

Seagull Property Geochemical Exploration

Watson Lake Mining Division, Yukon

NTS 105B/03

Glen Prior

February 08, 2021

Quartz Claims: SG 1 to SG 4

Grant Numbers: YE86007 to YE86010

UTM Coordinates (near centre of claims): 374750E, 6664800N, UTM, NAD83, Zone 9V

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Field Work Dates (this report): August 26, September 1 and September 3 of 2019

Note: The information contained in this report forms part of a Yukon Mineral Exploration Program report titled Geochemical Exploration in the Swift River Project Area by Glen Prior dated January 27, 2020 (YMEP No. 19-076).

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Summary

An exploration program was undertaken in 2019 in the Swift River project area located in southeast Yukon within NTS map area 105B/03 roughly 15 north of the settlement of Swift River and about 140 km west of Watson Lake (Figure 1). The project benefited from the Yukon Mineral Exploration Program.

The Swift River project area is located along the eastern margin of the Seagull Batholith, which is intrusive into supracrustal rocks of the Yukon-Tanana Terrane. Known occurrences of mineralization in the area consist mainly of (i) tin and/or tungsten mineralization in skarns related to the emplacement of the Seagull Batholith and related granitic stocks, (ii) stratiform and/or stratabound zinc–lead–silver occurrences with considerable lateral continuity, and (iii) galena and sphalerite bearing veins with extremely high silver grades. The zinc–lead–silver horizons were originally thought to be skarns but recent workers have suggested that they may be VMS occurrences (possibly overprinted by skarn assemblages). Alternately, they may be modified sedimentary exhalative (sedex) deposits.

Recent stream sediment heavy mineral concentrate sampling has highlighted the potential of the Seagull Batholith and nearby country rock to host specialty metals such as niobium, tantalum, and the rare earth element in addition to tin and tungsten. There is also the potential for gems such as aquamarine to occur in this geological environment.

Much of the exploration work associated with the Seagull Batholith occurred in the late 1970's and early 1980's and was funded by major exploration and mining companies. Large regional geochemical sampling programs undertaken during that period provide a valuable database for modern exploration programs.

Exploration in 2019 on the Swift River project was completed in two areas – the Rusty Valley area (in the headwaters area of the west branch of Swift River) and the Partridge occurrence area (west of Seagull Creek; Figure 2). Work in the Seagull Creek area, the subject of this report, resulted in:

- The staking of the Seagull property in the Partridge occurrence area (4 quartz claims).
- The collection of 14 stream silt samples, 8 heavy mineral concentrate (panned concentrate) samples and 11 rock samples within and near the Seagull property.
- The completion of two scintillometer traverses in the Partridge occurrence area to test the effectiveness of this method for specialty metal exploration.
- The expansion of the area of potential calc-silicate ($\pm$ magnetite) skarn mineralization in the Partridge occurrence area and rock sample results of up to 3.97% Sn, 4.70% Zn, 206.9 g/t Ag, and 812 ppb Au.
- The detection of radioactive talus boulders of granite during a scintillometer traverse that contain up to 577 ppm Nb (along with elevated U and Th).

Additional exploration work to follow up on the 2019 results is recommended including expansion of geochemical surveying and geological mapping to define targets for subsequent geophysical surveys, trenching and/or drilling.

Location and Access

The Seagull property is located in southeast Yukon and is centred roughly 12 km north of the settlement of Swift River, which is located on the Alaska Highway, and about 140 km west of Watson Lake (Figure 1). It is located within the Watson Lake Mining District within NTS map area 105B/03. Access to the area may be gained along 4x4 truck roads and/or quad trails followed by hiking (Figure 2).



Figure 1. Map of southern and central Yukon showing the location of the Swift River project area (red circle), which includes the Seagull property. Map from Yukon Geological Survey MapMaker Online.

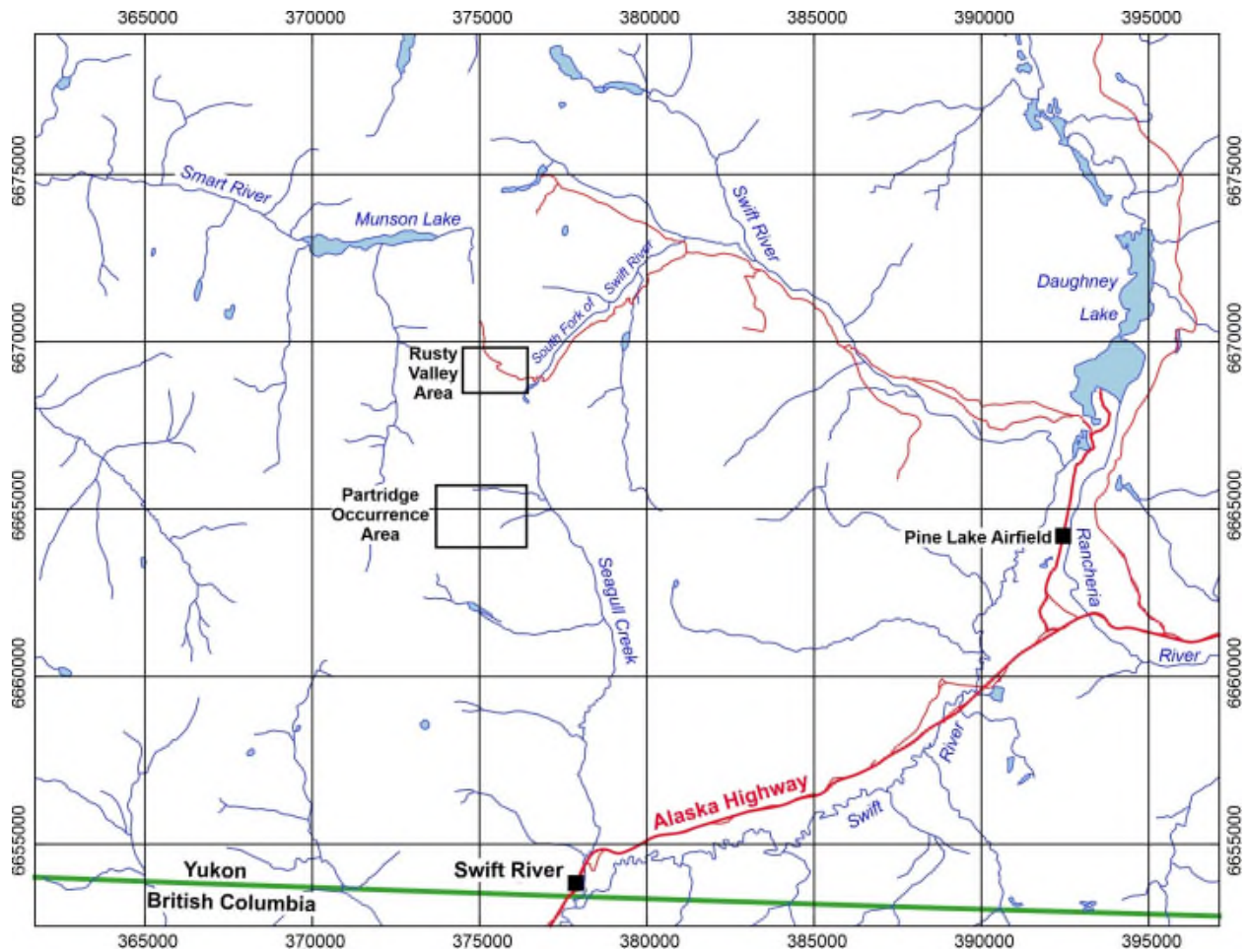


Figure 2. Location of the Swift River project exploration areas (rectangles with black perimeters). The Seagull property lies within the Partridge occurrence area. Coordinates: UTM, NAD 83, Zone 9V. Grid lines are 5 km apart.

Physiography

The Seagull property lies within the Dorsey Range of the Cassiar Mountains. Elevations range from 1430 m to 1650 m above sea level. The property area is drained by Seagull Creek, which lies to the east, and is mainly above treeline.

Regional Geology

“Almost 40% of the exposed bedrock in south-central Yukon and adjacent northern British Columbia is of felsic plutonic origin. Most of the plutons were intruded after the last major deformational episode and are termed post-tectonic. Isotopic dating has refined their ages ... several are mid-Permian, many are Early Jurassic and mid-Cretaceous, and a few are Early Eocene” (Liverton et al., 2005, p. 148).

“The plutons intrude an 80-km-wide northwest-trending belt of Yukon-Tanana Terrane (YTT). This terrane consists of polydeformed sedimentary, volcanic and plutonic rocks that have been resolved into time- and protolith-determined arc successions, above metasedimentary units of probable continental-shelf origin” (Liverton et al., 2005, p. 148).

“YTT is separated by transcurrent faults from Cache Creek Terrane to the west, and Slide Mountain Terrane to the east. These terranes contain stratigraphy that mainly records the evolution of mid-Paleozoic to Jurassic ocean basins, for the most part synchronous with the history of YTT. Slide Mountain Terrane is faulted to the east against marginal sedimentary rocks of ancient North America, a miogeoclinal succession of Cambrian to Permian age” (Liverton et al., 2005, p. 148). The regional setting of the project area is shown in Figures 3 to 5.

Within the project area, supracrustal rocks southwest of the Ram Creek Fault consist of Devonian to Permian metavolcanic and metasedimentary strata of the Yukon-Tanana Terrane assigned to the Snowcap Group, Ram Creek Complex, Finlayson Group and Klinkit Group (Figure 6 a). The Devonian (and older?) Snowcap Group (formerly Dorsey Complex) “... is a highly strained ‘basement’ of siliciclastic sediments and amphibolite (Nelson, 2000), structurally overlain by basin and off-shelf sediments....” of the Finlayson Group (formerly Swift River Group; Nelson, 2001)” (Liverton et al., 2005, p. 148). The Klinkit Group is underlain by an erosional unconformity (Simard et al., 2003, Liverton et al., 2005).

“A Permian intrusion (the Ram Stock) ... intrudes YTT just north of the Seagull Batholith.... It is a 26-km-long body, elongated northwest and parallel to the regional structural grain.... Width varies up to km, the product of vertical offset on northeast-trending faults that expose different levels of a steeply dipping tabular or lenticular intrusion.... The top of the body (southwest contact) is intrusive into lower Dorsey Complex.... The base of Ram Stock (northeast contact ...) is a 10- to 20-m-wide mylonitic shear zone. This is the Hidden Lake Thrust, an intraterrane fault separating Dorsey Complex from Ram Creek Complex” (Liverton et al., 2005, p. 148-149). On the basis of U-Pb isotopic dating the crystallization age of the Ram Stock is interpreted to be 258.4 ± 0.4 Ma (Late Permian)” Liverton et al., 2005).

The Early Jurassic suite of intrusions “...This suite includes subcircular granite bodies ranging from tens of metres to several hundred kilometres in area, sill-like diorite to tonalite, and several dunite to pyroxenite bodies. The age of these bodies is typically 186 to 188 Ma.... Most of the felsic intrusions have steeply dipping, locally sheared margins and insignificant stopping or xenolithic screens. Many are surrounded by a broad contact metamorphic aureole.... No mirolitic cavities or hydrothermal evidence was observed in the Jurassic intrusions; likely they cooled at least several kilometres beneath the surface” (Liverton et al., 2005, p. 154).

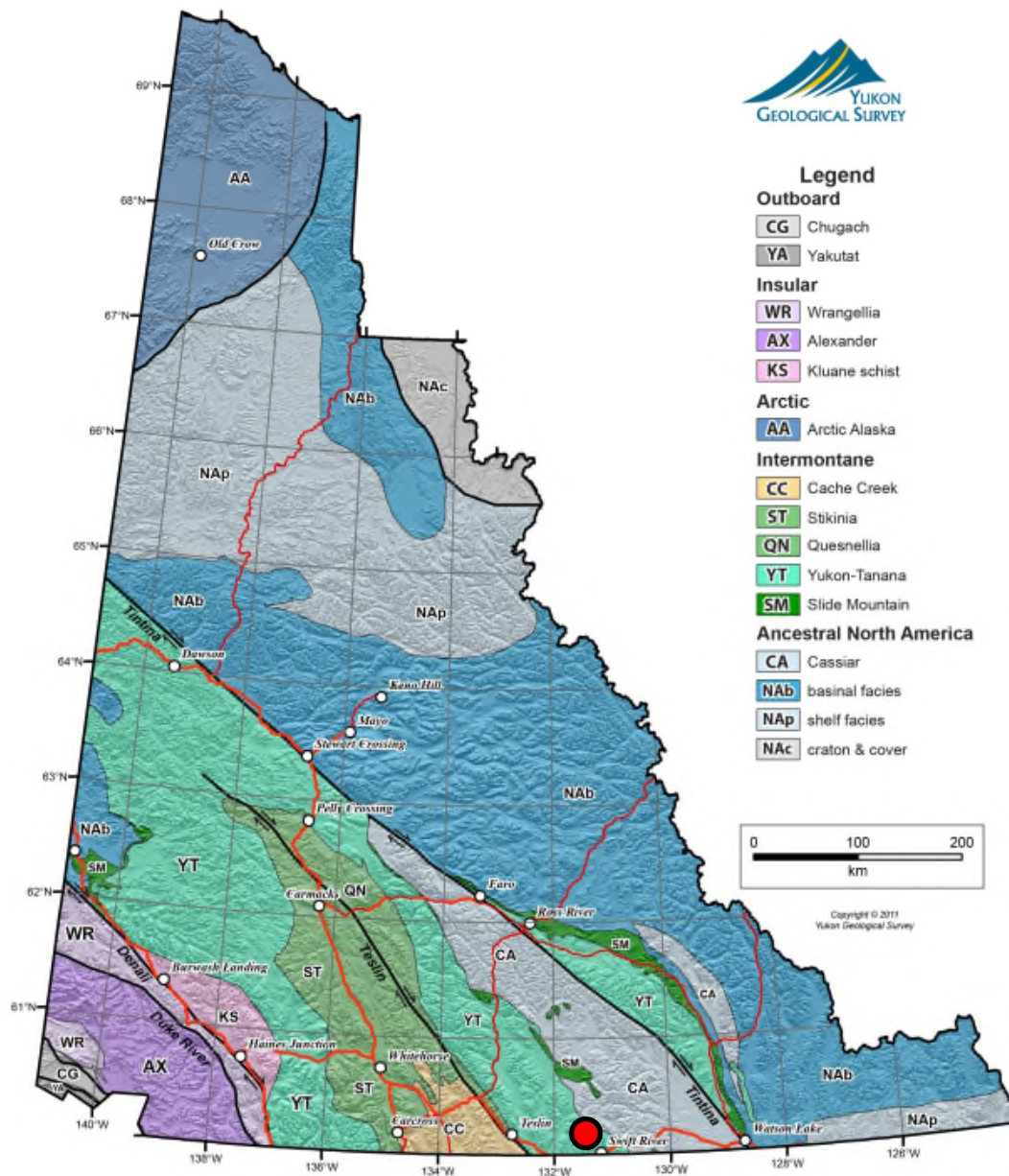


Figure 3. Yukon terrane map (Colpron and Nelson, 2011). The location of the Swift River project area (and Seagull property) is indicated by the red dot.

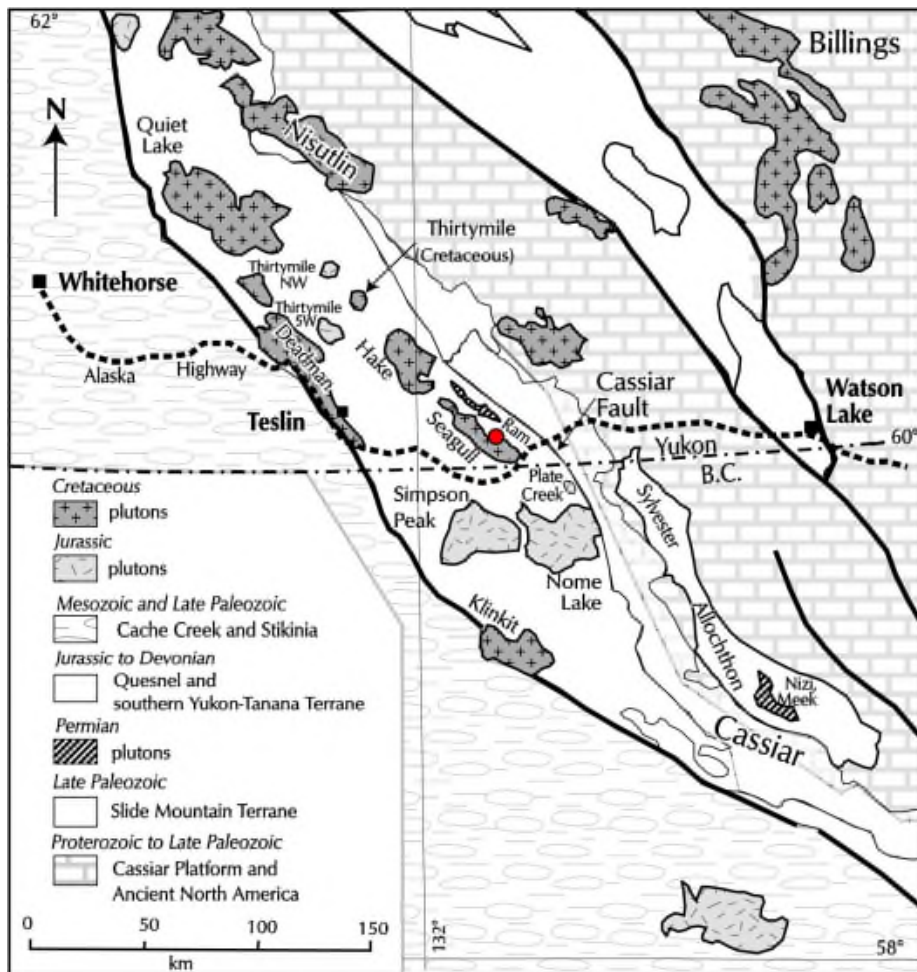


Figure 4. Geology of southeast Yukon and north-central British Columbia (Liverton et al., 2005). Swift River project area (and Seagull property) shown by red dot.

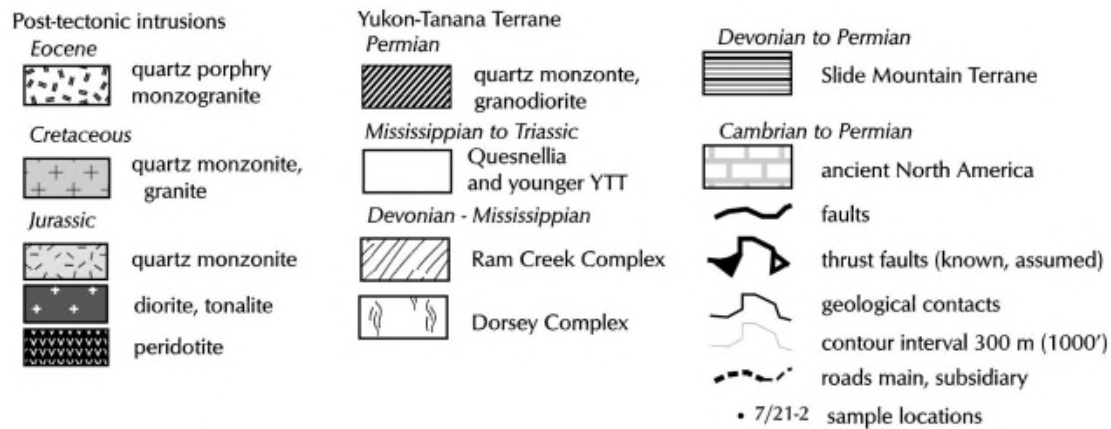
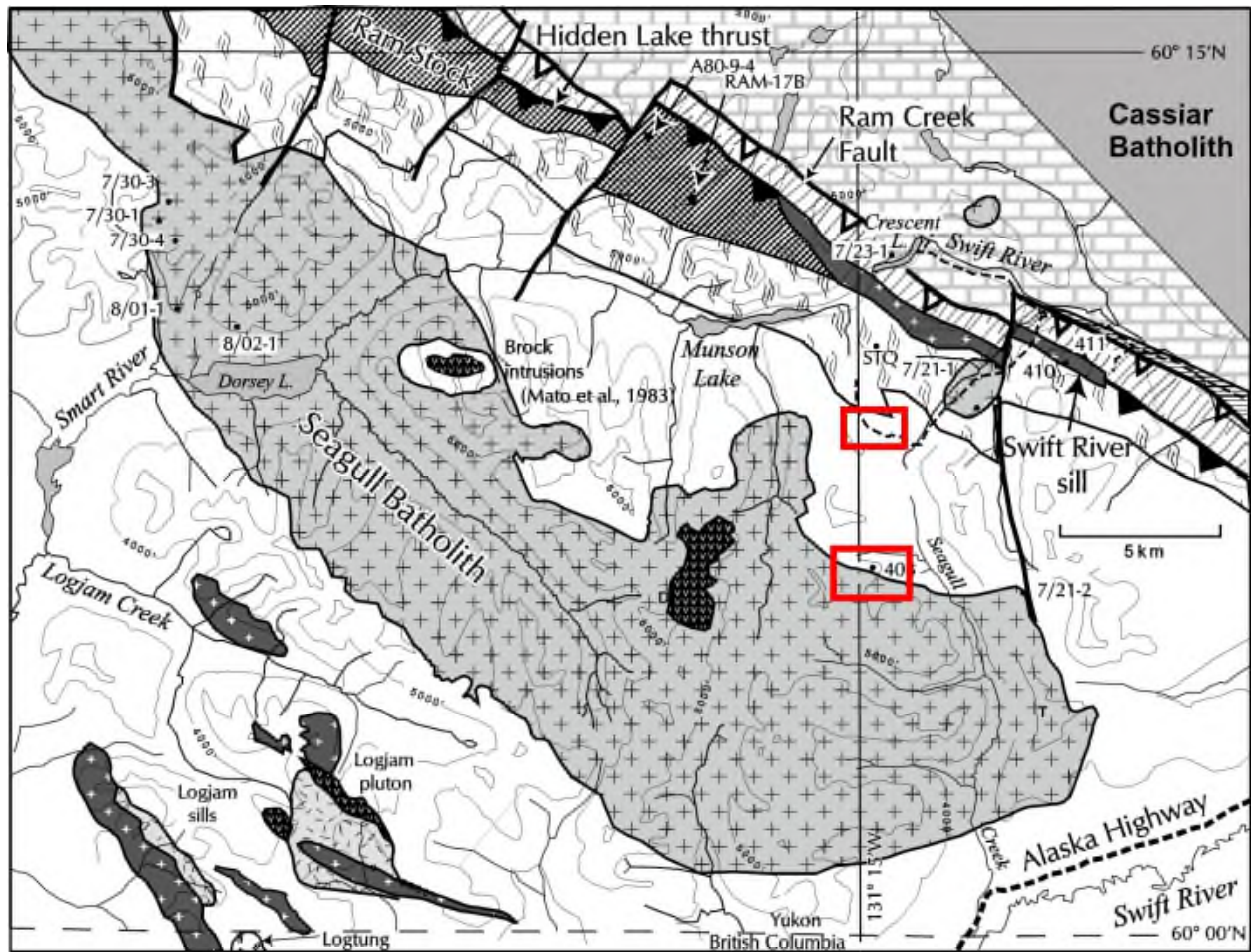


Figure 5. Geology of southeast Yukon in the Seagull batholith area (Liverton et al., 2005). Exploration areas (2019) shown by rectangles with red perimeters: Rusty Valley area to the north and Partridge occurrence area (including the Seagull property) to the south.

“Cretaceous granites intrude every tectonic belt in southern Yukon, and in some cases demonstrably plug faults that separate the terranes” (Liverton et al., 2005, p. 154). Cretaceous and early Eocene plutons are considered post-tectonic because they intruded after these terranes were joined together” (Liverton et al., 2005, p. 148). The Seagull Batholith, Hake batholith and Thirtymile pluton form a northwest trending belt of Cretaceous intrusions, commonly consisting of biotite leuco- quartz monzonite) that may be collectively referred to as the Seagull-Thirtymile granite (Liverton et al., 2005).

“A first-order difference between the Seagull-Thirtymile granites and others is map pattern. In particular, the Seagull Batholith has an irregular outline with numerous satellite stocks.... Valley exposures of granite between ridges of hornfelsed and hydrothermally altered country rock, and (in places) gently dipping intrusive contacts, attest that the Seagull-Thirtymile granite is barely unroofed. It also carries large pendants” (Liverton et al., 2005, p. 154).

“The Seagull-Thirtymile granites are characterized by high silica content and biotite is the only ferromagnesian mineral. Appreciable hornblende is only present in the porphyry lithodeme of the Thirtymile stock (Liverton, 1990). The granite has an equigranular or slightly porphyritic texture. Potash feldspar grains typically overgrow quartz and plagioclase grains at their borders, indicating partial replacement (Poole, 1956). Biotite is commonly slightly altered to chlorite ...areas of the granite are characterized by abundant cavities rimmed with quartz and black tourmaline, purple and green fluorite with rarer blue-green beryl and topaz. Li-rich micas in Thirtymile pluton were described by Liverton and Alderton (1994). These are zones where late-stage volatiles were concentrated, and likely were the highest points in the intrusion, now exposed by erosion” (Liverton et al., 2005, p. 154).

“At the head of the Swift River, along the northeast edge of YTT, are several large pyrrhotite-galena-sphalerite lenses hosted in calc-silicate layers (Bar (better known as Dan), Atom, Bom, and Munson (better known as TBMB); Deklerk, 2003 105B 026, 027, 028, 029). Some exploration programs have investigated the possibility that the adjacent volcanic rock and tuffaceous textures could indicate a syn-sedimentary (volcanogenic) origin. Galena and pyrrhotite samples from these occurrences have lead isotopic ratios that are midway between clearly epigenetic veins, and probable volcanogenic deposits in YTT, however, their modal age is broadly mid-Triassic to mid-Jurassic (Mortensen and Gabites, 2002)” (Liverton et al., 2005, p. 161).

“Cretaceous plutons of the Seagull-Thirtymile trend were the focus of considerable exploration activity during the late 1970s as the price of tin briefly soared. Among the most explored properties were the JC, a 600-m-long tin skarn (105B 040, Deklerk, 2003) and the nearby MC sheeted tin- and sulphide-bearing veins (Mato et al., 1983; 105B 088 (called Smith), Deklerk, 2003). At the JC, tin was precipitated in an early stage within andradite skarn, but later replaced by cassiterite within 90 m of the top of the granite (Layne and Spooner, 1991). At MC, cassiterite coats ‘dry’ (lacking quartz) fractures in country rock (DIAND, 1981, p. 150)” (Liverton et al., 2005, p. 161).

“The Cretaceous (113 to 98 Ma) meta- to peraluminous granites are late orogenic incipient ‘A-type’ plutons from highly fractionated F- and Cl-rich magmas. These generated extensive hydrothermal systems that produced tin, tungsten, molybdenum and beryl occurrences” (Liverton et al., 2005, p. 147).

The Cretaceous granites “... are silica- and iron-rich. The K_2O/Na_2O ratio is high, Rb is very high (in the most fractionated samples), and high field-strength elements are enriched in these rocks relative to chondrites, except for Ba, Sr, Ti and P.... Following the discussion by Creaser et al. (1991) the Seagull-Thirtymile granite could be derived from an igneous source within the lower continental crust, such as a partial melt of granodiorite to tonalite residue from previous magmatic episodes. This may explain the parallel geometry of the Seagull-Thirtymile granite with both Jurassic and Permian Ram Stock precursors” (Liverton et al., 2005, p. 162).

“The unusual character of the Seagull-Thirtymile granite reflects late-stage fractionation when halogen concentrations rose quickly toward the end of crystallization. This fortunate occurrence mobilized the metals and resulted in a high incidence of mineral showings. The degree of fractionation of granite samples indicated by normative minerals, Ga/Al, Rb/Zr or Rb/Sr ratios, could be used as an exploration tool” (Liverton et al., 2005, p. 162).

A map showing 1:50000 geological mapping in the central part of NTS map area 105B/03 (the project target area), from Roots et al. (2004), is shown in Figure 6a. The legend for Figure 6a, which also serves as a stratigraphic chart for the area, is shown in Figure 6b. The map of Roots et al. (2004) is presented as this map and the corresponding unit descriptions represent the most detailed government bedrock geological information available for the area. However, although the locations of bedrock units and unit descriptions provided by Roots et al. (2004) remain valid there have been significant revisions regarding the ages of some units and their terrane affiliations based on newer data and interpretations. The more recent geological interpretations are captured in the 1:1 million Yukon bedrock geology map (Colpron et al., 2016), the pdf version of the Yukon bedrock geology map for NTS map area 105B at 1:250000 (Yukon Geological Survey, 2019), and the digital (shapefile) version of the Yukon bedrock geology map (complete), which is suitable for 1:1 million viewing (Yukon Geological Survey, 2018). The map legend/stratigraphic chart presented in Figure 6b shows the unit names and descriptions of Roots et al. (2004) along with the corresponding unit names from the 1:250000 and 1:1 million maps (Yukon Geological Survey (2018 and 2019). Age assignments, terrane affiliations and unit names follow Colpron et al. (2016) and Yukon Geological Survey (2018).

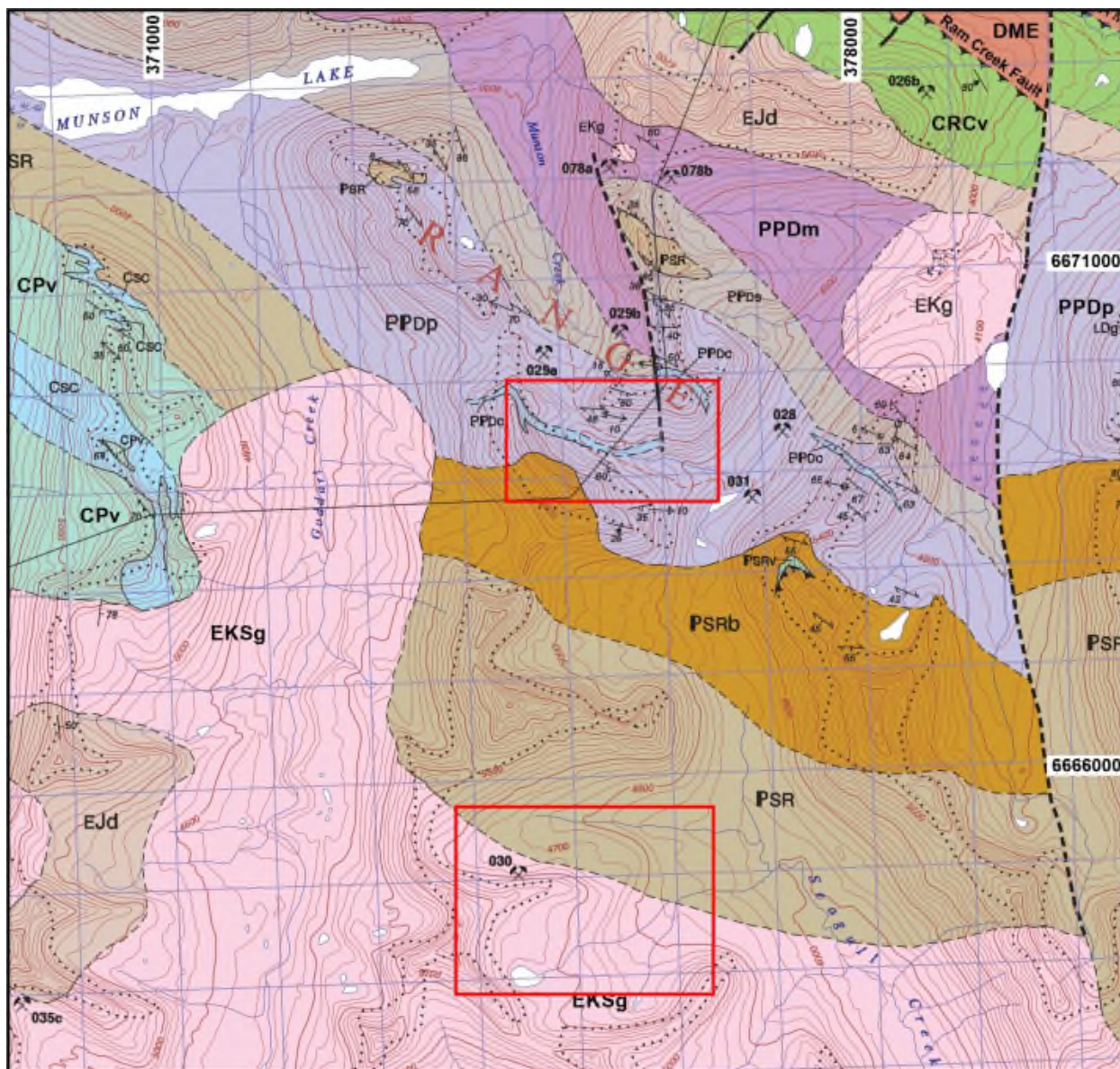


Figure 6a. Geology map of the central part of NTS map area 105B/03 (Roots et al., 2004). Exploration areas (2019) shown by rectangles with red perimeters: Rusty Valley area to the north and Partridge occurrence area (which includes the Seagull property) to the south. Coordinates: UTM, NAD83, Zone 9V.

1:50k Unit	1:50k Description		1:250k Unit	1:1 Mil Unit	Terrane
Mid-Cretaceous					
Seagull Batholith					
EKSg	Seagull Batholith: Biotite granite, granodiorite leuco-quartz monzonite, alaskite.		mKqS	mKS	
Cassiar Suite					
EKg	Biotite granite, granodiorite leuco-quartz monzonite, alaskite.		mKqC	mKC	
Early Jurassic					
Long Lake Suite, Brock Intrusion					
EJd	Hornblende diorite and quartz diorite; minor biotite hornblende quartz monzonite.		EJgL	EJL	
Middle Mississippian to Lower Permian					
Klinkit Group					
CPv	Volcanic fragmental member: Undifferentiated meta-tuff and volcanic breccia of intermediate composition; minor chloritic meta-sandstone and meta-siltstone 'dust-tuffs'.		CK1	CK	Yukon-Tanana
Klinkit Group, Screw Creek Formation					
CSC	Screw Creek Limestone: Thin-to thick-bedded, light grey weathering, commonly bioclastic limestone and dolomitic marble; minor maroon phyllite and bedded green chert.		CK2		
Upper Devonian to Lower Mississippian					
Finlayson Group (Swift River Group of Roots et al., 2004)					
PSR	Dark coloured quartz-plagioclase grit, meta-sandstone; minor phyllitic argillite, quartzite, conglomerate, limestone and chloritic meta-tuff, carbonaceous siltstone, grey chert and volcanic breccia (intermediate composition).		DMF3	DMF	Yukon-Tanana
PSRb	Black to grey, thin- to thick-bedded chert and siliceous phyllite with prominent grey to white clean quartzite.				
PSRv	Chloritic andesitic intrusions, breccia and tuff; green siliceous argillite.				
Ram Creek Complex					
CRCv	Chloritic meta-basalt and meta-tuff of intermediate to mafic composition; minor volcanic meta-sandstone; typically sheared.		DMF1		
Upper Devonian and Older					
Snowcap Group (Dorsey Complex of Roots et al., 2004)					
PPDp	Upper Dorsey unit: Red-brown weathering phyllite, grey phyllite and quartzite, grey metachert and felsic metatuff		PDS1	PDS	Yukon-Tanana
PPDc	Beige-weathering marble and limestone, brown calc-silicate rock.				
PPDs	Biotite ± garnet schist, quartz meta-grit, minor marble.				
PPDm	Lower Dorsey unit: Hornblende schist and gneiss, locally contains felsic leucosome with amphibolite.		PDS3		
East of Ram Creek Thrust Fault					
Upper Devonian to Lower Mississippian					
Earn Group					
DME	Recessive, carbonaceous shale and slate, locally phyllitic.		DMEC1	DMEC	Cassiar

Figure 6b. Legend for Figure 6a and stratigraphic chart for the project area (central part of NTS map area 105B/03). After Roots et al. (2004), Colpron et al. (2016), Yukon Geological Survey (2018) and Yukon Geological Survey (2019). See text for details.

Exploration History of the Partridge Occurrence Area

1979: “Klinkit JV conducted mapping and sampling” (Liverton and Mann, 2013, p. 5).

1982: “Klinkit JV conducted mapping and sampling, VLF EM and mag surveys” (Liverton and Mann, 2013, p. 5).

1983 “Klinkit JV performed bulldozer trenching in 1983” (Liverton and Mann, 2013, p. 5).

1984: “Klinkit JV drilled 6 holes (248 m)” (Liverton and Mann, 2013, p. 5).

1992: Grant Stewart performed roadwork in the area of the Partridge occurrence in September of 1992 (Liverton and Mann, 2013).

1997: Reconnaissance mapping and collection of three granite samples for whole rock analyses (Liverton, 1997).

2009: “Late in the 2009 summer season three days were spent ... in geological mapping and sampling of the eastern part of the Seagull batholith.... That work identified a sheeted vein system that appears to be a new mineral occurrence” (Liverton, 2011, p. 1).

2010: “With the assistance of a YMIP Focused Regional grant during September 2010 the mineralized system was investigated for its cassiterite – tantalite and possibly gold potential. The fieldwork consisted of two parts: collection of heavy mineral concentrates from the streams (tantalite-columbite has a similar density to that of cassiterite and might be expected to be concentrated in the stream bed) and mapping of the Seagull batholith around the VAL prospect, with examination of outcropping joint/vein systems” (Liverton, 2011, p. 1).

2013: Work in the Partridge showing area in 2013 “... consisted of detailed mapping of the granite contact around the south side of the Val pendant with sampling of skarn exposures.... Hand specimens were semi-quantitatively analysed using a portable XRF instrument” (Liverton and Mann, 2013).

2014: YMEP project to “...investigate the possibility of economic concentrations of rare metals (rather than the traditional gold deposits sought in the Yukon) in placers at the headwaters of Seagull Creek” (Liverton, 2015, p. 1). “The active stream sediments and recent alluvial benches at the headwaters of Seagull Creek all carry some heavy minerals that include cassiterite, columbite-tantalite or fergusonite and monazite plus tungsten minerals. Quantities, however, are under one tenth of that required for economic placer extraction” (Liverton, 2015, p. 7).

Local Geology and Mineralization

The Seagull property, which covers the Partridge occurrence, is centered about 12 km north of the settlement of Swift River, which is located on Alaska Highway approximately 140 km east of Watson Lake (Figure 2). The area is drained by the Seagull Creek to the south, which lies to the east of the property (Figure 7).

The bedrock geology of the project area is dominated by supracrustal rocks of the Devonian to Permian Yukon Tanana Terrane with granitic rocks of the Mid-Cretaceous Seagull Batholith to the southwest (Figure 6a and 7). One large and several smaller granitic bodies intrude into rocks of the Yukon Tanana Terrane northeast of the Seagull Batholith. Various researchers have considered these to be offshoots of either the Seagull Batholith or to be part of the slightly older Cassiar Suite. Mineral occurrences shown in Figure 7 are discussed in the pages that follow.

Mineralization discovered on the VAL (A) claims of Du Pont Exploration in the early 1980's corresponds closely to the location of the Partridge occurrence (Yukon Geological Survey Minfile). Tin mineralization is associated with skarn along the contact of a limestone roof pendant with rocks of the Seagull Batholith and also occurs in altered Seagull Batholith granite (Goad, 1980). Seven samples from the roof pendant and skarn area of the VAL (A) claims returned from 0.29% Sn to 2.00% Sn. A sample of highly altered Seagull Batholith granite with pervasive Mn staining and fluorite yielded 0.75% Sn. The mineral (or minerals) hosting the Sn was not identified (Goad, 1980). The mineralization occurs less than 1.5 km from the margin of the Seagull Batholith.

Goad (1980, p. 4) stated that the "... mineralization of the VAL (A) skarn zone appears to grade sufficiently high to be of interest" but expressed uncertainty regarding the size and mineralogy of the tin bearing zone.

"The granite on either side of the Val marble pendant, which divides the two branches of Seagull Creek investigated in this work, shows E-W striking near vertical sheeted vein systems that carry cassiterite, much tourmaline and monazite Columbite-tantalite is also expected to be present in the veins and has been recognised in heavy mineral concentrates from below the Val cirques.... Country rocks to the north and east consist of polydeformed metasediments and metavolcanics of the Yukon-Tanana terrane (Liverton, 2015, p. 1).

The Val (Partridge) roof pendant consists of a marble unit that overlies a thin quartzite. "The marbles have been metamorphosed-metsomatized to skarn in various bedding-parallel layers and in discordant veins. At the granite contact high temperature skarns of melilite-garnet-diopside are developed, with actinolite skarn as the retrograde assemblage. At several disjointed localities along that contact greisenized skarn is also developed. This 'wriggite'-textured rock contains banded magnetite, phengite, fluorite, fluoborite and ludwigite-vonsenite. Cassiterite is associated with the magnetite-fluorite layers and may be present to >1% grade. Scheelite was also noted in outcropping actinolite skarn" (Liverton, 2015, p. 1-5).

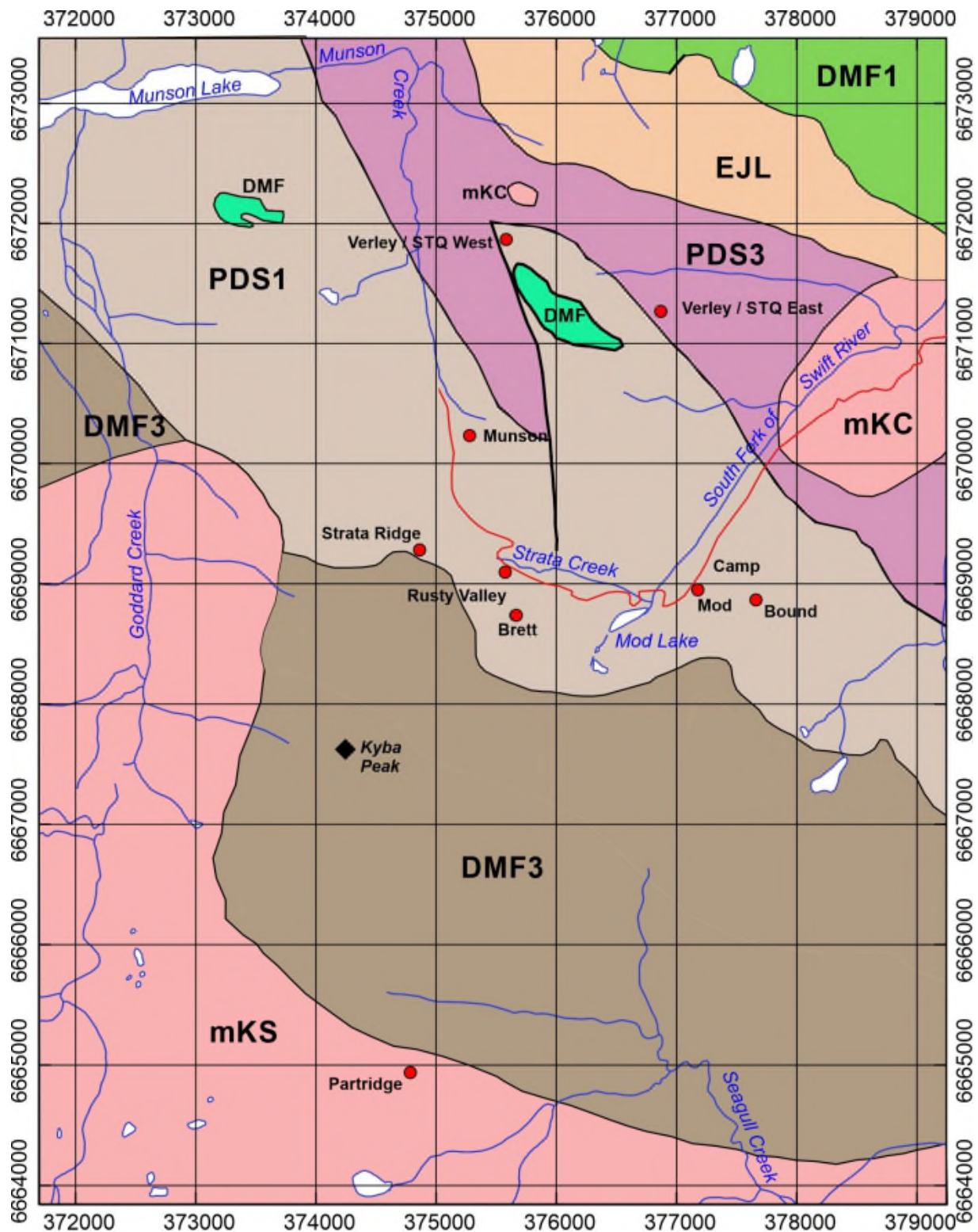


Figure 7. Project area geology and mineral occurrences (red dots). Geology from Yukon Geological Survey (2018). See Figure 6b for geological legend (see 1:1 million and 1:250000 unit codes). Exploration in 2019 focused on the area west of Strata Creek and the Partridge occurrence area (Seagull property area). Mod Lake, Strata Creek, Strata Ridge and Kyba Peak are informal names. Road (trail) is shown in red. Coordinates: UTM, NAD83, Zone 9V.

“The skarns are developed around the southern side of the carbonate pendant across the dip slope within about 10m of the granite contact. Exposure is limited, but it is evident that the skarn is discontinuous along strike. Magnetite-rich skarn is found along the contact of the pendant at the eastern tip, at the centre and close to the western limit of the carbonate. It is difficult to assess the thickness of the skarn other than at the eastern end, but it does not exceed 3 metres at any one exposure ...,” (Liverton and Mann, 2013, p. 12).

Semi-quantitative analysis of a small number of hand specimens with a portable XRF unit returned values of up to 0.74% Sn and 3.18% W (Liverton and Mann, 2013). “It is notable (and economically significant) that the only tin mineral noted is cassiterite, rather than vonsenite, hülsite, burtite or nordenkiöldine, that would be metallurgically refractory” (Liverton and Mann, 2013, p. 8).

Sheeted vein systems occur in the region surrounding the Partridge showing and may contain greater amount of cassiterite and scheelite than is present as skarn mineralization (Liverton and Mann, 2013, p. 12).

Highly concentrated heavy mineral stream sediment samples collected below (east of) the Partridge showing in the headwaters of Seagull Creek and have returned values of up to >5% Sn, 1.24% W, 3.88% Nb, 0.61% Ta, 2.96% La, >5% Ce and 1.25% Nd (Figure 8; Liverton and Mann, 2013; Liverton, 2011). These results indicate the potential for the area to host deposits of Nb, Ta and rare earth element deposits (specialty metals) in addition to (or as co-products with) Sn and W. The amount of field material that underwent panning varied “... from ¾ to one 20l bucket full and the field panning collected a fairly ‘dirty’ specimen. These were panned again before shipment for analysis” (Liverton, 2011, p. 4; i.e. initial stream sediment volume of 15 to 20 litres was panned). After the two rounds of panning the “... concentrates represent $\leq 0.0175\%$ of the weight of the original sediments” (Liverton, 2011, p. 5). The weights of the heavy mineral concentrates varied from 0.565 g to 3.498 g (Liverton, 2011).

Potential for Gem Mineralization Associated with the Seagull Batholith: “Blue beryl and danalite are found with quartz, blue tourmaline, fluorite, and green Fe biotite in a peripheral skarn (JC prospect Yukon MINFILE 105B 040). Though the skarn is some distance from the contact a lobe of the intrusion is intersected at depth in a diamond drill hole on the property. The Seagull batholith is fluorine rich, tin bearing and carries lithium micas (zinnwaldite and lepidolite) as well as tourmaline nodules. The nodules are of gemological relevance as some contain cavities lined with coarse crystals (Sinclair, 1983)” (Legun, 2005). The Seagull Batholith was identified by Groat in 1995 as displaying characteristics considered favourable for the formation of gem bearing and/or rare element pegmatites (Walton, 2004).

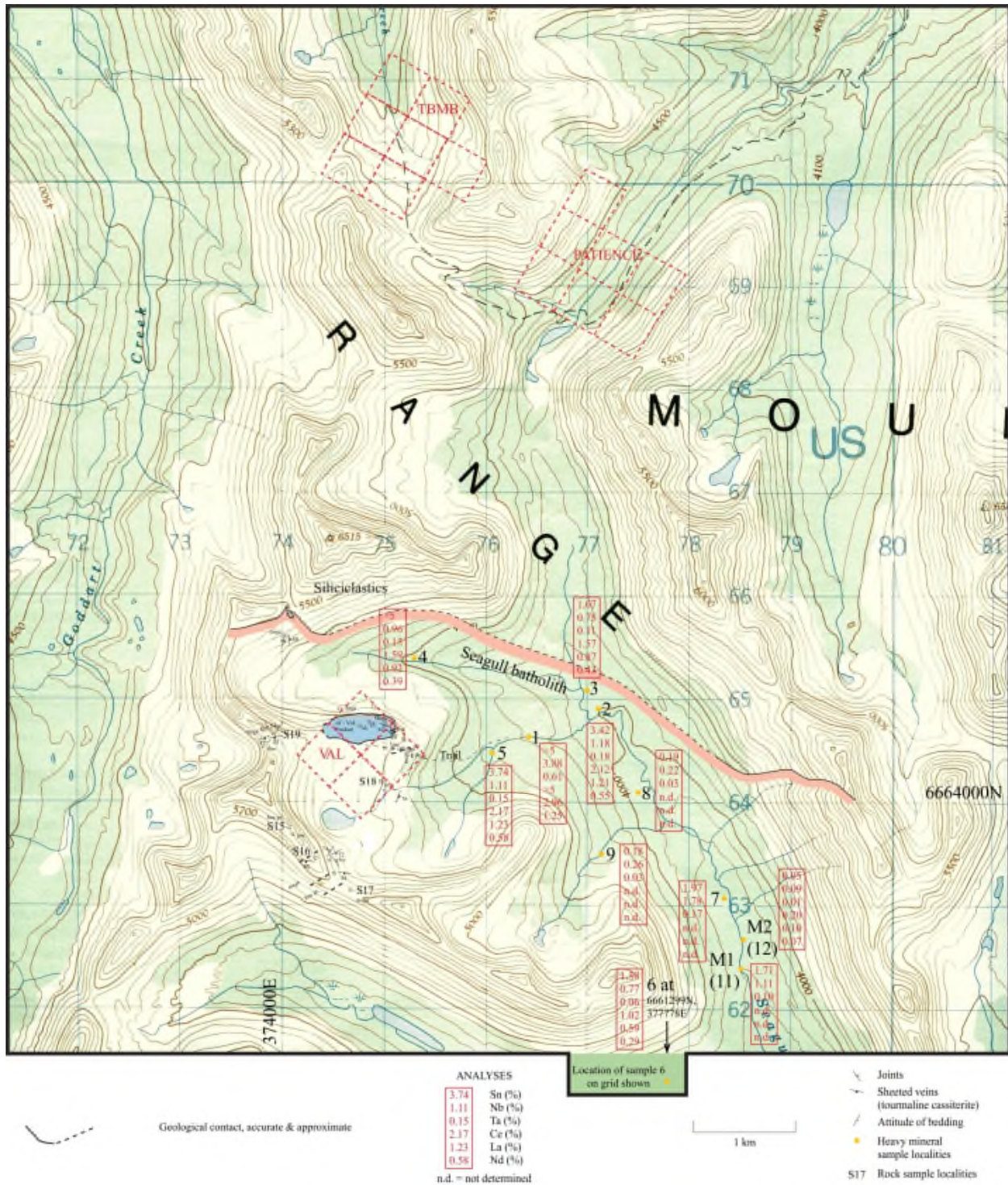


Figure 8. Stream sediment heavy mineral concentrate sample results in the Partridge (Val) occurrence area. Geological observations are also shown. From Liverton and Mann (2013). Heavy mineral sample results initially reported by Liverton (2011). Samples underwent a very high degree of heavy mineral concentration before geochemical analyses.

2019 Exploration Program

Claim Staking

The Seagull property of four quartz claims was staked during the 2019 field program (Table 1 and Figures 9 and 10). This claim group (SG 1 to SG 4 claims) is located west of the upper part of Seagull Creek in NTS map area 105B/03. All of the claims are registered in the Watson Lake Mining District to Glen Prior.

Property	Claim Name	Tag Number	Recording Date
Seagull	SG 1	YE86007	2019-08-16
	SG 2	YE86008	2019-08-16
	SG 3	YE86009	2019-08-16
	SG 4	YE86010	2019-08-16

Table 1. Seagull property quartz claims.

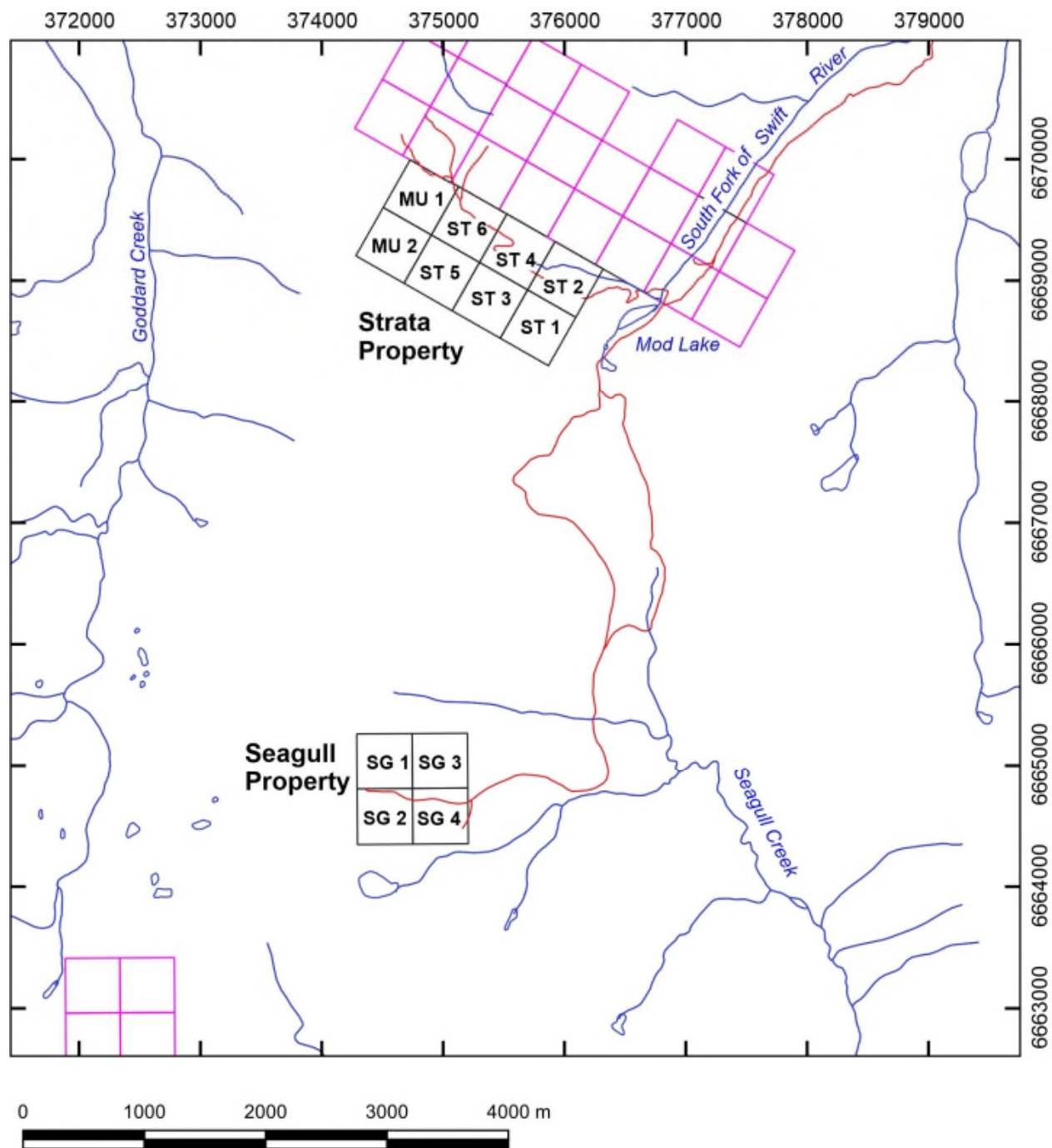


Figure 9. Map showing location of Seagull property and Strata property (both registered to Glen Prior). Other claims in magenta. Roads (trails) shown in red. Coordinates: UTM, NAD83, Zone 9V.

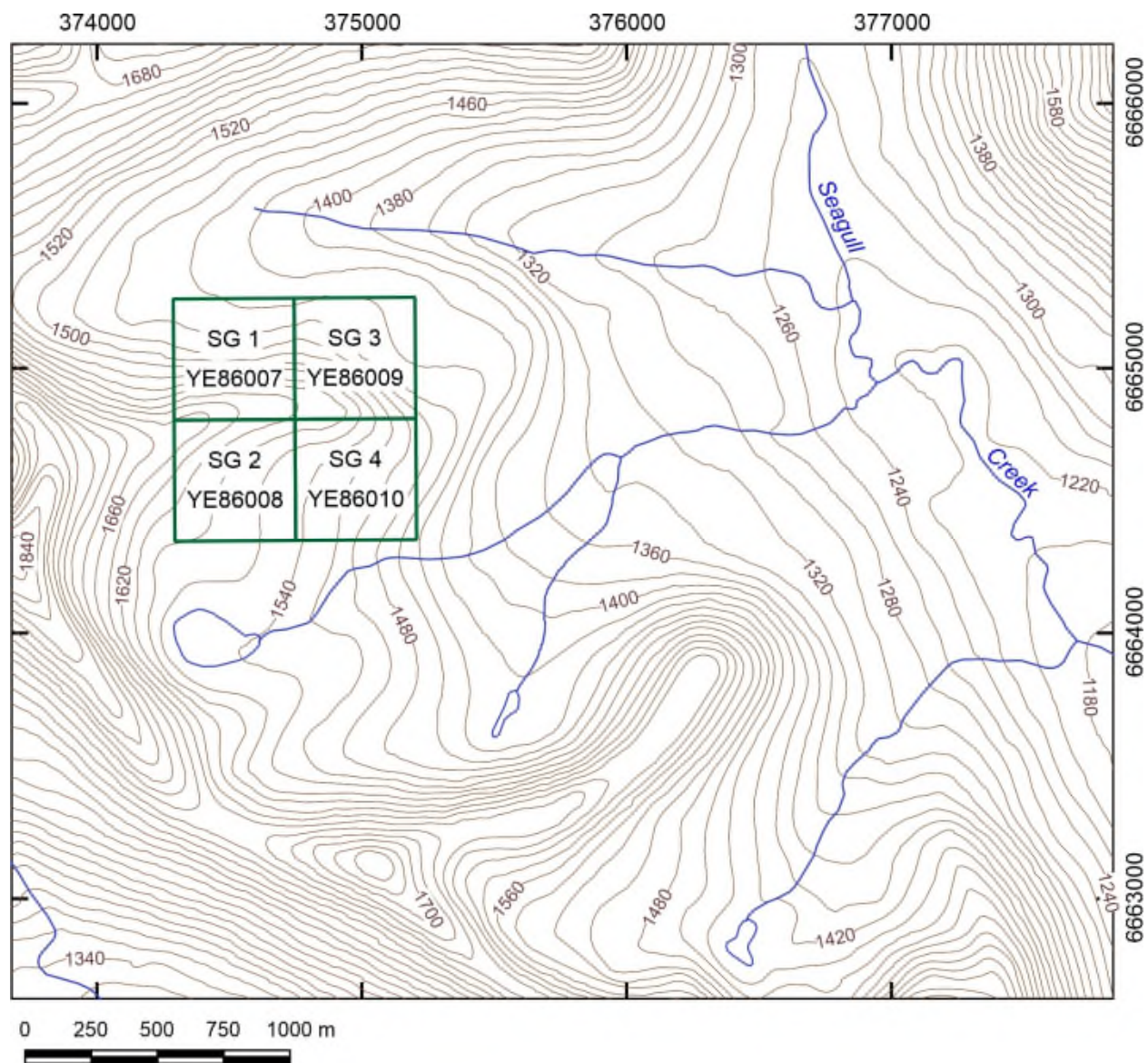


Figure 10. Map of Seagull property (green claim boundaries). Contour interval is 20 m. Coordinates: UTM, NAD83, Zone 9V.

Field Exploration Overview

Exploration field work in the Seagull property area in 2019 included (i) stream silt sampling, (ii) stream heavy mineral concentrate (panned concentrate) sampling, (iii) rock sampling and (iv) a limited amount of ground radiometric surveying.

Stream silt samples were collected partly or total from stream moss mats. Large pleated kraft sample bags were filled to maximum capacity to ensure enough silt was obtained for analyses. Sample weights varied from 40 g to 332 g after drying.

Heavy mineral concentrate (HMC) samples were collected near silt sampling sites if enough sand sized material was available. Heavy mineral concentration was achieved by field panning. Where possible, HMC sampling sites were selected where a drop in flow velocity occurs such as on the downstream side of mid-channel boulders. The sediment was collected from the stream bottom using a trowel. This material was sieved through a metal mesh screen with square openings 2.5 mm across and collected in a gold pan (sieving was undertaken with the pan and sieve held underwater and essentially all silt and clay are washed out of the sample during this process). A 36 cm (14") plastic Garrett gold pan (Garrett gravity trap) was used for panning. The inside diameter at the top of this pan is 34 cm, it is 7 cm deep, and has a flat, recessed bottom that is 15 cm across and 0.5 cm deep with near vertical sides. The pan has three riffles on one side. Sediment collection was stopped when the pan was about three quarters full – a volume of 1100 to 1500 ml (Figure 11). The sediment was then panned until the volume of material in the pan fit within the recessed bottom of the pan, which has a volume of approximately 100 ml (Figure 12). The initial sediment in the pan (before panning) was weighed in the field after as much water as reasonably possible had been drained from the pan (a correction factor of 0.8 was applied to the initial pan weight values obtained in the field as the scale used in the field was determined to yield values that were too high). These initial weights (after correction) ranged from 2.4 kg to 3.4 kg. After panning the HMC sample was collected in a large kraft sample bag and air dried. The weights of the dry HMC samples (which were sent for geochemical analysis) were also recorded (after field work was completed) and these varied from 127 g to 201 g. The amount of heavy mineral concentration obtained by field panning was relatively modest. The weight fraction of the panned HMC sample relative to the initial stream sediment weight varied from 4% to 7%.



Figure 11. Photo showing stream sediment in pan after sieving and before concentration by panning (heavy mineral concentrate sample SR701; 376236E, 6665434N, UTM NAD83 Zone 9V).



Figure 12. Photo showing stream sediment heavy mineral concentrate sample after concentration by panning (heavy mineral concentrate sample SR701; 376236E, 6665434N, UTM NAD83 Zone 9V).

Most of the rock samples taken in 2019 were grab samples collected from boulder sized blocks of talus or trench rubble. Two samples were collected at each site – a sample for laboratory analysis and a representative sample to be retained.

Stream silt sample descriptions and heavy mineral concentrate sample descriptions are presented in Appendix 1 and rock sample descriptions are provided in Appendix 2.

A limited amount of ground radiometric surveying using a hand-held Saphymo Stel SPP2 scintillometer was undertaken along two traverses in the Partridge occurrence area. The SPP2 is equipped with a NaI scintillator and is designed to detect radioactivity above an energy threshold of 30 keV (commonly referred to as total radioactivity and includes radioactivity associated with potassium, uranium and thorium). Units of measurement are counts per second (cps), which are shown on an analogue display. It is powered by 3 D cell batteries. In order to facilitate field work, a wooden handle approximately 70 cm long was taped to the detector to make it easier to obtain readings at ground level. Radioactivity readings were recorded approximately every 5 or 10 m apart along the traverses. The location, lithology and exposure type (boulder or outcrop) were also recorded (Appendix 3). The ground between the recording sites was scanned with the scintillometer for anomalously radioactive rock.

All samples collected in 2019 were shipped to TSL Laboratories Inc. in Saskatoon, Saskatchewan where they underwent aqua regia digestion–ICP-MS and four acid digestion–ICP-AES analyses at TSL (Appendix 4). The two methods were employed to obtain reliable data for a broad suite of elements including (i) Au (aqua regia digestion) and (ii) Sn, W, Nb and La (near total determinations based on four acid digestions). After the initial analyses were reported samples were selected for Zn, Pb, Ag and Au assays at TSL (Appendix 5). In addition, six selected rock pulps were sent from TSL to ALS Canada Ltd. in North Vancouver for additional determinations including (i) three whole rock (fusion) analyses, (ii) two ore-grade analyses for Sn and W and (iii) one B result. Laboratory analytical results are presented in Appendix 6.

Location information was obtained using a Garmin GPSMAP 64st instrument. Location units are presented in the UTM NAD83 coordinate system (Zone 9V). Horizontal accuracy, as measured by the instrument, is generally within 3 m. The instrument does not display vertical accuracy but it is much poorer than horizontal accuracy.

Laboratory Methods

Laboratory Methods – TSL Laboratories Inc., Saskatoon

[Laboratory method descriptions provided by Mark Acres of TSL Laboratories Inc.]

Rock Sample Heavy Mineral Concentrate Sample Preparation

Samples received at TSL Laboratories Inc. in Saskatoon, Saskatchewan were opened, sorted and dried prior to preparation. Rock and HMC samples were crushed using a primary jaw crusher to a minimum 70% passing 10 mesh (1.70 mm).

A representative split sample was obtained by passing the entire sample through a riffler. The 250 gram sub-sample thus obtained was pulverized to a minimum 95% passing 150 mesh (106 microns).

Stream Silt Sample Preparation

Samples received at TSL Laboratories Inc. in Saskatoon, Saskatchewan were opened, sorted and dried prior to preparation. The samples were sieved to <80 mesh (<180 microns) prior to analysis.

Multi-Element Analysis by Aqua Regia Extraction and ICP-MS Determination

A 0.5 gram sample was digested with 3 ml of aqua regia (3:1 HCl/HNO₃) at 95°C for 1 hour and then diluted to 10 ml with deionized water. The solution was analyzed by inductively coupled plasma mass spectrometry (ICP-MS) for 36 elements. Aqua regia digestion may fail to liberate significant proportions of several of the reported elements (depending on sample mineralogy) including Al, B, Ba, Ca, Cr, Fe, Ga, K, La, Mg, Mn, Na, P, Sn, Sr, Th, Ti, V and W.

Multi-Element Analysis by Four Acid Extraction and ICP-AES Determination

Samples underwent four acid digestion using a combination of hydrochloric acid (HCl), nitric acid (HNO₃), hydrofluoric acid (HF) and perchloric acid (HClO₄). This digestion method is commonly referred to as 'near total' because hydrofluoric acid has the ability to dissolve silicate minerals. The resulting solution was analyzed for 35 elements by inductively coupled plasma emission spectroscopy. The four acid digestion may only partly liberate some elements including Al, Ba, Cr, Sn and Zr depending on sample mineralogy. Some loss of volatile elements such as As and Sb may occur.

Gold and Silver Assays: Gold and silver assays were determined on 29.16 g (1 assay ton) subsamples by fire assay procedure (production of Dore bead) followed by a gravimetric finish.

Lead and Zinc Assays: Samples that initially returned > 10000 ppm Pb and/or >10000 ppm Zn were submitted for assay determinations. A 0.5 g subsample underwent an analysis method utilizing four-acid (HNO_3 -HF- HClO_4 -HCl) digestion, large dilution and atomic emission spectroscopy.

Laboratory Methods – ALS Canada Ltd., North Vancouver

[Laboratory method descriptions provided by ALS Canada Ltd.]

Major Oxides (Method ME-ICP06): A prepared sample (0.100 g) is added to lithium metaborate/lithium tetraborate ($\text{LiBO}_2/\text{Li}_2\text{B}_4\text{O}_7$) flux, mixed well and fused in a furnace at 1000°C. The resulting melt is then cooled and dissolved in 100 mL of 4% nitric acid/2% hydrochloric acid. This solution is then analyzed by ICP-AES and the results are corrected for spectral inter-element interferences. Oxide concentration is calculated from the determined elemental concentration and the result is reported in that format.

Loss on Ignition (Method OA-GRA05): A prepared sample (1.0 g) is placed in an oven at 1000°C for one hour, cooled and then weighed. The percent loss on ignition is calculated from the difference in weight.

Trace Elements by Fusion – ICP-MS (Method ME-MS81): A prepared sample (0.100 g) is added to lithium metaborate/lithium tetraborate ($\text{LiBO}_2/\text{Li}_2\text{B}_4\text{O}_7$) flux, mixed well and fused in a furnace at 1025°C. The resulting melt is then cooled and dissolved in an acid mixture containing nitric, hydrochloric and hydrofluoric acids. This solution is then analyzed by inductively coupled plasma - mass spectrometry.

Silver, Arsenic, Cadmium, Cobalt, Copper, Lithium, Molybdenum, Nickel, Lead, Scandium, Thallium (Method Code ME-4ACD81): A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and the resulting solution is analyzed by inductively coupled plasma-atomic emission spectrometry.

Tin and W (Method XRF10): A calcined or ignited sample (0.9 g) is added to 9.0g of lithium borate flux (50 % - 50 % $\text{Li}_2\text{B}_4\text{O}_7$ – LiBO_2), mixed well and fused in an auto fluxer between 1050 - 1100°C. A flat molten glass disc is prepared from the resulting melt. This disc is then analysed by X-ray fluorescence spectrometry.

Sulphur (Method S-IR08): The sample is analyzed for total sulphur using an infrared spectroscopy analyzer. While a stream of oxygen passes through a prepared sample (0.05 to 0.6g), it is heated in a furnace to approximately 1350°C. Sulphur dioxide released from the sample is measured by an infrared detection system and the total sulphur result is provided.

Boron (Method B-ICP82b): A prepared sample (~0.2 g) is added to sodium peroxide flux (~2.6 g), mixed well and then fused in a furnace. The resulting melt is cooled and then dissolved in hydrochloric acid. This solution is then analyzed by inductively coupled plasma – atomic emission spectrometry.

Analytical Quality Assurance

Certified reference materials (standards) and blanks were inserted into the sample batches by both TSL and ALS. The data obtained on these materials were reviewed by the author and the no significant issues were detected.

Geochemistry Note

Samples from the 2019 field season were submitted to TSL for analyses by both aqua regia digestion–ICP-MS determination and four acid digestion–ICP-AES determination. For the purposes of this report the aqua regia–ICP-MS data will generally be used for the chalcophile elements (Ag, As, Bi, Cd, Cu, Ga, Hg, Pb, S, Sb, Se, Te, Tl and Zn) with the exception of Sn, which is not reported by aqua regia–ICP-MS (Sn oxides may be resistant to aqua regia digestion). The aqua regia–ICP-MS will also be used for Au and B as these elements are not included in the four acid–ICP-AES suite. The four acid–ICP-AES data will generally be used for the lithophile elements and siderophile elements (other than Au) and Sn. The lithophile elements include most of the major elements and several trace elements including Be, Sr, Ba, Sc, Y, La, Zr, V, Nb, Cr, P, Th and U. The siderophile elements include Mo, W, Mn, Fe, Co, Ni.

Where Ag, Pb and/or Zn assays have been undertaken by TSL the assay results supersede all other analytical data.

Pulps from a few, selected samples were submitted to ASL Laboratories in Vancouver for additional analyses by a variety of methods including fusion digestions. For samples where ALS data is available the ALS results are considered preferable for certain elements, including Sn, W, Nb and B, and provide data for some elements not determined by TSL, including Li, Ta and the rare earth elements with higher atomic numbers than La.

Stream Silt Geochemistry

A map showing 2019 silt sample locations is presented in Figure 13. Most of the sampling was done in the area of the Seagull (SG) claims, west of Seagull Creek, with one sample collected from Strata Creek downstream from the ST claims.

Zinc results for stream silt samples are shown in Figure 14. Two samples collected north of the Partridge skarn occurrence returned strongly elevated zinc values (785 and 863 ppm) – these values probably reflect sphalerite skarn mineralization. Four samples collected south of the Partridge occurrence returned values of 308 ppm to 348 ppm Zn. These results may in part reflect the skarn mineralization in the Partridge occurrence area but the high value from the southern stream suggests Zn mineralization may occur in the granites to the south. The highest zinc value (1111 ppm) was obtained from Strata Creek downstream from the ST claims. This extremely high Zn value is the result of sphalerite mineralization in the Rusty Valley (Strata Creek Valley) area.

Arsenic results for stream silt samples are shown in Figure 15. Stream to the north, south and southeast of the Partridge occurrence are significantly enriched in arsenic in the stream sediment silt fraction with up to 373 ppm As. The distribution of high arsenic values suggests sources in addition to the Partridge occurrence. A granitic boulder found in the southernmost stream sampled during 2019 contains arsenopyrite in both a narrow quartz vein and an associated biotite alteration selvage (a sample of this mineralization [SR504] returned 4610 ppm As).

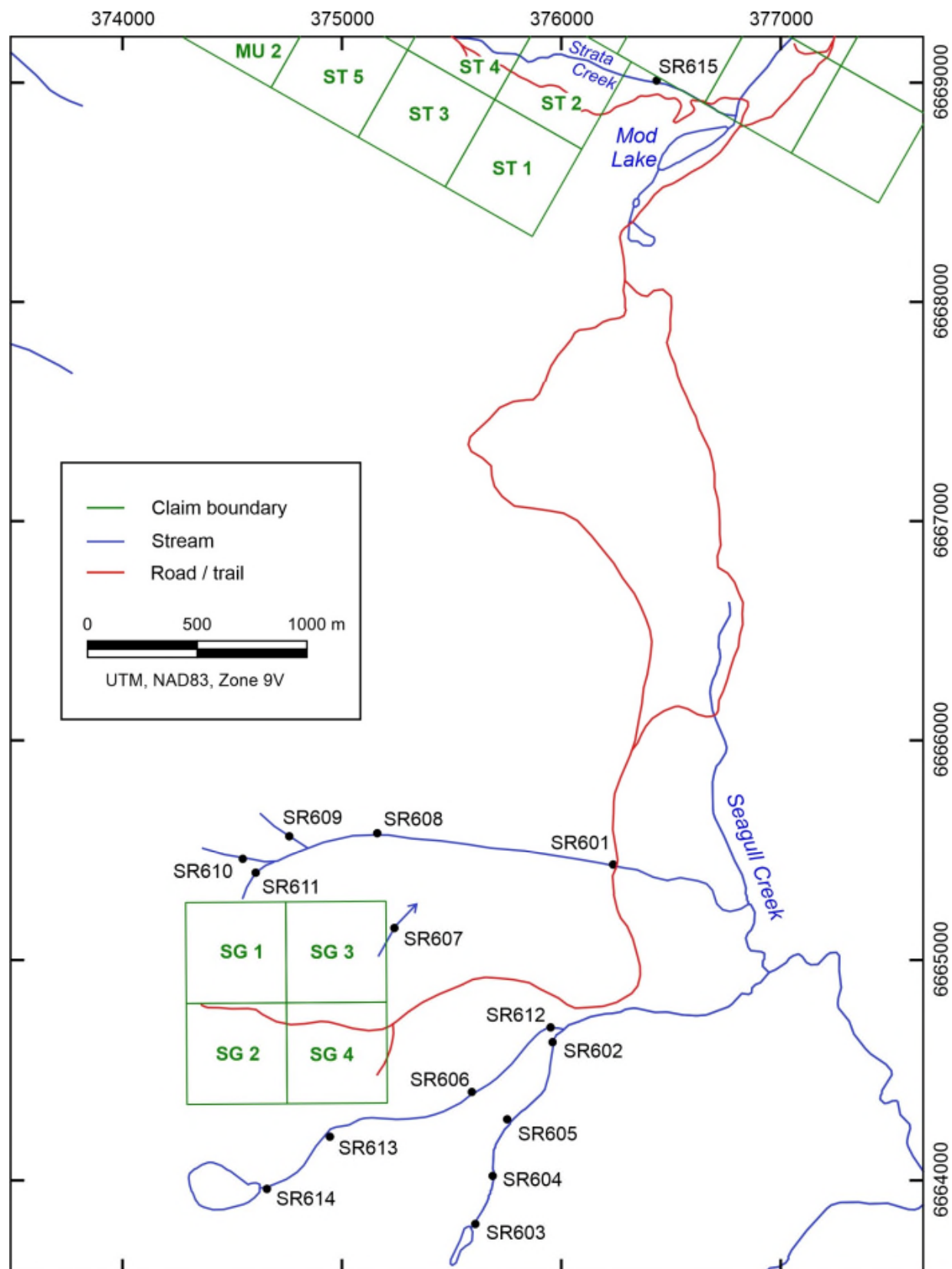


Figure 13. Map showing 2019 stream silt sample sites and numbers in the project area.

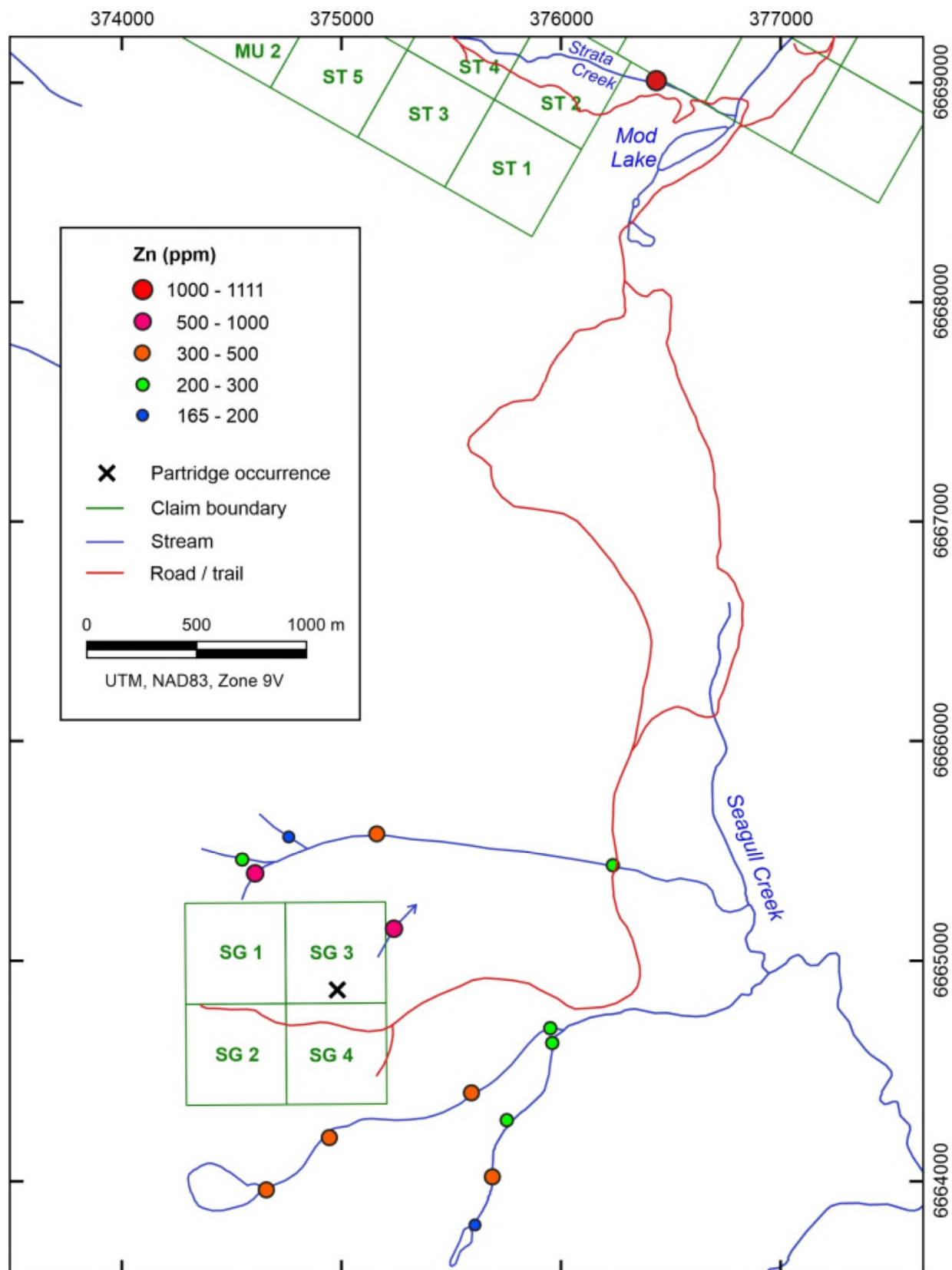


Figure 14. Map of zinc in 2019 stream silt samples.

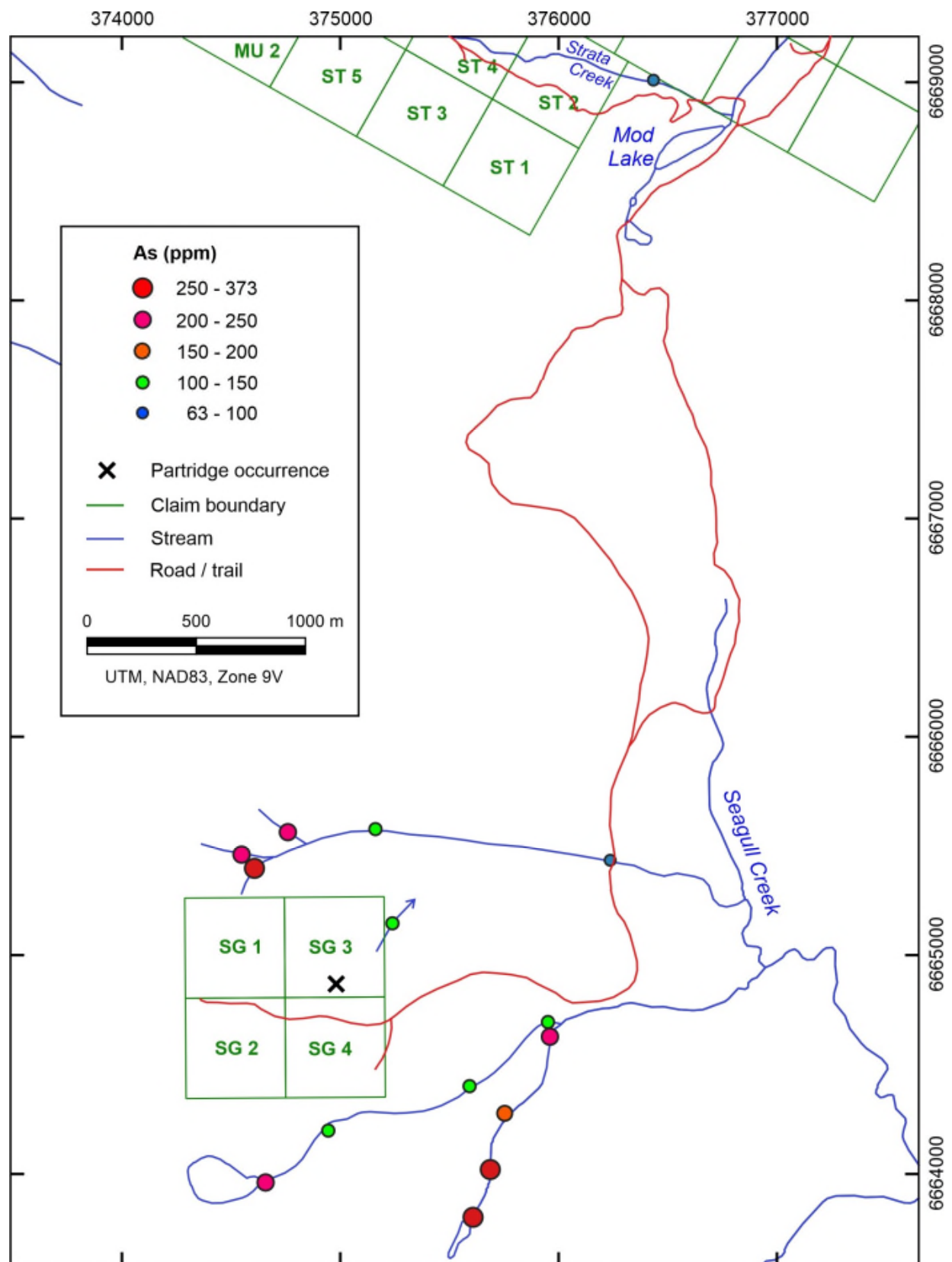


Figure 15. Map of arsenic in 2019 stream silt samples.

Heavy Mineral Concentrate Geochemistry

A map showing 2019 heavy mineral concentrate (HMC) sample locations is presented in Figure 16. The sites correspond with silt sample sites but not all sites had enough sand sized sediment to obtain a heavy mineral concentrate sample. Most of the sampling was done in the area of the Seagull (SG) claims, west of Seagull Creek, with one sample collected from Strata Creek downstream from the ST claims.

The amount of heavy mineral concentration obtained by field panning was relatively modest. The weight of sediment initially placed into the pan for field panning was weighed (2.4 to 3.4 kg) along with the weight of the material remaining after panning (127 to 201 g). The weight fraction of the panned material (which was sent for geochemical analysis) varied from 4% to 7% relative to the initial material weight (with an average of 5.8%).

Zinc results for heavy mineral concentrate samples are shown in Figure 17. The panned concentrate sample from Strata Creek below the ST claims returned a strongly elevated value of 676 ppm Zn. The eight samples from streams in the Partridge occurrence returned a maximum value of 109 ppm Zn.

Tin results for heavy mineral concentrate samples are shown in Figure 18. The stream north of the Partridge occurrence is highlighted with the three HMC samples returning 16 to 42 ppm Sn. In contrast, all five HMC samples from streams draining the valley south of the Partridge occurrence returned values of <5 ppm Sn. The one HMC sample collected from Strata Creek downstream of the ST claims returned 18 ppm Sn.

Niobium results for heavy mineral concentrate samples are shown in Figure 19. The two HMC samples stream north of the Partridge occurrence returned 50 and 70 ppm Nb. The two highest values for HMC samples collected south of the Partridge occurrence are 38 and 50 ppm Nb. These values appear to be somewhat elevated. For comparison, the HMC sample collected from Strata Creek returned only 14 ppm Nb.

The significant differences between the 2019 HMC results and those of Liverton (2011) are primarily a function of differences in the degree of concentration. The 2019 HMC samples had an average weight equivalent to 5.8% of the initial stream sediment that underwent panning. The Liverton (2011) results were derived from HMC samples that retained $\leq 0.0175\%$ of the weight of the original sediments. Therefore, if all heavy minerals remained in the pan, heavy minerals (and their contained elements) in the 2011 data were concentrated by factors of ≥ 331 relative to the 2019 data. If one takes the highest Nb value obtained from the 2019 HMC samples (70 ppm Nb) and multiplies it by 331 a value of 23170 ppm (2.32%) Nb is obtained. The highest Nb value obtained by Liverton (2011) was 3.88% Nb.

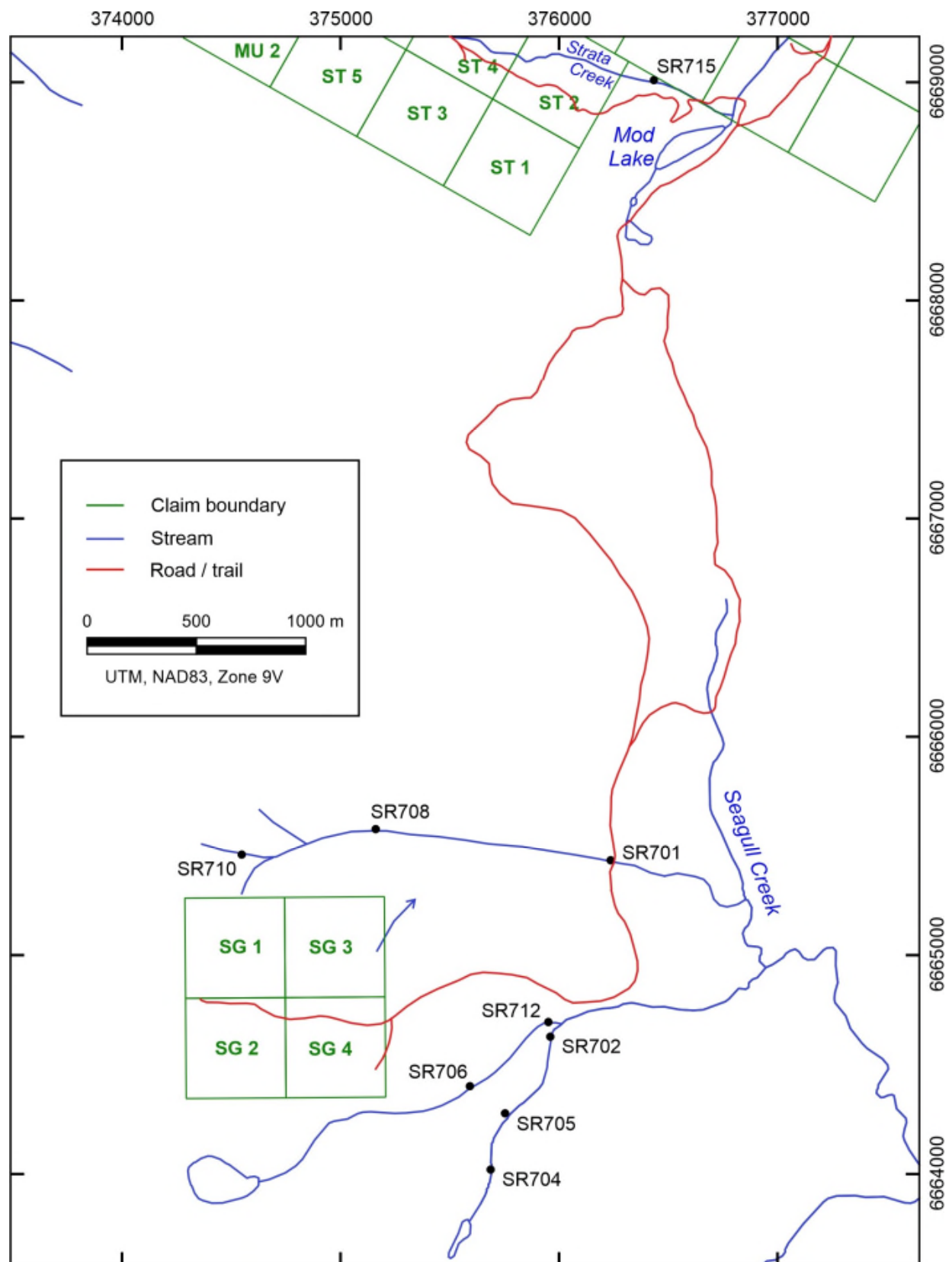


Figure 16. Map showing 2019 heavy mineral concentrate sample sites and numbers in the project area.

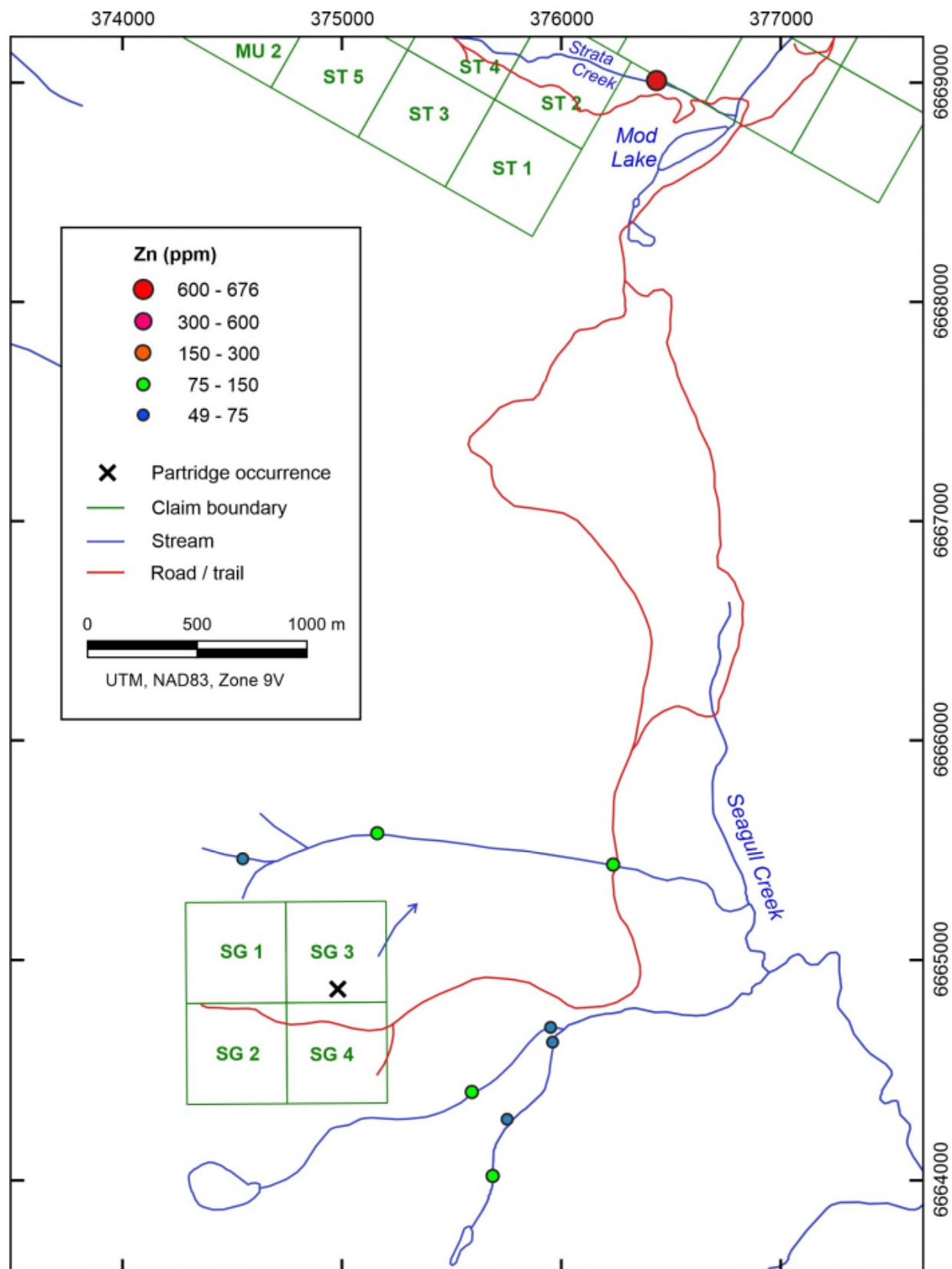


Figure 17. Map of zinc in 2019 heavy mineral concentrate samples.

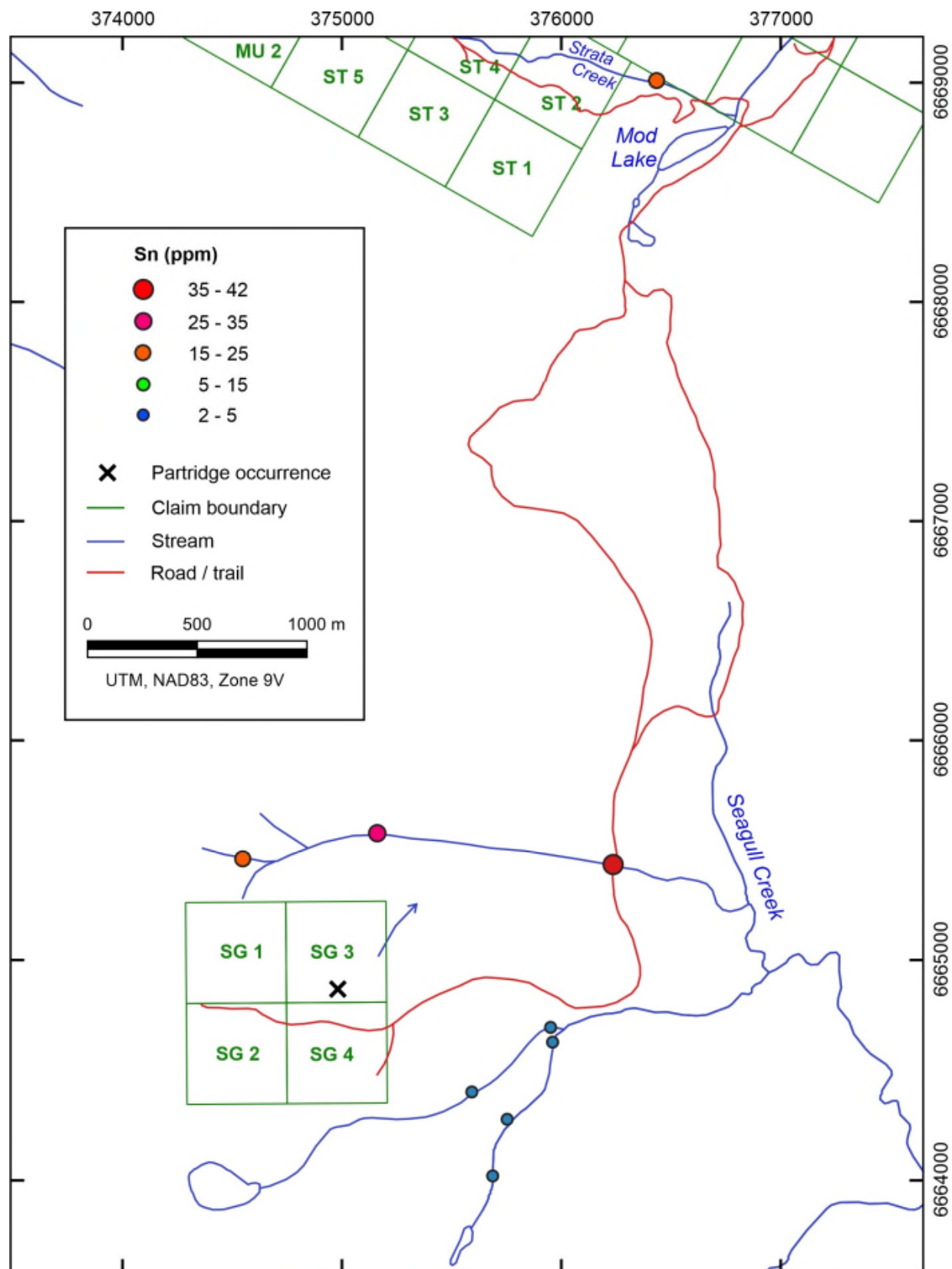


Figure 18. Map of tin in 2019 heavy mineral concentrate samples.

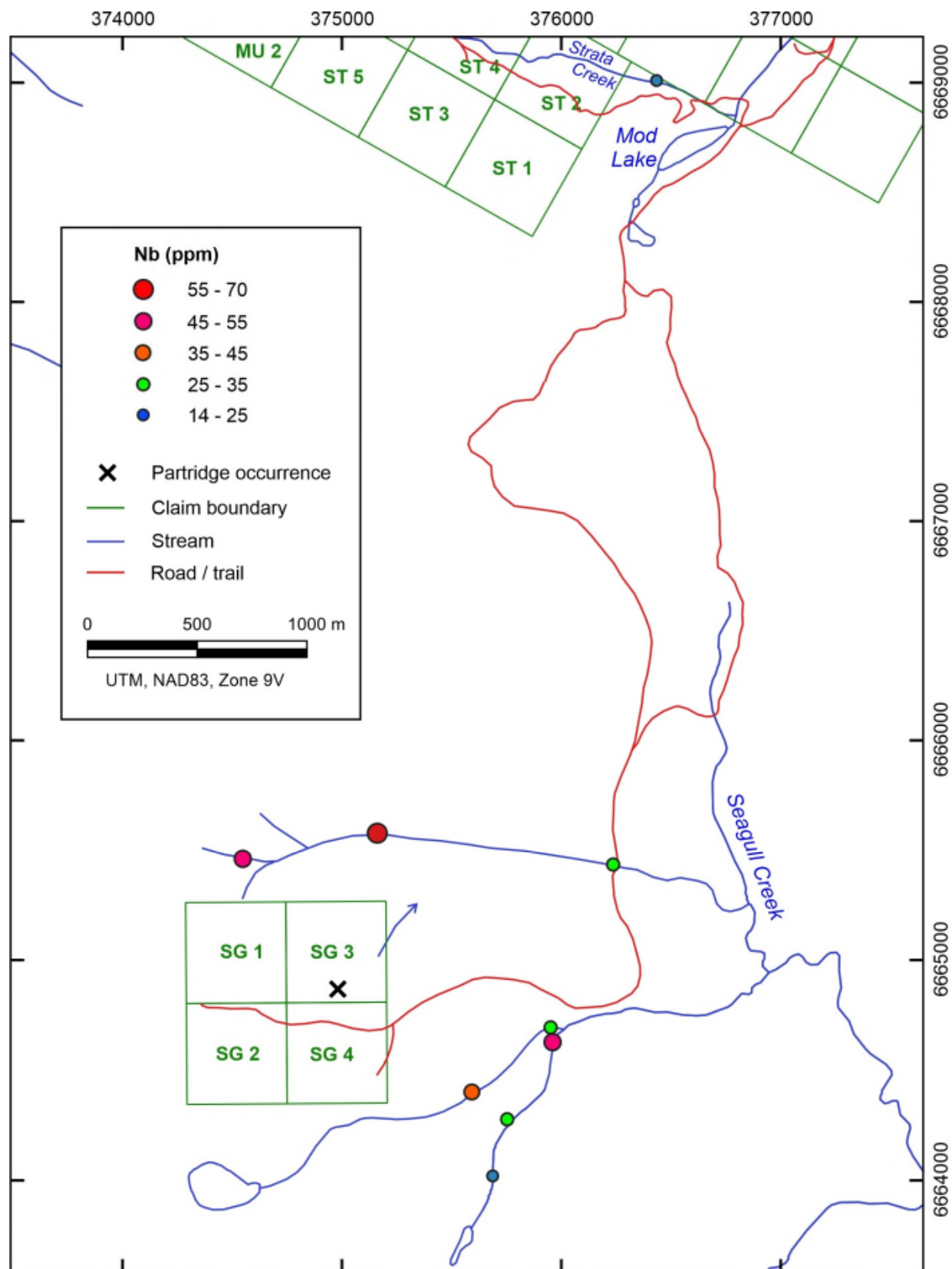


Figure 19. Map of niobium in 2019 heavy mineral concentrate samples.

Rock Geochemistry

The location of rock samples in the Seagull property area (SG 1 to SG 4 claims), which includes the Partridge mineral occurrence area are shown in Figure 20.

Work in 2019 west of the previously mapped limestone revealed a significant component of the talus consists of limestone and subordinate calc-silicate $\pm$ magnetite skarn with some blocks being quite large (Figures 20 to 22).

Skarn Samples

Samples SR502 and SR510 were collected from boulders of calc-silicate–magnetite skarn. These samples returned 1.04% and 3.97% Sn along with elevated values of W (0.08% and 0.37%) As (>10,000 ppm and 151.9 ppm), B (414 ppm and >2000 ppm), Sb (17.7 and 22.3 ppm), Be (144 and 584 ppm) and Fe (13.75 and 47.95%). Sample SR502 also returned elevated Ba (809 ppm) and Bi (212.5 ppm) values. Sample SR502 was collected from the angular talus/rubble at the Partridge occurrence. Sample SR510 was collected from a large, angular talus boulder about 1 km west of the Partridge occurrence.

Sample 503 was collected from sphalerite and galena-bearing calc-silicate–magnetite skarn (angular talus/rubble) at the Partridge occurrence. The sample returned 4.70% Zn, 2.34% Pb, 206.9 g/t Ag, 529.5 ppm Bi, >1% Mn, 43.3 ppm Se, 124 ppm Be and 740 ppm Sn.

Samples SR505 (rubble/scree) and SR509 (talus) are of calc-silicate skarn with little or no magnetite. The samples were collected 600 m to 1000 m west of the Partridge occurrence. Both samples are somewhat enriched in Sn (328 and 403 ppm Sn). Sample SR505 also returned elevated values of La (495 ppm), Sb (19.9 ppm), Be (117 ppm) and Y (254 ppm). Sample SR509 also returned elevated values for Au (812.8 ppb), Cu (572.3 ppm) and Se (9.7 ppm).

Granite Samples

Samples SR508 and SR511 were collected from granitic boulders (talus/rubble) with high field radioactivity measurements. TSL Laboratories returned values of 51 and 47 ppm U, 270 and 343 ppm Th, and 4.35 and 4.29 ppm K for these samples (four acid–ICP–AES). Two other granitic samples characterized by essentially background radioactive values were also collected. Sample SR506 is a sample of unaltered granite outcrop and sample SR507 is a sample of granite with limonitic Fe-oxide alteration. These samples returned <20 ppm U, 76 and 49 ppm Th, and 3.85 and 3.88% K (TSL Laboratories four acid–ICP–AES). These results indicate that the increased radioactivity of samples SR508 and SR511 is due mainly to increases in U and Th. The two radioactive samples also returned values of 441 and 446 ppm Nb (TSL Laboratories four acid–ICP–AES), which are strongly anomalous.

Pulps from two radioactive granite boulders (SR508 and SR511) and of the fresh granite outcrop (SR506) were sent to ALS Canada Ltd. to obtain results by lithium borate fusion followed by ICP-MS determinations. Samples SR508 and SR511 returned 48.1 and 49.6 ppm U, 264 and 332 ppm Th, 5.53 and 5.43% K₂O, 577 and 562 ppm Nb, and 27.7 and 25.6 ppm Ta. The unaltered granite outcrop sample (SR506) returned 12.6 ppm U, 83 ppm Th, 4.79 ppm K₂O, 86.2 ppm Nb and 10.3 ppm Ta. The Nb values of the radioactive samples convert to 825 ppm and 804 ppm Nb₂O₅ (or 0.083% and 0.080% Nb₂O₅).

The Nb values are of borderline economic interest, which is enhanced because they were obtained from relatively nondescript granitic boulders that would not have been sampled except for their radioactivity (the boulders may contain somewhat more biotite than average). For comparison, the Nb₂O₅ grade at the Niobec Mine in Quebec is about 0.4%.

In addition to the granitic samples mentioned above, sample SR504 was collected from a subround boulder noted during stream sediment sampling. The boulder has a limonitic coating and contains a 3 to 4 cm wide quartz veins with a biotite-rich selvage. Both the vein and selvage contain 1 to 3% arsenopyrite. A sample containing about 25% veins and selvage material and 75% wallrock granite returned 4610 ppm As.

Tourmaline Vein Sample

A sample of tourmaline vein talus/rubble (15 cm thick) was sampled at the Partridge occurrence (a similar vein was noted in outcrop a short distance uphill). The sample (SR511) returned 2.85% B and a somewhat elevated Zn value of 303 ppm.

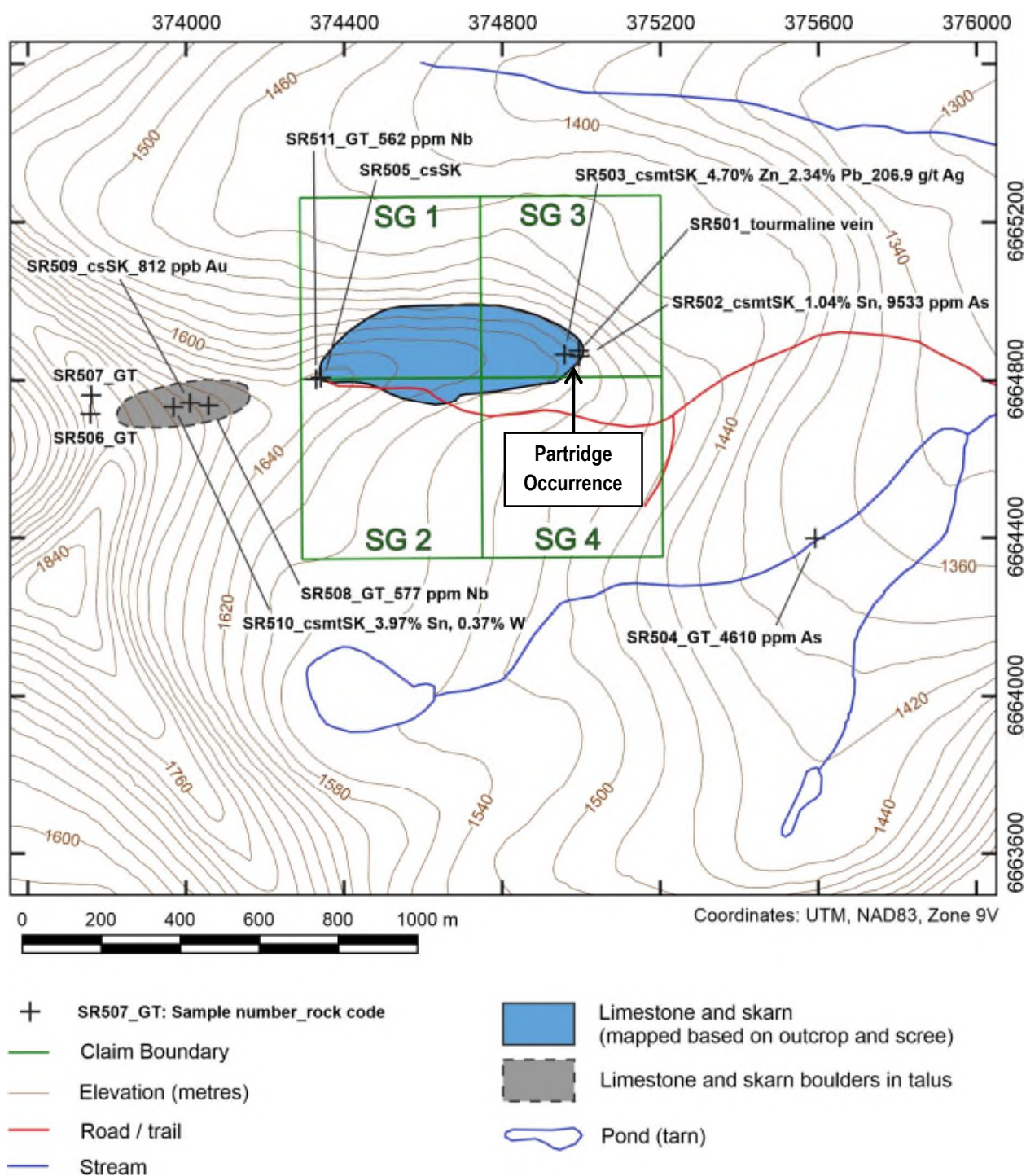


Figure 20. Map showing locations of 2019 rock samples collected within and near the Seagull property (claims SG 1 to SG 4) along with selected analytical results. Samples SR501 to SR503 are from the Partridge skarn occurrence. Also shown are (i) the mapped extent of the limestone pendant (within granite) based on mapping by Goad (1980), Liverton and Mann (2014) and 2019 field observation, and (ii) the area where limestone and skarn boulders were observed to occur within dominantly granitic talus. Rock codes: csSK = calc-silicate skarn, csmtSK = calc-silicate-magnetite skarn, GT = granite.



Figure 21. View to the east of the easterly trending ridge that occupies the central part of the Seagull property. The valley of Seagull Creek is in the background. The distant part of this ridge is underlain by limestone (and local skarn). The Partridge skarn occurrence, located on the upper part of the eastern slope of the ridge, is hidden in this view by the upper part of the ridge. The area of limestone and skarn boulders in granite-dominated talus lies in the lower right part of the photo. View to 320° from 373762E, 6664792N, UTM NAD83, Zone 9V (near sample site SR507 – see Fig. 20).



Figure 22. Photo showing limestone talus boulders west of (and uphill from) the previously mapped limit of limestone in the Partridge occurrence area. The limestone boulder near the centre of the photo is about 2 m tall. The ridge in the background is composed of granite. Photo taken at 374007E, 6664747N to 270° (UTM NAD83 Zone 9V).

Scintillometer Survey

Two scintillometer survey traverses were completed west of the Partridge occurrence in areas underlain primarily by granitic talus and granitic outcrop (Figure 23). The first traverse was completed in a roughly west-southwest direction and crossed about 60 m of limestone scree (including a minor amount of calc-silicate skarn) and limestone outcrop at the east-northeast end followed by about 315 m dominated by granitic talus. Two strongly radioactive granitic boulders were located with reading of up to 975 counts/second and 1000 counts per second (compared to typical values of 300 to 500 counts/second in these granitic rocks). Samples of these boulders (SR508 and SR511) returned elevated values of U and Th as well as up to 577 ppm Nb.

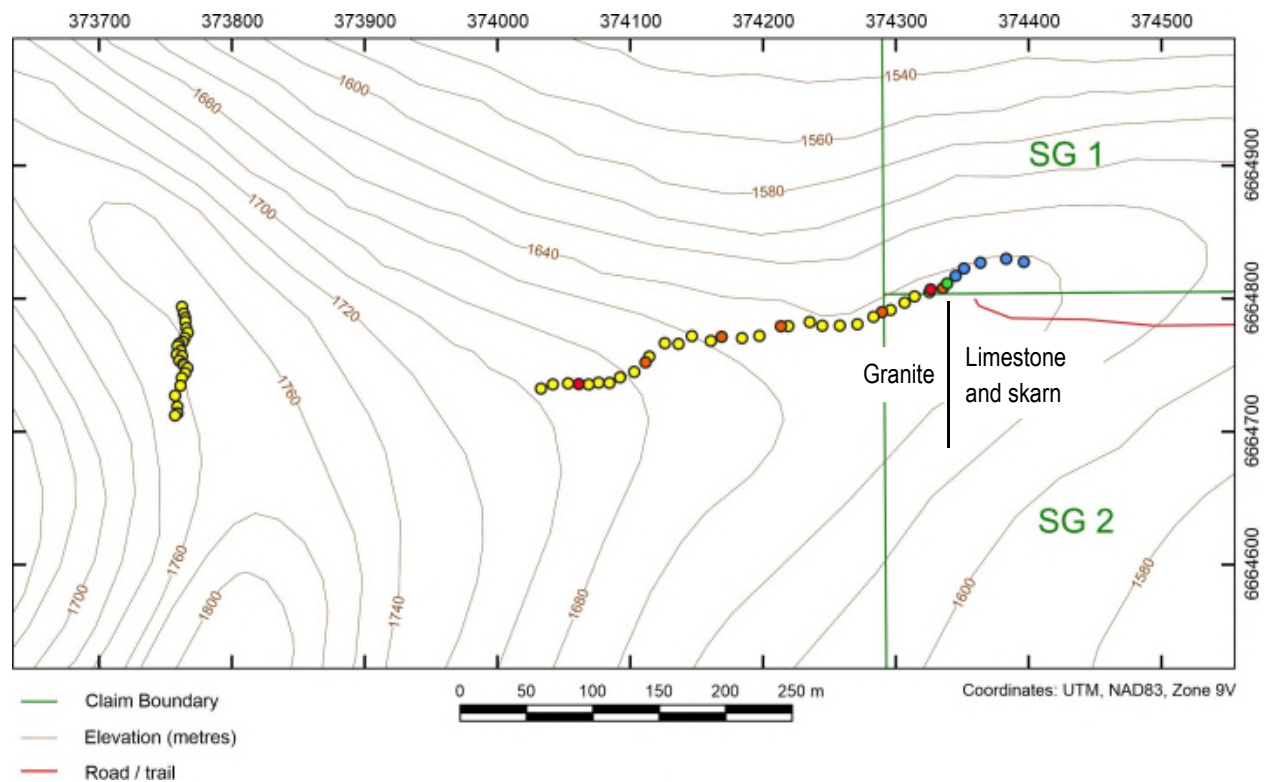


Figure 23. SPP2 scintillometer survey traverses west of the SG claims (Seagull property).

Red dots:	750 – 1000 counts per second (total radioactivity)
Orange dots:	550 – 750 counts per second (total radioactivity)
Yellow dots:	250 – 550 counts per second (total radioactivity)
Green Dots:	115 – 250 counts per second (total radioactivity)
Blue dots:	90 – 115 counts per second (total radioactivity)

The second (western) traverse completed in a southerly direction along the top of the granitic ridge west of the SG claims. The traverse crossed a gossanous zone in the granite that has produced a local recessive weathering zone (Figure 24). No anomalous radioactivity was detected.



Figure 24. Photo showing location of western scintillometer traverse (along skyline below black bar). Horizontal field of view is about 100 m. Photo taken at 373970E, 6664717N to 280° (UTM NAD83 Zone 9V).

Discussion and Conclusions

Three samples of calc-silicate–magnetite skarn were collected from the general Partridge occurrence area. Two of these samples returned tin values of 1.04% and 3.97% (SR502 and SR510). These samples also contain elevated values of tungsten (0.08% and 0.37% W), arsenic (414 and >2000 ppm As), antimony (17.7 and 22.3 ppm Sb), beryllium (144 and 584 ppm Be) and iron (13.75 and 47.95% Fe). The third calc-silicate–magnetite skarn sample (SR503) returned low tin and tungsten values of 0.074% Sn and <0.0004% W. However, the sample contains sphalerite and galena and returned 4.70% Zn, 2.34% Pb, 206.9 g/t Ag, 529.5 ppm Bi, 43.3 ppm Se and 124 ppm Be.

Two samples of calc-silicate skarn without magnetite collected west of the Partridge occurrence returned somewhat elevated tin values (328 and 403 ppm Sn in samples SR505 and SR509). In addition, sample SR509 returned 802.8 ppb Au and 572.3 ppm Cu. Sample SR505 returned 495 ppm La.

Two samples of radioactively anomalous granite collected west of the Partridge occurrence returned 577 and 562 ppm Nb.

Exploration efforts on the Partridge occurrence by previous workers have been hampered by the apparent limited size of the limestone pendant, which limits the tonnage potential of the associated skarn mineralization. Previous mapping suggested that the limestone only had an east-west extent of about 700 m. However, the western limit of exposed (and previously mapped) limestone outcrop occurs where it becomes covered by granitic talus that has been shed eastward (downhill) from a steep ridge to the west. Work in 2019 west of the previously mapped limestone revealed a significant component of the talus consists of limestone and subordinate calc-silicate ± magnetite skarn with some blocks being quite large. The observation suggest that the limestone (and skarn) extend westward beneath the talus for at least another 500 m making the overall east-west of the limestone (and skarn) at least 1200 m. A sample of from a large talus block of calc-silicate–magnetite skarn located about 380 m west of the previously mapped extent of the limestone pendant returned 3.97% Sn and 0.37% W (sample SR510).

Recommendations

Previous exploration efforts at the Partridge occurrence have focused primarily on the discovery of tin and tungsten. However, a 2019 sample from the Partridge occurrence returned 206.9 g/t Ag, in addition to 4.70% Zn and 2.34% Pb, from calc-silicate–magnetite skarn containing sphalerite and galena. More sampling is needed to evaluate the silver potential of the skarn mineralization.

Locally abundant limestone (and subordinate skarn) blocks in talus west of, and uphill from, the previously mapped extent of limestone in the Partridge occurrence area significantly increases the area of skarn mineralization potential. A large talus block of calc-silicate–magnetite skarn from this area returned 3.97% Sn and 0.37% W. Additional work recommended for this area includes prospecting, talus fine-fraction sampling and geological mapping. If results are encouraging a second phase of exploration that incorporates magnetic surveying (either ground or airborne) could be undertaken to trace the magnetic mineralization beneath cover to aid in the identification of trenching and/or drilling targets.

Prospecting with the aid of a scintillometer on the talus slope west of the Partridge occurrence led to the identification and sampling of two radioactive granitic boulders. These returned values of 562 ppm and 577 ppm Nb as well as elevated U and Th. Additional prospecting within the granite (with the aid of a scintillometer) may be warranted.

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Expenditures

Item	Number	Rate	Subtotal
field days (sampling/geophysics/geology)*	2.5 days	\$500.00	\$1,250.00
rock geochemical analyses (TSL)**	5 samples	\$40.13	\$200.65
rock assays - Au and Ag (TSL)	1 sample	\$36.40	\$36.40
rock assays - Zn (TSL)	1 sample	\$10.39	\$10.39
rock assays - Pb (TSL; add-on to Zn assay)	1 sample	\$4.72	\$4.72
rock majors/traces (fusion; ICP-AES/MS; ALS)	1 sample	\$50.15	\$50.15
rock trace elements (4 acid; ICP-AES; ALS)	1 sample	\$9.90	\$9.90
rock B (fusion; ALS)	1 sample	\$26.15	\$26.15
rock Sn and W (ore grade)	1 sample	\$8.40	\$8.40
rock S (ALS)	1 sample	\$16.90	\$16.90
report writing and GIS map preparation	1.5 days	\$500.00	\$750.00
daily field expenses	2.5 days	\$100.00	\$250.00
truck	2.5 days	\$50.00	\$125.00
ATV	2.5 days	\$40.00	\$100.00
Total			\$2,838.66

* Field Days: August 26, September 1 and September 3 (1/2 day) of 2019.

[an additional 3 days (sampling/geophysics/geology) were spent near the Seagull property]

** an additional 6 rock samples, 14 silt samples and 8 HMC samples were collected near the Seagull property.

February 08, 2021

Sherwood Park, Alberta



Glen Prior

Statement of Qualifications

I, Glen Prior, of 793 Birch Avenue, Sherwood Park, Alberta do hereby declare:

- That I am a self-employed geologist.
- That I am a Professional Geologist registered with the Association of Professional Engineers and Geoscientists of Alberta (Member Number M73587).
- That I graduated from Laurentian University in Sudbury, Ontario, with a B.Sc. (Honours) degree in geology in 1982, from Laurentian University in Sudbury, Ontario, with a M.Sc. degree in geology in 1987 and from Carleton University in Ottawa, Ontario, with a Ph.D. degree in geology in 1996.
- That I practiced my profession full-time from 1986 to 1991 and continuously since 1996 including 5 years with Norwin Geological Ltd. (Vice President), 5 years with Aur Resources Inc. (holding the positions of Senior Project Geologist and Senior Geologist) and 12 years with the Alberta Geological Survey (holding the positions of Geologist, Senior Geologist and Section Leader).
- The field work on the Seagull property that forms the basis of this report was completed between August 26 and September 3 of 2019.

February 08, 2021

Sherwood Park, Alberta

A handwritten signature in blue ink that reads "Glen Prior". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent. Below the signature is a solid horizontal line.

Glen Prior

Appendix 1

Stream Silt Sample and Heavy Mineral Concentrate Sample Descriptions

Location Coordinates: UTM Zone 9V, NAD83

Note: a correction factor of 0.8 was applied to the initial pan weight values obtained in the field as the scale used in the field was determined to yield values that were too high.

Silt Sample	HMC Sample	Date	East	North	Elev (m)	Stream Width (m)	Stream Depth (cm)	Stream Flow Rate	Stream Flow Direction	HMC Sample Site Information	HMC Sample Panning Material Description	Silt Sample Description	HMC Initial Pan Weight (kg)	HMC Sample Weight (g)	Silt Sample Weight (g)
SR601	SR701	2019_08_28	376236	6665434	1260	8	25	fast	60°	abundant boulders (granitic); boulder trap	~50% light and 50% dark sand grains	~75% moss mat and 25% medium brown silt to very coarse sand (behind boulders)	3.04	127	198
SR602	SR702	2019_08_28	375960	6664628	1311	4	20	fast	15°	abundant boulders (granitic); boulder trap and between boulders near side of stream ~50 cm from east bank	~75% light and 25% dark sand grains	moss mat (100%)	3.2	171	238
SR603		2019_08_28	375608	6663803	1407	2	20	moderate to fast	20°			moss mat (100%); locally multiple channels; abundant boulders (granitic)			65
SR604	SR704	2019_08_28	375687	6664021	1386	4	20	very fast	355°	abundant boulders (granitic); excellent boulder trap (behind 2x2x1 m midstream boulder)	~60% light and 40% dark sand grains	moss mat (100%)	2.8	197	218
SR605	SR705	2019_08_28	375753	6664278	1353	8	20	very fast	55°	abundant boulders (granitic); boulder trap at downstream end of small island	~60% light and 40% dark sand grains	moss mat (100%)	2.4	159	235
SR606	SR706	2019_08_28	375592	6664402	1352	12	10	fast	55°	abundant boulders and cobbles (granitic); midstream boulder trap	~60% light and 40% dark sand grains	moss mat (100%); note: largest of several small streams near centre of valley in this area	2.8	159	315
SR607		2019_08_29	375239	6665146	1408	0.7	5	fast	40°			~70% moss mat and 30% medium brown silt to very coarse sand; abundant granitic boulders, cobbles, pebbles and gravel			276

Silt Sample	HMC Sample	Date	East	North	Elev (m)	Stream Width (m)	Stream Depth (cm)	Stream Flow Rate	Stream Flow Direction	HMC Sample Site Information	HMC Sample Panning Material Description	Silt Sample Description	HMC Initial Pan Weight (kg)	HMC Sample Weight (g)	Silt Sample Weight (g)
SR608	SR708	2019_08_29	375161	6665577	1355	8	15	very fast	80°	boulder trap; abundant boulders and cobbles; dominantly granitic, <1% diorite; 1 magnetic skarn boulder noted	~75% light and 25% dark grains	~75% moss mat and 25% medium brown silt to very coarse sand	3.4	166	220
SR609		2019_08_29	374760	6665563	1382	4	10	very fast	135°	abundant boulders and cobbles (granitic)		moss mat (contains abundant silt); this is a southeast flowing branch about 100 m from main stream; 2 main channels (combined width ~4 m - material from both included in sample)			179
SR610	SR710	2019_08_29	374548	6665460	1411	12	5	fast	70°	boulder trap; abundant granitic boulders, cobbles, pebbles and gravel; <1% dark grey, aphanitic, rusty weathering siltstone; <1% fine grained diorite; <1% limestone	~80% light and 20% dark grains; very minor amount of magnetite noted	~80% moss mat and 20% medium brown silt to very coarse sand; northwest fork of stream; wide area of stream in gently sloping part of valley	3	144	212
SR611		2019_08_29	374607	6665397	1405	10	15	fast	360°	abundant granitic boulders and cobbles; <1% limestone		~80% moss mat and 20% medium brown silt to very coarse sand; south fork of stream			133
SR612	SR712	2019_08_29	375951	6664695	1311	3	20	very fast	110°	boulder trap; abundant granitic boulders	~80% light and 20% dark grains	~50% moss mat and 50% silt to very coarse sand (medium brown)	2.8	201	332
SR613		2019_09_08	374945	6664199	1478	1	15	fast to very fast	35°			moss mat (100%); granitic boulders			40

Silt Sample	HMC Sample	Date	East	North	Elev (m)	Stream Width (m)	Stream Depth (cm)	Stream Flow Rate	Stream Flow Direction	HMC Sample Site Information	HMC Sample Panning Material Description	Silt Sample Description	HMC Initial Pan Weight (kg)	HMC Sample Weight (g)	Silt Sample Weight (g)
SR614		2019_09_08	374658	6663962	1509	3	10	moderate to slow	80°			~20 m downstream from tam outlet; streams flows below boulders downstream; granitic boulders			73

Appendix 2

Rock Sample Descriptions

Location Coordinates: UTM Zone 9V, NAD83

(Weight column lists weight of sample sent to laboratory)

Sample	Date	East	North	Elev (m)	Description	Weight (g)
SR501	2019_08_26	374994	7E+06	1524	Subround talus/rubble ~45x35x15 cm. Tourmaline vein material. ~95% black, well striated tourmaline crystals up to 45 x 8 mm, euhedral, most aligned ~parallel but some crystals at angles to others. Hexagonal cross sections. ~5% quartz - some in veins ~perpendicular to the long axes of most tourmaline crystals and some in between tourmaline crystals. One main quartz vein is 10 mm wide. Not magnetic. No anomalous radioactivity (checked with SPP2 scintillometer). Probably from a vein (15 cm thick) with majority of black tourmaline oriented perpendicular to vein margins. Several similar pieces of rubble noted nearby. A tourmaline vein consisting of very similar material outcrops uphill within magnetite-bearing skarn at 374983E, 6664862N at an elevation of 1531 m. This vein is up to 15 cm wide and is oriented ~east-west with a vertical dip (compass not accurate due to abundant nearby magnetite skarn). Partridge skarn main showing area.	404
SR502	2019_08_26	374995	7E+06	1529	Angular talus/rubble ~15x10x10 cm. Area upslope may have been blasted. Aphanitic to very fine grained, dark green to black calc-silicate and magnetite skarn. Magnetite (5-20%) is very fine grained and disseminated ~equally throughout rock. 1 to 5% very fine grained, light brown to silvery disseminated mica (phlogopite?). 5 to 10% light-medium green, poddy and fracture controlled mica (sericite?). Trace to 2% disseminated and blebby arsenopyrite (not evenly distributed) - some subhedral and up to 3 mm long. One arsenopyrite bleb is 7 mm across. Trace disseminated pyrite. Moderately to strongly magnetic. Partridge skarn main showing area.	491
SR503	2019_08_26	374958	7E+06	1541	Partridge skarn main showing area. Angular talus/rubble ~15x10x10 cm. Aphanitic to very fine grained magnetite-bearing calc-silicate skarn. Nil to strongly magnetic. Dark green to black, possibly chloritic. 1-5 very fine grained silvery mica (sericite?). One small area of coarse grained, dark green radiating crystals (dark green - possibly actinolite). Trace to very locally 2% very fine to fine grained galena. Trace to very locally 0.5% very fine to fine grained yellow-brown to reddish brown, somewhat resinous sphalerite. Galena and sphalerite tend to occur together. Both are disseminated but local concentration suggests possible overall fracture control. Limestone-skarn contact is about 10 m west (uphill). Partridge skarn main showing area.	805
SR504	2019_08_28	375592	7E+06	1353	Subround boulder ~20x15x12 cm. Midstream. White to light grey leucocratic fine grained granite. Light brown limonitic weathering and locally pervasive limonite in rind up to 2 cm thick. Cut by 3 to 4 mm quartz vein with ~1 cm wide, symmetric black selvage containing abundant very fine to fine grained black biotite. Vein and inner selvage contain 1 to 3% fine grained arsenopyrite. Sample selected for vein and selvage (sample is ~25% vein and selvage and 75% wallrock granite).	596
SR505	2019_09_01	374341	7E+06	1627	Angular rubble/scree on top of ridge ~10x8x5 cm. Medium green, very fine to medium grained calc-silicate skarn. The dominant green mineral is a 'glassy' medium green - some is subhedral, tabular and elongate (2:1 to 4:1) - possibly diopside or hedenbergite. The rock is not magnetic. No reaction to dilute HCl. 1 to 5% disseminated purple fluorite commonly 0.5 to 2 mm subhedral crystals up to 3 mm across. 1 to 5% pale yellow to pale amber-yellow, anhedral mineral, generally poorly formed, hardness ~5, disseminated and in a poorly defined band up to 1 cm thick (possibly grossular garnet). The rock also contains about 1% of an unidentified black mineral (hardness ~4, white streak, occurs disseminated and in aggregates). Several pieces of similar rubble nearby.	786

Sample	Date	East	North	Elev (m)	Description	Weight (g)
SR506	2019_09_03	373758	7E+06	1712	Massive outcrop near top of ridge. Granite. White, white weathering, equigranular, well jointed. ~70% white, subhedral to euhedral feldspar commonly up to 7x2 mm. ~25% light grey, anhedral quartz commonly up to 3 mm across. ~5% biotite up to 3 mm across. SPP2 scintillometer reading of 450 counts per second.	422
SR507	2019_09_03	373760	7E+06	1761	Outcrop. Granite similar to SR506 except no biotite present. Light rusty brown, weakly to moderately limonitic weathering. Weak to moderate, hairline fracture to pervasive, light brown, limonitic Fe-oxide alteration. Has 'crumbly' appearance (friable). Nearby SPP2 scintillometer reading of 475 counts per second.	561
SR508	2019_09_03	374057	7E+06	1666	Subangular talus ~100x50x20(+) cm. Granite. Fresh colour is orangey white. Weathers light orangey rusty brown. 60-70% white to orangey brown (stained) subhedral feldspar commonly up to 5x2 mm. 20-25% light grey, anhedral quartz commonly up to 3 mm across. 10-15% distinct (fresh appearing) black, subhedral to euhedral biotite commonly up to 5 mm across with distinct edges. SPP2 scintillometer reading of area sampled was 750 counts per second (local readings of up to 975 counts/second but this part of boulder could not be broken for sample).	346
SR509	2019_09_03	374010	7E+06	1683	Angular talus ~15x15x10 cm. Calc-silicate skarn. Weathers dark rusty brown (Fe-oxide coating). Fresh surface is dark green. Very fine grained composed mainly of dark green silicate (possibly diopside or hedenbergite). 5-10% very fine grained, disseminated, vitreous, amber brown mineral (possibly garnet). ~5% disseminated pyrrhotite. Trace disseminated chalcopyrite. Pyrrhotite rich zones are very weakly magnetic. Talus boulders in area are about 80% granite and the rest are mainly limestone with some calc-silicate ± magnetite skarn.	600
SR510	2019_09_03	373968	7E+06	1700	Angular talus boulder ~100x100x100 cm. Strong coating of dark rusty brown (goethitic) Fe oxide (~80%) and Mn oxide (~20%). Fresh surface is black to very dark green and generally fine grained. Weakly banded. ~75% magnetite and ~20% dark green silicate. Locally rock is dominated by dark green, bladed/lathlike crystals up to 5 mm long by 1 mm across (suggesting silicate phase may be mainly actinolite). ~5% yellow to amber brown, very fine to fine grained, vitreous mineral in irregular blebs and lenses (garnet?). Not magnetic (very locally) to strongly magnetic.	1107
SR511	2019_09_03	374329	7E+06	1634	Angular boulder (rubble/felsenmeer) ~140x100x80 cm. Granite. Weathers light pinkish white to white. Fresh surfaces are mainly white. 55-65% white, subhedral feldspar commonly up to 5x2 mm. 20-25% light grey, anhedral quartz commonly up to 3 mm across. 15-20% subhedral, fresh appearing, biotite commonly up to 5 mm across. SPP2 scintillometer reading taken on boulder was ~1000 counts/second.	318

Appendix 3

Scintillometer Readings

Saphymo Stel SPP2 Scintillometer (Series 23, No. 3119)

Location Coordinates: Latitude and Longitude, NAD83

Latitude	Longitude	Altitude (m)	Counts per Second	Exposure	Lithology
60.100886	-131.260652	1626	380	boulder	granite
60.100931	-131.260520	1627	390	boulder	granite
60.100964	-131.260320	1629	525	boulder	granite
60.100982	-131.260306	1628	1000	boulder	granite
60.100993	-131.260141	1629	700	boulder	granite
60.101026	-131.260085	1628	210	boulder	skarn
60.101079	-131.259974	1631	110	boulder	skarn
60.101131	-131.259863	1631	100	outcrop	limestone
60.101174	-131.259644	1631	90	boulder	limestone
60.101206	-131.259297	1630	105	boulder	limestone
60.101189	-131.259057	1628	95	boulder	limestone
60.100834	-131.260838	1627	300	boulder	granite
60.100818	-131.260953	1627	600	boulder	granite
60.100784	-131.261067	1629	350	boulder	granite
60.100730	-131.261281	1628	325	boulder	granite
60.100717	-131.261518	1627	275	boulder	granite
60.100712	-131.261756	1627	300	boulder	granite
60.100734	-131.261927	1628	400	boulder	granite
60.100701	-131.262215	1630	350	boulder	granite
60.100699	-131.262315	1630	625	boulder	granite
60.100629	-131.262602	1635	375	boulder	granite
60.100610	-131.262836	1637	375	boulder	granite
60.100614	-131.263112	1639	725	boulder	granite
60.100584	-131.263257	1642	400	boulder	granite
60.100612	-131.263516	1644	425	boulder	granite
60.100556	-131.263693	1647	400	boulder	granite
60.100558	-131.263879	1649	350	boulder	granite
60.100464	-131.264082	1654	375	boulder	granite
60.100424	-131.264131	1656	600	boulder	granite
60.100357	-131.264279	1660	350	boulder	granite
60.100317	-131.264469	1661	375	boulder	granite
60.100277	-131.264610	1662	325	boulder	granite
60.100276	-131.264756	1663	350	boulder	granite
60.100262	-131.264890	1667	425	boulder	granite
60.100262	-131.265024	1673	975	boulder	granite
60.100264	-131.265169	1674	500	boulder	granite - pegmatitic
60.100254	-131.265375	1678	350	boulder	granite
60.100223	-131.265534	1679	325	boulder	granite

Latitude	Longitude	Altitude (m)	Counts per Second	Exposure	Lithology
60.100691	-131.270430	1776	400	outcrop	granite
60.100645	-131.270403	1776	350	boulder	granite
60.100617	-131.270382	1776	450	boulder	granite
60.100592	-131.270378	1774	375	boulder	granite
60.100548	-131.270362	1771	375	boulder	granite
60.100519	-131.270341	1770	350	boulder	granite
60.100482	-131.270379	1767	350	boulder	granite
60.100455	-131.270403	1764	400	boulder	granite
60.100441	-131.270453	1763	450	outcrop	granite
60.100424	-131.270472	1761	500	outcrop	granite
60.100394	-131.270428	1757	425	boulder	granite
60.100369	-131.270479	1756	475	boulder	granite
60.100359	-131.270408	1757	475	boulder	granite
60.100328	-131.270442	1759	500	outcrop	granite
60.100305	-131.270390	1761	450	boulder	granite
60.100299	-131.270374	1760	450	outcrop	granite
60.100279	-131.270329	1763	500	outcrop	granite
60.100245	-131.270357	1766	425	outcrop	granite
60.100212	-131.270400	1769	425	outcrop	granite
60.100159	-131.270414	1771	475	outcrop	granite
60.100090	-131.270483	1773	375	outcrop	granite
60.100017	-131.270447	1773	425	outcrop	granite
60.099973	-131.270443	1773	450	outcrop	granite
60.099957	-131.270474	1770	450	outcrop	granite

Appendix 4

TSL Laboratories Inc. Geochemical Results

Note: Samples are not all from the Seagull property area.



2 - 302 48th Street • Saskatoon, SK • S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

Company: Mr. Glen Prior
Geologist: G. Prior
Project: SR
Purchase Order:

TSL Report: S57223
Date Received: Nov 13, 2019
Date Reported: Nov 28, 2019
Invoice: 77463

Sample Type:	Number	Size Fraction	Sample Preparation
Rock	39	Reject ~ 70% at -10 mesh (1.70 mm) Pulp ~ 95% at -150 mesh (106 µm)	Crush, Riffle Split, Pulverize
Pulp	0		None

ICP-MS Aqua Regia Digestion HCl-HNO₃

The Aqua Regia Leach digestion liberates most of the metals except those marked with an asterisk where the digestion will not be complete.

Element Name	Lower Detection Limit	Upper Detection Limit	Element Name	Lower Detection Limit	Upper Detection Limit
Ag	0.1 ppm	100 ppm	Mn *	1 ppm	10000 ppm
Al *	0.01 %	10 %	Mo	0.1 ppm	2000 ppm
As	0.5 ppm	10000 ppm	Na *	0.001%	10 %
Au	0.5 ppb	100 ppm	Ni	0.1 ppm	10000 ppm
B *	1 ppm	2000 ppm	P *	0.001%	5 %
Ba *	1 ppm	1000 ppm	Pb	0.1 ppm	10000 ppm
Bi	0.1 ppm	2000 ppm	S	0.05 %	10 %
Ca *	0.01%	40 %	Sb	0.1 ppm	2000 ppm
Cd	0.1 ppm	2000 ppm	Sc	0.1 ppm	100 ppm
Co	0.1 ppm	2000 ppm	Se	0.5 ppm	1000 ppm
Cr *	1 ppm	10000 ppm	Sr *	1 ppm	10000 ppm
Cu	0.1 ppm	10000 ppm	Te	1 ppm	2000 ppm
Fe *	0.01%	40 %	Th *	0.1 ppm	2000 ppm
Ga *	1 ppm	1000 ppm	Ti *	0.001%	10 %
Hg	0.01 ppm	100 ppm	Tl	0.1 ppm	1000 ppm
K *	0.01%	10 %	U *	0.1 ppm	2000 ppm
La *	1 ppm	10000 ppm	V *	2 ppm	10000 ppm
Mg *	0.01%	30 %	W *	0.1 ppm	100 ppm
			Zn	1 ppm	10000 ppm

*Results are representative of samples submitted for testing.
Test reports may be reproduced, in their entirety, without our consent.
Liability is limited to the analytical cost for analyses.*

Mr. Glen Prior
Attention: G. Prior
Project: SR
Sample: 39 Rock

TSL LABORATORIES INC.
2 - 302 48th Street East, Saskatoon, Saskatchewan. S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57223
Date: November 28, 2019

MULTIELEMENT ICP-MS ANALYSIS
Aqua Regia Digestion

Element Sample	Ag ppm	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %
SR401	4.4	2.58	28.6	4	<20	3	7.7	0.56	3	6	150	24.2	6.45	8	<0.01	<0.01	5	0.5	2484	0.6	<0.001	9.4	0.008
SR402	0.8	3.26	<0.5	0.9	<20	29	0.5	1.91	7.2	23.9	132	145.1	6.15	6	<0.01	0.02	3	0.55	371	0.9	0.091	27.1	0.014
SR403	6.6	0.5	1	15.8	<20	6	11.5	0.04	11	2	103	118.4	23.23	5	<0.01	<0.01	2	0.09	117	0.4	<0.001	5.1	0.004
SR404	11.9	1.37	263.4	17.4	<20	13	10.6	0.34	253.3	38.5	30	97.2	25.95	6	0.02	<0.01	1	1.59	4458	0.4	<0.001	49.4	0.024
SR405	10.9	1.44	22.6	7	<20	12	21.5	0.29	476	39.7	24	79	23.83	6	0.02	<0.01	2	1.7	5099	0.2	<0.001	18.7	0.002
SR405 Re	10.4	1.43	19.9	4.7	<20	13	21.5	0.29	507.1	41.7	25	82.4	23.74	6	0.02	<0.01	2	1.7	5066	0.2	<0.001	19.3	0.003
SR406	20	0.73	121.5	13.5	<20	4	9.8	0.14	320.8	28	119	405	12.05	3	0.04	<0.01	<1	0.47	844	0.9	<0.001	19.4	0.001
SR407	32	2.41	131.8	49.4	<20	7	13.2	0.24	51.6	46.6	34	847.7	34.63	13	0.02	<0.01	11	1	3492	2.1	<0.001	33.3	0.063
SR408	4.9	5.64	<0.5	<0.5	<20	3	1.4	0.74	649.5	37.9	50	103.3	22.4	16	<0.01	<0.01	44	1.39	>10000	1.6	<0.001	33.1	0.004
SR409	10.9	0.96	7	81.2	<20	1	2.9	0.13	80.2	23.5	62	202.7	20.83	4	<0.01	<0.01	16	0.24	8103	1.1	<0.001	13.4	0.011
SR410	16.6	1.56	80.3	19.6	<20	3	8.1	0.23	1297.3	62.7	105	267.5	12.54	5	0.03	<0.01	31	0.36	5586	5.2	0.001	23.7	0.017
SR411	7.3	0.69	<0.5	5.3	<20	26	13.4	0.99	12.7	48.5	12	559.1	16.35	3	<0.01	0.1	<1	0.17	1059	0.1	0.034	15.3	0.134
SR412	4	4.47	<0.5	1.4	<20	4	1.2	0.5	418.1	28.5	55	65.7	21.77	11	<0.01	<0.01	49	1.07	>10000	1.9	<0.001	25	0.005
SR413	20.6	9.28	<0.5	2	<20	2	0.6	0.07	119.3	20.6	37	67.6	26.28	30	<0.01	<0.01	5	2.04	>10000	1.2	<0.001	28.5	0.023
SR414	8.9	3.17	2	0.6	<20	1	0.5	0.19	50.9	12.4	64	575.2	37.25	14	<0.01	<0.01	127	0.78	4003	2.4	<0.001	17.8	0.017
SR415	7.3	2.68	<0.5	3	<20	7	2.4	12.54	1024	43.6	15	135.2	12.35	8	0.02	<0.01	13	0.39	9632	0.3	<0.001	10.7	0.005
SR416	2.7	0.55	15.3	11.2	<20	165	13.5	5.8	157.1	14.2	54	9.5	23.84	2	<0.01	0.04	5	0.1	>10000	0.3	0.002	7.6	0.015
SR417	27.3	1.72	36.9	37	<20	2	35.8	0.22	95.7	30.6	90	618.4	24.71	9	<0.01	<0.01	5	0.33	2189	4.3	<0.001	18	0.004
SR418	28.4	8.78	<0.5	483.4	<20	3	46.6	0.31	356.7	23.6	16	129.9	29.87	30	0.01	<0.01	3	1.06	9041	2.6	<0.001	9	0.002
SR419	29.2	8.24	6	25.1	<20	2	54.5	0.05	612.6	36.9	28	155.3	27.96	27	0.02	<0.01	3	1	8103	2.1	<0.001	15	0.003
SR420	29.6	1.44	<0.5	24.5	<20	1	44.2	0.24	924.3	48.5	18	176.6	17.88	4	0.02	<0.01	3	0.35	>10000	0.9	<0.001	14.1	0.001
SR421	20.7	2.47	2.2	24.5	<20	4	9.9	0.31	1508.4	87.2	20	328.2	24.97	9	0.03	<0.01	4	0.78	7970	0.8	<0.001	12.5	0.015
SR422	26.5	1.36	<0.5	35	<20	510	63.7	1.99	94.7	9.4	18	13.2	9.69	4	<0.01	0.33	9	0.14	3437	<0.1	0.037	5.8	0.019
SR423	17.8	4.01	2.7	43.2	<20	4	1.7	0.36	955.3	50.8	39	477	20.19	14	0.03	<0.01	174	1.46	8050	1.6	<0.001	18.9	0.013
SR424	>100.0	0.05	7.1	40.5	<20	4	7.9	0.07	729.2	36.8	70	2659.5	5.66	<1	0.11	<0.01	<1	0.03	400	0.4	<0.001	6.4	0.004
SR425	>100.0	0.31	72.5	609.9	<20	6	3.2	0.18	216.6	59.4	111	1181.2	11.33	1	0.31	<0.01	3	0.41	986	1.1	<0.001	24.3	0.029
SR426	>100.0	0.27	30.1	167.1	<20	8	184.8	0.04	881.7	47.1	51	2460	9.39	2	0.27	<0.01	<1	0.15	960	1.4	<0.001	4.8	0.002
SR427	23.5	0.32	160.1	104.1	<20	13	16.1	0.28	336.5	16.3	84	100.7	24.44	1	0.03	<0.01	<1	0.38	>10000	2.3	<0.001	9.7	0.015
SR428	>100.0	0.32	64.9	278.2	<20	5	10.6	0.1	241.9	53.8	99	1068.5	15.29	2	0.27	<0.01	3	0.54	918	2.4	<0.001	25.7	0.013
SR501	0.3	1.32	13.9	1.7	176	8	0.3	0.28	1	0.6	186	4.8	2.61	13	<0.01	0.19	<1	0.61	413	0.3	0.021	3.6	<0.001
SR502	0.5	4.19	>10000.0	186.6	414	781	212.5	7.64	0.2	34.3	20	22.1	13.69	32	*	4.24	12	7.01	565	0.3	0.06	4.3	0.021
SR503	>100.0	1.41	<0.5	16.6	<20	73	529.5	12.03	192.7	1.3	31	35.8	11.35	4	<0.01	0.42	8	0.47	>10000	0.2	0.492	0.7	0.003
SR504	1.5	0.64	4610.3	1.2	<20	37	42.1	0.3	1.6	1.2	147	7.5	0.83	5	<0.01	0.37	62	0.02	85	1.6	0.043	3.1	<0.001
SR505	0.4	2.24	47.7	6.3	69	5	10.6	7.49	2.1	2.5	63	2.7	3.1	2	<0.01	0.1	455	0.91	579	0.2	0.076	6.4	0.033
SR506	<0.1	0.69	68.2	<0.5	<20	5	1.6	0.27	0.1	0.5	153	4.2	1.22	8	<0.01	0.5	98	0.04	107	0.9	0.075	3.1	0.002
SR507	0.1	0.6	11	0.7	<20	3	0.2	0.44	<0.1	0.4	124	2.5	0.98	4	0.02	0.3	78	0.03	29	2.9	0.071	2.3	<0.001
SR508	<0.1	1.36	3.5	<0.5	<20	10	0.1	0.15	<0.1	0.5	134	3	3.45	20	<0.01	0.97	33	0.08	255	1.6	0.052	2.9	0.002
SR509	1.2	1.14	<0.5	812.8	<20	16	18.5	6.01	0.6	5.6	83	572.3	7.51	8	<0.01	0.02	16	0.04	660	0.6	0.011	6.6	0.081
SR510	<0.1	0.83	151.9	2	>2000	12	3.4	3.32	0.1	0.6	11	1.1	>40.00	3	*	0.29	3	0.34	2932	1.1	0.075	7.8	0.025
SR511	<0.1	1.23	3	<0.5	91	5	<0.1	0.69	<0.1	0.5	129	2.8	3.13	17	<0.01	1.03	90	0.08	270	0.8	0.148	2.2	0.001

A 0.5 g sample is digested with 3:1 HCl-HNO3
at 95C for 1 hour and diluted with DI H2O.

Signed: 

Mark Acres - Quality Assurance

Mr. Glen Prior
 Attention: G. Prior
 Project: SR
 Sample: 39 Rock

TSL LABORATORIES INC.
 2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
 Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57223
 Date: November 28, 2019

MULTIELEMENT ICP-MS ANALYSIS
 Aqua Regia Digestion

Element Sample	Ag ppm	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %
SR405	10.9	1.44	22.6	7	<20	12	21.5	0.29	476	39.7	24	79	23.83	6	0.02	<0.01	2	1.7	5099	0.2	<0.001	18.7	0.002
STD DS11	1.8	1.26	45.4	47.1	<20	444	13	1.11	2.5	14.4	65	163.8	3.2	5	0.24	0.43	20	0.88	1064	15.2	0.078	82.1	0.077
STD OREAS262	0.4	1.22	36.4	56.9	<20	254	1	3	0.7	27.9	43	123.2	3.27	4	0.14	0.31	17	1.15	505	0.6	0.067	62.6	0.041
STD OREAS262	0.4	1.42	37.9	61.6	<20	265	1.1	3.02	0.8	28.3	49	128.1	3.28	4	0.16	0.35	19	1.21	556	0.7	0.07	66.6	0.043
BLK	<0.1	<0.01	<0.5	<0.5	<20	<1	<0.1	<0.01	<0.1	<0.1	<1	<0.1	<0.01	<1	<0.01	<0.01	<1	<0.01	<1	<0.1	<0.001	<0.1	<0.001
BLK	<0.1	<0.01	<0.5	<0.5	<20	<1	<0.1	<0.01	<0.1	<0.1	<1	<0.1	<0.01	<1	<0.01	<0.01	<1	<0.01	<1	<0.1	<0.001	<0.1	<0.001

A 0.5 g sample is digested with 3:1 HCl-HNO3
 at 95C for 1 hour and diluted with DI H2O.

Signed: 

Mark Acres - Quality Assurance

Mr. Glen Prior
 Attention: G. Prior
 Project: SR
 Sample: 39 Rock

TSL LABORATORIES INC.
 2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
 Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57223
 Date: November 28, 2019

MULTIELEMENT ICP-MS ANALYSIS
 Aqua Regia Digestion

Element Sample	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	V ppm	W ppm	Zn ppm
SR401	1311.3	<0.05	0.6	5.1	1.2	3	<0.2	1	0.005	<0.1	39	<0.1	902
SR402	130.2	3.16	0.2	5.3	5.6	105	<0.2	1.8	0.042	<0.1	52	0.7	1250
SR403	561.1	0.3	1	2.1	0.7	<1	<0.2	0.5	0.004	<0.1	24	0.4	1887
SR404	688.9	6.33	3.8	9.5	3.7	6	<0.2	2.4	<0.001	0.3	102	1.5	>10000
SR405	1218.2	1.4	1	9.8	2.9	4	<0.2	1.9	<0.001	<0.1	96	0.5	>10000
SR405 Re	1172.7	1.37	0.8	10.1	2.8	4	<0.2	2	<0.001	<0.1	93	0.5	>10000
SR406	2985.2	4.54	2.5	4.5	5.8	1	<0.2	0.7	<0.001	<0.1	33	0.7	>10000
SR407	5223.8	>10.00	5.1	4.3	4.8	2	<0.2	2	0.018	1.9	91	0.8	>10000
SR408	121.1	1.22	0.1	8.1	8.4	4	<0.2	11.4	0.006	<0.1	94	<0.1	>10000
SR409	8144.7	9.56	5.3	2.1	8.6	<1	<0.2	5	0.001	1.3	19	0.2	>10000
SR410	607.6	4.35	1.2	5	13.9	2	<0.2	17.3	0.003	0.1	40	<0.1	>10000
SR411	525.2	>10.00	0.9	1.4	8.4	6	0.2	0.8	0.024	0.2	13	<0.1	1508
SR412	64.1	1	0.8	8.4	6.4	7	<0.2	14	0.004	<0.1	58	<0.1	>10000
SR413	>10000.0	2.29	4.4	9.7	9.6	<1	<0.2	13.7	0.012	0.1	58	<0.1	>10000
SR414	164.6	>10.00	1.1	4	4.8	2	<0.2	14.2	0.006	0.2	36	1.9	5049
SR415	220.4	1.76	0.5	5.1	9.8	174	<0.2	2.4	0.003	<0.1	27	<0.1	>10000
SR416	297.5	1.13	3.5	1.3	3	14	<0.2	3.4	0.051	0.2	19	5.9	>10000
SR417	4254.9	>10.00	3.2	2.1	10	2	<0.2	2.9	0.004	0.2	17	<0.1	9691
SR418	>10000.0	1.97	1.1	4.3	14	10	<0.2	6.2	0.011	<0.1	52	<0.1	>10000
SR419	4612.2	1.77	0.4	6	12.6	2	<0.2	7.3	0.011	<0.1	45	<0.1	>10000
SR420	1534.3	2.43	0.5	4.6	9.9	1	0.8	7.5	0.001	0.1	39	0.2	>10000
SR421	3501.9	5.67	1.2	8.2	7.4	3	<0.2	0.6	0.003	0.3	53	0.3	>10000
SR422	588.3	0.67	1.8	1.4	1.5	23	<0.2	6.2	0.061	2.2	15	0.3	>10000
SR423	1612.6	2.9	0.6	4.9	4.4	4	<0.2	13.7	0.003	<0.1	55	<0.1	>10000
SR424	>10000.0	7.47	287.7	0.5	22.4	2	0.4	0.4	<0.001	0.3	4	0.6	>10000
SR425	>10000.0	8.92	75.4	1.9	22.9	2	0.3	1.4	0.001	0.5	16	0.8	>10000
SR426	>10000.0	6.78	125	2.4	63.7	2	1.8	1.2	0.001	0.4	17	1.5	>10000
SR427	1072.6	>10.00	6.5	2	4.9	4	<0.2	0.9	<0.001	0.9	15	1.1	>10000
SR428	>10000.0	9.99	70.9	2.3	12	2	<0.2	1.7	<0.001	0.6	27	0.7	>10000
SR501	94	<0.05	0.2	4.6	<0.5	10	<0.2	0.4	0.001	0.8	1	<0.1	303
SR502	75.9	<0.05	17.7	5.7	1.7	25	1.6	70.1	0.008	10.1	11	>100.0	325
SR503	>10000.0	2.44	3.2	0.8	43.3	261	1.3	1.4	0.009	27.7	15	11.7	>10000
SR504	158.4	0.17	8.6	1.6	4.4	9	<0.2	77.5	0.001	0.6	<1	1.8	266
SR505	34.3	<0.05	19.9	1.9	<0.5	22	<0.2	48.8	0.079	<0.1	17	0.7	492
SR506	36.9	<0.05	0.6	3.9	<0.5	2	<0.2	101.6	0.053	1	2	2.1	50
SR507	24.1	<0.05	0.3	1.7	<0.5	3	<0.2	58.3	0.001	0.4	<1	0.6	44
SR508	19.4	<0.05	0.5	5.3	<0.5	1	<0.2	346.2	0.154	2	3	0.8	86
SR509	28.9	2.06	0.9	1.3	9.7	1	0.8	7.6	0.042	0.1	30	0.7	137
SR510	11.6	<0.05	22.3	3.3	0.8	3	0.7	5.2	0.013	1	14	>100.0	642
SR511	23.4	<0.05	1	6.1	<0.5	2	<0.2	405.5	0.161	2	3	9.9	105

A 0.5 g sample is digested with 3:1 HCl-HNO₃
 at 95C for 1 hour and diluted with DI H₂O.

Signed: 

Mr. Glen Prior

Attention: G. Prior

Project: SR

Sample: 39 Rock

TSL LABORATORIES INC.

2 - 302 48th Street East, Saskatoon, Saskatchewan. S7K 6A4

Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57223

Date: November 28, 2019

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element Sample	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Ti ppm	V ppm	W ppm	Zn ppm
SR405	1218.2	1.4	1	9.8	2.9	4	<0.2	1.9	<0.001	<0.1	96	0.5	>10000
STD DS11	145.2	0.29	7.1	3.3	2.4	72	4.9	7.9	0.1	5.3	52	3.1	322
STD OREAS262	58.5	0.26	2.8	2.8	<0.5	35	0.2	10.5	0.003	0.4	22	<0.1	147
STD OREAS262	64.2	0.26	1.8	3.5	<0.5	39	0.2	10.6	0.003	0.5	24	<0.1	159
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<1	<0.1	1
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	0.5	<0.001	<0.1	<1	<0.1	<1

A 0.5 g sample is digested with 3:1 HCl-HNO₃
at 95C for 1 hour and diluted with DI H₂O.

Signed: _____

Mark Acres - Quality Assurance



2 - 302 48th Street • Saskatoon, SK • S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

Company: Mr. Glen Prior
Geologist: G. Prior
Project: SR
Purchase Order:

TSL Report: S57223
Date Received: Nov 13, 2019
Date Reported: Nov 28, 2019
Invoice: 77463

Sample Type:	Number	Size Fraction	Sample Preparation
Rock	39	Reject ~ 70% at -10 mesh (1.70 mm)	Crush, Riffle Split, Pulverize
		Pulp ~ 95% at -150 mesh (106 µm)	
Pulp	0		None

ICP-ES Multiacid Digestion HNO₃-HClO₄-HF-HCl

*The Multiacid digestion liberates most metals that are not completely dissolved with Aqua Regia.
Dissolution may not be complete for Cr and Ba minerals(*). Some loss of Au, As, S and Sb may occur.(†)*

Element Name	Lower Detection Limit	Upper Detection Limit	Element Name	Lower Detection Limit	Upper Detection Limit
Ag	0.5 ppm	200 ppm	Na	0.001 %	10 %
Al *	0.01%	20 %	Nb	2 ppm	2000 ppm
As †	5 ppm	10000 ppm	Ni	2 ppm	10000 ppm
Ba *	1 ppm	10000 ppm	P	0.002 %	5 %
Be	1 ppm	1000 ppm	Pb	5 ppm	10000 ppm
Bi	5 ppm	4000 ppm	S=	0.1 %	10 %
Ca	0.01%	40 %	Sb †	5 ppm	4000 ppm
Cd	0.4 ppm	4000 ppm	Sc	1 ppm	200 ppm
Co	2 ppm	4000 ppm	Sn *	2 ppm	2000 ppm
Cr *	2 ppm	10000 ppm	Sr	2 ppm	10000 ppm
Cu	2 ppm	10000 ppm	Th	2 ppm	4000 ppm
Fe *	0.01%	60 %	Ti	0.01 %	10 %
K	0.01%	10 %	U	20 ppm	4000 ppm
La	2 ppm	2000 ppm	V	2 ppm	10000 ppm
Mg	0.01 %	30 %	W	4 ppm	200 ppm
Mn *	5 ppm	10000 ppm	Y	2 ppm	2000 ppm
Mo	2 ppm	4000 ppm	Zn	2 ppm	10000 ppm
			Zr *	2 ppm	2000 ppm

*Results are representative of samples submitted for testing.
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Liability is limited to the analytical cost for analyses.*

TSL LABORATORIES INC.

2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57223
Date: November 28, 2019

Mr. Glen Prior
Attention: G. Prior
Project: SR
Sample: 39 Rock

MULTIELEMENT ICP-AES ANALYSIS Multiacid Digestion

Element Sample	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	S %
SR401	4.7	2.63	27	27	<1	6	0.6	3.3	6	211	21	6.81	<0.01	5	0.52	2459	<2	<0.01	<2	9	0.008	1314	<0.1
SR402	1	3.63	<5	63	<1	<5	2.28	7.1	24	194	144	6.94	0.05	5	0.62	485	<2	0.11	3	29	0.014	136	2.2
SR403	6.9	0.61	<5	15	5	9	0.04	10.6	<2	157	109	23.23	0.01	5	0.09	166	<2	<0.01	<2	5	0.004	560	0.3
SR404	12.9	6.6	241	20	2	6	0.34	257.7	39	41	96	28.07	<0.01	20	1.76	4446	<2	<0.01	2	53	0.03	689	7.9
SR405	11.8	7.08	23	13	2	13	0.28	500.1	41	31	94	25.9	<0.01	14	1.86	5040	<2	<0.01	2	19	0.004	1234	2.6
SR406	21.2	2.91	112	8	<1	8	0.15	305.1	28	179	406	12.25	<0.01	3	0.49	911	<2	<0.01	<2	20	<0.002	3062	5
SR407	33.4	2.97	42	10	1	7	0.23	45.9	48	42	960	38.35	<0.01	42	1.11	3373	<2	<0.01	9	34	0.07	5283	>10.0
SR408	5.6	9.07	<5	2	2	<5	0.83	653.4	37	48	105	25.73	<0.01	166	1.59	>10000	<2	<0.01	3	34	0.017	104	2.2
SR409	11.1	2.08	7	12	<1	<5	0.13	78.6	22	104	199	21.71	<0.01	21	0.26	8179	<2	<0.01	<2	14	0.013	8130	9.5
SR410	16.7	3.21	48	10	<1	<5	0.22	1208.6	61	126	261	12.45	<0.01	91	0.36	5220	4	<0.01	6	24	0.023	563	6.1
SR411	8	1.88	<5	13	<1	11	4.92	12.4	52	20	651	28.19	0.21	2	1.24	6375	<2	0.11	3	17	0.154	503	>10.0
SR412	4.2	7.38	<5	3	1	<5	0.47	392.4	27	54	59	22.71	<0.01	54	1.1	>10000	<2	<0.01	3	24	0.008	54	1.1
SR412 Re	4.1	7.68	<5	3	1	<5	0.48	385.7	26	53	58	22.9	<0.01	64	1.12	>10000	<2	<0.01	3	24	0.008	54	1.4
SR413	22.5	9.23	<5	<1	1	<5	0.06	116.5	20	35	78	28.02	<0.01	8	2.26	>10000	<2	<0.01	2	30	0.025	>10000	2.7
SR414	10.3	3.33	<5	3	<1	<5	0.18	46.1	12	64	619	42.2	<0.01	344	0.86	3813	<2	<0.01	6	19	0.036	166	>10.0
SR415	8.1	3.62	<5	8	<1	36	11.05	945.7	43	17	147	12.51	<0.01	15	0.41	9066	<2	<0.01	<2	13	0.005	217	4.2
SR416	3.3	1.82	8	149	2	20	7.09	137.7	16	74	10	27.2	0.06	12	0.21	>10000	<2	0.01	3	10	0.016	286	1.2
SR417	28.4	1.72	20	6	<1	34	0.22	79.9	31	113	619	26.43	<0.01	7	0.34	2091	3	<0.01	<2	18	0.005	4510	>10.0
SR418	29.6	7.05	<5	3	<1	54	0.25	334	25	16	143	30.47	<0.01	2	0.98	8402	<2	<0.01	<2	9	0.003	>10000	2.7
SR419	32.8	6.91	<5	3	<1	73	0.03	629.6	38	26	215	29.45	<0.01	2	0.97	7822	<2	<0.01	2	16	0.004	4934	3.7
SR420	28.3	5.1	<5	<1	<1	74	0.23	926.5	44	18	206	19.3	<0.01	6	0.35	9631	<2	<0.01	<2	15	0.002	1485	4.1
SR421	22	4.14	<5	4	1	55	0.29	1406.6	87	25	350	26.06	<0.01	4	0.8	7862	<2	<0.01	<2	14	0.016	3613	9.2
SR422	25.5	2.88	<5	466	4	56	6.53	75	16	29	14	24.29	0.48	14	0.38	8423	<2	0.13	5	15	0.018	504	0.6
SR423	19.3	6.51	<5	5	<1	31	0.36	910.3	51	40	597	21.75	<0.01	170	1.52	7809	<2	<0.01	3	20	0.016	1666	4.8
SR424	>200.0	0.23	12	7	<1	70	0.08	681.7	37	90	3657	5.89	<0.01	<2	0.03	468	<2	<0.01	<2	7	0.005	>10000	>10.0
SR425	152.2	1.03	75	23	<1	22	0.19	199.5	60	129	1250	11.04	0.01	8	0.42	1083	<2	<0.01	<2	25	0.029	>10000	9.7
SR426	>200.0	1.68	40	13	<1	238	0.04	865.1	48	57	3326	8.99	0.01	2	0.16	968	<2	<0.01	<2	6	0.002	>10000	>10.0
SR427	24	1.15	147	20	1	30	0.26	306.3	17	98	94	24.29	<0.01	3	0.4	>10000	<2	<0.01	<2	9	0.015	1106	>10.0
SR428	145.5	1.18	62	18	<1	30	0.1	232.2	57	113	1165	15.06	<0.01	31	0.56	969	2	<0.01	<2	27	0.016	>10000	>10.0
SR501	<0.5	6.73	13	10	13	<5	0.27	0.4	<2	207	4	6.94	0.3	<2	0.76	525	<2	0.65	<2	4	<0.002	83	<0.1
SR502	0.7	4.76	9533	809	144	238	7.18	0.5	30	22	23	13.75	4.5	13	7.82	551	<2	0.07	40	5	0.02	73	<0.1
SR503	>200.0	2.32	<5	89	124	515	11.57	185.1	<2	30	34	11.93	0.7	11	0.52	>10000	<2	1.05	<2	2	0.002	>10000	2.6
SR504	1.5	4.79	4284	39	2	36	0.3	1.3	<2	137	7	1.76	2.39	68	0.03	188	<2	1.79	69	3	<0.002	166	0.2
SR505	<0.5	2.49	36	5	117	10	17.04	2.4	3	71	2	8.59	0.13	495	4.45	1873	<2	0.1	4	11	0.028	36	<0.1
SR506	<0.5	5.14	63	22	6	<5	0.3	<0.4	<2	124	3	1.2	3.85	94	0.03	104	<2	2.32	80	3	0.003	53	<0.1
SR507	<0.5	5.43	14	31	5	<5	0.41	<0.4	<2	105	2	1.05	3.88	84	0.04	35	5	2.08	75	3	<0.002	42	<0.1
SR508	<0.5	6.02	<5	17	7	<5	0.17	<0.4	<2	158	2	3.43	4.35	31	0.07	251	<2	2.26	441	3	0.003	32	<0.1
SR509	1	1.57	<5	15	9	16	16.28	0.9	8	99	566	20.73	0.03	20	0.42	2599	<2	0.03	43	7	0.069	33	1.9
SR510	0.7	0.87	146	9	584	30	3.21	1.5	3	9	4	47.95	0.32	4	0.41	2705	<2	0.14	6	6	0.026	14	<0.1
SR511	<0.5	6.21	7	7	2	<5	0.71	<0.4	<2	141	2	3.21	4.26	84	0.07	270	<2	2.49	446	2	<0.002	35	<0.1

A 0.25 g sample is digested with HClO4, HNO3, HCl, HF
and diluted to 10 ml with D.I. H2O.

Signed: 

Mr. Glen Prior
 Attention: G. Prior
 Project: SR
 Sample: 39 Rock

TSL LABORATORIES INC.
 2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
 Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57223
 Date: November 28, 2019

MULTIELEMENT ICP-AES ANALYSIS
 Multiacid Digestion

Element Sample	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	S %
STD OREAS25A-4A	<0.5	8.49	9	139	<1	<5	0.27	<0.4	7	108	31	6.22	0.48	20	0.31	470	<2	0.13	17	46	0.048	27	<0.1
STD OREAS45H	<0.5	7.94	16	326	<1	<5	0.14	<0.4	87	639	755	20.35	0.21	13	0.24	388	<2	0.09	12	434	0.023	13	<0.1
STD OREAS45E	0.7	7.09	16	269	<1	<5	0.06	<0.4	59	1036	812	25.9	0.36	11	0.16	570	<2	0.06	6	483	0.036	16	<0.1
STD OREAS25A-4A	<0.5	9.66	10	154	<1	<5	0.32	<0.4	7	108	32	6.85	0.52	22	0.33	510	<2	0.14	20	48	0.052	26	<0.1
BLK	<0.5	<0.01	<5	<1	<1	<5	<0.01	<0.4	<2	<2	<2	<0.01	<0.01	<2	<0.01	<5	<2	<0.01	<2	<2	<0.002	<5	<0.1
BLK	<0.5	<0.01	<5	<1	<1	<5	<0.01	<0.4	<2	<2	<2	<0.01	<0.01	<2	<0.01	<5	<2	<0.01	<2	<2	<0.002	<5	<0.1

A 0.25 g sample is digested with HClO₄, HNO₃, HCl, HF
 and diluted to 10 ml with D.I. H₂O.

Signed: 
 Mark Acres - Quality Assurance

Mr. Glen Prior
 Attention: G. Prior
 Project: SR
 Sample: 39 Rock

TSL LABORATORIES INC.
 2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
 Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57223
 Date: November 28, 2019

MULTIELEMENT ICP-AES ANALYSIS
 Multiacid Digestion

Element Sample	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
SR401	<5	5	23	6	<2	0.03	<20	39	<4	5	1010	10
SR402	<5	9	9	124	<2	0.14	<20	72	<4	8	1323	15
SR403	<5	1	23	<2	<2	0.01	<20	20	<4	3	2026	4
SR404	<5	9	104	23	6	0.05	<20	115	20	5	>10000	37
SR405	<5	9	99	6	3	0.06	<20	104	*	4	>10000	34
SR406	5	4	161	2	<2	0.01	<20	36	<4	<2	>10000	10
SR407	<5	4	404	3	<2	0.16	<20	91	<4	11	>10000	38
SR408	<5	8	118	4	14	0.08	<20	93	*	20	>10000	72
SR409	<5	2	95	2	5	0.02	<20	17	<4	9	>10000	12
SR410	12	4	69	3	16	0.19	<20	38	<4	9	>10000	96
SR411	<5	7	326	16	<2	0.1	<20	42	<4	10	1659	21
SR412	<5	7	88	6	10	0.09	<20	53	4	12	>10000	66
SR412 Re	<5	7	88	6	11	0.1	<20	52	<4	14	>10000	65
SR413	7	9	70	<2	8	0.07	<20	54	5	4	>10000	64
SR414	<5	4	308	3	20	0.22	<20	31	<4	20	5566	136
SR415	9	5	35	155	<2	0.03	<20	26	<4	39	>10000	10
SR416	13	3	665	61	<2	0.1	<20	20	<4	8	>10000	30
SR417	<5	2	20	2	<2	0.02	<20	13	<4	4	>10000	11
SR418	<5	4	72	8	<2	0.04	<20	46	<4	2	>10000	28
SR419	7	5	80	<2	2	0.06	<20	39	<4	<2	>10000	37
SR420	13	4	151	<2	8	0.02	<20	33	<4	5	>10000	34
SR421	16	8	86	3	<2	0.03	<20	53	<4	6	>10000	3
SR422	9	4	634	50	3	0.15	<20	29	<4	9	>10000	43
SR423	10	5	173	4	11	0.11	<20	52	<4	23	>10000	73
SR424	288	<1	95	2	<2	<0.01	<20	3	<4	<2	>10000	3
SR425	88	2	423	5	<2	0.04	<20	19	<4	5	>10000	15
SR426	164	1	256	4	<2	<0.01	<20	16	<4	<2	>10000	3
SR427	18	2	45	5	<2	0.01	<20	12	<4	5	>10000	6
SR428	89	2	141	3	<2	0.02	<20	26	<4	4	>10000	10
SR501	<5	23	33	14	<2	<0.01	<20	<2	<4	5	417	<2
SR502	27	4	>2000	26	57	<0.01	<20	9	>200	20	758	4
SR503	11	<1	740	366	<2	<0.01	<20	14	<4	7	>10000	<2
SR504	10	8	41	9	63	0.02	24	<2	11	107	280	86
SR505	20	5	328	29	35	0.09	<20	22	<4	254	887	33
SR506	<5	3	5	4	76	0.06	<20	<2	5	122	51	105
SR507	<5	3	10	7	49	0.05	<20	<2	<4	87	50	116
SR508	<5	6	10	2	270	0.19	51	3	12	77	84	383
SR509	<5	2	403	5	<2	0.06	<20	41	<4	130	596	38
SR510	166	1	>2000	4	2	0.01	<20	8	>200	7	685	6
SR511	<5	6	20	3	343	0.18	47	3	23	340	106	336

A 0.25 g sample is digested with HClO₄, HNO₃, HCl, HF
 and diluted to 10 ml with D.I. H₂O.

Signed: _____

Mr. Glen Prior
 Attention: G. Prior
 Project: SR
 Sample: 39 Rock

TSL LABORATORIES INC.
 2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
 Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57223
 Date: November 28, 2019

MULTIELEMENT ICP-AES ANALYSIS
 Multiacid Digestion

Element Sample	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
STD OREAS25A-4A	5	13	6	43	14	0.9	<20	151	<4	10	44	149
STD OREAS45H	<5	58	3	27	6	0.86	<20	264	<4	11	47	122
STD OREAS45E	<5	99	<2	17	12	0.53	<20	329	<4	9	45	92
STD OREAS25A-4A	<5	14	5	49	15	0.96	<20	163	<4	11	44	155
BLK	<5	<1	<2	<2	<2	<0.01	<20	<2	<4	<2	<2	<2
BLK	<5	<1	<2	<2	<2	<0.01	<20	<2	<4	<2	<2	<2

A 0.25 g sample is digested with HClO₄, HNO₃, HCl, HF
 and diluted to 10 ml with D.I. H₂O.

Signed: _____
 Mark Acres - Quality Assurance



2 - 302 48th Street • Saskatoon, SK • S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

Company: Mr. Glen Prior
Geologist: G. Prior
Project: SR
Purchase Order:

TSL Report: S57221
Date Received: Nov 13, 2019
Date Reported: Nov 28, 2019
Invoice: 77462

Sample Type: Number Size Fraction Sample Preparation
Soil 15 -80 mesh Dry, Screen

ICP-MS Aqua Regia Digestion HCl-HNO₃

The Aqua Regia Leach digestion liberates most of the metals except those marked with an asterisk where the digestion will not be complete.

Element Name	Lower Detection Limit	Upper Detection Limit	Element Name	Lower Detection Limit	Upper Detection Limit
Ag	0.1 ppm	100 ppm	Mn *	1 ppm	10000 ppm
Al *	0.01 %	10 %	Mo	0.1 ppm	2000 ppm
As	0.5 ppm	10000 ppm	Na *	0.001%	10 %
Au	0.5 ppb	100 ppm	Ni	0.1 ppm	10000 ppm
B *	1 ppm	2000 ppm	P *	0.001%	5 %
Ba *	1 ppm	1000 ppm	Pb	0.1 ppm	10000 ppm
Bi	0.1 ppm	2000 ppm	S	0.05 %	10 %
Ca *	0.01%	40 %	Sb	0.1 ppm	2000 ppm
Cd	0.1 ppm	2000 ppm	Sc	0.1 ppm	100 ppm
Co	0.1 ppm	2000 ppm	Se	0.5 ppm	1000 ppm
Cr *	1 ppm	10000 ppm	Sr *	1 ppm	10000 ppm
Cu	0.1 ppm	10000 ppm	Te	1 ppm	2000 ppm
Fe *	0.01%	40 %	Th *	0.1 ppm	2000 ppm
Ga *	1 ppm	1000 ppm	Ti *	0.001%	10 %
Hg	0.01 ppm	100 ppm	Tl	0.1 ppm	1000 ppm
K *	0.01%	10 %	U *	0.1 ppm	2000 ppm
La *	1 ppm	10000 ppm	V *	2 ppm	10000 ppm
Mg *	0.01%	30 %	W *	0.1 ppm	100 ppm
			Zn	1 ppm	10000 ppm

*Results are representative of samples submitted for testing.
Test reports may be reproduced, in their entirety, without our consent.
Liability is limited to the analytical cost for analyses.*

Mr. Glen Prior

Attention: G. Prior

Project: SR

Sample: 15 Soil

TSL LABORATORIES INC.

2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4

Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57221

Date: November 28, 2019

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element Sample	Ag ppm	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %
SR601	0.4	2.97	81.5	1.8	<20	59	0.9	0.61	3.6	4.5	25	13.1	1.13	3	0.06	0.11	114	0.39	766	2.2	0.01	16.3	0.058
SR602	0.7	4.64	218.3	0.8	<20	61	1.2	0.27	1.6	3.3	34	12.8	1.66	5	0.13	0.11	78	0.11	268	2.8	0.008	14.3	0.068
SR603	1.3	2.13	250.7	<0.5	<20	58	2.5	0.51	2.1	2.2	30	24	2.29	8	0.28	0.15	249	0.13	210	9	0.014	9.1	0.111
SR604	1.1	4.83	372.8	3.7	<20	62	2.1	0.26	1.6	7.3	40	26.3	2.09	6	0.19	0.12	96	0.17	872	5.2	0.008	17.4	0.099
SR604 Re	1.1	4.74	358.3	2.7	<20	61	2	0.26	1.6	7.1	38	25.9	2.1	6	0.18	0.12	93	0.17	830	5.3	0.009	16.6	0.097
SR605	0.6	3.66	198.6	1.4	<20	57	1.1	0.21	1.1	4	30	13.9	1.45	5	0.09	0.12	77	0.13	357	2.4	0.008	12.8	0.051
SR606	0.3	2.25	144.2	0.9	<20	39	0.9	0.2	1.1	6	20	8.2	2.1	5	0.05	0.12	114	0.11	895	2	0.008	10.6	0.042
SR607	1.1	2.81	122.4	1.9	<20	133	4.1	0.93	4.2	4.4	60	22.1	1.79	6	0.08	0.15	192	0.29	622	4.8	0.01	20.8	0.101
SR608	0.6	3.79	139.8	1.7	<20	46	1.1	0.4	3.1	2.6	25	13	0.94	4	0.09	0.11	139	0.37	345	1.6	0.009	10.9	0.056
SR609	0.6	4.51	216.1	3.3	<20	74	1.4	0.46	1.8	5.4	28	15.7	1.36	5	0.06	0.11	92	0.28	430	2.4	0.012	16.6	0.071
SR610	0.6	4.4	205.8	<0.5	<20	39	1.2	0.27	1.1	1.5	23	10	0.87	4	0.09	0.09	124	0.75	144	1.1	0.007	10.4	0.049
SR611	1.4	6.66	308.5	2.7	<20	45	1.7	0.39	1.7	2.4	21	16	1.09	5	0.18	0.11	136	0.33	188	2.3	0.013	10.2	0.107
SR612	0.5	3.03	121.8	1.1	<20	41	1.1	0.29	1.1	3.6	17	6.8	1.41	5	0.05	0.11	93	0.08	602	1.2	0.006	8.4	0.032
SR613	0.6	5.19	128.7	6.3	<20	29	0.6	0.41	2.3	1.4	41	13.6	0.54	3	0.11	0.41	87	0.06	395	1.9	0.095	7.4	0.092
SR614	0.4	4.5	226.3	1.9	<20	32	1.2	0.37	1.4	3.5	35	19.8	1.14	3	0.24	0.1	146	0.07	1003	2.5	0.008	7.5	0.077
SR615	0.9	1.66	63.4	6.7	<20	85	3.7	0.48	8	16.8	49	85.2	2.78	5	0.03	0.5	21	0.58	1069	2.6	0.009	48.7	0.08
STD DS11	1.7	1.23	41.8	62.3	<20	417	11.4	1.07	2.5	14.1	61	145.6	3.12	5	0.25	0.4	18	0.86	1020	15.5	0.072	83	0.07
STD OREAS262	0.5	1.31	35.9	79.4	<20	263	1	2.94	0.6	28.9	45	114.1	3.43	4	0.17	0.33	17	1.2	560	0.7	0.068	67.9	0.039
BLK	<0.1	<0.01	<0.5	<0.5	<20	<1	<0.1	<0.01	<0.1	<0.1	<1	<0.1	<0.01	<1	<0.01	<0.01	<1	<0.01	<1	<0.1	<0.001	<0.1	<0.001

A 0.5 g sample is digested with 3:1 HCl-HNO₃
at 95°C for 1 hour and diluted with DI H₂O.

Signed: _____

Mark Acres - Quality Assurance

Mr. Glen Prior

Attention: G. Prior

Project: SR

Sample: 15 Soil

TSL LABORATORIES INC.

2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4

Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57221

Date: November 28, 2019

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element Sample	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	V ppm	W ppm	Zn ppm
SR601	23.5	0.11	0.6	2.3	8.7	23	<0.2	22.8	0.03	0.3	15	1.8	277
SR602	35.4	0.08	0.6	2.7	7	11	<0.2	25.7	0.034	0.3	14	1.4	254
SR603	118.4	0.23	0.7	2.1	13.2	13	<0.2	7.4	0.019	0.4	12	1.4	165
SR604	73.2	0.09	0.7	2.7	10.1	9	<0.2	18.6	0.038	0.5	19	1.2	308
SR604 Re	73.9	0.08	0.8	3	9.3	10	<0.2	19.7	0.039	0.5	19	1.2	326
SR605	35.4	<0.05	0.6	2.7	5.1	9	<0.2	29.8	0.039	0.3	15	1.7	281
SR606	29.4	<0.05	0.6	2.5	4.2	8	<0.2	33.8	0.036	0.3	18	2.2	348
SR607	146.6	0.12	0.9	2.8	9.6	22	<0.2	10.4	0.026	0.4	20	1.6	863
SR608	25.6	0.06	0.6	2.5	9.7	14	<0.2	44.5	0.028	0.3	11	3.1	355
SR609	24.8	0.09	0.6	2.8	7.3	22	<0.2	19.2	0.04	0.3	21	2.9	168
SR610	26.6	0.07	0.5	2.6	7.8	10	<0.2	55.7	0.024	0.3	8	5.7	237
SR611	53.3	0.11	0.6	2.6	11.7	17	<0.2	47.2	0.028	0.4	13	1.5	785
SR612	27	<0.05	0.5	2.4	5.2	9	<0.2	39.5	0.027	0.3	11	1.6	285
SR613	27.5	0.14	0.5	1.8	11.4	12	<0.2	17	0.013	0.3	5	0.8	329
SR614	92.8	0.21	0.4	2.5	10.5	12	<0.2	25.6	0.014	0.3	9	0.8	337
SR615	140.5	0.06	1.5	3.4	2.5	22	<0.2	2.8	0.032	0.4	42	6.6	1111
STD DS11	131.7	0.28	7.4	3.1	2.2	66	4.7	8.4	0.094	4.9	51	2.5	344
STD OREAS262	53.5	0.27	3.1	3.3	0.6	34	<0.2	8.8	0.003	0.5	23	0.1	153
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	0.2	<0.001	<0.1	<2	<0.1	<1

A 0.5 g sample is digested with 3:1 HCl-HNO₃
at 95C for 1 hour and diluted with DI H₂O.

Signed: 

Mark Acres - Quality Assurance



2 - 302 48th Street • Saskatoon, SK • S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

Company: Mr. Glen Prior
Geologist: G. Prior
Project: SR
Purchase Order:

TSL Report: S57221
Date Received: Nov 13, 2019
Date Reported: Nov 28, 2019
Invoice: 77462

Sample Type: Number Size Fraction Sample Preparation
Soil 15 -80 mesh Dry, Screen

ICP-ES Multiacid Digestion HNO₃-HClO₄-HF-HCl

*The Multiacid digestion liberates most metals that are not completely dissolved with Aqua Regia.
Dissolution may not be complete for Cr and Ba minerals(*). Some loss of Au, As, S and Sb may occur.(†)*

Element Name	Lower Detection Limit	Upper Detection Limit	Element Name	Lower Detection Limit	Upper Detection Limit
Ag	0.5 ppm	200 ppm	Na	0.001 %	10 %
Al *	0.01%	20 %	Nb	2 ppm	2000 ppm
As †	5 ppm	10000 ppm	Ni	2 ppm	10000 ppm
Ba *	1 ppm	10000 ppm	P	0.002 %	5 %
Be	1 ppm	1000 ppm	Pb	5 ppm	10000 ppm
Bi	5 ppm	4000 ppm	S=	0.1 %	10 %
Ca	0.01%	40 %	Sb †	5 ppm	4000 ppm
Cd	0.4 ppm	4000 ppm	Sc	1 ppm	200 ppm
Co	2 ppm	4000 ppm	Sn *	2 ppm	2000 ppm
Cr *	2 ppm	10000 ppm	Sr	2 ppm	10000 ppm
Cu	2 ppm	10000 ppm	Th	2 ppm	4000 ppm
Fe *	0.01%	60 %	Ti	0.01 %	10 %
K	0.01%	10 %	U	20 ppm	4000 ppm
La	2 ppm	2000 ppm	V	2 ppm	10000 ppm
Mg	0.01 %	30 %	W	4 ppm	200 ppm
Mn *	5 ppm	10000 ppm	Y	2 ppm	2000 ppm
Mo	2 ppm	4000 ppm	Zn	2 ppm	10000 ppm
			Zr *	2 ppm	2000 ppm

*Results are representative of samples submitted for testing.
Test reports may be reproduced, in their entirety, without our consent.
Liability is limited to the analytical cost for analyses.*

Mr. Glen Prior
 Attention: G. Prior
 Project: SR
 Sample: 15 Soils

TSL LABORATORIES INC.
 2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
 Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57221
 Date: November 28, 2019

MULTIELEMENT ICP-AES ANALYSIS
 Multiacid Digestion

Element Sample	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	S %
SR601	<0.5	5.54	75	206	21	<5	1.07	3.1	4	27	13	1.34	1.81	137	0.55	788	<2	1.15	44	16	0.062	34	<0.1
SR602	0.7	6.91	203	205	27	<5	0.46	1.3	3	34	13	1.88	1.63	124	0.17	315	3	0.9	36	15	0.079	47	<0.1
SR603	1.4	3.65	236	129	9	<5	0.59	1.8	2	32	25	2.38	0.72	245	0.18	230	10	0.27	23	10	0.148	134	0.2
SR604	1.1	6.48	344	249	24	<5	0.51	1.1	7	44	26	2.36	1.11	97	0.28	858	5	0.67	21	17	0.116	75	0.1
SR605	0.7	6.3	194	253	25	<5	0.45	0.8	4	38	14	1.69	1.97	94	0.23	422	2	1.12	43	14	0.066	44	<0.1
SR606	<0.5	5.7	126	205	14	<5	0.45	0.7	5	27	7	2.11	2.64	163	0.19	826	<2	1.56	115	11	0.05	40	<0.1
SR607	1.4	4.95	119	321	14	<5	1.2	4	5	67	23	2.05	1.57	193	0.44	659	5	0.89	35	22	0.14	155	0.2
SR608	0.8	5.63	133	174	30	<5	0.77	2.5	3	32	12	1.17	1.88	153	0.54	374	<2	1.15	63	12	0.063	37	<0.1
SR609	0.7	5.95	212	273	16	<5	0.8	1.5	6	37	17	1.68	1.49	94	0.47	492	2	1.01	27	18	0.088	32	0.1
SR610	0.8	5.38	187	130	29	<5	0.69	0.9	<2	25	10	1.06	1.87	132	0.99	189	<2	1.18	67	12	0.055	36	<0.1
SR610 Re	0.7	5.45	196	134	30	<5	0.66	0.8	<2	26	10	1.1	1.91	140	0.99	187	<2	1.2	102	12	0.059	36	0.1
SR611	1.5	5.85	296	134	41	<5	0.51	1.3	2	24	17	1.27	0.89	111	0.47	207	2	0.53	29	11	0.121	62	0.1
SR612	<0.5	5.12	110	160	22	<5	0.36	0.9	3	22	6	1.51	2.63	136	0.13	563	<2	1.46	99	9	0.042	40	<0.1
SR613	0.8	4.63	123	53	26	<5	0.39	2	<2	40	14	0.65	0.57	88	0.08	376	<2	0.17	8	8	0.097	37	0.1
SR614	0.7	4.81	243	63	21	<5	0.39	1.2	4	39	23	1.38	0.32	146	0.09	1120	3	0.12	7	9	0.099	113	0.3
SR615	1	3.98	65	510	3	<5	0.78	7.4	17	78	91	3.3	1.62	29	0.78	1596	3	0.34	9	50	0.099	155	<0.1
STD OREAS25A-4A	<0.5	8.21	9	143	<1	<5	0.25	<0.4	7	115	31	6.45	0.49	18	0.31	484	2	0.13	18	47	0.05	29	<0.1
STD OREAS45H	<0.5	7.65	14	326	<1	<5	0.13	<0.4	89	658	769	20.42	0.21	10	0.24	398	<2	0.09	13	448	0.024	10	<0.1
STD OREAS45E	0.6	6.67	13	246	<1	<5	0.06	<0.4	60	1010	764	25	0.35	11	0.15	550	<2	0.06	6	475	0.035	20	<0.1
BLK	<0.5	<0.01	<5	<1	<1	<5	<0.01	<0.4	<2	<2	<2	<0.01	<0.01	<2	<0.01	<5	<2	<0.01	<2	<2	<0.002	<5	<0.1
BLK	<0.5	<0.01	<5	<1	<1	<5	<0.01	<0.4	<2	<2	<2	<0.01	<0.01	<2	<0.01	<5	<2	<0.01	<2	<2	<0.002	<5	<0.1

A 0.25 g sample is digested with HClO₄, HNO₃, HCl, HF
 and diluted to 10 ml with D.I. H₂O.

Signed: 

Mark Acres - Quality Assurance

Mr. Glen Prior
 Attention: G. Prior
 Project: SR
 Sample: 15 Soils

TSL LABORATORIES INC.
 2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
 Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57221
 Date: November 28, 2019

MULTIELEMENT ICP-AES ANALYSIS
 Multiacid Digestion

Element Sample	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
SR601	<5	4	5	58	50	0.12	100	25	4	304	281	153
SR602	<5	5	3	44	62	0.12	54	22	14	205	275	152
SR603	<5	6	4	27	79	0.08	144	17	<4	720	179	47
SR604	<5	6	2	58	58	0.14	98	33	<4	314	321	54
SR605	<5	5	3	55	56	0.15	61	24	4	186	299	239
SR606	<5	5	4	52	67	0.14	61	25	11	177	336	323
SR607	<5	8	6	68	83	0.14	416	30	7	575	948	82
SR608	<5	4	6	40	65	0.11	126	18	6	363	379	172
SR609	<5	6	5	67	46	0.16	50	32	7	267	183	101
SR610	<5	4	7	29	94	0.09	100	13	12	309	261	234
SR610 Re	<5	4	7	29	115	0.09	102	14	11	321	267	209
SR611	<5	4	5	33	108	0.11	275	19	<4	356	863	62
SR612	<5	4	4	35	64	0.11	82	16	9	201	276	274
SR613	<5	2	<2	15	27	0.03	208	8	<4	351	349	17
SR614	<5	4	<2	17	61	0.04	300	12	<4	561	395	26
SR615	<5	9	8	57	6	0.2	<20	67	8	21	1240	42
STD OREAS25A-4A	6	13	5	41	13	0.95	<20	160	<4	10	42	156
STD OREAS45H	<5	55	3	25	6	0.89	<20	275	<4	9	38	126
STD OREAS45E	<5	92	<2	16	12	0.51	<20	328	<4	8	44	93
BLK	<5	<1	<2	<2	<2	<0.01	<20	<2	<4	<2	<2	<2
BLK	<5	<1	<2	<2	<2	<0.01	<20	<2	<4	<2	<2	<2

A 0.25 g sample is digested with HClO₄, HNO₃, HCl, HF
 and diluted to 10 ml with D.I. H₂O.

Signed: _____

Mark Acres - Quality Assurance



2 - 302 48th Street • Saskatoon, SK • S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

Company: Mr. Glen Prior
Geologist: G. Prior
Project: SR
Purchase Order:

TSL Report: S57224
Date Received: Nov 13, 2019
Date Reported: Nov 28, 2019
Invoice: 77464

Sample Type:	Number	Size Fraction	Sample Preparation
Conc	9	Pulp ~ 95% at -150 mesh (106 µm)	Riffle Split, Pulverize
Pulp	0		None

ICP-MS Aqua Regia Digestion HCl-HNO₃

The Aqua Regia Leach digestion liberates most of the metals except those marked with an asterisk where the digestion will not be complete.

Element Name	Lower Detection Limit	Upper Detection Limit	Element Name	Lower Detection Limit	Upper Detection Limit
Ag	0.1 ppm	100 ppm	Mn *	1 ppm	10000 ppm
Al *	0.01 %	10 %	Mo	0.1 ppm	2000 ppm
As	0.5 ppm	10000 ppm	Na *	0.001%	10 %
Au	0.5 ppb	100 ppm	Ni	0.1 ppm	10000 ppm
B *	1 ppm	2000 ppm	P *	0.001%	5 %
Ba *	1 ppm	1000 ppm	Pb	0.1 ppm	10000 ppm
Bi	0.1 ppm	2000 ppm	S	0.05 %	10 %
Ca *	0.01%	40 %	Sb	0.1 ppm	2000 ppm
Cd	0.1 ppm	2000 ppm	Sc	0.1 ppm	100 ppm
Co	0.1 ppm	2000 ppm	Se	0.5 ppm	1000 ppm
Cr *	1 ppm	10000 ppm	Sr *	1 ppm	10000 ppm
Cu	0.1 ppm	10000 ppm	Te	1 ppm	2000 ppm
Fe *	0.01%	40 %	Th *	0.1 ppm	2000 ppm
Ga *	1 ppm	1000 ppm	Ti *	0.001%	10 %
Hg	0.01 ppm	100 ppm	Tl	0.1 ppm	1000 ppm
K *	0.01%	10 %	U *	0.1 ppm	2000 ppm
La *	1 ppm	10000 ppm	V *	2 ppm	10000 ppm
Mg *	0.01%	30 %	W *	0.1 ppm	100 ppm
			Zn	1 ppm	10000 ppm

*Results are representative of samples submitted for testing.
Test reports may be reproduced, in their entirety, without our consent.
Liability is limited to the analytical cost for analyses.*

Mr. Glen Prior

Attention: G. Prior

Project: SR

Sample: 9 Conc

TSL LABORATORIES INC.

2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4

Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57224

Date: November 28, 2019

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element Sample	Ag ppm	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %
SR701	0.1	0.71	35.5	5.2	51	49	0.6	0.31	0.6	2.7	230	8.4	1.54	3	<0.01	0.16	56	0.24	223	1.2	0.038	10.1	0.014
SR702	<0.1	0.49	21.5	4.1	28	25	0.3	0.12	0.1	1.6	160	5.5	0.8	2	<0.01	0.12	63	0.1	96	1.1	0.029	6.4	0.009
SR704	<0.1	0.77	36.1	0.5	<20	50	0.2	0.2	0.2	3.9	158	8.2	1.24	3	<0.01	0.13	30	0.23	243	1.1	0.027	12	0.02
SR705	<0.1	0.51	24.5	1.4	<20	25	0.2	0.12	<0.1	1.6	167	5.8	0.84	2	<0.01	0.13	37	0.1	89	1.1	0.033	6.9	0.008
SR706	<0.1	0.46	20.6	<0.5	<20	19	0.3	0.12	0.2	2	163	3.9	0.91	2	<0.01	0.14	55	0.09	203	0.8	0.034	5.4	0.009
SR708	0.1	0.59	29.1	2.2	<20	29	1	0.26	0.4	1.7	185	6.7	1.18	2	<0.01	0.14	98	0.2	199	1.3	0.032	7	0.011
SR710	<0.1	0.53	36.9	<0.5	<20	14	0.6	0.17	0.1	0.9	186	4.2	0.8	2	<0.01	0.13	51	0.23	107	0.8	0.034	5.3	0.005
SR712	<0.1	0.55	30.4	<0.5	<20	15	0.4	0.09	0.2	1.3	141	4	0.67	2	<0.01	0.11	42	0.06	144	0.9	0.028	4.7	0.005
SR715	0.6	1.84	65.1	6.3	<20	94	4.7	0.28	3.5	15.6	128	68.7	3.63	6	<0.01	0.34	16	0.68	1338	2.8	0.011	37.2	0.059
STD OREAS262	0.4	1.42	37.9	61.6	<20	265	1.1	3.02	0.8	28.3	49	128.1	3.28	4	0.16	0.35	19	1.21	556	0.7	0.07	66.6	0.043
BLK	<0.1	<0.01	<0.5	<0.5	<20	<1	<0.1	<0.01	<0.1	<0.1	<1	<0.1	<0.01	<1	<0.01	<0.01	<1	<0.01	<1	<0.1	<0.001	<0.1	<0.001

A 0.5 g sample is digested with 3:1 HCl-HNO₃
at 95C for 1 hour and diluted with DI H₂O.

Signed: 

Mark Acres - Quality Assurance

Mr. Glen Prior
 Attention: G. Prior
 Project: SR
 Sample: 9 Conc

TSL LABORATORIES INC.
 2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
 Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57224
 Date: November 28, 2019

MULTIELEMENT ICP-MS ANALYSIS
 Aqua Regia Digestion

Element Sample	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	V ppm	W ppm	Zn ppm
SR701	19.3	<0.05	1.3	1.8	<0.5	9	<0.2	27.1	0.041	0.2	14	14.5	98
SR702	9.1	<0.05	0.5	1.2	<0.5	5	<0.2	36.9	0.023	0.1	9	9.3	59
SR704	15.3	<0.05	0.4	1.9	<0.5	11	<0.2	17.2	0.048	0.1	18	2.1	96
SR705	9.3	<0.05	0.4	1.1	<0.5	5	<0.2	20.2	0.024	0.1	9	3.1	49
SR706	10.6	<0.05	0.6	1.2	<0.5	6	<0.2	31.7	0.024	0.2	8	4.7	76
SR708	31.6	<0.05	1.2	1.5	<0.5	5	<0.2	43	0.028	0.3	9	36.5	109
SR710	13.3	<0.05	0.8	1	<0.5	3	<0.2	27.8	0.016	0.2	4	7.3	74
SR712	10.2	<0.05	0.4	0.8	<0.5	3	<0.2	21.1	0.014	0.1	5	4.7	69
SR715	92	<0.05	2	4	0.5	9	<0.2	7.9	0.062	0.5	53	23.7	676
STD OREAS262	64.2	0.26	1.8	3.5	<0.5	39	0.2	10.6	0.003	0.5	24	<0.1	159
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	0.5	<0.001	<0.1	<1	<0.1	<1

A 0.5 g sample is digested with 3:1 HCl-HNO₃
 at 95C for 1 hour and diluted with DI H₂O.

Signed: _____

Mark Acres - Quality Assurance



2 - 302 48th Street • Saskatoon, SK • S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

Company: Mr. Glen Prior
Geologist: G. Prior
Project: SR
Purchase Order:

TSL Report: S57224
Date Received: Nov 13, 2019
Date Reported: Nov 28, 2019
Invoice: 77464

Sample Type:	Number	Size Fraction	Sample Preparation
Conc	9	Pulp ~ 95% at -150 mesh (106 µm)	Riffle Split, Pulverize
Pulp	0		None

ICP-ES Multiacid Digestion HNO₃-HClO₄-HF-HCl

*The Multiacid digestion liberates most metals that are not completely dissolved with Aqua Regia.
Dissolution may not be complete for Cr and Ba minerals(*). Some loss of Au, As, S and Sb may occur.(†)*

Element Name	Lower Detection Limit	Upper Detection Limit	Element Name	Lower Detection Limit	Upper Detection Limit
Ag	0.5 ppm	200 ppm	Na	0.001 %	10 %
Al *	0.01%	20 %	Nb	2 ppm	2000 ppm
As †	5 ppm	10000 ppm	Ni	2 ppm	10000 ppm
Ba *	1 ppm	10000 ppm	P	0.002 %	5 %
Be	1 ppm	1000 ppm	Pb	5 ppm	10000 ppm
Bi	5 ppm	4000 ppm	S=	0.1 %	10 %
Ca	0.01%	40 %	Sb †	5 ppm	4000 ppm
Cd	0.4 ppm	4000 ppm	Sc	1 ppm	200 ppm
Co	2 ppm	4000 ppm	Sn *	2 ppm	2000 ppm
Cr *	2 ppm	10000 ppm	Sr	2 ppm	10000 ppm
Cu	2 ppm	10000 ppm	Th	2 ppm	4000 ppm
Fe *	0.01%	60 %	Ti	0.01 %	10 %
K	0.01%	10 %	U	20 ppm	4000 ppm
La	2 ppm	2000 ppm	V	2 ppm	10000 ppm
Mg	0.01 %	30 %	W	4 ppm	200 ppm
Mn *	5 ppm	10000 ppm	Y	2 ppm	2000 ppm
Mo	2 ppm	4000 ppm	Zn	2 ppm	10000 ppm
			Zr *	2 ppm	2000 ppm

*Results are representative of samples submitted for testing.
Test reports may be reproduced, in their entirety, without our consent.
Liability is limited to the analytical cost for analyses.*

Mr. Glen Prior
Attention: G. Prior
Project: SR
Sample: 9 Conc

TSL LABORATORIES INC.
2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57224
Date: November 28, 2019

MULTIELEMENT ICP-AES ANALYSIS
Multiacid Digestion

Element Sample	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	S %
SR701	<0.5	3.88	29	210	10	<5	1.04	<0.4	3	217	7	1.84	2.46	56	0.53	315	<2	1.24	34	10	0.014	31	<0.1
SR702	<0.5	3.82	23	189	5	<5	0.24	<0.4	<2	142	5	1.01	2.83	77	0.13	143	<2	1.2	50	7	0.01	17	<0.1
SR704	<0.5	4.02	34	348	4	<5	0.46	<0.4	4	146	8	1.48	2.48	31	0.34	288	<2	1.3	25	13	0.02	23	<0.1
SR705	<0.5	4.11	27	207	5	<5	0.27	<0.4	<2	167	6	0.99	2.85	44	0.16	128	<2	1.31	27	8	0.01	20	<0.1
SR706	<0.5	3.89	24	157	7	<5	0.26	<0.4	2	159	4	1.1	2.94	68	0.14	256	<2	1.3	38	7	0.01	19	<0.1
SR708	<0.5	3.89	27	158	11	<5	0.89	<0.4	<2	163	6	1.44	2.74	98	0.46	269	<2	1.33	70	8	0.011	42	<0.1
SR710	<0.5	3.82	40	95	9	<5	0.54	<0.4	<2	172	4	0.97	3.04	62	0.38	158	<2	1.42	50	6	0.007	21	<0.1
SR710 Re	<0.5	3.87	40	96	9	<5	0.54	<0.4	<2	165	4	0.99	3.08	59	0.39	158	<2	1.44	62	6	0.007	21	<0.1
SR712	<0.5	4.39	34	141	7	<5	0.2	<0.4	<2	124	4	0.77	3.22	48	0.08	171	<2	1.41	35	5	0.008	21	<0.1
SR715	0.8	4.41	63	569	3	<5	0.6	2.9	15	165	62	4.2	1.81	25	0.88	4179	3	0.31	14	38	0.062	93	<0.1
STD OREAS25A-4A	<0.5	8.49	9	139	<1	<5	0.27	<0.4	7	108	31	6.22	0.48	20	0.31	470	<2	0.13	17	46	0.048	27	<0.1
STD OREAS45H	<0.5	7.94	16	326	<1	<5	0.14	<0.4	87	639	755	20.35	0.21	13	0.24	388	<2	0.09	12	434	0.023	13	<0.1
BLK	<0.5	<0.01	<5	<1	<1	<5	<0.01	<0.4	<2	<2	<2	<0.01	<0.01	<2	<0.01	<5	<2	<0.01	<2	<2	<0.002	<5	<0.1

A 0.25 g sample is digested with HClO₄, HNO₃, HCl, HF
and diluted to 10 ml with D.I. H₂O.

Mr. Glen Prior

Attention: G. Prior

Project: SR

Sample: 9 Conc

TSL LABORATORIES INC.

2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4

Tel: (306) 931-1033 Fax: (306) 242-4717

Report No: S57224

Date: November 28, 2019

MULTIELEMENT ICP-AES ANALYSIS

Multiacid Digestion

Element Sample	Sb ppm	Sc ppm	Sn ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
SR701	<5	4	42	41	20	0.1	<20	26	13	26	109	78
SR702	<5	2	4	31	35	0.09	<20	16	12	25	63	187
SR704	<5	4	3	69	16	0.12	<20	36	5	19	96	52
SR705	<5	2	2	35	22	0.08	<20	17	7	18	57	88
SR706	<5	2	3	29	33	0.07	<20	15	6	25	93	99
SR708	<5	3	31	25	37	0.08	<20	18	24	39	125	166
SR710	<5	2	16	13	29	0.04	<20	8	6	30	95	122
SR710 Re	<5	2	18	13	27	0.05	<20	8	10	32	99	133
SR712	<5	2	3	23	22	0.05	<20	9	7	31	79	83
SR715	<5	10	18	44	7	0.31	<20	99	39	15	729	57
STD OREAS25A-4A	5	13	6	43	14	0.9	<20	151	<4	10	44	149
STD OREAS45H	<5	58	3	27	6	0.86	<20	264	<4	11	47	122
BLK	<5	<1	<2	<2	<2	<0.01	<20	<2	<4	<2	<2	<2

A 0.25 g sample is digested with HClO₄, HNO₃, HCl, HF
and diluted to 10 ml with D.I. H₂O.

Signed: _____

Mark Acres - Quality Assurance

Appendix 5

TSL Laboratories Inc. Assay Results



2 - 302 48th Street • Saskatoon, SK • S7K 6A4
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Company: Mr. Glen Prior
Attention: G. Prior
Project: SR

TSL Report: S57447
Date Received: Dec 13, 2019
Date Reported: Dec 27, 2019
Invoice: 77731

Remarks: Original Report S57223

Sample Type:	Number	Size Fraction	Sample Preparation
Rock	24	Reject ~ 70% at -10 mesh (1.70 mm) Pulp ~ 95% at -150 mesh (106 µm)	Crush, Riffle Split, Pulverize
Pulp	0		None

Pulp Size requested ~ 250 g

Standard Procedure:

*Samples for Au, Ag Fire Assay/Gravimetric (g/tonne) are weighed at 1 AT (29.16 grams).
Base Metals (%) are weighed at 0.5 gram.*

Element Name	Unit	Extraction Technique	Lower Detection Limit	Upper Detection Limit
Au	g/tonne	Fire Assay/Gravimetric	0.03	100%
Ag	g/tonne	Fire Assay/Gravimetric	1	1000
Pb	%	HNO3-HF-HClO4-HCl/AA	0.01	80%
Zn	%	HNO3-HF-HClO4-HCl/AA	0.01	80%

*Results are representative of samples submitted for testing.
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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM

Mr. Glen Prior
793 Birch Avenue
Sherwood Park, Alberta T8A 1X2

REPORT No.

S57447

SAMPLE(S) OF

24 Rock/Pulp

INVOICE #: 77731

P.O.:

G. Prior
Project: SR

Original Report S57223. Over-range assay values from ICP-MS

	Au g/t	Ag g/t	Pb %	Zn %	File Name
SR404				3.48	S57447
SR405				6.29	S57447
SR406				4.07	S57447
SR407				1.19	S57447
SR408				5.54	S57447
SR409				1.18	S57447
SR410				11.32	S57447
SR412				3.38	S57447
SR413			1.73	1.54	S57447
SR415				10.08	S57447
SR416				2.17	S57447
SR417				1.01	S57447
SR418			1.01	4.36	S57447
SR419				7.35	S57447
SR420				12.65	S57447
SR421				13.97	S57447
SR422				1.32	S57447
SR423				10.08	S57447
SR424	<.03	356.8	21.37	16.19	S57447
SR425	0.62	143.8	10.59	5.92	S57447

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INVOICE TO: G. Prior, Alberta

Jan 23/20

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Mark Acres - Quality Assurance



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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Mr. Glen Prior
793 Birch Avenue
Sherwood Park, Alberta T8A 1X2

REPORT No.

S57447

SAMPLE(S) OF 24 Rock/Pulp

INVOICE #: 77731
P.O.:

G. Prior
Project: SR

	Au g/t	Ag g/t	Pb %	Zn %	File Name
SR426	0.14	395.8	20.19	17.07	S57447
SR427				5.91	S57447
SR428	0.62	134.5	10.10	7.00	S57447
SR503	<0.03	206.9	2.34	4.70	S57447
GS-7E	7.82				S57447
SQ88		160.8			S57447
ME-8		59.1	1.96	1.91	S57447
ME-1411		44.2	.27	.50	S57447

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INVOICE TO: G. Prior, Alberta

Jan 23/20

SIGNED

Mark Acres - Quality Assurance

Appendix 6

ALS Canada Ltd. Geochemical 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: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Page: 1
Total # Pages: 2 (A - E)
Plus Appendix Pages
Finalized Date: 12-JAN-2020
This copy reported on
13-JAN-2020
Account: PRIGLE

CERTIFICATE VA19322548

Project: SR

This report is for 6 Pulp samples submitted to our lab in Vancouver, BC, Canada on 19-DEC-2019.

The following have access to data associated with this certificate:

GLEN PRIOR

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP06	Whole Rock Package - ICP-AES	ICP-AES
OA-GRA05	Loss on Ignition at 1000C	WST-SEQ
ME-MS81	Lithium Borate Fusion ICP-MS	ICP-MS
TOT-ICP06	Total Calculation for ICP06	
ME-4ACD81	Base Metals by 4-acid dig.	ICP-AES
Sn-XRF10	Fusion XRF - Sn Ore Grade	
ME-ICP82b	B/Li - Na2O2 Fusion - ICP High Grade	ICP-AES
ME-XRF10	Fusion XRF - Ore Grade	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
W-XRF10	Fusion XRF - W Ore Grade	
S-IR08	Total Sulphur (IR Spectroscopy)	LECO

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, General Manager, North Vancouver



ALS Canada Ltd.
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 793 BIRCH AVENUE
 SHERWOOD PARK AB T8A 1X2

Page: 2 - A
 Total # Pages: 2 (A - E)
 Plus Appendix Pages
 Finalized Date: 12-JAN-2020
 Account: PRIGLE

Project: SR

CERTIFICATE OF ANALYSIS VA19322548

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg 0.02	Sn-XRF10 Sn % 0.01	W-XRF10 W % 0.01	S-IR08 S % 0.01	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.1	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01
SR501		0.22														
SR502		0.22	1.04	0.08	0.08											
SR506		0.22				22.5	219	230	18.35	19.65	12.85	0.04	30.5	15.00	9.5	4.20
SR508		0.22				18.6	73.6	200	31.2	14.15	10.85	<0.03	38.5	8.48	23.7	3.27
SR510		0.20	3.97	0.37												
SR511		0.22				6.6	203	180	16.85	57.8	39.3	0.03	37.4	37.3	23.7	12.40

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



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Total # Pages: 2 (A - E)
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Account: PRIGLE

Project: SR

CERTIFICATE OF ANALYSIS VA19322548

Sample Description	Method Analyte Units LOD	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
		La ppm 0.1	Lu ppm 0.01	Nb ppm 0.2	Nd ppm 0.1	Pr ppm 0.03	Rb ppm 0.2	Sm ppm 0.03	Sn ppm 1	Sr ppm 0.1	Ta ppm 0.1	Tb ppm 0.01	Th ppm 0.05	Tm ppm 0.01	U ppm 0.05	V ppm 5
SR501																
SR502																
SR506		111.5	1.92	86.2	74.1	22.7	685	16.15	9	4.4	10.3	2.96	83.0	2.12	12.60	<5
SR508		35.4	1.54	577	30.1	8.16	857	7.52	13	2.2	27.7	1.86	264	1.71	48.1	<5
SR510																
SR511		89.7	4.32	562	98.4	24.1	723	31.1	50	3.3	25.6	7.79	332	5.53	49.6	<5

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



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Project: SR

CERTIFICATE OF ANALYSIS VA19322548

Sample Description	Method Analyte Units LOD	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.1	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.002	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01
SR501																
SR502																
SR506		6	122.5	13.50	199	77.5	11.85	1.74	0.47	0.06	3.32	4.79	0.033	0.10	0.01	0.02
SR508		17	71.8	11.55	630	71.3	12.70	4.80	0.22	0.11	3.23	5.53	0.028	0.31	0.03	0.02
SR510																
SR511		29	339	33.3	572	71.2	12.70	4.53	1.05	0.12	3.57	5.43	0.025	0.30	0.03	0.02

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



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Project: SR

CERTIFICATE OF ANALYSIS VA19322548

Sample Description	Method Analyte Units LOD	ME-ICP06	ME-ICP06	OA-GRA05	TOT-ICP06	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81
		SrO %	BaO %	LOI %	Total %	Ag ppm	As ppm	Cd ppm	Co ppm	Cu ppm	Li ppm	Mo ppm	Ni ppm	Pb ppm	Sc ppm	Tl ppm
SR501		0.01	0.01	0.01	0.01	0.5	5	0.5	1	1	10	1	1	2	1	10
SR502																
SR506		<0.01	<0.01	0.41	100.30	<0.5	72	<0.5	<1	4	220	1	6	46	4	<10
SR508		<0.01	<0.01	0.97	99.25	<0.5	<5	<0.5	3	4	360	2	7	22	6	<10
SR510																
SR511		<0.01	<0.01	0.88	99.86	<0.5	<5	<0.5	2	4	200	1	12	24	5	<10

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



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Total # Pages: 2 (A - E)
Plus Appendix Pages
Finalized Date: 12-JAN-2020
Account: PRIGLE

Project: SR

CERTIFICATE OF ANALYSIS VA19322548

Sample Description	Method Analyte Units LOD	ME-4ACD81	ME-ICP82b
		Zn	B
		ppm	%
		2	0.02
SR501			2.85
SR502			
SR506		52	
SR508		86	
SR510			
SR511		102	

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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 12-JAN-2020
Account: PRIGLE

Project: SR

CERTIFICATE OF ANALYSIS VA19322548

	CERTIFICATE COMMENTS			
Applies to Method:	LABORATORY ADDRESSES			
	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.			
	LOG-24	ME-4ACD81	ME-ICP06	ME-ICP82b
	ME-MS81	ME-XRF10	OA-GRA05	OA-GRA06
	S-IR08	Sn-XRF10	TOT-ICP06	WEI-21
	W-XRF10			