

GEOCHEMICAL REPORT

on the

GOWAN CREEK PROSPECT

SKOOKUM 1 Record No. 1190 (3)
SKOOKUM 2 Record No. 1191 (3)
CHUCK 1 Record No. 1192 (3)
GOWAN Record No. 1303 (10)

NEW WESTMINSTER MINING DIVISION

NTS 92G/16

LATITUDE 49°56' LONGITUDE 122° 22'W

DATES OF WORK: Aug. 28 - Oct. 15/82

by W. A. Howell, B.Sc.

JMT SERVICES CORP.
8827 HUDSON STREET
VANCOUVER, B.C.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,005

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INTRODUCTION

Outcrops of Fire Lake Group rocks near Gowan Creek were examined during a reconnaissance programme in 1980. Skookum 1 & 2 and Chuck 1 claims were staked March 7, 1981. The Gowan claim was staked Sept 17, 1981. Preliminary sampling and geological mapping was carried out during the 1981 field season by the writer and Barry Price, geologist. This work has been previously reported by Price (1981). A short sampling and prospecting programme was carried out in 1982 by the writer and C. Harivel, geologist. A total of 14 soil and 12 rock chip samples were collected and form the basis for this report.

LOCATION AND ACCESS (Figures 1,2)

The claims cover an area between and surrounding the junctions of Gowan and Livingston Creeks with Lillooet River, 100 km northeast of Vancouver and 55 km southeast of Pemberton. Logging roads extend through the center of the property from the main access road. The area is generally snow-free from late March to late October.

MINERAL CLAIMS

The area of interest is covered by four claims, owned by Gordon G. Richards.

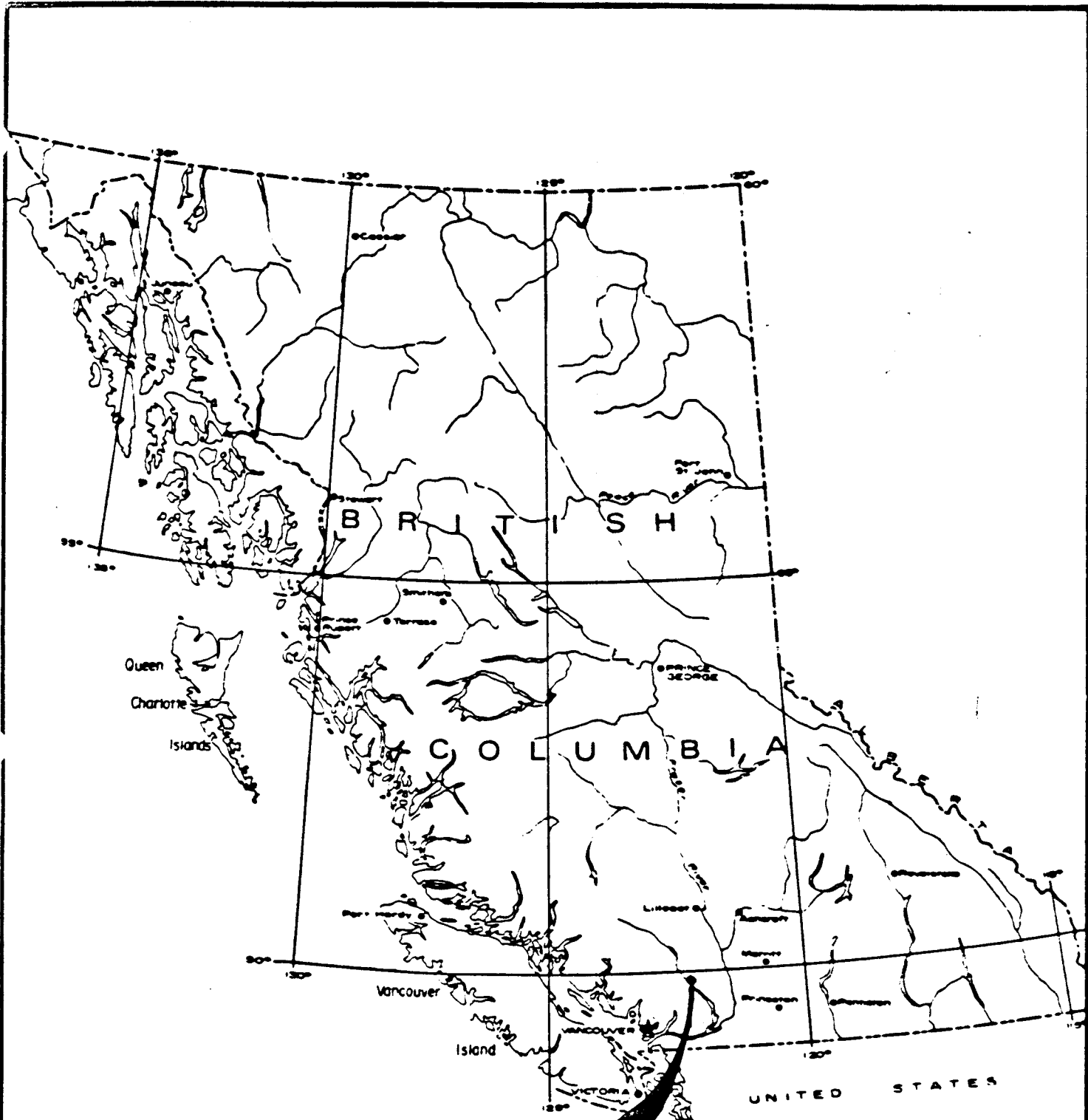
CLAIM NAME	RECORD NO.	DATE OF RECORD	UNITS	LEASE NO.
SKOOKUM 1	1190 (3)	March 31, 1981	12	
SKOOKUM 2	1191 (3)	March 31, 1981	16	
CHUCK 1	1192 (3)	March 31, 1981	3	
GOWAN	1303 (10)	October 15, 1981	9	
	1098 (11)			

The claims surround five reverted crown granted claims held

by others:

JOE DANK	2591A
SUNSHINE	2590A
MAYFLOWER	2592A
YELLOW COPPER	2593A
DEEP CREEK	2594A

Claims are shown on the accompanying map (Figure 2).



GOWAN PROPERTY

JMT SERVICES CORP.			
FIG. 1			
PROPERTY LOCATION MAP			
SCALE			
Mile 136		136 Mile	
Prepared by:	Date:	NTS MAP AREA	DRAWING No.
Drawn by:	Revised:		

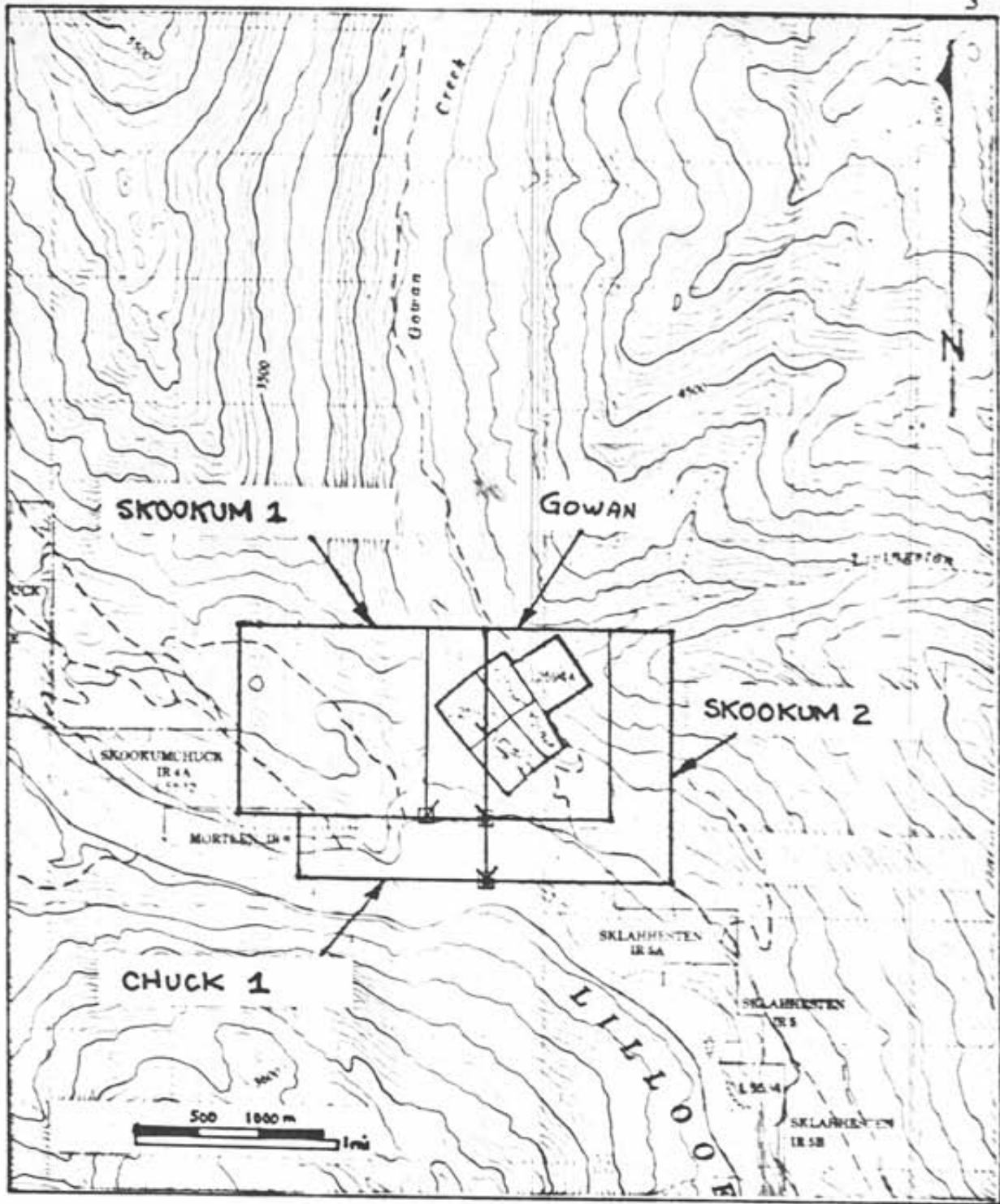


Figure 2: CLAIM MAP.

REGIONAL GEOLOGY

Gowan and Livingston Creeks cut through a northwesterly trending pendant of Fire Creek group volcanic and sedimentary rocks near Lillooet River. The pendant is fault bounded on the west side and possibly also on the east. Those on the west are the Main Harrison Lake-Lillooet River fault and a subsidiary splay. Livingston Creek, remarkably linear to within a short distance of Gowan Creek, is believed to be fault controlled. The pendant is bounded on the west by younger biotite quartz diorite and on the east by hornblende quartz diorite and diorite. Metamorphic grade in the Fire Creek rocks increases eastward toward the contact.

The Fire Lake Group in the vicinity of Livingston Creek is described by Roddick (1965) as follows:

"The rocks resemble parts of the middle and upper units of the Fire Lake body (shales and quartz-feldspathic tuffs lapilli and minor breccias). The lower beds outcropping near the river consist of grey to grey green argillite. In places it is sandy (arkosic) and partly recrystallized..

The upper part (probably more than half) of the body in the Livingston Creek area consists of partly altered feldspar porphyry of andesitic composition..... The internal structure of the Livingston Creek body is probably complicated by faulting as it is difficult to follow the beds far along strike. Where clearly defined, the beds are approximately parallel with Lillooet River Valley and dip steeply to the northeast. "

HISTORY OF THE PROSPECT

References: B.C. Mines, Ann. Reprt: 1904, P266; 1930, pA314;
 Cairnes, C.E., 1922, Observation on Lillooet Valley, B.C.;
 Canadian Min. J., Vol. 47 No.s 7 & 8
 Roddick, J. A. 1965, Vancouver North, Coquitlam, Pit Lake map areas, B..C.
 and G.S.C. Mem. 335

The area was first explored in 1897 by John S. Grant, who staked a discovery claim, and in partnership with four others, prospected a group of five claims. These claims are those in central part of the JMT claims, and were known as the Sunshine, Mayflower, Yellow Copper, Deep Creek and Joe Dank crown granted claims (see claim list.) The claims are reported to have quartz veins "carrying in places high values in silver, both in native and sulphide form, and also, though less commonly, good values in gold (Cairnes, 1927).

Claims were staked adjacent to the crown grants from time to time but these received no great amount of attention.

1980 WORK PROGRAMME

During road reconnaissance in 1980, the pyritic sericitic schists and coarse dacite lapilli tuffs were noted at Gowan Creek, but the claims were not staked until March 1981.

1981 WORK PROGRAMME

Subsequent to staking the claims, the road exposures and sericitic schist exposures were mapped and sampled. Later, in August 1981 several soil sampling traverses were completed on the Skookum 1 and Chuck 1 claims.

1982 WORK PROGRAMME

Budgetary and fiscal restraint requirements during 1982 only allowed a brief examination of the property by W.A. Howell and C. Harivel, geologists. Further geological and geochemical clarification and data was sought in an area of apparent transition from weakly pyritic rhyolitic breccias through strongly pyritic quartz sericite schists to sparsely mineralized to barren chloritic schists and andesites. This transition region is strongly pyritic and is locally anomalous for copper, zinc, lead.

PROPERTY GEOLOGY

The property covers a large area of Fire Lake group volcanic and volcanoclastic rocks adjacent to their contact with a large granodioritic mass. A unit which includes pyritic-sericite schist containing minor amounts of chalcopyrite and sphalerite is seen in several areas. The schists are in contact with a light green to grey silicic volcanic breccia on the SKOOKUM 1 claim and this is believed to be the same horizon and contact that is seen on the rusty road cut on the CHUCK 1 claim. The reverted crown-granted claims in the center of the claim block have a broad band of sericitic schist trending 130° to 140° through their center toward the SKOOKUM 1 claim, where a similar contact is exposed in the bed of Livingston Creek.

The schist unit is remarkably similar to pyritic schistose rhyolitic tuff horizons marking the footwall-hanging wall contact at the Myra-Lynx-Price massive sulphide "Kuroko" type ore deposits at Buttle Lake, and whole rock X-ray diffraction traces verified this similarity. The presence of scattered copper-zinc sulphides in several localities along this contact makes this unit an intriguing geological target for similar massive sulphide deposits.

Bedding in the volcanic/epiclastic package is everywhere steeply dipping, with most dips northeastward, and some suggestion, from outcrop patterns, of overturning to the southwest. The breccia/schist contact exposed on the CHUCK 1 claim is faulted and perhaps repeated by faulting. The faulting is thought to be the cause of an apparent offset of the favourable horizon of greater than 1 kilometer along Gowan and Livingston Creeks.

GEOCHEMISTRY

Prior to discussion of soil geochemistry, it will be important to note the geomorphology of the claims area and the soil types.

The elongate rocky hill underlying SKOOKUM 1 claim and similar rock knobs within SKOOKUM 2 claims are mainly hard resistant metamorphosed massive volcanics, and these glacially rounded and scoured knobs have developed little or no true soils.

The lower slopes of the hills, particularly near the mouths of Gowan and Livingston Creeks are mantled with sandy and gravelly alluvial debris and outwash, again with little or no residual soil. The geochemical results must be considered with these factors in mind.

The following techniques and procedures were followed during the course of collecting samples.

Soils

Soil samples were taken from B. horizon where possible, with a steel scoop and put into gusseted kraft paper sample envelopes marked with code numbers for each sampler. Records of location and characteristics of soil were kept in note-form by each sampler. At the lab, samples were dried at low temperatures, sifted, and portions of the -80 mesh fraction used for analysis.

Silts

Silt samples were taken from active stream sediments with a steel scoop and placed in kraft sample envelopes. Large samples were taken where necessary to ensure sufficient -80 mesh material is present. Samples were dried at low temperatures and sieved, with a portion of the -80 mesh fraction analyzed.

Rocks

A kraft envelope was partly filled with small chips taken from across the sampled interval, or if from float, from several random pieces. The chips were crushed and pulverized to approximately 100 mesh and homogenized and a small portion used for analysis.

Samples analyzed for copper, lead, zinc, and silver were dissolved in nitric-perchloric mixture of acids and determined by atomic absorption analysis. Silver values were corrected for background readings.

Geochemical analyses were completed by Chemex Labs, 212 Brooksbank Avenue, North Vancouver, B.C.

DISCUSSION

Copper values ranged from 5 ppm to 310 ppm. A value of 50 ppm has arbitrarily been considered anomalous.

Lead values ranged from 2 ppm to 173 ppm. Lead is a relatively insoluble and immobile element values in excess of 15 are usually considered anomalous in similar terranes. The presence of anomalous leads along favourable geological horizons is considered a highly significant indication of the proximity to lead mineralization.

Zinc values ranged from 20 ppm to 235 ppm. Previous programmes have considered values in excess of 175 ppm to be anomalous.

Silver analyses ranged from .1 ppm to 1.1 ppm. Silver values greater than .5 ppm have previously been considered anomalous on the property.

A very limited number of samples were analysed in 1982. A total of 26 samples, of which 14 were soils and 12 were rock chips. The samples were collected (B series) in the vicinity and along the projected footwall breccia pyritic quartz sericite schist area and (H series) across the extended projection of the same zone 500 metres to the west. It is the H series which are felt to have returned the most significant geochemical values. H823, a soil sample, ran 41 ppm Cu, 138 ppm Pb, 153 ppm Zn and .8 ppm Ag. Clearly strongly anomalous for Pb. H827, a soil sample ran 52 ppm Cu 175 ppm Zn and .9 ppm Ag. Also strongly anomalous for lead. The Ag values in both cases are felt to reflect the high Pb. The presence of anomalous lead on the projected rhyolite breccia strongly pyritic quartz sericite schist to barren chloritic andesite transition horizon is held to be a highly significant indication of base metal potential of this zone.

CONCLUSIONS

The 1982 programme has lent some emphasis and further clarification to the basic prospect outlined in previous reports. (Price, 1981 Assessment Report).

The favourable horizon on the claims occurs in two or more faulted panels with a combined strike length in excess of 3000 metres (greater than 1.86 miles). Very limited detail mapping and geochemical samplings has shown anomalous base metal geochemical values to exist in an area with host rock lithologies and mineralogies compatible with submarine volcanogenic exhalative type massive sulphide deposits.

RECOMMENDATIONS

Despite generally poor soil conditions on the property, further local geochemical sampling may provide clarification of the projected favourable contacts.

A programme utilizing geophysical E.M. or I.P. techniques may show the pyritic schist horizon in contrast with the near barren "hangingwall" rocks. Such a programme in combination with a backhoe for trenching and combined with concurrent geological mapping should be considered for the next phase of property development on the Gowan prospect.

Respectfully submitted



W. A. Howell
Geologist

December 28, 1981

APPENDIX I

STATEMENT OF COSTS

TIME

C. Harivel	August 29, 1982	\$ 225.00
W. A. Howell	August 29, 1982	225.00
Truck	Jimmy 4 x 4 1 day, 161 km	64.00
W. A. Howell	expenses (share)	106.82

DISBURSEMENTS

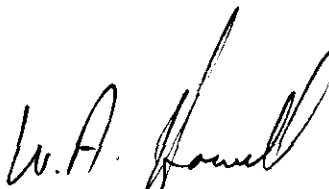
Chemex Labs	#13416	79.50
	#13415	66.50
Hudson Building Supplies (share)		19.85
Maps and reproduction		50.00
Report		<u>600.00</u>
		<u>\$1,436.97</u>

A P P E N D I X I I

STATEMENT OF QUALIFICATIONS

I, WILLIAM A. HOWELL, do hereby certify that:

1. I am a professional geologist working in British Columbia and residing at 10611 Ainsworth Crescent, Richmond, B.C. V7A 3V5
2. I am a graduate of the University of British Columbia, Bachelor of Science (Geology) 1971.
3. I have been employed in the mineral exploration industry since 1967 and have practiced my profession as a geologist since 1971.
4. I am a member of the Geological Association of Canada.
5. This report is based on my personal knowledge of the district and the mapping and sampling done on the property.



W. A. Howell, B.Sc.

APPENDIX III



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

TELEPHONE (604) 964-0221
TELEX 043-52597

CERTIFICATE OF ANALYSIS

TO : JMT SERVICES CORPORATION

8327 HUDSON STREET
VANCOUVER, B.C.
V6B 4N1

CERT. # : A5213416-001-A
INVOICE # : I5213415
DATE : 21-SEP-82
P.O. # : NONE
GDHAN

02-235

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ag ppm		
823-1320	205	310	73	60	0.1	--	--
823-1321	205	24	21	120	0.1	--	--
823-1322	205	13	11	30	0.1	--	--
823-1323	205	29	11	100	0.1	--	--
823-1325	205	15	12	235	0.2	--	--
823-1329	205	34	36	210	0.2	--	--
823-1331	205	68	8	86	0.1	--	--
82H-818	205	51	4	98	0.1	--	--
82H-819	205	102	8	38	0.3	--	--
82H-820	205	5	9	17	0.1	--	--
82H-821	205	16	9	26	0.2	--	--
82H-824	205	58	19	60	1.1	--	--



Certified by *Hart Bichler*



CHEMEX LABS LTD.

RECEIVED Sep 23 1982

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

• ANALYTICAL CHEMISTS

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CERTIFICATE OF ANALYSIS

TO : JMT SERVICES CORPORATION

8827 HUDSON STREET
VANCOUVER, B.C.
V6B 4N1

CERT. # : A8213415-001-A

INVOICE # : I8213415

DATE : 21-SEP-82

P.O. # : NONE

GOWAN

02-235

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ag ppm		
82B-1324	201	63	14	103	0.1	--	--
82B-1325	201	28	3	44	0.1	--	--
82B-1327	201	57	9	100	0.2	--	--
82B-1328	201	35	3	70	0.2	--	--
82B-1330	201	73	17	128	0.5	--	--
82H-814	201	34	2	40	0.1	--	--
82H-815	201	26	2	20	0.1	--	--
82H-816	201	15	2	36	0.2	--	--
82H-817	201	37	9	78	0.1	--	--
82H-822	201	29	6	80	0.1	--	--
82H-823	201	41	138	153	0.8	--	--
82H-825	201	26	25	133	0.2	--	--
82H-826	201	99	13	80	0.4	--	--
82H-827	201	52	173	175	0.9	--	--



MEMBER
CANADIAN TESTING
ASSOCIATION

Certified by *Hart Bichler*

GOWAN CREEK PROSPECT

SKOOKUM 1,2, CHUCK 1 & GOWAN CLAIMS
NEW WESTMINSTER MD.

Cu Pb Zn Ag GEOCHEMISTRY
and

SAMPLE LOCATIONS

- SOIL (1982) ○ B1336 63, 14, 103, 0.1 (ppm)
- SILT (1982) ○ B1336 63, 14, 103, 0.1 (ppm)
- △ ROCK (1982) ○ B1336 63, 14, 103, 0.1 (ppm)
- ANOMALOUS (1982)

To accompany report by W.A. Howell Dec 1982

FIG. 3

Livingston
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,005

