



# **Technical and Geochemical Assessment Report**

Le Baron Prospecting And San Juan Marble Developments BC Geological Survey Assessment Report 31291

The Hemmingsen Creek Project

Tenures#: 535890, 535899, 535951, 535952, 535953, 535954

Victoria Mining Division

# UTM Maps: 092C068, 092C069, 092C079

48 degrees 42'42" N by 124 degrees 21' 2" W



Le Baron Prospecting 16977 Tsonaquay Dr Port Renfrew BC V0S-1K0

Author: Scott Phillips

Date: September 15, 2009

RE BRITISH COLUMBIA The Best Place on Earth Ministry of Energy, Mines & Petroleum Resources Mining & Minerals Division BC Geological Survey TYPE OF REPORT [type of survey(s)]: Technical and Geochemical Ass	CEIVED UM 1 4 2010 Commissioner's Office Vancouver Report	Assessment Report Title Page and Summary TOTAL COST: \$14, 420.00
AUTHOR(S): Le Baron Prospecting - Scott Phillips	SIGNATURE(S):	Str 10
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):		YEAR OF WORK: 2009
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): E	vent number - 4288919	
PROPERTY NAME: Hemmingsen Creek Project CLAIN NAME(S) (on which the work was done): 535890, 535899, 53595	1, 535952, 535953, 5359	954
COMMODITIES SOUGHT: <u>Au, Ag, Cu, Fe</u> MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092C093, 092C	099, 092C0100, 092C10	1
MINING DIVISION: Victoria	NTS/BCGS: 092C068,	069, 079
LATITUDE: 48 ° 42 '42 " LONGITUDE: 124	° <u>21 '2</u>	at centre of work)
OWNER(S): 1) Scott Phillips	2) Gordon Saunders	
Raymond Oshust	Marjorie Rooke	
MAILING ADDRESS: Scott - 9298 Chestnut Rd Chemainus BC V0R-1K5	Gord - 2650 Cedar Hil	I Rd Victoria BC V8T-3H2
Ray- General Delivery Port Renfrew BC V0S-1K0	Marj - 2918 Jackson F	Rd Duncan BC V9L-6N7
OPERATOR(S) [who paid for the work]: 1) Gord - 2650 Cedar Hill Rd Victoria BC V8T-3H2	2)	
MAILING ADDRESS:		
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, a Wrangella, Early to Middle Jurassic Island Plutonic Suite, the Pale	tteration, mineralization, size eozoic Sicker Complex, t	and attitude): he Upper Triassic Vancouver Group
The Leech River Complex, and San Juan Fault, with injections of	Island Intrusives, Massiv	e sulfide deposits covered by
Limestone Pendants of the Quatsino Limestone Formation. Mass	ve sulphide deposits, sk	arns, limestone
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REI	PORT NUMBERS: <u>29293, 2</u>	9317,

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping		535890, 535899, 535951	\$14, 420.00
Photo Interpretation 20 photos		535952, 535953, 535954	
GEOPHYSICAL (line-kilometres)			
Ground Magnetic			
Electromagnetic		-	
Induced Polarization		-	
Radiometric	<u></u>		
Selemic	, , , , , , , , , , , , , , , , , , ,		
Other	<u></u>		. <u></u>
Airborne			
GEOCHEMICAL (number of samples analysed for)			*********
Soll			·····
Silt			
Rock 13 rock chip samples -	ALS Laboratories	Certificate - VA09057703	
Other		Certificate - VA09057704	
DRILLING (total metres; number of holes, size)			
Core		-	
Non-core			·····
RELATED TECHNICAL			
Sampling/assaying 71 rock chi	p samples	13 rock chip samples assayed	
Petrographic		see technical section on sample	
Mineralographic		specific information for each sample	
Metallurgic	· · · · · · · · · · · · · · · · · · ·		
PROSPECTING (scale, area)		·	
PREPARATORY / PHYSICAL			
Line/grid (kilometres) 6444 GP	S meters		
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/tr	rail		
Trench (metres)			
Underground dev. (metres)			· ···
Other 16 rock chip samples s	sawn, microscopic analysis	of sawn samples.	
		TOTAL COST:	\$14,420.00

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Le Baron Prospecting and San Juan Marble Developments Ltd The Hemmingsen Creek Project - 2009 - Port Renfrew BC

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#### Introduction

This assessment report describes the results of early exploration activities which included prospecting, GPS technical grid surveys, thin slice microscopic analysis and geochemical analysis of rock chip samples obtained. Starting in May 13<sup>th</sup> and ending on June 16<sup>th</sup> 2009, periodic work programs were conducted throughout the tenure block. Utilizing previously identified areas of interest (prior reports ARIS 29293, 29317, 30514, 30515). The owners of the tenures combined all of the tenures in the immediate area into one report. The purpose of this exploration program was to define bodies of identified mineralization and begin detailed investigations of the ultramafic potential of these tenures.

The Property, which consist of six large adjoining claims which surround two of the highest mountains within the area and are centered at approximately 124° 17' west longitude, 48°39' north latitude, approximately 19 km north of Port Renfrew, BC, Canada.

These tenures lie within a large project being conducted by Pacific Iron Ore Corporation based out of Port Renfrew BC, the project is known in the mining community as the Pearson Project. Discussions with the owners of Pacific Iron Ore have been ongoing since 2008 with the possibility of optioning these and other tenures owned jointly by the group.

This exploration program was supervised by both Scott Phillips of Le Baron Prospecting and Raymond Oshust and Gordon Saunders of San Juan Marble Developments who were responsible for data collection and preparation, and assessment of samples, with assistance of various individual labors who carried out a portion of the survey work (grid lines) which represents a portion of the field work. The project area was also briefly overseen by Peter Oshust, P.Geo during the summer of 2009. As mentioned earlier, the purpose of this exploration program was to follow up on previously identified areas of mineralization.



# Tenure ownership

The Hemmingsen Project Tenures are jointly owned in various ways by the following prospectors;

145703 SAUNDERS, GORDON STUART	10.0%
145817 PHILLIPS, SCOTT LE BARRON DEGOURLAY	10.0%
208494 ROOKE, MARJORIE ALICE	40.0%
141465 OSHUST, RAYMOND JOSEPH	40.0%

118959 MORRIS, ROBERT HENRY

50.0% - 535890, 535899, only

Tenure	Claim name	Мар	Issue	Good to date	Status	Area
535890	Le Baron	092C069	2006/JUNE/18	2010/JUNE/18	Good	447 ha
535899	Le Baron	092C069	2006/JUNE/18	2006/JUNE/18	Good	426 ha
535951	Ray Man	092C069	2006/JUNE/19	2006/JUNE/19	Good	447 ha
535952	Tracey 2	092C069	2006/JUNE/19	2006/JUNE/19	Good	106 ha
535953	Raymond 2	092C069	2006/JUNE/19	2006/JUNE/19	Good	532 ha
535954	Raymond 3	092C069	2006/JUNE/19	2006/JUNE/19	Good	511 ha
					l	



## Tenure Location Hemmingsen Creek Tenures: # 535890, 535891,535951, 535952, 535953, 535954

The Hemmingsen property is situated approx. 19 km north of the community of Port Renfrew BC North of the San Juan River. The community is located on the southwest coast of Vancouver Island approx. 100 km WNW from the city of Victoria, on the south shore of the bay of Port San Juan. The town has an Industrial Park Site and can be developed into a deep-sea shipping port. Utility services are available (UTM central coordinate is 48"-38' N by 124"-22' W; NTS 92C/09 And 10E, Zone 10 [Figure Map A]).

The region is mountainous with west coast rain forest vegetation, second-growth forests and logging clear-cuts. The area is easily accessible by both paved (Highways #14) road from Victoria and a newly paved road known as the Pacific Marine Circle Route from the town of Lake Cowichan also throughout the area is a network of mainline, secondary and tertiary logging roads allows access to the claims.

Specific access to the Hemmingsen property tenures can be access from a variety of drivable logging roads. 16 km to the north along the Braden Creek main line, you enter tenure # 535951, #535952 and a variety of spur logging roads, you can access tenures #535890, #535899, #535953, #535954 across an aging bridge of questionable strength, (which in the summer of 2009 was blocked off to vehicle traffic, but quads are still permitted) also, access to this property is easily permitted by driving 23 km along Harris Creek Main line to the Hemmingsen Creek junction, and 11 km along the Hemmingsen Creek Main line to this tenure block.



The Hemmingsen Property – Mineral tenures – Port Renfrew



## Geology

Vancouver Island lies within what is known as the Canadian Cordillera and is also classified as Wrangell. The Southwestern part of Vancouver Island is predominantly underlain by Paleozoic and Mesozoic strata intruded by Jurassic and Tertiary Intrusions.

The geology of the Hemmingsen Creek Project has been mapped in the past as predominantly a Mixture of rocks from the West Coast and the younger Island Plutonic Complexes. The main rock types are diorites to gabbroic intrusions with ultramafic phases within the West Coast Complex and granodioritic intrusions of the early to middle Jurassic Island Intrusive Suite. Northerly, easterly and southeasterly trending bodies of limestone/marble are common throughout the property. These limestone units are engulfed as pendants within the West Coast Complex Intrusive rocks. They have been interpreted as remnants of the Triassic Quatsino Limestone Formation. The Triassic Volcanics of the Karmutsen basaltdandesites are noted throughout the area.

#### Southwestern Vancouver Island Geology

The Port Renfrew area and beyond was mapped in 1982 by J.E. Muller of the Geological Survey of Canada. The prominent geological formations of South-Western Vancouver Island are the Island Intrusions, an Early to Middle Jurassic Island Plutonic Suite, consisting of granitic rocks and Tertiary dikes and sills. The Island Intrusions break through the following volcanic and sedimentary rocks: the Paleozoic Sicker Group, the Mississippian to Permian Buttle Lake Group, the Lower Jurassic Bonananza Group, the Upper Triassic Vancouver Group, the Upper Cretaceous Nanaimo Group, and the Jurassic to Cretaceous Leech River Complex. The Cowichan Lake area located to the north of Port Renfrew specifically the southeastern part of the Cowichan uplift sees mainly the Sicker and Buttle Lake groups, which are the primary target of volcanogenic massive sulphide deposits.

Mining exploration has profited from the base and precious metal mineral prosperity of the region. Deposits have been found in structures such as skarns, shears, quartz veins and volcanogenic massive sulphides.

Regional geology indicates that this area is possibly prospective for Iron Oxide Copper-Gold (IOCG) style deposits. IOCG deposits are characteristically large, iron rich systems that consist of variable amounts copper, silver and gold and potentially uranium.



# Geology



Note to reader: this geological map is copied from assessment reports conducted by Pacific Iron

# Ore. It merely represents the geological structure of the Port Renfrew area. GEOLOGICAL LEGEND

Upper Eoce	ne to Oligocene		INTRUSIVE ROCKS		
EOIc	CARMANAH GROUP: Undivided sedimentary rocks	Eocene to (	Digocene		
Paleocene I	to Eocene	CObs	MOUNT WARHINGTON DI UTONIC SUITE.		
РеЕммиь	METCHOSIN IGNEOUS COMPLEX - METCHOSIN FORMATION:	Com	Quartz dioritic intrusive rocks		
	Başalılıc volcanic rocks	EARLY JURA	ASSIC TO MIDDLE JURASSIC		
JURASSIC T	O CRETACEOUS				
JKL	LEECH RIVER COMPLEX: Greenstone, greenschist metamorphic	EMJIgd	ISLAND PLUTONIC SUITE: Granodioritic intrusive rocks		
	rocks	PALEOZOIC	TO JURASSIC		
JKLS	LEECH RIVER COMPLEX - SURVEY MOUNTAIN VOLCANICS: Bimodal volcanic rocks	PzJWg	WESTCOAST CRYSTALLINE COMPLEX:		
LOWER JUR	ASSIC		Intrusive rocks, undivided		
IJBca	BONANZA GROUP: Calc-alkaline volcanic rocks	Fa	ult		
MIDDLE TRI	ASSIC TO UPPER TRIASSIC	Th	rust Fault		
VANCOU	JVER GROUP				
Telar	KADMITSEN FORMATION Deschis velsenis socks	Geological map and	l legend compiled from:		
GITVK	RAPHIOLISEN FORMATION: Dasauc voicanic rocks	MapPlace (2005): V Resources, www.	Vebsite: BC Ministry of Energy, Mine's and Petraleum mapplace.ca		
muTrVs	Undivided sedimentary rocks	Muller, J.E. (1982): Geological Survey	Geology, Nitinat Lake, British Columbia, Map and Notes; of Canada, Open File \$21, scale 1:250 000.		



#### **Area Exploration**

From the turn of the century to day a lot of mineral exploration has been conducted and documented within the Port Renfrew Area. First with the Spanish and European explorers who first discovered the gold deposits of the San Juan River and the iron deposits of the Bugaboo and the Granite Creek.

Some of the more recognized discoveries are as follows;

The most significant of these are the Bugaboo iron (magnetite) skarn deposits located to the west of the Hemmingsen Property near the headwaters of Bugaboo Creek, and the Reko iron (magnetite) skarn deposits located to the southeast of the Hemmingsen Project along Renfrew Creek, or the Granite Creek mainline.

Both the Bugaboo and Reko deposits contain historic reserves.

Le Baron Prospecting and San Juan Marble Developments have both conducted exploration throughout the area, utilizing basic hand tools and relying on geological information the group has conducted the applicable exploration on the tenures to meet all the requirements of the ministry. Pacific Iron Ore is conducting exploration also, in the surrounding area, which includes drilling and airborne magnetic surveys. It is this information that is shared between the two which helps develop the project area.

The airborne magnetic survey conducted by Pacific Iron Ore recognizes some of the tenures which are jointly owned by Le Baron Prospecting and San Juan Marble, particularly the P-13 target which is directly south of the Hemmingsen Project area. (See reference report)

Le Baron Prospecting and San Juan Marble Developments own significant tenures throughout the area and in particular some predominant tenure located over the Historic Reko deposit.



Summary Information - for reference only

Aero Magnetic Report - For Emerald Field Resources - By Monika Sumara



#### INTRODUCTION

This report describes the data obtained from the airborne magnetometer survey as pertaining to the geology of the Pearson claim block for Emerald Field Resource Corporation on Southwestern Vancouver Island, BC. In June 2006, Fugro was contracted to fly a low altitude, magnetometer survey with their helicopter based, stinger mounted single sensor system over the key area of interest on the Pearson property.

#### SURVEY LOCATION

The 2006 Aeromagnetic survey was flown over a portion of the Pearson claim block located on SW Vancouver Island, BC, as seen on the map bellow.



**Note to reader**, this summary of the magnetic report for Pacific iron Ore is to add information to the report of the work conducted by Pacific Iron over tenures owned jointly by our group within the Port Renfrew area. The airborne magnetic report can be accessed on the ARIS (#28715)



#### Aero Magnetic Report

**The P-13 target** is joined immediately to the south of the Hemmingsen Project block of tenures. The P-13 tenure is actually the RNR tenure (401285), also owned jointly by the group. The RNR tenure is only one of a few legacy tenures within the Pearson Project.

The aero magnetic survey did not go north of the P-12 target, however utilizing the MapPlace a map has been produced showing that the magnetic of the area indeed go outside of the aero magnetic study area conducted by Pacific Iron Ore.

## Anomaly P13

Anomaly P13 is located at the NE end of the survey block and has a very strong response at 1400nT. It's approximately 3000m by 830m in dimension and trends NW though not as strongly as the previous anomalies. Based on the large size and strength of the magnetic response, this anomaly merits further exploration. EM and geological recon are recommended.





## Map Place - aeromagnetic survey map of area tenures.

This map represents the total magnetic field first derivative for total magnetic field. This map is made compiled using various links within Map Place and shows distinct magnet targets within the Port Renfrew area. This magnetic map may not be as precise as the magnetic airborne survey conducted by Fugro Airborne Services for Pacific Iron Ore over their Person Project Block it is a representative of the magnetic structures within the Port Renfrew area.

This map also represents both the Hemmingsen Project block and the RNR tenure or also identified as the P-12 target.





## Map Place - topographic map

This map represents the aerial photo of the area taken in 2003. This map shows the topographic conditions of the Hemmingsen Project Block



**Google Earth Map** – This is the Google Earth view of the Hemmingsen Project Block and the subject area of exploration.





## **Exploration areas**

The below Google map view of the Hemmingsen Project shows the main area of interest at this time, this part of the tenure was extensively explored as two separate areas, west and east blocks. Extensive logging has made access relative easy, however due to the steepness of the terrain, some of the logging roads have been, as they say in logging terms "put to bed". Access to the main body of the tenure requires a 4x4 truck; the rest is access by 4x4 quad and foot.



Drive only to here. Use quads from here.

Hemmingsen Mainline - from Harris Creek Main





## Author

- Scott Phillips [FMC # 145817]
- Owner of Le Baron Prospecting, Port Renfrew BC.
- Many years experience prospecting the Port Renfrew area.
- Member in good standing with VIPMA. [Vancouver Island Placer Miners Assn].
- Member of VIX [Vancouver Island Exploration Group]
- Owns several mineral and placer tenures within the Port Renfrew Area.
- Author of many prospecting reports accepted within the Ministry standards.
- Is presently studying the formation of Wrangell, West Coast Crystalline Complex and the Leech River Complex.
- Consults with Peter Oshust P.Geo who is now affiliated with Le Baron Prospecting and San Juan Marble Developments.

Author	Jak Pro	, Date _	09-15	2009
Revision		, Date _	05-26	2010

## Author Disclaimer

- I, Scott Phillips have a valued interest in all the tenures that are mentioned in this report.
- I consent to the use of the material within this prospecting report to further enhance the exploration and development of the subject tenure(s).
- This report is correct in the information within and any use of this information to a second or third party is the responsibilities of those parties.

	)
	Le Baron Prospecting Port Renfrew, BC
Statement of costs:	
Raymond Oshust: tenure owner / field supervisor FMC: 141465	
\$30.00 / hr x 84hrs	= \$2520.00
Gordon Saunders: tenure owner / field supervisor / sample preparation FMC 145703	
\$30.00 / hr x 84 hrs	= \$2520.00
Scott Phillips: tenure owner / field supervisor / field support FMC #145817	
\$30.00 x 42 hrs	= \$1260.00
Robert Morris: tenure owner / field support FMC #118959	64000.00
\$30.00 x 36 hrs	= \$1080.00
Thompson and Sons Contracting – field labor 3 workers x \$20.00 / hr = \$60.00 x 40 hrs	= \$2400.00
Transportation	
4x4 truck(s) \$50.00 / day rate x 17 days	= \$850.00
4x 2 truck \$30.00 / day rate x 6 days	= \$180.00
4x4 quad \$50.007 day rate x 6 days	= \$300.00
Field supplies (tape, hip chain, etc)	= \$90.00
Accommodations 16977 Tsonaquay Dr Bost Bostrow BC	
Scott - \$70.00 / day x 3 days	= \$210.00
Bob - \$70.00 / day x 3 days	= \$210.00
Contract crew \$70.00 / day x 3 men x 6 days	= \$1260.00
Gord - \$70.00 / day x 12 days	= \$840.00
ALS Laboratory services(not calculated in SOW)	= \$325.00
Sub Total	= \$13,630.00
Le Baron Prospecting	
Report compilation of data \$350.00 / day x 2 days	= \$700.00
Total costs	= \$14,420.00

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#### Exploration overview of work conducted on the Hemmingsen Project

**GPS Survey** West Block - survey lines - 2131 GPS survey meters West Block - road survey lines - 1165 GPS survey meters East Block - survey lines - 2248 - GPS survey meters East Block - road survey - 900 GPS meters Total GPS meters = 6444 meters Rock Chip samples collected Survey lines West Block - 22 rock chip samples - see description of sample in technical section East Block - 23 rock chip samples - see description of sample in technical section Road side sampling West Block - 13 rock chip samples - see description of sample in technical section East Block - 13 rock chip samples - see description of sample in technical section Total Rock samples collected = 71 samples Geochemical analysis conducted = 13 of the 71 samples obtained Photos Area - 20 Thin slice analysis - 16 samples sawn = 10 hrs Rock sawing samples, microscopic analysis, photos Tools used Hand tools, hammers, chisels, pry bars, surveyor hip chain, ribbon, power saw GPS - Lorrance, Magellan Microscope, eye loupes, Field maps, miscellaneous



# Appendix A

# Hemmingsen Creek Project

Exploration of the West Block

Work GPS Survey Grid Lines

**Roadside Rock Chip Sampling** 



## Exploration overview Technical information – surveying – mapping West Block – site survey lines -

The West Block of the Hemmingsen Project area was subject to a grid survey conducted by Thompson and Sons Contracting, a group of individuals who conducted a systematic grid line survey over an area previously identified and laid out by Scott Phillips and Bob Morris (tenure owners)

See Figure Map B to C for specific information and the related technical information of samples obtained in field.





**Technical information** 

#### West Block - site survey lines and rock chip sampling every 100 meters along survey lines

See Figure Map B

## Survey Line A

GPS Locations -- 400711 x 5396000 west to 400126 x 5395985 602 meters at 267 degrees south / west Rock chip samples every 100 meters = 6 samples Sample description: Sample #1 -- sulfide rock chip, oxide, reddish brown staining, lacks strong magnetic, hematite Sample #2 -- sulfide rock chip, oxide, deep red, slight staining, weak magnetics Sample #3 -- sulfide rock chip, oxide, dark lead grey color, metallic, small cubes, lead ore Sample #4 -- sulfide rock chip, oxide dark lead grey color, metallic, small cubes, lead ore Sample #5 -- limestone, fine grained, whitish grey color, not easily broken Sample #6 -- limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby

## Survey Line B

GPS Locations – 40067 x 5395900 west to 400122 x 5395900 552 meters at 269 degrees west

Rock chip samples every 100 meters = 5 samples

Sample description:

Sample #1 - sulfide rock chip, oxide, deep red, slight staining, lacks magnetic, heavy, hematite Sample #2 – (ALS H031029) sulfide rock chip, oxide, reddish brown staining, lacks strong magnetic, skarn

Sample #3 - (ALS H031030) sulfide rock chip, oxide dark lead grey color, metallic, small cubes, and lead ore

Sample #4 - limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby Sample #5 - limestone, fine grained, whitish grey color, not easily broken

#### Survey Line C

GPS Location - 400631 x 5395800 west to 400146 x 5395800

495 meters at 268 degrees west

Rock chip samples every 100 meters = 5 samples

Sample #1 - sulfide rock chip, oxide, deep red, slight staining, lacks magnetic, heavy, hematite Sample #2 - sulfide rock chip, oxide, reddish brown staining, and small chalcopyrite cubes Sample #3 – (ALS H031031) sulfide rock chip, oxide dark lead grey color, metallic, small chalcopyrite cubes

Sample #4 - limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby Sample #5 - limestone, fine grained, whitish grey color, not easily broken



## **Technical information**

West Block – site survey lines and rock chip sampling along survey lines Continued:

## See Figure Map B

## Survey Line D

GPS Location – 400445 x 5395700 west to 400160 x 5395700 294 meters at 268 degrees west Rock chip samples every 100 meters = 4 Sample #1 - sulfide rock chip, oxide, deep red, slight staining, lacks magnetic, heavy, hematite Sample #2 – (ALS H031032) sulfide rock chip, oxide, reddish brown staining, lacks strong magnetic, hematite Sample #3 - sulfide rock chip, oxide dark lead grey color, metallic, small cubes, lead ore

Sample #3 - suilide fock chip, oxide dark lead grey color, metallic, small cubes, lead ore Sample #4 - limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby

## Survey Line E

GPS Location – 400400 x 5395600 west to 400164 x 5395400 218 meters at 268 degrees west Rock chip samples every 100 meters = 2 Sample #1- (ALS H031033) sulfide rock chip, oxide dark lead grey color, metallic, small cubes, lead ore Sample #2- limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby





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Technical information West Block – roadside rock chip sampling and mapping See Figure Map C - Spur road Hemmingsen 8000 – roadside rock chip sampling GPS Locations Location A – 400126 x 5395985 Roadside outcrop, white limestone, grayish white, brittle, non descript crystallization

Location B – 400122 x 5395900 Roadside outcrop, white limestone, grey white, brittle, small crystals

**Location C** – 400146 x 5395800 – (ALS H031034) Roadside outcrop, white serpentine alteration area, sulfide rock chip, oxide, reddish brown staining, brittle rock, some fine green intrusions, heavy overburden

#### Location D - 400160 x 5395700 - (ALS H031035)

Roadside outcrop, white serpentine alteration area, sulfide rock chip, oxide, dark lead grey color, metallic, small cubes oxide staining, brittle rock, some fine green intrusions, heavy overburden

## Location E - 400164 x 5395600 - (ALS H031036)

Roadside outcrop, white serpentine like rock, alteration area, sulfide rock chip, oxide, dark lead grey color, metallic, small cubes oxide staining, brittle rock, some fine green intrusions, heavy overburden

#### Location F - 400193 x 5399530

Roadside outcrop, toe of the exposure, alteration area, and many different types of rock and sulfide exposures, end of driving truck, and use of quad from here up to top, road is narrow with much overburden on road.

#### Location G - 400400 x 5395625

Interesting outcrop, oxide staining, green serpentine type of mineralization, brittle rock, obvious alteration of some sort

#### Location H - 400445 x 5395700

Continuation of site G, interesting outcrop, oxide staining, green serpentine type of mineralization, brittle rock, obvious alteration of some sort

#### Location I - 400600 x 5395765

Roadside outcrop, toe of the exposure, alteration area, and many different types of rock and sulfide exposures, end of driving truck, and use of quad from here up to top, road is narrow with much overburden on road.

#### Location J - 400631 x 5395765

Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden

Location K - 400667 x 5395900

Roadside outcrop, white serpentine alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden

## Location L - 400711 x 5396000

Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden

Location M - 400754 x 5396100 - Roadside outcrop, oxide, metallic grey, brittle, small crystal





# Appendix B

# Hemmingsen Creek Project

**Exploration of the East Block** 

Work GPS Survey Grid Lines

Roadside Rock Chip Sampling



## Exploration overview Technical information – surveying – mapping East Block – site survey lines

The East Block of the Hemmingsen Project area was subject to a grid survey conducted by Thompson and Sons Contracting, a group of individuals who conducted a systematic grid line survey over an area previously identified and laid out by Scott Phillips and Bob Morris (tenure owners)

See Figure Map --- for specific information and the related technical information of samples obtained in field.





Technical information East Block – roadside rock chip sampling and mapping

See Figure Map D - Spur road Hemmingsen 8400 – roadside rock chip sampling GPS Locations –

Location N – 401089 x 5396300 Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden

**Location O** – 401215 x 5396400 Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, volcanic tuff, heavy overburden

**Location P** – 401289 x 5396500 – (ALS H031037) Roadside outcrop, white limestone, grayish white, brittle, non descript crystallization

**Location Q** - 401325 x 5396600 Roadside outcrop, white limestone, grayish white, brittle, non descript crystallization

**Location R** – 401433 x 5396700 – (ALS H031038) Continuation of site G, interesting outcrop, oxide staining, green serpentine type of mineralization, brittle rock, obvious alteration of some sort

**Location S** – 401575 x 5396755 Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden

Location T – 401680 x 5396700 Roadside outcrop, oxide, metallic grey, brittle, small crystals

Location U – 401712 x 5396600 Roadside outcrop, oxide, metallic grey, brittle, small crystals

Location V – 401773 x 5396500 Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden

**Location W** –  $401820 \times 5396400$ Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden

**Location X** – 401775 x 5396300 Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden

**Location Y** – 401570 x 5396350 Roadside outcrop, white serpentine like rock, alteration area, oxide staining, brittle rock, some fine green intrusions, heavy overburden





Technical information East Block – site survey lines and rock chip sampling along survey lines

## See Figure Map E

#### Survey Line F

GPS Location 401433 x 5396700 east to 401680 x 5396700

155 meters at 90 degrees east

Rock chip samples every 100 meters = 2

Sample #1 - limestone, fine grained, whitish grey color, not easily broken

Sample #2 - limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby

## Survey Line G

GPS Location 401325 x 5396600 east to 401712 x 5396600

364 meters at 90 degrees east

Rock chip samples every 100 meters = 4

Sample #1 – sulfide rock chip, oxide, deep red, slight staining, and lacks magnetic Sample #2 – sulfide rock chip, oxide, dark lead grey color, metallic, small cubes, chalcopyrite Sample #3 – sulfide rock chip, oxide dark lead grey color, metallic, small cubes, lead ore Sample #4 – limestone, fine grained, whitish grey color, not easily broken

## Survey Line H

GPS Location 401289 x 5396500 east to 401773 x 5396500

450 meters at 90 degrees east

Rock chip samples every 100 meters = 5

Sample #1 - limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby Sample #2 - sulfide rock chip, oxide, dark lead grey color, metallic, small cubes

Sample #3 – (ALS H031039) Limestone alteration area, possible pyroclastics

Sample #4 - sulfide rock chip, oxide, reddish brown staining, lacks strong magnetic, hematite Sample #5- limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby

## Survey Line I

GPS Location 401215 x 5396400 east to 401820 x 5396400

584 meters at 90 degrees east

Rock chip samples every 100 meters = 6

Sample #1 – sulfide rock chip, oxide, reddish brown staining, lacks strong magnetic, hematite Sample #2 – sulfide rock chip, oxide, deep red, slight staining, and lacks magnetic

Sample #2 – Sunde Tock Chip, Oxide, deep red, sight staining, and lacks magnetic

Sample #3 – (ALS H031041) Limestone alterations, with iron oxide intrusions nearby

Sample #4 - sulfide rock chip, oxide dark lead grey color, metallic, small cubes, lead ore

Sample #5 - limestone, fine grained, whitish grey color, not easily broken

Sample #6 - limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby

## Survey Line J

GPS Location 401089 x 5396300 east to 401175 x 5396300

694 meters at 90 degrees east

Rock chip samples every 100 meters = 6

Sample #1 - limestone, course grained, whitish color, some staining, oxide outcrop nearby

Sample #2 - limestone, course grained, whitish color, some oxide staining, oxide outcrop nearby

Sample #3 - sulfide rock chip, oxide, reddish brown staining, lacks strong magnetic, hematite

Sample #4 - sulfide rock chip, oxide dark lead grey color, metallic, small cubes, lead ore

Sample #5 - limestone, fine grained, whitish grey color, not easily broken

Sample #6 - limestone, fine grained, whitish grey color, not easily broken



## Single Limestone Sample

This sample was taken to test the purity of the limestone in the area, the main body is exposed in this area just north of an old access spur road which is put to bed the limestone seems to be stacked in layers, trending at a 45 degree dip to the east. It is quickly buried by overburden. The limestone seems to be pure, it is whitish grey, and well weathered, it reacted well with the hydrochloric acid test, the grains seem to be fine, no fossils were noted in the area, and some yellow and brown staining was noted near by suggesting that there may possibly be another mineral body beneath the limestone body.

See Certificate of Analysis - VA09057704

The sample returned a CaO of 53.6 % which is very acceptable for industrial uses.



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Appendix C

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Hemmingsen Creek Project

Microscopic Analysis Of Sawn Rock chip samples



#### Overview

16 rock chip samples were sawn using a small Loritone Rock saw. The basis of the sawn samples was to further examine the rock chip samples under microscopic conditions. Refer to the technical sections of the report for sample specific information. Information is provided below.

#### Sample # 1

Location obtained - Survey Line A – Sample # 5 Description – Limestone Analysis – color – light grayish white – fine grained – even granular – no visible fossils – fine calcite crystal structure – fine iron oxide cubic formations in sample.

#### Sample # 2

Location obtained - Survey Line A – Sample # 6 Description – Limestone – oxidized staining Analysis – color - grayish white, oxidized – course grained – even granular – no visible fossils – sample is full of iron oxide cubic crystals from nearby oxidized outcrop.

Sample # 3 Location obtained – Survey Line B – Sample # 3 Description – Sulfide Analysis – color – oxidized – multiple sulfide cubic structure – small isometric cubic structure also observed in blebs – fine chalcopyrite cubes observed

Sample # 4 Location obtained – Survey line D – Sample # 1 Description – Sulfide Analysis – color – oxidized / deep reddish – rhombohedral structure

Sample # 5 Location obtained – Survey Line E – Sample # 1 Description – Sulfide Analysis – color – oxidized – bleb and cubic structure – malleable with a pin – fine calcitite crystals observed

Sample # 6 Location obtained – Survey Line F – Sample # 2 Description – Limestone Analysis – color – grayish white – fine grained structure – quartz crystals observed – fine sulfide cubic crystals observed – no fossils

Sample # 7 Location obtained – Survey Line G – Sample # 2 Description – Sulfide Analysis – color – oxidized / brass yellow – tetragonal cubic crystals observed – brittle with a pin

Sample # 8 Location obtained – Survey Line H – Sample # 4 Description – Sulfide Analysis – color – oxidized – multiple sulfide cubic structure – small isometric cubic structure also observed in blebs – fine chalcopyrite cubes observed



Sample # 9 Location obtained – Survey Line I – Sample # 3 Description – Limestone Analysis – color – grayish white – fine grained structure – quartz crystals observed – fine sulfide cubic crystals observed – no fossils

Sample # 10 Location obtained – Survey Line I – Sample # 5 Description – Limestone Analysis – color – light grayish white – fine grained – even granular – no visible fossils – fine calcite crystal structure – fine iron oxide cubic formations in sample.

## Sample # 11

Location obtained – Survey line I – Sample # 6 Description – Limestone – oxidized staining Analysis – color - grayish white, oxidized – course grained – even granular – no visible fossils – sample is full of iron oxide cubic crystals from nearby oxidized outcrop.

Sample # 12

Location obtained – Survey line J – Sample # 1 Description – Limestone – oxidized staining Analysis – color - grayish white, oxidized – course grained – even granular – no visible fossils – sample is full of iron oxide cubic crystals from nearby oxidized outcrop – sample is similar to magnesite structure

Sample # 13 Location obtained – Survey line J – Sample # 2 Description – Limestone – oxidized staining Analysis – color - grayish white, oxidized – course grained – even granular – no visible fossils – sample is full of iron oxide cubic crystals from nearby oxidized outcrop – sample is similar to magnesite structure

Sample #14 Location obtained – Survey line J – Sample # 4 Description – Sulfide Analysis – color – oxidized – bleb and cubic structure – malleable with a pin – fine calcitite crystals observed

Sample #15 Location obtained – Survey line J – Sample # 6 Description – Limestone Analysis – color – grayish white – fine grained structure – quartz crystals observed – fine sulfide cubic crystals observed – no fossils

Sample #16 Location obtained – Spur H-8300 – hand grab - roadside Description – ultramafic Analysis – color – greenish olivine crystals - course grained structure – plagioclase feldspar crystals observed.



Appendix D

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Hemmingsen Creek Project

**Analytical Methods** 

ALS Laboratory Services Vancouver BC



# Analytical Methods ALS Laboratory Services Vancouver BC

## Aqua Regia Digestion

Although some base metals may dissolve quantitatively, in the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte. The recovery percentages for many analytes from more resistive minerals can be very low, but the acid leachable portion can also be an excellent exploration tool.

In order to report the widest possible concentration range, this method uses both the ICP-MS and the ICP-AES techniques. Sample minimum 1g.

An	Analytes & Ranges (ppm)							Code	Price per Sample (\$)
Ag	0.01-100	Cs	0.05-500	Mo	0.05-10,000	Sr	0.2-10,000	ME-MS41	21.00
Al	0.01-25%	Cu	0.2-10,000	Na	0.01%-10%	Та	0.01-500		(Sold only as
As	0.1-10,000	Fe	0.01%-50%	Nb	0.05-500	Te	0.01-500		a complete
Au	0.2-25	Ga	0.05-10,000	Ni	0.2-10,000	Th	0.2-10,000		package).
В	10-10,000	Ge	0.05-500	P	10-10,000	Ti	0.005%-10%		
Ва	10-10,000	Hf	0.02-500	Pb	0.2-10,000	TI	0.02-10,000		
Be	0.05-1,000	Hg	0.01-10,000	Rb	0.1-10,000	U	0.05-10,000		
Bi	0.01-10,000	In	0.005-500	Re	0.001-50	V	1-10,000		
Ca	0.01%-25%	К	0.01%-10%	S	0.01%-10%	W	0.05-10,000	-	
Cd	0.01-1,000	La	0.2-10,000	Sb	0.05-10,000	Y	0.05-500		
Ce	0.02-500	Li	0.1-10,000	Sc	0.1-10,000	Zn	2-10,000		
Co	0.1-10,000	Mg	0.01%-25%	Se	0.1-1,000	Zr	0.5-500		
Cr	1-10,000	Mn	5-50,000	Sn	0.2-500			7	

# Industrial & Bulk Minerals

The procedures listed below are designed to provide optimum results for each ore type or product. This includes specific digestion procedure, calibration protocols and use of appropriate Certified Reference Materials for each sample type. More details and customization of any procedure, such as adding additional elements can be arranged by contacting the laboratory.

Ore/Product	Analysis*	Description		Price per Sample (\$)	
Limestone, Dolomite, Magnesite, Magnesia	CaO, MgO, Al <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , SiO <sub>2</sub> , LOI***	Fusion, ICP-AES	ME-ICP86	44.00	



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CERTIFICATE VA09057703	SAMPLE PREPARATION				
	ALS CODE	DESCRIPTION			
Project: HEMMINGSEN P.O. No.: This report is for 12 Rock samples submitted to our lab in Vancouver, BC, Canada on 10-JUN-2009. The following have access to data associated with this certificate:	WEI-21 LOG-21 CRU-31 SPL-21 PUL-31	Received Sample Weight Sample logging - ClientBarCode Fine crushing - 70% <2mm Split sample - riffle splitter Pulverize split to 85% <75 um			
SCOTT PHILLIPS GORDON SAUNDERS		ANALYTICAL PROCEDURES			
	ALS CODE	DESCRIPTION			
	ME-MS41	51 anal. aqua regia ICPMS			

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To: SAUNDERS, GORDON ATTN: SCOTT PHILLIPS 9298 CHESTNUT ROAD CHEMAINUS BC VOR 1K5

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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Project: HEMMINGSEN

Sample Description	Nethod Analyts Units LOR	WEI-21 Recvd Wt. kg 0.02	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1	ME-MS41 Cr ppm 1	ME-MS41 Cs ppm 0.05
H031029		0.92	1.17	0.6	12.5	<0.2	<10	10	<0.05	0,37	4.44	0.89	3.88	75.2	<1	0.05
H031030		0.52	1.12	0.5	14	<0.2	<10	10	<0.05	0.37	3.77	0.97	2.87	240	5	<0.05
H031031		0.44	0.12	0.15	3.3	<0.2	<10	10	<0.05	0.06	0.28	0.05	0.96	31.7	<1	0.12
H031032		0.60	1.56	0.35	3.7	<0.2	<10	10	<0.05	0.16	1.34	0.68	0.75	36.3	2	<0.05
H031033		0.48	0.85	0.51	9.7	0.2	<10	<10	<0.05	0.21	3.79	1.38	2.74	65.8	<1	<0.05
H031034		0.66	0.52	0.3	3.3	<0.2	<10	10	<0.05	0.16	1.24	0.32	0.77	31.7	<1	<0.05
H031035		0.38	0.11	0.1	2.5	<0.2	<10	10	<0.05	0.02	0.21	0.04	0.67	28.6	<1	0.1
H031036		0.60	0.81	0.44	8.4	<0.2	<10	<10	<0.05	0.19	3.06	0.94	3.11	85	<1	<0.05
H031037		0.52	0.01	0.87	1	<0.2	<10	10	0.2	0.35	0.77	<0.01	30.2	1.2	21	0.05
H031038		0.30	0.02	1.31	7.9	<0.2	<10	10	0.43	0.41	0.75	<0.01	18.05	2.3	8	<0.05
H031039		0.44	0.02	0.84	2.7	<0.2	<10	10	0.24	0.3	0.69	<0.01	25.9	1.2	5	0.05
H031040		0.54	<0.01	2.85	0.4	<0.2	<10	100	0.39	0.04	1.68	0.02	45.8	1.6	7	0.38



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Project: HEMMINGSEN

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Sample Description	Nethod Analyte Units LOR	ME-MS41 Cu ppm 0.2	ME-MS41 Fe % 0.01	ME-MS41 Ga ppm 0.05	ME-MS41 Ge ppm 0.05	ME-MS41 Hf ppm 0.02	ME-MS41 Hg ppm 0.01	ME-MS41 In ppm 0.005	ME-MS41 K % 0.01	ME-MS41 La ppm 0.2	ME-MS41 Li ppm 0.1	ME-MS41 Mg % 0.01	ME-MS41 Mn ppm 5	ME-MS41 Mo ppm 0.05	ME-MS41 Na % 0.01	ME-MS41 Nb ppm 0.05
H031029		4990	45.5	10.1	0.62	0.1	0.51	1.36	<0.01	2.6	0.3	0.12	3370	0,91	0.01	0.31
H031030		4360	48.5	9.59	0.64	0.09	0.42	1.23	<0.01	2.3	0.3	0.14	3260	1.12	0.02	0.41
H031031		107.5	>50	5.91	0.72	0.02	0.03	0.032	0.01	0.6	0.2	0.07	475	1.52	0.02	0.49
H031032		6710	>50	12	0.58	0.07	0.59	1.19	<0.01	0.7	0.4	0.13	3210	0.86	0.02	0.45
H031033		3140	46.2	9.83	0.6	0.07	0.47	1.495	<0.01	1.9	0.3	0.13	3230	0.74	0.02	0.4
H031034		1790	49	11.35	0.56	0.04	0.41	0.756	<0.01	0.6	0.3	0.13	3160	0.64	0.02	0.4
H031035		117	>50	5.53	0.71	0.02	0.04	0.03	0.01	0.4	0.2	0.07	472	1.47	0.02	0.49
H031036		2940	43.8	8.95	0.62	0.07	0.43	1.165	<0.01	2.2	0.3	0.12	3050	0.7	0.02	0.4
H031037		31.5	1.58	4.55	0.18	0.09	0.02	0.056	0.03	15.9	0.9	0.06	169	0.81	0.06	1.15
H031038		50.3	4.43	10.25	0.27	0.14	0.05	0.053	0.02	9.7	4.7	0.28	308	2.17	0.02	1.07
H031039		35.7	2.23	4.89	0.17	0.1	0.03	0.048	0.03	13.3	1.1	0.09	169	1.41	0.05	1.31
H031040		7.1	0.76	9.54	0.09	0.1	0.01	0.007	0.07	23.6	2.2	0.12	127	0.46	0.03	0.85



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Page: 2 - C Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 19-JUN-2009 Account: SAUGOR

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Sample Description	Method Analyte Units LOR	ME-MS41 Ni ppm 0.2	ME-MS41 P ppm 10	ME-MS41 Pb ppm 0.2	ME-MS41 Rb ppm 0.1	ME-MS41 Re ppm 0.001	ME-MS41 S % 0.01	ME-MS41 Sb ppm 0.05	ME-MS41 Sc ppm 0.1	ME-MS41 Se ppm 0.2	ME-MS41 Sn ppm 0.2	ME-MS41 Sr ppm 0.2	ME-MS41 Ta ppm 0.01	ME-MS41 Te ppm 0.01	ME-MS41 Th ppm 0.2	ME-MS41 Ti % 0.005
H031029		134.5	300	3.8	0.3	0.007	2.35	0.25	3	4.6	2.3	3	0.01	0.36	<0.2	0.01
H031030		213	350	0.9	0.2	0.011	4.15	0.16	2.9	9.2	1.7	3.3	<0.01	0.67	<0.2	0.008
H031031		7.9	20	0.8	0.9	0.001	0.06	0.28	0.3	0.3	0.7	6.3	<0.01	0.04	<0.2	0.01
H031032		40.1	180	0.9	0.2	0.006	1.1	0.13	1.4	2.5	0.7	3.7	<0.01	0.28	<0.2	0.019
H031033		97.8	320	0.4	0.2	0.004	1.76	0.06	2.9	4	1.9	2.9	<0.01	0.36	<0.2	0.007
H031034		42.2	140	0.4	0.2	0.004	0.83	0.07	1	2.3	0.6	3.4	<0.01	0.17	<0.2	0.009
H031035		6.3	10	0.6	0.7	<0.001	0.02	0.22	0.3	0.2	0.6	5.4	<0.01	0.05	<0.2	0.01
H031036		100	280	0.4	0.2	0.005	1.75	0.06	3	3.5	1.6	3.1	<0.01	0.33	<0.2	0.009
H031037		2.3	50	0.8	1.9	<0.001	0.23	0.23	1.8	0.3	5.7	100.5	0.02	<0.01	6.5	0.023
H031038		2.3	250	1.5	1.1	<0.001	1.84	0.58	1.9	0.4	18.5	111.5	0.02	<0.01	5	0.06
H031039		2	60	1.1	1.6	<0.001	0.91	0.3	1.6	0.3	8,7	102,5	0.02	<0.01	6.7	0.029
H031040		1.5	70	0.9	4.3	<0.001	<0.01	0.13	3.9	0.3	1.6	118	0.01	0.01	8.4	0.019



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Sample Description	Nethod Analyte Units LOR	ME-MS41 Ti ppm 0.02	ME-MS41 U ppm 0.05	ME-MS41 V ppm 1	ME-MS41 W ppm 0.05	ME-MS41 Y ppm 0.05	ME-MS41 Zn ppm 2	ME-MS41 Zr ppm 0.5	
H031029 H031030 H031031 H031032 H031033		0.02 0.04 <0.02 0.05 0.02	2.77 2.23 4.72 1.17 2.38	21 18 14 20 18	0.61 0.9 1.1 0.47 0.66	6.59 4.19 1.35 2.55 4.43	644 544 48 584 584	3.6 3.1 0.9 2.6 2.5	
H031034 H031035 H031038 H031037 H031038		<0.02 <0.02 0.03 0.03 0.18	1.02 4.24 2.02 1.99 3.92	18 14 20 6 17	0.43 1.12 0.5 2.34 11	2.1 0.99 4.93 15.65 25.4	436 48 579 11 9	1.7 0.9 2.8 1.7 3	
H031039 H031040		0.08 0.03	2.48 1.41	7 3	4.83 0.38	15.3 13.1	8 10	1.9 2.2	



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Method	CERTIFICATE COMMENTS
ME-MS41	Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5g).



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ME-GRA05

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CE	RTIFICATE VA09057704	SAMPLE PREPARATION					
			ALS CODE	DESCRIPTION			
Project: HEMMINGSEN P.O. No.: This report is for 1 Other sam 10-JUN-2009. The following have access	ple submitted to our lab in Vancouver, BC, Cana to data associated with this certificate:	WEI-21 LOG-22 CRU-31 SPL-21 PUL-31	rEI-21 Received Sample Weight   OG-22 Sample login - Rcd w/o BarCode   RU-31 Fine crushing - 70% <2mm				
SCOTT PHILLIPS	GORDON SAUNDERS			ANALYTICAL PROCEDU	RES		
			ALS CODE	DESCRIPTION	INSTRUMENT		
			ME-ICP86	Limestone samples by ICPAES	ICP-AES		

To: SAUNDERS, GORDON ATTN: SCOTT PHILLIPS 9298 CHESTNUT ROAD CHEMAINUS BC VOR 1K5

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:

H2O/LOI by TGA furnace

Shaun Kenny, Brisbane Laboratory Manager



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Project: HEMMINGSEN

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	ME-ICP86 CaO % 0.01	ME-ICP86 MgO % 0.01	ME-ICP86 Al2O3 % 0.01	ME-ICP86 Fe2O3 % 0.01	ME-ICP86 SiO2 % 0.01	ME-GRA05 LOI % 0.01	
H031041		0.84	53.6	1.01	0.17	0, <b>06</b>	0.59	43.71	
		-							



Photos

Hemmingsen Main / Harris Creek Main



Serpentine / alteration - H-8000



H-8000 - iron alteration, limestone on top



sulfide exposure through limestone





Old Hemmingsen Main bridge - west end



Iron outcrop - overburden - H-8000



## Photos

H-8000 - looking south to north side of RNR

looking south towards Port Renfrew









Field prepping layout of survey for field crew



looking east from top of H-8000







# Photos

Sawn limestone alteration sample



hematite sample



Microscopic - sulfide



Microscopic -chalcopyrite



microscopic - sulfide







#### Conclusions

Based upon the rock chip geochemical analysis several anomalies have been defined in the project area, (see working maps and certificates of analysis), follow-up exploration is warranted. A detailed grid sampling program and a stream sediment sampling program is highly recommended in and around the anomalous areas and several soil samples should be taken at intervals throughout the survey line area, with particular attention paid to the Western Block of the Property. If the geochemical values are consistent throughout the grid area some degree of confidence should be given that these are more than just superficial anomalies.

If further follow-up is warranted the possibility of backhoe trenching should be recommended.

Continue to look for alternate source of financing, possible options.

#### **Reference Information**

Mineral Titles Online Map Place Related mapping

Related Minfile showings within the Hemmingsen Project area

Minfile 092C093 – Dore 092C099 – Dore 52 092C100 – Dore 99 092C101 – Dore 97

Area authors

Eastwood, G.E.P. (1977): Notes, maps and sketches; British Columbia Ministry of Energy, Mines and Petroleum Resources Library, Property File – 092C 090.

Muller, J.E. (1982): Geology, Nitinat Lake, British Columbia, Map and Notes; Geological Survey of Canada, Open File 821, scale 1:250 000.

Massey, N.W.D. 1995. Geology and Mineral Resources of the Cowichan Lake Area, Ministry of Energy, Mines and Petroleum Resources

McKinley, S. (2003): Geological Description of Port Renfrew, B.C. Ni-PGE Property; British Columbia Ministry of Energy, Mines and Petroleum Resources Library, Property File – 092C025.