

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$4,822.00

[Signature]

Resident Geologist or
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

[Signature]

Commissioner of Yukon Territory

1000
GEOLOGICAL REPORT

of the

RAF MINERAL CLAIMS

July - Aug. 1974

for

HARMAN MANAGEMENT LTD.

Lat. 64° 30' Long 132° 15' W.

NTS 106 - C - 8

by:

C. K. IKONA P. ENG.

Aug. 26, 1974





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Volume II

A) statement of general expenses and notes

B) support receipts

Report on the Geochemical

Results

RAF CLAIM GROUP

Lat. $64^{\circ} 30'$ N. Long. $132^{\circ} 15'$ W.

NT6 106-C-8

to accompany Geologic Report

on

RAF GROUP

dated August 26, 1974

By:

C.K. Ikona, P. Eng
August 26, 1974

Harman Management Ltd.

Introduction

A prospecting, geologic mapping and geochemical soil sampling program was conducted on the RAF claim group during the summer of 1974.

A report on the geology was presented on August 26, 1974. At that time results from the geochemical survey were not available. This report is intended to accompany the report of August 26 to discuss the results of the geochemical survey.

List of Claims

Claim Names : RAF 1 - 40
Grant No's: Y 69912 to Y69951
Expirey Date: August 21, 1974
NTS Sheet: 106 - C - 8

Location, Access & Topography

The RAF claim group is situated on Duo Creek in the Bonnett Plume River area of the Mayo Mining District, Yukon Territories.

Access to the property can be made by fixed wing aircraft to Goz Lake from Mayo a distance of approximately 130 miles. From there a helicopter can be used to shuttle men and equipment the 8 miles to the property.

Elevations vary within the claims from 3,700 to 5,500 feet above sealevel. Sparse coniferous trees are located at the lower elevations with some brush and moss higher on the property. Topography varies from cliffs on the North east to a marshy valley along Duo Creek.

Geochemistry

Method of Sampling

A total of 40 geochemical soil samples and 9 geochemical silt

samples were collected from the RAF group. All samples were stored in kraft bags, air dried in camp and forwarded to Chemex Laboratories in North Vancouver or Whitehorse Assay office in Whitehorse for analysis by atomic absorption.

The soil samples were collected on two lines run approximately parallel to topography.

A pick was employed to remove soil samples at a depth of 8 to 12 inches.

At the time of sampling most water courses were dry.

Results

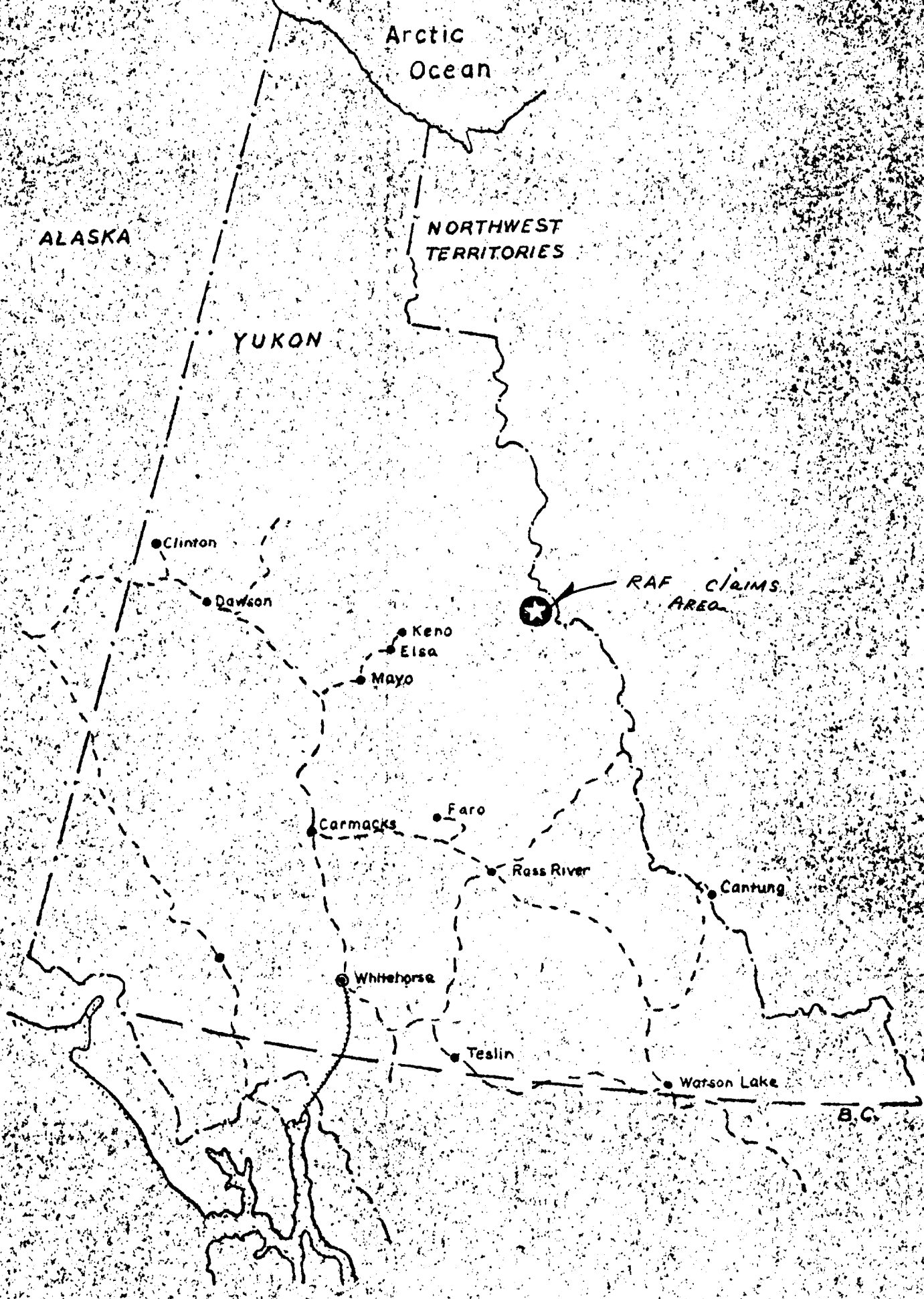
Results of the geochemical survey are plotted on the map accompanying this report.

The majority of values reported are in the background range for this area.

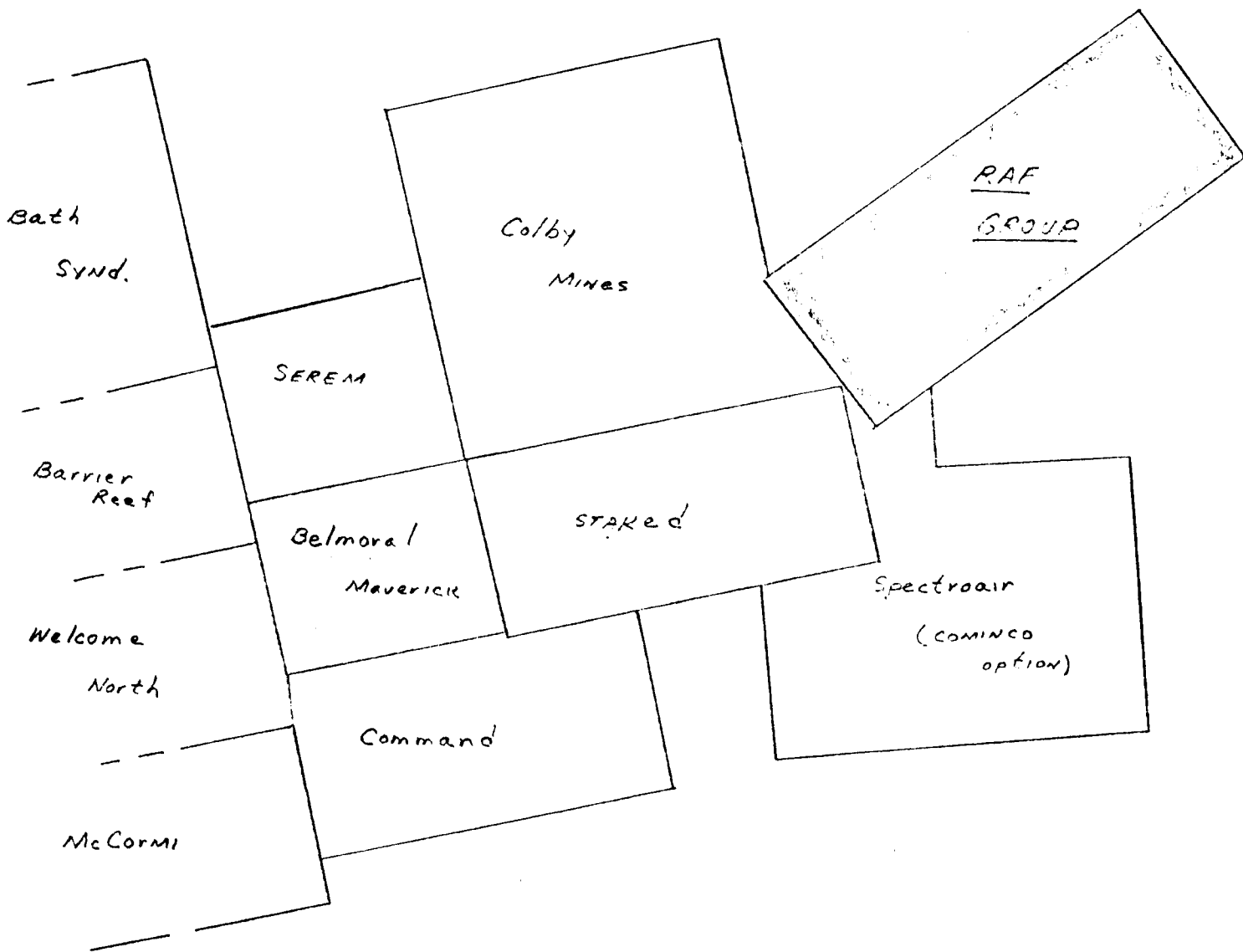
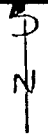
Some slightly higher values occur on the northern soil line in the central part of the claim group. These values occur in an area underlain by a poorly bedded, porous, crystalline dolomite weathering to a light grey in colour. Sub-economic sphalerite and galena occurring in vugs and along fractures has been located in this unit in the area of these results and elsewhere in the unit. These higher geochemical results most probably reflect this mineralization and are therefore of academic interest only.

Conclusions and Recommendations

Results from the survey indicate background values for the area and confirm the observations contained in the Geologic report of the 26th Aug. 1974. No further expenditure on the RAF group is warranted at this time.

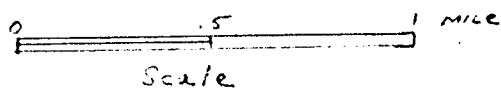
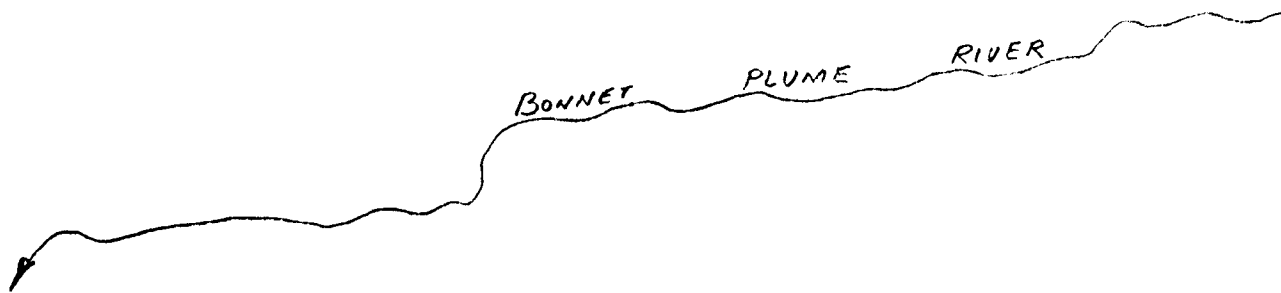


Berman Mgmt. Ltd.



SKETCH

Approx. claim Relations
Bonnet Plume RIVER Area



Introduction

The RAF group consists of 40 contiguous mineral claims staked under the Quartz mining act. A program of detailed prospecting, geologic mapping and geochemical soil sampling was conducted on the RAF group during the period July 19 to Aug. 14/74. This program was supervised by the author.

List of Claims

Claim Names:	RAF 1 - 40
Grant No's.:	Y69912 to Y69951
Expiry Date:	Aug. 21/74
NTS Sheet:	106-C-8
<u>Location, Access & Topography</u>	

The RAF claim group is situated on Duo Creek in the Bonnet Plume River area of the Mayo Mining District, Yukon Territories.

Access to the property can be made by fixed wing aircraft to Goz Lake from Mayo a distance of approximately 130 miles. From there a helicopter can be used to shuttle men and equipment the 8 miles to the property.

Elevations vary within the claims from 3700 to 5500 feet above sealevel. Sparse coniferous trees are located at the lower elevations with some brush and moss higher on the property. Topography varies from cliffs on the North east to a marshy valley along Duo Creek.

Geology

The RAF claim group is underlain by a series of carbonate and shale units which demonstrate an approximately Northwest strike although the general trend is modified locally by some warping and faulting.

The southwest end of the group is underlain by black shales of the Road River formation. This unit is locally badly shattered and will probably demonstrate a fairly high background in zinc. The western contact of this formation with lower Cambrian dolomites is not defined locally but probably lies to the west of the RAF group and will be fault controlled.

To the east of the Road River shales, a poorly bedded, porous, crystalline dolomite is exposed for some 6000 feet. This rock weathers to a light grey colour and in places may be weakly mineralized in vugs and along fractures. One such occurrence is just north of the RAF #7 claim where minor galena and sphalerite occurs along with weakly positive reactions from the zinc sensitive geochem field solution. Assays from elsewhere in this unit have returned results in the .02% range, both lead and zinc for similar mineralization.

To the east of this unit is a fault controlled contact with a series of well bedded, buff-orange to grey weathering limestone^s, dolomites and shales of Lower Cambrian age. These rocks are generally light grey in colour and fine grained containing numerous calcite stringers to ¼" in width. General attitude is 310° dipping 45° W. A partial over turning of these units is visible in a circle to the Northwest of the RAF group. No minerals of economic importance were noted in this series of rocks.

Another fault, trending North Northwest on the RAF 19 & 20 claims, marks the contact of this formation and a fine grained light grey dolomite. This unit is probably Silurian to Ordovician in age and may be the same unit exposed to the west of the lower Cambrian formation. This unit is locally shattered with some calcite and quartz healing carrying minor sphalerite and galena in some locations.

Four samples taken for assay returned the following results.

<u>Sample #</u>	<u>Description</u>	<u>Results</u>	
		<u>%Pb.</u>	<u>%Zn.</u>
RAF #1	chip across 2' showing some secondary zinc	tr	0.02
RAF #2	chip across 4' showing some sphalerite	tr	0.15
RAF #3	chip across 6' 30 feet above sample #2 some sphalerite and secondary zinc	tr	0.05
RAF #4	grab of several pieces of float showing mineralization	tr	0.30

List of personnel for the RAF Group:

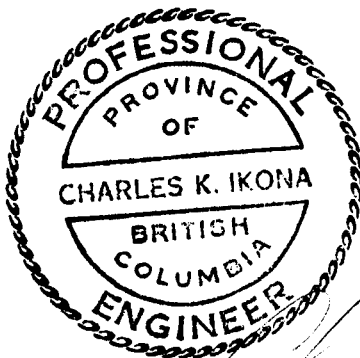
Vic Guinet	RR#1 Cotton wood Island Prince George, B.C.	prospector	July 17
Duck Johnny	General Delivery, Ross River, Y.T.	ass. prospector	July 17
J. Odensky	C/O Box 4509 Whitehorse, Y.T.	geochem sampler	July 17
Kevin Milledge	5794 Atlantic Ave., Halifax, N.S.	field hand	July 17
Graham Baird	74 Withrow Ave., Ottawa, Ont.	prospector	Aug. 1, 2
Steve Toporowski	812 Seafair Place Ottawa, Ont.	ass. prospector	Aug. 1
Chuck Ikona	2416 St. John's, Port Moody, B.C.	P. Eng.	August 2, 3, 14, 15

Conclusion and Recommendations

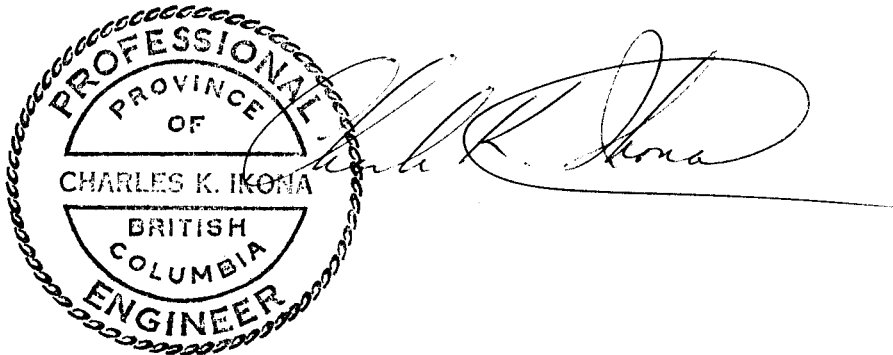
The RAF group is underlain by a series of Northwest trending carbonates and shales of upper Paleozoic age. Weak sphalerite mineralization accompanying quartz fracture healing and vug filling occurs in two of the dolomite units in this series. This type of mineralization is not uncommon in these units and does not appear to possess ore potential.

Final recommendations must await results of the geochemical survey however, at present the group does not appear sufficiently attractive to warrant more expenditure at this time.

Respectfully submitted,



C. K. Ikona P. Eng.



CANADA) In the matter of a geological and geochemical survey
) and report on the Raf 1-40 mineral claims
) on behalf of Sproatt Silver Mines Ltd
 TO WIT:)

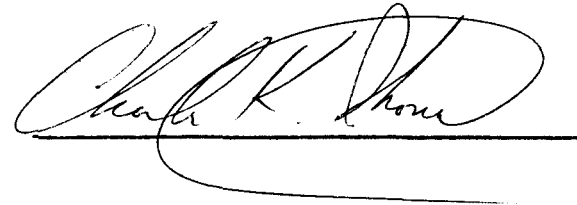
I, Charles K Ikona for Pamicon Development Ltd of 609-850 West Hastings street, Vancouver, B.C. do solemnly declare that a geologic, geochemical and prospecting program was conducted on the RAF 1-40 mineral claims from the period July 19 to August 27, 1974.

The following expenses were incurred during the course of this work and in the compilation and reporting of the results:

wages	\$	450.00
tagging posts		360.00
geologic fees		385.00
helicopter support		120.00
geochemical supplies		122.00
field equipment expense		63.00
camp cost expense		105.00
equipment supply expense		243.72
contracts and rentals		23.84
wages		633.75
food		per diem
fuels		per hour
helicopter (general)		720.45
fixed wing (general)		631.05
travel and accommodation		49.04
sundry and administration		435.70
geochemical supplies		27.79
expediting services		224.43
air travel and airfreight		<u>97.36</u>
Total on expenditures:	\$	5,612.74

And I make this solemn declaration conscientiously 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.

Declared before me at Vancouver)
 in the Province of British)
 Columbia this 16 day of)
April, 1975.)



 A Commissioner for Oaths for
 _____ or Notary Public
 for the _____.

RAF PROPERTY PROGRAM

STATEMENT OF ACCOUNT

EXPENDITURES: (A) DIRECT

wages	7 man-days	\$350.00	
tagging posts	45 claims	360.00	
geological fees	C. Ikona	385.00	
helicopter support	\$199/hour	120.00	
geochem samples 7 assays	61 samples	122.00	
field equip. expense	\$ 6.00/man/day	63.00	
camp expense	\$10.00/man/day	<u>105.00</u>	2,505.00

(B) PRO-RATA GENERAL EXPENSE

equip. supply	243.72	
contracts and tentals	23.84	
wages (camp mob/demot/cook)	633.75	
food	per diem	
fuels	per hour	
ehlecopter (general)	720.45	
fixed wing (general)	631.06	
travel & accom.	49.04	
sundry & admin.	435.70	
geochem supplies	27.79	
expediting services	224.43	
air travel & airfreight	<u>97.36</u>	
	3,107.74	<u>3,107.74</u>
Total on account		5,612.74



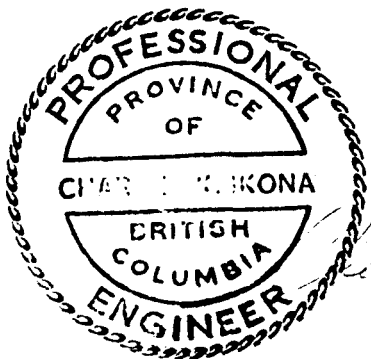
Charles K. Ikona

ENGINEERS CERTIFICATE

I, CHARLES K. IKONA of 2614 St. John's St., Port Moody, in the Province of British Columbia do hereby certify that:

1. I am a consulting mining engineer with offices at 609-850 W. Hastings St., Vancouver, B.C.
2. I am a graduate at the University of British Columbia with a degree in Mining Engineering.
3. I am a member in good standing at the Association of Professional Engineers of the Province of British Columbia.
4. The work described in the accompanying report on the Claim Group was performed under my personal supervision.

Dated this 30th day of August 1974 at Vancouver, B.C.



Charles K. Ikona, P. Eng.

A handwritten signature in cursive script, appearing to read "Charles K. Ikona", written over a horizontal line.

Direct Cost Invoices

Helicopter and geochemical support data



CHEMEX LABS LTD.

127

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Harman Explorations
821 - 602 W. Hastings
Vancouver, B.C.

CERTIFICATE NO. 27983
INVOICE NO. 12149
RECEIVED Aug. 12/74
ANALYSED Aug. 15/74

ATTN:

SAMPLE NO. :	PPM Lead	PPM Zinc
MX G 7	44	102
8	42	83
9	40	112
10	33	67
11	38	92
12	32	72
13	42	80
MX G 14	44	123
RAF H 1	50	108
2	46	400
3	38	275
4	40	45
RAF H 5	46	98
TOM A 0	52	275
1	60	375
2	54	640
3	77	700
4	56	375
5	62	640
6	100	1588
7	72	950
8	52	450
9	42	240
10	46	194
11	62	700
12	52	233
13	40	400
14	42	275
15	70	1080
16	46	900
17	56	2440
18	48	466
19	50	450
TOM A 20	46	1044
TOM 1 B	34	680
2	56	660
3	56	733
4	68	3544
5	32	600
TOM 6 B	54	420
Std.	62	50



MEMBER
CANADIAN TESTING
ASSOCIATION

CERTIFIED BY:

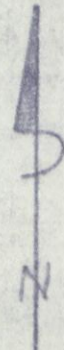
WHITEHORSE ASSAY OFFICE
 BOX 4518
 WHITEHORSE, YUKON

Samples from: HARMAN MANAGEMENT

Lot. No.: A-676-41

ALL RESULTS - P.P.M.

	SAMPLE #	Pb	Cu	Ag	SAMPLE #	Pb	Cu	Ag
	RAF 1-A	24	264	.6	S1J	24	144	1.2
C-O	2-A	24	208	6.0	S2J	20	384	1.2
C-O	3-A	24	200	1.2				
	4-A	32	336	.6				
	5-A	24	80	1.2				
0	6-A	24	160	.4				
	7-A	20	360	1.2				
	8-A	22	272	1.4				
	9-A	28	368	.4				
	10-A	24	232	.8				
	RAF 11-A	40	416	1.2				
	12-A	28	328	.6				
	13-A	20	360	.6				
	14-A	20	208	1.4				
	15-A	20	280	1.0				
	16-A	28	488	.6				
	17-A	16	24	.8				
	18-A	20	64	.4				
	RAF 19-A	16	56	.4				
	RAF 1-J	20	144	.4				
	2-J	28	552	.8				
	3-J	16	248	.6				
	4-J	12	448	.6				
	5-J	28	104	.4				
	6-J	16	96	.2				
	7-J	18	216	.2				
	8-J	8	280	1.0				
	9-J	12	168	1.6				
	10-J	20	216	.4				
	11-J	28	168	.4				
	RAF 13-J	12	224	.4				
	14-J	12	56	.4				
	15-J	16	72	.4				
	16-J	12	96	.4				
	17-J	20	110	.1				



- LEGEND**
- 5 Road River shale
blk, body shattered
 - 4 ord-Sil dolomites, fine grained, light grey
locally shattered, gta calcite healing
minor sphalerite
 - 3 ord-Sil dolomite, poorly bedded, crystalline
and porous locally, light grey weathering
minor sphalerite, in occasional fracture
 - 2 buff to gray weathering, interbedded
SEKWI dolomites and limestones
purple shale marker horizon
 - 1 orange weathering dolomite of Sackbone
formation, locally porous with gta
open space filling
- Geologic Contact Bdy.
--- Fault
+ STRIKE & Dip (Bedding)

• Pb, Zn ppm (soil)
S • Pb, Zn ppm (site)

**GEOLOGY AND GEOCHEMISTRY
RAF GROUP**

LAT 64°30'N LONG 132°15'W
BONNET PLUME RIVER AREA Y.T.

DWN. C1	Scale 1"=1000'	Oct 1974
HARMAN Mgmt. Ltd.		