BRITISH COLUMBIA The Best Place on Earth	BC Geological Survey Assessment Report 39851
<b>Ministry of Energy and Mines</b> BC Geological Survey	Assessment Report Title Page and Summary
TYPE OF REPORT [type of survey(s)]: technical	TOTAL COST: \$8863.5
AUTHOR(S): Raymond Xie	SIGNATURE(S): Romin 200
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): n/a	YEAR OF WORK: 2021
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 58	56878
PROPERTY NAME:	
CLAIM NAME(S) (on which the work was done): 1074981	
COMMODITIES SOUGHT: Fe, Cu, Au MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: MINING DIVISION: Victoria	NTS/BCGS: 092C09
	<sup>o</sup> <u>17</u> '29 " (at centre of work)
OWNER(S):         1) Canadian Dehua International Mines Group Corporation       2)	
MAILING ADDRESS: 3577 W 34TH AVE. Vancouver, V6N 2K7	
OPERATOR(S) [who paid for the work]:1) Canadian Dehua International Mines Group Corporation2)	
MAILING ADDRESS: 3577 W 34TH AVE. Vancouver, V6N 2K7	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alto Wrangell terrane, insular tectonic belt., Bonanza Group Karmutsen	Formation volcanic rocks, Triassic Vancouver Group basaltic
volcanic rocks and limestone, Paleozoic to Jurassic Westcoast Cry plutonic suite quartz monzonitic to granodiorite, skarn / hydrothem	· · · · · · · · · · · · · · · · · · ·
protonic suite quartz monzonilie to granoulonite, stam / nyulothem	a metasomalie deposits, i e skam magnetite.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 27517,34296, 34612, 34699,37742,38342

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			
Photo interpretation			
GEOPHYSICAL (line-kilometres) Ground			
Magnetic 4.8km			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soil		-	
Silt			
Rock 6 multi elements geoch	nemical assay	-	
Other		-	
DRILLING (total metres; number of holes, size)			
Core		-    -	
Non-core		-	
RELATED TECHNICAL			
Sampling/assaying			
Petrographic 3 specimen iden	tification		
Mineralographic			
Metallurgic			
PROSPECTING (scale, area) 3.0km2			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/t			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	\$8863.5

**Assessment Report** 

# **On Mineral Claim 1074981**

Work in Oct 15 - Oct 17, 2021

Victoria Mining Division Latitude 48° 39' 06" N, Longitude 124 ° 17' 29" W NTS 092C09 ; UTM Zone 10N

> CLAIMS WORKED ON: SOW NO: 5856878

> > For

Canadian Dehua International Mines Group Corporation

310 - 1155 West Pender St. Vancouver, V6E 2P4

Written by: Raymond Xie, P. Geo. Submitted: Feb 16, 2022



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## **INTRODUCTION**

#### Property description, location, access and physiography

The mineral claim 1074981 ("the property") is located in southwest of Vancouver Island, BC, Canada. It is about 15 km northeast of the community of Port Renfrew, about 55km from Lake Cowichan, in Victoria Mining Division. It can be reached both from Port Renfrew or Lake Cowichan via *Pacific Marine Rd* ("*PMR*"). At cross of Renfrew Creek with *Pacific Marine Rd*, there is a logging main road, named *Granite Creek Main*, leading into the worked property. Network of logging roads provide access to most parts of the property (Figure 1, 2).

The Property is in UTM Zone 10N, centered at Latitude 48° 39' 06" N, Longitude 124 ° 17' 29" W

approximately, in NTS map sheets 092C09. The property has an area of 1792.14 ha, 100% interests held by *Canadian Dehua International Mines Group Corporation* (table 1).

Port Renfrew, at southwest of property on Pacific coast, provides only basic services. Lake Cowichan, at northeast of the property, has wellequipped including logging infrastructure, vehicle fuel and automotive services, motels, restaurants, health clinics and shopping stories;



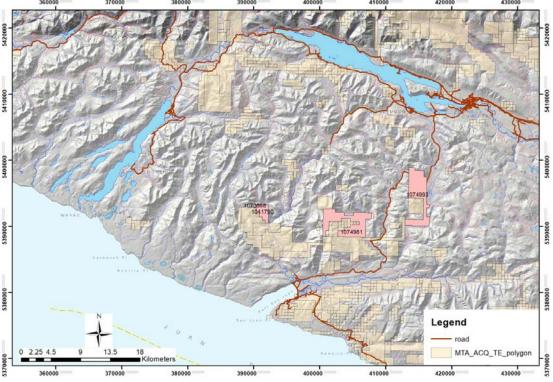


Fig. 1 Property Location

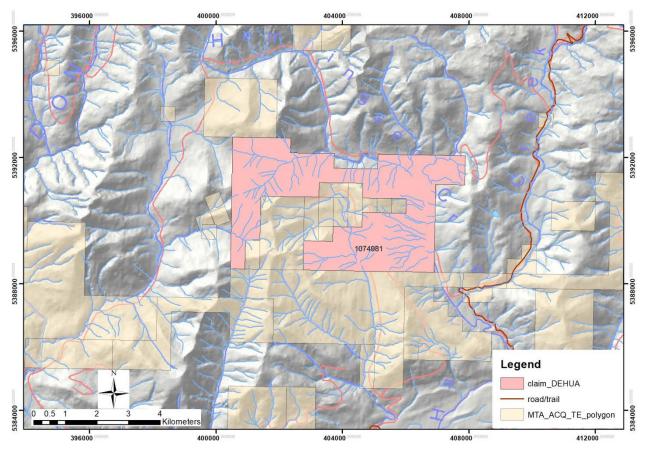


Fig. 2 Claims distribution map

Table 1 –claim	1074981	and status	as of Sej	p 05, 2021
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Title Number	Owner	Title Type	Title Sub Type	Map Number	Issue Date	Good To Date	Status	Area (ha)
1074981	288221 (100%)	Mineral	Claim	092C	2020/MAR/04	2021/MAR/04	PROTECTED	1792.14

The topography of the Property consists of rugged and steep mountain slopes up to 880m from 350m in elevation drained by steep, fast flowing creeks, Renfrew Creek and Harris Creek, that flow southwards into the west flowing San Juan River. The property is covered by first and second growth forest with several ages of regeneration as well as some old growth stands, and logging roads at different stages of construction and degeneration. The area of the claims is dense coastal rainforest typical of western Vancouver Island, with very heavy rain through the fall, winter and spring, some snow at low elevation and more snow at high elevations through the winter months, and moderate summers with occasional rain.

#### **Exploration history**

Property is around historic Reko skarn iron mineralization belt, which is composed of several mineralization showings. A little further at west, there is another skarn iron belt, Bugaboo. Most exploration work done in the region is related to the mineralization belts. Following depiction of exploration history is mostly cited from previous authors.

During the summer of 1970 bulldozing and blasting by BC Forest Products road-building crews uncovered showings of magnetite and sulphides near the upper reaches of Renfrew Creek (Reko showings). The Reko claims were staked on these showings in July 1970 by M. Levasseur. Levasseur and associates incorporated *Reako Explorations Ltd.* in July 1971. Further staking in 1971-72 expanded the property to 66 claims.

During 1972-1974, work included geological mapping, magnetometer surveys over 120 line kilometers, an electromagnetic survey over 80 line-kilometers, an induced potential survey over 19 line kilometers, trenching, and 5300 meters of diamond drilling in 100 holes on Reko by *Reako Explorations Ltd*.

In 1973-74, R.L. Roscoe estimated 1,111,242 tons in five combined zones (Zone 1, 2, 3, 5, 8) without specifying grades. The classification of historical estimates of resource or reserve is not treated as fulfilling the requirements of National Instrument 43-101. No further work was reported on until *Emerald Fields Inc.* entered an option agreement with Gary Pearson of Port Renfrew on June 14, 2002 and also began staking claims in the area. In May 2003, *Discovery Consultants* completed geological, geochemical and geophysical surveys on behalf of *Emerald Fields* and Gary Pearson over parts of the property. Work comprised geological mapping, rock, heavy mineral and stream sediment sampling, petrographic work, and orientation VLF-EM and magnetometer surveys.

In April 2004, *Emerald Fields* completed 7 BQ diamond-drill holes totaling 326 meters on some of the Reko showings. *Emerald Fields* staked additional claims in November 2004 and early 2005. Between April-May 2005, a diamond drill program of 3 thin-wall NQ (TWNQ) drillholes totaling 711.4 meters was completed on parts of the Reko.

*Fugro* was contracted to fly a low altitude, magnetometer survey between June 12 and 20, 2006, coving most part of claim 1074981. The grid measured 22 by 7 kilometers and consisted of north-south lines at 100 meters spacing and east-west tie lines at 500 meters spacing for a total distance of 1972 line-kilometers. A detailed compilation of at least 19 anomalies throughout the surveyed area was conducted by Monika Sumara (Aug. 2006).

During the summer of 2006 mapping was conducted on the Emerald Fields' Pearson Project claim group by J. Larocque and D. Canil (University of Victoria) to delineate the occurrence and origin of ultramafic rocks related to anomalous nickel, chromium, copper and PGE (platinum group elements).

In the fall of 2007, Emerald Fields commenced a program of prospecting, soil and rock sampling, and ground magnetometer surveying that continued into the summer of 2008. The results of this work are documented in a government assessment report by Payie and Norris (2008).

2009 drill program: In 2009, drilling on the Pacific Iron Ore Corp claim consisted of 8356.85 meters in 37 holes. Of this 4733.70 meters in 16 holes were completed on the Bugaboo deposit to further define and upgrade the resource; 3022.40 meters in 18 holes were drilled on various magnetite skarn targets in the Granite (Reko Creek) area; and 600.76 meters in 3 holes were drilled on mafic-ultramafic rocks outcropping in the Granite 8000 area in order to test their PGE potential.

After the acquisition of the Pacific Iron Property in 2013, Canadian Dehua International Mines Group Inc. carried out a series of exploration work on its new property since then. Field mineral outcrop survey and ore processing test conducted in 2013.

In 2015, Canadian Dehua International Mines Group Inc. completed stream moss mat and rock geochemistry over much of the very large Bugaboo-Reko Property, covering many BC MINFILE occurrences. In 2016, Scott Philips, Raymond Oshust, Stewart McDermid, Marjorie Rooke and Gordon Saunders, completed geochemistry and prospecting on the Reko Iron Property covering the Reko 3, Reko 10, Reko 38, Ebb, Reko North and Hemm showings.

#### **GEOLOGY AND MINERALIZATION**

#### **Bedrock Geology**

The Port Renfrew area was mapped in 1982 by J.E. Muller of the Geological Survey of Canada. Much of the information in this section has been sourced from Geological Survey of Canada Open File 821 (Muller, 1982).

The property lies in the Wrangellia Terrane insular tectonic belt of Vancouver Island.

Wrangellia Terrane: basement rocks including the Karmutsen Formation (Lower Jurassic Bonanza Group calc-alkaline and volcanic rocks), Quatsino Formation (Middle to Upper Triassic Vancouver Group basaltic volcanic rocks and limestone), Early to Middle Jurassic Island Plutonic Suite quartz monzonitic to granodiorite intrusive rocks; and Westcoast Crystalline Complex (WCC) of Paleozoic to Jurassic dioritic intrusive rocks. Bedrock underlied in most portion of claim 1074981 is belong to Westcoast Crystalline Complex and Early to Middle Jurassic Island Plutonic Suite (Fig 3)

*Limestone:* Late Triassic Vancouver Group Quatsino Formation, white to light gray, massive to weakly banded, re-crystallized to marble. Banding is defined by slightly more grey layers.

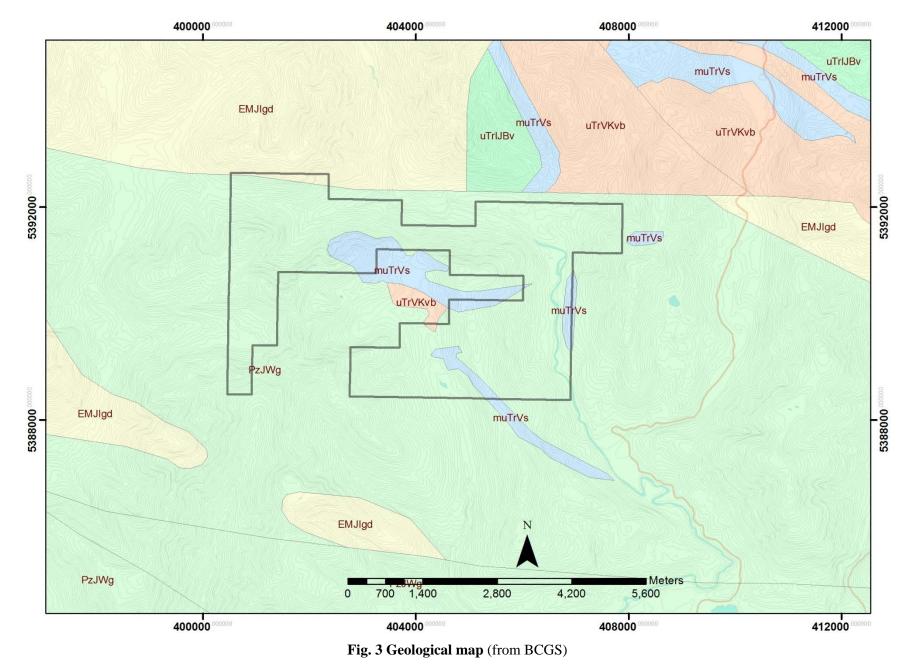
Limestone presented as belt or strip, distended body or pendant that rests on intermediate and felsic dioritic intrusive rock. Bands strike NW-SE and usually have steep degree with dips both to the southwest and northeast. Near intrusive contacts, the marble may became very coarse. Marble outcrops very commonly contain hosting rock blocks, sills and/or dykes of fine grained mafic diabase and/or plagioclase porphyry. The contact with other rocks of Westcoast Crystalline Complex is clear, locally altered to skarn and magnetite mineralized

*Volcanic rocks:* Bonanza Group Karmutsen Formation, outcropped mainly at Reko Creek area. Minor, discontinuous exposures of volcanic rocks consist of massive mafic sub-volcanic intrusive,

*Intrusive:*The majority of exposed bedrock in the property area consists of massive and complex polyphase intrusions, ranging in composition from gabbro, diorite to granodiorite (photo 1) which can be classified as following three groups: ①Paleozoic to Jurassic Westcoast Crystalline Complex intrusive rocks (deformed Wrangell terrane); ②Middle Jurassic Island Plutonic Suite; ③ Late stage hypabyssal intrusive rocks - dikes, sills.

Westcoast Crystalline Complex is intermediate to mafic intrusive and metamorphosed migmatitic rocks (Bonanza Group).Island Plutonic Suite is composed of felsic to intermediate intrusive rocks. Early massive plutons are generally cut by younger dykes of varying compositions, with textures ranging from diabasic to phenocryst.

Regional structure is dominated by numerous northwest-southeast and east-west faults transecting the property. These long existing structures have controlled the distribution of intrusive, strata and deformation of rocks.



**EMJIgd:** Early Jurassic to Middle Jurassic Island Plutonic Suite: granodioritic intrusive rocks\_ Granodiorite, quartz diorite, quartz monzonite, diorite, agmatite, feldspar porphyry, minor gabbro and aplite. Insular; Wrangellia terrane;

**uTrlJBv:** Upper Triassic to Lower Jurassic Bonanza Group undivided volcanic rocks\_ Massive amygdaloidal and pillowed basalt to andesite flows, dacite to rhyolite massive or laminated lava, green and maroon tuff, feldspar crystal tuff, breccia, tuffaceous sandstone, argillite, pebble conglomerate and minor limestone. Insular belt, Wrangellia terrane;

**uTrVKvb:** Upper Triassic Vancouver Group - Karmutsen Formation basaltic volcanic rocks\_ Basalt pillowed flows, pillow breccia, hyaloclastite tuff and breccia, massive amygdaloidal flows, minor tuffs, interflow sediment and limestone lenses. Insular belt, Wrangellia terrane;

**muTrVs:** Middle Triassic to Upper Triassic Vancouver Group undivided sedimentary rocks\_ Undifferentiated Parson Bay and Quatsino formations. Insular belt, Wrangellia terrane.

**PzJWg:** Cambrian to Jurassic Westcoast Crystalline Complex intrusive rocks, undivided\_ Quartz diorite, tonalite, hornblende-plagioclase gneiss, quartz-feldspar gneiss, amphibolite, diorite, agmatite, gabbro, marble and metasediments. Insular belt, Wrangellia terrane;

#### **Mineralization and deposits**

Endogenous mineralization types dominated in the property and in region around are Skarn Fe, Cu and epigenetic Cu, Au, Ag. Iron deposits in Reko area are belonging to BC's calcic iron skarn mineralization belt.

**Skarn iron deposit:** Massive iron (magnetite) skarn deposits are developed in or near contacts and along zones of garnet-pyroxene skarn. The host and associated rock types are large to small stocks and dikes iron-rich, silica-poor intrusions (gabbro-diorite) derived from primitive oceanic crust and limestone, calcareous clastic sedimentary rocks, tuffs or mafic volcanics.

**Reko Mineralization Belt**\_is in Renfrew creek area. A total of 11 magnetite skarn zones have been described by Roscoe (1973) in the Renfrew Creek area. Magnetite deposit/showings documented in MINFILE of British Columbia provincial mineral inventory database are Reko 10 (092C 091), Reko 3 (092C 090), Reko 38 (092C 110) and Reko North (092C 146) (See Table 2 and Figure 4).

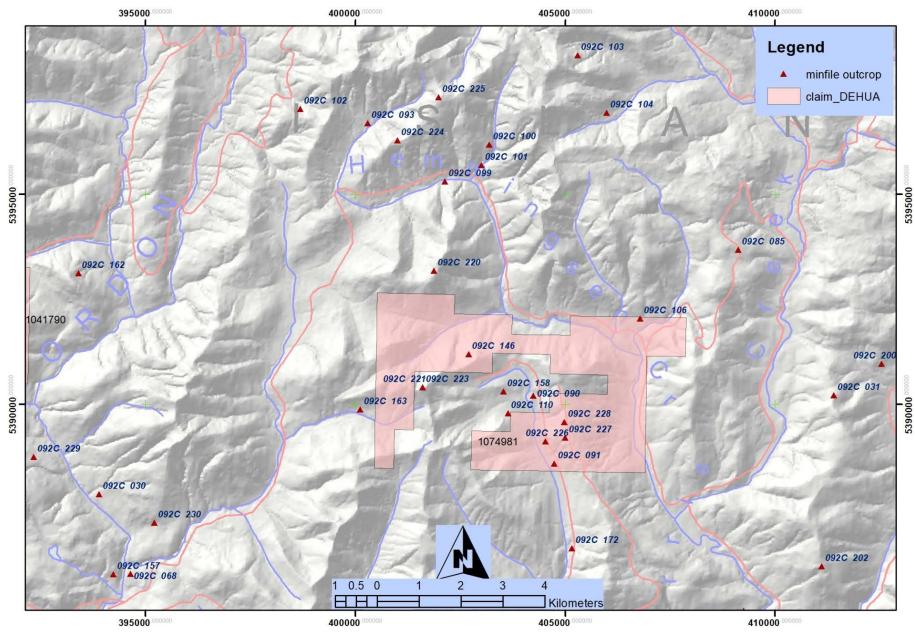


Fig.4 Minfile showing location map

MINFILNO	EAST	NORT	NAME1	STATUS_C	UTM_ZONE	COMMOD_D1	DEPCLA_D1
092C 030	393908	5387852	ROSE (L.124)	Showing	10	Iron	Skarn
092C 031	411406	5390205	TALLY (L.519-521)	SHOW	10	Iron	Skarn
092C 068	394651	5385953	ALFREDA (L.777)	Showing	10	Gold	Epigenetic
092C 085	409130	5393669	HARRIS CREEK	SHOW	10	Limestone	Sedimentary
092C 090	404245	5390199	REKO 3	Prospect	10	Iron	Replacement
092C 091	404750	5388584	REKO 10	Developed Prospect	10	Iron	Replacement
092C 099	402145	5395300	DORE 52	Showing	10	Copper	Epigenetic
092C 100	403202	5396177	DORE 99	Showing	10	Copper	Hydrothermal
092C 101	403010	5395687	DORE 97	Showing	10	Copper	Epigenetic
092C 106	406792	5392040	DORE 162	Showing	10	Copper	Epigenetic
092C 110	403644	5389777	REKO 38	Prospect	10	Magnetite	Replacement
092C 146	402707	5391183	REKO NORTH	Prospect	10	Iron	Skarn
092C 158	403540	5390300	НЕММ	Showing	10	Dimension Stone	Sedimentary
092C 162	393414	5393112	LOUP CREEK	Showing	10	Copper	Unknown
092C 163	400126	5389869	LEBARON FRACTION	Showing	10	Copper	Unknown
092C 172	405166	5386569	GRANITE MAIN	Showing	10	Gold	Unknown
092C 200	412544	5390959	LENS CREEK QUARRY	SHOW	10	Copper	Unknown
092C 202	411117	5386133	ALL THE MARBLES 1	SHOW	10	Silver	Unknown
092C 221	401609	5390399	GOLDEN 5	Showing	10	Iron	Skarn
092C 223	401609	5390399	GOLDEN 5 SOUTH	Showing	10	Gold	Skarn
092C 226	404534	5389113	CREEK ZONE	Showing	10	Copper	Skarn
092C 227	405006	5389197	GRA3500	Showing	10	Copper	Skarn
092C 228	404991	5389568	GRA3500-B	Showing	10	Copper	Skarn
092C 229	392349	5388746	LORIMER CREEK	Showing	10	Copper	Skarn
092C 230	395226	5387178	MAI	Showing	10	Magnetite	Skarn

#### Table 2 – List of Minfile showings in the property district

## WORK COMPLETED AND CONCLUSIONS

From Oct 15 to 17, 2021 the author and Victor Zhou carried out a field exploration Pacific Iron Property including mineral claim 1074981 at northeast corner of the property. The work includes bedrock and Minfile showing investigation, rock petrographic study, rock sampling and assay and ground magnetic strength survey.

Field survey is systematic ground bedrock, structure and mineralization investigation along with geochemical sampling and specimen collection for petrography study. The crew traversed in field, navigation controlled by handhold GPS using the UTM NAD83 co-ordinate system. At every surveying station, site number, coordinate, bedrock type, properties and condition of mineralization, structure around and any sampling were described on field notebook. Typical and uncommon rocks in the area were collected as specimen for further petrography research. Mineralized or rocks in structure zone were sampled for lab assay to detect any precious or base metal anomaly. All records in paper will be checked and transferred in digital format at the same day collected, and saved in computer. survey station are mapped in Fig 5 (Fig 5, Appendix IV: Data collected). No new significant iron skarn mineralization outcrop was discovered in working season.

In general, the survey station and sampling location are random. They did not grid to form any scale geological mapping. The workload was also not enough to fulfill forming a detailed geological map. Types of bedrock, texture of grain size, content of mafic or dark minerals, and obvious alteration, mineralization were focused and recorded. Diorite of various grain size and content of dark minerals dominates the property region, together with granodiorite, and minor monzonite, gabbro, volcanic, intrusive mafic or felsic dikes. Limestone, most altered to marble, is the only sedimentary in the area. Regional alteration of chloritization, sericitization are common to dark mineral. Silication and pyritization are prevalent.

Intrusive rocks are composed of three components: Westcoast Crystalline Complex intrusive dioritic rocks (deformed Paleozoic to Jurassic Wrangell terrane), Middle Jurassic Island Plutonic Suite, Late stage hypabyssal intrusive rocks - dikes, sills. Identifying those multiphase intrusions in field is something tricky. In a restrict range it is common the fine to coarse diorites existing included each other with clear boundary, and the content of dark minerals varies sharply in the boundary. Generally, the early phase intrusive rocks have fine isogranular texture with high content of dark mineral. When evolved to later phased, intrusive rock is characterized with medium to coarse grained, less dark mineral content diorite to granodiorite. By field observation and statistic study, distribution of bedrock with different grain size (intrusions) is mapped as fig 6. Comparison with regional total magnetic strength and bedrock, it is quite sure that fine grained diorite with higher dark mineral content gives rise to some magnetic anomaly.

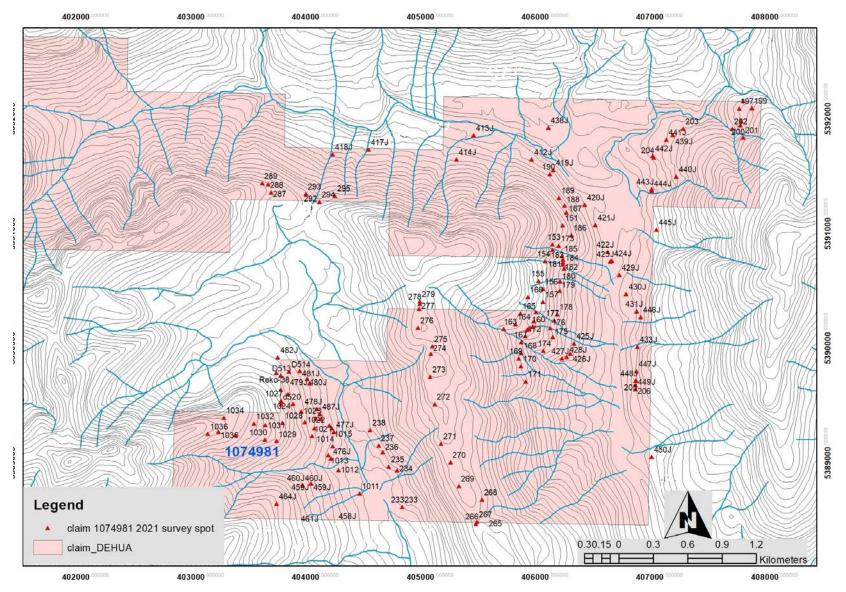


Fig.5 Survey station and sampling location map

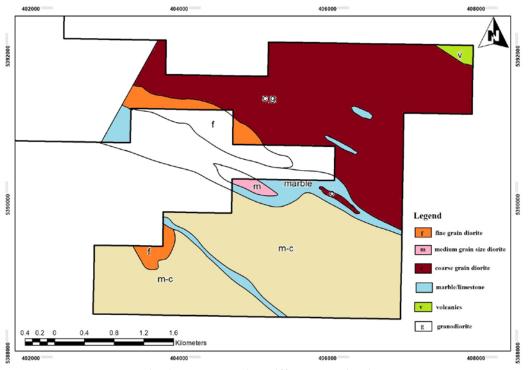


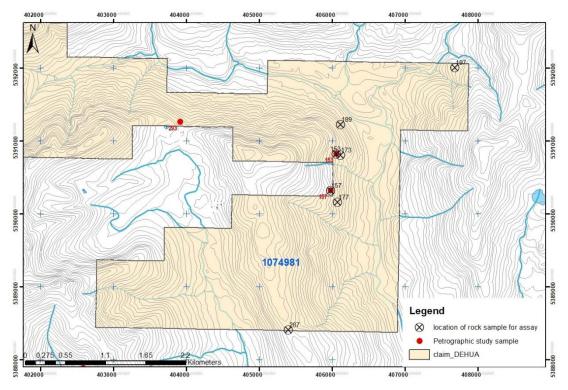
Fig 6 Bedrock with different grain size

Six geochemical samples and three specimens for petrography study were collected together with field geological survey. Elements assay samples were designed to study bedrock and discovered other geochemical anomaly such as Cu and Au, so many samples are altered and strongly deformed rock in structure zone (table 3, fig 7)).

All rock samples were taken from bedrock by random chipping within range less than 1m from same kind of rock type. When using hummer collecting the chip sample, the chips were put into plastic sample bag together with sequence number tag. A same tag number was written on outside of bag by permanent marker pen when the opening closed. A copy of sample number was recorded in notebook. Plastic sample bags were secured in woven bag when delivered to ALS lab for preparation in North Vancouver. Aimed at detection precious metals, package -- AuME-TL43 (25g trace Au+ Multi Elements) methods via ICP-MS and ICP-AES corrected for inter element spectral interferences is selected (Appendix IV: Data collected). The detection limit (ppm) for Au, Ag, and Cu is 0.001-1ppm, 0.01-100ppm, 0.2-10000ppm, respectively with PKG AuME-TL43.

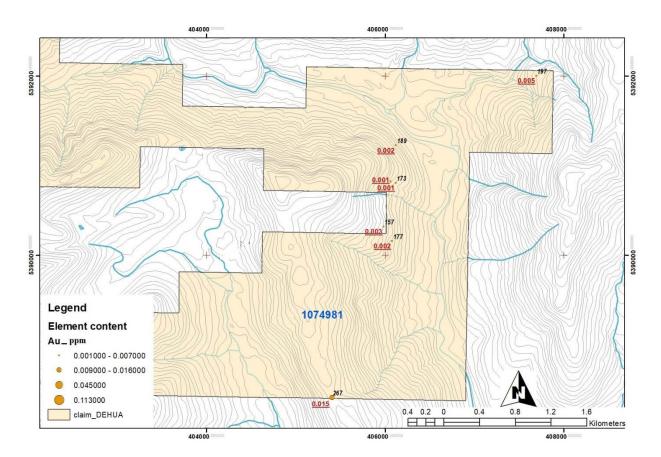
No	Ε	Ν	rock	sample type
			altered, very fine grained, sulfide mineralized	
153	406065	5390821	bedrock;	geochem & petrography
157	405984	5390318	skarn rock	geochem & petrography
173	406122	5390806	F zone bearing sulfide	geochemical
177	406083	5390155	yellowish green volvanics	geochemical
189	406125	5391226	F zone in granodiorite	geochemical
197	407693	5392004	dk gy, slikensided, chlorited fracture zone	geochemical
291	403881	5391093	altered fine grain wcc	geochem & petrography

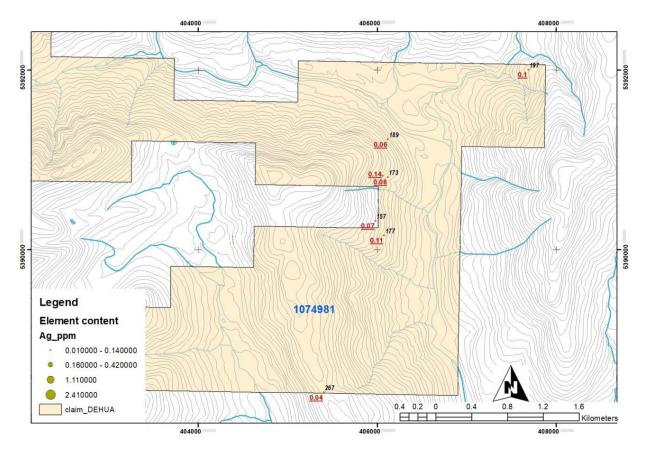
**Table 3-Sample list and location** 

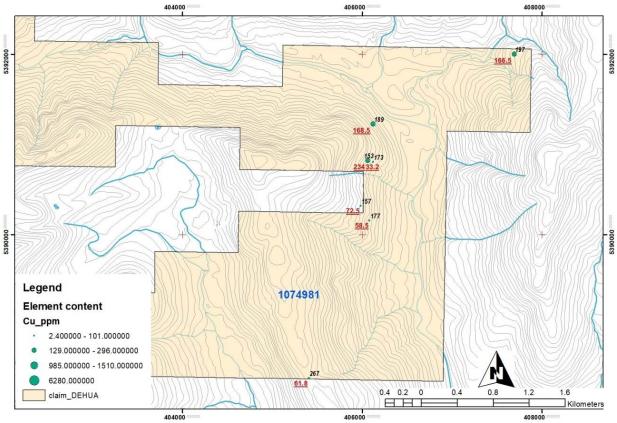




Au,Ag,Cu, Cr content in rock sample are shown in fig 8. The outcome is not promising except one that falls out of claim boundary (239).







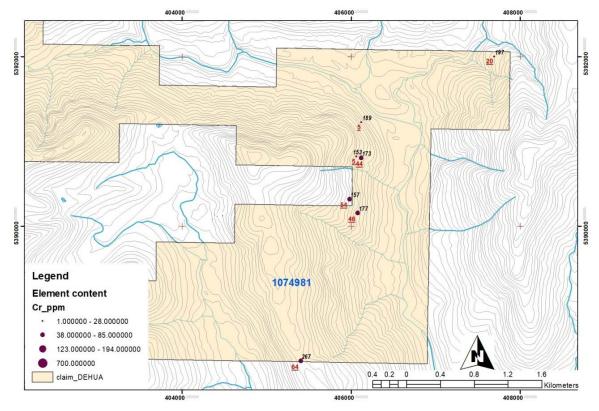


Fig.8 Element content of rock sample (Au, Ag,Cu, Cr\_ppm)

Three specimen (153,157,291) were sent to *Van-Petrophics Ltd* for thin-sectioning and studying. Volcanics of andesite, dacite are identified existence in property.

Several ground magnetic strength survey lines were finished for test purpose . Proton magnetometer (GSM-

19T) is used for ground magnetic strength measuring. The GSM-19T proton precession magnetometer is designed for ground geophysical surveys for subsurface investigations and exploration. It provides excellent sensitivity in most environments (0.15nT @ 1 reading per sec). The survey carried out along the logging road within claim. Space between adjust measuring point is about 20m. The location of measure



station and magnetic strength is plotted in fig 9 and 10).

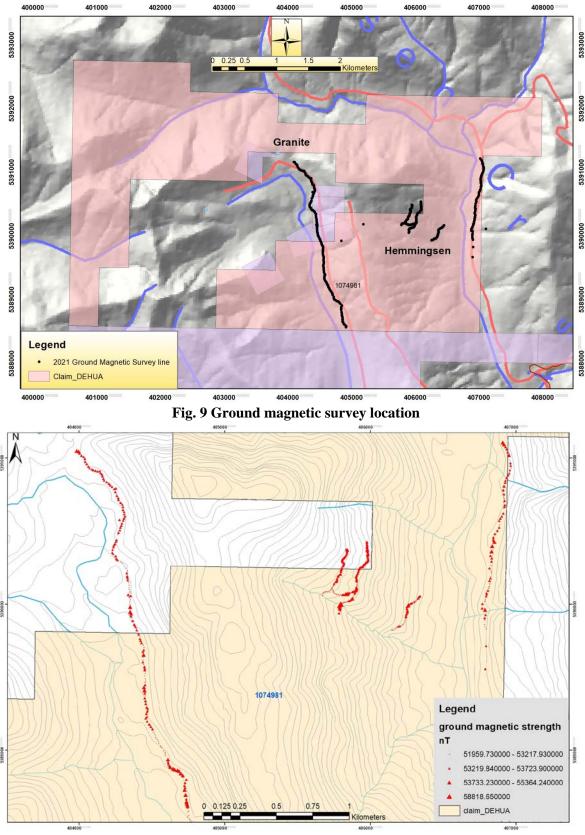


Fig. 10 Ground magnetic strength

Magnetism low is corresponded with limestone zone. No high value anomaly except one next to marble in a valley. The strength value is 58818.65nt. This value is not ground surface massive magnite outcrop caused. It is worth to have a check by chance.

## Conclusions

- 1) There are a number of skarn iron mineralization outcrops in Reko region, no one is economic significance at being time.
- 2) Skarn iron mineralization has spatial relationship with marble in Reko. A few marble belts occur within property. Most contact of marble has no skarn altered.
- 3) No other mineral commodities are discovered and explored. Outcome of Au, Cu content of rock sample collected this work season is not promising, in spite of Au,Cu mineralized around the property, especially in north and east directions. Copper mineralization occurs in fracture of volcanic rocks related to hydrothermal activity involved with Jurassic island plutonic granodioritic intrusion. The direction to look for those is in volcanic.
- 4) Claim area can be reduced where WCC existing without sedimentary;

## REFERENCES

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- MINFILE, http://www.em.gov.bc.ca/Mining/Geolsurv/Minfile/
- Mineral Titles Online https://www.mtonline.gov.bc.ca/mtov/home.do
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- Fields Resource Corporation Ray, G.E. (1995): Fe Skarns, in Selected British Columbia Mineral Deposit Profiles, Volume 1 Metallics and Coal, Lefebure, D.V. and Ray, G.E., Editors; British Columbia Ministry of Employment and Investment, Open File 1995-20.
- A Geochemical and Ground Geophysical Assessment Report on Portions of the Pearson Claim Group. Garry Payie, and Timothy Norris. S.,October 2008

## **APPENDICES**

## **APPENDIX I: Author's Qualifications**

I, Raymond Xie, of 8067 162B St., Surrey, British Columbia, Canada, hereby certify that:

- I was a graduate of *Guilin University of Technology* in 1984, obtained B.S in geology, M.S. degree from *China University of Geosciences (Wuhan)* in 1987, PhD in Geosciences from *Central South University* in 2000, China.
- 2) I studied in Geology and worked in mineral prospection over 30 years, and have related working experience both in China, Canada and other countries.
- **3**) I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
- **4)** I am consulting geologist contracted by *Canadian Dehua International Mines Group Corporation* from Oct 15 to Oct 17 of 2021 to carry out the work this report related; I worked and supervised the field exploration work program, and is the author of the assessment report .
- 5) I am independent of *Canadian Dehua International Mines Group Corporation*, and hold no interest in the subject property of this report.

Dated this 16<sup>th</sup> day of Feb 2022, Surrey BC

Respectfully submitted,



Raymond Xie P.Geo.

# **APPENDIX III: Work expenditure**

Exploration Work type	Comment	Days		_	Totals
Personnel (Name)/ Position	Field Days (list actual days)	Days	Rate	Subtotal*	
Victor Zhou geologist	2021-10-15 to 2021-10-17	2.5	\$340.00	\$850.00	
Raymond Xie geologist	2021-10-15 to 2021-10-17	2.5	\$690.00	\$1,725.00	
James Lou	2021-10-15 to 2021-10-17	2.5	\$245.00	\$612.50	
				\$3,187.50	\$3,187.50
Office Studies	List Personnel (note - Office only,	do not inclu	de field days		
Literature search	Rongju Xie	1.0	\$650.0	\$650.00	
Database compilation			\$0.00	\$0.00	
Report preparation	Rongju Xie	2.0	\$650.0	\$1,300.00	
· · ·				\$1,950.00	\$1,950.00
Geochemical Surveying	Number of Samples	No.	Rate	Subtotal	
Soil	note: This is for assays or		\$0.00	\$0.00	
Rock	laboratory costs	6.0	\$48.00	\$288.00	
Petrology		3.0	\$260.0	\$780.00	
Other (rock slice					
preparation)		4.0	\$30.00	\$120.00	** ***
		••	-	\$1,038.00	\$1,188.00
Transportation		No.	Rate	Subtotal	
truck rental		4.00	\$115.0	\$460.00	
kilometers		280.0	\$0.65	\$182.00	
fuel		100.0	\$1.60	\$160.00	
Other(ferry)			\$236.0	\$236.00	
Accommodation &				\$1,038.00	\$1,038.00
Food	Rates per day				
Hotel	I U	0.00	\$0.00	\$0.00	
Camp		6.00	\$65.00	\$390.00	
Meals	day rate or actual costs-specify	6.00	\$50.00	\$300.00	
				\$690.00	\$690.00
Miscellaneous				+ • > • • • •	
Telephone	\$400/month; Fees \$380		\$0.00	\$0.00	
insurance	,, ,,		\$0.00	\$0.00	
Other (Specify)	gps, safty gear, labor protection		\$0.00	\$0.00	
· ···· (- p · ··· ) )	8Fe, and 9 8em, no er protection.		+ • • • •	\$0.00	\$0.00
Equipment Rentals				+ • • • •	4000
Field Gear			\$0.00	\$0.00	
trailor		3.00	\$105.00	\$315.00	
magnetometerx2		3.00	\$165.00	\$495.00	
				\$810.00	\$810.00

TOTAL Expenditures

\$8863.5

## **APPENDIX IV: Data collected**

#### Geological survey station description

\* wcc\_ Westcoast Crystalline Complex dioritic intrusive rocks;

\* dm\_ dark color mineral;

\* f.g, m.g, c.g, \_ fine grain, medium grain, coarse grain;
\* gy\_ grey; dk\_ dark;
\* Φ\_ granularity of dark mineral;

waypoint	utm_E	utm_N	concise description
151	406156	5390985	weakly altered m.g wcc, dm=20-25%; $\Phi$ =2mm; 25m northern_granite/granodiorite dominated;
151	406066	5390770	marble outcrop near southern contact; at southside, siliceous f.g wcc
153	406065	5390821	siliceous, Fe,S mineralized bedrock;
154	406002	5390673	massive c.g granodiorite/granite, dm<15-20%,quartz>20%;
155	405944	5390501	granite/quartz monzonite? dm<5%, SiO2>40%; from 154 to 155, small portion of f.g diorite inclusions;
156	405982	5390431	small fault in f.g in c.g wcc; 20m southwards_c.g granodiorite/granite, dm=20%; northern boundary of marble belt; northern_siliceous m.g granodiorite; brown-purple color skarn and iron mineralization in contact of wcc inclusion that 15-20m
157	405984	5390318	wide inside of marble zone, 20m away from the northern marble bountary;
158	405924	5390229	10m wide m.g wcc inclusion in marble zone;
159	405905	5390150	southern boundary of the marble zone from 157; there another layer of wcc inside between 158 and 159;
160	405895	5390102	granodiorite with quartz veins and f.g wcc inside; dm=20%;
161	405863	5390082	marble block in f.g wcc near another marble zone at SW side ;
162	405847	5390077	NE contact of another marble belt; skarn zone=5m, no mineralization;
163	405642	5390081	marble outcrop in creek;
164	405743	5390125	possible northern boundary of the marble belt from 162;
165	405788	5390216	possible southern boundary of the marble belt from 159;
166	405852	5390359	marble outcrop at end of road;
167	405796	5389967	gy, siliceous, very f.g bedrock with Q veins and blocks;
168	405796	5389873	at creek, siliceous f.g (<1.0mm) wcc, dm=30%; no bed rock outcrop between 167 and 168;
169	405774	5389823	as 168;
170	405792	5389758	as 168;
171	405834	5389624	m.g to c.g granodiorite/ granite,dm=15-20%, Ф=2mm;
172	405831	5390019	possible marble contact that from 162, east_ greenish gy altered rock;
173	406122	5390806	siliceous, iron mineralized broken zone;
174	405987	5389890	end of road, no bedrock;
175	406069	5390012	granite/granodiorite, dm=20-25%, $\Phi$ =5mm, prinsmatic; bearing darker f.g irregular blocks;, northern a F zone of 1.2m wide, 230°<70°;
176	406046	5390090	possible southern contact of marble zone, no mineralization;
177	406083	5390155	altered broken yellowish green wcc block in marble belt;
178	406108	5390209	northern contact of the marble belt; boundary zigzag, no skarn rock seen, but broken; 5m north apart is c.g granite dominated, dm=15%;
179	406129	5390413	granite from 178, with f.g blocks,dm=10%; at 179 a fault of 1.0m wide, 139°<80°;
180	406133	5390497	dk gy f.g component (dm=50%, $\Phi$ <0.5mm) increased to 30% in c.g granite;
181	406168	5390609	iron mineralized Fault of 2.0m wide in 300°, vertical;

182	406154	5390645	southern boundary of the marble zone from 152 zone;
183 184	406159 406160	5390662 5390684	northern boundary of the marble zone from 152 zone; 0.5m skarn at contact; granite, dm<5%,Q>40%;
		5390084 5390717	
185	406150		southern contact of another marble belt; marble exposed 20m to north and covered;
186	406232	5390898	granite (>80%) and f.g dike/ blocks(<20%) staggered;
187	406188	5391097	granite, dm=10%, small fracture with iron mineralization developed;
188	406170	5391156	porphyritic m.g dk wcc, dm=45% with felsic networks;
189	406125	5391226	F zone $>$ 30m, Q veins, iron mineralization in c.g wcc;
190	406044	5391432	f.g to m.g wcc appears 50m before to 190, dm=10-50%; no bedrock seen to road cross;
196	407729	5392071	siliceous, broken Q networks filled altered rock. Original rock unknown;
197	407693	5392004	dk gy, slikensided, chlorited fracture zone;
198	407710	5391895	as 196; greenish gy color, altered rock can be identified as m.g diorite; dm=40%;
199	407804	5392006	broken, altered(si, chlorite,Fe) diorite, but as strong as 198;
177	107001	0000	weakly altered, dk greenish, m.g wcc, dm=30-40%; light color Q and felsic vein
200	407702	5391861	developed;
201	407727	5391750	weakly altered m.g wcc, not broken as before;
202	407632	5391829	m.g to c.g granodiorite/ granite, dm=25%, felsic (<5cm) networks inside;
203	407206	5391829	as 202, weakly altered;
233	404759	5388529	f.g and c.g wcc coexsisted;
234	404715	5388847	southern contact of marble belt;
231	101715	5500017	wcc enclosed in marble zone, there are siliceous, skarn alteration and iron
235	404641	5388880	mineralization in contact;
236	404590	5389008	marble outcrop;
237	404553	5389066	marble outcrop;
238	404478	5389198	c.g granodiorite, dm<20%; covered between 237 to 238;
266	405398	5388382	marble outcrop, near northern contact;
267	405408	5388402	siliceous wcc, brown color, northward not far_light color granite;
268	405453	5388593	altered greenish wcc, bountary of dm blurred;
269	405252	5388710	as 268; m.g diorite original;
270	405178	5388917	massive m.g to c.g diorite, $\Phi$ =1-3mm, dm=20%-25%;
271	405098	5389082	c.g granodiorite; $\Phi=\Phi=2-5$ mm, dm=20%;
272	405041	5389424	m.g massive diorite;
273	405001	5389665	granite.dm<5%;
273	405007	5389864	broken, altered zone in wcc;
274	403007	5507004	marble southern contact, no obvious alteration in contact; interserted with m.g
275	405019	5389929	diorite at south side;
276	404897	5390092	wcc inclusion in marble zone;
277	404906	5390259	wcc mineralization enclosed in marble zone;
278	404911	5390298	possible northern contact of marble belt; 20m northwards_wcc outcrop;
279	404911	5390323	marble appear again; 278-279_ wcc in marble belt;
287	403616	5391274	f.g and c.g diorite co-exsisted;
288	403590	5391344	as 287, and siliceous;
289	403539	5391353	c.g granite,dm<15%
292	403884	5391153	granodiorite,dm<30%;
293	403919	5391259	f.g wcc,dm=40%, $\Phi < 0.5$ mm, q vein and sulfide developed;
294	404038	5391191	F zone in f.g diorite;
295	404172	5391245	as 293;
295	TUT1/2	JJJ12 <del>4</del> J	us 273,

1011	404387	5388647	diorite_f-m. grain ,greenish gy ,dm=20% .
1012	404203	5388851	diorite_f-m. grain ,greenish gy ,dm=30%.minor sulphide (pyrite ,etc.).
1013	404115	5388981	as 1012;
1014	404152	5389060	as 1012;
1015	404147	5389215	as 1012;
1016	404123	5389239	as 1012;
1017	404051	5389299	as 1012;
1018	404004	5389302	as 1012;
1019	403993	5389214	diorite_f-m. grain ,green,dm=15%,infilled mafic dike, slightly magnetic.
1021	403973	5389149	granodiorite_m.g,green,dm=15%,rich in quartz veins;
1022	403911	5389269	as 1021
1023	403879	5389361	granodiorite_m.g,green,dm=15%,infilled mafic dike.
1024	403808	5389427	diorite/granodiorite, f-m. grain ,green,dm=15%,rich in quartz veins.
1025	403764	5389516	diorite_f.g, greenish gy ,dm=30%.
1026	403698	5389553	diorite_f-m. grain ,greenish gy ,20% dark minerals.Reko-38 outcrop mountain top.
1027	403702	5389453	Fe skarn_grey and brown.width 10m, two side diorite-mafic dike.magnetic.
1028	403716	5389262	diorite_f.g.,greenish gy ,dm=30%.magnetic,infilled mafic dike.
1029	403663	5389105	granodiorite_m.g,green,dm=15%,infilled mafic dike.magnetic.
1030	403561	5389116	diorite_f.g.,greenish gy ,dm=30%.magnetic,infilled mafic dike.
1031	403565	5389244	as 1030;
1032	403466	5389257	as 1030;
1033	403303	5389156	granodiorite_m.g,gy,dm=15-20% ,infilled mafic dike.magnetic.
1034	403204	5389306	granodiorite_m.g,green,dm=15%,infilled mafic dike.magnetic.minor quartz veins.
1035	403158	5389185	skarn, black and brown, skarnization, no magnetic.
			granodiorite_c.g., light gy to gy, <dm=15%, magnetic.mountain<="" strong="" td="" weathered,=""></dm=15%,>
1036	403064	5389168	top.
413J	405379	5391771	granodiorite_m-c. grain, greenish gy, massive, <dm=15% .weak="" magnetic.minor="" sulphide.<="" td=""></dm=15%>
414J	405231	5391561	as 413J;
415J	404992	5391785	as 413J;
416J	404643	5391716	as 413J;
417J	404465	5391647	as 413J;
418J	404151	5391604	as 413J;
419J	406074	5391466	as 413J;
			marble_ and granodiorite interbedded, fracture developed, quartz veins.minor
420J	406348	5391165	pyrite. strike:50<70.photo 1729.
421J	406438	5390989	tectonic zone , broken;
422J	406549	5390753	granodiorite_m-c. grain, light gy to gy, massive, we athered. ${<}dm{=}15\%$ .
423J	406569	5390670	as 413J;
424J	406582	5390675	granodiorite_m-c. grain, light gy to gy, massive, weathered. <dm=15%.< td=""></dm=15%.<>
425J	406254	5389954	marble_silicated rock. massive, altered,2m wide. minor sulphide trending:S-N.;
426J	406224	5389867	diorite_med-grain, greenish gy ,altered, dm=30%,
427J	406149	5389825	marble_silicated rock. broken, banded,dm=5% .50°<75°.
428J	406192	5389837	marble_and silicated rock.
429J	406649	5390552	diorite_f.g.,dm=30%, greenish gy.
	10/700	5200207	
430J 431J	406709 406800	5390387 5390237	diorite-granodiorite, f-m. grain ,weathered, light grey, mafic intrusive dark green, f.g., massive.

433J	406805	5389927	granodiorite_m-c. grain, light gy to gy, massive, weathered. dm<10% .minor quartz.no magnetic.
435J	405555	5392257	diorite_m.g,greenish gy ,massive, 30% dark mineral,fracture developed,infilled quartz veins.
436J	405639	5392276	marble_grey -white.
437J	406195	5392375	marble_contact with silicated rock, .trending E-W,180°<70°.
ч <i>31</i> 3	400175	5572515	diorite_m.g, $\Phi$ =0.2cm.greenish gy ,infilled felsic veins,15% dark mineral.altered
438J	406030	5391836	chloritization.
439J	407115	5391773	diorite_f.g.,greenish gy ,massive, 30% dark mineral, fracture developed,infilled quartz veins.
440J	407146	5391411	granodiorite_m-c. grain, $\Phi$ =2-5mm,light gy to gy, massive, altered, dm<15% .magnetic change: coarse grain to m.g,strong to weak.
441J	407057	5391732	diorite_f.g., $\Phi$ <0.2cm.greenish gy ,infilled felsic veins,15% dark mineral.altered chloritization.
			granodiorite_m.g, $\Phi$ =2mm, greenish grey, massive, altered, dm=15%. weak
442J	406939	5391591	magnetic.
443J	406931	5391300	as 442J;
444J	406932	5391285	granodiorite_m-c. grain, $\Phi$ =2-5mm,light gy to gy, massive, dm= 25% ;
445J	406973	5390948	granodiorite_m-c. grain, $\Phi$ =2-5mm,light gy to gy, massive, dm=15% . infilled felsic veins.
446J	406835	5390184	as 445J;
			diorite_m.g, $\Phi$ =0.2cm, greenish gy ,infilled felsic veins,dm=30% .chlorite
447J	406797	5389714	altered .weak magnetic.
448J	406792	5389630	marble_20m wide, north side contact zone? trending 120°.
449J	406790	5389557	diorite_f.g., $\Phi$ <0.2cm.greenish gy ,infilled felsic veins,dm=30% ;
450J	406930	5388967	granodiorite dominated_m-c. grain ,interbedded darker mafic volcanos.
458J	404183	5388385	as 457J;
459J	403964	5388734	granodiorite_m-c. grain, $\Phi$ =2-5mm,light gy to gy, massive,dm=15% ,filled by vein of dark volcanos.
460J	403889	5388718	diorite_f-m. grain ,greenish gy ,dm=30%,minor pyrite .
461J	403856	5388364	granodiorite_m-c. grain, $\Phi$ =2-5mm,light gy to gy, dm=15% .
476J	404135	5388950	diorite_f-m. grain ,greenish gy ,dm=30%.
477J	404162	5389182	diorite_f.g.,greenish gy ,dm=30%.minor pyrite .
478J	404014	5389383	granodiorite_m.g,light gy,rich in sulfide minerals.pyrite ,etc.
479J	403952	5389606	marble_contact with granodiorite, 35m wide.
480J	403928	5389646	granodiorite_f-m. grain ,greenish gy , dm=25% ;
481J	403926	5389717	silicated, altered diorite_f-m. grain, greenish gy, dm=30%. contact with magnetite,
482J	403675	5389833	diorite_med-grain, greenish gy ,dm=20%, infilled mafic volcano dike,altered skarn.
204	406949	5391577	siliceous m.g granite, dm<10-15%;
205	406795	5389632	northern boundary of marble belt;
206	406789	5389592	southern boundary of marble belt;
233	404759	5388529	f.g and c.g wcc coexsisted;
412J	405886	5391559	granodiorite_m-c. grain, grey, <dm=15% .weak="" magnetic.minor="" sulphide;<="" td=""></dm=15%>
487J	404040	5389338	diorite_f.g.,greenish gy ,dm=30%. sulphide-pyrite ,pyrrhotite .
			granodiorite_m-c. grain, $\Phi$ =2-5mm,light gy to gy, massive,minor altered, infilled
459J	403964	5388734	with dark volcanos $dm=15\%$ $.75^{\circ}<35^{\circ}$ .
460J	403889	5388718	diorite_f-m. grain, greenish gy ,dm=30%, minor pyrite .
D513	403698	5389673	marble and magnetic boundary.
D514	403774	5389710	marble_white grey,330°<60°.

Reko-38	403660	5389699	Reko-38 outcrop, 10m long in S-N direction, with pyrite ,quartz veins.
464J	403664	5388559	granodiorite_m-c. grain, $\Phi$ =2-5mm,light gy to gy, massive,dm=15% .
			diorite_f-m. grain , $\Phi$ =0.2cm.greenish gy ,infilled by felsic veins,minor
465J	403595	5388335	pyrite ,dm=30%.
466J	403459	5388256	diorite_f.g., $\Phi$ <0.2cm.greenish gy ,infilled by felsic veins,dm=30% .

## Data of ground magnetic survey

Granite							
NO	Ε	Ν	nT	NO	Ε	Ν	nT
812	403983	5391050	53833.59	911	404397	5389835	53186.64
813	403999	5391045	53737.22	912	404398	5389822	53281.4
814	404005	5391033	53694.66	913	404405	5389805	53137.11
815	404018	5391018	53565.02	914	404412	5389794	53234.42
816	404033	5391009	53668.02	915	404417	5389778	52977.79
817	404040	5390994	53588.78	916	404419	5389763	53362.39
818	404043	5390975	53556.82	917	404425	5389750	53247.26
819	404053	5390961	53563.09	918	404430	5389735	53363.69
820	404064	5390944	53548.59	919	404442	5389722	53212.66
821	404073	5390932	53539.29	920	404445	5389706	52830.56
822	404091	5390925	53530.35	921	404446	5389687	53269.11
823	404099	5390918	53707.22	922	404438	5389675	53424.92
824	404114	5390914	53463.36	923	404438	5389659	53091.02
825	404128	5390909	53534.87	924	404439	5389646	53035.61
826	404144	5390911	53514.88	925	404444	5389653	55364.24
827	404147	5390899	53519.51	926	404438	5389638	52509.49
828	404159	5390889	53504.51	927	404439	5389619	53097.28
829	404162	5390876	53458.2	928	404440	5389603	53293.16
830	404170	5390859	53397.84	929	404444	5389588	53208.33
831	404173	5390847	53478.47	930	404450	5389572	53403.15
832	404190	5390837	53541.3	931	404452	5389559	53343.61
833	404205	5390825	53397.33	932	404452	5389547	53503.12
834	404214	5390814	53355.36	933	404453	5389528	53099.62
835	404227	5390804	53319.04	934	404450	5389511	53035.31
836	404255	5390793	53432.18	935	404454	5389491	53100.86
837	404244	5390789	53349.6	936	404456	5389475	53147.67
838	404250	5390769	53461.11	937	404452	5389464	53193.78
839	404255	5390755	53217.93	938	404453	5389448	53403.51
840	404262	5390742	53426.06	939	404445	5389430	53841.35
841	404270	5390727	53371.78	940	404449	5389414	53555.22
842	404273	5390715	53437.38	941	404449	5389408	53795.23
843	404278	5390697	53114.99	942	404451	5389390	53413.67
844	404288	5390694	53323.15	943	404453	5389375	53125.88
845	404298	5390683	53338.77	944	404452	5389358	53322.55
846	404301	5390665	53483.21	945	404457	5389337	53252
847	404303	5390646	53603.29	946	404458	5389316	53691.19

848	404310	5390633	53607.49	947	404464	5389293	53623.61
849	404311	5390619	53534.12	948	404473	5389287	53542.98
850	404316	5390603	53589.12	949	404472	5389273	53399.67
851	404311	5390590	53538.62	950	404469	5389264	53452.98
852	404309	5390586	53454.14	951	404462	5389248	53341.42
853	404305	5390573	53516.23	952	404466	5389230	53488.78
854	404296	5390554	53487.12	953	404459	5389219	53380.54
855	404292	5390539	53480.45	954	404469	5389199	53471.62
856	404284	5390525	53451.1	955	404483	5389178	53358.72
857	404279	5390578	53637.59	956	404485	5389175	53258.44
858	404281	5390507	53517.69	957	404495	5389160	53241.22
859	404272	5390489	53395.83	958	404505	5389145	53318.55
860	404266	5390479	53046.48	959	404506	5389136	53125.82
861	404259	5390441	53458.87	960	404510	5389124	52963.45
862	404254	5390428	53483.77	961	404519	5389113	52455.79
863	404249	5390412	53577.17	962	404524	5389100	52492.93
864	404243	5390404	53505.74	963	404525	5389085	52904.12
865	404237	5390392	53451.24	964	404536	5389074	53027.61
866	404231	5390374	53408.6	965	404544	5389063	52993.14
867	404229	5390354	53432.45	966	404547	5389050	53088.23
868	404234	5390346	53264.87	967	404560	5389032	53198.71
869	404240	5390337	53183.86	968	404564	5389023	53144.24
870	404253	5390328	53226.92	969	404571	5389016	53053.49
871	404258	5390312	53308.34	970	404581	5388999	53062.46
872	404264	5390304	53297.67	971	404591	5388988	53004.36
873	404270	5390296	53181.62	972	404590	5388978	53035.37
874	404286	5390290	53126.07	973	404593	5388965	53149.87
875	404296	5390282	53123.24	974	404611	5388936	53811.83
876	404308	5390273	53093.06	975	404612	5388916	53269.81
877	404310	5390259	53126.18	976	404614	5388904	53451.19
878	404322	5390248	53051.45	977	404621	5388892	53661.9
879	404333	5390230	53141.64	978	404627	5388885	53768.81
880	404329	5390213	53229.4	979	404647	5388873	54066.18
881	404331	5390193	53320.45	980	404657	5388867	53979.87
882	404334	5390179	53288.63	981	404677	5388863	54148.25
883	404337	5390164	53293.03	982	404687	5388856	54253.58
884	404340	5390149	53054.41	983	404698	5388839	54520.87
885	404342	5390133	53061.94	984	404712	5388827	54966.02
886	404343	5390114	53102.05	985	404729	5389815	53928.33
887	404344	5390102	52388.99	986	404738	5388799	53600.19
888	404339	5390064	53649.59	987	404730	5388777	53452.18
889	404348	5390087	51959.73	988	404726	5388757	53675.41
890	404341	5390070	52109.72	989	404730	5388744	53475.7
891	404350	5390079	52706.51	990	404725	5388729	53826.74
892	404355	5390058	53275.84	991	404732	5388695	53780.79
893	404342	5390052	52131.11	992	404736	5388689	53680.84

894	404344	5390046	52647.37	993	404734	5388692	53903.19
895	404345	5390047	52763.5	994	404738	5388664	53642.24
896	404351	5390035	52783.62	995	404739	5388648	53798.28
897	404349	5390022	52755.98	996	404740	5388635	54306.17
898	404347	5390011	52771.73	997	404746	5388622	54703.82
899	404349	5389997	53123.39	998	404747	5388610	53360.35
900	404351	5389980	53938.96	999	404752	5388584	52819.77
901	404349	5389964	53012.83	1000	404747	5388579	52701.97
902	404351	5389949	54224.78	1001	404753	5388555	52678.43
903	404358	5389935	53903.3	1002	404746	5388544	52643.46
904	404357	5389918	53285.82	1003	404758	5388529	52688.44
905	404361	5389907	53201.63	1004	404762	5388518	52964.88
906	404362	5389889	53165.3	1005	404768	5388509	53185.43
907	404370	5389887	53304.88	1006	404781	5388495	53831.78
908	404378	5389863	53366.63	1007	404791	5388491	53333.73
909	404383	5389854	53355.07	1008	404806	5388471	53547.3
910	404389	5389844	53354.32	1009	404804	5388456	53083.24

#### Hemmingsen

NO	E	Ν	nT	NO	Е	Ν	nT
489	405787	5389939	53318.56	632	405961	5390274	53443.25
490	405797	5389952	53158.14	633	405968	5390280	53473.92
491	405793	5389957	53173.68	634	405974	5390286	53489.61
492	405791	5389963	53233.36	635	405977	5390288	53441.24
493	405793	5389968	53449.86	636	405984	5390294	53475.01
494	405792	5389975	53755.7	637	405986	5390301	53508.34
495	405788	5389987	54212.61	638	405986	5390307	53552.74
496	405794	5389991	54249.03	639	405985	5390318	53596.23
497	405798	5389996	54595.89	640	405981	5390329	53633.04
498	405800	5389997	53051.45	641	405983	5390335	53686.85
499	405797	5390000	58818.65	642	405984	5390342	53879.55
500	405800	5390000	54379.92	643	405983	5390347	53673.05
501	405802	5390005	52482.14	644	405983	5390356	53587.88
502	405807	5390006	52918.22	645	405982	5390361	53599.39
503	405811	5390008	52838.12	646	405979	5390366	53654.03
504	405817	5390010	52819.42	647	405979	5390375	53733.23
505	405820	5390017	52951.11	648	405979	5390387	53633.58
506	405825	5390015	53061.69	649	405978	5390392	53565.13
507	405833	5390015	53165.03	650	405979	5390398	53607.63
508	405841	5390019	53143.42	651	405979	5390402	53674.48
509	405849	5390021	53213.61	652	405978	5390410	53567.08
510	405855	5390023	53571.95	653	405978	5390421	53619.17
511	405862	5390025	52410.7	654	405977	5390427	53615.66
512	405867	5390028	53689.15	655	406147	5389822	53026.95
513	405876	5390037	54204.71	656	406152	5389824	53064.81
514	405879	5390044	52934.37	657	406164	5389825	53095.17

515	405883	5390051	52955.3	658	406175	5389833	53160.87
516	405888	5390064	52994.28	659	406183	5389842	53171.42
517	405892	5390069	53129.66	660	406194	5389847	53230.54
518	405896	5390077	53219.84	661	406205	5389849	53258.19
519	405900	5390082	53166.76	662	406213	5389853	53190.44
520	405905	5390089	53251.26	663	406220	5389860	53038.73
521	405908	5390095	53294.66	664	406228	5389866	53019.25
522	405911	5390102	53293.29	665	406235	5389876	52985.19
523	405911	5390111	53034.12	666	406237	5389885	52972.19
524	405905	5390116	53328.5	667	406239	5389889	53078.29
525	405836	5390377	53416.88	668	406244	5389898	53126.81
526	405842	5390372	53513.85	669	406245	5389907	53201.31
527	405842	5390372	53750.42	670	406246	5389912	53230.7
528	405842	5390362	53517.13	671	406247	5389917	53281.34
529	405841	5390354	53473.43	672	406250	5389929	53297.79
530	405840	5390345	53541.39	673	406253	5389938	53354.47
531	405837	5390337	53546.26	674	406257	5389945	53396.35
532	405833	5390330	53537.27	675	406256	5389950	53439.23
533	405827	5390325	53530.59	676	406257	5389956	53470.89
534	405821	5390318	53463.14	677	406254	5389967	53514.17
535	405817	5390314	53442.36	678	406253	5389980	53723.9
536	405813	5390309	53520.59	679	406256	5389983	53690.12
537	405809	5390306	53363.05	680	406262	5389992	54852.09
538	405808	5390299	53338.71	681	406266	5389998	53541.2
539	405810	5390292	53396.96	682	406999	5389999	53284.19
540	405811	5390289	53396.2	683	406279	5390003	53412.45
541	405821	5390280	53389.21	684	406287	5390008	53222.07
542	405820	5390279	53385.07	685	406298	5390013	53114.29
543	405818	5390271	53373.16	686	406303	5390017	53340.26
544	405816	5390260	53430.74	687	406309	5390022	53093.27
545	405810	5930251	53383.47	688	406313	5390024	52758.48
546	405806	5390247	53377.76	689	406317	5390028	53159.19
547	405805	5390240	53344.96	690	406322	5390033	53192.97
548	405800	5390233	53327.81	691	406326	5390036	53212.16
549	405799	5390221	53316.39	692	406330	5390040	53244.66
550	405798	5390206	53309.75	693	406335	5390048	53277.04
551	405797	5390204	53277.26	694	406337	5390051	53197.54
552	405792	5390203	53284.54	695	406343	5390056	53259.36
553	405785	5390198	53130.21	696	406911	5391107	53740.98
554	405781	5390194	53288.29	697	406920	5391093	53743.42
555	405783	5390189	53244.63	698	406930	5391077	53444.18
556	405774	5390176	53270.39	699	406938	5391060	53238.73
557	405775	5390165	53230.1	700	406944	5391042	53309.62
558	405773	5390155	53316.45	701	406945	5391021	52915.05
559	405766	5390153	53331.09	702	406954	5391021	53955.72
560	405765	5390151	53315.11	703	406958	5390986	53071.43

561	405754	5390141	53260.99	704	406964	5390967	53478.19
562	405752	5390138	53202.41	705	406966	5390950	53229.86
563	405748	5390131	53168.52	706	406967	5390935	52975.25
564	405744	5390125	53179.96	707	406961	5390917	53479.61
565	405739	5390119	53167.98	708	406955	5390896	53417.67
566	405734	5390112	53184.58	709	406947	5390883	53457.5
567	405731	5390106	53129.25	710	406939	5390866	53538.85
568	405727	5390100	53102.44	711	406930	5390847	53385.21
569	405723	5390095	53084.78	712	406928	5390832	53398.05
570	405717	5390090	53062.71	713	406919	5390808	53375.36
571	405709	5390087	53064.62	714	406922	5390807	53273.49
572	405700	5390087	53069.14	715	406914	5390782	53220.52
573	405692	5390087	53080.86	716	406914	5390774	53110.08
574	405685	5390084	53054.8	717	406920	5390752	53305.15
575	405677	5390079	53033.11	718	406918	5390734	53107.73
576	405075	5390073	53013.34	719	406919	5390722	53010.33
577	405673	5390064	52990.73	720	406924	5390707	53267.13
578	405671	5390059	52971.76	721	406925	5390680	53256.45
579	405741	5390106	53196.59	722	406924	5390667	53223.78
580	405743	5390098	53156.52	723	406918	5390659	53149.08
581	405744	5390091	53164.84	724	406916	5390622	53262.43
582	405746	5390082	53144.33	725	406907	5390605	53206.52
583	405751	5390076	53128.26	726	406905	5390600	53252.49
584	405757	5390075	53127.74	727	406895	5390586	53261.74
585	405766	5390070	53125.92	728	406888	5390571	53281.88
586	405773	5390068	53125.75	729	406890	5390546	53131.89
587	405780	5390069	53140.58	730	406888	5390525	53237.53
588	405788	5390062	53158.71	731	406875	5390505	53221.02
589	405796	5390065	53173.89	732	406870	5390494	53035.08
590	405804	5930063	53207.11	733	406858	5390480	53366.94
591	405810	5390064	53261.06	734	406847	5390458	53394.37
592	405818	5390064	53354.17	735	406846	5390442	53354.61
593	405824	5930065	53503.6	736	406848	5390435	53623.77
594	405830	5390068	53751.62	737	406852	5390426	53838.71
595	405838	5390069	53952.99	738	406837	5390397	53948.98
596	405844	5390071	53878.74	739	406834	5390362	53817.74
597	405851	5390072	53421.73	740	406832	5390358	53543.64
598	405858	5390077	53255.35	741	406827	5390332	53298.56
599	405865	5390078	53204.8	742	406833	5390315	53184.02
600	405872	5390082	53134.24	743	406836	5390315	53284.26
601	405879	5390083	53352.36	744	406833	5390292	53259.73
602	405884	5390085	53260.84	745	406829	5390270	52882.27
603	405891	5390090	53430.3	746	406820	5390246	53242.67
604	405897	5390092	53305.21	747	406829	5390228	53159.72
605	405902	5390098	53296.82	748	406831	5390216	53105.4
606	405905	5390105	53348.79	749	406826	5390190	53189.02

607	405906	5390110	53345.01	750	406828	5390178	53229.57
608	405908	5390109	53248.24	751	406820	5390160	53232.22
609	405908	5390124	53110.55	752	406819	5390140	53202.71
610	405909	5390130	53151.71	753	406817	5390124	53201.78
611	405908	5390136	53176.59	754	406812	5390112	53179.97
612	405909	5390145	52840.44	755	406811	5390094	53265.71
613	405907	5390151	53184.93	756	406800	5390077	53257.85
614	405907	5390158	53238.46	757	406802	5390067	53229.75
615	405908	5390164	53259.58	758	406798	5390056	53220.57
616	405906	5390171	53316.58	759	406788	5390032	53189.24
617	405905	5390181	53299.8	760	406785	5390020	53203.47
618	405903	5390188	53342.2	761	406771	5390002	53316.02
619	405908	5390196	53312.84	762	406769	5389972	53351.37
620	405911	5390205	53328.36	763	406789	5389962	53814.51
621	405915	5390211	53360.93	764	406792	5389927	53247.02
622	405918	5390219	53362.1	765	406786	5389905	53263.29
623	405920	5390226	53375.61	766	406786	5389892	53215.43
624	405924	5390234	53361.88	767	406783	5389974	53210.56
625	405926	5390242	53547	768	406785	5389863	53097.45
626	405929	5390246	53230.69	769	406789	5389846	53127.01
627	405935	5390252	53373.02	770	406795	5389831	53146.19
628	405943	5390254	53430.44	771	406797	5389714	53332.81
629	405950	5390257	53398.01	772	406790	5389557	53396.54
630	405953	5390264	53404.4				
631	405957	5390269	53411.5				

## Petrographic study

Report 210501a for Raymond Xie, Newland Geoservice, 8067 162B Street, Surrey, BC, V4N 0J7 tel: 778-899-4006

**Project Area: Port Renfrew** 

Samples: 153, 157, 291

December, 2021

**Sample 153** is of a lensy gneiss with layers and lenses dominated by plagioclasehornblende-quartz-biotite-opaque, with numerous lenses of quartz-plagioclase, and one band containing accessory to modestly abundant clinopyroxene and one patch of clinopyroxeneplagioclase. Opaque is concentrated in a few patches. Veinlets are of opaque and of tremolite(?).

**Sample 157** is zoned. The freshest part of the sample (Zone A) consists of metamorphosed porphyritic andesite containing plagioclase phenocrysts (altered completely to sericite) in a groundmass of plagioclase (altered completely to sericite) with lesser biotite, accessory quartz and minor magnetite. Several replacement patches up to 1 cm in size are dominated by one or more of tremolite, clinopyroxene, and opaque (Zone B1). These are surrounded by an alteration halo dominated by sericite with minor to accessory disseminated tremolite or clinopyroxene (Zone B2). A subparallel set of veinlets is dominated by opaque with locally abundant tremolite and accessory quartz; one of these has an alteration envelope dominated by sericite.

**Sample 291** is of metamorphosed andesite/dacite. It contains scattered phenocrysts of plagioclase and lesser ones of quartz, and minor patches of clinopyroxene; these are set in a groundmass of plagioclase and lesser hornblende, with minor disseminated ilmenite (commonly with rims of sphene). In irregular patches up to a few mm across, plagioclase was altered moderately to sericite. A vein and several veinlets are of tremolite; they have alteration envelopes in which plagioclase was altered to sericite and the rock bleached from dark to light green.

#### **Photographic Notes:**

The scanned section shows the gross textural features of the sections; these features are seen much better on the digital image than on the printed image. For the photographs, sample numbers are shown in the upper left corner, photo numbers are shown in the lower left corner, and the letter in the lower right corner indicates the lighting conditions: incident light in crossed nicols (= X); reflected light in nearly crossed nicols and incident light in crossed nicols (=  $\sim$ RX). Locations of photographs are shown on the scanned section. Descriptions of the photographs are at the end of the report.



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## Sample 153 Lensy Plagioclase-Quartz-Clinopyroxene-Hornblende-Biotite-Opaque Gneiss

#### **Veinlets: Opaque; Tremolite(?)**

The sample is of a lensy gneiss with layers and lenses dominated by plagioclasehornblende-quartz-biotite-opaque, with numerous lenses of quartz-plagioclase, and one band containing accessory to modestly abundant clinopyroxene and one patch of clinopyroxeneplagioclase. Opaque is concentrated in a few patches. Veinlets are of opaque and of tremolite(?).

mineral	percentage	main grain size range (mm)
plagioclase	50-55%	0.1-0.3
quartz	20-25	0.1-0.2 (locally up to 1 mm)
clinopyroxene	8-10	0.1-0.2
hornblende	7-8	0.1-0.3
biotite	4-5	0.05-0.2
opaque	1-2	0.05-0.2
veinlets:		
1) opaque	1	0.02(?)
2) tremolite(?)	0.5	0.1-0.2

Plagioclase (altered slightly to moderately sericite) forms equant grains that are concentrated moderately in some finer grained layers with hornblende, biotite, and opaque.

Quartz forms anhedral equant grains intergrown with plagioclase. Several lenses parallel to foliation are dominated by slightly coarser grained quartz and lesser plagioclase (the largest is labelled qp on the scanned section). In a few quartz-rich patches up to a few mm across, quartz grains are from 0.2-1 mm.

Clinopyroxene is concentrated moderately in patches and lenses up to several mm across of equant, colourless grains.

Hornblende is concentrated moderately in patches up to a few cm across intergrown with plagioclase, quartz, and commonly biotite.

Biotite is concentrated moderately to strongly in patches and bands with plagioclase, quartz, and hornblende. A few coarser grains of biotite were altered moderately in lenses parallel to cleavage to pseudomorphic muscovite.

Opaque forms disseminated grains and patches, commonly associated with mafic minerals. It is concentrated moderately in a few patches up to several mm across.

A few veinlets 0.03-0.05 mm wide are of opaque. The largest of these grades into an opaque-rich patch several mm long.

# Sample 157Porphyritic Meta-andesite: Plagioclase/Sericite-Biotite-(Quartz)<br/>Replacement: Tremolite-Clinopyroxene-opaque-(Quartz)<br/>Alteration: Sericite

The freshest part of the sample (Zone A) consists of metamorphosed porphyritic andesite containing plagioclase phenocrysts (altered completely to sericite) in a groundmass of plagioclase (altered completely to sericite) with lesser biotite, accessory quartz and minor magnetite. Several replacement patches up to 1 cm in size are dominated by one or more of tremolite, clinopyroxene, and opaque (Zone B1). These are surrounded by an alteration halo dominated by sericite with minor to accessory disseminated tremolite or clinopyroxene (Zone B2). A subparallel set of veinlets is dominated by opaque with locally abundant tremolite and accessory quartz; one of these has an alteration envelope dominated by sericite.

mineral	percentage	main grain size range (mm)
Zone A		
phenocrysts		
plagioclase	5-7%	0.5-1.0 (a few up to 1.5 mm)
groundmass		
plagioclase/sericite	35-40	0.01-0.03 (sericite)
biotite	8-10	0.03-0.1
quartz	3-5	0.01-0.04
magnetite	0.1	0.02-0.04
Zone B		
replacement, veinlets		
tremolite	8-10	0.02-0.7
clinopyroxene	2-3	0.1-0.5
opaque	3-4	0.05-1
quartz	0.5	0.05-0.3
alteration zones		
plagioclase/sericite	17-20	0.01-0.03 (sericite)
tremolite	2-3	0.02-0.07
clinopyroxene	2-3	0.02-0.05

In Zone A (fresh host rock), plagioclase (altered completely to sericite) forms subhedral equant to prismatic phenocrysts. Some phenocrysts (possibly not plagioclase) were altered completely to sericite with accessory disseminated opaque grains (0.03-0.05 mm).

The groundmass consists of plagioclase (altered completely to sericite) with accessory to moderately abundant biotite and accessory quartz with minor opaque, in part at least, magnetite.

Adjacent to Zone B, biotite commonly was altered completely to semi-opaque/opaque.

Zone B contains several replacement patches up to a several mm in size that are dominated by tremolite and/or clinopyroxene with minor to abundant opaque (B1). These are surrounded by alteration zones dominated by sericite (after plagioclase?) with minor to moderately abundant tremolite and/or minor to accessory disseminated clinopyroxene (B2).

One vein/replacement lens several mm wide cutting Zone A is dominated by tremolite, with lesser quartz and a train of opaque grains. Bordering the lens, plagioclase phenocrysts are abundant, commonly oriented perpendicular to the lens, and biotite was altered completely, commonly to opaque/semi-opaque. Numerous smaller vein/replacement lenses, commonly subparallel to the first, are dominated by opaque with accessory quartz and tremolite and do not have an alteration envelope.

## Sample 291 Meta-Andesite/Dacite Veinlet: Tremolite; Alteration Envelope: Sericite

Scattered phenocrysts of plagioclase and lesser ones of quartz, and minor patches of clinopyroxene are set in a groundmass of plagioclase and lesser hornblende, with minor disseminated ilmenite (commonly with rims of sphene). In irregular patches up to a few mm across, plagioclase was altered moderately to sericite. A vein and several veinlets are of tremolite; they have alteration envelopes in which plagioclase was altered to sericite and the rock bleached from dark to light green.

mineral	percentage	main grain si	ze range (mm)
phenocrysts			
plagioclase	2-3%	0.2-0.5	(a few up to 0.8 mm long)
quartz	0.5	0.2-0.3	
clinopyroxene(?)	0.5	0.05-0.1	
apatite	one grain	0.3	
groundmass			
plagioclase	60-65	0.05-0.1	
hornblende	20-25	0.05-0.1	
quartz	4-5	0.05-0.08	
ilmenite/sphene	0.2	0.03-0.07	
vein, veinlets			
1) tremolite	2-3	0.01-0.1	

Plagioclase (fresh to altered slightly to locally moderately to sericite) forms anhedral to subhedral, equant to slightly prismatic phenocrysts.

Quartz forms anhedral phenocrysts.

Clinopyroxene forms a few anhedral patches up to 0.6 mm long of aggregates of anhedral grains.

Apatite forms one stubby prismatic phenocryst.

In the groundmass, plagioclase forms anhedral, equant grains.

Hornblende (pleochroic from light/medium to medium/dark green) forms disseminated equant, anhedral grains.

Quartz forms anhedral equant grains intergrown with plagioclase.

Ilmenite (commonly rimmed by sphene) forms disseminated equant grains.

On two opposite parallel sides of the hand sample are veins up to 1 mm wide, one of which is at tone end of the thin section. These are of tremolite with trace opaque and are bordered by broad alteration envelopes in which plagioclase was altered moderately to sericite and hornblende altered to light green tremolite/ actinolite. Elsewhere, tremolite forms numerous veinlets up to 0.05 mm wide with weaker alteration envelopes up to 0.5 mm wide in which plagioclase was altered moderately to sericite. Some similar alteration zones do not have a central tremolite veinlet.

		List of Photos (page 1 of 2)
Photo	Sample	Description
26	153	to the left: very fine grained band of plagioclase-hornblende-(opaque) with more abundant opaque and hornblende in the finer grained part of the band near the right-side contact; centre to near right: coarser grained lens of quartz-plagioclase with minor hornblende and opaque; far-right: gradational contact into very fine grained plagioclase-hornblende-(opaque) band; plagioclase everywhere is fresh to altered slightly to sericite.
27	153	photo mainly of very fine grained plagioclase (altered slightly to sericite) with accessory quartz, hornblende and biotite; centre left is the end of as a slightly coarser grained lens of quartz-plagioclase with minor hornblende; cut by veinlet of tremolite/actinolite.
28	153	upper left: clinopyroxene-(plagioclase) pod with minor hornblende; lower half: band of biotite (fresh to altered slightly to pseudomorphic muscovite or altered moderately to strongly to pseudomorphic chlorite with lenses of Ti-oxide) intergrown with intergrowth of plagioclase-quartz with minor clinopyroxene and opaque; middle to upper right: quartz with lesser plagioclase (altered slightly to sericite) with a large grain of biotite (altered completely to pseudomorphic chlorite with minor lenses of Ti-oxide).
29	153	upper right: opaque-rich patch intergrown with plagioclase (altered slightly to sericite), quartz, biotite, and hornblende (altered to unknown minerals); rest of photo: quartz-plagioclase-rich lens with minor clinopyroxene and tremolite/ actinolite(?); cut by vein of opaque that extends outwards from the opaque-rich patch in the upper right.
30	157	diffuse plagioclase phenocrysts (altered completely to sericite) in a groundmass of plagioclase (altered completely to sericite) and biotite, with minor opaque and quartz.
31	157	lower left: vein/lens of tremolite-opaque-quartz; middle: transition/altered zone: plagioclase phenocrysts (altered completely to sericite) with interstitial patches of plagioclase (altered completely to sericite) intergrown with biotite (altered strongly to completely to semi-opaque) and minor quartz; upper right: freshest rock: plagioclase (altered completely to sericite) and fresh biotite, with minor quartz and opaque.
32	157	middle to upper left: replacement zone of tremolite with patches of opaque and minor quartz; bordered to the right by an alteration zone of plagioclase (altered completely to sericite) and semi-opaque (after biotite) that grades into freshest rock consisting of plagioclase (fresh to altered slightly to sericite) and biotite, with accessory opaque and minor quartz.
33	157	upper right: plagioclase (altered completely to sericite) with minor to abundant disseminated extremely fine equant grains of clinopyroxene; middle to lower left: band of clinopyroxene with minor quartz and opaque; extreme lower left: plagioclase (altered completely to sericite).
34	291	top right: relatively fresh plagioclase with lesser quartz and hornblende; middle: two aggregates of clinopyroxene and a large patch of quartz; top left and bottom: intergrowth of plagioclase (altered moderately to strongly to sericite) with lesser quartz, hornblende, and minor opaque (ilmenite, locally rimmed by sphene).
35	291	a few small phenocrysts of plagioclase (altered moderately to sericite) and two of quartz in a groundmass of plagioclase, hornblende, and quartz with minor

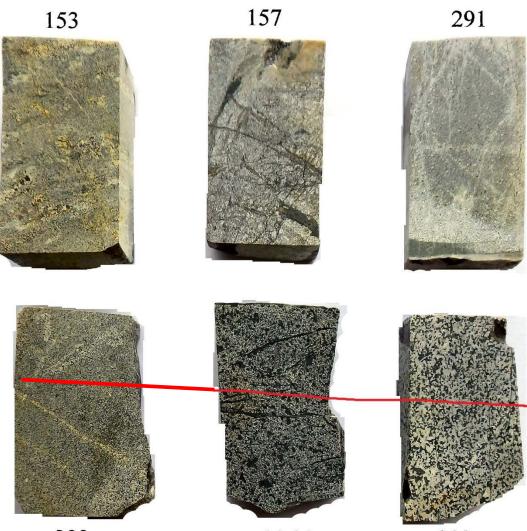
## List of Photos

(page 2 of 2)

ilmenite (commonly rimmed by sphene); two intersecting veinlets of tremolite with alteration envelopes in which plagioclase was altered moderately to strongly to sericite.

36 291 to the left: intergrowth of plagioclase (altered strongly to sericite), hornblende (altered strongly to tremolite/actinolite), quartz, and minor ilmenite (commonly rimmed by sphene): to the right: vein of massive tremolite. (Note: the photo is at the edge of the glass cover slip, so the right half, including the contact f the vein and host rock is out of focus).

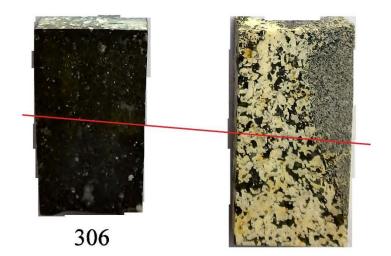
# VP210501a newland blocks (2)

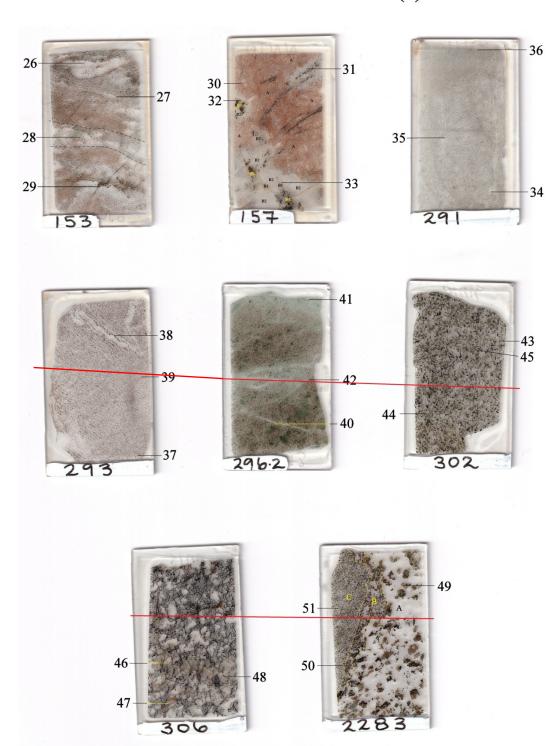


293

296.2

302





## VP210501a newland sections (2)

## Rock sample geochemical assay certificate and results



ALS Canada Ltd. 2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 604 984 0221 Fax: +1 604 984 0218 www.alsglobal.com/geochemistry To: NEWLAND GEOSCIENCE 8017 162B STREET SURREY BC V4N 0J7 Page: 1 Total # Pages: 3 (A – D) Plus Appendix Pages Finalized Date: 21–DEC–2021 Account: NELGES

#### CERTIFICATE VA21305196

This report is for 51 samples of Rock submitted to our lab in Vancouver, BC, Canada on 9-NOV-2021. The following have access to data associated with this certificate:

RAYMOND XIE

	SAMPLE PREPARATION	
ALS CODE	DESCRIPTION	
WEI-21	Received Sample Weight	
LOG-22	Sample login - Rcd w/o BarCode	
PUL-QC	Pulverizing QC Test	
CRU-QC	Crushing QC Test	
CRU-31	Fine crushing - 70% <2mm	
SPL-21	Split sample – riffle splitter	
PUL-31	Pulverize up to 250g 85% <75 um	

#### ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
AuME-TL43	25g Trace Au + Multi Element PKG	

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: Saa Traxler, General Manager, North Vancouver



To: NEWLAND GEOSCIENCE 8017 162B STREET SURREY BC V4N 0J7 Page: 2 – A Total # Pages: 3 (A – D) Plus Appendix Pages Finalized Date: 21–DEC–2021 Account: NELGES

## CERTIFICATE OF ANALYSIS VA21305196

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg 0.02	AuME-TL43 Au ppm 0.001	AuME-TL43 Ag ppm 0.01	AuME-TL43 Al % 0.01	AuME-TL43 As ppm 0.1	AuME-TL43 B ppm 10	AuME-TL43 Ba ppm 10	AuME-TL43 Be ppm 0.05	AuME-TL43 Bi ppm 0.01	AuME-TL43 Ca % 0.01	AuME-TL43 Cd ppm 0.01	AuME-TL43 Ce ppm 0.02	AuME-TL43 Co ppm 0.1	AuME-TL43 Cr ppm 1	AuME-TL43 Cs ppm 0.05
2267		1.26	0.004	0.03	0.79	1.9	<10	70	0.15	0.85	0.74	0.04	10.65	4.7	4	0.34
2268		0.72	0.004	0.04	0.55	1.7	<10	50	0.10	1.00	0.03	0.01	12.15	1.8	10	0.12
2279		1.20	0.012	0.03	3.51	1.5	<10	70	0.33	0.12	1.29	0.04	9.44	8.4	9	0.07
2289		1.30	0.002	0.27	1.03	6.7	10	70	0.69	0.13	0.15	0.12	25.5	20.3	18	0.20
2294		1.02	0.002	0.04	2.06	1.8	<10	150	0.57	0.17	0.67	0.08	23.5	18.7	138	0.05
2301		1.16	0.001	0.05	4.38	2.1	850	30	0.43	0.01	3.20	0.04	15.85	30.4	38	0.05
2308		1.26	0.002	0.03	3.90	2.5	10	60	0.21	0.01	2.34	0.04	12.40	17.1	5	0.28
005v		0.78	0.002	0.12	2.93	2.1	<10	110	0.18	0.03	1.77	0.09	6.60	22.2	47	1.58
022v		0.86	0.003	0.01	3.38	0.4	<10	100	0.45	0.05	0.78	0.02	9.39	25.4	53	0.30
057v		0.86	< 0.001	0.01	0.61	0.5	<10	30	0.23	0.01	0.49	0.02	18.90	2.8	8	0.34
059v		1.14	0.003	0.06	0.28	3.2	<10	10	< 0.05	0.16	0.37	0.04	5.93	89.1	3	< 0.05
063v		1.02	0.004	0.07	1.57	0.7	<10	20	0.23	0.14	1.62	0.04	6.81	14.8	38	0.34
076v		0.66	< 0.001	<0.01	0.02	1.2	<10	<10	< 0.05	<0.01	>25.0	0.13	0.36	1.0	<1	< 0.05
086v		0.76	0.005	0.10	1.68	0.6	<10	10	0.19	0.18	1.20	0.06	4.28	15.1	52	0.24
098v		1.74	0.004	0.16	1.81	0.8	10	20	0.14	0.08	2.56	0.09	2.86	21.2	85	0.33
099v		1.60	0.009	0.09	1.17	0.5	<10	10	0.13	0.03	1.18	0.03	4.63	16.4	51	0.25
100v		1.10	0.002	0.04	4.20	2.2	10	60	0.26	0.02	2.47	0.04	12.50	16.3	5	0.28
101v		0.92	0.001	0.03	2.56	0.8	10	80	0.43	0.01	2.08	0.04	22.5	17.2	15	0.35
151v		1.06	0.001	0.01	2.38	0.8	<10	140	0.16	0.01	1.55	0.02	13.35	14.9	17	0.18
157v		1.20	0.001	0.01	2.57	0.7	10	60	0.18	0.01	1.34	0.05	11.25	18.3	31	0.30
242v		1.00	0.113	2.41	0.64	17.6	<10	10	< 0.05	0.41	0.41	0.38	1.89	347	7	0.11
245v		1.62	0.001	0.10	0.08	7.3	<10	<10	< 0.05	1.12	0.08	0.01	0.29	564	3	< 0.05
248v		1.04	0.001	0.04	4.05	2.6	10	60	0.30	0.05	2.39	0.04	12.50	23.1	5	0.28
003		0.88	0.002	0.01	2.42	0.3	<10	10	0.15	0.01	1.72	0.02	2.40	18.8	173	0.15
007		1.16	0.001	0.03	2.17	0.7	10	90	0.31	0.02	1.74	0.04	17.45	11.7	4	0.27
041		1.22	0.004	0.08	1.35	8.4	<10	10	0.13	0.04	13.50	0.26	5.47	22.7	9	< 0.05
052		1.26	0.002	0.04	4.08	2.2	<10	60	0.25	0.01	2.46	0.04	12.20	19.2	6	0.26
057		1.32	0.003	0.02	1.84	0.2	<10	10	< 0.05	< 0.01	1.32	0.03	0.79	23.2	123	0.11
077		1.02	< 0.001	0.03	1.89	0.2	<10	20	0.15	0.01	1.68	0.04	6.38	21.6	8	0.08
085		1.30	0.001	0.03	2.19	0.3	10	80	0.27	0.01	1.61	0.05	18.25	18.3	21	0.52
087		0.88	< 0.001	0.05	2.77	1.3	50	70	0.29	0.04	1.94	0.06	18.50	20.9	15	0.65
097		1.46	0.045	1.11	1.36	4.8	<10	20	0.08	0.07	0.59	0.16	4.87	12.4	22	0.11
099		1.24	< 0.001	0.02	3.45	7.3	10	360	0.58	0.03	0.58	0.11	15.50	20.8	28	0.82
105		1.06	< 0.001	0.02	2.03	0.2	<10	90	0.12	0.01	1.46	0.03	2.52	16.7	81	0.24
106		0.90	< 0.001	0.18	0.29	0.8	<10	10	0.05	0.12	0.06	0.01	0.45	50.0	9	0.08
127		1.12	< 0.001	0.01	1.23	0.6	<10	30	0.22	0.04	0.05	0.04	25.7	7.5	10	0.38
129		1.42	< 0.001	0.03	3.82	1.6	<10	60	0.21	0.02	2.25	0.04	10.30	14.8	6	0.22
133		1.08	< 0.001	0.02	5.64	2.0	10	20	0.47	0.02	0.60	0.10	13.25	36.6	156	0.97
135		1.16	< 0.001	0.02	2.09	0.4	<10	70	0.29	0.02	1.68	0.01	6.38	20.0	12	0.29
153		0.98	0.001	0.14	1.38	0.3	<10	10	0.44	0.08	1.23	0.03	31.1	32.1	5	0.42



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#### CERTIFICATE OF ANALYSIS VA21305196

Sample Description	Method Analyte Units LOD	AuME-TL43 Cu ppm 0.2	AuME-TL43 Fe % 0.01	AuME-TL43 Ga ppm 0.05	AuME-TL43 Ge ppm 0.05	AuME-TL43 Hf ppm 0.02	AuME-TL43 Hg ppm 0.01	AuME-TL43 In ppm 0.005	AuME-TL43 K % 0.01	AuME-TL43 La ppm 0.2	AuME-TL43 Li ppm 0.1	AuME-TL43 Mg % 0.01	AuME-TL43 Mn ppm 5	AuME-TL43 Mo ppm 0.05	AuME-TL43 Na % 0.01	AuME-TL43 Nb ppm 0.05
2267		11.2	1.62	2.37	0.06	0.13	0.51	0.011	0.12	4.0	2.0	0.23	133	6.36	0.03	0.35
2268		7.6	2.79	2.30	< 0.05	0.07	0.40	0.015	0.12	4.5	1.7	0.24	221	1.82	0.04	0.46
2279		204	2.49	5.72	0.05	0.09	0.27	0.012	0.05	3.5	2.6	0.36	267	1.99	< 0.01	0.11
2289		985	3.84	2.60	0.07	0.02	0.12	0.054	0.07	8.9	2.9	0.04	1660	5.18	0.01	< 0.05
2294		56.1	2.47	9.80	0.08	0.45	0.45	0.017	0.10	12.5	9.0	2.93	504	0.51	0.06	< 0.05
2301		142.5	6.49	11.95	0.20	0.47	0.21	0.047	0.04	5.7	6.8	2.89	1090	0.55	0.01	< 0.05
2308		42.0	5.69	8.57	0.10	0.09	0.02	0.014	0.05	5.2	5.1	0.98	727	0.21	0.35	< 0.05
005v		129.0	3.77	6.68	0.05	0.03	0.02	0.011	0.39	3.4	7.5	1.71	313	1.23	0.21	< 0.05
022v		13.9	4.16	9.80	0.08	0.04	0.01	0.048	0.20	2.7	25.3	3.60	756	0.11	0.03	0.07
057v		4.4	1.70	3.74	0.09	0.07	0.01	0.018	0.16	8.2	6.2	0.31	247	1.68	0.05	0.19
059v		220	49.7	1.88	0.40	0.06	0.14	0.193	0.01	2.6	0.2	0.25	4800	0.23	< 0.01	0.22
063v		66.2	3.28	4.77	0.07	0.17	0.07	0.022	0.07	3.2	3.5	0.83	334	0.37	0.06	< 0.05
076v		2.4	0.10	0.05	< 0.05	< 0.02	0.01	< 0.005	< 0.01	0.5	0.1	3.15	53	0.40	< 0.01	< 0.05
086v		140.5	2.97	6.31	0.10	0.17	0.14	0.014	0.03	1.7	6.1	1.18	357	1.54	0.07	0.09
098v		221	2.76	5.29	0.09	0.13	0.05	0.010	0.03	1.2	9.2	1.03	346	0.27	0.06	< 0.05
099v		212	4.61	5.80	0.08	0.12	0.05	0.017	0.04	1.9	3.9	0.80	277	0.11	0.07	0.09
100v		41.7	5.83	8.56	0.09	0.08	0.01	0.016	0.05	5.1	5.2	0.96	681	0.42	0.42	< 0.05
101v		63.2	4.94	8.67	0.13	0.25	0.04	0.020	0.12	11.9	4.3	1.27	679	1.05	0.08	0.09
151v		11.9	3.51	5.81	0.08	0.08	0.01	0.010	0.17	6.5	3.2	1.17	398	0.68	0.20	< 0.05
157v		58.3	4.09	6.20	0.07	0.30	0.02	0.027	0.06	4.6	5.0	1.68	674	0.44	0.10	< 0.05
242v		6280	40.2	9.89	0.35	0.06	2.23	0.164	0.01	1.2	1.6	0.19	752	1.41	0.01	0.15
245v		141.5	14.20	0.79	0.10	< 0.02	0.86	< 0.005	< 0.01	0.2	0.1	0.03	25	0.41	< 0.01	< 0.05
248v		50.0	6.02	8.60	0.11	0.09	0.03	0.018	0.05	5.1	5.6	1.03	709	0.44	0.38	< 0.05
003		19.8	2.63	5.38	0.07	0.08	0.02	0.009	0.05	0.9	8.0	1.81	434	0.16	0.04	< 0.05
007		37.4	4.32	8.48	0.11	0.05	0.02	0.017	0.07	5.8	4.9	1.08	403	0.46	0.06	0.08
041		153.5	11.80	11.90	0.37	0.10	0.02	0.342	< 0.01	1.0	1.5	0.47	1480	0.61	< 0.01	< 0.05
052		45.0	5.93	8.72	0.10	0.08	0.01	0.017	0.05	5.0	5.2	0.98	706	0.21	0.38	< 0.05
057		131.5	1.68	2.69	< 0.05	0.06	0.01	0.010	0.03	0.4	4.7	1.49	216	0.22	0.16	< 0.05
077		70.8	4.18	6.57	0.11	0.12	< 0.01	0.019	0.03	2.1	4.0	0.63	290	0.12	0.13	< 0.05
085		83.6	5.47	8.80	0.14	0.21	0.11	0.020	0.08	7.6	7.6	1.08	473	0.60	0.17	< 0.05
087		97.0	5.81	10.25	0.16	0.26	0.17	0.039	0.10	7.3	12.7	1.60	746	1.26	0.05	< 0.05
097		1510	6.06	5.38	0.10	0.11	0.12	0.013	0.03	1.7	2.4	0.53	178	1.16	0.04	0.07
099		21.9	5.34	8.15	0.07	0.08	0.83	0.023	0.12	7.7	29.1	2.12	859	0.15	0.01	< 0.05
105		33.6	2.32	4.92	0.07	0.06	< 0.01	0.010	0.05	0.9	8.0	1.38	311	0.21	0.09	< 0.05
106		169.0	>50	4.65	0.44	< 0.02	0.17	0.141	0.01	<0.2	0.2	0.16	2450	0.45	< 0.01	0.06
127		19.8	1.36	2.54	< 0.05	0.02	< 0.01	0.009	0.06	9.4	1.6	0.11	722	0.71	0.02	< 0.05
129		43.5	5.39	8.28	0.08	0.07	< 0.01	0.010	0.04	4.6	4.1	0.88	600	0.15	0.36	< 0.05
133		77.6	7.04	14.45	0.08	0.17	48.0	0.060	0.03	4.4	13.3	2.69	902	0.39	0.01	< 0.05
135		78.0	3.63	6.47	0.09	0.11	0.10	0.011	0.10	2.4	3.5	1.05	310	0.09	0.17	< 0.05
153		234	5.96	7.85	0.15	0.08	0.05	0.017	0.17	13.0	4.2	0.63	177	2.36	0.06	0.37



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### CERTIFICATE OF ANALYSIS VA21305196

Sample Description	Method Analyte Units LOD	AuME-TL43 Ni ppm 0.2	AuME-TL43 P ppm 10	AuME-TL43 Pb ppm 0.2	AuME-TL43 Rb ppm 0.1	AuME-TL43 Re ppm 0.001	AuME-TL43 S % 0.01	AuME-TL43 Sb ppm 0.05	AuME-TL43 Sc ppm 0.1	AuME-TL43 Se ppm 0.2	AuME-TL43 Sn ppm 0.2	AuME-TL43 Sr ppm 0.2	AuME-TL43 Ta ppm 0.01	AuME-TL43 Te ppm 0.01	AuME-TL43 Th ppm 0.2	AuME-TL43 Ti % 0.005
2267		4.7	830	1.7	5.4	0.002	0.46	0.22	3.3	0.3	0.5	76.6	< 0.01	0.20	1.2	0.144
2268		2.5	240	3.6	3.4	0.001	0.17	0.07	2.8	1.5	0.5	4.6	< 0.01	0.08	1.3	0.143
2279		3.5	670	1.0	1.3	< 0.001	< 0.01	0.09	5.2	0.2	0.3	96.3	< 0.01	0.28	0.6	0.106
2289		5.6	570	2.8	2.7	0.001	0.03	3.22	27.5	0.4	0.3	5.6	< 0.01	0.05	2.5	< 0.005
2294		231	460	10.2	2.9	< 0.001	< 0.01	< 0.05	4.3	<0.2	0.9	30.2	<0.01	<0.01	2.0	0.199
2301		17.7	980	1.5	1.4	< 0.001	0.24	< 0.05	24.1	< 0.2	0.8	118.5	< 0.01	0.02	0.6	0.235
2308		3.0	1630	0.7	1.0	< 0.001	< 0.01	< 0.05	5.4	<0.2	<0.2	194.0	< 0.01	0.01	0.3	0.088
005v		49.4	570	4.3	22.2	0.001	0.07	0.05	4.0	<0.2	0.3	92.9	< 0.01	<0.01	1.5	0.221
022v		24.4	600	1.5	6.4	< 0.001	< 0.01	< 0.05	20.2	0.2	0.6	21.7	< 0.01	< 0.01	1.3	0.270
057v		2.1	480	2.2	13.8	0.001	< 0.01	<0.05	2.1	<0.2	0.4	6.1	<0.01	< 0.01	3.6	0.102
059v		2.5	410	0.5	0.3	0.001	0.23	0.06	0.9	1.5	1.7	2.0	<0.01	0.41	0.3	0.014
063v		18.7	1290	0.8	3.0	< 0.001	0.40	< 0.05	5.6	0.4	0.3	22.1	< 0.01	0.10	0.4	0.104
076v		1.3	30	0.3	0.1	0.001	< 0.01	<0.05	0.2	0.3	<0.2	595	< 0.01	0.01	<0.2	< 0.005
086v		34.6	500	0.5	1.4	< 0.001	0.14	< 0.05	6.0	0.2	0.3	12.4	< 0.01	0.09	0.2	0.225
098v		31.7	510	0.7	1.1	< 0.001	0.35	< 0.05	5.1	0.4	0.2	31.8	<0.01	0.04	<0.2	0.149
099v		27.0	650	0.3	1.5	< 0.001	0.01	0.06	6.0	< 0.2	0.2	11.4	< 0.01	0.01	0.2	0.228
100v		3.1	1580	0.7	1.0	< 0.001	< 0.01	< 0.05	4.8	<0.2	0.2	224	< 0.01	0.02	0.3	0.092
101v		6.8	1220	2.3	3.6	0.001	0.02	< 0.05	9.3	0.2	0.4	39.8	< 0.01	< 0.01	1.5	0.246
151v		14.2	1100	1.1	6.1	< 0.001	< 0.01	< 0.05	4.1	<0.2	0.2	65.6	< 0.01	< 0.01	1.5	0.194
157v		11.3	830	0.6	1.5	< 0.001	0.07	<0.05	12.8	0.2	0.3	39.2	< 0.01	< 0.01	0.6	0.152
242v		86.6	280	0.4	0.3	0.059	5.24	0.21	1.2	11.8	0.4	5.1	<0.01	0.72	<0.2	0.054
245v		54.0	40	0.4	0.1	0.003	>10.0	< 0.05	0.2	<0.2	<0.2	0.7	< 0.01	0.12	<0.2	< 0.005
248v		3.4	1570	0.7	1.0	< 0.001	0.11	<0.05	5.0	0.2	0.2	202	< 0.01	0.01	0.3	0.096
003		72.8	580	0.4	2.1	< 0.001	0.01	< 0.05	5.9	<0.2	<0.2	26.1	< 0.01	< 0.01	0.2	0.115
007		5.0	2080	1.2	1.9	0.001	0.30	< 0.05	4.7	0.3	0.3	27.0	<0.01	0.01	0.3	0.131
041		35.3	190	0.9	0.1	0.001	0.58	0.81	2.2	1.2	3.4	93.7	< 0.01	0.05	3.2	0.055
052		3.5	1550	0.7	0.9	< 0.001	< 0.01	< 0.05	4.8	<0.2	0.2	209	< 0.01	0.02	0.3	0.092
057		171.0	190	0.3	1.0	< 0.001	0.13	< 0.05	6.2	<0.2	<0.2	30.4	< 0.01	0.01	<0.2	0.052
077		10.5	1190	0.6	0.4	0.001	0.28	< 0.05	8.6	0.3	0.2	39.5	< 0.01	0.02	<0.2	0.099
085		7.8	1470	0.7	1.6	< 0.001	0.07	< 0.05	8.7	0.2	0.3	60.1	< 0.01	0.02	0.3	0.144
087		7.6	1590	1.7	3.3	0.001	0.62	< 0.05	14.1	0.4	0.4	37.3	< 0.01	0.03	0.3	0.192
097		45.9	900	1.3	1.2	0.003	1.22	0.33	9.0	1.0	0.4	13.6	< 0.01	0.06	<0.2	0.350
099		25.8	770	2.1	4.2	< 0.001	< 0.01	1.30	15.8	0.2	0.3	113.0	< 0.01	0.01	1.2	0.075
105		49.6	560	0.6	1.8	< 0.001	0.04	< 0.05	6.3	< 0.2	<0.2	58.8	< 0.01	0.01	0.3	0.123
106		7.0	40	0.4	0.5	0.003	1.29	<0.05	0.8	1.5	1.9	0.8	<0.01	0.22	<0.2	0.024
127		15.1	140	2.7	3.2	< 0.001	< 0.01	<0.05	3.8	0.2	<0.2	3.4	<0.01	0.01	13.2	<0.005
129		2.9	1420	0.7	0.9	< 0.001	< 0.01	< 0.05	4.4	<0.2	0.2	196.5	< 0.01	0.04	0.3	0.076
133		98.8	840	1.0	1.6	< 0.001	< 0.01	0.61	26.4	0.4	0.5	27.9	< 0.01	0.03	0.3	0.047
135		13.4	1430	0.7	3.0	< 0.001	0.23	<0.05	5.9	0.2	0.2	64.3	< 0.01	0.01	0.4	0.139
153		11.0	2380	1.7	9.1	0.024	2.95	< 0.05	5.6	4.4	0.4	43.0	0.01	0.18	1.9	0.223



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CERTIFICATE OF ANALYSIS VA21305196

									CERTIFICATE OF ANALYSIS VA21:	305196
Sample Description	Method Analyte Units LOD	AuME-TL43 Ti ppm 0.02	AuME-TL43 U ppm 0.05	AuME-TL43 V ppm 1	AuME-TL43 W ppm 0.05	AuME-TL43 Y ppm 0.05	AuME-TL43 Zn ppm 2	Zr ppm 0.5		
2267		0.05	0.34	24	6.05	6.63	16	2.4		
2268		0.03	0.30	21	0.22	2.91	24	1.8		
2279		0.06	0.58	57	0.40	6.44	24	1.8		
2289		0.07	1.67	163	0.06	14.20	42	0.7		
2294		0.02	1.28	42	0.34	3.53	48	13.7		
2301		<0.02	0.23	180	0.17	15.45	70	16.9		
2308		<0.02	0.13	204	< 0.05	5.13	44	2.8		
005v		0.14	0.48	166	0.12	1.70	51	0.7		
022v		0.04	0.18	82	0.07	16.55	72	0.6		
057v		0.05	1.20	26	0.13	13.50	29	0.9		
059v		<0.02	1.62	22	0.22	3.45	197	2.5		
063v		0.02	0.36	105	0.36	5.32	28	4.7		
076v		<0.02	1.32	4	< 0.05	1.63	2	<0.5		
086v		<0.02	0.06	95	0.10	5.01	34	3.9		
098v		<0.02	< 0.05	76	0.19	3.54	36	3.2		
099v		<0.02	< 0.05	186	0.08	5.68	20	2.7		
100v		< 0.02	0.12	212	< 0.05	4.92	42	2.5		
101v		0.02	0.50	163	0.08	8.85	60	6.5		
151v		0.03	0.58	125	0.08	4.41	41	2.6		
157v		<0.02	0.16	152	0.07	7.73	47	10.5		
242v		0.50	0.17	61	0.11	1.78	101	1.0		
245v		0.13	< 0.05	3	0.05	0.11	2	<0.5		
248v		< 0.02	0.12	212	< 0.05	5.32	39	2.8		
003		<0.02	0.07	72	0.06	3.29	42	2.1		
007		<0.02	0.13	95	0.05	16.30	52	1.0		
041		<0.02	2.17	90	0.40	4.04	16	6.1		
052		< 0.02	0.12	217	< 0.05	5.13	42	2.6		
057		<0.02	< 0.05	40	< 0.05	2.72	16	2.5		
077		<0.02	< 0.05	202	< 0.05	10.20	34	2.8		
085		<0.02	0.11	185	0.05	13.85	60	6.3		
087		0.03	0.14	162	0.42	17.70	73	6.6		
097		0.02	0.14	89	0.10	7.89	31	2.1		
099		0.04	0.62	100	0.13	17.05	43	2.2		
105		<0.02	0.09	69	< 0.05	4.62	27	1.4		
106		0.03	0.05	52	< 0.05	0.17	143	<0.5		
127		0.04	1.85	23	< 0.05	7.55	16	0.5		
129		< 0.02	0.12	187	< 0.05	5.00	39	1.8		
133		< 0.02	0.11	196	< 0.05	15.90	77	3.8		
135		0.02	0.14	100	0.09	6.73	26	2.1		
153		0.14	0.71	89	0.21	23.8	28	1.2		



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#### CERTIFICATE OF ANALYSIS VA21305196

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg 0.02	AuME-TL43 Au ppm 0.001	AuME-TL43 Ag ppm 0.01	AuME-TL43 Al % 0.01	AuME-TL43 As ppm 0.1	AuME-TL43 B ppm 10	AuME-TL43 Ba ppm 10	AuME-TL43 Be ppm 0.05	AuME-TL43 Bi ppm 0.01	AuME-TL43 Ca % 0.01	AuME-TL43 Cd ppm 0.01	AuME-TL43 Ce ppm 0.02	AuME-TL43 Co ppm 0.1	AuME-TL43 Cr ppm 1	AuME-TL43 Cs ppm 0.05
157		1.14	0.003	0.07	4.07	1.6	10	70	0.34	0.03	2.43	0.09	8.99	15.8	54	1.38
173		1.20	0.001	0.08	1.22	1.5	<10	80	0.11	0.03	0.61	0.03	15.90	7.6	44	1.67
177		0.98	0.002	0.11	5.24	1.7	10	50	0.25	0.03	2.52	0.17	5.72	21.0	46	0.44
189		1.22	0.002	0.06	2.50	1.9	<10	70	0.72	0.13	0.94	0.02	14.05	6.3	5	0.32
192		1.10	< 0.001	0.04	4.33	2.0	<10	60	0.28	0.02	2.50	0.04	11.90	18.0	5	0.26
197		1.34	0.005	0.10	2.23	0.4	10	10	0.30	0.01	2.26	0.07	6.60	21.9	20	0.14
239		1.56	0.016	0.42	0.43	5.0	<10	10	< 0.05	0.09	1.15	0.08	1.38	21.6	2	0.07
250		1.46	0.002	0.03	5.13	0.4	20	10	0.42	<0.01	5.24	0.06	14.80	27.5	24	0.10
267		1.40	0.015	0.04	2.59	0.9	<10	50	0.36	0.04	0.68	0.04	7.90	18.6	64	0.18
303		1.24	0.007	0.05	1.86	1.2	10	10	< 0.05	0.02	0.34	0.03	1.06	85.6	700	0.21
304		1.34	0.006	0.13	2.14	0.5	10	30	0.06	0.02	0.92	0.06	2.02	83.2	194	0.27



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#### CERTIFICATE OF ANALYSIS VA21305196 AuME-TL43 Method Fe Ga Mo Nb Cu Ge Hf In La Li Mg Mn Na Analyte Hg K % ppm % ppm 0.1 % ppm % ppm ppm ppm ppm ppm ppm ppm ppm Units Sample Description 0.2 0.01 0.05 0.05 0.02 0.01 0.005 0.01 0.2 0.01 5 0.05 0.01 0.05 LOD 72.5 4.39 10.80 0.07 0.04 0.06 0.015 0.29 4.4 6.7 1.66 403 0.66 0.11 < 0.05 157 2.95 5.75 0.08 0.03 <0.01 0.009 7.7 9.2 162 1.66 0.06 0.29 173 33.2 0.41 1.00 58.5 2.65 9.61 < 0.05 0.07 0.03 0.020 0.13 3.0 6.5 3.13 258 0.29 0.08 < 0.05 177 189 168.5 3.93 9.53 0.10 0.04 0.03 0.010 0.10 7.4 5.8 0.99 505 1.84 0.04 0.12 9.63 5.2 0.42 53.0 5.88 0.09 0.07 0.01 0.011 0.05 5.3 0.97 631 0.19 < 0.05 192 9.15 0.18 0.025 2.2 380 < 0.05 166.5 4.81 0.13 0.03 0.03 1.6 1.30 0.16 0.05 197 296 >50 16.90 0.44 0.02 0.15 0.213 0.01 0.7 0.5 0.15 2100 0.80 0.01 < 0.05 239 250 89.8 6.19 17.80 0.31 0.16 < 0.01 0.026 < 0.01 5.8 3.3 1.70 564 0.56 0.01 < 0.05 61.8 9.17 0.07 0.13 0.09 0.037 0.10 4.6 2.45 677 0.24 0.03 < 0.05 267 4.11 3.9 303 101.0 6.17 4.50 0.08 < 0.02 0.03 0.006 0.01 0.5 2.0 7.74 573 0.14 0.01 < 0.05 304 283 7.22 2.79 0.10 <0.02 0.03 0.007 0.02 1.1 4.4 12.60 935 0.16 0.02 < 0.05



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### CERTIFICATE OF ANALYSIS VA21305196

Sample Description	Method Analyte Units LOD	AuME-TL43 Ni ppm 0.2	P P ppm 10	Pb ppm 0.2	Rb ppm 0.1	Re ppm 0.001	S % 0.01	Sb ppm 0.05	Sc ppm 0.1	AuME-TL43 Se ppm 0.2	AuME-TL43 Sn ppm 0.2	AuME-TL43 Sr ppm 0.2	AuME-TL43 Ta ppm 0.01	AuME-TL43 Te ppm 0.01	AuME-TL43 Th ppm 0.2	AuME-TL4 Ti % 0.005
157		19.6	1070	2.5	11.6	0.001	0.83	<0.05	17.0	0.6	0.2	164.0	<0.01	0.07	0.7	0.269
73		11.6	1300	1.0	21.2	< 0.001	0.49	< 0.05	4.0	2.6	<0.2	31.5	< 0.01	0.06	1.1	0.287
77		24.1	970	2.4	5.6	< 0.001	0.21	0.07	10.3	0.3	0.2	527	<0.01	0.11	0.2	0.055
89		2.8	830	2.2	7.3	< 0.001	0.04	<0.05	10.5	0.4	1.2	56.5	< 0.01	0.14	7.7	0.199
2		3.0	1520	0.8	1.0	< 0.001	<0.01	<0.05	4.9	<0.2	<0.2	227	<0.01	0.04	0.4	0.087
7		33.3	650	1.1	0.9	< 0.001	0.21	< 0.05	7.7	0.2	0.5	51.2	< 0.01	0.02	0.2	0.275
9		31.2	140	0.5	0.4	0.002	0.04	0.05	0.5	2.7	0.7	3.6	< 0.01	0.17	<0.2	0.020
0		11.3	2160	1.3	0.1	0.001	0.13	<0.05	15.2	0.3	0.3	107.0	< 0.01	0.01	0.2	0.125
7		34.4	950	2.5	4.3	0.001	0.07	<0.05	11.3	0.2	0.3	47.4	< 0.01	0.04	0.4	0.120
3		687	130	0.3	0.6	< 0.001	0.04	<0.05	3.5	0.5	<0.2	12.8	<0.01	0.05	<0.2	0.025
4		672	120	0.8	1.4	< 0.001	0.02	<0.05	4.7	0.3	<0.2	37.6	<0.01	0.03	1.2	0.016



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(ALS)	,								CERTIFICATE OF ANALYSIS VA21305196
Sample Description	Method Analyte Units LOD	AuME-TL43 TI ppm 0.02	AuME-TL43 U ppm 0.05	AuME-TL43 V ppm 1	AuME-TL43 W ppm 0.05	AuME-TL43 Y ppm 0.05	AuME-TL43 Zn ppm 2	AuME-TL43 Zr ppm 0.5	
157 173 177 189 192		0.17 0.20 0.15 0.08 <0.02	0.21 0.33 0.26 2.72 0.14	149 107 72 87 200	0.10 0.16 0.06 0.54 <0.05	5.98 6.75 4.60 8.60 5.71	105 32 34 32 42	0.9 0.7 2.7 0.7 1.9	
197 239 250 267 303		<0.02 0.03 <0.02 0.02 0.11	0.07 0.58 0.11 0.33 0.08	175 52 178 117 28	0.08 0.32 <0.05 0.25 <0.05	11.70 2.25 13.20 6.17 1.08	50 50 78 85 40	3.9 1.2 5.0 2.4 <0.5	
304		0.03	0.19	18	<0.05	1.06	25	<0.5	