2009 PROSPECTING REPORT

ON THE

MAMQUAM 5 CLAIM

IN THE PACIFIC RANGES OF THE COAST

MOUNTAINS, 92 G/10

NEW WESTMINSTER MINING DIVISION

122 DEGREES 55 MINUTES 25 SECONDS WEST

49 DEGREES 37 MINUTES 54 SECONDS NORTH

CLAIM: MAMQUAM 5

TENURE NUMBER: 558954

OWNER OPERATOR: KEN MACKENZIE

FMC# 116450

AUTHOR: KEN MACKENZIE

SQUAMISH, B.C. **JULY, 2010**

EVENT NUMBER: 464293

TABLE OF CONTENTS

N

MAMQUAM CLAIMS
1:600,000

MAP #1

0 10 20 30 40 5
Km

MAMQUAM 5 CLAIM
INTRODUCTION

The Mamquam 5 claim is located in the Pacific Ranges of the Coast Mountains near the headwaters of the Mamquam River. See Map #1 (the index map) for the location. The property can be accessed by road from Squamish. Drive south from Squamish on highway 99 to the Mamquam main logging road, which is reached just beyond a bridge over the Stawamus River near the base of the Stawamus Chief (a well-known rock climbing area). Turn left (east) off the highway and follow the main road, which is marked in miles rather than kilometers. Logging trucks or construction vehicles may be present on this road so drive carefully with your lights on and use a radio. The correct frequency is posted. At approximately 2 ½ miles the road crosses the Stawamus River, and continues on past a new run of the river electrical generating plant (mile 6 to 8). At mile 9 the road crosses a bridge over the Mamquam River and stays on the north and east side of the river until the headwaters are reached. At mile 15 the road narrows and becomes steep for a short section. If there is active logging beyond this point I usually stop and make more calls than usual on the radio. However, in 2009 there was no logging activity so the road could be driven using normal precautions.

Continuing along the main road, at mile 18 the logging road again heads uphill to the left, but you should continue straight ahead onto a decommissioned, cross-ditched road that soon crosses the Mamquam River near its headwaters. The road is easily drivable with a four-wheel drive vehicle that has sufficient clearance. Continue on the main road that parallels the Mamquam River. The southeast corner of the claim can be accessed from a road that climbs uphill from the main road at about UTM10: 505995 E, 5498310 N. The main road intersects the boundary of the Mamquam 5 claim at UTM10: 505769 E, 5498008 N. At about 600 meters along the road from the claim boundary, there is another junction. The right fork heads downhill to the west and crosses the Mamquam River near its headwaters and is the main road used to access the Mamquam 1-4 claims. The left fork heads uphill to the south. This road is not drivable so we usually park at the junction and hike the road, which provides access to the south section of the Mamquam 5 claim. These roads and trails are shown on Map #2 (the 1:50,000 index map), which shows the property in relationship to the

Mamquam River, Raffuse Creek, Clarion Lake, the Stawamus River and the town of Squamish.

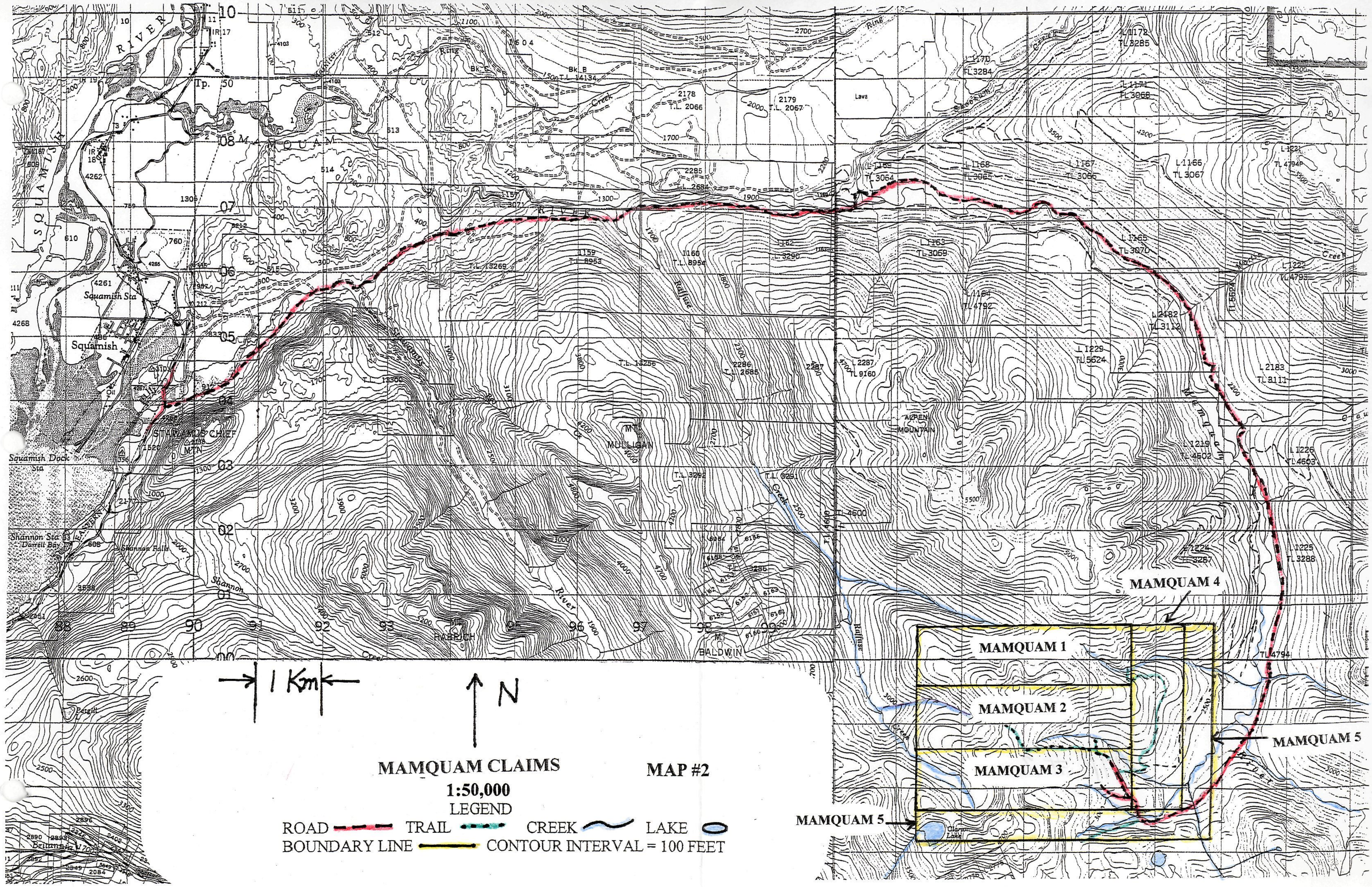
There are numerous deer and black bears in the area, and in the Indian River drainage elk have recently been introduced, and are thriving. The animals use the roads and trails regularly so caution is advised. This year I found signs of elk in the pass between the Indian River and the Mamquam River.

The tenure number for the Mamquam 5 claim is 558954.

Most of the property is covered with soil or glacial till so rock outcrops are infrequent. As a result, prospecting has been mainly done by following the stream sediment geochemistry, examining creek beds, and outcrops in the creek banks. Outcrops on or near old logging roads have also been prospected.

There are two main rock types found on the property, Gambier Group metamorphosed volcanics that contain rhyolites, andesites, cherts, tuffs and volcaniclastics, and intrusive rocks such as granodiorite and quartz diorite. These are the same rocks that are associated with the Britannia Mine; so the model originally used was of a volcanogenic massive sulphide type of mineralization. This model still applies, and now that some rock float containing chalcopyrite in silicified quartz diorite (which was analyzed to contain 1½% Copper) has been found, as well as other boulders that contain quartz veins, pyrite, galena and sphalerite, the model has been expanded to include a feeder zone.
Intrusive rocks and silicified andesites that contain disseminated chalcopyrite have also been found in various locations on the property, but the significance of these rocks is uncertain at this time.

To date no massive sulphide, feeder zone or area of disseminated chalcopyrite of commercial value has been identified on the Mamquam property.



MAMQUAM CLAIMS
MAP #2
1:50,000
LEGEND
ROAD
TRAIL
CREEK
LAKE
BOUNDARY LINE
CONTOUR INTERVAL = 100 FEET
1 Km
N
MAMQUAM 1
MAMQUAM 2
MAMQUAM 3
MAMQUAM 4
MAMQUAM 5
MAMQUAM 5
Squamish
Squamish Sta
Squamish Dock Sta
Shannon Sta
Darrell Bay
Shannon Falls
STAWAMUS CHIEF MTN
MT MULLIGAN
MT HABRICH
MT BALDWIN
ALPEN MOUNTAIN
SQUAMISH
RIVER
MAMQUAM
RIVER
Ring
Creek
Lava
Ring Creek
Raffuse
Britannia
Clarion Lake

N

MAMQUAM CLAIMS

1:20,000 MAP # 3

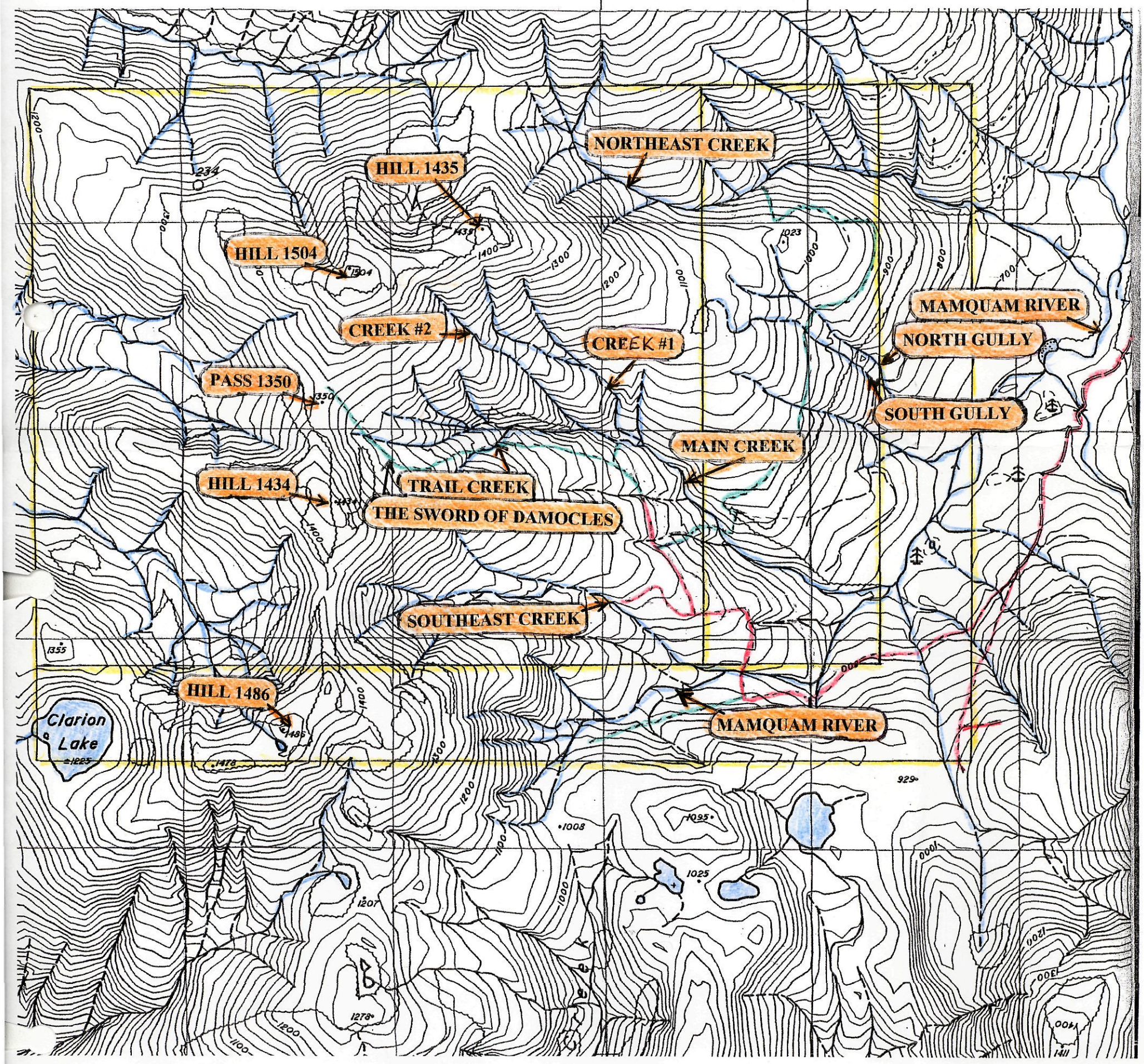
PLACE NAMES, ROADS AND TRAILS

LEGEND

ROAD — TRAIL — CREEK OR RIVER — LAKE

BOUNDARY LINE — CONTOUR INTERVAL = 20 METERS

1 Km



HISTORY OF THE MAMQUAM 5 CLAIM

A detailed history of the Mamquam claims was documented in my 2005 prospecting report. Please refer to that report for a more complete summary. This report on the history will be shorter and will provide only a brief description of the property, and the subsequent findings that led to the decision to stake the Mamquam 5 property on May 20, 2007.

This property was discovered in 1979 using a dithizone field test and stream sediment analyses performed in commercial labs. The original model was a volcanogenic massive sulphide type of deposit similar to that found in the nearby Britannia Mine. The highest geochemical values found at that time surrounding hill 5000 (this name refers to the elevation of the hill in feet, as shown on the 1:50,00 map. However, I am now using a 1:20,000 map that shows the elevations in meters and the new name is hill 1504). This area was thought to contain one or more massive sulphide lenses. This interpretation is still considered valid, and in 2005, other types of mineralized rock were found that indicated the presence of a feeder zone. In addition, chalcopyrite disseminated in quartz diorite intrusive rocks has been discovered on the Mamquam 3 and 4 claims, and high-grade chalcopyrite was found close to the eastern boundary of the Mamquam 4 claim.

Preliminary prospecting outside the boundaries of the Mamquam 1-4 claims carried out in 2006 led to the decision to stake the Mamquam 5 claim.

A detailed history of the Mamquam 5 claim was provided in my previous two prospecting reports, which should be reviewed to obtain more background material.

SUMMARY OF WORK PERFORMED ON THE MAMQUAM 5 CLAIM IN 2009 AND 2010

All the prospecting trips into the Mamquam property in 2009 AND 2010 were day trips.
Although the end of the road as shown on Map # 2 is over 40 Km from Squamish, this is close enough to allow daily access. The road is severely potholed and is narrowing in many places as the trees grow on the shoulders and lean into the driving space. Each year work is required so that access to the claims can be maintained.

The road and trail access work is apportioned to the various Mamquam claims according to the number of units in each claim.
Road and trail clearing that provided access to the Mamquam 5 claim was performed on May 20, 26, 27, June 9, 10, 11, 15, 18, 22, 23, 26, July 2, 5, 8, 10, Sep 14, Oct 12, 20, Nov 4, 2009 and April 19, 22, 26, 28, May 4, 5, 11, 13, 18, 2010.

Rainer Schwarz worked with me on May 20, June 15, July 2, and July 10, 2009. Karl Ricker worked with me on June 10, 2009. Their help was greatly appreciated.

On Thursday July 9, 2009 I drove to the junction of the main road with an old logging road that heads southwest at approximately 0504660 E, 5497720 N. I hiked the logging road, which is blocked by a large boulder, to its end and then I traversed northwest through thick blueberries, salmonberries and devils club, following the outline of a trail that was started last year. Once I reached the mature timber near the creek that is the head of the Mamquam River I descended into the creek and prospected upstream. There is a moderately large waterfall that can be passed on either side or climbed directly. This year I climbed the waterfall and continued prospecting upstream until I reached an outcrop of iron-stained siliceous andesite that contained pyrite in the fractures and disseminated in the rock.
M 127 0503747 E 5497446 N
Significant results for M 127:

Ba	60	ppm
Cu	104	ppm
Zn	83	ppm

M 128 0503754 E 5497380 N

I continued prospecting upstream until I came to a small waterfall formed by a black dike. On the east side of the stream there was an iron-stained outcrop of silicified, altered intrusive rock that contained pyrite in the fractures and disseminated throughout the rock as well as light green-gray chlorite. Some fine-grained chalcopyrite was also visible.

Significant results for M 128:

Au	0.044	ppm
Ag	1.4	ppm
Ba	90	ppm
Cd	4.7	ppm
Cu	193	ppm
Mg	1.52	%
Pb	291	ppm
Zn	457	ppm

M 129 0503600 E 5497380 N

I then climbed out of the creek and headed uphill to the west, picking the easiest route available. In the soft soil on the Mamquam side of the pass, there were elk tracks. Previously I had only found evidence of elk in the Indian River area, so the elk continue to thrive and spread. If they manage to reach the old logging road below, they will have no difficulty populating all of the Mamquam valley.

My goal was to take samples 100 meters apart, along the claim boundary. At this sample site there was a lot of rock float as well as an outcrop, which was sampled. The rock is a fine-grained, quartz-rich andesite with a large mafic component (not identified-possibly iron rich chlorite). The fractures in the rock contained limonite and manganese staining on the fracture surfaces and in vugs.

Significant results for M 129:

Al	2.46	%
As	25	ppm
Cu	145	ppm
Fe	5.21	%
Mg	1.77	%
Mn	1160	ppm
Zn	161	ppm

M 130 0503700 E 5497380 N

After collecting the last sample, I returned the way I had come back to the creek where I sampled a gravel bar found in the pool below a small waterfall. I had no difficulty finding enough fine material in the gravel to provide a good sediment sample for analysis.

Significant results for M 130:

Au	0.061	ppm
Al	2.67	%
As	16	ppm
Ba	90	ppm
Cu	411	ppm
Mn	1980	ppm
Mo	10	ppm
Pb	115	ppm
Zn	179	ppm

M 157 0503500 E 5497385 N

On Monday September 21, 2009 I returned to the same area but ascended in the trees close to the head of the Mamquam River in order to bypass the waterfall. This required some work clearing blueberry bushes, devils club and other bushes. Once back in the creek the traveling was much easier and I quickly found my previous sample sites M 130 and M 129. I continued hiking westward (uphill) on the property line until I reached 0503500 E.

M 157 was located in a large area of loose rocks with no soil or bedrock available. There was some moss and other organic material growing between the rocks and a large mass, complete with the roots, was collected. Everything at this sample site was dry. There was no running water seen or heard and no standing water or seeps.

Significant results for M 157:

As	9	ppm
Ba	120	ppm
Cd	2.9	ppm
Cu	70	ppm
La	50	ppm
Mn	1340	ppm
P	1480	ppm
Pb	225	ppm
Zn	75	ppm

M 158 0503400 E 5497385 N

I continued along the line uphill into a cliff band where I sampled the bedrock, which was a quartz diorite that contained disseminated pyrite and mafic minerals that were strongly magnetic, probably magnetite.

Significant results for M 158:

Ba	70	ppm
Cu	78	ppm
Mg	1.41	%

Map # 3 shows place names, roads and trails used on the Mamquam claims.

Map # 4 illustrates the main areas prospected in 2009, the related traverses and the sites where samples were obtained.

Map # 5 shows the significant results and their locations.

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MAMQUAM 5 CLAIM

1:10,000 **MAP # 4**

MAIN AREAS PROSPECTED IN 2009, RELATED TRAVERSES AND SAMPLE SITES

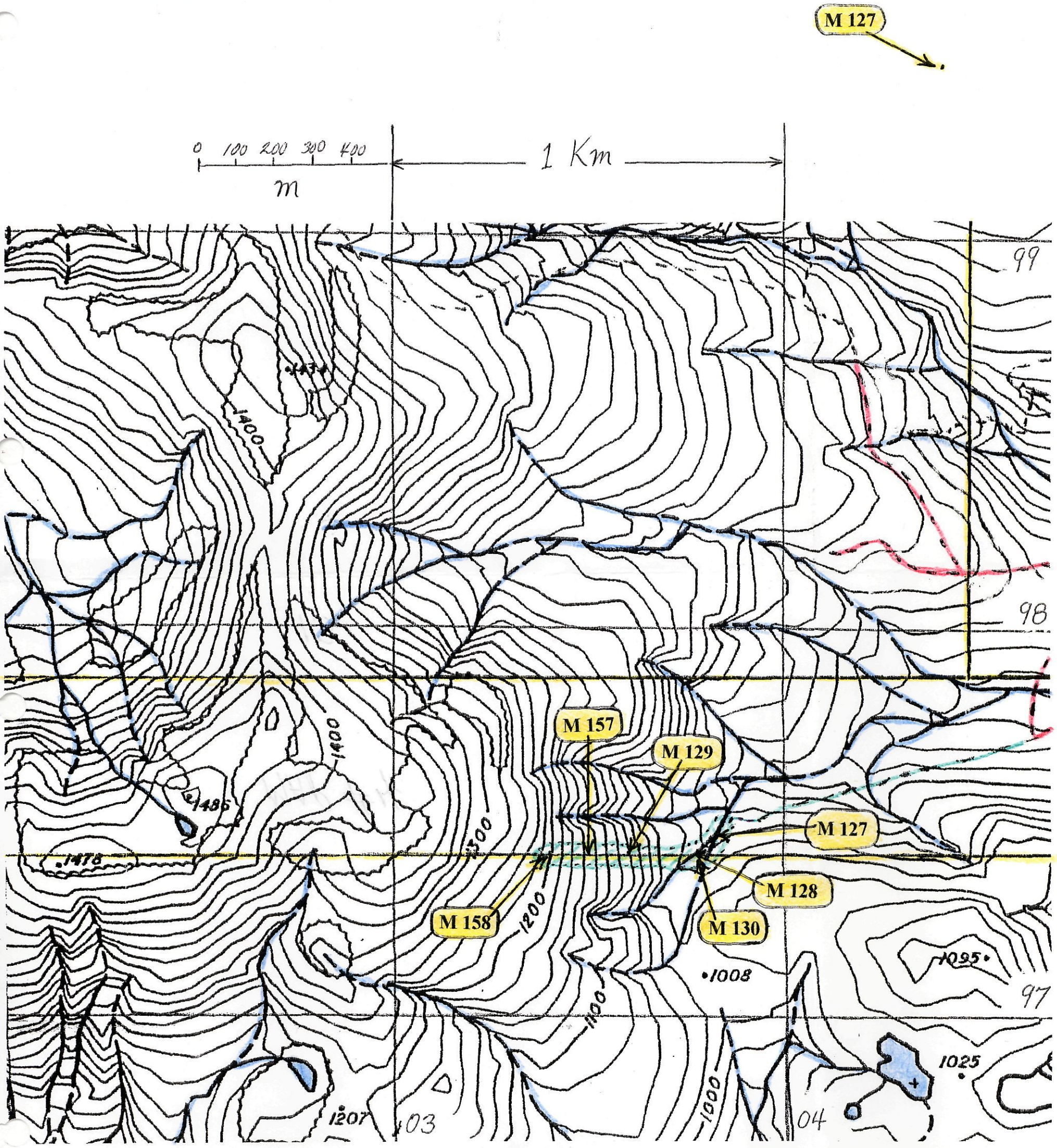
LEGEND

ROAD — TRAVERSE — CREEK — LAKE

MAIN AREA PROSPECTED

CLAIM BOUNDARY LINE

CONTOUR INTERVAL = 20 METERS DATUM = NAD 83 SAMPLE SITE



N

MAMQUAM 5 CLAIM
1:10,000
2009 SIGNIFICANT RESULTS AND THEIR LOCATIONS

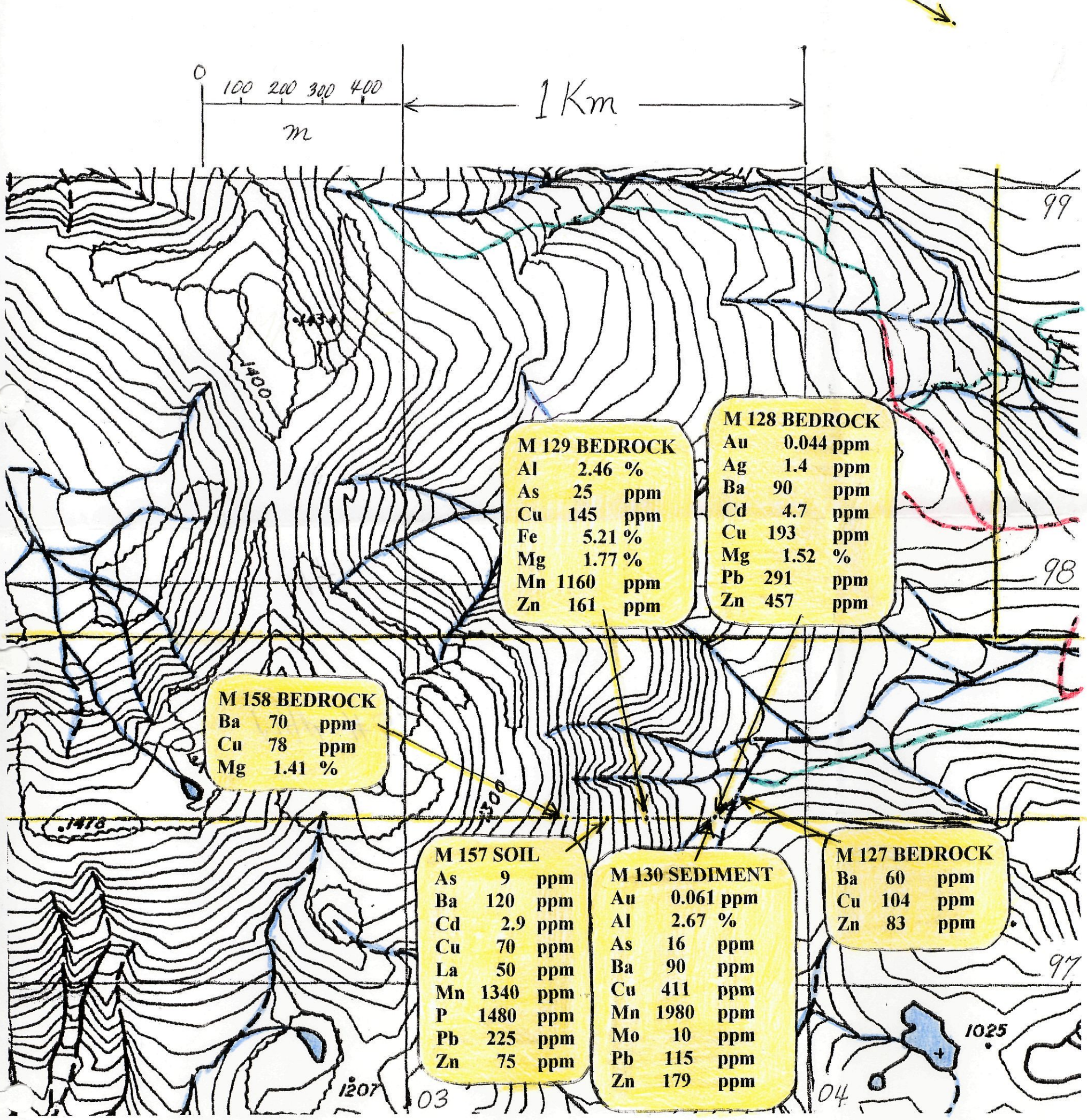
MAP # 5

LEGEND

ROAD — TRAIL — CREEK — LAKE

CLAIM BOUNDARY — DATUM = NAD 83

CONTOUR INTERVAL = 20 METERS — SAMPLE SITE



MAMQUAM 5 CLAIM-PROSPECTING REPORT
ITEMIZED COST STATEMENT FOR 2009

SCHEDULE

FOOD COSTS/PERSON/DAY	$10.00
VEHICLE TO MAMQUAM	$60.00
VEHICLE TO VANCOUVER	$40.00
PROSPECTORS/DAY	$400.00

ROAD AND TRAIL CLEARING, PRO-RATED = 6.30

PROSPECTORS	6.30 DAYS @ $400	$2520.00
VEHICLE	6.30 TRIPS @ $60	$378.00
FOOD	6.30 DAYS @ $10	$63.00

PROSPECTING EXPENSES

PROSPECTORS	2 DAYS @ $400	$800.00
VEHICLE	2 DAYS @ $60	$120.00
FOOD	2 DAYS @ $10	$20.00

2008 PROSPECTING REPORT

PROSPECTOR	1.75 DAYS @ $400	$700.00

OTHER EXPENSES

ANALYSES	3 @ $37.32	$111.96
	1 @ $28.44	$28.44
	1 @ $23.86	$23.86
	1 @ $43.84	$43.84
FILING FEE		$133.91

SAMPLES TO ALS/CHEMEX-NORTH VANCOUVER

2 TRIPS PRO-RATED FOR THE NUMBER OF SAMPLES:

PROSPECTOR	0.3332 DAYS @ $400	$133.28
VEHICLE	0.3332 TRIPS @ $40	$13.33

TOTAL **$5089.62**

APPENDIX A

AUTHOR'S QUALIFICATIONS

K. R. MacKenzie, B.Sc., M.D.

Dr. MacKenzie is a retired physician who graduated from the University of British Columbia in 1963 with a B.Sc. in Chemistry and Mathematics. Geology 105 was taken as part of his undergraduate studies. He spent three summers working for the Geological Survey of Canada under Dr. J. O. Wheeler.
After graduating from U.B.C. in 1968 with a medical degree, Dr. MacKenzie has continued to prospect as a hobby. In 2010 the hobby turned into a business.
Recent reading by the author includes:

The Rocks and Minerals of the World by C. Sorrell and G. Sandstrom.

Exploration and Mining Geology by William C. Peters.

Ore Deposits by C.F. Park, Jr. and R. A. MacDiarmid

A Field Guide to Rocks and Minerals by Pough

The Geochemistry of Gold and its Deposits by R. W. Boyle

Case Histories of Mineral Discoveries, Volume 3, Porphyry Copper, Molybdenum, and Gold Deposits, Volcanogenic Deposits (Massive Sulphides), and Deposits in Layered Rock by V. F. Hollister, Editor.

Porphyry Copper and Molybdenum Deposits West-Central B.C. by N.C. Carter.

Geology of the Porphyry Copper Deposits of the Western Hemisphere by Victor F. Hollister.

ATLAS OF ALTERATION by A.J.B. Thompson and J.F.H. Thompson, Editors.

ORE MINERAL ATLAS by Dan Marshall, C.D. Anglin and Hamid Mumin.

PORPHYRY DEPOSITS OF THE CANADIAN CORDILLERA EDITOR: A. Sutherland Brown

THE GEOLOGY OF ORE DEPOSITS by John M. Guilbert and Charles F. Park, Jr.

GEOCHEMISTRY OF HYDROTHERMAL ORE DEPOSITS by H. L. Barnes

GEOCHEMISTRY by Arthur H. Brownlow

FIELD GEOPHYSICS by John Milsom

XXIV INTERNATIONAL GEOLOGICAL CONGRESS COPPER AND MOLYBDENUM DEPOSITS OF THE WESTERN CORDILLERA by C. S. Ney and A. Sutherland Brown

PRINCIPLES OF GEOCHEMICAL PROSPECTING by H. E. Hawkes

GEOCHEMICAL EXPLORATION by R. W. Boyle and J. I. Mcgerrigle

THE ELEMENTS by John Elmsley

APPENDIX B

ANALYSIS RESULTS FOR ALL SAMPLES

COLLECTED ON THE MAMQUAM 5

CLAIM DURING 2009.

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

: MACKENZIE, KEN
PO BOX 641
GARIBALDI HIGHLANDS BC V0N 1T0

Finalized L 2-SEP-2009
This copy reported on 9-SEP-2009
Account: MACKEN

CERTIFICATE VA09087583

Project: MAMQUAM

P.O. No.:

This report is for 8 Rock samples submitted to our lab in Vancouver, BC, Canada on 17-AUG-2009.

The following have access to data associated with this certificate:

KEN MACKENZIE

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS

19 61

To: **MACKENZIE, KEN**
PO BOX 641
GARIBALDI HIGHLANDS BC V0N 1T0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 2-SEP-2009
Account: MACKEN

Project: MAMQUAM

CERTIFICATE OF ANALYSIS VA09087583

Sample Description	Method	WEI-21	Au-AA23	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
M-127		0.64	0.010	0.2	1.37	<2	<10	60	<0.5	<2	1.24	<0.5	13	6	104	3.69
M-128		0.68	0.044	1.4	1.59	<2	<10	90	<0.5	<2	0.43	4.7	13	10	193	3.59
M-129		0.46	0.012	0.3	2.48	25	<10	40	<0.5	<2	0.46	<0.5	18	9	145	5.21
[redacted]																

20.

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Finalized Date: 2-SEP-2009
Account: MACKEN

Project: MAMQUAM

CERTIFICATE OF ANALYSIS VA09087583

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
M-127		<10	<1	0.26	10	1.09	602	1	0.04	5	630	26	2.77	<2	3	12
M-128		10	<1	0.22	10	1.52	942	2	0.05	6	710	291	2.50	<2	5	12
M-129		10	<1	0.21	<10	1.77	1160	3	0.04	6	800	33	0.86	<2	5	8
[redacted]																

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Finalized Date: 2-SEP-2009
Account: MACKEN

Project: MAMQUAM

CERTIFICATE OF ANALYSIS VA09087583

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
M-127		<20	0.01	<10	<10	35	<10	83
M-128		<20	0.01	<10	<10	69	<10	457
M-129		<20	0.01	<10	<10	92	<10	161
[redacted]								
[redacted]								

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Finalized L 3-SEP-2009
This copy reported on 9-SEP-2009
Account: MACKEN

CERTIFICATE VA09087585

Project: MAMQUAM

P.O. No.:

This report is for 8 Sediment samples submitted to our lab in Vancouver, BC, Canada on 17-AUG-2009.

The following have access to data associated with this certificate:

KEN MACKENZIE		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

23

To: **MACKENZIE, KEN**
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Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 3-SEP-2009
Account: MACKEN

Project: MAMQUAM

CERTIFICATE OF ANALYSIS VA09087585

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
M-130		0.38	0.061	0.4	2.67	16	<10	90	0.7	<2	0.44	0.9	26	17	411	4.28
[redacted]																

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Finalized Date: 3-SEP-2009
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Project: MAMQUAM

CERTIFICATE OF ANALYSIS VA09087585

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
M-130		10	<1	0.09	10	1.00	1980	10	0.01	14	970	115	0.07	<2	3	35

[redacted]

25.

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North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

: MACKENZIE, KEN
PO BOX 641
GARIBALDI HIGHLANDS BC V0N 1T0

Finalized Date: 3-SEP-2009
Account: MACKEN

Project: MAMQUAM

CERTIFICATE OF ANALYSIS VA09087585

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
M-130		<20	0.03	<10	<10	56	<10	179
[redacted]								

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Finalized Da. -NOV-2009
This copy reported on 30-NOV-2009
Account: MACKEN

CERTIFICATE VA09130730

Project: Mamquam, X

P.O. No.:

This report is for 7 Soil samples submitted to our lab in Vancouver, BC, Canada on 13-NOV-2009.

The following have access to data associated with this certificate:

KEN MACKENZIE		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: **MACKENZIE, KEN**
PO BOX 641
GARIBALDI HIGHLANDS BC V0N 1T0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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MACKENZIE, KEN
PO BOX 641
GARIBALDI HIGHLANDS BC V0N 1T0

Finalized Date: 21-NOV-2009
Account: MACKEN

Project: Mamquam, X

CERTIFICATE OF ANALYSIS VA09130730

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
[redacted]																
M-157		0.18	NSS	0.3	0.44	9	<10	120	<0.5	<2	0.34	2.9	5	3	70	0.60
[redacted]																
[redacted]																

28.

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 21-NOV-2009
Account: MACKEN

Project: Mamquam, X

CERTIFICATE OF ANALYSIS VA09130730

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
[redacted]																
M-157		<10	1	0.06	50	0.10	1340	3	<0.01	8	1480	225	0.20	<2	1	20
[redacted]																

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***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 21-NOV-2009
Account: MACKEN

Project: Mamquam, X

CERTIFICATE OF ANALYSIS VA09130730

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
[redacted]								
M-157		<20	0.01	<10	<10	11	<10	75
[redacted]								

30.

***** See Appendix Page for comments regarding this certificate *****

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Finalized Da.. -NOV-2009
This copy reported on 30-NOV-2009
Account: MACKEN

CERTIFICATE VA09130733

Project: Mamquam, X

P.O. No.:

This report is for 3 Rock samples submitted to our lab in Vancouver, BC, Canada on 13-NOV-2009.

The following have access to data associated with this certificate:

KEN MACKENZIE		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS

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To: **MACKENZIE, KEN**
PO BOX 641
GARIBALDI HIGHLANDS BC V0N 1T0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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MACKENZIE, KEN
PO BOX 641
GARIBALDI HIGHLANDS BC V0N 1T0

Finalized Date: 23-NOV-2009
Account: MACKEN

Project: Mamquam, X

CERTIFICATE OF ANALYSIS VA09130733

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
M-158		0.50	0.006	<0.2	1.77	3	<10	70	<0.5	<2	0.65	<0.5	11	11	78	3.57

32.

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Finalized Date: 23-NOV-2009
Account: MACKEN

Project: Mamquam, X

CERTIFICATE OF ANALYSIS VA09130733

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
M-158		<10	<1	0.20	10	1.41	728	<1	0.03	8	600	2	0.26	<2	4	13

33.

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Finalized Date: 23-NOV-2009
Account: MACKEN

Project: Mamquam, X

CERTIFICATE OF ANALYSIS VA09130733

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Th	Ti	Tl	U	V	W	Zn
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	20	0.01	10	10	1	10	2
M-158		<20	0.03	<10	<10	68	<10	50
[redacted]								

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