt in the minds of the writers, that this work will lead to a drilling decision, which may or may not be preceded by IP surveying.

Initial visual inspection suggests that the core of the molybdenum anomaly is likely to present the best drilling target.

Hand trenching is expected to provide additional valuable information, but pronounced alteration and leaching suggests that the effects of weathering should be expected to persist to a depth of several tens of feet and that only drilling will provide an answer as to grade in the unweathered rocks.

An initial cost-estimate of a minimum program is as follows:

Airphoto topo map, 20 sq. miles	\$1,500.00
Office studies, photo-geology	2,000.00
Base camp, Tatsamenie Lake	3,000.00
Geologist and assistant, total 60 man-days	6,000.00
Picketing - sampling crew, 2 men, 60 man-days	3,000.00
Cook, 1 month	1,000.00
Fly-camp	1,000.00
3 horses and wrangler, 1 month	1,000,00
Carried forward	\$18,500.00

	Brought forward	\$18,500.00
Camp operation, 200 man-days @	\$10.00	2,000.00
Trenching supplies, Cobra dril	1	2,000.00
Assaying, 500 soil samples		1,500.00
100 rock samples		2,000.00
Transportation (aircraft), 2,0	00 miles @ \$1.00	2,000.00
Mobilization, demobilization,	C.P.A., freight	2,000.00
Radio, rental & operation		1,000,00
	Total	\$31,000.00
Engineering, supervision, 10%		3,000.00
Administration, 15%		5,000.00
Contingencies, 10%		4,000,00
	Total Budget	\$43,000,00

This budget assumes a completely independent operation, without split charters and quite extensive trenching and sampling.

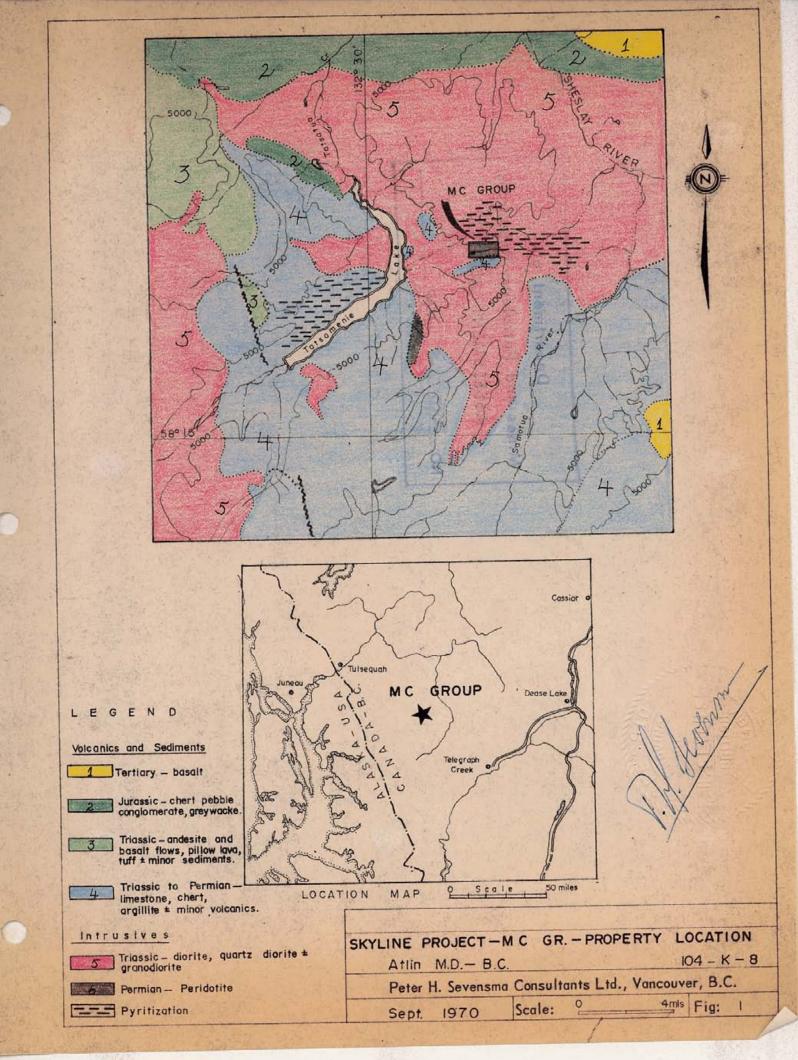
The next contingent stage would require a minimum of from 3,000' - 5,000' of drilling with large-size core, possibly preceded by IP work. Based on experience in the area, this stage is likely to require a minimum expenditure in the \$150,000.00 - \$200,000.00 range.

Respectfully submitted,

V. Cukor, P.Eng

P.H. Sevensma, Ph.D., P.Eng. PETER H. SEVENSMA CONSULTANTS LTD.

September 22, 1970





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18	19	21
	x-53	
16	17	20
мс	GROU	Р
2	1 6:100 0 6:20	11
5-2 N (Specime	an Cu.)	12
	///	X*4
6	7 1 5 0 7 3 P	6-40 13
5-4N 7-4	1 07-2P/	
3:3M	7-4 PA 7-4 PA 3-2 M 3-1 M 7	14
9-30		
16	9	15
	1 4 5 1 4	

Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3075 MAD #72

A Janen Marin

Z

Grid Area

3-1 M Showing

Cu

SKYLINE PROJECT - MC GROUP

Atlin M.D. - B.C.

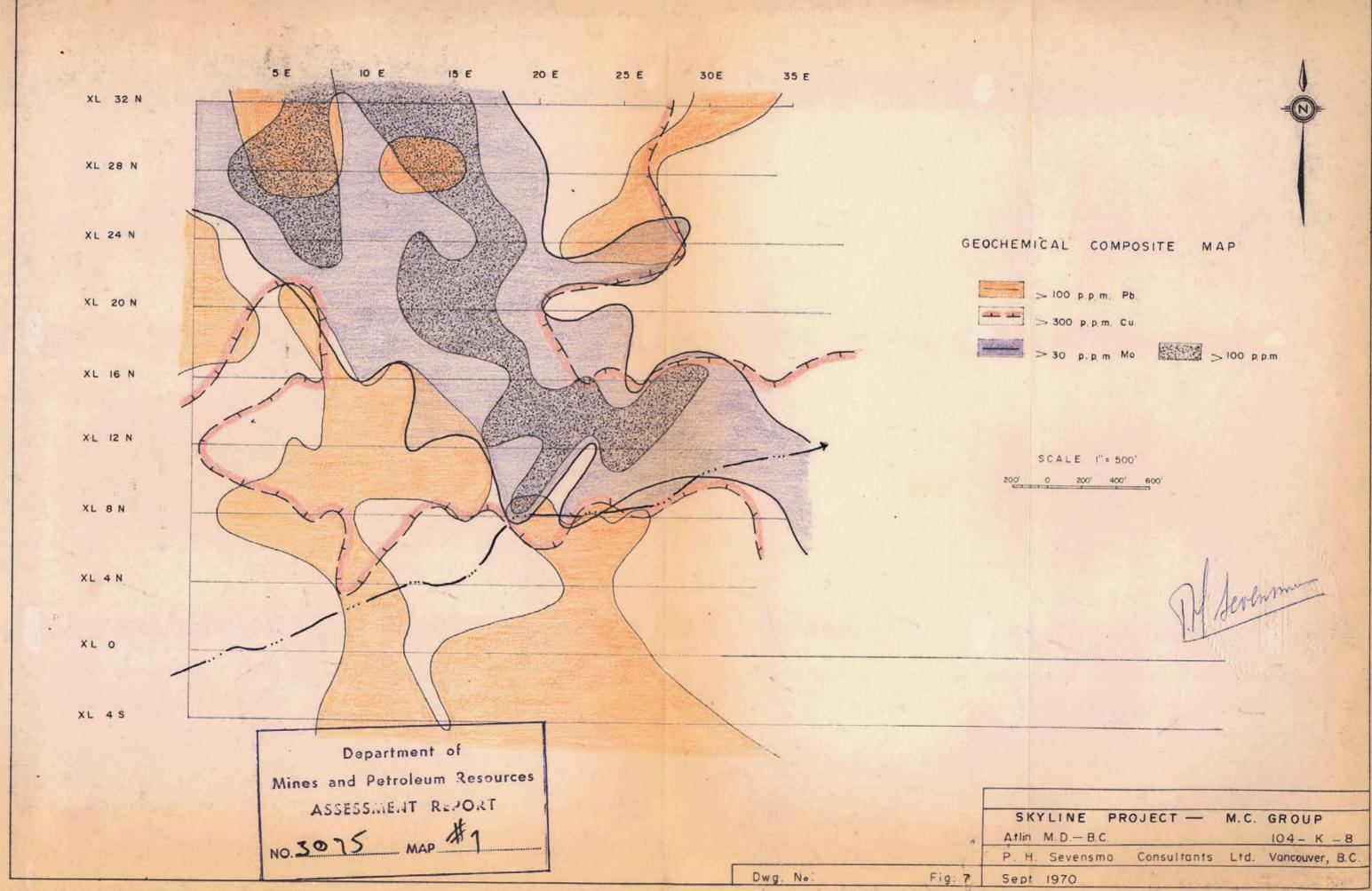
104- K-8

Peter H. Sevensma Consultants Ltd., Vancouver, B.C.

Sept. 1970

Scale:

1500' Fig: 2



BCII 2004 PHS

