

Ministry of Forests, Mines and Lands
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geological & Geochemical

TOTAL COST: \$ 5657.99

AUTHOR(S): Jarrod Brown, M.Sc., P.Geo.,

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): NA

YEAR OF WORK: 2023

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): TBD

PROPERTY NAME: Gem Hunter

CLAIM NAME(S) (on which the work was done): 109984 and 1106284

COMMODITIES SOUGHT: Be, Ta, Nb, Sn, W, Gemstones

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: none

MINING DIVISION: Fort Steele

NTS/BCGS: NTS 082GF09

LATITUDE: 49 35 LONGITUDE: 116 09 ' " (at centre of work)

OWNER(S):

1) Giacomo Grassi

2)

MAILING ADDRESS:

2404 29th Ave SW

Calgary, AB, T2T 1N9

OPERATOR(S) [who paid for the work]:

1) Giacomo Grassi

2)

MAILING ADDRESS:

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude): Purcell Supergroup, Proterozoic, Aldridge Formation, Hellroaring Creek stock, LCT - pegmatite, Be, Li, Ta, Sn, W, gemstones

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 26501, 25808, 16971

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	2 x 1 km	109984 and 1106284	5200.38
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne	Drone Photogrammetry		
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock	6 grabs	109984 and 1106284	457.61
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	\$ 5657.99

2023 Geological & Prospecting Report

GEM HUNTER PROJECT

Claim #s 1099894, 1106284, 1106285

Centre of Work

UTM Zone 11N 560358 mE, 5492575 mN (NAD83)

49° 35' 30" N, 116° 09' 50" W

(NTS Map Sheet 082F09)

Omineca Mining Division, British Columbia

Prepared for:

Giacomo Grassi

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By:

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BC PP#: 1004434

December 5th, 2023

SUMMARY

The Gem Hunter property is located in the Fort Steele Mining Division in southeastern British Columbia, approximately 12km west of Kimberly, BC. The road accessible property comprises 4 MTO tenures totalling 816.7 ha, and is 100% owned by Giacomo Grassi. The property is at a grassroots scale of exploration and under evaluation for pegmatite associated mineralization including gemstone varieties of beryl, rare(critical)-metals (Li, Ta, Nb, Sn, W), with peripheral interest in potential for industrial minerals (feldspar, mica, quartz), and base metals (Pb-Zn-Ag).

The greater region is underlain by rocks of the Proterozoic Purcell Supergroup and in the property area, includes dominantly siltites and lesser argillites belonging to the Aldridge Formation, with interleaved gabbro to diorite sills and dykes of the Proterozoic Moyie Intrusions. Immediately adjacent to the current tenure, Aldridge and Moyie Group rocks are intruded by the 4 km x ~1.4 km Hellroaring Creek Stock which includes granodiorite, pegmatitic granite and pegmatite phases. Government mapping by Rice (1941) is credited with locating the Hellroaring Creek stock south of the confluence of Hellroaring and Angus Creeks, which was subsequently staked by Richfield Oil Corporation in the mid 1960's as a beryllium prospect (MF 082FNE110). Numerous operators since have worked this area focussing on the rare-metal (Be, Ta, Nb, Sn, +-W) and industrial mineral (feldspar, mica, quartz) potential of the granitoid stock and associated pegmatite.

On August 18th, 2023 the author accompanied claim owner Giacomo Grassi on traverses through claim numbers 109984 and 1106284. The purpose of the 1-day property viewing was to complete a first pass assessment of the underlying geology, determine if pegmatites similar to the immediately adjacent Hellroaring Ck stock are present on the property, and assess logistical access on the property.

Fieldwork to date successfully located pegmatites on the property, both as angular subcrop at two road cut zone locations, and as boulder outcrops in a 3rd zone at lower elevation. The subcrop exposures provide examples of a variety of grain sizes and mineral modes, indicating a pattern of developed pegmatite zonation. The pegmatites also contain significant volumes of volatile carrying minerals including tourmaline (boron), and muscovite (H₂O, F).

Analytical results from 4 pegmatite samples returned 127 to 227 ppm Be. This is strongly anomalous in comparison to average crust (4 ppm Be), and anomalous compared to ranges within typical pegmatitic leucogranite (0.5- 604 ppm) (Cerny and Meintzer, 1988). Other rare metal results of interest include weakly anomalous but sub-economic values (ie. maximums: 40 ppm Li; and 26.3 ppm Ta).

Beryl is the proper name for the beryllium alumino-silicate mineral (Be₃Al₂Si₆O₁₈). Gem colour varieties of beryl include aquamarine (blue), heliodore (yellow) and emerald (green). Based on the rapid verification of pegmatite occurrences on the property and the strongly anomalous

beryllium contents of those pegmatites, the chances of locating beryl mineralization on the property is considered high. Furthermore, the development of variable grain sizes and pegmatite zonation, with elevated whole rock geochemical fractionation signature ($K/Rb < 50$), indicates elevated prospectivity for other rare (critical) elements typically associated with LCT pegmatites including Ta, Nb, Sn and Li.

Recommendations for future work on the property include the following:

- A property-wide photogrammetric drone survey may assist in pre-field identification of outcrop and ideally pegmatitic outcrops.
- Property-wide prospecting and cursory geological mapping, with initial focus on the following areas:
 - The southern half of tenure #1106284. Priority should be given to detail follow-up of the pegmatites located in 2023 near both switchbacks of the tertiary logging roads.
 - Regional mapping (OF 6308) identifies an undefined fault striking along the east contact of the Hellroaring creek stock, northwards onto the Gem Hunter property (centred mid-way between the *switchback* pegmatite occurrences). This fault should be groundtruthed to see if it has structural influence on pegmatite occurrences.
 - The ridge-top pegmatite outcrops described in AR16971 should be groundtruthed, mapped and sampled
- The newly staked claims at the Hellroaring creek & Angus creek confluence and along flanks east of Angus creek, should see initial access and prospecting assessments along existing road networks.
 - Prospecting down creeks for outcrop or boulders is recommended along with periodic silt-sediment sampling of active creeks.
- Should the above activities confirm or generate prospective targets, Phase-II activities could include the following:
 - Property-wide airborne geophysical surveys: magnetic +/- radiometric.
 - Directed follow-up soil geochemical surveys (100m x 25m; or 50m x 20m) to locate buried (hidden) pegmatite bearing structures.
- Based on Phase-II results; Phase-III would include mechanized trenching over the best combined geochemical (Li, Cs, Ta, W, Rb, B) and geophysical responses; and/or diamond drilling of deeper targets; plus expanded (infill) geochemical surveys.

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5.1 Geostation Locations

5.2 Rock Sample locations and tabular results

5.3 Sample/Station photos

1.0 Introduction

This technical assessment report has been prepared on behalf of Giacomo Grassi, describing the Gem Hunter property history, and 2023 fieldwork carried out by the property owner and independent author, Jarrod Brown, P.Geo. of Terralogic Exploration Inc. The purpose of the 1-day field visit is to assess the potential for pegmatite associated mineralization, similar to that located on adjacent tenure to the south covering portions of the Hell Roaring Creek pegmatite stock.

1.1 Location and Access

The Gem Hunter property is located in the Fort Steele Mining Division in southeastern British Columbia, approximately 12km west of Kimberly, BC (Figure 1). The property boundary is road accessible along the well maintained Hellroaring Creek FSR within 2km of its start point at the east end of St. Mary Lake. St. Mary Lake is accessible via paved roads to Kimberley located 12 km east of the property. Secondary & tertiary (partially to fully deactivated) forest service roads provide access to the eastern and southern portions of the property, with ATV access possible to the centre of the current claim group at 5000' (1525m) AMSL.

1.2 Physiography, Climate, and Infrastructure

The property is located within the Moyie Range of the Purcell Mountains, a remote mountain range in southern British Columbia to the west of the Rocky Mountain Trench. The area is characterized by peaks up to 2,600m in elevation (Bootleg Mountain) with moderate relief demarcated by dominant dendritic patterns that drain into the U-shaped valley floor host to St. Mary Lake and River. Elevation on the property ranges from 1020m to 1920m above sea level with all portions of the property below treeline. Bedrock exposure on the property is fair along ridge lines and generally poor along flanks and valley bottoms which are heavily vegetated and extensively covered with glacial colluvium or alluvium. Forest cover consists of mature and immature stands of a mixture of pine, fir and larch with local patches of spruce and cedar. Significant parts of the property have been clear-cut and/or selectively logged within the last 5-40 years.

Climate is characterized by brief warm summers and moderately cold winters. The area receives, on average, 45 cm of precipitation annually with an average annual snowfall of 150cm. Ground exploration is generally restricted to the period between early-May through mid-October, although it is possible to complete mechanized work year-round, with snow plow budgeting.

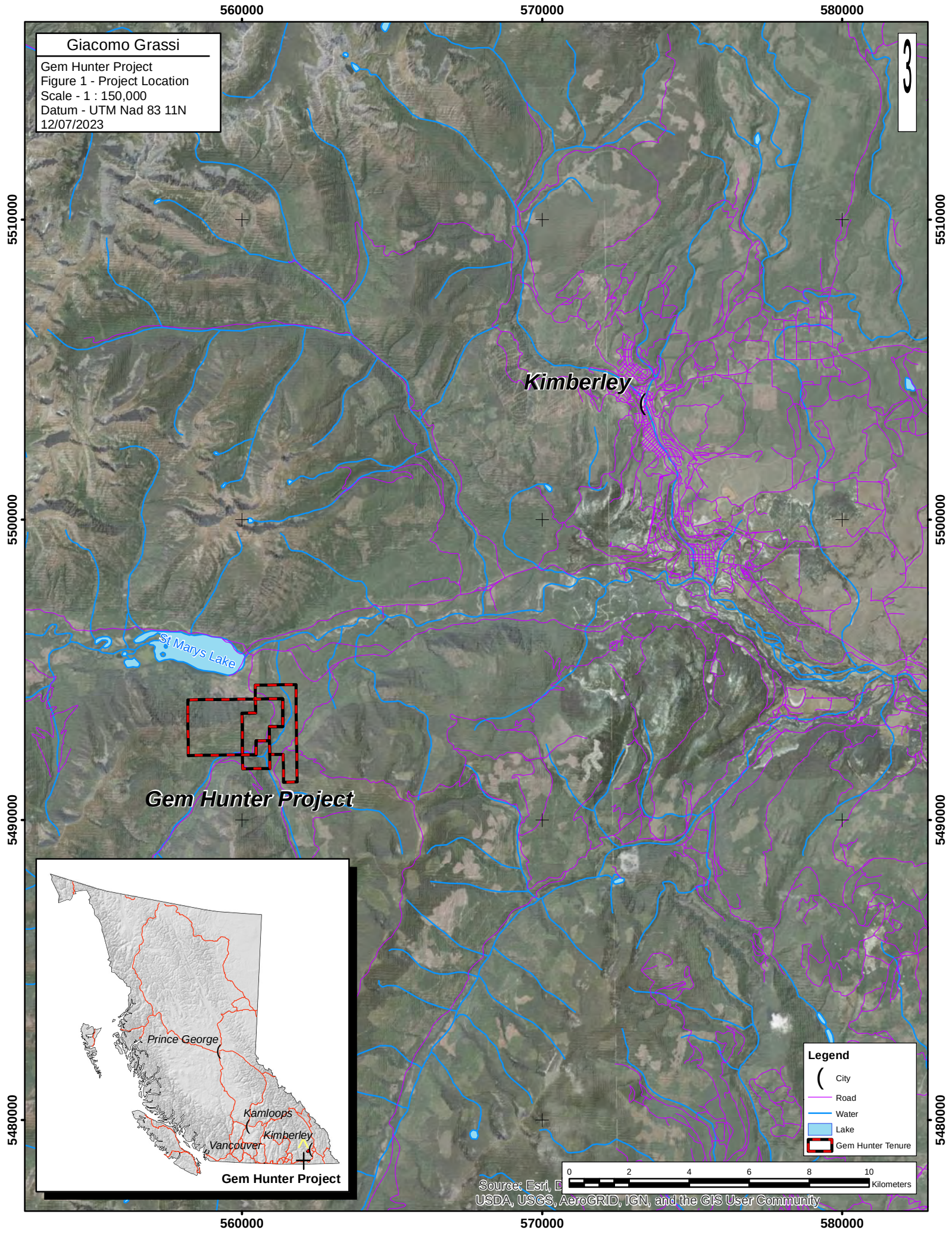
The property edge is within 2km of the local power grid and a paved all-season road to Kimberly BC, a driving distance of 20km. Kimberly is host to the decommissioned world class Sullivan Pb-Zn-Ag mine, and is just shy of a 10,000 population, with well developed local amenities, infrastructure and skilled labour.

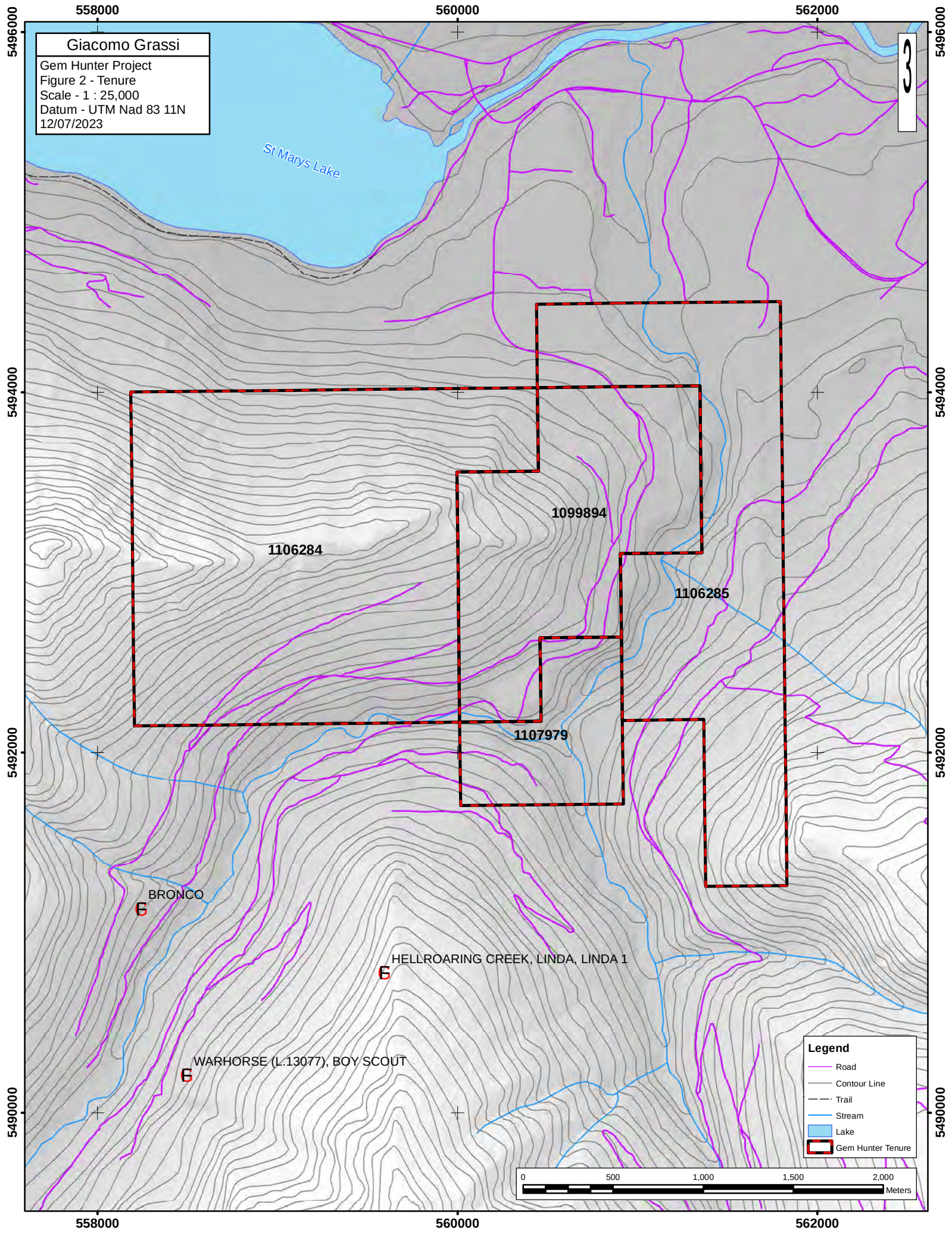
1.3 Dispositions and Owners/Joint Ventures

As of October 10, 2023, the Gem Hunter property comprises 4 mineral title (MTO) claims. The claims total 816.766 ha and are 100% wholly owned by Giacomo Grassi (Table 1; Figure 2).

Table 1: 2024 Mineral Tenures

Tenure #	Claim Name	Ownership	Issue Date	Good Standing Date	Area (ha)
1099894	GEM HUNTER	GRASSI, GIACOMO	2022 12 20	2025 04 30	167.5377
1107979	Gem Hunter 4	GRASSI, GIACOMO	2023 10 10	2024 10 10	62.8432
1106284	Gem Hunter 2	GRASSI, GIACOMO	2023 07 25	2024 07 25	356.0061
1106285	Gem Hunter 3	GRASSI, GIACOMO	2023 07 25	2024 07 25	230.3793
				Total	816.766





2.0 Mineral Exploration History

The area has been mapped by the Geological Survey of Canada (Rice, 1941), and again in more detail by Leech (1957). It was over this period that Ag-Pb-Zn polymetallic vein type deposits were developed on the west flank of the anticline that separates Angus and Hellroaring Creeks. An underground operation on four Crown-granted claims known as the Warhorse (Boy Scout) Group (MF: 082FNE061; located immediately east of Hellroaring creek at 1,400-1,600 m elevation), produced very limited amounts of lead, zinc, minimal traces of silver and gold in quartz veins within Aldridge quartzites. The Warhorse (Boy Scout) is considered a polymetallic Ag-Pb-Zn +/- Au vein type deposit, work by previous operators indicated approximately 23,000 to 27,000 tonnes at 6 per cent lead, 8 per cent zinc, 171 grams per tonne silver (Northern Miner, Dec. 30, 1965, not a 43-101 compliant resource estimate).

Rice (1941) is also credited with locating the Hellroaring Creek stock south of the confluence of Hellroaring and Angus Creeks, which was subsequently staked by Richfield Oil Corporation in the mid 1960's as a beryllium prospect (MF 082FNE110). Numerous operators since have worked this area focussing on the rare-metal (Be, Ta, Nb, Sn, +/- W) and industrial mineral (feldspar, mica, quartz) potential of the granitoid stock and associated pegmatite. Table 2 summarizes the known recorded assessment work on the current Gem Hunter property and the adjacent Hellroaring creek pegmatite deposit target area.

Table 2: Historical Exploration Work

ARIS Assessment #	Report Year	Operator Company	Notes
13415	1984	Bearcat Explorations Ltd. & Lumberton Mines; R. Wasylyshyn	Prospecting, mapping, trenching and drilling on the 79 claim Hellroaring Group to test the beryllium potential of the Hellroaring Ck pegmatite (and byproduct potential for feldspar, micas, Nb-Ta, REE). Area of study is immediately adjacent (to south of) the current Gem Hunter tenure. A total of 500m in seven holes was drilled using HQ tools with depths ranging 11.3m-143.3m. A beryllometer was used for BeO assays with occasional lab checks that included lithium analysis. Lab results of 13 core samples returned 31-165 ppm Be, and 12-40ppm Li. Best beryllometer responses was 0.21% BeO (755 ppm Be) over 1m.
14335	1985	E.A. Schiller	Brief geological prospecting report on the Marr claim block that closely covers the current Gem Hunter AOI. 3-4 days of prospecting for pegmatite did not reveal outcrop source, but Kspar-musc-qtz pegmatite boulders were located on the current claims at low to mid elevation north of Hellroaring Ck.

16971	1988	Esso Resources; Keenan Dom	Evaluation of massive sulphide potential south of St. Mary Lake. Geological, geochemical and reconnaissance EM, covers most of the western 2/3 of the current tenure includes historical geostations M89-M120. Ridgeline mapping reveals Lower Aldridge sediments and Moyie Sills, with reports of feldspar-mica-qtz pegmatite on the ridge and north side of Hellroaring Ck. A total of 32 silts, 10 heavy, and 40 bedrock samples collected and analyzed by 30 element ICP and Au-Ag-PGE fire assay. Only B, Mo and W are peripherally of interest to pegmatite exploration. Best silt results were 9 ppm B, 3 ppm Mo, 12 ppm W. Best rock results were 30ppm B, 9ppm Mo, and 12 ppm W. Only the tungsten is weakly anomalous, but no anomalies are on current tenure.
25808	1999	Black Bull Resources; Craig Kennedy and D. Anderson	Burn claims staked to cover stratiform zinc min in the Aldridge Fm. Property touches the eastern 1/4 of current tenure. No relevant findings.
26501	2001	Chapleau Resources; D. Anderson	Horn Property covered areas south and west of Hellroaring and Angus creeks, but also included very limited areas of the current property immediately north of Hellroaring creek. The 2001 program included 1 - 451.5m drill hole near the centre of the Hellroaring Ck pegmatite stock to test for beryllium and other rare (critical) metal potential. The drill intercepted over 200m of pegmatite with 5 main minerals reported: Kspar-plagioclase, quartz, muscovite and tourmaline. Minor minerals include sericite, garnet and qtz veins with gal-py-sphal-asy. Peak intercepts included 297 ppm Be, 62 ppm Ta, 439ppm Rb, 5228 ppm Zr, 215 ppm W. There were 3 intercepts >100 ppm Be.
26693	2001	Chapleau Resources; S. Soloviev	Horn/Pakk Property. A 9 hole DDH program totalling 1370.3m was completed with 8 holes to test the rare metal potential of the Hellroaring creek stock, located on the south side of Hellroaring creek. Holes 6-9 drilled coarse to medium grained greisenized pegmatoid granites locally enriched in tourmaline & muscovite. Beryl bearing outcrops are notable on surface. Best intercepts included 1896 g/t BeO over 8m and 165 g/t Ta ₂ O ₅ over 1m.
38334	2019	Andris Kikauka	Select rock chip (and float) sampling (n=10) was completed within a central 200x500m area of the Hellroaring Ck stock for purposes of assessing the suitability of the pegmatite for industrial mineral purposes (feldspar, quartz, muscovite). The author concluded that 6 of 10 samples were suitable for further beneficiation tests based on high K ₂ O contents (5-10%) and low impurities. All samples from this zone returned low beryllium (0.5-2.1 ppm Be).

3.0 Geology

3.1 Regional Geology

The project area is located within the Purcell Anticlinorium. This structure consists of the middle Proterozoic Purcell Supergroup (Belt Supergroup in the United States). It extends from southeastern British Columbia and southwestern Alberta to west-central Montana, northern Idaho and northeastern Washington covering some 104,000 km. (Hamilton et al., 1983).

The oldest rocks exposed in the Purcell Anticlinorium are the fine-grained clastics of the Aldridge Formation (Figure 3). The Aldridge is divisible into three mappable units. The Lower Aldridge is approximately 1000 to 2000 metres thick and consists of rusty weathering argillite, siltstone and quartzite. The Middle Aldridge is typically more arenaceous and coarser grained. It is about 3,000 metres thick and consists of thick, grey quartz-wacke beds and interlayered laminated siltstone layers. The Upper Aldridge consists of 300 to 400 metres of rusty weathering, thin bedded to laminated, carbonaceous mudstones with lesser amounts of siltstone and very fine-grained greywacke (Hamilton et al., 1983). The Creston Formation conformably overlies the Aldridge and consists of light green, brown and pale purple argillaceous quartzite, siltstone and argillite (Hoy, 1993). It contains numerous shallow-water sedimentary structures. The Creston in turn, is conformably overlain by shallow-water carbonates and clastics of the Kitchener Formation, subtidal to supratidal clastic rocks of the Van Creek Formation and andesitic volcanic rocks of the Nicol Creek Formation.

The Purcell Supergroup has been intruded by sills, somewhat discordant sheets and dikes of the 1443 ± 10 Ma Moyie Sill suite, most prominent in the lower portions of the Aldridge Formation.

The Hellroaring Creek stock is believed to have been emplaced after the earliest Moyie intrusions (gabbroic sills) and after the first deformation of the Aldridge Formation and, thus, have an age of approximately 1300 Ma (Ryan and Blenkinsop, 1971). However, this age was questioned by Ethier *et al.* (1976) who noted an ambiguous relationship of the stocks to the gabbroic sills as well as general uncertainties of the age correlation between the Moyie intrusions and the Aldridge Formation.

The Purcell Supergroup is intruded also by a number of dikes, stocks and larger plutons of mostly granodiorite, monzonite, and possibly syenite composition that are assigned to the Mesozoic (Hoy and Van der Heyden, 1988). The larger intrusions, composed essentially of granodiorite, likely correspond to the mid-Cretaceous Bayonne plutonic suite. As defined by Logan (2002), this suite comprises monzogranite, granodiorite, biotite granite, and biotite-muscovite granite. The hornblende biotite granite is metaluminous to weakly peraluminous; the biotite-muscovite granites, aplites and pegmatites are strongly peraluminous. In the Cranbrook area, the Bayonne suite is represented by the large Reade Lake stock, smaller Kiakho, Grassy Mountain and other stocks as well as by the Angus Creek stock situated south of the Hellroaring Creek stock (Hoy and van der Heyden, 1988).

Through the Targeted Geoscience Initiative, the GSC published a series of 1:50 000 scale digital and hard copy geological compilation maps, including the St. Mary Lake map sheet (OF 6308; part of larger release OF 6478; Joseph et al., 2011). This is the base geological data set presented in Figures 3-5.

3.2 Property Geology

The Hellroaring Creek stock is centred 1.5 km south of the current tenure boundary, and has mapped limits that touch the southern tenure limit (Figure 4). The main body of the stock is exposed over approximately 10 square kilometres with the long axis of the pegmatite trending north-northwest for 4 kilometres within a package of lower Aldridge sediments and Moyie sills (Figures 3,4). The southernmost end of the pegmatite stock is truncated by the St Mary thrust fault, where the stock is in contact with siltite, quartzite and argillite of the Creston Formation.

Lower Aldridge formation sediments and Moyie Sills dominate the known stratigraphy within the current Gem Hunter mineral tenure. The current limit of the Hellroaring creek stock stops at the tenure boundary (immediately adjacent to Hellroaring Creek), but based on reported pegmatite subcrops on the property, and the preponderance of known satellite pegmatite occurrences at the kilometer-scale around the intrusion, there is a strong likelihood that unmapped pegmatite laden structures extend onto the current tenured area.

Brown (2003) described the surface expression in vicinity of the Bearcat drilling (AR 13415) and trenches as follows:

The area is underlain by broad exposures of equigranular pegmatite with average 1-3 cm crystal sizes comprising 50% feldspar, 30% quartz, 15% muscovite, and minor but variable black tourmaline and garnet, and occasional beryl crystals.

Subordinate volumes of the main body are represented by a coarse to very coarse pegmatite comprising a core assemblage of megacrystic euhedral K-feldspar crystals (up to 50 by 30 cm), coarse euhedral silvery muscovite to 20 cm commonly intergrown with anhedral light grey and occasionally smoky quartz. Where visible, beryl crystals are commonly found within quartz-muscovite assemblages at the margin between the coarse core assemblage and the fine to medium -grained pegmatite assemblage. The beryl occurs as white to yellowish-white, opaque, euhedral to subhedral hexagonal crystals, with 0.3 to 1 centimetre diameter crystals the most common, but occasional crystals 2 to 5 centimetres in diameter and up to 15 centimetres long, are notable. Occasional pods of banded garnetiferous aplite were also noted within the main area. One notable occurrence includes a 10- to 50-centimetre-thick pod along the contact between medium- and coarse -grained pegmatite assemblages. Arcuate accumulations of garnet and black resinous oxide crystals delineate crystallization fronts within the aplite pod. The outer interface, with the medium-grained pegmatite, is rich in muscovite and fine-grained tourmaline. Aplites pods similar to these found at the Tanco pegmatite in southeastern Manitoba, are known to contain economic grades of Ta +/- Sn mineralization.

Medium-grained pegmatite at a nearby location is crosscut by a late 3- to 10 cm wide vuggy quartz-muscovite vein containing subordinate euhedral feldspar crystals and a tourmaline laden alteration selvage. A single, one centimetre diameter, translucent, light yellowish-

green, euhedral beryl crystal was found within one of the vugs. Several other poor quality Fe-stained, opaque beryls were also noted in vugs, and within the alteration halo around the vein.

3.3 Mineralization

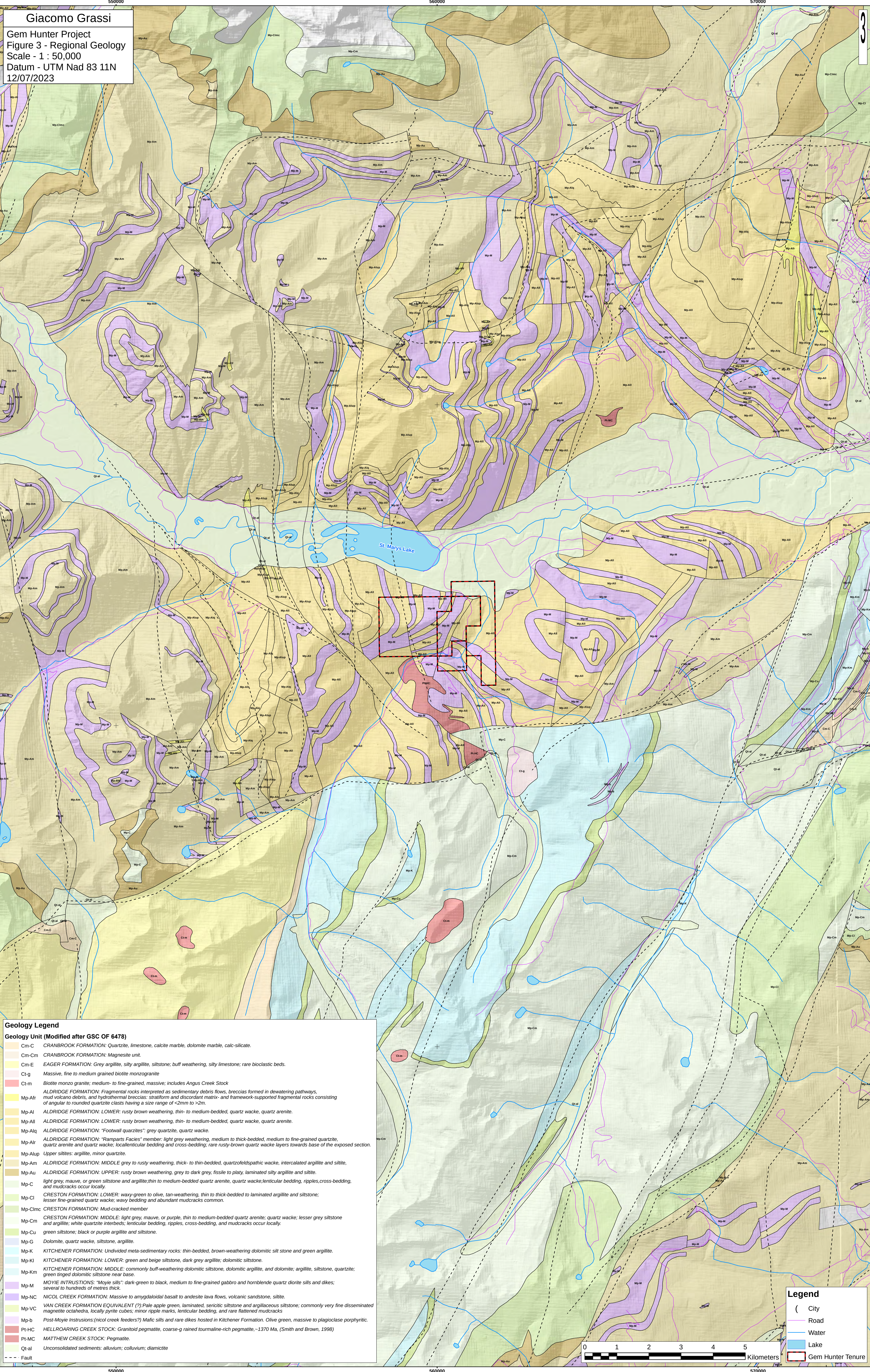
Six mineral occurrences occur within 5km of the Gem Hunter property (Table 3).

The Hellroaring creek granitoid stock and related pegmatites is the closest showing, and representative of the primary deposit type of interest for the current project. Previous work on the pegmatites conducted by Richfield Oil Corporation reported the northwestern end of the Hellroaring Creek stock contains a non-NI 43-101 compliant resource of 500 000 tonnes of mineralized material averaging 0.1% BeO (AR 13415). Later drilling by Chapleau Resources obtained best intercepts in the range of 450-700 ppm Be over 8-12 m; part of thicker intervals to 270 ppm Be over 23 m (Soloviev, 2012). In part, these areas of beryllium concentration are coincident with smaller zones of enrichment in tantalum averaging some 40-50 ppm Ta over 5-8 m (including narrower zones of stronger enrichment up to 120-140 ppm Ta over 1 m). The possibility of gem quality beryl was elucidated by Brown (2003) in relation to later stage greisen-style alteration: "...a single, one centimetre diameter, translucent, light yellowish-green, euhedral beryl crystal was found within one of the vugs."

The remaining showings around the current property comprise epigenetic polymetallic veins and syngenetic sedimentary exhalative base+-precious occurrences. The Warhorse-Boy Scout Crown Granted workings (MF 082FNE061) is considered a polymetallic Ag-Pb-Zn +/- Au vein type deposit; work by previous operators indicated approximately 23,000 to 27,000 tonnes at 6 per cent lead, 8 per cent zinc, 171 grams per tonne silver (Northern Miner, Dec. 30, 1965, NOTE: non-compliant resource estimate). Polymetallic veins associated with skarn mineralization are also known in the region to be associated with tungsten (e.g. MF 082FNE063 & 202).

Table 3: Mineral Occurrences Summary

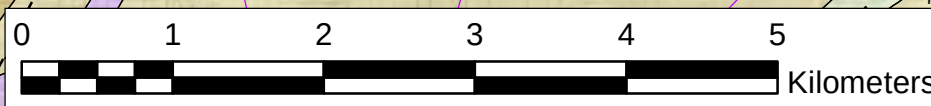
Minfile (MF)	MF name	Status	Commodities				DTYPE_DS1
082FNE110	HELLROARING CREEK	Developed Prospect	Feldspar	Mica	Be	Gemstones	Rare element pegmatite - LCT family
082FNE061	WARHORSE (L.13077)	Showing	Lead	Zinc			Polymetallic veins Ag-Pb-Zn+/-Au
082FNE074	BRONCO	Showing	Lead	Zinc			Polymetallic veins Ag-Pb-Zn+/-Au
082FNE062	POLLY VENT	Showing	Zinc	Lead	Copper	Silver	Sedimentary exhalative Zn-Pb-Ag
082FNE171	GAR	Showing	Gold	Silver	Copper	Lead	Polymetallic veins Ag-Pb-Zn+/-Au
082FNE175	DARLIN	Prospect	Zinc	Lead	Silver		Sedimentary exhalative Zn-Pb-Ag



Giacomo Grassi
Gem Hunter Project
Figure 3 - Regional Geology
Scale - 1 : 50,000
Datum - UTM Nad 83 11N
12/07/2023

- Geology Legend**
- Geology Unit (Modified after GSC OF 6478)**
- Cm-C CRANBROOK FORMATION: Quartzite, limestone, calcite marble, dolomite marble, calc-silicate.
 - Cm-Cm CRANBROOK FORMATION: Magnesite unit.
 - Cm-E EAGER FORMATION: Grey argillite, silty argillite, siltstone; buff weathering, silty limestone; rare bioclastic beds.
 - Ct-g Massive, fine to medium grained biotite monzogranite
 - Ct-m Biotite monzo granite; medium- to fine-grained, massive; includes Angus Creek Stock
 - Mp-Afr ALDRIDGE FORMATION: Fragmental rocks interpreted as sedimentary debris flows, breccias formed in dewatering pathways, mud volcano debris, and hydrothermal breccias: stratiform and discordant matrix- and framework-supported fragmental rocks consisting of angular to rounded quartzite clasts having a size range of <2mm to >2m.
 - Mp-Al ALDRIDGE FORMATION: LOWER: rusty brown weathering, thin- to medium-bedded, quartz wacke, quartz arenite.
 - Mp-All ALDRIDGE FORMATION: LOWER: rusty brown weathering, thin- to medium-bedded, quartz wacke, quartz arenite.
 - Mp-Alq ALDRIDGE FORMATION: "Footwall quartzites": grey quartzite, quartz wacke.
 - Mp-Alr ALDRIDGE FORMATION: "Ramparts Facies" member: light grey weathering, medium to thick-bedded, medium to fine-grained quartzite, quartz arenite and quartz wacke; local lenticular bedding and cross-bedding; rare rusty-brown quartz wacke layers towards base of the exposed section.
 - Mp-Alup Upper siltites: argillite, minor quartzite.
 - Mp-Am ALDRIDGE FORMATION: MIDDLE grey to rusty weathering, thick- to thin-bedded, quartzofeldspathic wacke, intercalated argillite and siltite.
 - Mp-Au ALDRIDGE FORMATION: UPPER: rusty brown weathering, grey to dark grey, fissile to platy, laminated silty argillite and siltite.
 - Mp-C light grey, mauve, or green siltstone and argillite; thin to medium-bedded quartz arenite, quartz wacke; lenticular bedding, ripples, cross-bedding, and mudcracks occur locally.
 - Mp-Ci CRESTON FORMATION: LOWER: waxy-green to olive, tan-weathering, thin to thick-bedded to laminated argillite and siltstone; lesser fine-grained quartz wacke; wavy bedding and abundant mudcracks common.
 - Mp-Cmnc CRESTON FORMATION: Mud-cracked member
 - Mp-Cm CRESTON FORMATION: MIDDLE: light grey, mauve, or purple, thin to medium-bedded quartz arenite; quartz wacke; lesser grey siltstone and argillite; white quartzite interbeds; lenticular bedding, ripples, cross-bedding, and mudcracks occur locally.
 - Mp-Cu green siltstone; black or purple argillite and siltstone.
 - Mp-G Dolomite, quartz wacke, siltstone, argillite.
 - Mp-K KITCHENER FORMATION: Undivided meta-sedimentary rocks: thin-bedded, brown-weathering dolomitic silt stone and green argillite.
 - Mp-Kl KITCHENER FORMATION: LOWER: green and beige siltstone, dark grey argillite; dolomitic siltstone.
 - Mp-Km KITCHENER FORMATION: MIDDLE: commonly buff-weathering dolomitic siltstone, dolomitic argillite, and dolomite; argillite, siltstone, quartzite; green tinged dolomitic siltstone near base.
 - Mp-M MOYIE INTRUSIONS: "Moyie sills": dark-green to black, medium to fine-grained gabbro and hornblende quartz diorite sills and dikes; several to hundreds of metres thick.
 - Mp-NC NICOL CREEK FORMATION: Massive to amygdaloidal basalt to andesite lava flows, volcanic sandstone, siltite.
 - Mp-VC VAN CREEK FORMATION EQUIVALENT (?) Pale apple green, laminated, sericitic siltstone and argillaceous siltstone; commonly very fine disseminated magnetite octahedra, locally pyrite cubes; minor ripple marks, lenticular bedding, and rare flattened mudcracks
 - Mp-b Post-Moyie Intrusions: (nicol creek feeders?) Mafic sills and rare dikes hosted in Kitchener Formation. Olive green, massive to plagioclase porphyritic.
 - Pl-HC HELLROARING CREEK STOCK: Granitoid pegmatite, coarse-grained tourmaline-rich pegmatite, ~1370 Ma, (Smith and Brown, 1998)
 - Pl-MC MATTHEW CREEK STOCK: Pegmatite.
 - Qt-al Unconsolidated sediments: alluvium; colluvium; diamicite
 - - - Fault

- Legend**
- (City
 - Road
 - Water
 - Lake
 - Gem Hunter Tenure



4.0 2023 Field Program

On August 18th, 2023 the author accompanied claim owner Giacomo Grassi on a one-day traverse through claim numbers 109984 and 1106284. The purpose of the visit was to prospect for pegmatite boulders and outcrop, complete a basic geological verification of the primary rock types on the property, and to assess the current logistical access to the property. A total of 16 geostations were recorded and plotted over property geology (Figure 4). Geostations JBGHG 001 to 007 are 4x4 road accessible along a partially deactivated secondary forest service road. Both road networks uphill of station 007 are ATV accessible within the tenure limits. Pegmatite and quartz veins samples (a total of 6) were collected along the road network in 2023 (Figure 5).

Rock samples were submitted to ALS Laboratories in North Vancouver, BC and analyzed via super trace analysis by sodium peroxide fusion and ICP-MS finish (package ME-MS89L). Summary results are highlighted in Figure 4. A subset of quartz vein samples (n=2) was submitted for add-on gold by fire-assay (AA23); with pegmatite sample pulps (n=4) submitted for add-on boron analysis (B-MS89L).

Details of the analytical techniques and certificates, along with tabular data for geo-stations and rock samples and referenced photos is included in the Appendices that follow.

5.0 2023 Field Program Results

Geological mapping observations (Figure 4) along the road traverse, confirms dominant presence of variably rusty, thinly bedded siltite outcrops. Also, in agreement with the regional mapping, Moyie gabbro (or diorite) was noted at station JBGHG004 and comprising an extensive boulder talus field between the middle and lower roads (stations JBGHG011 to 013).

Several quartz veins were noted crosscutting strongly rusty weathering siltite. Two sites were sampled for purposes of testing potential for precious +/- base metals. Neither vein sampled returned anomalous Ag-Au or Pb-Zn, however sample GH 23-3 returned significant tungsten (2960ppm W; Table 4). Although base metal mineralization was not a focus of this study, there are broad zones of strong gossanous weathering of the Aldridge stratigraphy between stations JBGHG008 and 010, which may benefit from additional future sampling for base metal potential.

Despite the non-presence of historically mapped pegmatitic units on the north side of Hellroaring creek, we were successful at locating a number of pegmatitic granite (coarse grained 0.5-1cm) and pegmatite lithologies (average grain sizes over 1cm). A subrounded boulder of tourmaline bearing pegmatitic granite was located at the parking site and sampled (Table 4; GH 23-1).

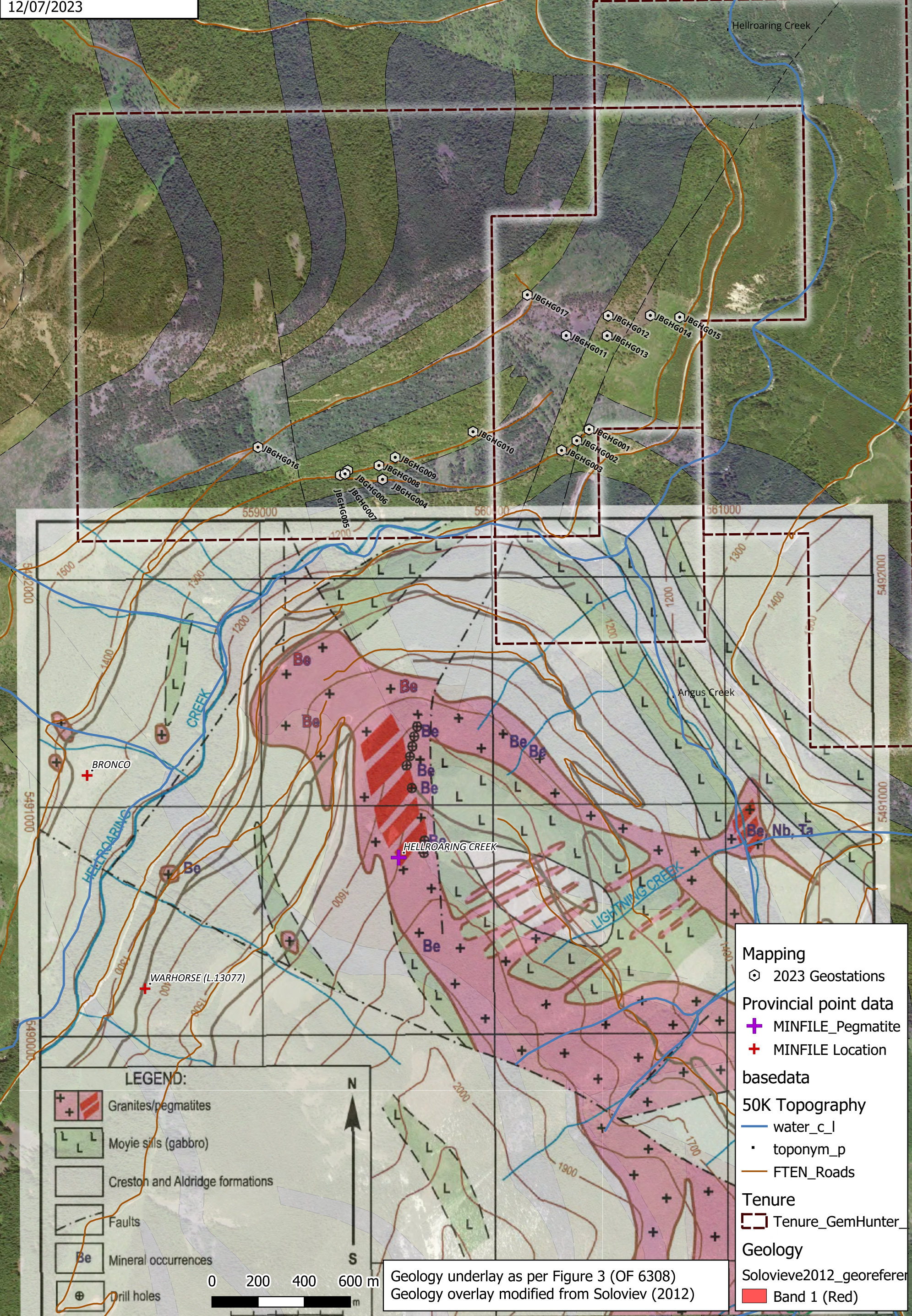
Several other like boulders of this lithology are present in the road bed over 50+m moving westwards.

A clustering of pegmatite subcrops is present at the first road switchback over a linear distance exceeding 50m. Here, numerous angular cobbles and boulders of feldspar-quartz-muscovite-tourmaline pegmatite occurs in the roadcuts above and below the road. Pegmatite composition and texture is variable, with medium grained feldspar (plagioclase?) dominant pegmatite sampled at GH 23-5 (Figure 5), medium to coarse grained quartz-rich pegmatite (sample GH 23-6) with unknown black oxides (ilmenite or columbite?), and very coarse grained K-spar dominant pegmatite (GH 23-7). Visible black tourmaline (schorl) contents in all samples ranged 1-5%; identification is backed by high boron assays (up to 4330 ppm B). Beryl mineralization is suspected to be present as visible subtle fine-grained, white hexagonal cross-sectioned feldspar-like minerals. Although not definitively identified in the field, beryllium results in these 3 samples are strongly anomalous (127 – 227 ppm Be) and indicate a high likelihood for beryl mineralization to be present.

During a reconnaissance road ATV excursion at the end of day, a second zone of pegmatite subcrop was found near the next higher switchback (see geostation JBGHG016). Only a cursory examination was made, but impression is of similar grainsizes and areal extent as per the pegmatites observed at the lower switchback.

Giacomo Grassi

Gem Hunter Project
Figure 4 - Property Geology
Scale - 1 : 15000
Datum - UTM Nad 83 11N
12/07/2023



- Mapping
- 2023 Geostations
- Provincial point data
- MINFILE Pegmatite
 - MINFILE Location
- basedata
- 50K Topography
- water_c_l
 - toponym_p
 - FTEN_Roads
- Tenure
- Tenure_GemHunter
- Geology
- Soloviev2012_georeferen
 - Band 1 (Red)

LEGEND:

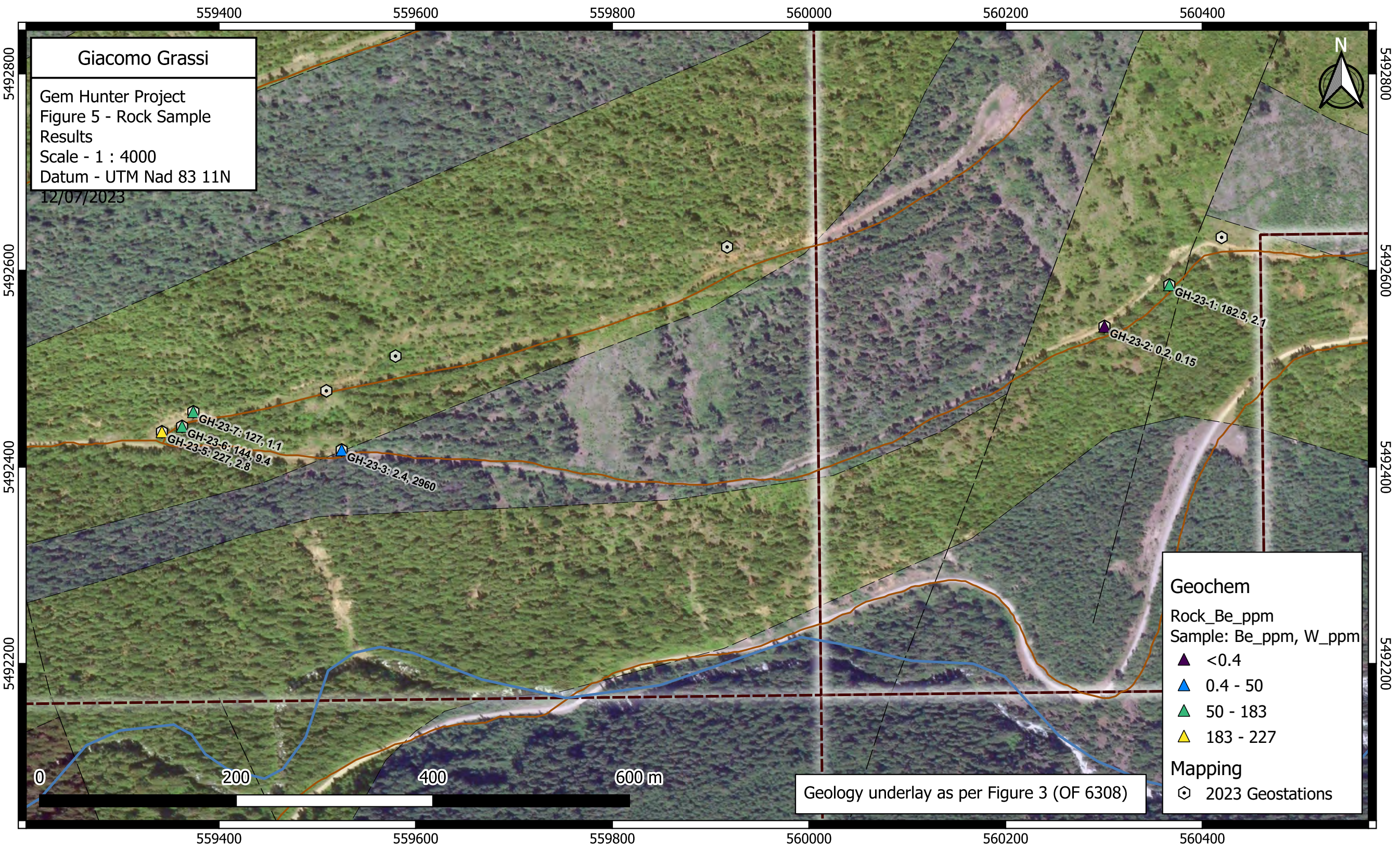
- Granites/pegmatites
- Moyie sills (gabbro)
- Creston and Aldridge formations
- Faults
- Mineral occurrences
- Drill holes

0 200 400 600 m

N

S

Geology underlay as per Figure 3 (OF 6308)
Geology overlay modified from Soloviev (2012)



Giacomo Grassi

Gem Hunter Project
Figure 5 - Rock Sample
Results
Scale - 1 : 4000
Datum - UTM Nad 83 11N
12/07/2023



GH-23-7: 127, 1.1
GH-23-6: 144, 9.4
GH-23-5: 227, 2.8

GH-23-3: 2.4, 2960

GH-23-1: 182.5, 2.1
GH-23-2: 0.2, 0.15

Geochem

Rock_Be_ppm
Sample: Be_ppm, W_ppm

- <0.4
- 0.4 - 50
- 50 - 183
- 183 - 227

Mapping

2023 Geostations

Geology underlay as per Figure 3 (OF 6308)

0 200 400 600 m

Table 4: Summary Rock Geochemical Results

SAMPLE	Lithology	Au	Mo	Zn	Be	Li	Ta	Nb	Sn	W	K	Rb	B	K/Rb	Ta/Nb
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm		
GH-23-01	pegmatite		<2	30	182.5	23	13.4	65.5	19	2.1	0.59	134.5	458	44	0.20
GH-23-02	quartz vein	<0.005	3	10	<0.4	<2	0.35	0.4	<3	<0.3	0.003	2.4	<8		
GH-23-03	quartz vein	0.005	4	20	2.4	6	0.44	2.1	12	2960	0.16	10.1	<8		
GH-23-05	pegmatite		2	30	227	31	26.3	75.3	41	2.8	2.58	668	46	39	0.35
GH-23-06	pegmatite		<2	20	144	40	21.8	48.5	35	9.4	3.82	1060	26	36	0.45
GH-23-07	pegmatite		<2	40	127	18	3.3	6.3	6	1.1	5.51	142.5	4330	387	0.52
	maximum	0.005	4	40	227	40	26.3	75.3	41	2960	5.51	1060	4330	387	0.52
	minimum	0.005	2	10	2.4	6	0.35	0.4	6	1.1	0.003	2.4	26	36	0.20

One other metric is of note. Rubidium (Rb) to 1060 ppm is significant (Table 4). As a member of the group-I alkali metals (which includes Li, Na, K), Rb substitutes for K in pegmatite rock forming minerals, particularly K-feldspar and micas. The ratio of K/Rb is routinely used to assess fractionation degree of a pegmatite forming system with more evolved pegmatites having lower K/Rb and generally corresponding elevated Li, Cs, Ta (Selway et al., 2005). Typically, a ratio under 50 is indicative of moderate fractionation, and under 10 indicating high fractionation levels.

One of the quartz veins came back strongly anomalous in tungsten (2960 ppm W). Other polymetallic veins in the district associated with skarn mineralization are known to be similarly anomalous.

6.0 Conclusions and Recommendations

The purpose of the 1-day property viewing at the Gem Hunter claims was to complete a first pass assessment of the underlying geology, determine if pegmatites similar to the immediately adjacent Hellroaring Ck stock are present on the property, and to assess logistical access.

Fieldwork to date successfully located pegmatites on the property, both as angular subcrop at two road-cut zone locations, and as boulder outcrops in a 3rd zone at lower elevation. The subcrop exposures include examples of a variety of grain sizes and mineral modes, indicating a pattern of developed pegmatite zonation. The pegmatites also contain significant volumes of volatile (enriched) minerals including tourmaline (boron), and muscovite (H₂O, F) which are important fluxing components that contribute to crystal-melt fractionation processes, which can lead to rare-metal accumulations (Be, Li, Ta, Nb, Sn +- W).

Analytical results from the 4 pegmatite samples returned 127 to 227 ppm Be. This is strongly anomalous in comparison to average crust (4 ppm Be) and anomalous compared to ranges within typical pegmatitic leucogranite (0.5- 604 ppm) from pegmatitic belts in Ontario (Cerny and Meintzer, 1988). Other rare metal results of interest include weakly anomalous but sub-economic values (ie. maximums: 40 ppm Li; and 26.3 ppm Ta).

Beryl is the proper name for the beryllium alumino-silicate mineral (Be₃Al₂Si₆O₁₈). Gem colour varieties of beryl include aquamarine (blue), heliodore (yellow) and emerald (green). Based on the rapid verification of pegmatite occurrences on the property and the strongly anomalous beryllium contents of those pegmatites, the chances of locating beryl mineralization on the property is considered high. Furthermore, the development of variable grain sizes and pegmatite zonation, with elevated whole rock geochemical fractionation signature (K/Rb <50), indicates elevated prospectivity for other rare (critical) elements typically associated with LCT pegmatites including Ta, Nb, Sn and Li.

Recommendations for future work on the property include the following:

- A property-wide photogrammetric drone survey may assist in pre-field identification of outcrop and hopefully pegmatitic outcrops.
- Property-wide prospecting and cursory geological mapping, with initial focus on the following areas:
 - The southern half of tenure #1106284. Priority should be given on detail follow-up to the pegmatites located in 2023 near both switchbacks of the tertiary logging roads.
 - Regional mapping (OF 6308) identifies an undefined fault striking along the east contact of the Hellroaring creek stock, northwards onto the Gem Hunter property (centred mid way between the *switchback* pegmatite occurrences). This fault

should be groundtruthed to see if it has structural influence on pegmatite occurrences.

- The ridge-top pegmatite outcrops described in AR16971 should be groundtruthed, mapped and sampled
- The newly staked claims at the Hellroaring Ck & Angus Ck confluence and along flanks east of Angus creek, should see initial access and prospecting assessments along existing road networks.
 - Prospecting down creeks for outcrop and boulders is recommended along with periodic silt-sediment sampling of active creeks.
- Should the above activities confirm or generate prospective targets, Phase-II activities could include the following:
 - Property-wide airborne geophysical surveys: magnetic +/- radiometric.
 - Directed follow-up soil geochemical surveys (100m x 25m; or 50m x 20m) to locate buried (hidden) pegmatite bearing structures.
- Based on Phase-II results; Phase-III would include mechanized trenching over the best combined geochemical (Li, Cs, Ta, W, Rb, B) and geophysical responses; and/or diamond drilling of deeper targets; plus expanded (infill) geochemical surveys.

7.0 References

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LIST OF APPENDICES

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Appendix II	Statement of Expenditures
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Appendix V	Digital Data
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	5.2 Rock Sample locations and tabular results
	5.3 Sample/Station photos

Appendix I Statement of Qualifications

I, Jarrod A. Brown of 6660-A Harrop-Procter Road, in the city of Nelson in the Province of British Columbia hereby certify that:

- 1) I am a Professional Geoscientist in good standing, registered with the Association of Professional Engineers and Geoscientists of British Columbia (#29239) and Saskatchewan (#16652).
- 2) I am a graduate of the University of Manitoba with the degree of Master of Science in Geology (2001).
- 3) I am a graduate of Simon Fraser University with the degree of Bachelor of Science in Physical Geography (1997).
- 4) I have practiced my profession in North America since 1998, having worked for various Junior Resource Companies and government surveys.
- 5) I am familiar with the specific geology and logistics of the Property area, having mapped/prospected on the property in August of 2023.
- 6) This report is based upon a personal examination of all available company and government reports pertinent to the Property.
- 7) I am an independent geoscientist having no direct vested interest in the Gem Hunter property or adjacent properties that are associated with the Hellroaring creek stock.

Dated this 5th day of December, 2023, in Nelson, British Columbia.

A purple circular professional seal for the Province of British Columbia, Association of Professional Engineers and Geoscientists. The seal contains the text "PROFESSIONAL", "PROVINCE OF", "J.A. BROWN", "#29239", "BRITISH COLUMBIA", and "GEOSCIENTIST". A handwritten signature in black ink is written across the seal.

Appendix II: Statement of Expenditures

Project and Year Gem Hunter 2023

Exploration Work type	Comment	Days			Totals
Personnel (Name) / Position	Field Days (list act	Days	Rate	Subtotal	
Giacomo Grassi - Prospector	18-Aug-23	1.00	450.00	\$450.00	
J Brown, P Geo - per field day	18-Aug-23	1.00	850.00	\$850.00	
		2.0		\$1,300.00	\$1,300.00
Office Studies	List Personnel	hours			
Project Prep and Reporting	Jarrold Brown	31.00	102.00	\$3,162.00	
Map Generation	Brad Robison	6.00	75.00	\$450.00	
Database Management	V. Beach	1.00	\$93.00	\$93.00	
		38.0		\$3,705.00	\$3,705.00
Geochemical Surveying	Number of Samples	No.	Rate	Subtotal	
Rock	6	6	\$76.27	\$457.61	
				\$457.61	\$457.61
Other Operations	Clarify	No.	Rate	Subtotal	
				\$0.00	
				\$0.00	\$0.00
Reclamation and Environment	Clarify	No.	Rate	Subtotal	
Infrastructure	repairs and maintenance		\$0.00	\$0.00	
				\$0.00	\$0.00
Transportation		No.	Rate	Subtotal	
Fuel (litres/hour)			\$0.00	\$85.68	
Other				\$0.00	
				\$85.68	\$85.68
Accommodation & Food	Rates per day				
Hotel				\$ -	
Restaurante	actual		\$0.00	\$0.00	
Meals	actual groceries and supplies		\$0.00	\$0.00	
				\$0.00	\$0.00
Geological and Geochemical					
Geological Supplies	sample bags, tags, flagging, etc...			\$47.05	
				\$47.05	\$47.05
Equipment Rentals	units	days	rate per		
Truck 4X4 one ton - per day Unit #22,12,08	0.0	0.0	\$150.00	0.00	
Mileage per km	0.0	0.0	\$0.30	0.00	
				\$0.00	\$0.00
Freight			\$0.00	\$7.56	
				\$7.56	\$7.56
TerraLogic Exploration Handling and Adminstration Fees				\$55.09	\$55.09
TOTAL Expenditures:					\$5,657.99

Appendix III – Geochemical Protocol



Sample Preparation Package

PREP-31H

Standard Sample Preparation: Dry, Crush, Split and Pulverize (500g)

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

The sample is logged in the tracking system, weighed, dried and finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen. A 500g split is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh, US Std. No. 200) screen. This method is appropriate for rock chip or drill samples.

Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
CRU-31	Fine crushing of rock chip and drill samples to better than 70 % of the sample passing 2 mm.
SPL-21	Split sample using riffle splitter.
PUL-32m	A 500g sample split is pulverized to better than 85 % of the sample passing 75 microns.

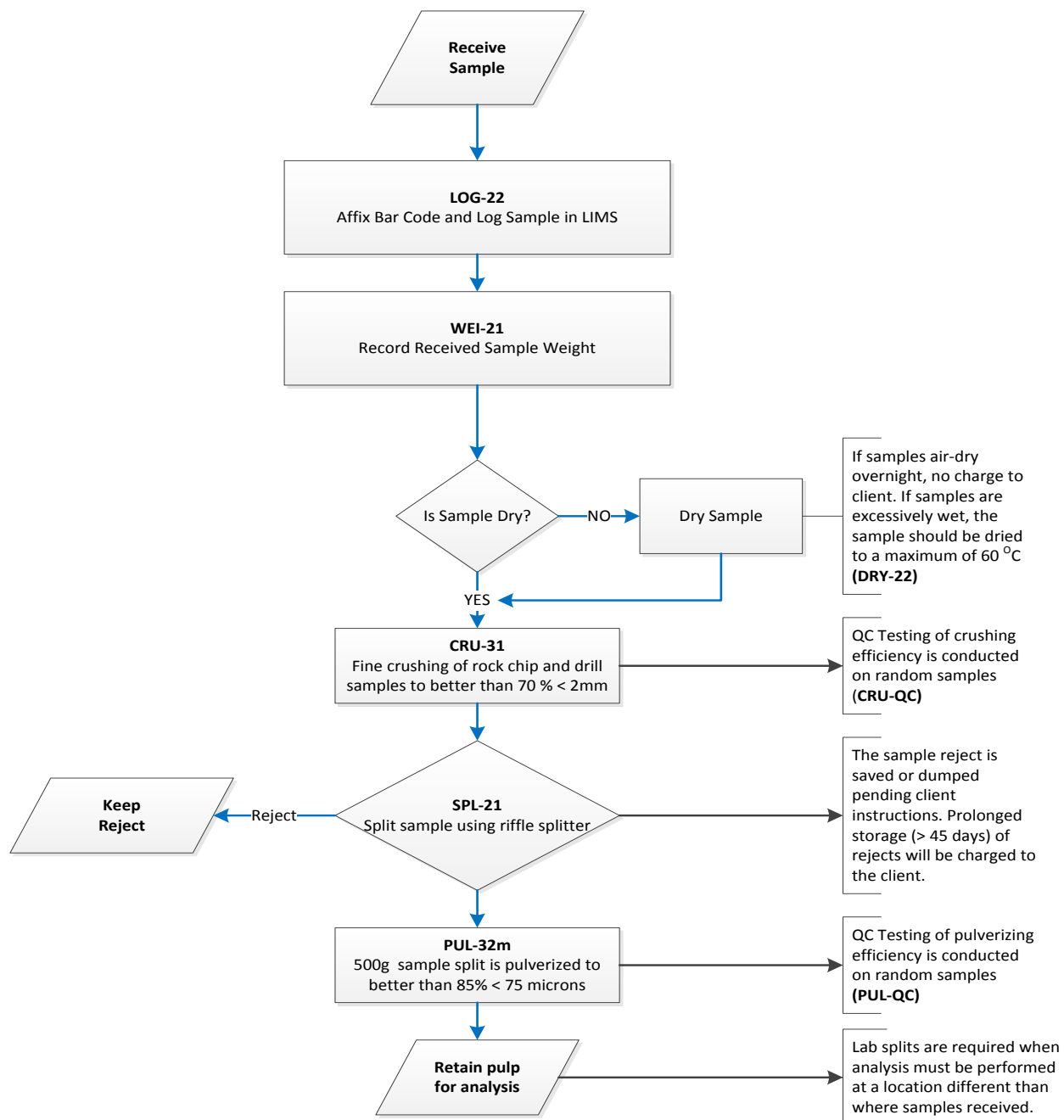


Sample Preparation Package

Flow Chart -

Sample Preparation Package – PREP-31H

Standard Sample Preparation: Dry, Crush, Split and Pulverize (500g)



Revision 01.00
July 31, 2013

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Au-AA23 & Au-AA24 – Fire Assay Fusion, AAS Finish

Sample Decomposition:

Fire Assay Fusion (FA-FUS01 & FA-FUS02)

Analytical Method:

Atomic Absorption Spectroscopy (AAS)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven, 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

List of Reportable Analytes:

Method Code	Element	Symbol	Units	Sample Weight (g)	Lower Limit	Upper Limit	Default Overlimit Method
Au-AA23	Gold	Au	ppm	30	0.005	10.0	Au-GRA21
Au-AA24	Gold	Au	ppm	50	0.005	10.0	Au-GRA22

ME-MS89L: Lowest Detection Limit Super Trace Multi-Element Analysis by Sodium Peroxide Fusion and ICP-MS

Sample Decomposition:

Sodium Peroxide Fusion, HCl leach (FUS-PER02)

Analytical Method:

Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

The ME-MS89L Super Trace method combines a sodium peroxide fusion with ICP-MS instrumentation utilizing collision/reaction cell technologies to provide the lowest detection limits available.

A prepared sample (0.2g) is added to sodium peroxide flux, mixed well and then fused in at 670°C. The resulting melt is cooled and then dissolved in 30% hydrochloric acid. This solution is then analyzed by Inductively Coupled Plasma – Mass Spectrometry and the results are corrected for spectral inter-element interferences.

The final solution is then analyzed by ICP-MS, with results corrected for spectral inter-element interferences.

NOTE: The highly oxidizing peroxide fusion is able to dissolve most matrices. Refractory minerals such as chromite, zircon, ilmenite, beryl, bauxite, titanite and cassiterotantalite are effectively decomposed. The fusion is also effective for decomposition of sulphides, arsenides, rare-earth phosphates, Li, W, Nb and Ta minerals.

Note that due to the use of zirconium crucibles in the fusion, zirconium cannot be reported.

Add On Packages Available

See following pages for details.

- Boron (B-MS89L): In order to report trace level boron accurately, the digestion and analysis are carried out in glassless labware to ensure no leaching from borosilicate equipment or parts.

List of Reportable Elements:

Analyte	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	5	12500
Arsenic	As	ppm	4	25000
Barium	Ba	ppm	2	25000
Beryllium	Be	ppm	0.4	25000
Bismuth	Bi	ppm	0.1	25000
Calcium	Ca	%	0.1	25
Cadmium	Cd	ppm	0.8	25000
Cerium	Ce	ppm	0.2	25000
Cobalt	Co	ppm	0.5	25000

Analyte	Symbol	Units	Lower Limit	Upper Limit
Cesium	Cs	ppm	0.1	25000
Copper	Cu	ppm	20	25000
Dysprosium	Dy	ppm	0.03	25000
Erbium	Er	ppm	0.02	25000
Europium	Eu	ppm	0.03	25000
Iron	Fe	%	0.05	25
Gallium	Ga	ppm	0.5	25000
Gadolinium	Gd	ppm	0.03	25000
Germanium	Ge	ppm	0.5	25000
Holmium	Ho	ppm	0.01	25000
Indium	In	ppm	0.3	25000
Potassium	K	%	0.05	25
Lanthanum	La	ppm	0.08	25000
Lithium	Li	ppm	2	25000
Lutetium	Lu	ppm	0.05	25000
Manganese	Mn	ppm	10	25000
Molybdenum	Mo	ppm	2	25000
Niobium	Nb	ppm	0.8	25000
Neodymium	Nd	ppm	0.07	25000
Nickel	Ni	ppm	10	25000
Lead	Pb	ppm	0.5	25000
Praseodymium	Pr	ppm	0.03	25000
Rubidium	Rb	ppm	0.5	25000
Rhenium	Re	ppm	0.01	25000
Antimony	Sb	ppm	0.3	25000
Selenium	Se	ppm	3	25000
Samarium	Sm	ppm	0.04	25000
Tin	Sn	ppm	3	25000
Strontium	Sr	ppm	20	25000
Tantalum	Ta	ppm	0.04	25000
Terbium	Tb	ppm	0.01	25000
Tellurium	Te	ppm	0.5	25000
Thorium	Th	ppm	0.1	25000
Titanium	Ti	%	1	25
Thallium	Tl	ppm	0.02	25000
Thulium	Tm	ppm	0.01	25000
Uranium	U	ppm	0.2	25000
Vanadium	V	ppm	1	25000
Tungsten	W	ppm	0.3	25000
Yttrium	Y	ppm	0.2	25000
Ytterbium	Yb	ppm	0.02	25000
Zinc	Zn	ppm	10	25000

Add-on packages available with ME-MS89L

Boron Add-On: B-MS89L

Trace level boron may be added to the ME-MS89L method on request.

Standard labware and some components of the ICP-MS sample introduction system are often comprised of borosilicate glass. To avoid leaching boron from such equipment all sample vessels, and the ICP-MS sample introduction in this analysis are glassless.

List of Reportable Analytes:

Analyte	Symbol	Units	Lower Limit	Upper Limit
Boron	B	ppm	8	25000

Sample Submittal Form

Client Code: 1023397 – R1



right solutions.
right partner.

INTERNAL USE ONLY

Workorder #

Received Date

WORKORDER DETAILS

Company Name: Terralogic Exploration
Submitted by: Jarrod Brown
Contact Number: 250-420-7186
Courier/Waybill:
Date Shipped: Aug 18, 2023
Project ID: HR2023-1
PO Number: HR2023-1
Dispatch #: HR2023-1
ALS Quote #: IYAD email to Jarrod April 19, 2023

SAMPLE AND ANALYSIS DETAILS

Sample Type:

- ☒ R-Rock ☐ SD-Sediment
☐ P-Pulp ☐ PC-Perussion
☐ S-Soil ☐ DC-Drill core
☐ A-Solution (contact the lab)
☐ Other

Overlimit Requirements:

- ☐ Report > no overlimit assay
☒ Report via overlimit method (charges will apply)
☐ Other

Special Instructions:

Request overlimit assays for Li, Ta, Nb, Sn, Nd. These are pegmatite samples with particular interest in Li, Ta, Nb, Cs, REE, Sn, B, Rb. Include Boron add-on for select samples and AA23 for other select samples (see below).

HAZARDOUS MATERIAL IDENTIFIED? (fees may apply)

It is critical to identify hazardous samples such that safety risks can be mitigated

☒ None ☐ Fibrous ☐ Radioactive ☐ Massive Sulphides ☐ Other:

Sample ID		Sample Preparation (Prep Code)	Analytical (Elements or Method Code)	TYPE (R,S, etc.)	ORE GRADE	QTY
Start #	Finish #					
23-1	23-5, -6, -7	PREP-31H	ME-MS89L + B-MS89L	R	☐	4
23-2	23-3	PREP-31H	ME-MS89L + AA23	R	☐	2
					☐	
					☐	
					☐	
					☐	
					☐	

☐ Check here for RUSH - PREMIUM SERVICE, CONTACT LAB TO CONFIRM AVAILABILITY

TOTAL SAMPLES 6

REPORTING DETAILS

#	Name	E-mail	Invoice	Certificate	Data File	Webtrieve™
1	Jarrod Brown	jab@terralogicexploration.com	☒	☒	☒	☒
2			☐	☐	☐	☐
3			☐	☐	☐	☐

SAMPLE RESIDUE ARCHIVE AND RETURN DETAILS

Sample Return	IMMEDIATELY		AFTER FREE STORAGE PERIOD*		
	Return	Discard	Return	Discard	Paid storage
Pulps - The <250g Master Pulp retained by the lab.	☐	☐	☒	☐	☐
Bulks - The remainder of large Pulp samples.	☐	☐	☐	☐	☐
Rejects - Any remaining coarse unpulverised rejects.	☐	☐	☒	☐	☐
Screen - Any screen reject fractions.	☐	☐	☐	☐	☐

All shipments received are subject to inspection upon layout; all services are rendered in accordance with ALS Minerals Terms & Conditions (see the current Schedule of Services & Fees).

Return address: suite 200 44 12th Ave S. Cranbrook BC, V1C2R1

Attention: Jarrod Brown

Authorised by:

Position Chief Geo

Name Jarrod Brown

Signature

* Free storage periods are: 45 days for coarse rejects and bulk pulps, 90 days for Master pulps and 45 days for screen reject fractions.

Appendix IV – Analytical Certificates



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: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

Page: 1
Total # Pages: 2 (A - D)
Plus Appendix Pages
Finalized Date: 10-NOV-2023
Account: TELOEX

CERTIFICATE VA23244743

Project: HR2023-1

P.O. No.: HR2023-1

This report is for 6 samples of Rock submitted to our lab in Vancouver, BC, Canada on 30-AUG-2023.

The following have access to data associated with this certificate:

VANESSA BEACH

JARROD BROWN

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
BAG-01	Bulk Master for Storage
PUL-QC	Pulverizing QC Test
SPL-21	Split sample - riffle splitter
PUL-32m	Pulverize 500g - 85%<75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
B-MS89L	Boron Add-on to ME-MS89L	AAS
Au-AA23	Au 30g FA-AA finish	
ME-MS89L	Super Trace DL Na2O2 by ICP-MS	

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.

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

Signature:

Saa Traxler, Director, North Vancouver Operations



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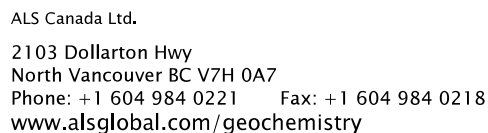
To: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

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Total # Pages: 2 (A - D)
Plus Appendix Pages
Finalized Date: 10-NOV-2023
Account: TELOEX

Project: HR2023-1

CERTIFICATE OF ANALYSIS VA23244743

Sample Description	Method Analyte Units LOD	WEI-21	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L
		Recvd Wt.	Ag	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cs	Cu	Dy	Er
		kg	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	5	4	2	0.4	0.1	0.1	0.8	0.2	0.5	0.1	20	0.03	0.02
23-1		0.96	<5	23	6	182.5	0.1	0.1	<0.8	1.3	0.7	6.2	<20	0.23	0.07
23-2		0.96	<5	<4	7	<0.4	<0.1	<0.1	<0.8	1.1	0.8	0.3	<20	0.13	0.04
23-3		1.86	<5	50	23	2.4	0.1	2.5	<0.8	16.3	6.4	0.9	120	2.66	1.56
23-5		1.36	<5	<4	44	227	0.2	0.8	<0.8	3.4	1.1	18.9	<20	0.82	0.42
23-6		0.94	<5	<4	28	144.0	0.1	0.6	<0.8	1.3	0.6	31.3	<20	0.33	0.10
23-7		0.28	<5	<4	906	127.0	<0.1	0.4	<0.8	7.6	3.4	2.9	<20	1.04	0.63

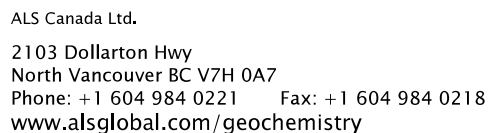


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Finalized Date: 10–NOV–2023
Account: TELOEX

Project: HR2023-1

Sample Description	Method Analyte Units LOD	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	
		Fe	Ga	Gd	Ge	Ho	In	K	La	Li	Lu	Mg	Mn	Mo	Nb	Nd
		%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
		0.05	0.5	0.03	0.5	0.01	0.3	0.05	0.08	2	0.05	0.01	10	2	0.8	0.07
23-1		0.85	19.2	0.25	7.7	0.03	<0.3	0.59	0.38	23	<0.05	0.03	210	<2	65.5	0.46
23-2		1.48	0.5	0.10	0.5	0.02	<0.3	<0.05	0.53	<2	<0.05	0.01	100	3	<0.8	0.57
23-3		3.40	6.5	2.01	2.6	0.54	<0.3	0.16	8.00	6	0.19	0.68	560	4	2.1	8.47
23-5		0.80	20.3	1.10	10.9	0.15	<0.3	2.58	8.52	31	<0.05	0.01	2210	2	75.3	5.27
23-6		0.55	21.1	0.42	10.5	0.04	<0.3	3.82	1.39	40	<0.05	0.01	580	<2	48.5	1.30
23-7		1.04	17.9	1.16	4.1	0.21	<0.3	5.51	8.90	18	0.09	0.49	180	<2	6.3	7.36

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



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Total # Pages: 2 (A – D)
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Project: HR2023-1

Sample Description	Method Analyte Units LOD	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L
		Ni	Pb	Pr	Rb	Re	Sb	Se	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		10	0.5	0.03	0.5	0.01	0.3	3	0.04	3	20	0.04	0.01	0.5	0.1	0.005
23-1		<10	3.7	0.13	134.5	<0.01	1.9	<3	0.26	19	<20	13.40	0.07	<0.5	0.3	0.005
23-2		<10	6.0	0.12	2.4	<0.01	1.5	<3	0.12	<3	<20	0.35	0.01	<0.5	0.1	<0.005
23-3		10	5.5	2.14	10.1	0.03	1.6	<3	2.00	12	40	0.44	0.35	<0.5	1.2	0.106
23-5		10	14.5	1.46	668	<0.01	1.2	<3	1.13	41	100	26.3	0.16	<0.5	0.4	<0.005
23-6		10	14.3	0.35	1060	<0.01	0.9	<3	0.39	35	50	21.8	0.08	<0.5	0.8	<0.005
23-7		40	19.7	2.07	142.5	<0.01	0.6	<3	1.45	6	160	3.30	0.18	<0.5	1.6	0.084

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



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To: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVE SOUTH
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CRANBROOK BC V1C 2R7

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Plus Appendix Pages
Finalized Date: 10-NOV-2023
Account: TELOEX

Project: HR2023-1

CERTIFICATE OF ANALYSIS VA23244743

Sample Description	Method Analyte Units LOD	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	B-MS89L	Au-AA23
		Tl	Tm	U	V	W	Y	Yb	Zn	B	Au
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.01	0.2	1	0.3	0.2	0.02	10	8	0.005
23-1		0.52	0.01	1.9	2	2.1	1.0	0.06	30	458	
23-2		0.02	0.01	<0.2	2	<0.3	0.4	0.05	10		<0.005
23-3		0.08	0.23	0.5	60	2960	14.6	1.42	20		0.005
23-5		3.04	0.04	4.9	4	2.8	5.0	0.27	30	46	
23-6		5.08	0.01	19.5	4	9.4	1.5	0.06	20	26	
23-7		0.60	0.09	0.9	22	1.1	6.2	0.52	40	4330	



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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 10-NOV-2023
Account: TELOEX

Project: HR2023-1

CERTIFICATE OF ANALYSIS	VA23244743
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	CERTIFICATE COMMENTS
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Applies to Method:	<table><tr><th colspan="4">LABORATORY ADDRESSES</th></tr><tr><td colspan="4">Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.</td></tr><tr><td>Au-AA23</td><td>BAG-01</td><td>B-MS89L</td><td>CRU-31</td></tr><tr><td>LOG-22</td><td>ME-MS89L</td><td>PUL-32m</td><td>PUL-QC</td></tr><tr><td>SPL-21</td><td>WEI-21</td><td></td><td></td></tr></table>	LABORATORY ADDRESSES				Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.				Au-AA23	BAG-01	B-MS89L	CRU-31	LOG-22	ME-MS89L	PUL-32m	PUL-QC	SPL-21	WEI-21		
LABORATORY ADDRESSES																					
Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.																					
Au-AA23	BAG-01	B-MS89L	CRU-31																		
LOG-22	ME-MS89L	PUL-32m	PUL-QC																		
SPL-21	WEI-21																				



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Plus Appendix Pages
Finalized Date: 10-NOV-2023
Account: TELOEX

QC CERTIFICATE VA23244743

Project: HR2023-1

P.O. No.: HR2023-1

This report is for 6 samples of Rock submitted to our lab in Vancouver, BC, Canada on 30-AUG-2023.

The following have access to data associated with this certificate:

VANESSA BEACH

JARROD BROWN

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
BAG-01	Bulk Master for Storage
PUL-QC	Pulverizing QC Test
SPL-21	Split sample - riffle splitter
PUL-32m	Pulverize 500g - 85%<75um

ANALYTICAL PROCEDURES

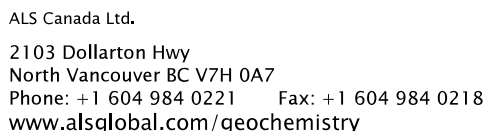
ALS CODE	DESCRIPTION	INSTRUMENT
B-MS89L	Boron Add-on to ME-MS89L	AAS
Au-AA23	Au 30g FA-AA finish	
ME-MS89L	Super Trace DL Na2O2 by ICP-MS	

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.

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

Signature:

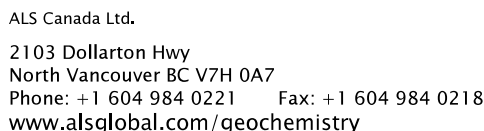
Saa Traxler, Director, North Vancouver Operations



Page: 2 – A
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QC CERTIFICATE OF ANALYSIS VA23244743

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



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QC CERTIFICATE OF ANALYSIS VA23244743

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QC CERTIFICATE OF ANALYSIS VA23244743

Sample Description	Method Analyte Units LOD	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L
		Pb	Pr	Rb	Re	Sb	Se	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		0.5	0.03	0.5	0.01	0.3	3	0.04	3	20	0.04	0.01	0.5	0.1	0.005
		0.02													
STANDARDS															
AMIS0341		10.7	0.12	4100	<0.01	11.8	<3	0.22	78	30	750	0.04	<0.5	5.3	0.012
Target Range – Lower Bound		9.1	0.09	3640	<0.01	11.5	<3	0.10	31	<20	666	0.03	<0.5	4.7	<0.005
Upper Bound		12.3	0.23	4440	0.02	14.7	10	0.28	47	70	814	0.07	1.0	5.9	0.021
AMIS0343		6.6	0.15	3840	<0.01	7.3	<3	0.17	79	20	177.5	0.03	<0.5	2.3	0.005
AMIS0343		6.7	0.10	3640	<0.01	7.1	3	0.13	79	20	168.0	0.04	<0.5	2.3	0.005
Target Range – Lower Bound		5.1	0.04	3280	<0.01	6.0	<3	<0.04	74	<20	160.0	<0.01	<0.5	2.2	<0.005
Upper Bound		7.7	0.18	4000	0.03	8.0	9	0.20	97	60	196.0	0.04	1.5	2.9	0.021
G919–10															
Target Range – Lower Bound															
Upper Bound															
GBW07709		972	0.24	0.8	<0.01	99.0	<3	0.18	93	1100	0.69	0.06	<0.5	0.4	0.945
Target Range – Lower Bound															
Upper Bound															
OREAS 146		738	594	26.9	0.01	0.4	13	439	45	3220	4.30	40.9	<0.5	898	0.885
Target Range – Lower Bound		657	493	26.1	<0.01	<0.3	<3	390	38	2940	3.65	39.9	<0.5	813	0.752
Upper Bound		804	603	33.1	0.03	1.3	13	476	54	3640	4.55	48.7	1.2	993	1.030
OREAS L11															
Target Range – Lower Bound															
Upper Bound															
OREAS–77b		52.1	2.65	18.7	0.02	8.6	12	1.56	3	40	0.40	0.21	1.3	6.1	0.065
Target Range – Lower Bound		51.7	2.57	16.0	<0.01	7.6	12	1.45	<3	<20	0.16	0.21	<0.5	5.4	0.049
Upper Bound		64.3	3.21	20.6	0.05	10.0	26	1.87	10	80	0.34	0.27	2.6	6.9	0.082
SY–5		63.8	55.0	76.0	<0.01	0.6	<3	32.0	4	3230	1.04	2.32	<0.5	24.6	1.040
Target Range – Lower Bound		58.8	49.7	68.7		<0.3	<3	28.0	<3	2770	0.91	2.02	<0.5	22.6	0.896
Upper Bound		73.0	60.9	85.1		1.2	8	34.3	9	3430	1.21	2.50	1.0	27.8	1.225
BLANKS															
BLANK															
Target Range – Lower Bound															
Upper Bound															
BLANK		<0.5	<0.03	<0.5	<0.01	<0.3	<3	<0.04	<3	<20	0.06	<0.01	<0.5	<0.1	<0.005
BLANK		<0.5	<0.03	<0.5	0.01	<0.3	<3	<0.04	<3	<20	0.06	<0.01	<0.5	<0.1	<0.005
BLANK		<0.5	<0.03	<0.5	<0.01	<0.3	3	<0.04	<3	<20	0.08	<0.01	<0.5	<0.1	<0.005
Target Range – Lower Bound		<0.5	<0.03	<0.5	<0.01	<0.3	<3	<0.04	<3	<20	<0.04	<0.01	<0.5	<0.1	<0.005
Upper Bound		1.0	0.06	1.0	0.02	0.6	6	0.08	6	40	0.08	0.02	1.0	0.2	0.010



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 Account: TELOEX

Project: HR2023–1

QC CERTIFICATE OF ANALYSIS VA23244743

Sample Description	Method Analyte Units LOD	ME–MS89L Tm ppm 0.01	ME–MS89L U ppm 0.2	ME–MS89L V ppm 1	ME–MS89L W ppm 0.3	ME–MS89L Y ppm 0.2	ME–MS89L Yb ppm 0.02	ME–MS89L Zn ppm 10	B–MS89L B ppm 8	Au–AA23 Au ppm 0.005
STANDARDS										
AMIS0341		0.02	12.1	7	5.2	1.7	0.09	110	529	
Target Range – Lower Bound		<0.01	11.3	3	3.7	1.2	0.07	80		
Upper Bound		0.04	14.3	7	5.3	2.2	0.17	140		
AMIS0343		0.01	5.8	5	3.7	1.1	0.05	70		
AMIS0343		0.01	6.0	6	3.6	1.1	0.08	80		
Target Range – Lower Bound		<0.01	5.1	3	2.7	0.7	<0.02	60		
Upper Bound		0.03	6.7	7	4.3	1.7	0.09	100		
G919–10										7.69
Target Range – Lower Bound										7.12
Upper Bound										8.04
GBW07709		<0.01	<0.2	1165	95.9	0.5	90.9	1170	1235	
Target Range – Lower Bound									842	
Upper Bound									1160	
OREAS 146		9.08	2.5	165	26.3	993	46.8	1530	24	
Target Range – Lower Bound		8.90	2.2	144	24.2	814	47.1	1360	<8	
Upper Bound		10.90	3.2	178	30.2	996	57.7	1680	25	
OREAS L11										0.311
Target Range – Lower Bound										0.282
Upper Bound										0.328
OREAS–77b		0.09	1.8	38	3.6	7.1	0.64	220	24	
Target Range – Lower Bound		0.07	1.2	32	2.3	6.3	0.63	170	<8	
Upper Bound		0.12	2.2	42	3.8	8.1	0.81	230	30	
SY–5		0.72	5.1	134	0.4	56.8	4.65	140		
Target Range – Lower Bound		0.64	4.4	118	<0.3	50.5	4.16	100		
Upper Bound		0.81	5.8	146	0.6	62.1	5.12	160		
BLANKS										
BLANK										0.005
Target Range – Lower Bound										<0.005
Upper Bound										0.010
BLANK		<0.01	<0.2	<1	<0.3	<0.2	<0.02	<10		
BLANK		<0.01	<0.2	2	<0.3	<0.2	<0.02	<10	9	
BLANK		<0.01	<0.2	<1	<0.3	<0.2	<0.02	<10		
Target Range – Lower Bound		<0.01	<0.2	<1	<0.3	<0.2	<0.02	<10		
Upper Bound		0.02	0.4	2	0.6	0.4	0.04	20		



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QC CERTIFICATE OF ANALYSIS VA23244743

Sample Description	Method Analyte Units LOD	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L	ME-MS89L
		Ag	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cs	Cu	Dy	Er	Eu	Fe
		ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		5	4	2	0.4	0.1	0.1	0.8	0.2	0.5	0.1	20	0.03	0.02	0.03	0.01
ORIGINAL DUP Target Range – Lower Bound Upper Bound		DUPLICATES														
JKTOR013 DUP Target Range – Lower Bound Upper Bound		<5 <5 <5 10	<4 <4 <4 8	22 23 19 26	8.6 8.5 7.7 9.4	8.2 8.0 7.6 8.6	0.2 0.2 <0.1 0.3	<0.8 <0.8 <0.8 1.6	2.7 2.7 2.4 3.0	<0.5 <0.5 <0.5 1.0	5.8 5.7 5.4 6.1	<20 <20 <20 40	0.82 0.67 0.68 0.81	0.39 0.30 0.31 0.38	0.03 0.05 <0.03 0.06	0.94 0.91 0.87 0.98
ORIGINAL DUP Target Range – Lower Bound Upper Bound																
ORIGINAL DUP Target Range – Lower Bound Upper Bound																
ORIGINAL DUP Target Range – Lower Bound Upper Bound		<5 <5 <5 10	<4 <4 <4 8	316 332 306 342	0.8 0.8 <0.4 1.2	<0.1 <0.1 <0.1 0.2	0.7 0.7 0.6 0.8	<0.8 <0.8 <0.8 1.6	5.7 5.8 5.3 6.2	<0.5 <0.5 <0.5 1.0	2.2 1.8 1.8 2.2	<20 <20 <20 40	1.19 1.17 1.09 1.27	0.70 0.82 0.70 0.82	0.30 0.32 0.26 0.36	0.40 0.40 0.37 0.43



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Sample Description	Method Analyte Units LOD	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L	ME–MS89L
		Ga	Gd	Ge	Ho	In	K	La	Li	Lu	Mg	Mn	Mo	Nb	Nd
		ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
		0.5	0.03	0.5	0.01	0.3	0.05	0.08	2	0.05	0.01	10	2	0.8	0.07
ORIGINAL DUP Target Range – Lower Bound Upper Bound															
JKTOR013 DUP Target Range – Lower Bound Upper Bound		19.0 18.2 17.2 20.0	0.38 0.44 0.36 0.46	5.0 4.4 4.0 5.4	0.13 0.12 0.11 0.14	<0.3 <0.3 <0.3 0.6	3.22 3.16 2.98 3.40	1.20 1.29 1.10 1.39	69 66 62 73	0.08 0.08 <0.05 0.10	0.06 0.06 0.05 0.07	550 540 510 580	<2 <2 <2 4	26.1 25.8 23.9 28.0	1.07 1.11 0.97 1.21
ORIGINAL DUP Target Range – Lower Bound Upper Bound															
ORIGINAL DUP Target Range – Lower Bound Upper Bound															
ORIGINAL DUP Target Range – Lower Bound Upper Bound		21.5 21.2 19.8 22.9	0.89 0.89 0.82 0.96	2.3 2.3 1.7 2.9	0.21 0.22 0.19 0.24	<0.3 <0.3 <0.3 0.6	4.41 4.30 4.09 4.62	2.89 2.93 2.68 3.14	14 14 11 17	0.08 0.08 <0.05 0.10	0.03 0.03 0.02 0.04	40 40 30 50	2 <2 <2 4	4.0 3.6 2.8 4.8	2.46 2.89 2.47 2.88



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Sample Description	Method Analyte Units LOD	ME–MS89L Pb ppm 0.5	ME–MS89L Pr ppm 0.03	ME–MS89L Rb ppm 0.5	ME–MS89L Re ppm 0.01	ME–MS89L Sb ppm 0.3	ME–MS89L Se ppm 3	ME–MS89L Sm ppm 0.04	ME–MS89L Sn ppm 3	ME–MS89L Sr ppm 20	ME–MS89L Ta ppm 0.04	ME–MS89L Tb ppm 0.01	ME–MS89L Te ppm 0.5	ME–MS89L Th ppm 0.1	ME–MS89L Ti % 0.005	ME–MS89L Tl ppm 0.02
ORIGINAL DUP Target Range – Lower Bound Upper Bound		DUPLICATES														
JKTOR013 DUP Target Range – Lower Bound Upper Bound		21.9 22.1 20.4 23.6	0.34 0.34 0.29 0.39	215 210 201 224	<0.01 0.01 <0.01 0.02	<0.3 <0.3 <0.3 0.6	<3 <3 <3 6	0.41 0.47 0.38 0.50	12 11 8 15	20 20 <20 40	5.94 5.84 5.56 6.22	0.11 0.12 0.10 0.13	<0.5 <0.5 <0.5 1.0	0.8 0.8 0.7 0.9	0.012 0.011 0.006 0.017	0.97 0.97 0.90 1.04
ORIGINAL DUP Target Range – Lower Bound Upper Bound																
ORIGINAL DUP Target Range – Lower Bound Upper Bound																
ORIGINAL DUP Target Range – Lower Bound Upper Bound		64.3 62.9 59.9 67.3	0.70 0.72 0.64 0.78	181.5 183.0 172.5 192.0	<0.01 <0.01 <0.01 0.02	<0.3 <0.3 <0.3 0.6	<3 3 <3 6	0.69 0.73 0.63 0.79	<3 <3 <3 6	90 90 70 110	0.36 0.22 0.24 0.34	0.17 0.16 0.15 0.18	<0.5 <0.5 <0.5 1.0	13.8 13.4 12.8 14.4	0.012 0.012 0.006 0.018	1.01 1.02 0.94 1.09



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Sample Description	Method Analyte Units LOD	ME–MS89L Tm ppm 0.01	ME–MS89L U ppm 0.2	ME–MS89L V ppm 1	ME–MS89L W ppm 0.3	ME–MS89L Y ppm 0.2	ME–MS89L Yb ppm 0.02	ME–MS89L Zn ppm 10	B–MS89L B ppm 8	Au–AA23 Au ppm 0.005
ORIGINAL DUP Target Range – Lower Bound Upper Bound		DUPLICATES								0.051 0.062 0.049 0.064
JKTOR013 DUP Target Range – Lower Bound Upper Bound		0.07 0.07 0.06 0.08	6.3 6.4 5.8 6.9	5 4 3 6	3.0 3.0 2.6 3.5	4.2 3.9 3.6 4.5	0.49 0.46 0.43 0.52	20 20 <10 30	353 342 322 373	
ORIGINAL DUP Target Range – Lower Bound Upper Bound										0.053 0.046 0.042 0.057
ORIGINAL DUP Target Range – Lower Bound Upper Bound										<0.005 <0.005 <0.005 0.010
ORIGINAL DUP Target Range – Lower Bound Upper Bound		0.10 0.10 0.09 0.12	19.1 18.7 17.8 20.0	2 3 <1 4	<0.3 0.4 <0.3 0.6	6.7 7.1 6.4 7.4	0.72 0.59 0.60 0.71	10 10 <10 20		



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QC CERTIFICATE OF ANALYSIS VA23244743

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method:

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Au-AA23

BAG-01

B-MS89L

CRU-31

LOG-22

ME-MS89L

PUL-32m

PUL-QC

SPL-21

WEI-21

Appendix V Digital Data*

5.1 Geostation Locations

5.2 Rock Sample locations and tabular results

5.3 Sample/Station photos

*see accompanying data files

APPENDIX 5.1: Geostations

stat_num	project	target_zo	loc_meth	utm_datu	utm_zone	easting	northing	elev_m	loc_acc_m	notes	comp_sou	username	year	recorded_time	
JBGHG001	GH	road	gps	NAD83	11N	560419.7	5492634			5 roadcut exposure of metasilts rusty w occasional float of tourmaline laden granite	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG002	GH	road	gps	NAD83	11N	560366.5	5492585			5 subrounded cobble of pegmatitic granite w 60 feld 25 qtz, 10 musc 5 tour. med to cs grained = sample 23-1	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG003	GH	road	gps	NAD83	11N	560300.5	5492543			5 roadcut subcrop of 15cm rusty qtz vein in grey metasiltstone for metals assay = 23-2	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG004	GH	road	gps	NAD83	11N	559524.7	5492417			5 composite of 3 subcrop qtz veins w 5-10 blebby limonite after py hosted in movie gabbro. for assay.=23-3	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG005	GH	road	gps	NAD83	11N	559341.9	5492436			5 1mx20cm angular boulder of med grnd(1cm) plag-musc-qtz pegmatite w brn weathering. =23-5 peg	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG006	GH	road	gps	NAD83	11N	559373.9	5492456			5 outcrop of rusty siltstone host to chaotic pegmatitic dyklets of Feld-qtz-musc and trc schorl. gives credence to sample 23-5 as subcrop. sample 23-7 here subcrop w suspect beryl	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG007	GH	road	gps	NAD83	11N	559362.4	5492441			5 30x15 angular subcrop of med grnd peg w Feld-qtz-musc-tour and blk-brn tabular oxides(ilmenite or columbite) =23-6	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG008	GH	road	gps	NAD83	11N	559509.1	5492478			5 roadcut rusty siltstone w cobble subcrop of minor PG and grey sulfurous as (aspy?)	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG009	GH	road	gps	NAD83	11N	559579.5	5492513			5 old spur red w lots of rusty siltstone lesser grey gabbro and rare rounded peg	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG010	GH	road	gps	NAD83	11N	559916.7	5492624			5 lots of rusty ss. minor qtz vein. no pegs.	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG011	GH	road	gps	NAD83	11N	560320.3	5493040			5 boulder field of moyie gabbro. no peg yet. minor qtz vein cobbles	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG012	GH	road	gps	NAD83	11N	560502	5493126			5 moyie oc here. trav across boulder talus is all moyie w minor qtz vein and rare tonality. no peg	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG013	GH	road	gps	NAD83	11N	560497.7	5493040			5 moyie talus and minor qtz. no peg.	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG014	GH	road	gps	NAD83	11N	560684.9	5493128			5 qtz vein boulder swarm in sea of moyie gabbro boulders. qtz vein to 80cm thick. no pegs seen in talus.	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG015	GH	road	gps	NAD83	11N	560812.1	5493120			5 buff weathered phyllitic siltstone subcrop w minor qtz vein with amphibole	field	JB	2023	2023-08-18T00:00:00.000	
JBGHG016	GH	road	map	NAD83	11N	558985	5492557			10 witnessed several pegmatite boulders on road and below road. Needs to be prospected in detail	field	JB	2023	2023-09-02T12:50:43.000	
JBGHG017	GH	road	map	NAD83	11N	560152	5493217			10 end of ATV servicable road. Landing here would be 4x4 accissible with some vegetation (alder clearing	field	JB	2023	2023-09-02T12:54:20.000	

APPENDIX 5.2: Rock Locations/Descriptions

sample	project	sampler	sampled_t	utm_zone	easting	northing	loc_method	loc_acc_r	samp_type	lith_maj	notes
GH-23-1	GH	JB	2023-08-1	11N	560366.5	5492585	gps	3	float	pegmatite	subrounded cobble of pegmatitic granite w 60 feld 25 qtz, 10 musc 5 tour. med to cs grained = sample 23-1
GH-23-2	GH	JB	2023-08-1	11N	560300.5	5492543	gps	3	float	quartz vein	roadcut subcrop of 15cm rusty qtz vein in grey metasiltstone for metals assay = 23-2
GH-23-3	GH	JB	2023-08-1	11N	559524.7	5492417	gps	3	subcrop	quartz vein	composite of 3 subcrop qtz veins w 5-10 blebby limonite after py hosted in movie gabbro. for assay.=23-3
GH-23-5	GH	JB	2023-08-1	11N	559341.9	5492436	gps	3	float	pegmatite	1mx20cm angular boulder of med grnd(1cm) plag-musc-qtz pegmatite w brn weathering. =23-5 peg
GH-23-6	GH	JB	2023-08-1	11N	559362.4	5492441	gps	3	subcrop	pegmatite	30x15 angular subcrop of med grnd peg w Feld-qtz-musc-tour and blk-brn tabular oxides(ilmenite or columbite) =23-6
GH-23-7	GH	JB	2023-08-1	11N	559373.9	5492456	gps	3	grab	pegmatite	outcrop of rusty siltstone host to chaotic pegmatitic dyklets of Feld-qtz-musc and trc schorl. gives credence to sample 23-5 as subcrop. sample 23-7 here subcrop w suspect beryl