83-#30-2

#11042

1982 Assessment Report

Geochemical Survey

Title:	RUSH MINERAL CLAIM
Claim:	RUSH (1386)
Commodity:	Copper, Silver, Gold
Location:	Borgeson lake, Similkameen M.D. 92H 10E 49 40' N 120 36' W
Consultant and Author	L. Sookochoff, P.Eng. Pan-American Consultants Ltd. 1406-1055 West Georgia Street Vancouver, B.C., V6E 3P3
Owner and Operator	IMPALA RESOURCES LTD. 402-509 Howe street Vancouver, B.C.
Work Dates:	June 22, 1982 to October 13, 1982
Submittal Date:	October 13, 1982

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1982 Assessment Report

Geochemical Survey

RUSH MINERAL CLAIM

INTRODUCTION

From June 1982 to August 1982 a geochemical survey was completed over the 16 unit RUSH mineral claim.

The survey was carried out as part of the first stage of the recommended exploration and development program as set out in the writer's geological evaluation report on the property dated June 4, 1982.

The purpose of the survey was to delineate prime correllative exploration areas that would be covered in detail on a follow-up program.

This report provides information on the geochemical survey as to procedure, results and conclusions thereof.

PROPERTY

The property consists of one mineral claim comprised of 16 units within the Similkameen Mining Division of N.T.S. map sheet 92H 10E. Particulars are as follows:

Claim Name	Record No.	Expiry*
RUSH	1386	April 21, 1983

Any legal aspects pertaining to the Rush mineral claim are beyond the scope of this report.

* Pending approval of one year's assessment work filed on May 12, 1982.

LOCATION AND ACCESS

The Rush mineral claim is within three km west of Missezula Mountain and 24 km north of Princeton. Allison Lake borders the claim to the north with Borgeson Lake bordering the western boundary of the claim.

Highway No. 5 from Princeton to Merritt passes through the northwestern portion of the property. Secondary roads from the highway provide access to the northern and southern portion of the claim.

WATER AND POWER

A year-round water supply could be available from a westerly flowing creek bisecting the property in addition to other sporadic water courses within the property boundaries.

Diesel-electric power would be required in the initial phases of exploration and development. The Princeton-Merritt power transmission line is within three km east of the property.

PHYSIOGRAPHY AND CLIMATE

The property lies within the southern portion of the Thompson Plateau which forms part of the Interior Plateau System. The terrain varies from gentle slopes along within and peripheral to the predominant Allison Creek Valley in the northwest to moderate and steeper slopes to the east.

Elevations range up to 1400 meters above sea level with a relief of 525 meters.

Moderate stands of pine with fir, alder and poplar are predominant over the claim with a hay field on the northwestern corner.

The general climate is of long arid summers, with moderate winters which are comonly less severe than the average within the southern region of the Thompson Plateau.

HISTORY

The property is located within the Nicola Volcanic Belt stretching from the U.S. border 50 km south of Princeton north to Kamloops Lake. This Belt has been the object of continued mineral exploration since the late 1800's when gold and platinum placer deposits were discovered along the Tulameen and Similkameen Rivers. Subsequent exploration of the Nicola belt led to the discovery of numerous copper with often associated gold and silver occurrences most of which are presently indicated by either trenches, pits, shafts and/or adits.

Although most of the occurrences were determined to be uneconomical at the time of discovery and exploration, persistent and often varying exploratory and technological procedures led to the productivity of the Copper Mountain deposits-originally in 1925, secondly in 1937 and most recently in 1972 - the Craigmont deposit at Merritt in 1961 and the Afton deposit near Kamloops in 1977.

In the peripheral area to the RUSH claim Blue Gulch Explorations Ltd. in 1969 carried out geochemical surveys, trenching and 2,000 feet of diamond drilling and in 1973 completed a geological mapping and a geochemical survey on the Pine, Reg and Dy claims along the east side of Allison Lake.

In 1974 Pacific Resources completed a geochemical survey on the Pine group.

During the 1973-74 period a number of other companies completed exploration work to the northwest and the southwest of the RUSH mineral claim.

To the southeast, within three km of the RUSH claim, exploration work on the Axe group of claims from 1967 to 1973 has contributed to outlining a large porphyry system involving an area nearly 3.2 km in diameter and containing at least three zones of appreciable but scattered copper and some molybdenum mineralization.

Within the area of the RUSH claim previous exploration work included a geochemical survey completed in 1972 by Northwind Mines Ltd. the claims were designated as the J. and P. claims and occupied most of the present area of the RUSH claim however the work completed took in only the area of the southern portion of the claim. The results of the survey as reported on in Assessment report No. 4168 disclosed three "probable" copper anomalies.

GENERAL GEOLOGY

A northerly trending belt of Nicola rocks ranging up to 40 km wide stretches northward from near the U.S. border to beyond Kamloops Lake. Within the Nicola Group, which is comprised of vari-colored lavas, argillite, tuffs, limestones, chlorite and serecite schists are more recent formations of sedimentary rocks as well as stocks and plugs of Coast or Copper Mountain Intrusives. Coast Intrusives are also peripheral to the belt of Nicola Rocks.

Three major ore bodies in addition to many mineral showings occur within the Nicola rocks; The Afton deposit is associated with the Iron Mask Intrusive near Kamloops; the Craigmont deposit near Merritt is associated with a limestone of the Nicola series and adjacent to the Guichon batholith; and the Similkameen deposit near Princeton is associated with the Lost Horse Intrusive and Nicola rocks. These three deposits are intimately associated with intrusives.

The geology of the area also lends itself to volcanogenic related deposits to which an occurrence on Boulder Mountain may be attributed or Sustut type volcanic bed-stratigraphic controlled deposits which some Aspen Grove occurrences may relate to.

The RUSH claim as indicated by geological map 888A covers a portion of the southern periphery of the Coast Intrusive Mt. Pike stock. The stock is generally centered within the belt of Nicola rocks and is in contact and enveloped by the Nicola Group except along the west. The claim is located within an embayment of Nicola with Coast Intrusives to the east and west.

The north-south trending Allison fault bisects the central portion of the claim and occurs adjacent and within 500 meters of the eastern intrusive contact.

A northeasterly synclinal axis is indicated passing from the south central to the northeastern corner of the property.

On the RUSH claim the geological features as determined from a property examination were as follows:

1) In the southwestern portion of the claim and immediately northeast of Borgeson Lake a contact expressed as a shear zone trending at 144° occurs between a variable pinkish meta granodiorite and a greenstone.

The allotriomorphic textured meta granodiorite contains moderate chloritic alteration of the mafics within the matrix and on fracture planes. Variable to patchy light epidote and hematite occur predominantly on fracture planes. Fractures are at 180/55E, 150/60W, 190/90 and 232/60S. A sample of the meta granodiorite returned 56 ppm Cu.

2) A friable shear zone contains discontinuous stringers of barren carbonate-quartz in predominantly meta-volcanic material. A .2 meter sample across the zone returned 9 ppm Cu.

3) A dioritic greenstone with moderate micro fracturing heavily chloritized with irregular red hematite patches could be an altered phase of the granodiorite. A sample returned 103 ppm Cu.

4) Dioritic greenstone outcrop discloses a stockwork of feldspar - carbonate stringers and veinlets with occasional grains of pyrite, silicification and local light serecite. A sample assayed 41 ppm Cu.

5) A road cut exposure of meta diorite at BL 18 + 00 N exhibits moderate chlorite on fractures, predominantly at 30/60N 20/35S. Shears at 140/80N, 70/80N. Carbonate and light breccia along shear zones up to .15 meters wide. Epidote-calcite veinlets up to 3 cm wide at 55 /90 . A sample returned 53 ppm Cu.

6) Malachite stained meta diorite-quartz float occurs within a scree slope at BL 18 + 00 N. Two samples of the float material assayed 3936 ppm Cu and 7754 ppm and 4.2 ppm Ag.

GEOCHEMICAL SURVEY

1. Survey Procedure

The grid lines and stations established for the geophysical survey were utilized in the geochemical survey. The grid was based on east-west lines at 120 meter intervals. Fifteen such adjacent grid lines were traversed with samples taken at 60 meter intervals.

Samples were selected from the B horizon of the brown to brownish gray sandy-loam forest soil at a depth of commonly 30 centimeters. The soil was placed in a brown wet-strength paper bag with the grid co-ordinates marked thereon. A total of 408 samples were collected.

2. Testing Procedure

All samples were tested by Acme Analytical of Burnaby, B.C. The testing procedure is first to thoroughly dry and sift the sample through a -80 mesh screen. Then a measured amount of the sifted material is placed into a test tube, aqua regia added, heated, and the parts per million (ppm) metal measured by atomic absorption. The samples were analysed in this manner for three metals - copper, silver and molybdenum.

3. Treatment of Data

In assessing the data results, the background, sub-anomalous and anomalous values were determined utilizing a pocket calculater with a mean and standard deviation read-out.

The sub-anomalous threshold value, which is a value not considered anomalous, but an indicator of potential mineralization, is taken as one standard deviation from the mean background value. The anomalous values or the prime indicator values are taken at two standard deviations from the mean background values.

The results of the Data treatment were as follows:

	Cu	Ag	Mo
Mean background value	10	.1	1
Sub-anomalous threshold value	18	--	--
Anomalous threshoid value	26	.2	2

All values are in parts per million.

Only the subanomalous and anomalous values were placed on the map for clarification purposes. (Figure 2). All the results are appended in submittal form from Acme Analytical.

DISCUSSION OF RESULTS

In discussing the results, the compilation map (Figure 5) is referred to as the correllative results are considered more significant than individual localized anomalous areas. In addition the correllative anomalous zones that cover a larger area could be considered more indicative of economic mineral zones however, localized anomalies should not be disregarded.

In view of the above, three prime anomalous areas were delineated.

Anomaly A at the north central portion of the claim occurs within a projected fault intersection of the northerly trending major Allison Fault System and a northeasterly trending topographically expressed fault system parallelling the No. 5 Highway. At this location a 300 by 200 meter correllative copper-molybdenum anomaly with included local silver anomalies has been delineated

In association with the Geochemical anomalies, a northeasterly trending E.M. anomaly which could be an expression of a fault zone and a magnetic high with a peripheral magnetic low, possibly indicating mineralization and adjacent alteration zone have been outlined.

Anomaly B at the southwest corner of the claim, correllative copper-molybdenum anomalies with contained localized silver anomalies and short E.M. anomalies surrounded by a series of magnetic lows indicate a potential central area of copper-molybdenum mineralization enveloped by indicated alteration zones.

Anomaly C along the central eastern portion of the claim, a series of correllative copper-molybdenum and/or silver and E.M. anomalous zones occur peripheral to a magnetic high. Correllative anomalies also extend from along the south of the C zone north westward correllating with an indicated topographically expressed creek fault zone.

CONCLUSIONS

The geochemical survey was successful in delineating three prime correllative areas indicating potentially structural and/or intrusive related mineralized areas.

Geological mapping of the claim would be required to provide additional data to obtain information in establishing the significance of these three prime zones or any of the other more subtle localized anomalies.

RECOMMENDATIONS

Based on the encouraging results of the geophysical and geochemical surveys, the second stage of the exploration program as set out in the writer's exploration recommendations in a report on the property dated June 4, 1982.

The geological mapping of Stage II should be initially completed to assess the significance of the anomalous areas.

Respectfully submitted,

Laurence Sookochoff, P.Eng.
Consulting Geologist

October 13, 1982
Vancouver, B.C.

REFERENCES

DOLAN, W.M. et. al - Geophysics of the Copper Mountain and Ingerbelle Orebodies in British Columbia, C.I.M. Bulletin, July 1975 p. 90-97

PARLIAMENT, J.H. - The Similkameen Project, The Canadian Mining and Metallurgical Bulletin, August 1973 P. 58-64

POLONI, J.H. - Report on the Geochemical Program on the J. and P. Claims August 15, 1972 Assessment Report No. 4168

PRETO, V.A. - Geology of the Nicola Group between Merritt and Princeton, Ministry of Energy, Mines and Petroleum Resources, Bulletin 69, 1979.

RICE, H.M.A. - Geology and Mineral Deposits of the Princeton Map-Area, British Columbia, Geological Survey of Canada, Memoir 243 1906

SCHALRAS, W. - Afton may go underground for more copper, gold Canadian Mining Journal, November 1981, p. 62-72.

TAYLOR, G.W. - The history of Mining in British Columbia, Hancock House 1978

GEOLOGY, EXPLORATION AND MINING IN B.C.

1961 p. 31
1969 p. 278
1971 p. 209-220
1973 p. 146
1974 p. 121

VAN BLARICOM, R. - Practical Geophysics for the Exploration Geologist, Northwest Mining Association, 1980.

CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist with the firm of Pan-American Consultants Ltd. of 1406-1055 West Georgia Street, Vancouver, B.C.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.

2. I have been practising my profession for the past sixteen years.

3. I am registered with the Association of Professional Engineers of British Columbia.

4. The information for the accompanying report is based on pertinent material as cited under references, from a property examination on April 20-21, 1982 and from supervision of the 1982 geochemical survey.

5. Neither I or Pan-American has direct or indirect interest in the property described herein, or in the securities of Impala Resources Ltd.

Laurence Sookochoff, P.Eng.
Consulting Geologist

October 13, 1982
Vancouver, B.C.

1982 Assessment Report

Geochemical Survey

AFFIDAVIT OF EXPENSES

The geochemical survey was carried out on the RUSH MINERAL CLAIM, Similkameen M.D., B.C. from June 22, 1982 to September 23, 1982 to the value of the following:

Field	
Fieldwork - survey and grid - 2 men June 22, 1982 to August 3, 1982 120 hours @ $40	$4,800
Vehicle rental 11 days @ $65	715
Room and board 11 days @ $40/man/day	880
Survey supplies	250
Supervision	
L. Sookochoff, P.Eng. 3 days @ $400	1,200
Vehicle rental 3 days @ $65	195
Room and board 3 days @ $50	150
Laboratory	
Soil testing 408 samples @ $4.50	1,836
Data and Report	
Data compilation	400
Rough drafting	350
Final drafting	275
Sepias photocopying maps	85
Report	1,250
Office overhead - telephone, typing, photocopying, report, etc.	350
	$12,736

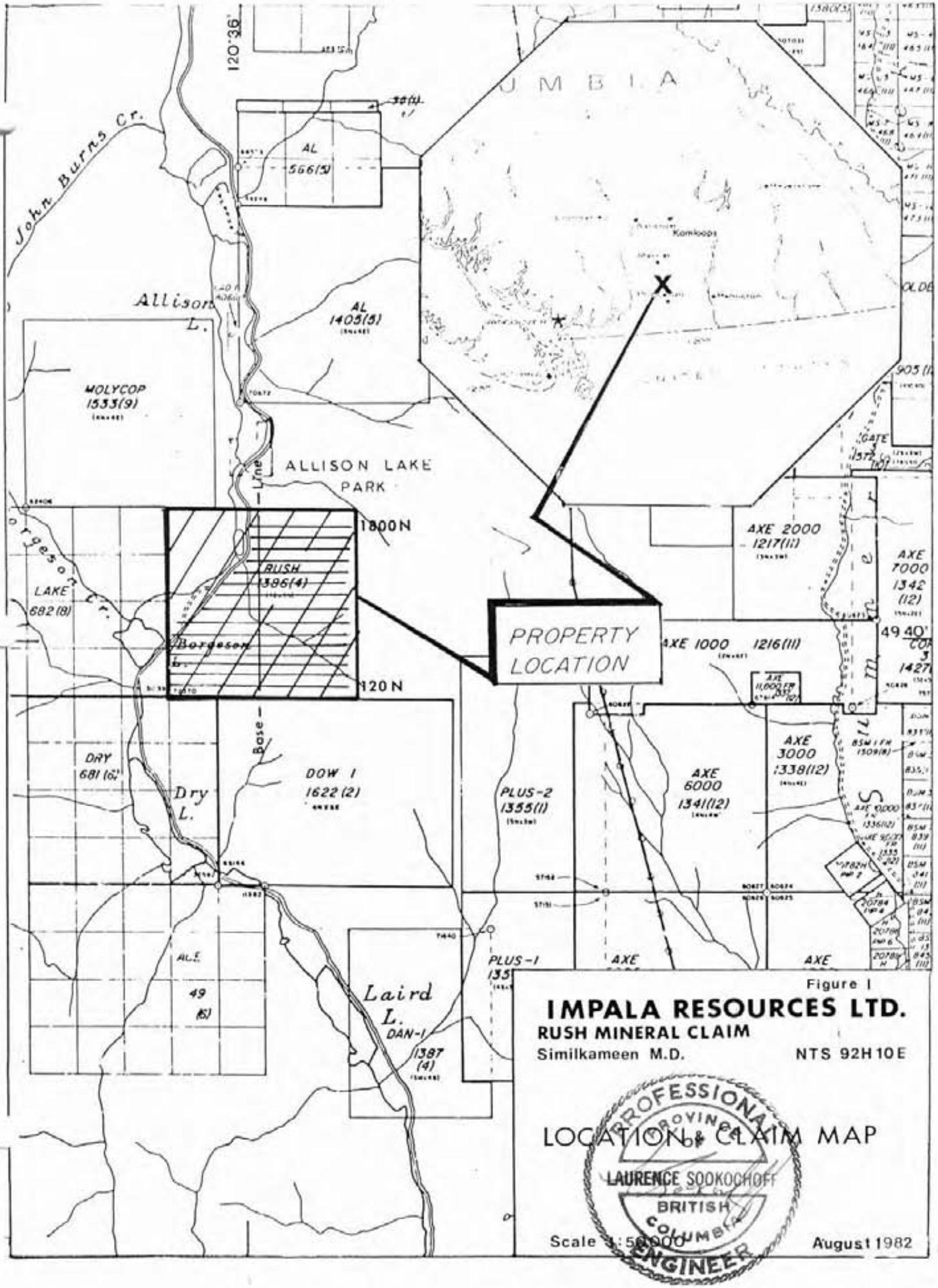

Figure 1

IMPALA RESOURCES LTD.

RUSH MINERAL CLAIM

Similkameen M.D. NTS 92H 10E

LOCATION & CLAIM MAP

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
LAURENCE SOOKOCHOFF

Scale 1:50000 August 1982

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
phone:253 - 3158

12 PGP

To: Pan-American Consultants Ltd.,
Suite 1406 - 1055 W. Georgia St.,
Vancouver, B.C.
V6E 3P3

Project : Rush

File No. 82-0731
Type of Samples Soils
Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Mo	Cu	Ag
1+20N 0+60 E	1	8	.1
1+20	1	11	.1
1+80	1	8	.1
2+40	2	7	.1
3	1	4	.1
3+60	1	10	.1
4+20	1	6	.1
4+80	1	6	.1
5+40	1	5	.1
6	1	5	.1
6+60	1	7	.1
7+20	1	4	.1
7+80	1	8	.1
8+40	1	6	.1
9	1	9	.1
1+20N 9+60 E	2	18	.1
1+20N 0+60 W	1	6	.1
1+20	1	8	.1
1+80	1	12	.1
2+40	1	8	.1
3	1	11	.1
3+60	3	18	.1
4+20	3	36	.1
4+80	1	7	.1
5+40	1	19	.1
6	2	35	.1
6+60	1	11	.1
7+20	1	9	.1
7+80	1	11	.1
8+40	1	8	.1
9	1	14	.1
1+20N 9+60 W	1	8	.1
2+40N 0+60 E	1	8	.1
1+20	4	14	.1
1+80	1	8	.1
2+40	1	7	.1
2+40N 3 E	1	9	.1

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All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 3, 1982

DATE REPORTS MAILED Aug. 9, 1982

ASSAYER D. Toye

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To: Pan-American Consultants Ltd.,

File No. 82-0731

Type of Samples _____

Disposition _____

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Mo	Cu	Ag	
2+40N 3+60 E	1	11	.1	1
4+20	1	9	.1	2
4+80	1	6	.1	3
5+40	1	6	.1	4
6	1	8	.1	5
6+60	1	8	.1	6
7+20	1	9	.1	7
7+80	2	10	.1	8
8+40	1	5	.1	9
9	1	8	.1	10
2+40N 9+60 E	1	7	.1	11
				12
2+40N 0+60 N	1	11	.1	13
1+20	1	13	.1	14
1+80	1	13	.1	15
2+40	1	12	.1	16
3	1	6	.1	17
3+60	1	10	.1	18
4+20	2	26	.1	19
4+80	2	34	.1	20
5+40	1	12	.1	21
6	1	7	.1	22
6+60	1	11	.1	23
7+20	1	12	.1	24
7+80 N.S.				25
8+40	1	13	.1	26
9	1	5	.1	27
2+40N 9+60 W	2	18	.1	28
				29
3+60N 0+60 E	1	6	.1	30
1+20	1	13	.1	31
1+80	2	28	.1	32
2+40	1	6	.1	33
3	1	6	.1	34
3+60	1	6	.1	35
4+20	1	5	.1	36
4+80	1	3	.1	37
5+40	1	5	.1	38
3+60N 6 E	1	4	.1	39
				40

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Disposition

GEOCHEMICAL ASSAY CERTIFICATE

3

SAMPLE No.	Mo	Cu	Ag	
3+60N 6+60 E	1	14	.2	1
7+20	1	10	.2	2
7+80	1	8	.1	3
8+40	1	25	.1	4
9	1	14	.2	5
3+60N 9+60 E	1	50	.1	6
				7
3+60N 0+60 W	4	7	.1	8
1+20	10	8	.1	9
1+80	3	14	.1	10
2+40	1	12	.1	11
3	1	6	.1	12
3+60	1	7	.1	13
4+20	1	16	.1	14
4+80	3	20	.1	15
5+40	2	22	.1	16
6	2	42	.2	17
6+60	2	28	.2	18
7+20	1	9	.1	19
7+80	1	8	.1	20
8+40	1	9	.1	21
9	1	17	.1	22
3+60N 9+60 W	1	9	.1	23
				24
4+80N 0+60 E	2	18	.1	25
1+20	1	9	.1	26
1+80	1	12	.1	27
2+40	1	9	.1	28
3	1	7	.1	29
3+60	1	5	.1	30
4+20	1	6	.1	31
4+80	1	8	.1	32
5+40	1	7	.1	33
6	1	5	.1	34
6+50	1	6	.1	35
7+20	2	29	.1	36
7+80	2	56	.1	37
8+40	1	7	.1	38
9	1	6	.1	39
4+80N 9+60 E	1	8	.1	40

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Disposition

GEOCHEMICAL ASSAY CERTIFICATE

4

SAMPLE No.	Mo	Cu	Ag
4+80N 0+60 W	1	7	.1
1+20	1	11	.1
1+80	2	12	.1
2+40	3	12	.1
3	2	11	.1
3+60	1	7	.1
4+20	1	8	.1
4+80	1	9	.1
5+40	2	13	.1
6	1	19	.1
6+60	3	16	.1
7+20	2	23	.1
7+80	1	9	.1
8+40	1	10	.1
9	1	13	.1
4+80N 9+60 W	1	17	.1
7+20N 0+60 E	1	7	.1
1+20	1	7	.1
1+80	1	4	.1
2+40	1	3	.1
3	1	2	.1
3+60	1	5	.1
4+20	1	2	.1
4+80	1	4	.1
5+40	2	29	.1
6	3	36	.1
6+60	2	32	.1
7+20	1	12	.1
7+80	1	10	.1
8+40	1	7	.1
9	1	8	.1
9+60	1	10	.1
7+20N 10+20 E	1	10	.1
7+20N 0+60 W	1	6	.1
1+20	2	40	.1
1+80	1	6	.1
2+40	1	7	.1
7+20N 3 W	1	9	.1

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5	SAMPLE No.		Mo	Cu	Ag									
7+20N	3+60W		1	3	.1									1
	4+20		1	8	.1									2
	4+80		1	6	.1									3
	5+40		1	9	.1									4
	5+40A		1	8	.1									5
	6		1	9	.1									6
	6+60		1	6	.1									7
	7+20		1	9	.1									8
	7+80		1	9	.1									9
	8+40		1	6	.1									10
	9		1	5	.1									11
	9+60		1	6	.1									12
7+20N	10+20W		1	6	.1									13
														14
8+40N	0+60 E		2	19	.1									15
	1+20		1	3	.1									16
	1+80		1	4	.1									17
	2+40		1	5	.1									18
	3		1	14	.1									19
	3+60		1	12	.1									20
	4+20		2	24	.1									21
	4+80		1	14	.1									22
	5+40		1	21	.1									23
	6		1	11	.1									24
	6+60		2	30	.1									25
	7+20		1	12	.1									26
	7+80		2	18	.1									27
	8+40		1	9	.1									28
	9		1	8	.1									29
8+40N	9+60 E		1	8	.1									30
														31
8+40N	0+60 W		1	6	.1									32
	1+20		1	3	.1									33
	1+80		1	3	.1									34
	2+40		1	2	.1									35
	3		1	6	.1									36
	3+60		1	3	.1									37
	4+20		1	6	.1									38
8+40N	4+80 W		1	9	.1									39
														40

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File No. 82-0731

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

6

SAMPLE No.	Mo	Cu	Ag
8+40N 6 W	1	22	.1
6+60	1	14	.1
7+20	2	28	.1
8+40	1	12	.1
8+40N 9+60 W	1	12	.1
9+60N 0+60 E	1	19	.1
1+20	1	6	.1
1+80	1	4	.1
2+40	2	25	.1
3	2	30	.1
3+60	1	16	.1
4+20	1	15	.1
4+80	1	16	.1
5+40	1	8	.1
6	1	6	.1
6+60	1	15	.1
7+20	1	16	.1
7+80	1	8	.1
8+40	1	10	.1
9	1	7	.1
9+60N 9+60 E	1	5	.1
9+60N 0+60 W	1	4	.1
1+20	1	11	.1
1+80	2	19	.1
2+40	1	4	.1
3	1	5	.1
3+60	1	5	.1
4+20	1	14	.1
4+80	1	13	.1
5+40	1	9	.1
6	1	8	.1
6+60	1	9	.1
7+20	1	9	.1
7+80	1	10	.1
8+40	1	8	.1
9	2	28	.1
9+60N 9+60 W	1	5	.1

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DIGESTION:

DETERMINATION:

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DATE REPORTS MAILED Aug. 9, 1982

ASSAYER D Toye

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

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
phone:253 - 3158

To: Pan-American Consultants Ltd.,

File No. 82-0731

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Mo	Cu	Ag	
10+20N 0+30 E	2	16	.1	1
0+90	1	6	.1	2
1+50	1	5	.1	3
2+10	1	4	.1	4
2+70	1	8	.1	5
3+30	2	16	.1	6
3+90	2	20	.1	7
4+50	1	10	.1	8
5+10	1	4	.1	9
5+70	1	3	.1	10
6+30	2	16	.1	11
6+90	1	8	.1	12
7+50	1	7	.1	13
8+10	1	8	.1	14
8+70	1	8	.1	15
9+30	1	10	.1	16
10+20N 9+90 E	2	26	.1	17
				18
10+20N 0+60 N	1	6	.1	19
1+20	2	34	.1	20
1+80	1	16	.1	21
2+40	1	3	.1	22
3	1	3	.1	23
3+60	1	2	.1	24
4+20	1	3	.1	25
4+80	1	12	.1	26
5+40	1	8	.1	27
6	1	6	.1	28
6+60	1	7	.1	29
7+20	2	23	.2	30
10+20N 7+40 W	1	6	.1	31
				32
10+80N 0+60 E	1	5	.1	33
1+20	1	4	.1	34
1+80	1	4	.1	35
2+40	1	7	.1	36
3	2	13	.1	37
3+60	1	9	.1	38
4+20	1	7	.1	39
10+80N 4+80 E	1	3	.1	40

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To: Pan-American Consultants Ltd.,

File No. 82-0731

Type of Samples _____

Disposition _____

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.		Mo	Cu	Ag	
10+80N	5+40E	1	10	.1	1
	6	1	6	.1	2
	6+60	1	10	.1	3
	7+20	1	14	.1	4
	7+80	1	12	.1	5
	8+40	1	9	.1	6
	9	1	12	.1	7
10+80N	9+60 E	2	26	.1	8
					9
10+80N	0+60 W	1	28	.1	10
	1+20	1	6	.1	11
	1+80	1	3	.1	12
	2+40	1	11	.1	13
	3	1	7	.1	14
	3+60	1	8	.1	15
	4+20	1	7	.1	16
	4+80	1	6	.1	17
	5+40	1	10	.1	18
	6	1	7	.1	19
10+80N	6+60 W	1	5	.1	20
					21
11+40N	1+80 E	1	9	.1	22
	2+40	1	9	.1	23
	3	2	12	.1	24
	3+60	1	11	.1	25
	4+20	1	8	.1	26
	4+80	1	7	.1	27
	5+40	1	6	.1	28
	6	1	8	.1	29
	6+60	1	3	.1	30
	7+20	1	7	.1	31
	7+80	2	18	.1	32
	8+40	1	6	.1	33
	9	1	14	.1	34
11+40N	9+60 E	1	15	.1	35
					36
11+40N	0+60 W	1	3	.1	37
	1+20	1	22	.1	38
	1+80	1	19	.1	39
11+40N	2+40 W	2	45	.1	40

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DIGESTION:.....

DETERMINATION:.....

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To: Pan-American Consultants Ltd.,

File No. 82-0731

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Mo	Cu	Ag
11+40N 3 W	1	7	.1
3+60	1	8	.1
4+20	1	6	.1
4+80	1	7	.1
5+40	1	6	.1
6	1	8	.1
6+60	1	5	.1
11+40N 7+20 W	1	6	.1
12 N 0+60 E	1	13	.1
1+20	2	14	.1
1+80	1	6	.1
2+40	1	8	.1
3	1	7	.1
3+60	1	6	.1
4+20	1	4	.1
4+80	1	6	.1
5+40	1	5	.1
6	1	3	.1
6+60	1	4	.1
7+20	1	4	.1
7+80	1	6	.1
8+40	1	5	.1
9	2	64	2.5
12 N 9+60 E	2	29	.3
12 N 0+60 W	2	13	.1
1+20	1	2	.1
1+80	1	3	.1
2+40	1	4	.1
3	1	7	.1
3+60	1	6	.1
4+20	1	5	.1
4+80	1	6	.1
5+40	1	6	.1
6	1	5	.1
6+60	1	6	.1
12 N 7+20 W	1	8	.1

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File No. 82-0731

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

10	SAMPLE No.		Mo	Cu	Ag									
	13+20N	0+60E	2	14	.1									1
		1+20	1	5	.1									2
		1+80	1	6	.1									3
		2+40	1	7	.1									4
		3	1	6	.1									5
		3+60	1	6	.1									6
		4+20	1	9	.1									7
		4+80	1	6	.1									8
		5+40	1	6	.1									9
		6	1	6	.1									10
		6+60	1	7	.1									11
		7+20	1	5	.1									12
		7+80	1	8	.1									13
		8+40	1	5	.1									14
		9	1	4	.1									15
	13+20N	9+60 E	1	4	.1									16
														17
	13+20N	0+60 W	1	2	.1									18
		1+20	1	5	.1									19
		1+80	1	6	.1									20
		2+40	1	6	.1									21
		3	1	4	.1									22
		3+60	1	4	.1									23
		4+20	1	3	.1									24
		4+80	2	24	.1									25
		5+40	1	8	.1									26
		6	1	5	.1									27
	13+20N	6+60 W	1	3	.1									28
														29
	14+40N	0+60 E	1	12	.1									30
		1+20	1	10	.1									31
		1+80	2	11	.1									32
		2+40	2	14	.1									33
		3	1	8	.1									34
		3+60	1	6	.1									35
		4+20	1	6	.1									36
		4+80	1	5	.1									37
		5+40	1	6	.1									38
		6	1	7	.1									39
	14+40N	6+60 E	1	6	.1									40

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To: Pan-American Consultants Ltd.,

File No. 82-0731

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

11

SAMPLE No.	Mo	Cu	Ag
14+40N 7+20 E	1	7	.1
7+80	1	8	.1
8+40	1	8	.1
9	1	7	.1
14+40N 9+60 E	1	5	.1
14+40N 0+60 W	1	6	.1
1+20	1	5	.1
1+80	1	6	.1
2+40	1	7	.1
3	1	8	.1
3+60	1	7	.1
14+40N 4+20 W	1	12	.1
16+80N 0+60 E	3	14	.5
1+20	2	5	.1
1+80	1	7	.1
2+40	1	12	.1
3	1	7	.1
3+60	1	4	.1
4+20	1	3	.1
5+40	1	3	.1
6	1	6	.1
6+60	1	9	.1
7+20	1	8	.1
7+80	1	3	.1
8+40	2	10	.1
9	2	11	.1
16+80N 9+60 E	1	7	.1
16+80N 0+60 W	2	22	.4
1+20	1	5	.1
1+80	1	5	.1
16+80N 2+40 W	1	7	.1
18 N 0+60 E	2	52	.1
1+20	3	44	.1
1+80	2	21	.1
2+40	1	16	.1
18 N 3 E	1	11	.1

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To: Pan-American Consultants Ltd.,

File No. 82-0731

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

12

SAMPLE No.	Mo	Cu	Ag
18N 3+60 E	2	7	.1
4+20	1	7	.1
4+80	1	5	.1
5+40	1	5	.1
6	1	4	.1
6+60	1	6	.1
7+20	1	9	.1
7+80	1	8	.1
8+40	2	28	.1
9	1	9	.1
18N 9+60 E	1	6	.1
18N 0+60 W	2	35	.1

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CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

RUSH CLAIM

BASE LINE

TO MERRITT

HAY FIELD

ALLISON FAULT

BORGESON LAKE

HIGHWAY No. 5

TO PRINCETON 24 KM

Logging road

L.C.P. RUSH

18+00 N
16+00 N
15+60 N
14+40 N
13+20 N
12+00 N
10+80 N
10+20 N
9+60 N
8+40 N
7+20 N
6+00 N
4+80 N
3+60 N
2+40 N
1+20 N
0+00 N

100 W | 800 W | 600 W | 400 W | 200 W | BASE LINE | 200 E | 400 E | 600 E | 800 E | 1000 E

LEGEND

- STATION (Cu / Mo / Ag)
- ROAD
- POWER LINE
- CREEK
- FAULT (REGIONAL)
- Cu ANOMALY
- Ag ,,
- Mo ,,

	Cu,ppm	Ag,ppm	Mo,ppm
Background	10	.1	1
Sub anomaly	18	-	-
Anomaly	26	.2	2

(not shown on the map)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11'042

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — LAURENCE SOOKOCHOFF

FIGURE 2

PAN AMERICAN CONSULTANTS LTD.

IMPALA RESOURCES LTD.

RUSH CLAIM

SIMILKAMEEN M.D., B.C. — 92H-10E

SOIL GEOCHEMISTRY

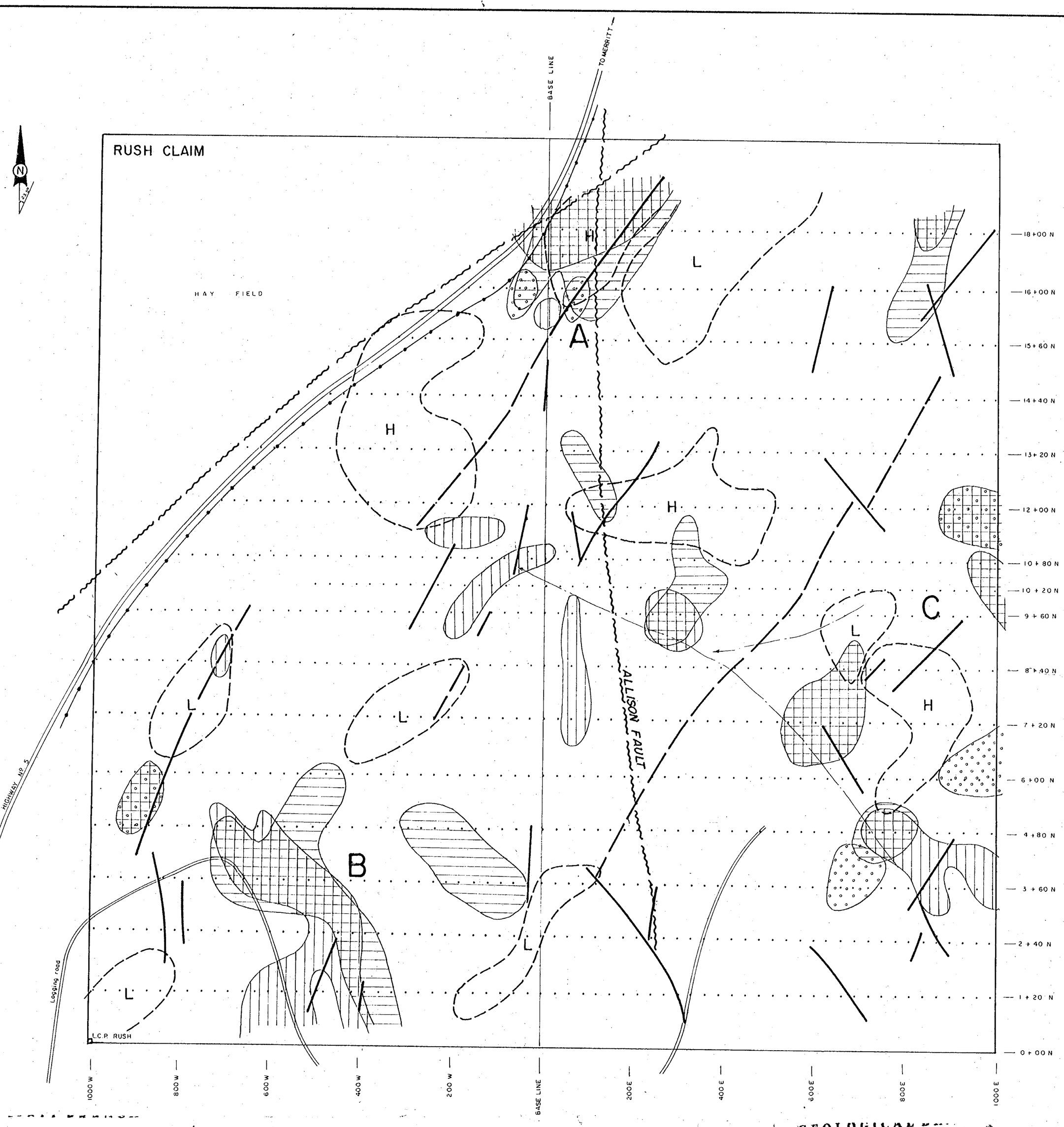
(Cu , Ag & Mo)

100 0 100 200 metres

SCALE 1:5000

AUGUST 1982

TO ACCOMPANY REPORT BY L. SOOKOCHOFF, P.ENG., DATED AUGUST 18, 1982



LEGEND

- STATION
- ROAD
- POWER LINE
- CREEK
- FAULT (REGIONAL)
- (H/L) MAGNETOMETER HIGHS / LOWS
- AXIS OF VLF-EM ANOMALY / SUB ANOMALY
- COPPER ANOMALY
- SILVER ANOMALY
- MOLYBDENUM ANOMALY

GEOLOGICAL BRANCH
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FIGURE 5

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — LAURENCE SOOKOCHOFF

PAN AMERICAN CONSULTANTS LTD.

IMPALA RESOURCES LTD.
RUSH CLAIM
SIMILKAMEEN M.D., B.C. — 92H-10E

COMPILATION MAP

100 0 100 200 metres

SCALE 1:5000

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RUSH CLAIM

BASE LINE

TO MERRITT

HAY FIELD

ALLISON FAULT

BORGESON LAKE

HIGHWAY No. 5

TO PRINCETON 24 KM

Logging road

L.C.P. RUSH

18+00 N
16+00 N
15+60 N
14+40 N
13+20 N
12+00 N
10+80 N
10+20 N
9+60 N
8+40 N
7+20 N
6+00 N
4+80 N
3+60 N
2+40 N
1+20 N
0+00 N

100 W | 800 W | 600 W | 400 W | 200 W | BASE LINE | 200 E | 400 E | 600 E | 800 E | 1000 E

LEGEND

- STATION (Cu / Mo / Ag)
- ROAD
- POWER LINE
- CREEK
- FAULT (REGIONAL)
- Cu ANOMALY
- Ag ,,
- Mo ,,

	Cu,ppm	Ag,ppm	Mo,ppm
Background	10	.1	1
Sub anomaly	18	-	-
Anomaly	26	.2	2

(not shown on the map)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11'042

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — LAURENCE SOOKOCHOFF

FIGURE 2

PAN AMERICAN CONSULTANTS LTD.

IMPALA RESOURCES LTD.

RUSH CLAIM

SIMILKAMEEN M.D., B.C. — 92H-10E

SOIL GEOCHEMISTRY

(Cu , Ag & Mo)

100 0 100 200 metres

SCALE 1:5000

AUGUST 1982

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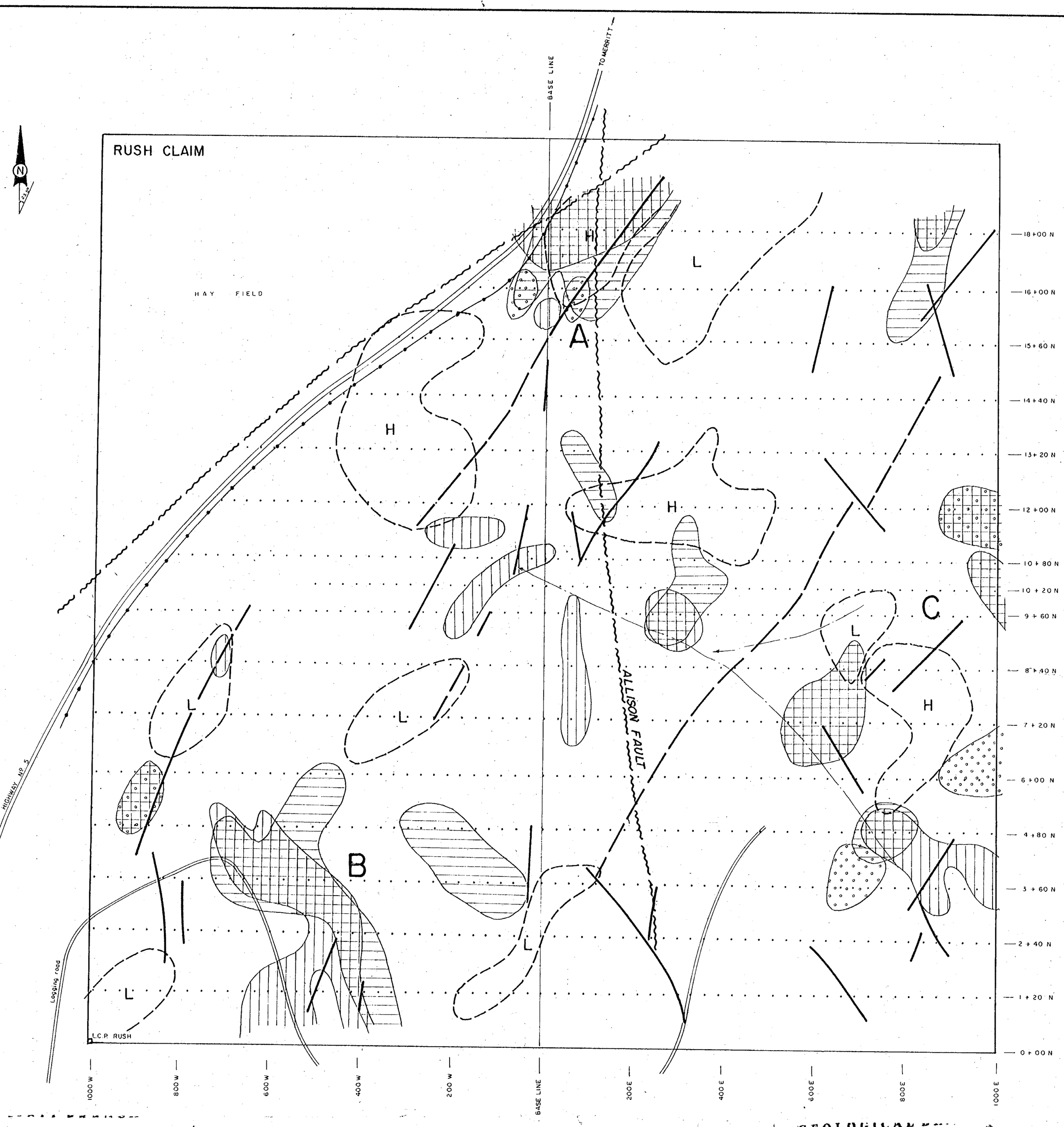

LEGEND

- STATION
- ROAD
- POWER LINE
- CREEK
- FAULT (REGIONAL)
- (H/L) MAGNETOMETER HIGHS / LOWS
- AXIS OF VLF-EM ANOMALY / SUB ANOMALY
- COPPER ANOMALY
- SILVER ANOMALY
- MOLYBDENUM ANOMALY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11'042

FIGURE 5

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — LAURENCE SOOKOCHOFF

PAN AMERICAN CONSULTANTS LTD.

IMPALA RESOURCES LTD.
RUSH CLAIM
SIMILKAMEEN M.D., B.C. — 92H-10E

COMPILATION MAP

100 0 100 200 metres

SCALE 1:5000

AUGUST 1982

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