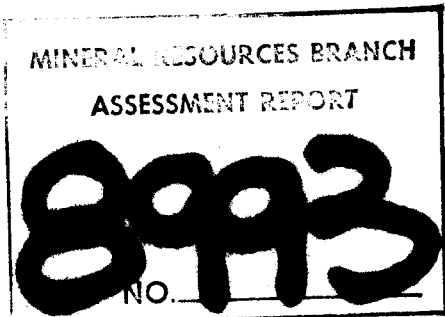


'81-# 230-# 8993

A PROSPECTING REPORT
ON THE
CARRYON CLAIM GROUP

VERNON MINING DIVISION
NTS 82L/2E
50°10' 118° 33'



Written by:
Ted Archibald
Claim owner

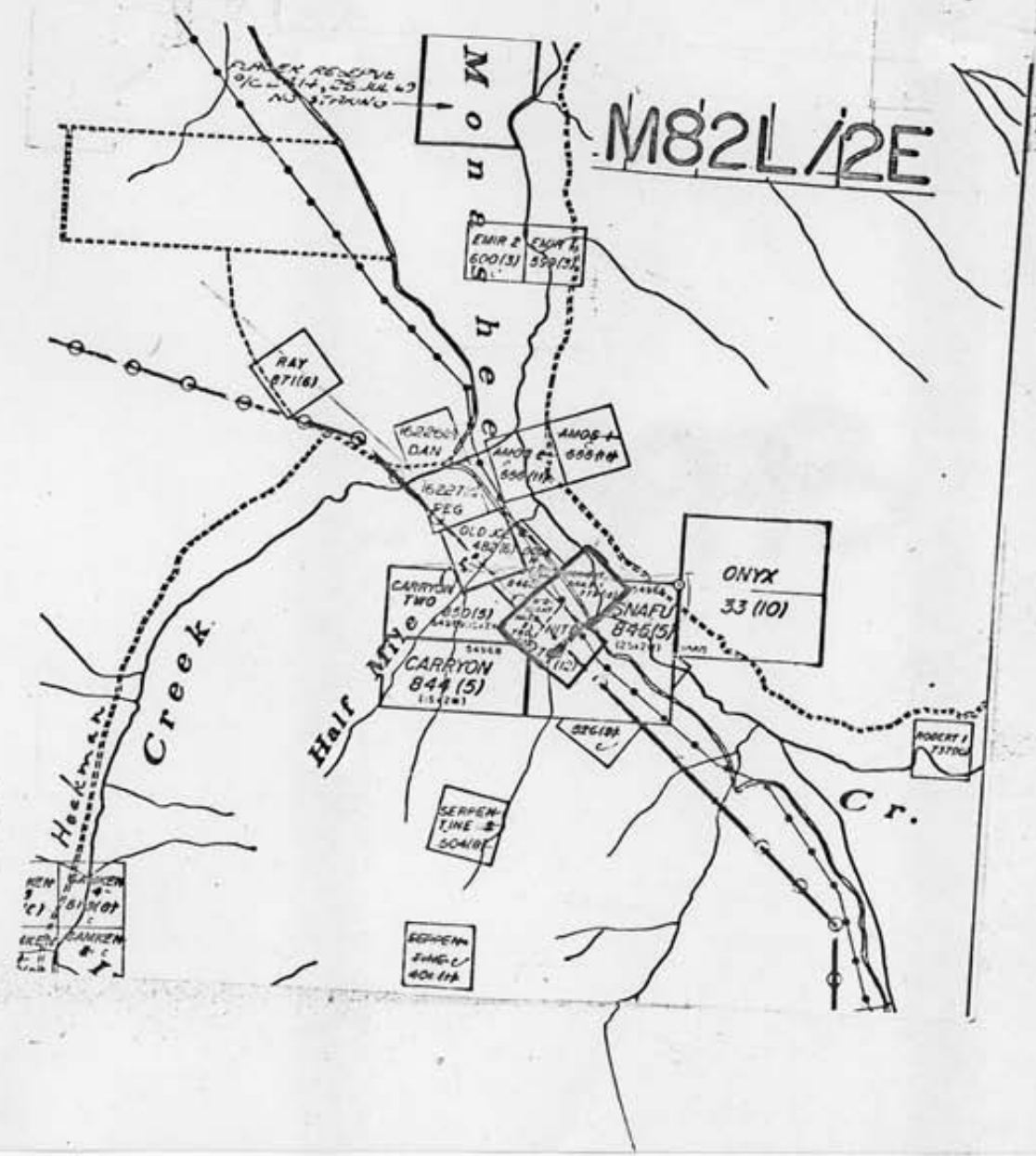
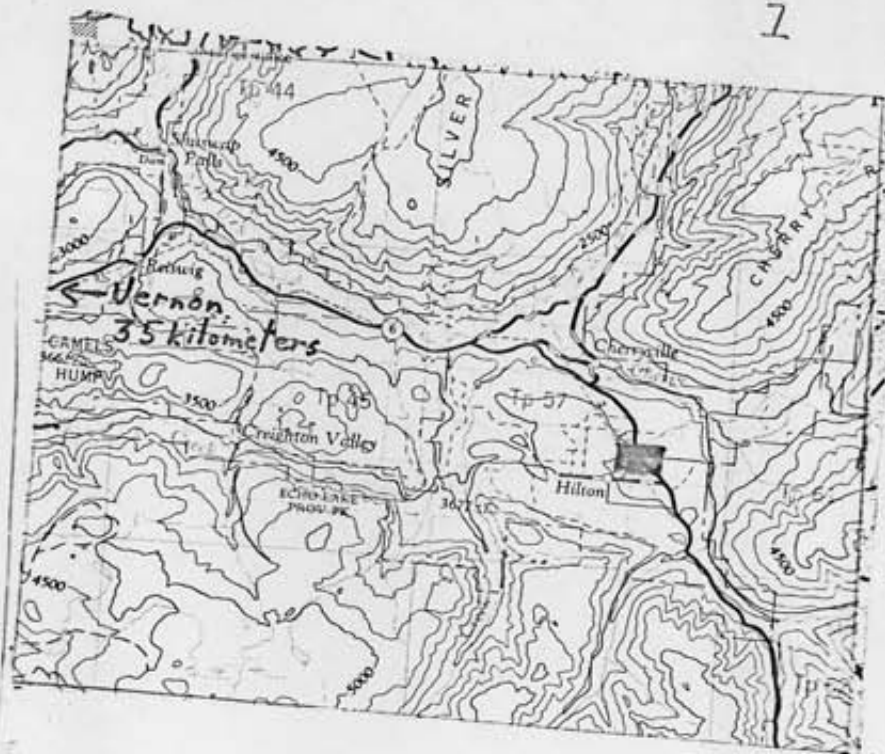
May, 1980

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VERNON
82 L



INTRODUCTION

The Carryon Claim Group consists of three claims, the Snafu claim of four units, and the Carryon and Carryon Two claims, of two units each, for a total of eight units. This also encompasses the Midnight Nails One and Two claims, owned by the author. The claims lie on both sides and over Highway 6, approximately 9.5 kilometers east of Cherryville.

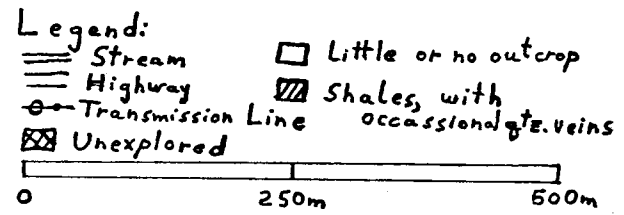
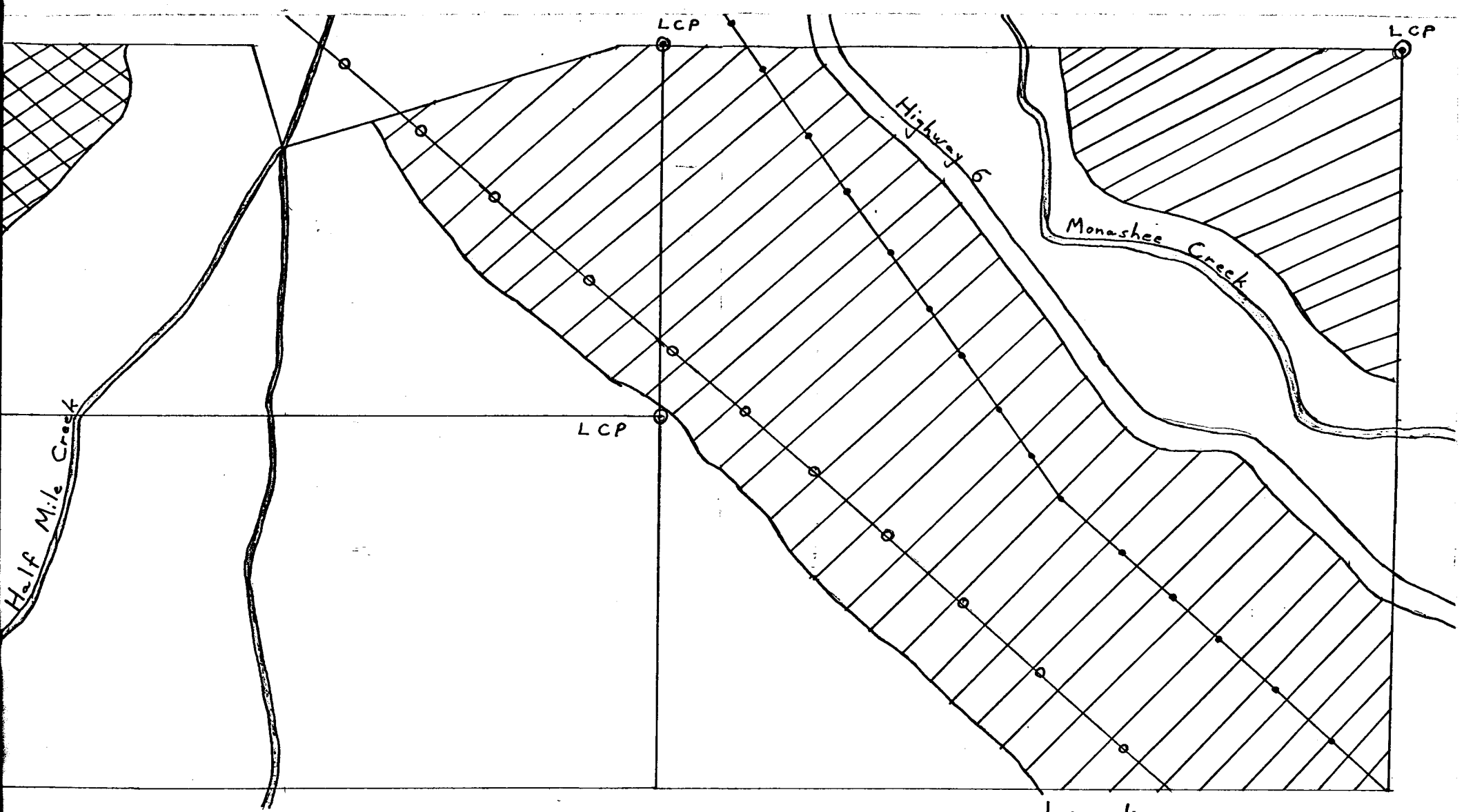
Parts of this claim had been covered by a series of "Reb" claims owned by George Irwin of Kelowna, but no work was recorded and they lapsed prior to staking by the author.

Geological Description

The claims for the most part are forested with little outcropping. The country rock observed consists of shales with some thin quartz veins, and occasional pyrite.

Geochemistry Study

A soil sampling program was carried out in late May to look for any mercury or arsenic anomalies that might be caused by auriferous quartz. One hundred and thirty samples were collected, although only sixty six have been analysed to date.



SAMPLE ANALYSIS

Analysis of the soils was performed by the B.C. Ministry of Energy, Mines and Petroleum Resources laboratory in conjunction with Prospectors Assistance, who provided a prospectors assistance grant.

The samples were screened through an 80 mesh stainless steel screen and values were determined by atomic absorption using the following reagents and procedures.

MERCURY

Reagents

Stannous chloride: 10% w/v in 1N H_2SO_4 ; sodium chloride: 25% w/v in deionised water; hydroxylamine chloride: 25% w/v in deionised water; sodium chloride/hydroxylamine chloride solution: 400 ml 30% NaCl soln. and 480 ml NH_2OH+Cl (25%) solution made up to 1 litre with water; magnesium perchlorate (anhydrous) - drying agent; nitric acid (concentrated); NaOH pellets (caustic scrubber to remove NO_2 fumes); sulphuric acid: 54 ml concentrated acid in 1 litre deionised water.

Standards

1000 $\mu g/ml$ stock solution: weigh 677 mg of mercuric chloride into a 500 ml volumetric flask and make up to volume with 20% nitric acid. From the stock solution, make 100 $\mu g/ml$ and 1 $\mu s/ml$ standard solutions.

Procedure

(1) Weigh 500 mg of sample into a 125 ml Erlenmeyer flask. (2) Add 10 ml concentrated nitric acid and leave 30

minutes. (3) Add 40 ml deionised water. (4) Into flasks containing 10 ml concentrated nitric acid, pipette 0.1, 0.2, 0.3, 0.4 and 0.5 ml from the 1 $\mu\text{g}/\text{ml}$ standard mercury solution. To each flask add 40 ml water. (5) To a blank of the same acid strength as the sample and standards, add 10 ml of the sodium chloride/hydroxylamine chloride solution and 10 ml of the stannous chloride solution. Immediately stopper the flask with the aeration apparatus. Zero the instrument. Repeat the procedure for standard solutions, using a fresh blank to zero between standards. Record peak absorbance for each standard. The mercury-carrying air stream is not recirculated but is vented into a dilute nitric acid trap. (6) Repeat step 5 for the samples, recording peak absorbance signals. (7) The mercury content of the samples is determined using a calibration curve prepared from the standards.

ARSENIC

Reagents

Stock solutions containing 1000 $\mu\text{g ml}^{-1}$ of arsenic (III) and arsenic (V) were prepared by dissolving Analar grade As_2O_3 and Na_3AsO_4 in deionised water with the required amount of NaOH and then acidifying with HCl. A stock solution containing 100 $\mu\text{g ml}^{-1}$ of antimony (III) was prepared by dissolving Fisher' Certified' antimony potassium tartrate in 6M HCl. All diluted solutions were prepared daily.

Fisher reference standard solutions of Fe, Co, Ni, Cu and Ag at the 100 $\mu\text{g ml}^{-1}$ level were used for the interference studies.

A 1-4% m/V aqueous solution of J.T. Baker sodium borohydride was freshly prepared for each set of measurements.

Hydrofluoric, hydrochloric, perchloric and nitric acids were all 'Baker analysed' reagent grade.

Procedure

Optimisation of Sensitivity and Precision

A 10.0 ng ml^{-1} solution of each element was used to optimise the following parameters:

- 1) nitrogen (B) flow-rate
- 2) strength and volume of sodium borohydride
- 3) acidity of sample solution
- 4) aliquot of sample solution to be injected into cell A.

Sample Decomposition

Aqua Regia. 10.0 ml of freshly prepared aqua regia was added to 250 mg of the sample in a calibrated test-tube. The solution was allowed to sit in the cold for $1\frac{1}{2}$ hours and, subsequently, in a water bath at 90°C for 2 hours. A vortex mixer was used three times during this decomposition period to ensure thorough attack by the acid mixture. After cooling, the volume was made up to 10 ml with aqua regia, the solution mixed and allowed to settle. An aliquot of 100 μl or less of this solution was taken and diluted up to 10.0 ml with 0.5M HCl. A μl aliquot of this dilute sample solution was then injected into cell A containing the reducing agent, sodium borohydride. The arsine or stibine liberated was measured by the peak absorbance traced on the recorder. This cell was then replaced by another and the next sample analysed. Standard solutions having a final concentration range of 0.0-50.0 ng ml^{-1} were also taken through this procedure.

HF/HClO₄/HNO₃. Seven ml of 50% HF were added to 250 mg of the sample in a platinum dish situated on a hot plate. The sample was gradually taken to dryness, after which 5 ml of HNO₃ and 2 ml of HClO₄ were added. The solution was evaporated to white fumes of perchloric acid. The sample was then taken up in 5 ml of 2M HCl, warmed and transferred to a calibrated test-tube, where, after cooling, the solution was made up to 10.0 ml with deionised water. An aliquot of 1000 ul or less of this solution was diluted up to 10.0 ml with 1.5M HCl, ready for analysis. Again, standard solutions of arsenic and antimony were subjected to this procedure.

Interference Study

Standard solutions, containing 0.0-50.0 ng ml⁻¹ of each element in a 10% aqua regia - 90% 0.5M HCl matrix, were spiked with each interferent (Fe, Co, Ni, Cu, Ag) at four different concentration levels: 100, 500, 1000, and 5000 ng ml⁻¹. A standard (with no interferent present) was analysed and the signal recorded. This was followed by the analysis of four standards with the interferent present at the four levels chosen and then the original standard rerun. This scheme avoided the possibility of any drift in the instrumentation being misinterpreted as interference.

A standard addition technique was also applied to various sample solutions to check for possible interferences.

T A B L E 1
S O I L S A M P L E D A T A

SAMPLE NO.	DEPTH (cms)	HORIZON	COLOR*	TEXTURE#	NOTES
A12	20	B	MB	I	
A13	20	B	MB	I	
A14	20	B	RB	I	
A15	25	B	LB	I	
A16	15	B	LB	I	Shale Bedrock
A17	20	B	MB	I	
A18	20	B	RB	I	
A19	25	B?	G	I	
A20	20	B	DB	I	
A21	15	B	MB	I	Rusty quartz
A22	15	B	MB	I	
A34	25	B	RB	I	
A35	20	B	MB	I	
A36	20	B	MB	I	
A37	20	B	MB	I	
A38	20	B	LB	I	
A39	20	B	MB	I	Shale Bedrock
A40	20	B	MB	I	
A41	20	B	LB	I	
A42	20	B	MB	I	
A43	25	B?	LB/G	C	
A44	25	B	LB	F	
A56	20	B	RB	I	
A57	15	B	LB/G	I	Shale Bedrock
A58	20	B	MB	I	
A59	25	B	MB	I	
A60	20	B	LB	I	
A70	25	B	MB	I	Shale Bedrock
A71	30	B	MB	I	Shale Bedrock
A72	20	B	LB	I	
A73	30	B	MB	I	
A74	20	B	MB	F	
A75	15	B	MB	F	

* R-red
B-brown
G-grey

L-light
M-middle
D-dark

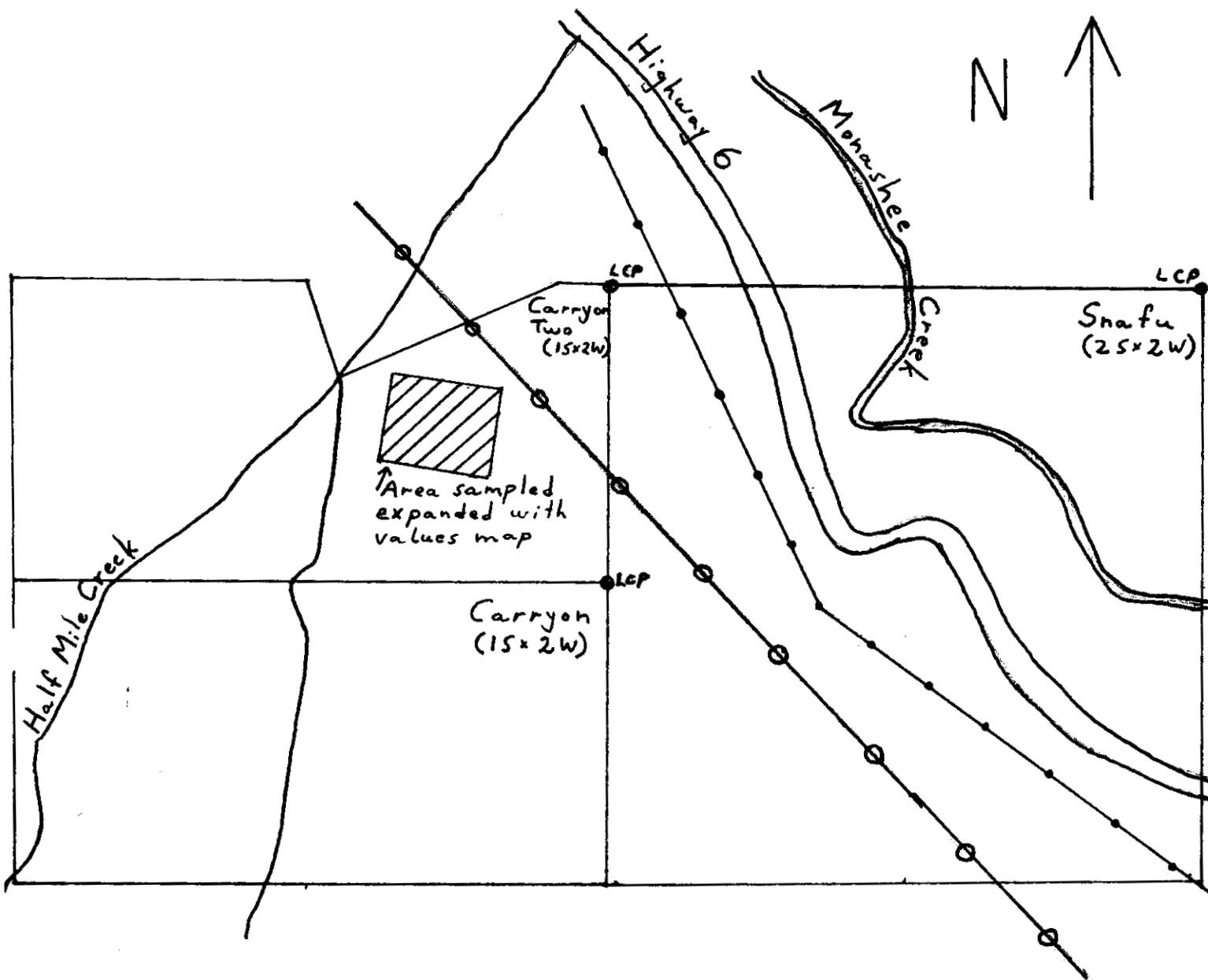
C-coarse
S-sandy
I-intermediate

F-fine
C-clay

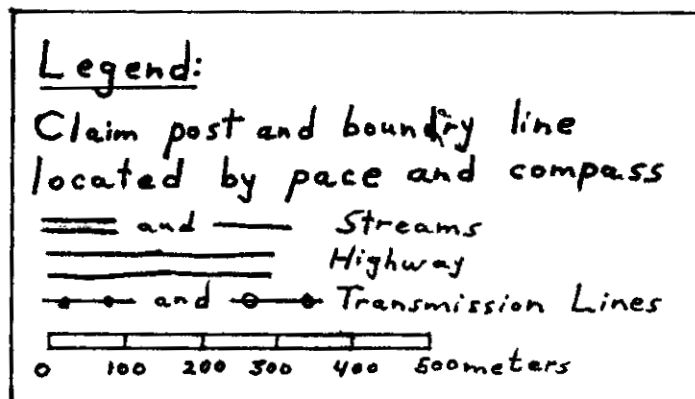
T A B L E 1
S O I L S A M P L E D A T A

SAMPLE NO.	DEPTH (cms)	HORIZON	COLOR*	TEXTURE#	NOTES
A87	20	B	MB	I	Shale Bedrock
A88	25	B	LB	F	
A89	20	B	LB/G	I	
A90	20	B	MB	I	
A91	20	B	MB	I	
A92	25	B	RB	I	Shale Bedrock
A93	25	B	DB	I	
A94	25	B	MB	I	
A95	20	B	MB	I	
A96	20	B	LB	I	
A97	15	B	MB	I	
A109	20	B	LB	F	
A110	20	B	MB	I	Shales/qtz float
A111	20	B	RB	I	
A112	25	B	MB	I	
A113	25	B	LB/G	I	
A114	30	B	MB	I	Shale Bedrock
A115	20	B	MB	I	
A116	20	B	MB	I	
A117	15	B	MB	I	
A118	30	B	LB/G	F	
A119	10	B	MB	I	Shale Bedrock
A131	20	B	B/G	I	
A132	20	B	RB	I	
A133	15	B	MB	I	
A134	20	B	DB	C	
A135	20	B	B/G	C	
A136	25	B	MB	C	Shale Bedrock
A137	25	B	LB	F	
A138	20	B	MB	I	
A139	20	B	B/G	F	
A140	15	B	RB	I	Shale Bedrock
A141	10	B	DB	I	

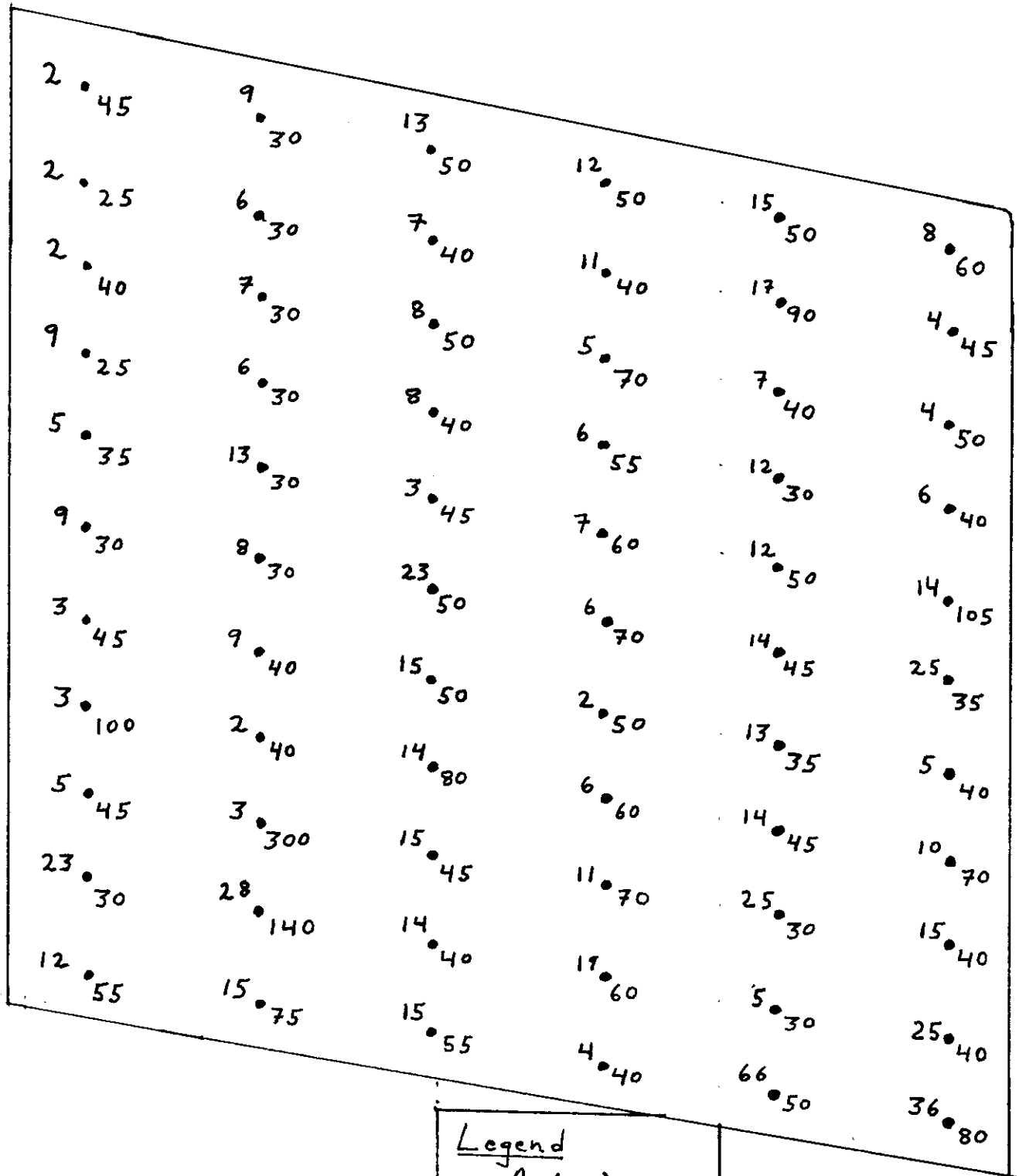
* R-red	L-light	# C-coarse	F-fine
B-brown	M-middle	S-sandy	C-clay
G-grey	D-dark	I-intermediate	



Sample Location Map



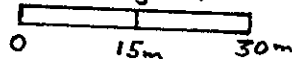
Plotted Values



Legend

As (ppm)

Hg (ppb)



COST STATEMENT

Ferry to Vancouver	\$14.00
Geology study, two days @ \$100.00/day.....	\$200.00
Soil sampling, two days @ \$100.00/day.....	\$200.00
Food and accomadation for four days @ \$50.00/day.....	\$200.00
Travelling expenses, 375 miles @ \$0.35/mile..	\$130.00
One day writing report @ \$100.00/day.....	\$100.00
	<hr/>
	\$844.00

AUTHORS QUALIFICATIONS

The author has completed and passed both the Basic and Advanced Prospecting Courses held by Prospectors Assistance, B.C. Ministry of Energy, Mines and Petroleum Resources.