

DOLMAGE CAMPBELL & ASSOCIATES LTD.
CONSULTING GEOLOGICAL & MINING ENGINEERS
1000 GUINNESS TOWER
VANCOUVER 1, B.C.

015814

Lewis River Mines Ltd. (N.P.L.)

Summary Report

GAIL and GMSW GROUPS

Goosy Lake Area
Omineca Mining Division
British Columbia.

February 1, 1971.

Robert S. Adamson, P. Eng.
Consultant.

Dolmage Campbell & Associates Ltd. Vancouver,
Canada.

934/1W Lewis
PROPERTY FILE

0934261

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
Location and Access	1
Description of Property	1
History and Previous Work	2
References	2
SUMMARY & RECOMMENDATIONS	3
GEOLOGICAL SETTING	4
Regional	4
Property	5
GOOSLY LAKE COPPER-SILVER DEPOSIT	5
GEOCHEMISTRY	6
CONCLUSIONS	8
Recommendations	8
CERTIFICATE	10

LIST OF ILLUSTRATIONS

Figures:		<u>Following Page:</u>
71-1	Location Map	1
71-2	Regional Geology	4
71-3	Geochemical Anomalies	7

DOLMAGE CAMPBELL & ASSOCIATES LTD.

CONSULTING GEOLOGICAL & MINING ENGINEERS

1000 GUINNESS TOWER

VANCOUVER 1, B.C.

- 1 -

INTRODUCTION

The writer has been requested by Lowes River Mines Ltd. to prepare a report on their Gail and GMGW Claim Group located near Houston, British Columbia. The available geological and geochemical data from the property coupled with published regional geological information from government sources form the basis of the report. The writer has not visited the property.

LOCATION AND ACCESS (56° 00'N, 126° 25'W)

The Gail - GMGW property lies 20 miles south-southeast of Houston, B.C., (See Figure 71-2), near Goochy Lake. A good 24-mile gravel road connects the property with Houston. Logging roads, suitable for four-wheeled drive vehicles, provide easy access to most parts of the property.

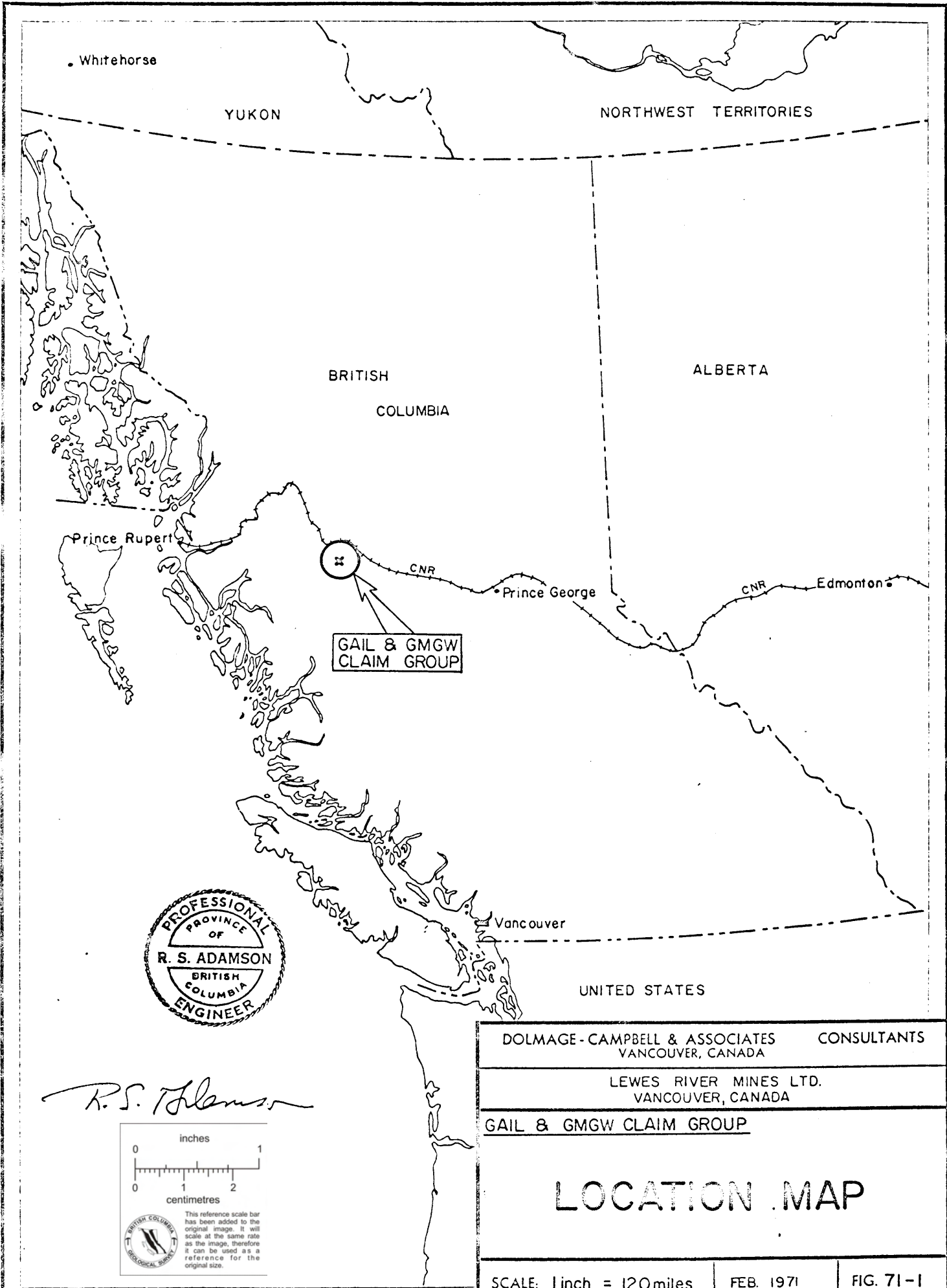
The Goochy Lake SG copper-silver deposit, currently under intensive exploration by Kennecott Explorations lies five miles northeast of the Lowes River Mines property.

DESCRIPTION OF PROPERTY:

The topography of the claim group consists of heavily wooded, gently-rolling hills rising above swampy flatland. Rock exposures are isolated and few.

The property consists of 159 contiguous mineral claims arranged in an irregularly-shaped block. The following mineral claims with their appropriate record numbers comprise the claim group.

<u>Claim Name</u>	<u>Record Number</u>
Gail 1-50 incl.	84459-84488 incl.
GMGW 1-37 incl.	87135-87173 incl.
GMGW 40	8717 3A
GMGW 41-109 incl.	871174-87283 incl.



Whitehorse

YUKON

NORTHWEST TERRITORIES

BRITISH
COLUMBIA

ALBERTA

Prince Rupert



CNR

Prince George

CNR

Edmonton

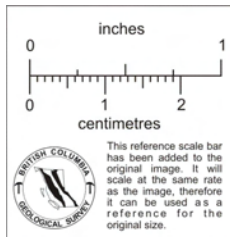
GAIL & GMGW
CLAIM GROUP

Vancouver

UNITED STATES



R. S. Adamson



DOLMAGE - CAMPBELL & ASSOCIATES CONSULTANTS
VANCOUVER, CANADA

LEWES RIVER MINES LTD.
VANCOUVER, CANADA

GAIL & GMGW CLAIM GROUP

LOCATION MAP

SCALE: 1 inch = 120 miles

FEB. 1971

FIG. 71-1

HISTORY AND PREVIOUS WORK:

No previous mineral exploration is known to have been conducted on the property prior to 1970. During October, 1970 Archer, Cathro and Associates Ltd. conducted a soil survey over the entire claim block on behalf of Lewes River Mines Ltd. While carrying out the geochemical survey rock outcrops when found were mapped.

REFERENCES:

For the compilation of the report the writer has drawn upon the following publications:

1. Geological compilation map of the Smithers, Hazelton and Terrace Areas by N. C. Carter and R. V. Kirkham; B.C. Dept. of Mines Map 69-1.
2. Aeromagnetic map of the Colleymount Area; Geophysics paper 5302, NTS Sheet 93L-1.
3. Report on the Gail and GMGW Claim Groups by D.W. Tully, P.Eng. dated July 13, 1970.
4. Geochemical and Geological Assessment report on the Gail and GMGW Claim Groups by A. Archer, P.Eng. dated January 15, 1971.
5. Report on the SG Claim Group (owned by Kennco Explorations) by B.N. Church; Geology, Exploration and Mining in British Columbia 1969, pp 142, B.C. Dept. of Mines.

DOLMAGE CAMPBELL & ASSOCIATES LTD.

CONSULTING GEOLOGICAL & MINING ENGINEERS

1000 GUINNESS TOWER

VANCOUVER 1, B.C.

- 3 -

SUMMARY & RECOMMENDATIONS

The Gall and GAGW property of Lower River Mines Ltd. consisting of 150 mineral claims is located near Geesty Lake 20 miles south southeast of Houston, British Columbia. The SG copper-silver deposit of Kennecott Explorations lies five miles northeast of the property. Access is via an all-weather gravel road from Houston.

The geological setting of the property consists of tightly-folded Lower Jurassic volcanic and minor sedimentary rocks unconformably overlain by gently-folded Tertiary andesitic to basaltic volcanic rocks. Two granitic stocks discordantly intrude the northeast-trending Mesozoic formations.

Copper-silver mineralization of economic importance occurs as a replacement deposit in Mesozoic rocks adjacent to an Eocene fold-per-porphyry stock on the Kennecott Explorations SG property. No mineralization is presently known to exist on the Gall and GAGW property, principally because outcrops are few.

Three copper geochemical anomalies have been defined by a detailed soil survey on the property. The copper anomalies are supported by anomalous silver values.

Further exploration of the geochemical anomalies is warranted in view of the favourable geological setting of the soil anomalies both regionally with respect to the SG copper-silver deposit and locally on the property.

RECOMMENDATIONS:

The writer proposes that the following two stage exploration program with attendant estimated costs be implemented:

Stage 1

Carry out geophysical surveys followed by bulldozer trenching. The cost is estimated to be \$40,700.

Stage 2

If results of Stage 1 warrant it proceed with a reconnaissance diamond drill program to evaluate geophysical anomalies. The cost is estimated to be \$60,500.

GEOLOGICAL SETTING

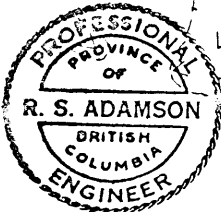
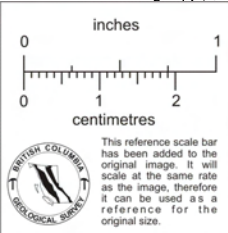
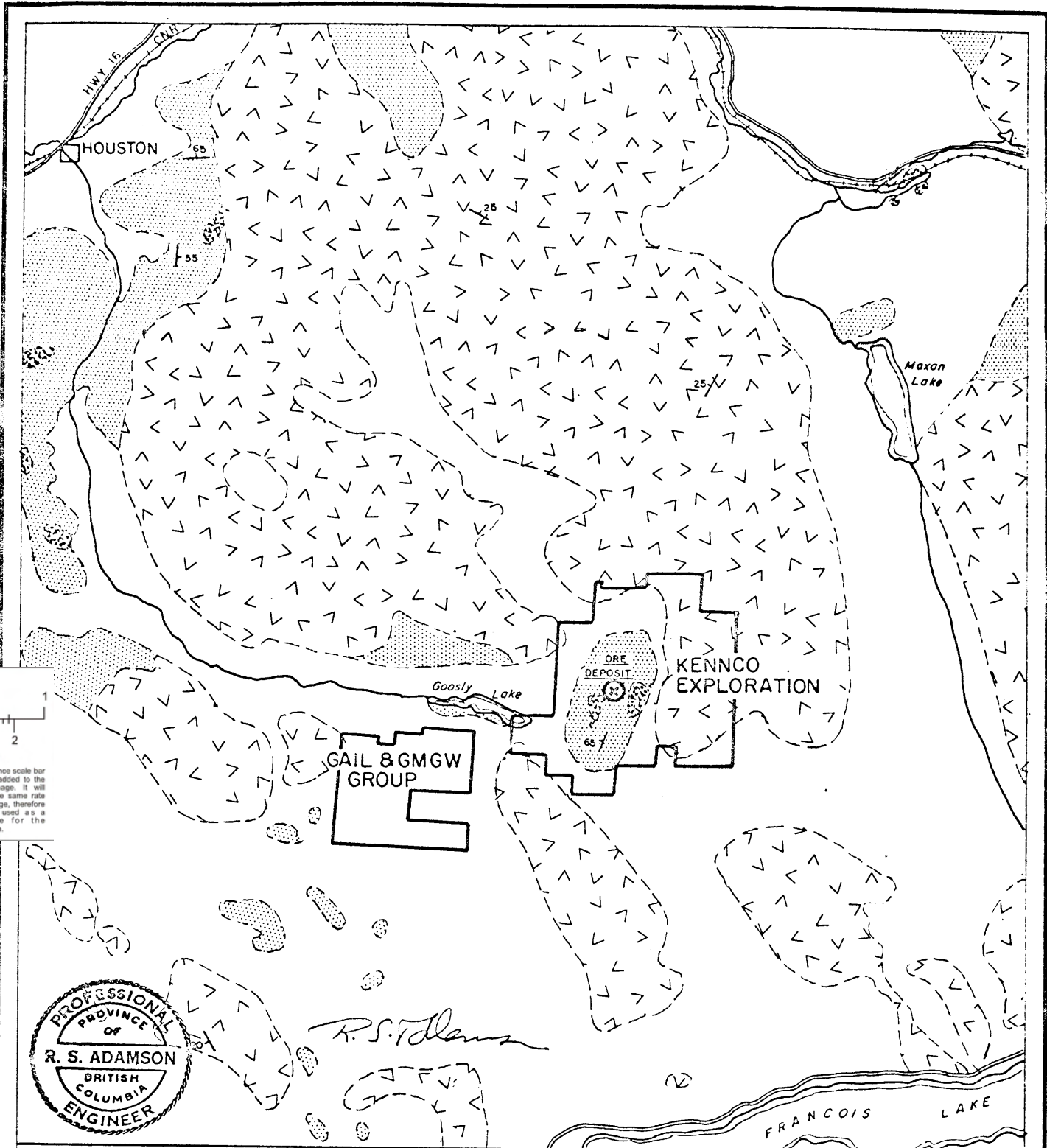
The Geesly Lake district lies within the northwesterly-trending Skeena Arch, a belt of uplift and intrusion located in west-central British Columbia. Topography throughout the belt is extremely variable; granitic mountains rise spectacularly above subdued, rolling, plateau terrain. Peaks range to near 9000 feet while broad valley floors lie between elevations 2500 feet and the general plateau elevation of 3500 feet.

REGIONAL GEOLOGY: (Figure 71-2)

The oldest rocks in the Geesly Lake district consist of Lower Jurassic andesitic volcanic flows and pyroclastics with minor intercalated sedimentary rocks. In part interbedded near the top of the volcanic unit but generally lying above it are sedimentary formations comprised of graywacke, siltstone, mudstone, tuffaceous graywacke, and minor conglomerate of Middle Jurassic age. The Mesozoic formations usually occur as windows exposed through Tertiary volcanic rocks at and below the general plateau level of 3500 feet. The Mesozoic formations are generally folded steeply northeast but the regional attitude may digress locally as a result of intrusive doming.

Unconformably overlying the Mesozoic rocks are two ages of Tertiary volcanic flows and pyroclastics. The upper unit is basaltic in composition and predominantly flat-lying; whereas the older lower unit, thought to be Eocene in age, tends to be gently folded as compared to the underlying and overlying formations. The composition of the lower Tertiary unit has been determined to be a trachyte or trachyandesite in the immediate area of the Kennecott's S.G. property.

Also to intermediate intrusive rocks ranging in age from Jurassic to Tertiary invade the above formations, excepting the basaltic formation of the Tertiary volcanic sequence. Of economic interest is the presence of two Tertiary intrusive stocks on Kennecott Explorations property; a monzonitic feldspar-porphyry dated by K-Ar techniques at 49 million years, and a granite stock dated at 56 million years. The feldspar-porphyry which cuts the lowermost Tertiary trachyandesite is chemically similar to the Eocene volcanics, hence they may be genetically related.



R.S. Adams

LEGEND	
	Alluvium & Drift
TERTIARY	VOLCANICS Andesite & Basalt
JURASSIC to TERTIARY	INTRUSIVE ROCKS
JURASSIC	VOLCANICS, minor SEDIMENTARY ROCKS

DOLMAGE-CAMPBELL & ASSOCIATES VANCOUVER, CANADA		CONSULTANTS
LEWES RIVER MINES LTD. VANCOUVER, CANADA		
PROPERTY LOCATION		
REGIONAL GEOLOGY		
HOUSTON AREA		After N.C. Carter and R.V. Kirkham
SCALE: 1 1/4" = 5 miles	FEB. 1971	FIG. 71-2

PROPERTY GEOLOGY: (Figure 71-3)

Rock outcrops on the Lewis River Mines property are few, but when relating the general elevation of the property with the few exposures available it is evident that Mesozoic volcanic and lesser sedimentary rocks comprise the bulk of the underlying terrain. Scattered exposures reported from the southwest and northeast parts of the property suggest the Mesozoic rocks have been folded moderately to steeply along northeast axes; this is consistent with the overall regional trend in the area.

Locally within the property boundaries, two areas of intrusion are apparent, manifested by aeromagnetics and supported by local outcrop and angular float. A diorite plug indicated from the aeromagnetic survey crops out in the heart of the property. The presence of monzonite outcrop reported from the western part of the property is verified by the aeromagnetic results.

Tertiary volcanic rocks of a trachyandesite composition lie at the north-eastern extremity of the property. A large mass of this unit forms the northwest-trending upland located immediately east of the property, (Figure 71-3). The aeromagnetic response over the mass suggests that the extensive rocks may be underlain by an intrusive feeder. This feature may be of economic significance as the feldspar porphyry plug adjacent to Kennecott Explorations' copper-silver deposit responds magnetically positive.

No sulphide mineralization, other than minor local limonitic indications of pyrite, has been found to date on the property.

GOOSLY LAKE COPPER-SILVER DEPOSIT

In order to assess the likelihood of the presence on the Lewis River property of an ore deposit with similar geological characteristics to those of Kennecott's copper-silver deposit, these characteristics must be examined fully. A synopsis of the pertinent geological features as described by N.R. Church of the Dept. of Mines is presented as follows:

Sulphide mineralization consisting of chalcopyrite, pyrite, and tetrahedrite replaces a tuffaceous horizon in Mesozoic strata. The deposit, 100 to 200 feet in width, lies immediately west of and adjacent to a feldspar-porphyry stock of Eocene age. The mineralization may be genetically related to the stock which in turn is suspected to be a feeder to the Lower Tertiary trachyandesites. A somewhat older, locally mineralized, granite stock lies near to and west of the mineralized zone.

On the basis of the available evidence the trend of the mineralized zone is obscure; however, the milling pattern suggests the ore zone trends westerly for several hundred feet. Another sulphide occurrence located in a crack 1000 feet north-easterly indicates the overall mineralized zone may trend northeastward. Steeply dipping, northerly-trending regional bedding attitudes probably are modified in the general vicinity of the mineralized zone by the intrusion of the two stocks which were discussed previously.

On and around the property topographic and dipphoto lineaments, apparently related to fracturing and cleavage developed in the Mesozoic rocks, trend northeasterly.

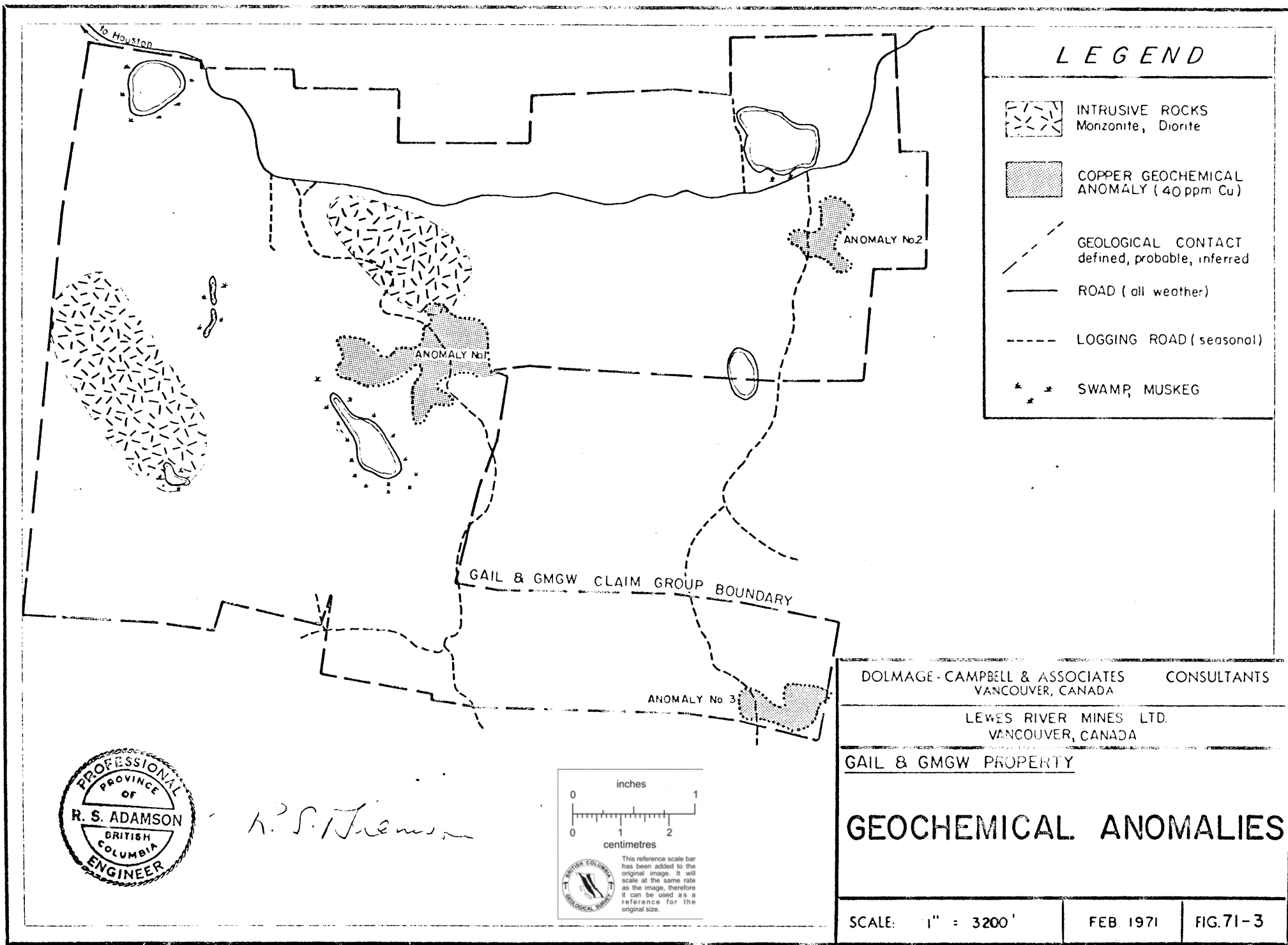
GEOCHEMISTRY

From October 15 to 17, 1970 Archer, Cathro and Associates Ltd. carried out a geochemical soil survey over the entire claim group. Samples were taken at 400 foot intervals from lines 400 feet apart and analyzed by atomic absorption spectrometry for copper and silver. Background over the property averaged approximately 20 ppm copper and 0.5 ppm silver. Anomalous copper and silver values were calculated to be in excess of 40 ppm copper and 1.0 ppm silver, respectively. Three fairly well-defined anomalous areas, designated Anomalies Nos. 1, 2 and 3, were outlined, (See Figure 71-3)







Anomaly No. 1 consists of an irregularly-shaped area defined by the 40 ppm copper contour and has an areal extent of approximately 3000 feet by 400 feet. Within the area values range from 40 to 94 ppm copper, averaging 63 ppm. Anomalous silver values (1 to 3 ppm), although irregularly distributed, support the copper anomaly. The presence of the anomaly adjacent to a diorite intrusive stock suggests it may be economically significant.

Anomaly No. 2, covering an area approximately 800 feet by 1100 feet, lies on the northeast sector of the property. Values within the anomalous area range from 40 to 82 ppm copper, averaging 63 ppm. Irregularly distributed anomalous silver values, (1 to 3 ppm), again broadly support the copper anomaly. The No. 2 anomaly lies adjacent to the previously discussed Tertiary volcanic mass.

Anomaly No. 3, a more precisely-defined anomaly than the other two, lies on the southeastern corner of the property. The anomaly covers an area approximately 2000 feet by 800 feet. Copper values within the anomalous area range from 40 to 173 ppm, averaging 76 ppm. Anomalous silver values, (1.0 to 2.5 ppm), are more erratically distributed but, in general, broadly support the copper anomaly.



LEGEND

-  INTRUSIVE ROCKS
Monzonite, Diorite
-  COPPER GEOCHEMICAL ANOMALY (40 ppm Cu)
-  GEOLOGICAL CONTACT defined, probable, inferred
-  ROAD (all weather)
-  LOGGING ROAD (seasonal)
-  SWAMP, MUSKEG

DOLMAGE-CAMPBELL & ASSOCIATES CONSULTANTS
VANCOUVER, CANADA

LEWES RIVER MINES LTD.
VANCOUVER, CANADA

GAIL & GMGW PROPERTY

GEOCHEMICAL ANOMALIES

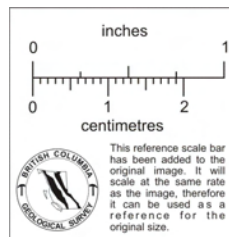
SCALE: 1" = 3200'

FEB 1971

FIG. 71-3



R. S. Adamson



CONCLUSIONS

A statistical analysis of the geochemical data indicates that two distinct geochemical populations exist on the property; therefore the three copper geochemical anomalies as defined are considered to be valid. Associated anomalous silver values further accentuated the validity of the copper anomalies.

It is evident that all three geochemical anomalies are underlain by the lower Jurassic volcanic-sedimentary sequence, the same general rock unit hosting the SG copper-silver deposit. The proximity of the No. 1 anomaly with respect to the chlorite stock presents an additional favourable geological parameter. In the case of the No. 2 anomaly it lies adjacent to an extensive mass of Tertiary volcanics which is indicated to be underlain by an intrusive feeder similar to that adjacent to the SG deposit.

Further exploration in the Oull and G/MGW property is warranted on the basis of the available geochemical, geophysical, and geological evidence.

RECOMMENDATIONS:

The writer therefore proposes that the following two stage program be implemented.

Stage 1

- a) Conduct geophysical surveys over each of the three geochemical anomalies. These surveys should consist initially of detailed induced polarization and magnetic surveys, followed by an electromagnetic survey over any IP anomalies defined.
- b) Carry out bullhazer trenching over any IP anomalies and electromagnetic conductors detected during the geophysical surveys.

Stage 2

If the geophysical results warrant it, a reconnaissance diamond drill program should be initiated with a view toward investigating those anomalies which cannot, because of overburden conditions, be accessed by trenching.

The estimated cost of each stage of the above program is summarized as follows:

Stage 1:

Linecutting	\$ 3,000
Geophysical surveys	20,000
Buildings trenching	3,000
Supervision, engineering, consulting	3,000
Office overhead, administration, claims	4,000
<u>Sub-Total</u>	<u>37,000</u>
Contingencies (10%)	<u>3,700</u>
<u>TOTAL:</u>	<u>\$40,700</u>

Stage 2:

Diamond drilling 3000 feet.	45,000
Supervision, engineering, consulting	3,000
Office overhead, administration, etc.	3,000
<u>Sub-Total:</u>	<u>51,000</u>
Contingencies (10%)	<u>5,100</u>
<u>TOTAL:</u>	<u>56,100</u>
<u>GRAND TOTAL:</u>	<u>\$ 101,200</u>



Respectfully submitted,
DOLMAGE CAMPBELL & ASSOCIATES LTD.

R. S. Adamson

R.S. Adamson, P.Eng.

Vancouver, Canada.

DOLMAGE CAMPBELL & ASSOCIATES LTD.

CONSULTING GEOLOGICAL & MINING ENGINEERS

1000 GUINNESS TOWER

VANCOUVER 1, B.C.

- 10 -

CERTIFICATE

I, Robert S. Adamson, with business and residential addresses in Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer.
2. I am a graduate of the University of British Columbia, (B.A. Sc., in Geological Engineering, 1957).
3. I am a registered Professional Engineer of the Province of British Columbia.
4. From 1957 to 1967 I was engaged in mineral exploration in Canada as a geologist for a number of companies. I was Chief of Exploration for Anvil Mining Corp. Ltd. when I retired in 1967 to join the firm of Dolmage Campbell & Associates Ltd. as a consulting geologist.
5. I have not examined the GML and GATOW claim Groups. This report is compiled from the available literature.
6. I have not received, directly or indirectly, nor do I expect to receive any interest, direct or indirect, in the property of Lower River Mines Ltd. (N.P.L.), or any affiliate thereof, nor do I beneficially own, directly or indirectly, any securities of Lower River Mines Ltd. (N.P.L.), or any affiliate thereof.

Respectfully submitted,

R. S. Adamson

R.S. Adamson, B.A.Sc., P.Eng.

