

**GEOCHEMISTRY REPORT**

**ON THE**

**CORNER GROUP MINERAL CLAIMS**

**GRAHAM ISLAND, QUEEN CHARLOTTE ISLANDS, B.C.**

**SKEENA MINING DIVISION**

**NTS 103 F/9E**

Latitude  $53^{\circ} 32' - 53^{\circ} 33'$

Longitude  $132^{\circ} 09' - 132^{\circ} 12'$

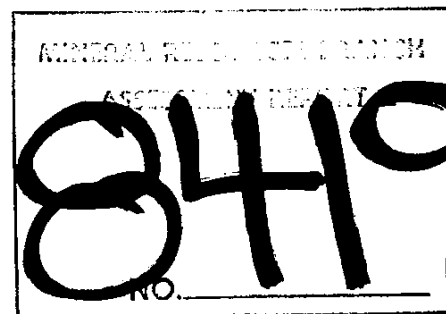
**FOR**

**KNOBBY LAKE MINES LTD.**

**807 - 535 Granville Street**

**Vancouver, B.C.**

by P.G. Curtis



## SUMMARY

This report details the procedure, work done and results of a reconnaissance geochemical survey which was completed in 1979, for filing assessment work required to maintain the property in good standing.

Although anomalous areas can be discriminated, it is felt that the method of sample collection is producing too many organic rich samples. Mercury and Arsenic appear to be severely depressed in an organic environment.

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GEOCHEMISTRY REPORT  
ON THE  
CORNER GROUP MINERAL CLAIMS  
GRAHAM ISLAND, QUEEN CHARLOTTE ISLANDS, B.C.  
SKEENA MINING DIVISION  
FOR  
KNOBBY LAKE MINES LTD.  
807 - 535 Granville Street  
Vancouver, B.C.

by  
P.G. Curtis

**Introduction**

This report was authorized by Knobby Lake Mines Ltd. which company has the option to purchase the subject mineral claims.

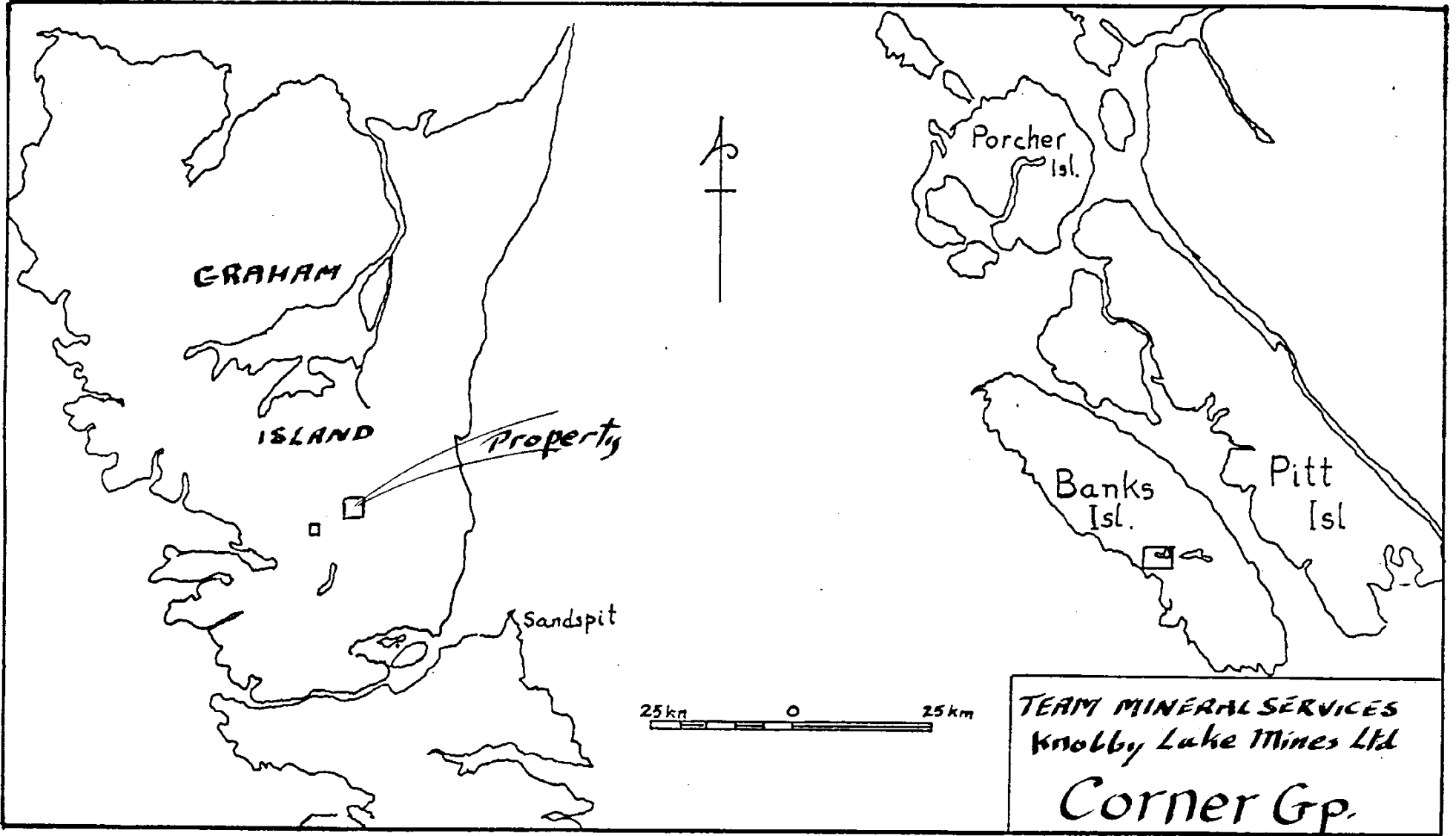
Its purpose is to report on the procedure, costs and results of a reconnaissance geochemical survey carried out in 1979.

**Location**

The property is located in the north central part of Graham Island approximately 10 km southeast of Juskatla and approximately 1½ km due east of the mineral zone presently being developed by Consolidated Cinola Mines Ltd.

**Access**

An abandoned logging road exists at the southwest corner post of the Dip claims. No other roads occur on the group.



### Topography

The topography is of low relief, from 40 - 80 metres above sea level. The slopes are generally quite gentle and much of the ground is waterlogged throughout the year.

### Geology

No outcrop was observed in that part of the group covered by this survey.

### Claim Group

<u>Claim Group</u>	<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>
Corner	Dip	15	
	Corner	20	

### Cost of Program

This program was carried out under contract by Team Mineral Services Inc. of 1274 - 56th Street, Delta, B.C. The amount of assessable work performed on the corner group was \$3,542.16 as detailed in appendix D.

### Geochemical Program

The Grid was laid out to give a sample spacing of 50 metres on lines 200 metres apart as shown on map in pocket. A line of sight base line was established along part of the southern border of the group.

Samples were dug with a small pick and an effort was made to get to the B horizon.

All samples were put in standard "Wet proof" bags marked with their location.

The samples were taken to Acme Analytical Labs Ltd. of Vancouver B.C. for assaying for Mercury and Molybdenum and for line 600 E Gold and Arsenic as well.

The analysis procedure and assay Certificate are enclosed in Appendix B.

### Results

Although it had been rumoured that molybdenite had been observed in float, the results do not offer any supporting evidence.

Mercury and Arsenic definitely show anomalous results where the B Horizon has been sampled but both metals are drastically depressed in the organic horizons.

### Discussion

The results indicate that the sample gathering technique must be altered if a higher proportion of B Horizon samples are to be collected. It is suggested that a soil auger be tried.

Mercury and Arsenic appear to be excellent tracer elements in any search for gold in this area.



### Geochemical Analysis of Hg

#### Digestion

A .50 gram sample is digested with nitric and perchloric acid and diluted with 20% HCl.

#### Determination

Hg is determined by cold vapour AA using F & J scientific Hg assembly. An aliquot is added to stannous chloride-hydrochloric acid solution. The reduced Hg is carried by bubbling air through the solution and passed into the Hg cell determined by AA.

### Oxalic Acid Leach of Rock, Soil & Silt Samples

A .50 gram sample is digested hot with 10 mls 5% oxalic acid solution. The oxalic acid will dissolve Fe and Mn from their oxides of M - 1 fraction (but not from magnetite & ilmenite) limonites and clays. The following metals are analysed by atomic absorption: Cu, Zn, Pb, Ni, Mo, Fe, & Mn.

### Cold HCl Acid Extraction

A .50 gram sample is leached at room temperature for 2 hours with occasional shaking with 10 mls 5% HCl solution. This will dissolve Cu from the organic and surface of clay fractions.

### EDTA Extraction

A .50 gram sample is leached at room temperature for 4 hours with 10 mls of 2.5% EDTA solution.

CORE & ROCK ASSAYS SOIL, ROCK & WATER GEOCHEM ANALYSIS

**ACME ANALYTICAL LABORATORIES LTD.**

MAIN LAB - 6455 LAUREL ST.  
BURNABY, B.C. V5B 3B4  
(604) 299-5242

ROSS RIVER - YUKON - (403) 969-2217

DEAN TOYE, B.Sc.  
CHIEF CHEMIST, CERTIFIED B.C. ASSAYER  
HOME PHONE 438-7672



Geochemical Analysis of Mo, Cu, Pb, Zn, Ag\*, Ni, Co,  
Mn, Bi\*, V, Fe, Cd\*, & Sb\*

Sample preparation

Soil samples are dried at 75°C and sieved to -80 mesh.

Rock samples are ground to -100 mesh.

Digestion

A .50 gram sample is digested with dilute aqua regia in boiling water bath and diluted to 10 mls with demineralized water.

Determination

All the above elements are determined by Atomic Absorption from the solution.

\* With background correction.

-As - By ICP emission spectrometer.  
Geochemical Analysis of Au

Digestion and extraction

A 10 gram sample which has been ignited over night at 600°C is digested hot with dilute aqua regia, and the clear solution is extracted with Methyl Isobutyl Ketone.

Determination

Au is determined by AA from the MIBK extractant with background correction.

Geochemical Analysis of Ba

A .100 gram sample is digested hot with NaOH and EDTA solution. The solution is analysis for Ba by AA.

Geochemical Uranium Analysis

Digestion

A .50 gram sample is digested hot with nitric and perchloric acid and diluted to 10 mls.

Fusion

An aliquot is solvent extracted with salting agent and aliquot of is fused with NaF, K<sub>2</sub>CO<sub>3</sub>, & Na<sub>2</sub>CO<sub>3</sub> flux in platinum dish.

Determination

The fluorescence of the pellet is read in the Turner fluorometer.



To: Roby Lake Mines  
 807 - 535 Granville St.,  
 Vancouver, B.C.

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R8

phone: 253 - 3158

File No. 0716

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

\* Corner Mineral Claim \*

1

SAMPLE No.		Mo	Hg							
0	N	org.	3	.250						1
0.5		org.	3	.260						2
1		org.	3	.300						3
1.5		org.	1	.105						4
2		org.	1	.100						5
2.5		org.	1	.185						6
3			3	.290						7
3.5		org.	1	.090						8
4			1	.220						9
4.5		org.	1	.105						10
5		org.	1	.190						11
5.5		org.	1	.330						12
6		sed.	1	.320						13
6.5		org.	1	.220						14
7		org.	1	.210						15
7.5		org.	1	.215						16
8			1	.170						17
8.5		sed.	3	.170						18
9		org.	1	.195						19
9.5		org.	1	.035						20
10		org.	2	.550						21
10.5		org.	1	.220						22
11		org.	1	.250						23
11.5			1	.135						24
12			1	.150						25
12.5		org.	2	.100		P				26
13		org.	1	.130						27
13.5		org.	2	.185						28
14			1	.195						29
14.5			3	.100						30
15	N		2	.270						31
200E	0	N	org.	1	.080					32
	0.5		org.	1	.060					33
	1		sed.	1	.050					34
	1.5		org.	1	.050					35
	2		N.S.							36
200E	2.5	N	org.	1	.075					37
										38
										39
										40

All reports are the confidential property of clients  
 All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

\* P for pulverizing

DATE SAMPLES RECEIVED Dec. 11, 1979

DATE REPORTS MAILED Dec. 19, 1979

ASSAYER Dean Toy

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER



To: Kobby Lake Mines

ACME ANALYTICAL LABORATORIES LTD.

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phone: 253 - 3158

File No. 0716

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

\* Corner Mineral Claim \*

SAMPLE No.		Mo	Hg							
200E 3	N	sed.	1	.210						1
3.5		org.	2	.180						2
4			2	.070						3
4.5			1	.100						4
5		org.	1	.280						5
5.5			2	.090						6
6		org.	1	.200						7
6.5		org.	1	.200						8
7		org.	1	.080						9
7.5		org.	1	.120						10
8		org.	1	.050						11
8.5			3	.230						12
9			3	.260						13
9.5		sed.	2	.320						14
10			1	.170						15
10.5			1	.040						16
11		org.	1	.160						17
11.5		org.	1	.180						18
12		org.	1	.070						19
12.5		org.	1	.210						20
13			1	.090						21
13.5		org.	1	.200						22
14		org.	1	.200						23
14.5			2	.070						24
200E 15	N		2	.060						25
										26
400E 0	N	org.	1	.130						27
0.5		org.	1	.125						28
1		org.	1	.155						29
1.5		org.	1	.160						30
2		org.	1	.050						31
2.5		org.	1	.080						32
3		org.	1	.130						33
3.5		org.	1	.080						34
4		org.	1	.100						35
4.5		org.	1	.105						36
400E 5	N	org.	1	.100						37
										38
										39
										40

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DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED



To: Knobby Lake Mines

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File No. 0716

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

\* Corner Mineral Claim \*

SAMPLE No.		Mo	Hg	As	Au							
400E 5.5 N	org.	1	.080			P						1
6	org.	1	.060			P						2
6.5	org.	1	.020			P						3
7	org.	1	.020			P						4
7.5	org.	1	.070			P						5
8	org.	1	.050			P						6
8.5	org.	1	.065			P						7
9	org.	1	.060			P						8
9.5	org.	1	.070			P						9
10	org.	1	.140			P						10
10.5	org.	1	.090			P						11
11	org.	1	.115			P						12
11.5	org.	2	.090			P						13
12	org.	1	.080			P						14
12.5	org.	1	.070			P						15
13	org.	2	.045			P						16
13.5	org.	1	.100			P						17
14	org.	1	.105			P						18
14.5	org.	1	.145			P						19
400E 15 N	org.	1	.130			P						20
												21
600E 0 N		1	4.100	17	.005	P						22
0.5		3	.585	5	.005	P						23
1		2	.340	1	.005	P						24
1.5		3	.440	2	.005	P						25
2		2	.505	3	.005	P						26
2.5		2	4.600	17	.005	P						27
3		2	.615	4	.005							28
3.5		2	.480	2	.005							29
4		2	.585	2	.005							30
4.5		3	.175	4	.005							31
5		3	.280	10	.005							32
5.5		2	.320	7	.005							33
6		1	5.100	34	.005	P						34
6.5		3	.410	7	.005	P						35
7		3	3.400	27	.005	P						36
7.5		2	3.400	29	.005	P						37
600E 8 N		2	4.800	29	.005							38
												39
												40

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DETERMINATION:.....

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phone: 253 - 3158

File No. 0716

Type of Samples

Disposition

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\* Corner Minerals Claim \*

SAMPLE No.		Mo	Hg	As	Au								
600E 8.5 N		1	4.700	23	.005	P							1
9	org.	1	.470	6	.005	P							2
9.5	org.	1	.200	6	.005	P							3
10	org.	1	.400	7	.005	P							4
10.5	org.	1	.395	6	.005	P							5
11	org.	1	.470	9	.005	P							6
11.5	org.	1	.400	6	.010	P							7
12		3	12.100	69	.010	P							8
12.5		3	12.400	73	.005	P							9
13		3	14.800	69	.010	P							10
13.5		4	13.000	60	.005	P							11
14		3	14.700	75	.005	P							12
14.5		4	14.400	58	.020	P							13
600E 15 N	org.	1	.850	7	.005								14
													15
													16
													17
													18
													19
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Appendix C

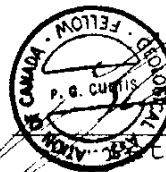
Qualifications of supervisor and author  
of this report.

I am a graduate of the Camborne School  
of Mines, Cornwall, England; with an  
additional diploma in applied geochemistry.

I have been employed in mineral exploration  
in Canada since 1967 (10 years with ASARCO  
Exploration Co. of Canada Ltd.)

I am a Fellow of the Geological Association  
of Canada.

Dated at Vancouver, British Columbia, this  
\_\_\_\_\_ day of March, 1981.



ter G. Curtis

**D**  
APPENDIX 'D'

Contract Analysis

<u>Employer</u>	<u>Claim Group</u>	<u>No. of Units</u>	<u>Contract Amount</u>	<u>Assays paid by Employer</u>	<u>Other Costs Paid by Employer *</u>	<u>Total Assessable Work</u>
Calabrigo	Bridge	110	\$ 8,689.70	\$ 2,310.30	\$ 100.00 <sup>(3)</sup>	\$ 11,100.00
Ashcroft	Golden	76	17,000.00	4,279.05	2,000.00 <sup>(3)</sup>	23,279.05
Calabrigo	MB	240	20,131.80	3,868.20	100.00 <sup>(3)</sup>	24,100.00
Ventura	MB	80	6,500.00	1,238.40	1,000.00 <sup>(3)</sup>	8,738.40
R. Dion	Easy	20	1,595.00	405.00	50.00 <sup>(3)</sup>	2,050.00
Alexander	DH	40	3,254.80	745.20	100.00 <sup>(3)</sup>	4,050.00
Black Diamond	FLY	40	3,000.00	763.20	567.00 <sup>(2)</sup>	4,330.20
Southern Union	FLY 6	20	1,625.00		400.00 <sup>(1)</sup>	2,025.00
Knobby Lake	Dip & Corner	35	3,000.00	542.16		3,542.16
Foremost Energy	Survey	120	9,480.00	2,520.00	100.00 <sup>(3)</sup>	12,100.00
R. Dion	(GCS, GCN ) (YAKI-3 ) (BET, ) (GOLDBIT )	79	<u>4,740.00</u>	<u>          </u>	<u>          </u>	<u>4,740.00</u>
			\$79,016.30	\$16,671.51	\$4,367.00	\$100,054.81

- \* (1) Cash in Lieu  
(2) Helicopters Costs, or  
(3) Engineering Reports (estimated)

NOTE: The Contractor's Cost Figure \$79,004.00 (from Appendix A) = 99.98% of total of contract prices above.

Therefore, for all practical purposes, the pro-rated cost of each contract performed is equal to the contract price paid by each employer to the contractor.

The Contracts were originally accepted on terms of cost plus 25% but field conditions and resulting performance were so poor that the contracts resulted in "break-even" operations.

**D**  
APPENDIX "E1"

Contractor's Cost Analysis  
(from the books of account of Team Mineral Services Inc.)

PART I Payroll Analysis (September - December, 1979 inclusive)

<u>Employee</u>	<u>Gross Wages (Days Worked)</u>				<u>Totals</u>
	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>	
Dion, R.	\$1500(10)	\$1500(10)	\$1500(10)	\$1500(10)	\$6000(40)
Hunchuk, D.	2000(20)	1500(15)	2000(20)	2000(20)	7500(75)
MacRae, B.	1200(20)	900(15)	1200(20)	1800(30)	5100(85)
Kolesar, T.		1100(20)	1200(20)	780(13)	3080(53)
Degontiere, R.		500(10)	1200(20)	780(13)	2480(43)
Meyerhoff, M.		500(10)	1200(20)	780(13)	2480(43)
Kirkwood, W.		500(10)	1200(20)	780(13)	2480(43)
Neufeld, T.		500(10)	1200(20)		1700(30)
Montrose, A.		600(10)	600(10)		1200(20)
Croft, T.		600(10)	1200(20)		1800(30)
Harper, S.				1000(20)	1000(20)
					<u>\$34820(482)</u>

PART II Total Cost Analysis

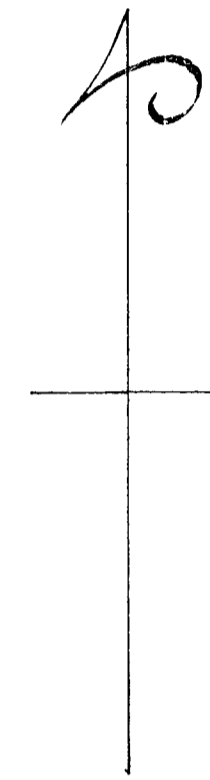
Payroll (as above)	\$34,820
Holiday pay; U.I.C., CPP, WCB @ 20%	<u>6,964</u>
	Sub-total 41,784
Room & Board @ \$40/man/day	19,280
Air fares and excess baggage	3,940
Fuel, Insurance, Engineering supplies and miscellaneous costs (estimated)	4,600
Truck Rentals	8,400
Typing, Drafting and Maps	<u>1,000</u>
	<u>\$79,004</u>



Dip  
5N, 3W

Corner  
5N, 4E

0.270 2	0.060 2	0.130 1	0.005 0.850 7 1
0.100 3	0.070 2	0.145 1	0.020 14.400 58 4
0.195 1	0.200 1	0.105 1	0.005 14.700 75 3
0.185 2	0.200 1	0.100 1	0.005 13.000 60 4
0.130 1	0.090 2	0.045 2	0.010 14.800 69 3
0.100 2	0.210 1	0.070 1	0.005 12.400 73 3
0.150 1	0.070 1	0.080 1	0.010 12.100 69 3
0.135 1	0.180 2	0.090 2	0.010 0.400 6 1
0.250 1	0.160 1	0.115 1	0.005 0.470 9 1
0.220 1	0.090 1	0.090 1	0.005 0.395 6 1
0.550 2	0.170 1	0.140 1	0.005 0.400 7 1
0.035 1	0.320 2	0.070 1	0.005 0.200 6 1
0.195 1	0.260 3	0.060 1	0.005 0.470 6 1
0.170 3	0.230 3	0.065 1	0.005 4.700 23 1
0.170 1	0.050 1	0.050 1	0.005 4.800 29 2
0.215 1	0.120 1	0.070 1	0.005 3.400 29 2
0.210 1	0.080 1	0.020 1	0.005 3.400 27 3
0.220 1	0.200 1	0.020 1	0.005 0.410 7 3
0.320 1	0.200 1	0.060 1	0.005 5.100 34 1
0.330 1	0.090 2	0.080 1	0.005 0.320 7 2
0.190 2	0.280 1	0.100 1	0.005 0.280 10 3
0.105 1	0.100 1	0.105 1	0.005 0.175 4 3
0.220 1	0.070 2	0.100 1	0.005 0.585 2 2
0.090 1	0.180 2	0.080 1	0.005 0.480 2 2
0.290 3	0.210 1	0.130 1	0.005 0.615 4 2
0.185 1	0.075 1	0.080 1	0.005 4.600 17 2
0.100 1	+	0.050 1	0.005 0.505 3 2
0.105 1	0.050 1	0.160 1	0.005 0.440 2 3
0.300 3	0.050 1	0.155 1	0.005 0.340 1 2
0.260 3	0.060 1	0.125 1	0.005 0.585 5 3
0.250 3	0.080 1	0.130 1	0.005 4.100 17 1



010 4.100 Sample Point As + Hg Values ppm  
27 + 3 As + Hg

MINERAL RESOURCES BRANCH  
8419

TEAM MINERAL SERVICES INC.

CORNER GROUP  
Geochemistry  
Molybdenum Mercury  
Gold Arsenic



Scale 1:5000 Drawn by PC Date April 21

M 103F/9E

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**8419**

MASSET

INLET

MINERAL & PLACER RESERVE  
O/C 437 81-02-20  
NO STAKING

MINERAL RESERVE  
O/C 1764 4-5-72  
NO STAKING

NAIKOON  
PARK

GRAHAM

ISLAND

TO WEST SEE MAP 103F/9W

TO EAST SEE MAP 103G/12W

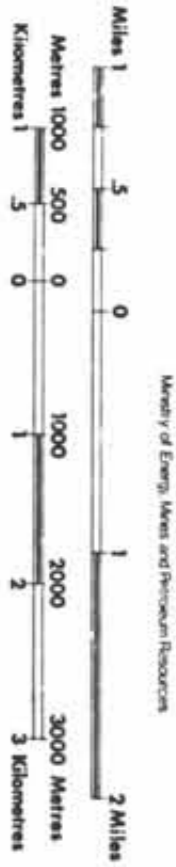


**LEGEND**

- GRANT-GRANTED MINERAL CLAIM
- REVERTED CG MINERAL CLAIM
- FORFEITED MINERAL CLAIM
- VERIFIED LEGAL CORNER POST
- POWER TRANSMISSION LINE
- PIPELINE

UNLESS VERIFIED OR SURVEYED, THE MAP POSITION OF A LEGAL CORNER POST IS BASED ON THE LOCATOR'S SKETCH FOR THE CLAIM. FOR FURTHER INFORMATION, GO TO THE OFFICE OF THE MINING DIVISION CONCERNED.

DATE OF MICROFILM: 81-03-19



Mining Division Boundary  
Indian Reservation  
Mineral and Placer Reserve  
Ecological Reserve  
Park Boundary  
Recreation Area Boundary

Crown Granted  
Reverted CG Mineral Claim  
Forfeited Mineral Claim  
Verified Legal Corner Post  
Power Transmission Line  
Pipeline

TO SOUTH SEE MAP 105F/8E

**MINERAL TITLES REFERENCE MAP 103F/9E**  
DEPARTMENT OF MINES AND PETROLEUM RESOURCES VICTORIA, B.C.  
This map is prepared as a guide only to the location of mineral claims that have not been surveyed. Where the geographic position of a legal corner post has been verified it is indicated with the symbol, Ver. Additional information with respect to the claims may be obtained at the Mining Division concerned.

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