Geochemical Exploration in the Carcross Project Area

(Alligator, TK and VG Mineral Zones)

Whitehorse Mining Division, Yukon

NTS 105D/06

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Introduction

An exploration project was undertaken in 2018 on three mineral occurrences that occur within a relatively small geographic area (about 8 km east-west by 3 km north-south) located between 30 and 40 km northwest of Carcross in south-central Yukon. This area, which lies within NTS map area 105D/06, is located 15 to 20 km northeast of the gold deposits at Mount Skukum and Skukum Creek. The exploration status of these three target areas, prior to the 2018 program, is discussed below.

Alligator Zone

This zone of porphyry mineralization, which consists mainly of copper and molybdenum oxides associated with a large gossan and potassic alteration zone, was discovered by Phelps Dodge in either 1970 or 1971. It lies south of Alligator Lake on the south facing slope north of the Watson River. Exploration by Phelps Dodge in 1971 outlined a large anomalous copper ± molybdenum geochemical anomaly (soil and talus fines). The Phelps Dodge Corporation geochemistry survey of 1971 indicated a copper and molybdenum anomaly approximately 900 m long and 500 m wide on the hillside north of the Watson River. Copper values ranged from 100 ppm to a high of 1700 ppm and molybdenum values reached a maximum of 720 PPM. Rock returned up to 0.58% copper and 0.835% molybdenum (Hilker, 1976). Malachite is the most common copper mineral with chalcopyrite, chalcocite and azurite being less common. Molybdenum is present as ferrimolybdite. Leaching of copper and molybdenum from surface exposures was suspected by Dr. R.R. Culbert (1971) the Phelps Dodge geologist (the Casino porphyry deposit of west-central Yukon may be an analogue). A review of assessment files suggests that the 1971 program by Phelps Dodge was the last field exploration undertaken on this showing. There is no indication that analytical determinations were made for any elements other than Cu and Mo so the potential of other elements within this large zone of alteration and mineralization was unknown prior to the 2018 exploration program.

The Culbert (1971) report, which was filed for assessment, was preliminary in nature and was completed before the geochemical data was received. No subsequent report on this occurrence was filed with the Yukon government by Phelps Dodge. The information regarding the strongly anomalous character of the Alligator occurrence, discussed above, is based upon a review of the Phelps Dodge geochemical data that was included in an assessment report filed five years later (Hilker, 1976).

TK Zone

The TK Zone is exposed on a south facing slope on the north side of the Hodnett Lakes valley. The silver-copper-zinc-lead (+/-gold) mesothermal vein mineralization occurs in a north-north west trending shear zone related to the Tally Ho shear zone and the Llewellyn Fault Zone. Surface from the TK Zone have returned several extremely anomalous silver results including up to 10.98 oz/ton Ag in rock samples and up to 38.4 g/t Ag (1.12 oz/ton Ag) in talus fines samples (Wilkins and MacKinnon, 1988; VanderWart, 2003). Surface sampling has been largely confined to grab samples or narrow chip samples across mineralization within the narrow gully that has formed over the (known) mineralized shear zone.

In 1990, a single diamond drill hole 147 metres long collared near the upper part to the TK Zone reportedly intersected 10.67 metres of 2.6% Zn and 0.42% Cu from the lower 45.7 metres of the hole. More significantly, subsequent assays for gold returned 5 non-continuous 1.5 metre samples of 6.17, 5.49, 4.48, 3.46, and 3.46 g/t Au from the upper part of the hole (VanderWart, 2003).

VG Zone

The VG Zone is located along the top and upper north facing slope of a northeast-trending ridge that lies approximately 7 km southeast of Alligator Lake and 2 km southeast of the Watson River. Of 19 rock samples collected in 1988 over an area of about 1500 m by 500 m, 15 returned >0.1 g/t Au and 8 samples returned > 1 g/t Au. The two samples with visible gold yielded 2.076 oz/t Au and 1.884 oz/t Au (by pulp and metallic assay). The high gold values are from samples of quartz vein material (float and outcrop) found in an area underlain by Cretaceous granodiorite cut by a swarm of dikes (mainly rhyolitic) related to the Eocene Mt. Skukum Volcanic Complex. The gold occurs in barren appearing to weakly pyritic quartz veins with no visual or geochemical indication of accompanying base metals and high gold/silver rations. It is unknown if the gold is related to epithermal or mesothermal veining.

A broad area roughly 1.5 km across surrounding the VG Zone has a yielded a high proportion of significantly anomalous gold values in talus fines and soil samples. Surprisingly, large areas near the VG Zone were either not sampled or sampled at a low density prior to the 2018 program.

Project Location

The Carcross project area is located in south-central Yukon between 30 and 40 km northeast of Carcross within the Whitehorse Mining Division (Figure 1). The target area covers an area approximately 8 km east-west by 3 km north-south within NTS map area 105D/06. Access to the area may gained along 4x4 truck roads and/or quad trails (i) to Alligator Lake and (ii) that follow Thompson Creek to near the east end of the Hodnett Lakes (Figure 2).

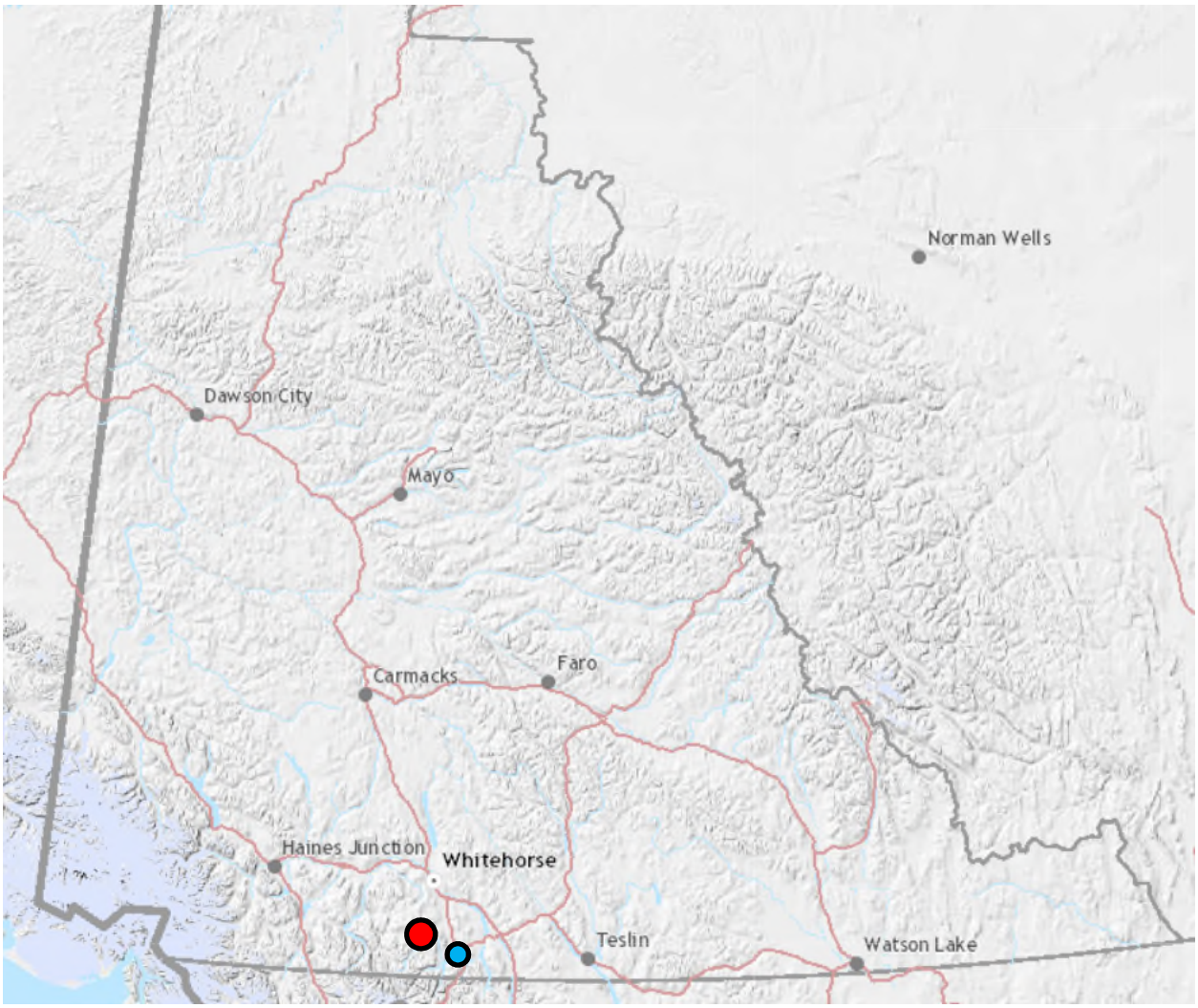

Figure 1. Map of southern and central Yukon showing the Carcross (blue circle) and the Carcross project area (red circle). Map from Yukon Geological Survey MapMaker Online.

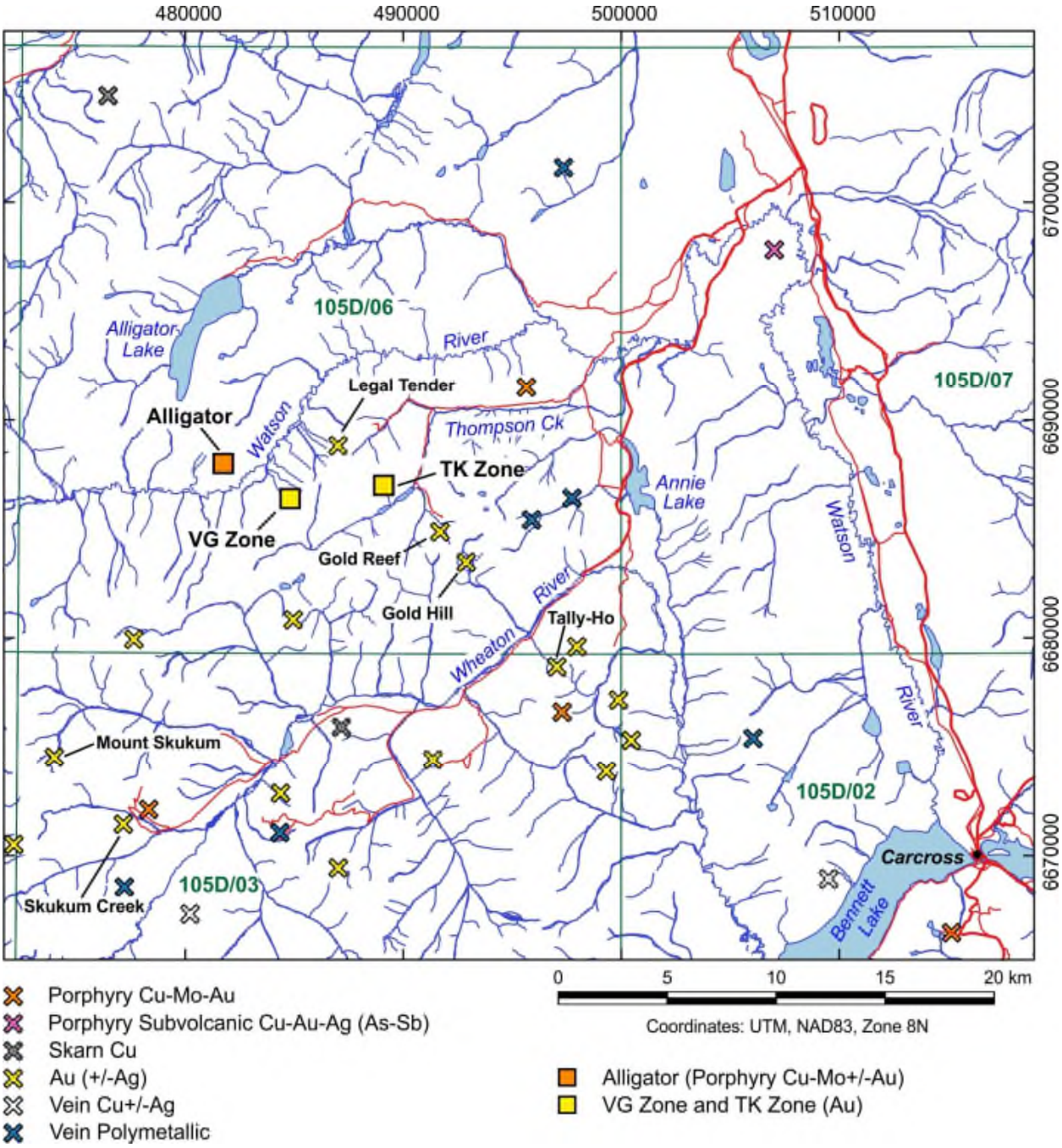

Figure 2. Location of the Alligator Zone, VG Zone and TK Zone along with other mineral occurrence in the Carcross – Wheaton River–Watson River area.

Alligator Zone (pre-2018)

Introduction

The occurrence lies north of the Watson River and southeast of Alligator Lake within NTS map area 105D/06 (Figure 2). Whitehorse is located about 45 km to the northeast and Carcross lies 40 km to the southeast.

The zone of porphyry mineralization, which consists mainly of copper and molybdenum oxides associated with a large gossan and potassic alteration zone, was discovered by Phelps Dodge in either 1970 or 1971. Exploration by Phelps Dodge in 1971 outlined a large anomalous copper ± molybdenum geochemical anomaly (soil and talus fines). Significant copper and molybdenum values were also returned from rock samples. There is no indication that any gold analyses were performed.

There is no assessment record of any field work being undertaken in this area since the 1970's.

Summary of Previous Exploration

The initial claims to cover the Alligator Occurrence were acquired by the Phelps Dodge Corporation of Canada Ltd. to cover a reconnaissance soil geochemistry anomaly found in July of 1970.

In June of 1971, Phelps Dodge undertook a soil sampling, rock sampling and mapping program over the gossan zone and surrounding area. "Soil samples were taken on a 100 foot grid over the gossan and adjacent slope, and at 400 foot intervals on lines of 800 foot spacing over the balance of the property…. Mapping of lithology, structure, alteration and mineralization was carried out over those parts of the property where outcrop occurred, with greatest attention being paid to the mineralized area of the steep hillside" (Culbert, 1971, p. 2).

The assessment report filed by Phelps Dodge (Culbert, 1971) was of a preliminary nature and the geochemical analyses of soil and rock samples were not available at the time of writing (and no subsequent report including these data was filed for assessment).

Phelps Dodge Corporation permitted the property to lapse in the summer of 1973 due to a cutback of exploration funds in Canada (Hilker, 1976).

R.G. Hiller acquired claims over the occurrence in 1975 and undertook a review of the Phelps Dodge data during which time he clearly had access to the geochemical results from the 1971 Phelps Dodge program (Hilker, 1976). Due to the existence of "…an extremely high copper/molybdenum geochemical anomaly, about 3000 feet long and 1700 feet wide …" Hilker (1976) recommended that diamond drilling be undertaken as the next phase of exploration. There are no records to suggest that the recommended drilling program ever occurred.

Geology

The Alligator porphyry copper-molybdenum occurrence lies within granodiorite and/or quartz diorite of the Early Cretaceous Whitehorse Suite (Hart and Radloff, 1990).

"A cliff and talus hillside of about 2500 feet differential elevation stands above Watson River in the southern portion of the property.... This steep section of hillside exhibits a large gossan, and represents most of the outcrop on the claim group" (Culbert, 1971, p. 2). Maps showing the geology and alteration of the Alligator Occurrence (after Culbert, 1971) are presented in Figures 3 and 4.

Major rock types are granodiorite, several varieties of porphyry and intrusive breccia. The porphyries intrude the granodiorite and occur as either the dominant rock type over large areas and as smaller dikes within granodiorite. Minor rock types include "dolerite", greenstone dikes, felsites and basalt dikes. "Shearing and fracture zones are common through much of the property, especially in the vicinity of the gossan. Almost without exception, indications of copper or molybdenum on the property were found to be controlled by fracture zones, generally accompanied by quartz veining…. Highly sheared dykes and quartz veins on fractures testify to more than one stage of tectonic activity." (Culbert, 1971, p. 7).

Mineralization and Alteration

Economic mineral concentrations were not observed during the Phelps Dodge mapping. "Chalcopyrite was observed in a few quartz or quartz chlorite veins, typically where these cut greenstone dykes or felsite stringers. It forms veinlets or isolated pods and does not appear to be associated with the widespread pyritization of the gossan zone. Malachite is abundant, and the most commonly met indicator of copper; azurite was also observed. Sooty wisps of chalcocite were occasionally found" (Culbert, 1971, p. 8). A few minor films of a grey copper mineral occur (likely one of the sulphosalts). Molybdenite was not observed but minor amounts of ferrimolybdite were noted.

"Most copper occurrences are in the area east of the gossan and were associated with little or no pyrite. In some cases, copper appears to be in the form of sooty grey material associated with mafic veining or chloritic fractures. In this style it is extremely unapparent unless marked by secondary minerals (Culbert, 1971, p. 8).

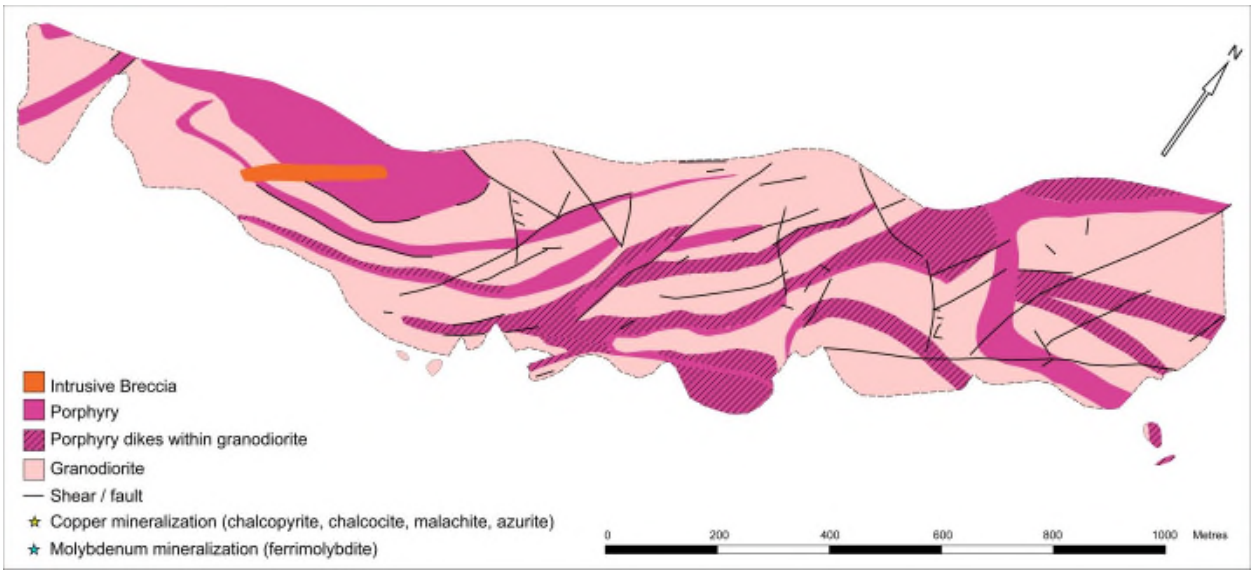

Figure 3. Geology of the Alligator Occurrence area (after Culbert, 1971). The outcrop area shown lies on the south facing slope north of the Watson River. The scale bar is approximate.

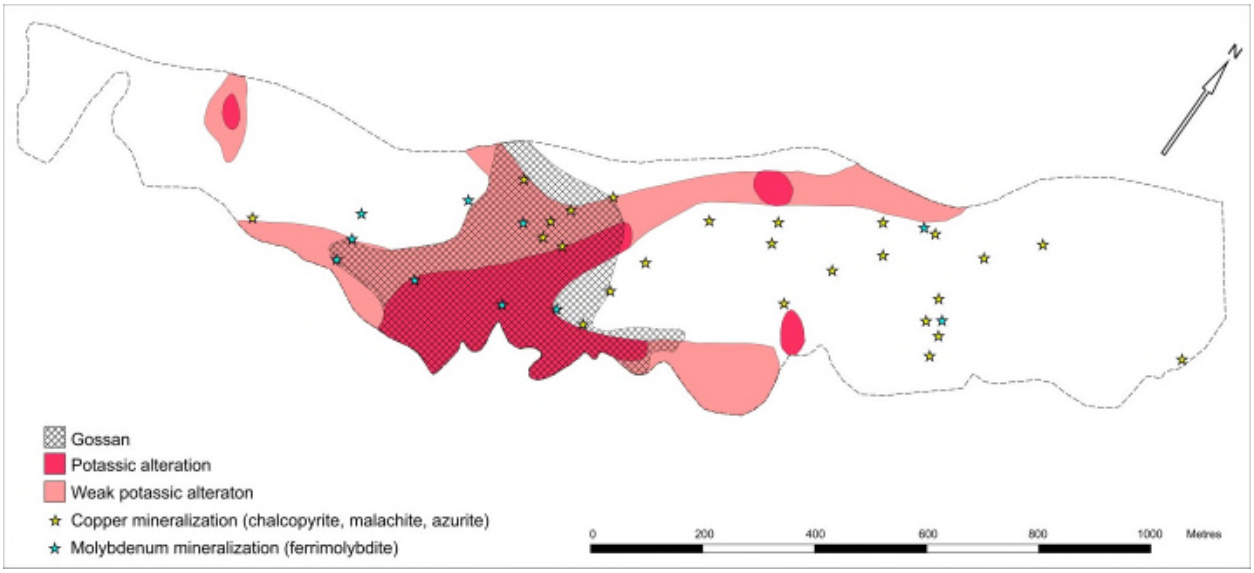

Figure 4. Rock alteration in the Alligator Occurrence area (after Culbert, 1971). The outcrop area shown lies on the south facing slope north of the Watson River. The scale bar is approximate.

“The major gossan zone … is the result of pyrite in all rock types through an area of considerable shearing and crushing …. Pyrite occurs in disseminated forms … and on joint or fracture surfaces. Outside of the gossan area, pyrite occurs mainly in conjunction with major shears, and is not particularly related to copper or molybdenum …. In the gossan zones, potassic alteration and pyrite alterations appear to be directly associated” (Culbert, 1971, p. 8-9).

In the Landsat image presented by Google Earth a gossanous area about 500 to 1000 m across (east-west) corresponding to the Alligator Occurrence can be observed on the hillside north of the Watson River.

“Disseminated pyrite in the competent rock was found to be associated with negligible chalcopyrite, but in the crushed and deeply weathered granodiorite some jarositic cavities suggest conditions of leaching sufficiently acid to have removed the copper. Certain observations suggest that hydrothermal leaching of some sort has converted most of the copper and molybdenum which may have been present to secondary minerals” (Culbert, 1971, p. 8). These include formations of fairly thick “veins” of malachite and azurite, the depth of removal of molybdenum from quartz veins and the remarkably thorough leaching on a slope where mechanical wastage limits weathering.

If the Alligator occurrence has undergone extensive surface leaching of metals the Casino porphyry deposit of west-central Yukon may provide a useful analogue.

Geochemistry

The Phelps Dodge soil samples underwent determination for copper and molybdenum. “The Phelps Dodge Corporation geochemistry survey indicated a copper and molybdenum anomaly 3000 feet [914 m] long and 1700 feet [518 m] wide on the hillside gossan area above the Watson River. Copper values ranged from 100 PPM to a high of 1700 PPM, with a background of about 40 PPM. Molybdenum values ranged from 2-10 PPM, 10-40 PPM, 40-100 PPM, 100-400 PPM, and a high of 720 PPM, with a background of about 2 PPM. Surface grab samples containing mineralization from selected areas of the property are reported to indicate 0.58% copper and 0.835% molybdenum” (Hilker, 1976, p. 6).

TK Zone (pre-2018)

Introduction

The TK Zone is located in the southwestern Yukon Territory between the Wheaton and Watson Rivers about 32 km northwest of Carcross within NTS map area 105D/06. The mineralization is exposed in a south facing slope to the north of the Hodnett Lakes valley. "The TK zone was discovered in the 1988 program and consists of a major shear zone up to 25 meters wide and traceable for a minimum of 600 meters. Mineralization consists of sphalerite, chalcopyrite, galena and pyrite hosted within quartz veins and breccias within a limonitic quartz-carbonate alteration zone. Assays of up to 7.20% zinc, 1.12% lead, 1.89% copper and 10.98 ounces per ton (376.6 grams/tonne) silver have been returned from the zone" (Wilkins and MacKinnon, 1988, Summary).

Geology

A geology map of the Hodnett Lakes area showing the location of the TK Zone is presented in Figure 5 (from VanderWart, 2003). The TK Zone occurs within "… the Tally-Ho Shear Zone, a prominent northwest-trending feature that in this area forms the boundary between the Coast Plutonic Complex to the west and the Stikine Terrane and Whitehorse Overlap Assemblage to the east. The Tally-Ho Shear Zone proper is comprised of highly sheared and metamorphosed volcanics (amphibolites) and lesser sediments (marbles) of the Povoas Formation. The Whitehorse Pluton consists of biotite-hornblende granodiorite, tonalite and diorite. Eocene-aged Skukum Group volcanics overlie and intrude the Coast Plutonic Complex intrusive and consist of predominantly felsic to andesitic tuffs, flows and related epiclastics. Rhyolite dykes crosscut all the above units and represent probably the last phase of Eocene volcanism" (VanderWart, 2003, p. i).

"The Llewellyn Fault Zone (LFZ) is a steeply-dipping, continuous and anastomosing brittle structure which parallels and overprints the ductile Tally Ho shear zone… The faults preferentially occur along the eastern margin of the shear zone … where lenticular fault blocks of shear zone and granitic rocks are juxtaposed in strike-slip duplexes…. Timing of motion is complex and may have been intermittent both in time and space as mid- and Late Cretaceous plutons (as young as 78 Ma) are variably affected. The Early Eocene Pennington Pluton, although not displaced by the fault, is cut by numerous discreet shear bands (Hart and Radloff, 1990, p. 70-71). Structural offset across the Tally Ho Shear Zone – Llewellyn Fault Zone is dramatic. The thickness of Whitehorse Trough strata is assumed to be greater than five kilometers east of the structure but none exists (in Yukon) west of the structure (Hart and Radloff, 1990).

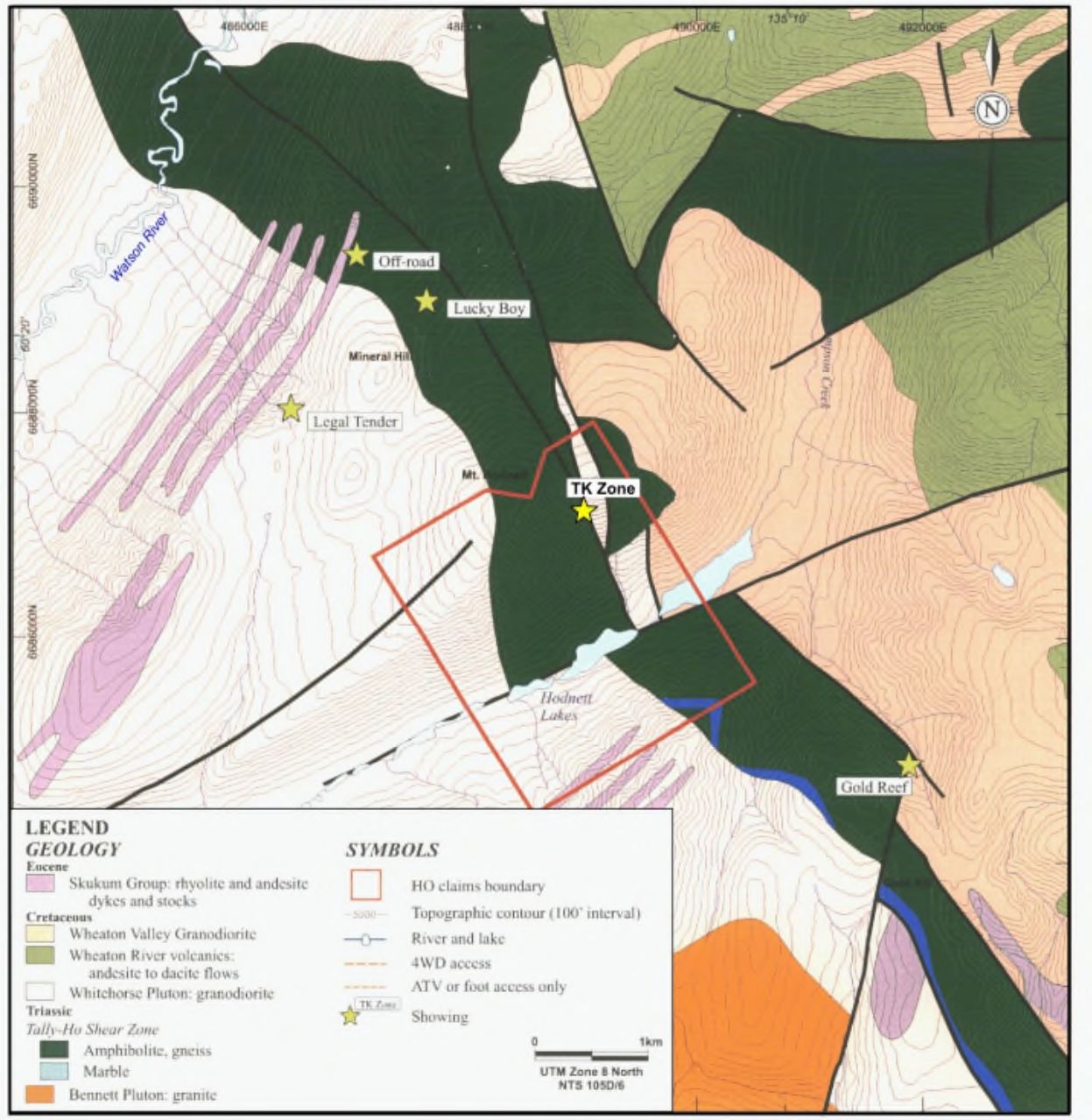

Figure 5. Geology of the Hodnett Lakes area showing the location of the TK Zone (from VanderWart, 2003, Figure 3). The HO claims no longer exist.

Metallogenic Setting

The Llewellyn Fault lies along the eastern margin of the Tally-Ho Shear Zone (e.g. Figure 26 of Hart and Radloff, 1990) and passes very near the TK Zone. “The Llewellyn Fault may have acted as a conduit for fluids which formed the quartz-sulphide veins in the eastern part of the Wheaton District…. This suite of veins has a characteristic mineral assemblage dominated by galena and chalcopyrite” (Hart and Radloff, 1990, p. 86). Telluride minerals may also be present. These veins are included with the galena-rich subdivision of mesothermal veins by of Hart and Radloff (1990; the other subdivisions are stibnite-rich veins and arsenopyrite-rich veins).

Galena-rich veins of the Wheaton District include veins found at the Skukum Creek (Mt. Reid), Tally Ho Gulch, Mount Stevens, Mount Anderson, Gold Hill, Mineral Hill, Red Ridge, Omni and Legal Tender occurrences (Hart and Radloff , 1990, p.75). “In most cases, coarse-grained quartz dominates the vein mineralogy with either thin, poorly developed bands, or discontinuous lenses and pods (up to 40 cm thick) of galena with pyrite, sphalerite or chalcopyrite…. Sericite is common in the wallrock of veins hosted in granite (e.g. Legal Tender) but where the host is mafic (or contains a large amount of mafic minerals, e.g. diorite), carbonate alteration is more apparent” (Hart and Radloff , 1990, p. 80).

The Skukum Creek deposit lies approximately 20 km southwest of the TK Zone. The 2012 resource estimate for Skukum Creek, at a 3 g/t Au equivalent cut-off grade, includes Indicated Mineral Resource of 1,086,800 tonnes at 5.54 g/t Au and 159.0 g/t Ag and Inferred Mineral Resource of 586,000 tonnes at 4.74 g/t Au and 105.0 g/t Ag ” (Simpson, 2013, p. 125).

Nearby Significant Mineral Occurrences

Legal Tender: The Legal Tender showing lies on the north face of Mineral Hill about 3 km northwest of the TK Zone. “Gold and silver occur along the Tally-Ho shear zone in northwest-trending veins associated with a swarm of Eocene rhyolite and andesite dykes which cut Cretaceous granodiorite. The Legal Tender Vein occupies a shear zone up to 2 m wide and has been traced for a length of 120 m. The vein contains bands and disseminations of galena, pyrite and some chalcopyrite. Specimens collected from the adit reportedly assayed 51.4 to 68.6 g/t Au and 2 057 to 2 743 g/t Ag. Sampling on surface east of the adit gave up to 51.4 g/t Ag across 1.6 m, 8.2 g/t Au across 1.0 m and up to 25.0 g/t Au from a specimen. A selected specimen collected in 1977 from the old dump assayed 325.7 g/t Au, 637.7 g/t Ag and 25.3% Pb (Yukon Geological Survey, Occurrence Details, Legal Tender, Occurrence Number 105D 040).

Gold Reef: The Gold Reef Vein is located about 3 km southeast of the TK Zone. “The vein on the Gold Reef claim is 1.2 to 1.5 m wide and locally swells to 4.6 m of solid quartz, concordant with foliation in greenstone and schist of the Triassic Lewes River Group. Small lenses of arsenopyrite, galena, argentite, chalcopyrite and pyrite were found and one small pocket contained coarse free gold, sylvanite and hessite (Yukon Geological Survey, Occurrence Details, Gold Reef, Occurrence Number 105D 037).

Gold Hill: The gold Hill occurrence lies about 5 km southeast of the TK Zone. “The original showing on Gold Hill consists of a 20 to 50 cm quartz vein containing disseminated galena and a little sylvanite. The

average assay of a number of well-mineralized grab samples was 78.2 g/t Au and 538.3 g/t Ag" (Yukon Geological Survey, Occurrence Details, Gold Hill, Occurrence Number 105D 036).

Previous Exploration

1988: The TK Zone was discovered by prospecting in 1988. The 1988 exploration program on the TK Zone consisted of prospecting, geological mapping, talus fines sampling and rock sampling with 108 talus fines samples and 31 rock samples collected (Wilkins and MacKinnon, 1988).

1990: "In 1990, a single diamond drill hole (482 feet / 146.91 metres total depth) was collared near the summit of Mt. Hodnett, reportedly intersected 35 feet (10.67 metres) of 2.6% Zn and 0.42% Cu from the lower 150 feet (45.72 metres) of the hole. Later assays for gold returned 5 non-continuous 5-foot (1.52 metres) samples with 0.18, 0.16, 0.13, 0.10 and 0.10 opt Au (6.17, 5.49, 4.48, 3.46, and 3.46 g/t Au) from the upper part of the hole (Omni corporate files, 1996)" (VanderWart, 2003, p. 6).

2002: "Exploration in 2002 consisted of confirmation rock sampling and geochemical soil sampling of the TK Zone …. Soil sampling returned up to 4.0 ppm Ag, 64.8 ppm Cu, 1292.5 ppm Pb, 2014 ppm Zn and 7.6 ppm Bi. Rock sampling lower down in the gully returned up to 346.2 g/t Ag and 1.26% Cu. Strongly anomalous bismuth (0.11%) was also returned from one sample. Gold and tellurium are also anomalous with values of 0.15 g/t Au and 49 ppm Te. Exploration of the TK Zone to date suggests a mineralized zone of at least 800 metres in strike length that is open in all directions" (VanderWart, 2003, p. i). The 2002 program included the collection of 50 soil samples, 1 talus fines sample, and 14 rock samples (of which 7 rock samples were from the TK Zone).

Geology and Rock Geochemistry

"The TK zone is a prominent southeast facing gossanous gully within the Tally-Hoe Shear Zone and identifiable from the air. The gully represents a 15 to 25 meter wide shear zone with an attitude of approximately 155/75°SW. The shear zone contains cryptocrystalline quartz and carbonate veining and alteration. Fine grained sulphides are found within the quartz-carbonate veining and include galena, sphalerite, pyrite and chalcopyrite. Limonite, manganese and malachite staining are common. Assays of up to 10.98 ounces per ton (376.6 grams/tonne) silver, 1.89% copper, 1.12% lead and 7.20% zinc have been returned from the zone. The zone is also anomalous in cadmium (≤1179 ppm) and bismuth (≤874 ppm). The shear zone strikes southeasterly and dips steeply to the southwest. The zone is within the Tally-Ho Shear Zone and is hosted by dark green andesitic flows, breccias, tuffs, feldspar porphyries and augite porphyries of the Lewes River Group, which are commonly sheared to chlorite schist, chlorite augen schist or talc schists with secondary epidote or iron-carbonate alteration. Mineralization has been traced for 600 meters horizontal distance and 370 meters vertical distance" (Wilkins and MacKinnon, 1988, p. 9). A geology sketch map of the TK zone from the 1988 work (with high metal values highlighted) is presented in Figure 6 and a summary of anomalous 1998 rock results is presented in Table 1.

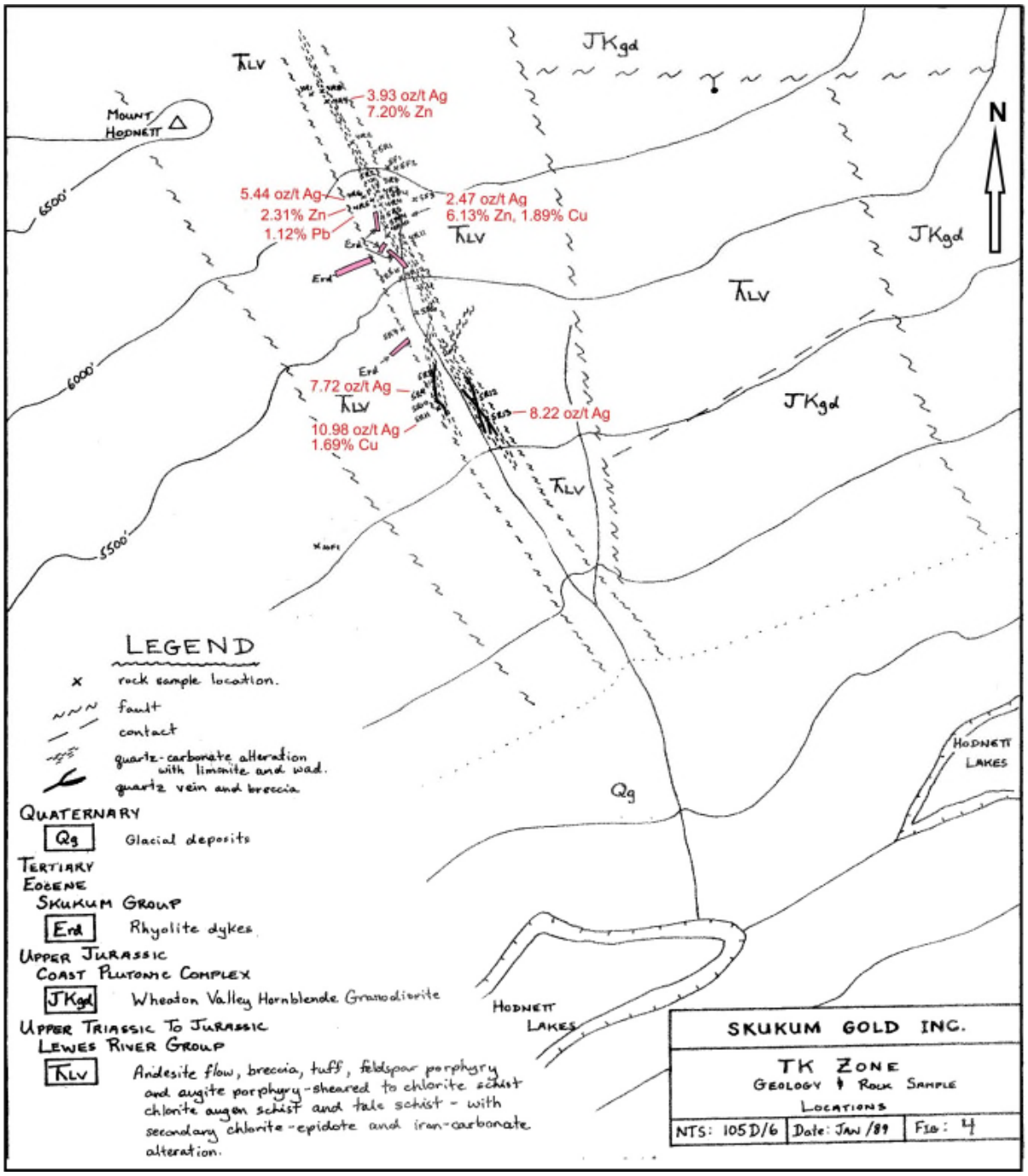

Figure 6. TK Zone geology and rock sample locations (from Wilkins and MacKinnon, 1988, Figure 4). Eocene Skukum Group rhyolite dikes shown in pink.

Sample	Ag (ppm)	Ag Assay (oz/t)	Zn (ppm)	Pb (ppm)	Cu (ppm)	Bi (ppm)
7-4R4	96.2	2.05	12700	11200	51	217
7-4R5	175.5	5.44	22000	1636	54	874
7-4R6	93.4	2.83	12900	886	743	215
7-4R8	7.2	0.19	17100	77	51	12
7-4R9	132.8	3.93	72000	576	186	322
7-4R10	17.7	0.50	2229	1286	36	37
7-4R11	11.1	0.36	3197	2724	140	18
7-5F4	7.4	0.23	254	18	3627	21
7-5R2	7.9	0.22	23100	331	560	140
7-5R3	24.1	0.71	5172	944	156	58
7-5R4	83.6	2.47	61300	989	18900	408
7-5R6	10.9	0.33	7854	327	4275	101
7-5R7	26.7	nd	4124	2046	221	nd
7-5R8	94.1	3.15	47	711	5491	nd
7-5R9	227.6	7.72	99	339	6656	nd
7-5R10	314.2	10.98	65	1814	16900	nd
7-5R11	32.5	nd	1727	2042	126	nd
7-5R12	56.9	2.15	95	435	5626	nd
7-5R13	239.5	8.22	12	713	818	nd

Table 1. Anomalous rock samples from the TK Zone collected in 1988 (Wilkins and MacKinnon, 1988). nd = not determined.

In 2002 VanderWart (2003) examined and collected rock samples from the TK Zone near the 1550 m elevation contour (Figure 7). “The TK Zone veins have an apparent width of up to 15 metres. The vein is oriented sub parallel to the main shear trend striking 196° and dipping 75°SE. As observed near the lower elevation outcrop, the vein appears to be a single 0.7 to 1.2 metre wide vein, sheared and stacked beside itself within the gully. Moving up the gully, the vein narrows and orients itself closer to parallel to the gully. Mineralization of the vein is observed as malachite staining on the surface with chalcopyrite, up to 2% pyrite, magnetite, and another dark gray metallic mineral, similar in character to magnetite (tetrahedrite or bismithunite?). Manganese and hematite alteration on fracture surfaces is common” (VanderWart, 2003, p. 9).

Results for the 7 rock samples collected from the from the TK zone in 2002 are presented in Table 2.

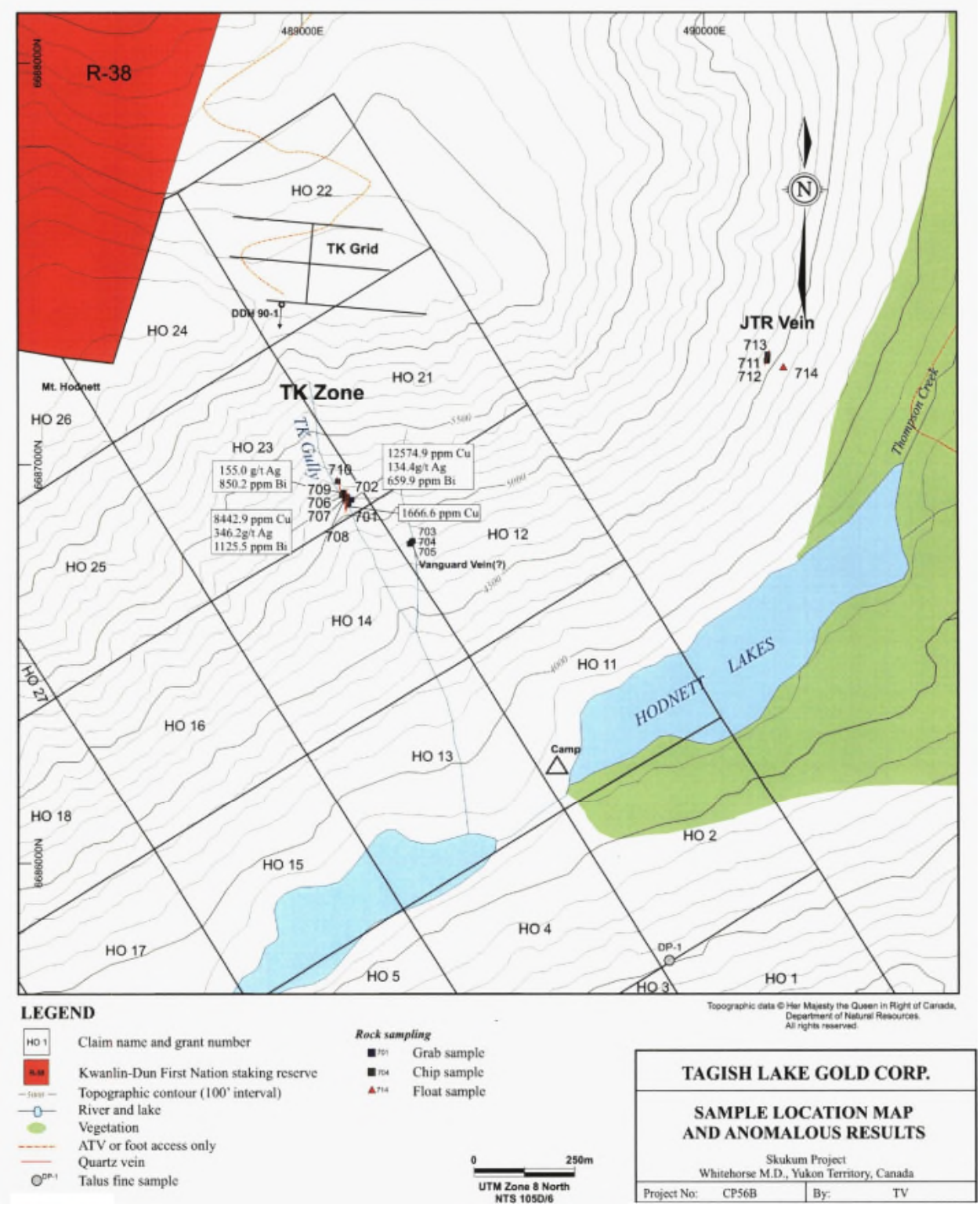

Figure 7. TK Zone: Sample location map and anomalous rock results (from VanderWart, 2003). Note location of DDH 90-1.

Sample	Type	Cu (ppm)	Pb (ppm)	Ag (ppm)	Bi (ppm)	Te (ppm)
701	grab	1666.6	80.6	8.1	<0.1	<1
702	grab	12574.9	320.1	134.4	659.6	33
706	chip (0.1 m)	318.8	8.3	0.5	7.0	<1
707	chip (0.3 m)	8442.9	463.6	346.2	1125.5	25
708	chip (0.6 m)	142.4	11.3	3.3	18.5	1
709	chip (0.1 m)	196.3	169.0	155.0	850.2	49
710	chip (0.25 m)	182.7	72.4	8.2	15	2

Table 2. Results for rock samples collected from the TK zone in 2002 (VanderWart, 2003).

Talus Fine Fraction Geochemistry

A map showing silver values obtained from talus fines collected in 1988 is presented in Figure 8. "All the talus fines sampling was confined to the area around the TK zone. The zone is strongly anomalous in copper, lead, zinc and silver with 53 of 109 samples anomalous in at least one of the four elements. Values of up to 38.4 ppm silver, 10,258 ppm zinc, 3,147 ppm lead and 1,520 ppm copper were obtained from the samp1es. The anomalous samples are predominantly confined to the fault gully" (Wilkins and MacKinnon, 1988, p. 11).

Geochemical data for the 6 talus fine fraction samples from the 1988 exploration that returned values of >10 g/t Ag are presented in Table 3. Five of these are clustered together within the TK Zone near an elevation of 1585 m. These samples range from 12.6 g/t Ag to 38.4 g/t Ag (0.37 oz/ton Ag to 1.12 oz/ton Ag). These are very significant values for talus fines. Copper values from these samples are also strongly anomalous with 3 of the 5 samples yielding > 0.1% Cu. The high silver value in a talus fines from near 1740 m elevation (17.9 g/t Ag) is accompanied by 1.03% Zn and 0.31% Pb.

"Rock and talus fines samples in the northern and subsequently higher end of the TK zone are more anomalous in zinc and lead whereas samples in the southern and lower end of the zone are more anomalous in copper. Silver occurs throughout the system, however the highest silver values occur with high copper values. There seems to be no correlation between lead and silver, therefore it is assumed that the galena is not argentiferous" (Wilkins and MacKinnon, 1988, p. 11-17).

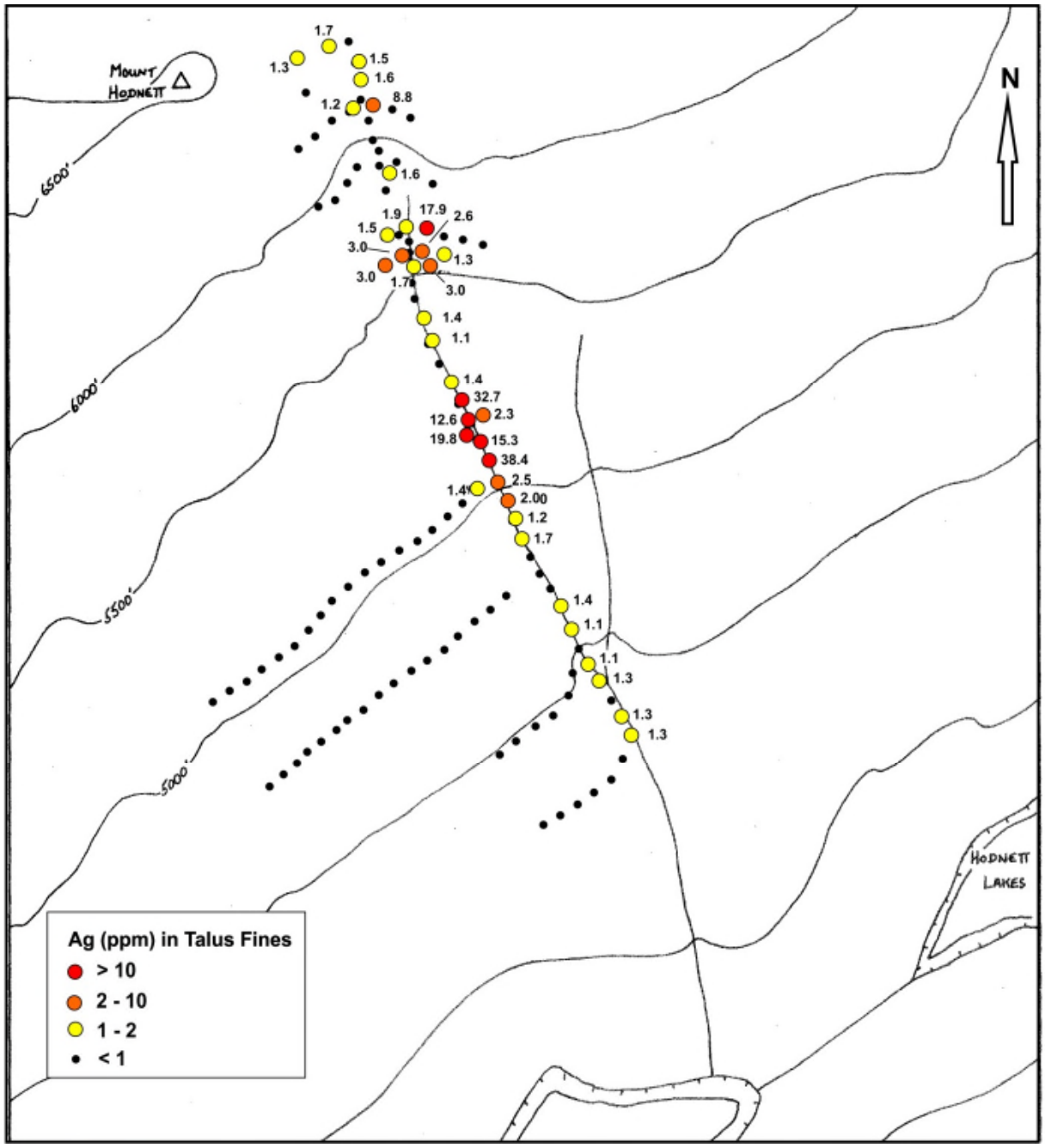

Figure 8. TK Zone talus fines sample locations and silver contents (from Wilkins and MacKinnon, 1988, Figures 5 and 9).

Sample	Elevation	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)
88-7-4S-12	~5700’ (~1740 m)	91	3147	10258	17.9
88 BL 0+00 4+25S	~5200’ (~1585 m)	1018	347	287	32.7
88 BL 0+00 4+50S	~5200’ (~1585 m)	114	115	341	12.6
88 BL 0+00 4+75S	~5200’ (~1585 m)	1520	153	190	15.3
88 BL 0+00 5+00S	~5200’ (~1585 m)	1080	340	321	38.4
88-7-5S-20	~5200’ (~1585 m)	357	522	680	19.8

Table 3. Geochemical data for samples that returned > 10 g/t Ag silver in talus fines collected in 1988 from the TK Zone (Wilkins and MacKinnon, 1988).

VG Zone (pre-2018)

Introduction

The VG Zone is located about 45 kilometres southwest of Whitehorse and 35 km northwest of Carcross. It is located along the top and upper north facing slope of a northeast-trending ridge that lies approximately 7 km southeast of Alligator Lake and 2 km southeast of the Watson River.

Samples of quartz vein float with visible gold have returned up to 2.076 oz/ton gold. Anomalous gold values have also been returned from samples of quartz veins in outcrop. Soil/talus fines samples from the area commonly return elevated gold values.

Physiography

The VG Zone lies entirely above tree line at elevations of from 1400 to 1700 m. “With the exception of an unvegetated, steep northwest talus slope to the Watson River, elevations generally rise moderately. Vegetation consists of alpine sedges and grasses with patches of dwarf alpine buck brush and stunted willows at the lower elevations” (Glynn, 1998, p. 1).

“Outcrops are largely limited to the top and shoulders of the northeast striking ridge and its northwest talus slope. The remainder of the property is covered by thin, locally derived soils, talus fines, and/or felsenmeer. Organic soils are rare…. Permafrost has not been encountered” (Glynn, 1998, p. 1).

Pleistocene Glaciation

“Pleistocene glaciation advanced in a west-northwesterly direction approximately 30,000 years ago. Paleoshore and glacial strand lines near Hodnett Lakes, and to the northwest, across the Watson River lie at elevations of 3800 feet (Glynn, 1998, p. 1). The area of the VG Zone was “… not covered or scoured by this ice sheet however, in some areas elevations below approximately 5400 feet show effects of localized alpine glaciation” (Glynn, 1998, p. 1).

Previous Exploration

1988: Skukum Gold conducted a reconnaissance exploration program in the area in 1988 during which the VG Zone was discovered (MacKinnon and Wilkins, 1988). “This zone consists of a 2.7 km by 1.25 km area of anomalous talus fines gold geochemistry, and float and outcrop quartz veins (with visible gold) which returned up to 2.076 oz/ton gold” (MacKinnon, 1990, p. 5). 60 rock samples, 948 soil/talus fines samples and 27 stream samples were collected over a large area during the 1988 field program (MacKinnon and Wilkins, 1988, Summary).

1989: Exploration in 1989 consisted of two days of grid soil sampling (October 1 and 2) by a contract geochemical sampling crew of 10 individuals with helicopter support. 540 soil and talus fines samples were collected. Surprisingly, most of the 1989 soil sampling was undertaken to the east and south of the VG Zone with only three lines of sampling completed across the VG Zone (see Figure 3 and geochemical maps in MacKinnon, 1990). The report mentions that about 40 soil samples were collected but left out in the field due to inclement weather (it is possible that more sampling was planned but not completed due to lateness of the year and the effect of poor weather on the helicopter supported program). “Grid 89-VG was established by a slope corrected, hip chain, and compass survey. The baseline and crosslines were picketed and flagged at 100 meter line intervals with 50 meter stations along lines. Samples were collected, using a mattock, from the C horizon or B-C horizon interface some 1 to 10 centimeters below the surface. Most of the soils or talus fines had poorly developed horizons composed of residual accumulations of weathered talus, glacial till, felsenmeer, and/or bedrock (MacKinnon, 1990, p. 8). Recommendations for further work in MacKinnon (1990) include additional soil/talus fines sampling, prospecting, ground geophysics (magnetic and EM) and mapping.

1998: 41 soil samples were collected in 1998 at 50 m intervals along two sampling lines on the southeast slope of the central ridge (to the southeast of the VG Zone). “All of the soil samples were taken at depths of 10 cm to 30 cm, from B or C soil horizons with the aid of a mattock…. In areas where the soils were poorly developed or nonexistent talus fines were collected instead” (Glynn, 1998, p. 9-10). In addition, 10 rock samples were collected of which 8 were submitted for geochemical analyses. Recommendations from the Glynn (1998) work included additional soil sampling, hand trenching and detailed geological mapping (1:5000 scale).

Regional Geology

The VG Zone lies within the eastern margin of the allocthonous Paleozoic Nisling terrane and is underlain by igneous rocks of the Coast Plutonic Complex. “Leucocratic granodiorite, of the mid Cretaceous Whitehorse Plutonic Suite, is the dominate rock type. Northeast striking swarms of rhyolite dykes and flow domes associated with the Eocene Mt. Skukum Volcanic Complex intrude the granodiorite. To the northeast these rhyolite dykes terminate within the Tally Ho Shear Zone thus defining the eastern limit of Mt. Skukum volcanic events (Glynn, 1998, p. 6).

The northwest trending Tally Ho Shear Zone, the major structural feature of the region, lies to the east of the VG Zone. The Tally Ho Shear Zone “… is composed of steeply dipping, highly strained, volcanic and sedimentary rocks of the Lewes River Group, 1 - 4 kilometres wide, and traceable for over 40 kilometres. Metamorphic grades within this shear zone are mostly greenschist facies. The Tally Ho Shear Zone forms a boundary between Nisling terrane, in the west and the Lewes River Arc, in the east. Movement along the shear is complex and involves two or three stages at least one of which is related to the Llewellyn fault. In the vicinity of …” the VG Zone “… granitic rocks adjacent to the west margin of the shear zone display brittle faulting trending northeast. The gold, silver and antimony deposits in the area are related to Tertiary faulting and the emplacement of Eocene rhyolite dykes associated with Skukum Group volcanism” (Glynn, 1998, p. 6).

Property Geology and Mineralization

The VG Zone area is "… underlain by Triassic to Cretaceous granitoid rocks of the Coast Mountain Plutonic Complex…. Rhyolitic, and minor intermediate to basic, dyke swarms intrude these older units" (MacKinnon and Wilkins, 1988, p. 8).

The VG Zone "… consists of several visible gold ± pyrite bearing quartz vein float samples and small (≤10cm) quartz veins within altered granitic rocks. Mineralized samples vary in size from 10 cm to 60 cm and consist of white to grey, weakly vuggy, bull quartz with very fine (< 0.7 mm) discrete gold grains and occasional ≤ 1mm pyrite crystals. Minor wad and limonitic staining was present on one of the samples. Brecciated and chloritized granitic rock fragments were found in one of the visible gold samples and several other quartz vein float samples. Quartz veins found in place, generally occur as clusters of parallel veins surrounded by a propylitic alteration halo up to one meter wide" (MacKinnon and Wilkins, 1988, p. 11). Some dikes in the mineralized area display moderate to strong argillic, carbonate, propylitic or silica alteration (MacKinnon and Wilkins, 1988).

"Visible gold occurs in small bull quartz veins within granitic rocks in the VG zone. Propylitic alteration haloes surround these veins" (MacKinnon, 1990, p. 6). The gold mineralization is related to a felsic dike swarm. "The high concentration of dykes suggests that the zone is proximal to a subvolcanic center. This hypothetical center (stock) would have acted as an excellent hydrothermal system driving mechanism" (MacKinnon, 1990, p. 11).

"The best showings in place are small ≤ 3cm quartz veins which returned; 0.209 and 0.240 oz/ton, and 800 and 280 ppm gold. All of these veins were found in propylitically altered granitic rocks. Alteration was restricted to an up to 1 meter wide halo around the vein, or group of veins. Fragments of altered granitic rocks found in some of the vein float suggest that the veins may occupy breccia zones" (MacKinnon, p. 19).

"Visible gold, minor pyrite, and one sample with molybdenite are the only mineralization found to date. Visible gold occurs as fine flecks of free gold in a matrix of bull quartz. Unless the gold is coarse is it is difficult to determine high grade from lower grade samples, so prospectors should sample all quartz veins and quartz float" (MacKinnon, 1990, p. 19).

"The high grade mineralization suggests that the VG zone may be the bonanza zone of an auriferous hydrothermal system. The relationship of structures and the dyke swarm to mineralization is as yet not understood but the potential for finding economic ore shoots within the VG zone is good" (MacKinnon, 1990, p. 19).

Rock Geochemistry

Of 19 rock samples collected in 1988 over an area of about 1500 m by 500 m, 15 samples returned >0.1 g/t Au and 8 samples returned > 1 g/t Au. The two samples with visible gold yielded 2.076 oz/t Au and 1.884 oz/t Au (by pulp and metallic assay). Information on samples from the VG Zone containing greater that 1 g/t Au are presented in Table 4 and a map indicating gold values in rock samples is presented in Figure 9.

Sample	Au (AA) g/t	Au (assay) oz/ton	Au (metallic) oz/ton	Comment
88-5C-5F-12	99.30	1.506	2.076	5.4 g/t Ag, 101 ppm Pb; Bull qz vein float, trace py, minor sericite, Mn-oxide stringers, trace VG, minor limonitic boxworks.
88-5D-5F-5	1.05			Small quartz vein float "pebbles" with chloritic granitic host rock. Minor (2%) chlorite and Mn-oxides. Veins up to 5 cm wide.
88-5D-5F-10	4.72	0.117		60x40 cm quartz vein float.
88-5D-5R-1	5.53	0.209		6.3 oz/t Ag; Qz veins in weakly chlorite altered granitic rock, trace py.
88-5D-10F-5	53.30	1.340	1.884	7.8 g/t Ag; Qz float (bull qz), VG on fractures, diss py.
88-5D-10F-6	7.64	0.090		Quartz vein float, bull white, vuggy, reddish.
88-5D-10F-10	3.85	0.137, 0.116		256 ppm Pb; Qz float (hydrothermal), reddish-yellow.
88-5D-10R-3	9.01	0.240		2.1 g/t Ag; Vuggy qz vein, chloritized, greenish brown, 2 cm x 3 cm.

Table 4. Samples from the VG Zone that returned > 1 g/t Au (MacKinnon and Wilkins, 1988). AA = acid leach/atomic absorption analysis; metallic = pulp and metallic assay.

Soil and Talus Fines Geochemistry

All of the soil location data from MacKinnon (1990) and the west sheet of MacKinnon and Wilkins (1988), which covers the VG Zone, were georeferenced and plotted using QGIS before the 2018 field program (Figure 10). A broad area roughly 1.5 km across surrounding the VG Zone has a yielded a high proportion of significantly anomalous gold values in talus fines and soil samples. Surprisingly, large areas near the VG zone are either not sampled or are sampled at a low density.

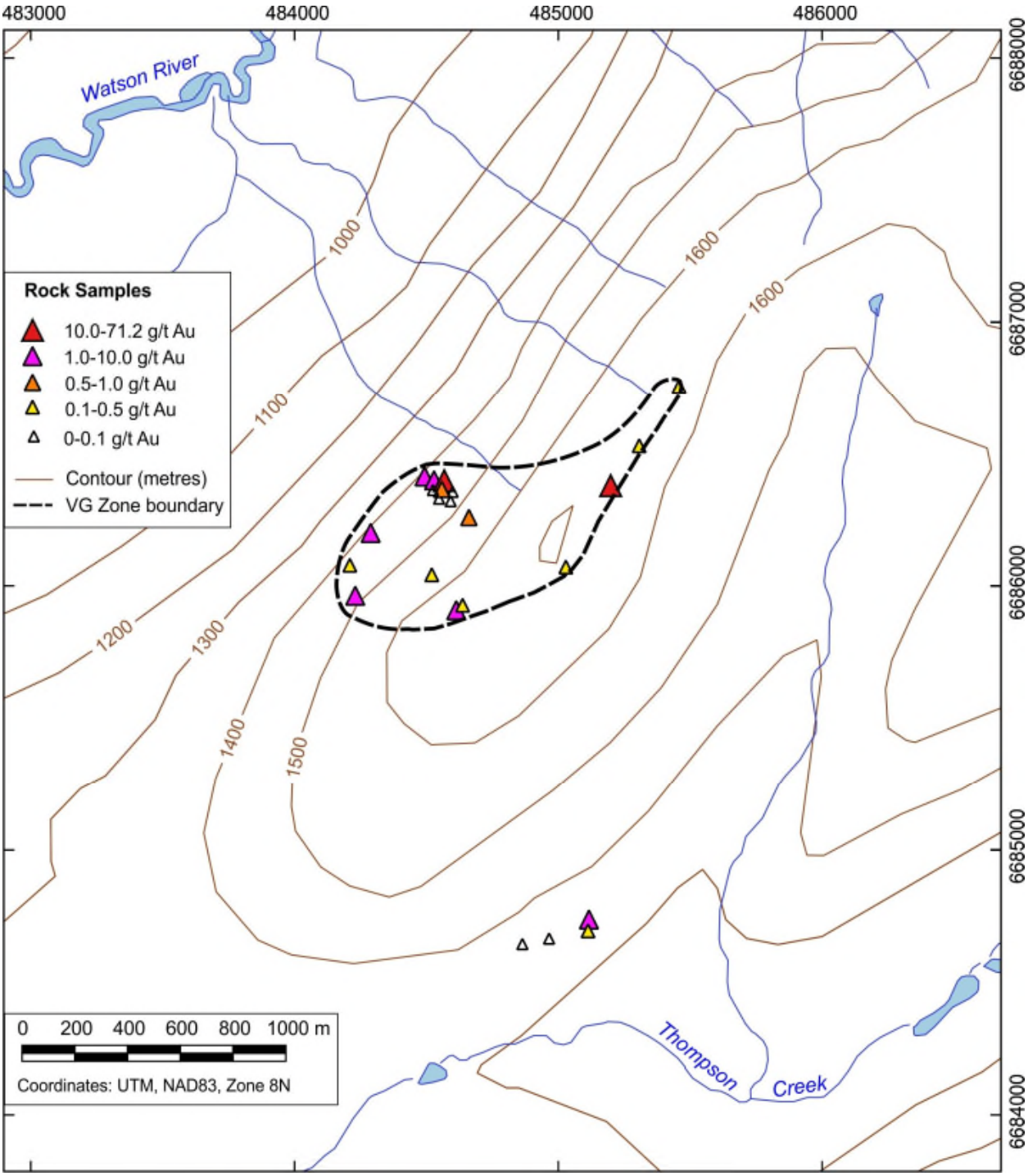

Figure 9. Gold in rock samples from the VG Zone area (data from MacKinnon and Wilkins, 1988). VG Zone boundary is drawn around area in which 15 out of 19 rock samples returned >0.1 g/t Au.

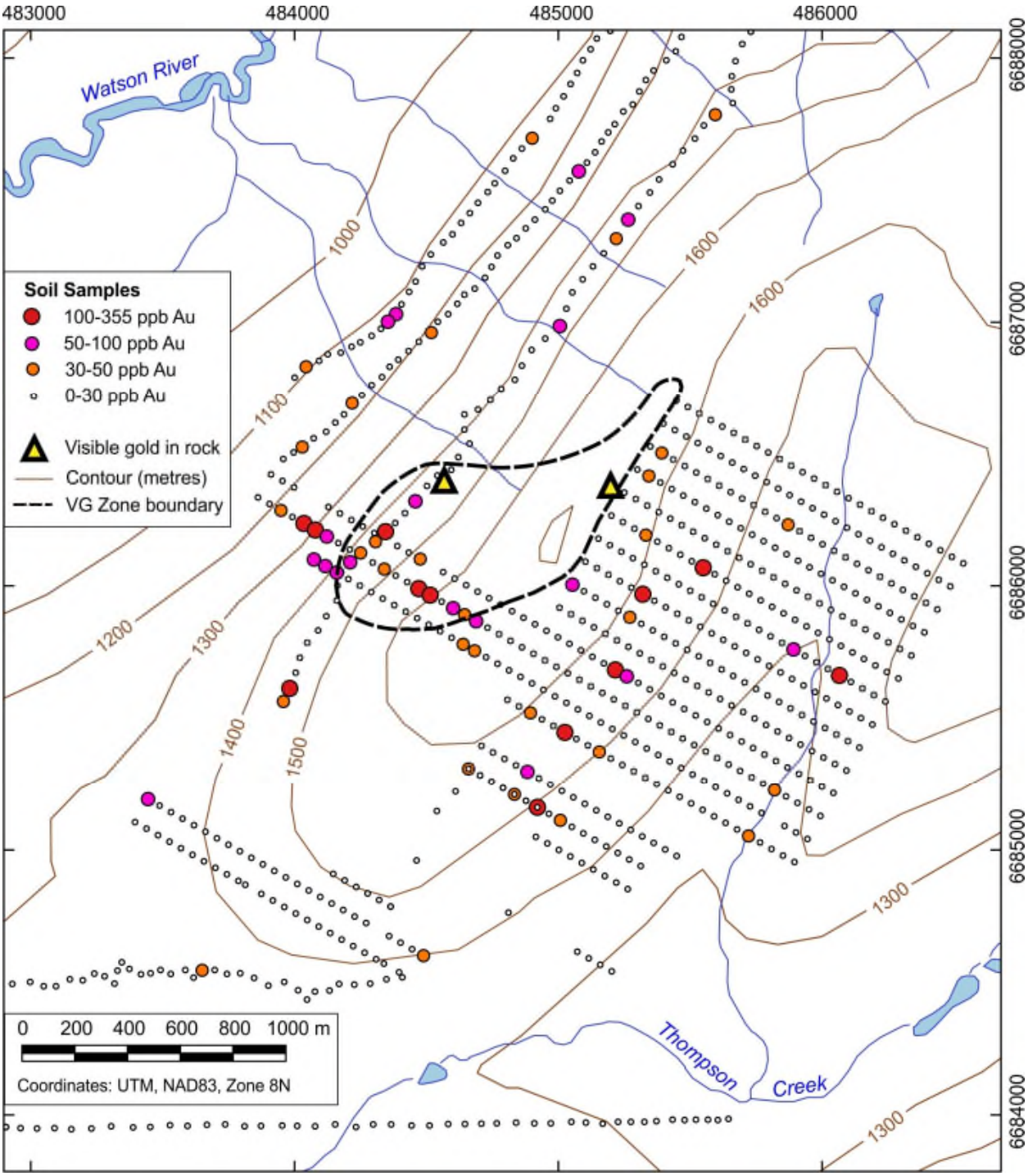

Figure 10. Gold in soil and talus fines samples from the VG Zone area (data from MacKinnon and Wilkins, 1988 and MacKinnon, 1990). VG Zone boundary is drawn around area in which 15 out of 19 rock samples returned >0.1 g/t Au

2018 Exploration Program

Claim Staking

Twelve quartz claims were staked during the 2018 field program (Table 5 and Figure 11). All of the claims are registered in the Whitehorse Mining District to Glen Prior.

Alligator Property: This is a group of 4 quartz claims (AL1, AL2, TOR1 and TOR2) located south of Alligator Lake and north of the Watson River within NTS map area 105D/06.

VG Property: This is a group of 7 quartz claims (VG1 to VG7) located south of the Watson River and west of Mount Hodnett within NTS map area 105D/06.

TK Property: The TK Property consists of a single quartz claim (TK1) east of Mount Hodnett and north of the Hodnett Lakes.

Property	Claim Name	Tag Number	Recording Date
Alligator	AL1	YE91086	2018-August-06
	AL2	YE91087	2018-August-06
	TOR1	YE93755	2018-August-17
	TOR2	YE93756	2018-August-17
VG	VG1	YE91082	2018-August-06
	VG2	YE91083	2018-August-06
	VG3	YE91084	2018-August-06
	VG4	YE91085	2018-August-06
	VG5	YE91093	2018-August-15
	VG6	YE91094	2018-August-15
	VG7	YE91095	2018-August-15
TK	TK1	YE91096	2018-August-24

Table 5. Quartz claims staked during the 2018 field program.

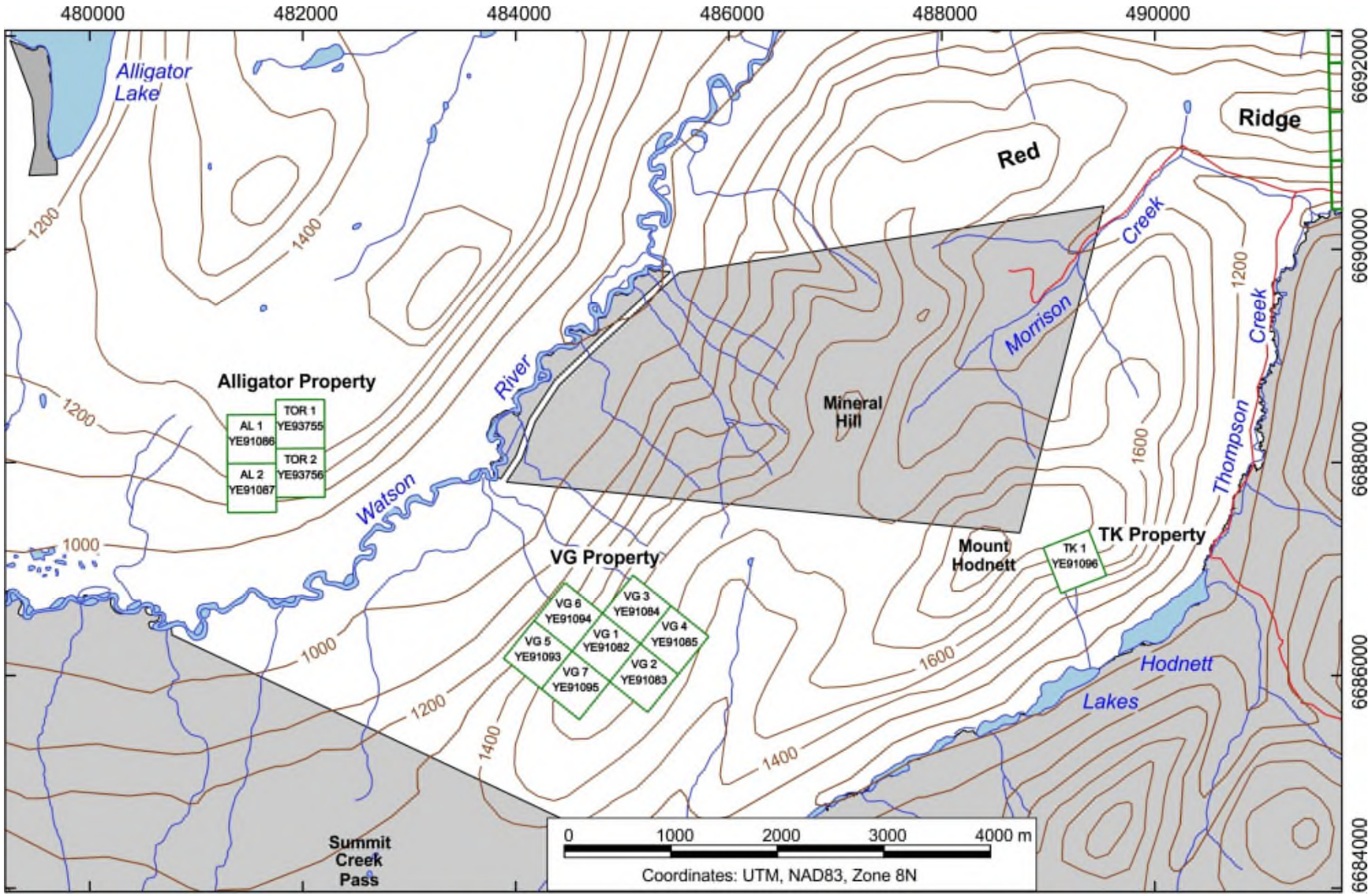

Figure 11. 2018 claim staking (Alligator, VG and TK Properties). First Nations Settlement Lands shown in grey.

Field Exploration Overview

Exploration field work on the Alligator, TK and VG Zones in 2018 consisted of (i) talus fine fraction and soil sampling and (ii) rock sampling. All of the field areas are dominated by steep talus and outcrop slopes. During field sampling talus clasts larger than 1 cm across were excluded from talus fine fraction samples. During the 2018 field season 125 talus fine fraction and soil samples and 4 rock samples were collected and submitted for multi-element geochemical analyses.

Rock sample analyses were performed by TSL Laboratories Inc. in Saskatoon, Saskatchewan. Rock sample descriptions are provided in Appendix 1 and analytical results are presented in Appendix 2.

Location information was obtained using a Garmin GPSMAP 64st instrument. Location units are presented in the UTM NAD83 coordinate system. 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 method descriptions provided by Mark Acres of TSL Laboratories Inc.]

Rock Sample Preparation

Samples received at TSL Laboratories Inc. in Saskatoon, Saskatchewan were opened, sorted and dried prior to preparation. Rock 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).

Talus Fine Fraction and Soil 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 (aqua regia extraction)

A 0.5 gram sample was digested with 3 ml of aqua regia (3:1 HCl/HNO_3) 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.

Assays

Gold: Sample VG201 that initially returned 7.436 g/t Au based on an aqua regia digestion – ICPMS analysis was submitted for fire assay. Gold was determined on 29.16 g (1 assay ton) subsamples by fire assay procedure (production of Dore bead) followed by a gravimetric finish.

Silver, Tungsten, Copper and Bismuth: All three rock samples from the TK Zone initially returned >100 g/t Ag. In addition, 2 samples returned >100 ppm W, one sample returned >10000 ppm Cu and one sample returned >2000 ppm Bi. In addition, 5 talus fine fraction samples from the Alligator Zone (AL samples) returned > 100 ppm W. These samples were submitted for assay determinations for the over-range elements. Subsamples underwent an analysis method utilizing multi-acid digestion, large dilution and either atomic absorption or atomic emission spectroscopy.

Analytical Quality Assurance

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

In addition samples from the 125 sample batch of talus fine fraction and soil samples underwent repeat (duplicate) analyses. The original and repeat analyses compare well except for gold. Original and repeat determinations are shown in Table 26 for Au along with data for Cu, Fe and Zn for comparison. Certified reference material data in this batch is satisfactory for Au and other elements and repeat analyses are satisfactory for element other than Au (e.g. Cu, Fe and Zn). Therefore, the poor Au reproducibility displayed for duplicate pairs AL415–AL415 Re and for VG469–VG469 Re is thought to be due to a nugget effect.

Sample	Au ppb	Cu ppm	Fe %	Zn ppm
AL415	**3.5**	88.4	2.99	52
AL415 Re	**16.4**	84.9	3.05	52
VG434	53.4	37.4	2.12	62
VG434 Re	51.9	35.6	2.07	61
VG469	**24.0**	11.7	1.89	68
VG469 Re	**3.1**	11.3	2.00	64
VG498	6.9	13.6	2.37	122
VG498 Re	8.6	14.4	2.31	116

Table 6. Repeat analytical data for Au, Cu, Fe and Zn reported in lab report S55927. Values that differ significantly between the duplicate pairs are shown in bold.

Alligator Zone – Access

To reach Alligator Lake turn west off of Highway 2 about 33 km north of Carcross onto the Annie Lake Road. After a distance of about 4 km, at a location just north of the Watson River, turn onto the narrow road that leads in a generally westerly direction to Alligator Lake. Most of this road, about 30 km long, was travelled by quad as the condition of the road was too poor for truck travel. A tent camp was established at the north end of Alligator Lake.

A canoe and outboard motor were used to travel to the south end of Alligator Lake, a distance of 6 km. From there the Alligator Zone, located about 4 km in a straight line to the south-southwest on the steep north flank (outcrop and talus) of the Watson River valley, was reached by hiking.

Alligator Zone – Talus Fine Fraction Geochemistry

Fifteen talus fine fraction samples were collected from the steep outcrop and talus slope on the north side of the Watson River valley (sampling time on site was limited due to the long travel time from the camp at the north end of Alligator Lake via canoe and foot). Samples AL405 to AL415 were collected along a sampling traverse cross the main gossan zone at an average elevation of about 1160 m (field GPS readings). At this elevation the area of distinct, essentially continuous gossan is about 200 m wide (Figure 12). Samples AL401 to AL404 were collected along a traverse at an average elevation of about 1265 m. These samples were collected form an area of weak, discontinuous gossan about 300 m west-northwest of the main gossan.

Summary data for selected elements are listed in Table 7 and Table 8, sample locations are shown in Figure 13, and maps showing Mo, Cu and W values are presented in Figures 14 to 16.

Talus fines collected on the traverse across the main gossan are characterized by distinctly elevated values of Mo, Cu and W. Other elements that appear to be weakly enriched include Bi and Ag. Mo values range from 26 to 88 ppm over a distance of 165 m (8 consecutive samples). Cu values range from 185 to 322 ppm over a distance of 100 m (5 consecutive samples). W values range from 38 to 560 ppm over a distance of greater than 230 m (10 consecutive samples, open to the west).

The anomalous Mo values are consistent with field observations of possible ferrimolybdite in outcrop near two of the sample sites.

Figure 12. Alligator Zone gossan. View towards 080° from 481833E, 66877740N (UTM Zone 8V, NAD 83) at an elevation of about 866 m.

Sample	Ag ppm	As ppm	Au ppb	Bi ppm	Cu ppm	Fe %	Hg ppm	Mo ppm
Count	15	15	15	15	15	15	15	15
Count >LDL	15	12	15	15	15	15	9	15
Median	0.5	0.8	3.4	5.4	116.6	3.43	0.01	47.2
Maximum	1.8	2.2	10.5	15.1	321.6	5.09	0.05	96.1
UCC Average	0.053	4.8	1.5	0.16	28	5.04	0.05	1.1

Table 7. Summary of Ag, As, Au, Bi, Cu, Fe, Hg and Mo values obtained from 2018 talus fine fraction samples from the Alligator Zone area. Also listed are estimates of average element concentrations in the upper continental crust (UCC Average) from Rodnick and Gao (2014). LDL = lower analytical detection limit.

Sample	Ni ppm	Pb ppm	S %	Sb ppm	Se ppm	Te ppm	W ppm	Zn ppm
Count	15	15	15	15	15	15	15	15
Count >LDL	15	15	14	10	5	10	15	15
Median	6.3	18.4	0.17	0.1	<0.5	0.3	54	54
Maximum	43.4	60.1	0.37	0.2	1.4	5.2	560	89
UCC Average	47	17	0.06	0.4	0.09	0.027	1.9	67

Table 8. Summary of Ni, Pb, S, Sb, Se, Te, W and Zn values obtained from 2018 talus fine fraction samples from the Alligator Zone area. Also listed are estimates of average element concentrations in the upper continental crust (UCC Average) from Rodnick and Gao (2014) and Hu and Gao (2008, Te value). LDL = lower analytical detection limit.

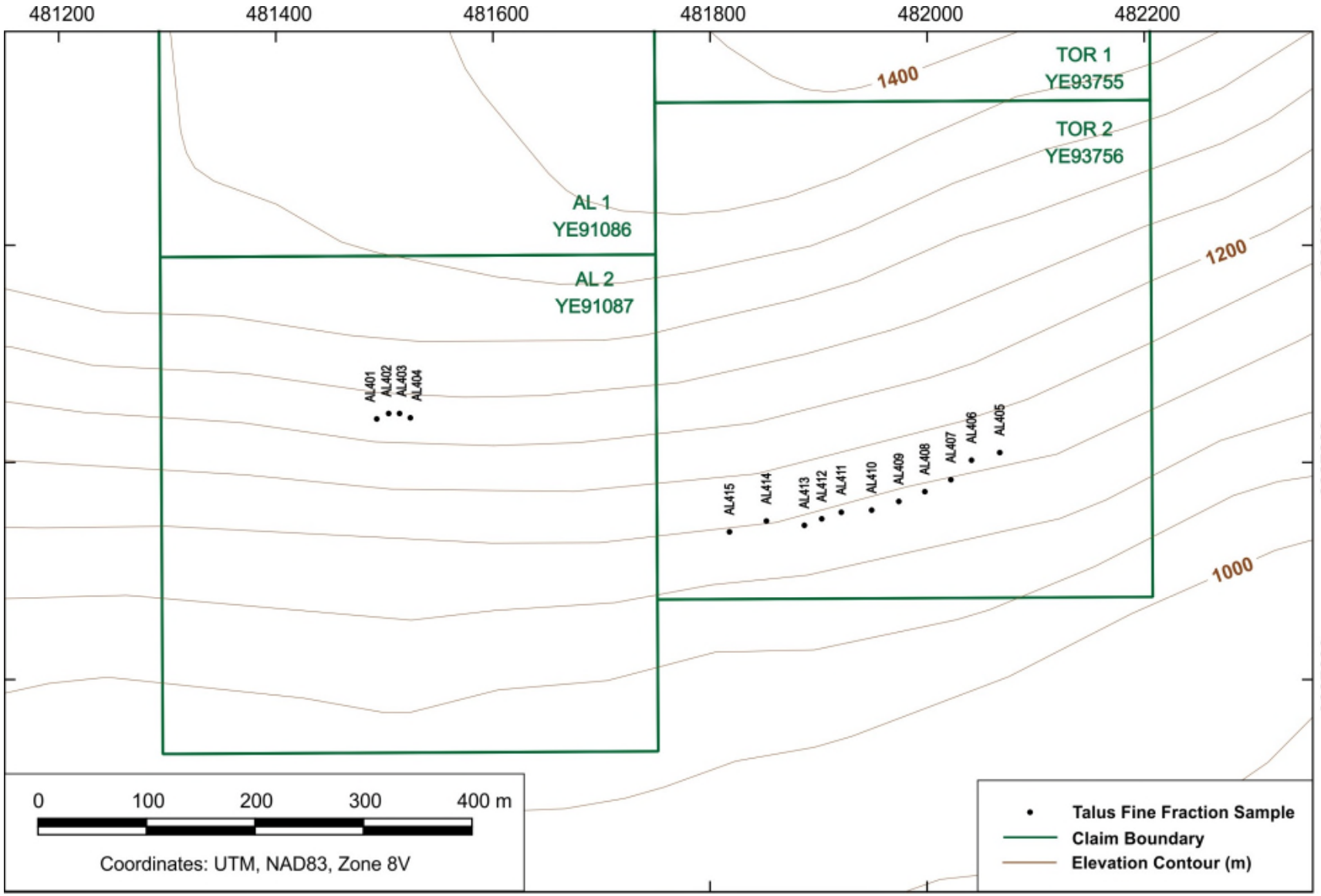

Figure 13. Alligator Zone – 2018 talus fine fraction sample locations.

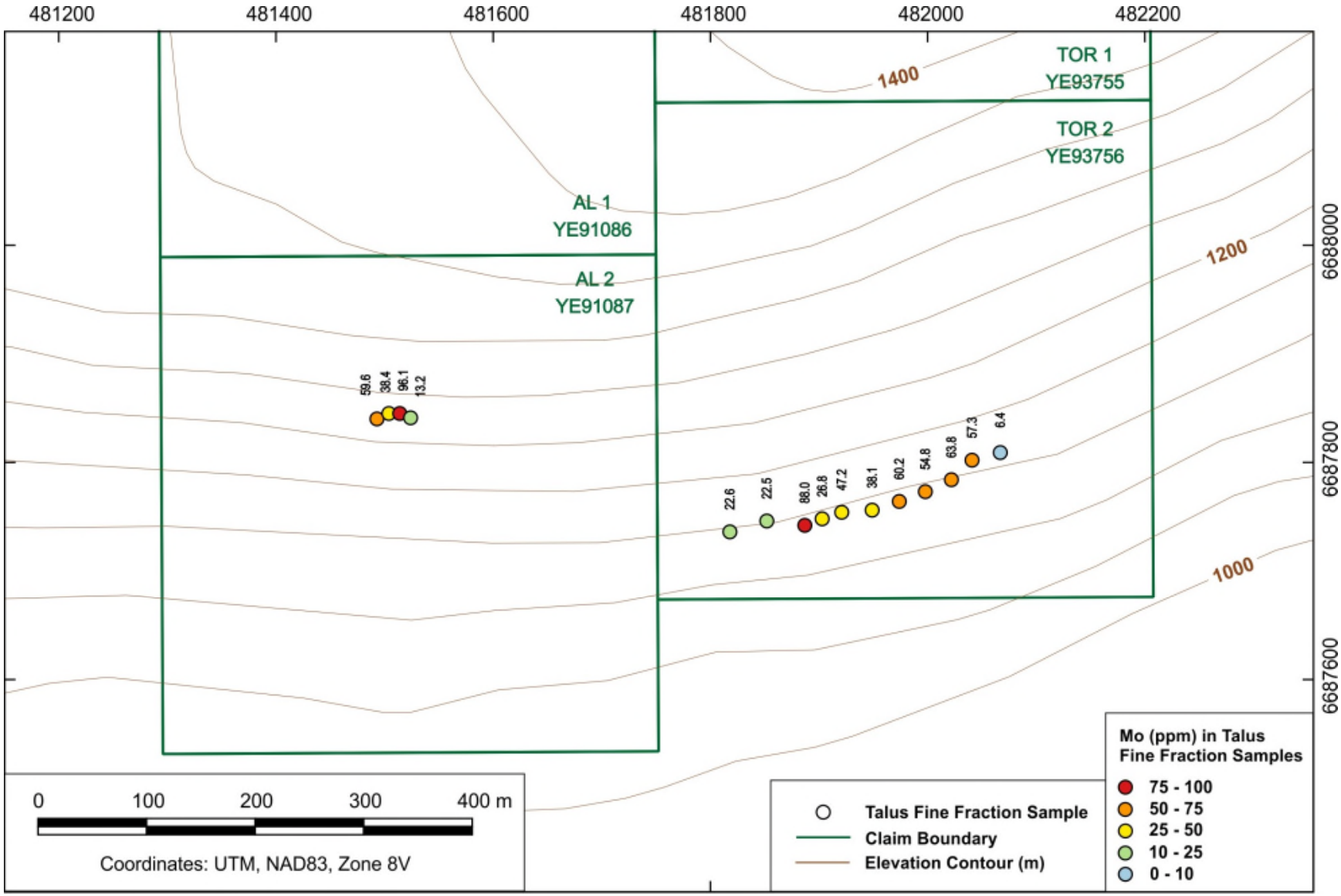

Figure 14. Alligator Zone – 2018 talus fine fraction Mo results.

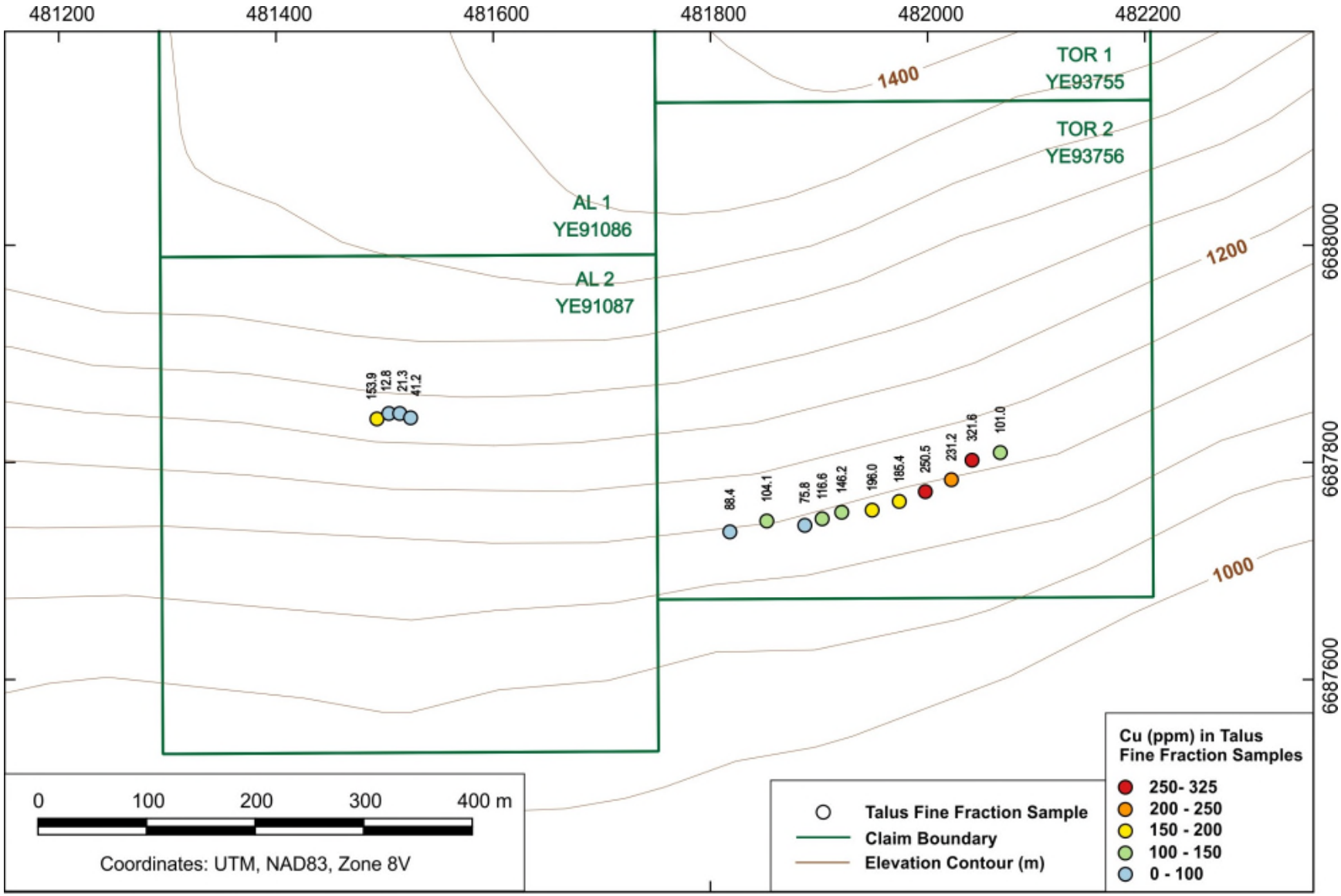

Figure15. Alligator Zone – 2018 talus fine fraction Cu results.

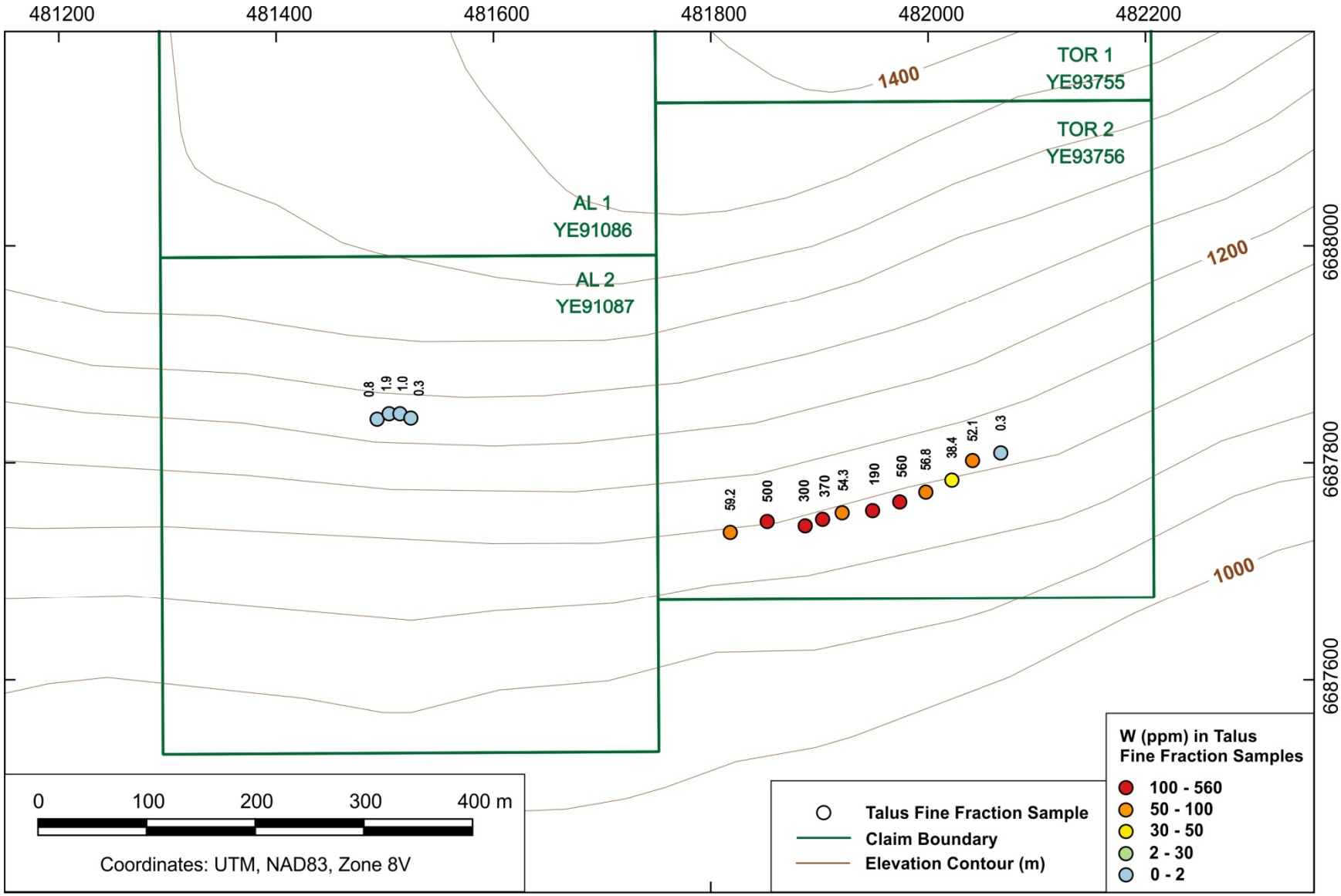

Figure 16. Alligator Zone – 2018 talus fine fraction W results.

TK Zone – Access

To reach the TK Zone turn west off of Highway 2 about 33 km north of Carcross onto the Annie Lake Road. After a distance of about 17 km, near the north end of Annie Lake, an old, narrow road to the Thompson Creek valley leads off to the west. From here a quad was used to follow the old road along Thompson Creek and then Morrison Creek to a location about 2.5 km north of Mount Hodnett. From this location an old drill road leads to the top of the ridge north of the Hodnett Lakes and above the TK Zone. From here a steep descent was made to the TK zone.

TK Zone – Rock Sample Geochemistry

The TK Zone occurs along a north-northwest trending gully a few 10's of metres wide that occurs on the steep south-southwest facing outcrop and talus slope north of the Hodnett Lakes. The upper end of this gully at the top of the ridge lies about 500 m east of Mount Hodnett. The steepness of the slope makes field work challenging.

The TK Zone lies along a major north-northwest trending structural feature associated with the Tally-Hoe Shear Zone and Llewellyn Fault. Preferential erosion along this structure accounts for the pronounced gully. In detail, there are two prominent area of gossan development present along this structure within the TK Property. The upper one is centred at an elevation of approximately 1800 m and the lower one is centered near an elevation of 1600 m.

Observations made during field work on the TK Zone in 2018 include the following:

> Regarding upper gossan: "Very little veining in upper gossan outcrop … or in talus below as far down as the lower gossan." The top of the upper gossan was noted to occur at an elevation of ~1825 m.
>
> Regarding lower gossan: "Although Qz veins are > 1 m in width evidence of Cu mineralization is relatively sparse. Overall average grade of zone predicted to be quite low."

Three rock samples were collected from some of the best mineralized material observed the lower gossan area. Two samples were collected from angular blocks of talus (TK201 and TK202) and one sample was collected from outcrop (TK203). All samples are of quartz vein material containing modest amounts of copper mineralization (chalcopyrite ± malachite). Rock sample descriptions are presented in Appendix 1. Selected analytical results are shown in Tables 9 and 10. Sample locations are shown in Figure 17. The samples were collected just west of the TK1 Claim.

The analytical data indicate that the elemental composition of the mineralization in the lower TK Zone tends to be Ag–Bi–Te–– Cu–Mo–Pb–Se–W –– (Au–S–Fe). Ag, Bi, Te, Cu and Pb results for the 2018 samples compare favourably with the highest values for these elements obtained from previous sampling (see Tables 1 and 2). The relationship between high Ag and Bi values in these and previous data suggest the presence of a Ag and Bi-bearing mineral. Low Zn values compared to previous data suggest that sphalerite is primarily associated with the upper gossan. The elevated Fe content in sample TK202

reflects the presence of 1% to 5% fracture-controlled magnetite in this sample. Low Ca values are consistent with a general lack of carbonate in the sampled quartz vein material.

Sample	Ag g/t	As ppm	Au ppb	Bi ppm	Ca %	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm
TK201	451.0	0.6	29.6	971.9	0.07	1.1	151	13000	1.60	<0.01
TK202	932.5	<0.5	69.1	2670.0	0.85	4.4	149	748	4.49	<0.01
TK203	275.5	0.7	14.3	548.2	1.08	1.7	167	1739	0.80	<0.01
UCC Average	0.053	4.8	1.5	0.16	2.57	17.3	92	28	3.92	0.05

Table 9. Ag, As, Au, Bi, Ca, Co, Cr, Cu, Fe and Hg values for 2018 rock samples from the TK Zone. Also listed are estimates of average element concentrations in the upper continental crust (UCC Average) from Rodnick and Gao (2014).

Sample	Mn ppm	Mo ppm	Ni ppm	Pb ppm	S %	Sb ppm	Se ppm	Te ppm	W ppm	Zn ppm
TK201	57	152.5	4.8	4006	0.58	<0.1	11.2	40.7	750.0	22
TK202	306	37.7	9.6	4479	0.15	0.2	24.6	221.8	67.1	60
TK203	328	142.5	5.9	2425	<0.05	0.1	4.9	20.8	950.0	47
UCC Average	774	1.1	47	17	0.062	0.4	0.09	0.027	1.9	67

Table 10. Mn, Mo, Ni, Pb, S, Sb, Se, Te, W and Zn values for 2018 rock samples from the TK Zone. Also listed are estimates of average element concentrations in the upper continental crust (UCC Average) from Rodnick and Gao (2014) and Hu and Gao (2008, Te value).

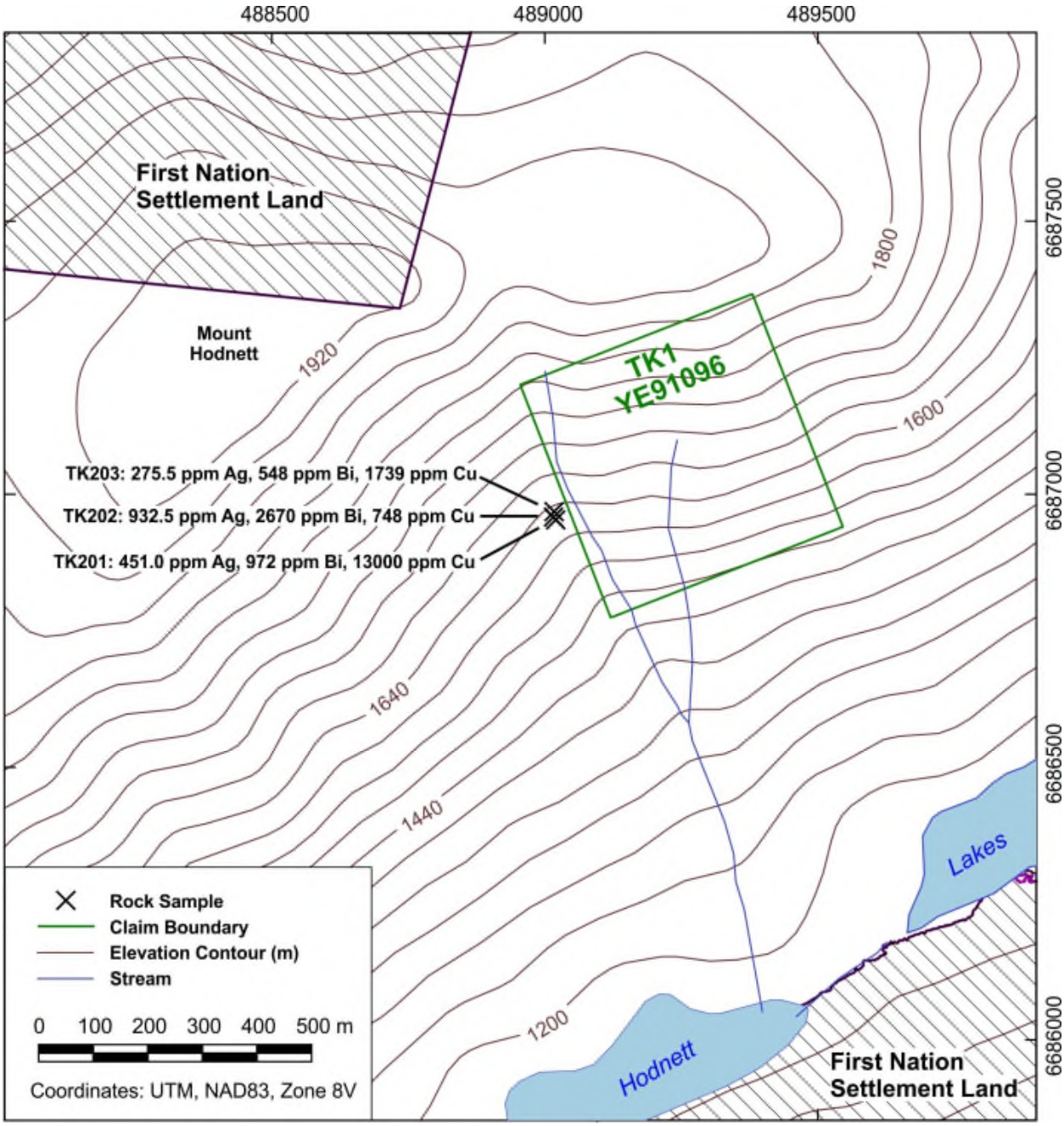

Figure 17. TK Zone – 2018 rock sample locations and Ag, Bi and Cu values.

VG Zone – Access

To reach the VG Zone turn west off of Highway 2 about 33 km north of Carcross onto the Annie Lake Road. After a distance of about 17 km, near the north end of Annie Lake, an old, narrow road to the Thompson Creek valley leads off to the west. From here a quad was used to follow the old road along Thompson Creek and then Morrison Creek to a location about 2.5 km north of Mount Hodnett. From this location an old ATV trail leads off in a west-southwest direction into the area of relatively gentle topography southeast of the VG Zone and south-southwest of Mineral Hill (where a tent camp was established for part of the exploration work). The VG Zone lies on the steep talus and outcrop slope that forms the south side of the Watson River valley, which required considerable hiking.

VG Zone – Talus Fine Fraction and Soil Geochemistry

Previous rock and soil sampling have demonstrated the presence of gold mineralization in the VG Zone area (Figures 9 and10). However, the previous soil sampling left a large gap in coverage in the area of the best gold results from rock sampling. This gap occurred along the steep talus slope south of the Watson River valley. Most of the 2018 samples consist primarily of fine grained talus (talus fines) rather than soil.

The sampling locations of the 2018 talus and soil survey are shown in Figure 18. The sampling was conducted along traverse lines roughly parallel to elevation contours with sample spacing along lines of about 25 m where sample material was available.

Gold values obtained from the 2018 samples are shown in Figure 19. The 2018 samples contain several elevated gold values but did not add significantly to the definition of the previously outlined talus-soil gold geochemical anomaly.

Selected statistical data for the 2018 talus-soil survey are presented in Tables 11 and 12. Ten of the 110 samples (9%) contain >20 ppb Au (to a maximum of 117.5 ppb Au) but anomalous values are generally lacking for most of the other elements in the analytical data set. Maximum values for some other elements of interest include 0.7 ppm Ag, 5.3 ppm As, 5 ppm Bi, 37.4 ppm Cu, 0.07 ppm Hg, 4.7 ppm Mo, 150.4 ppm Pb, 0.06% S, 0.9 ppm Se, 0.4 ppm Te and 203 ppm Zn.

Of the 110 talus-soil samples only one exceeded the lower analytical detection limit for S of 0.05% (this sample returned 0.06% S). This general lack of S in the area is also reflected in the low sulphide contents of rock samples from the area.

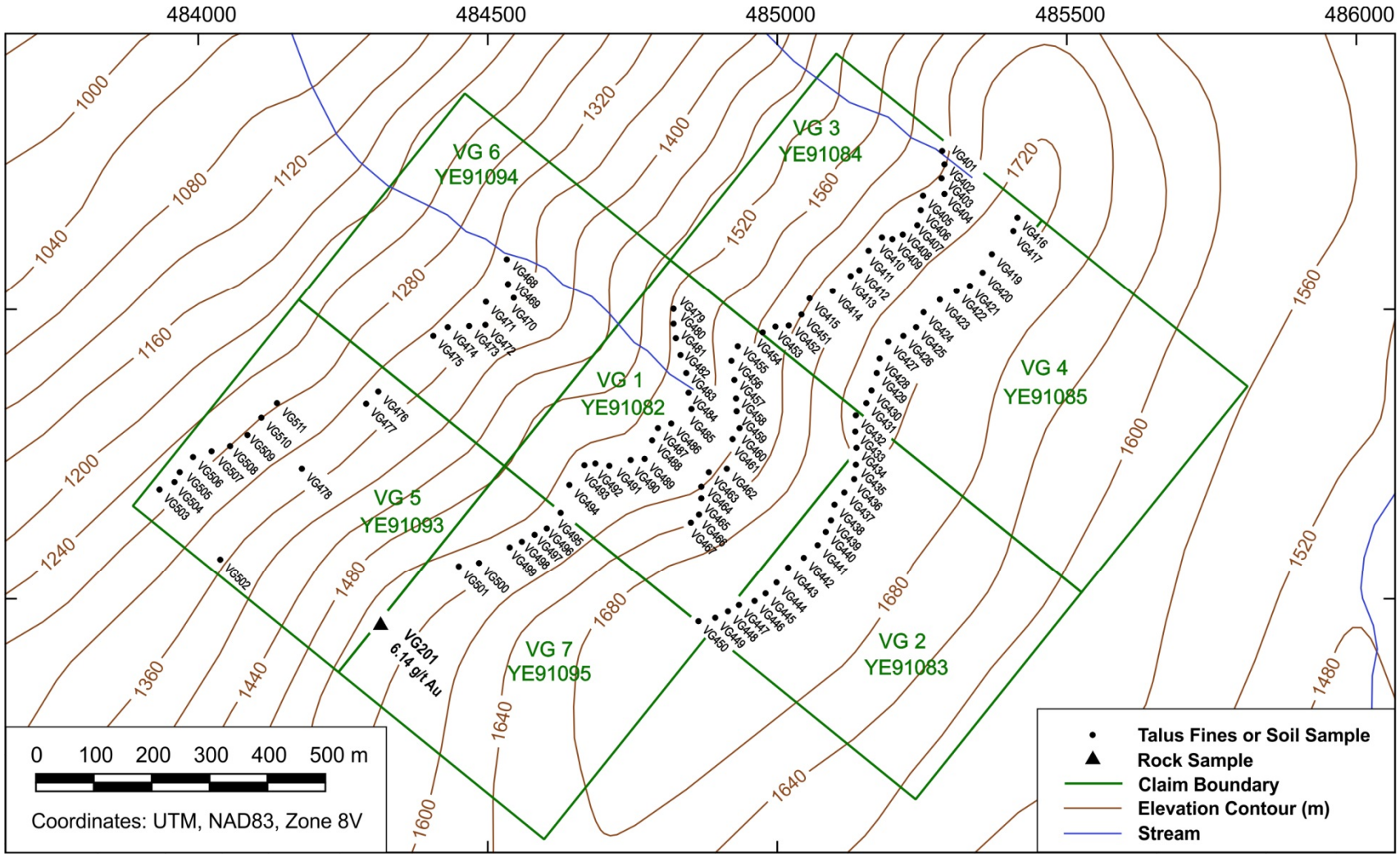

Figure 18. VG Property – 2018 geochemical sample locations.

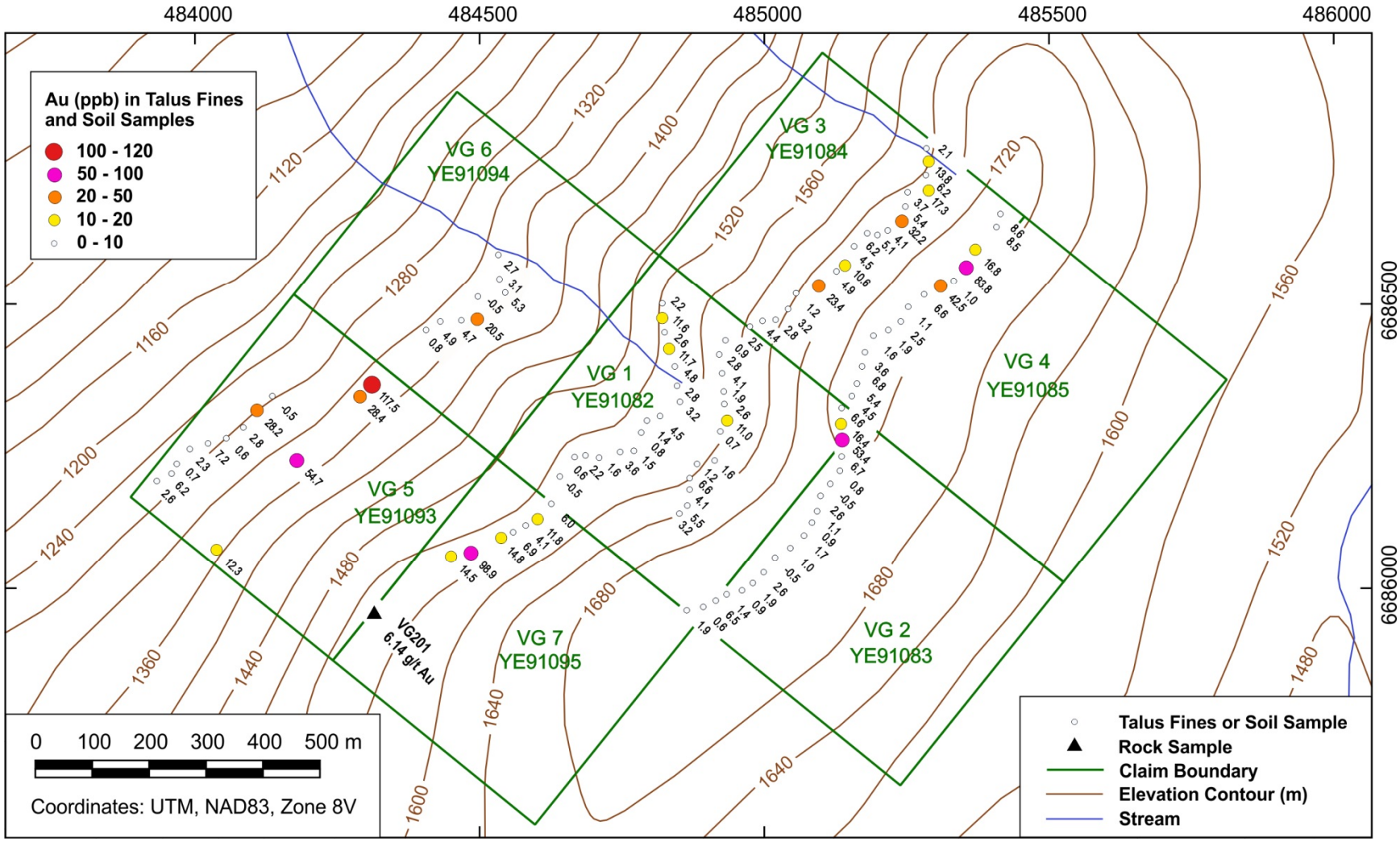

Figure 19. VG Property – 2018 gold values in talus fines, soil and rock samples. Values below the lower the lower analytical detection limit of 0.5 ppb gold are shown as -0.5.

Sample	Ag ppm	As ppm	Au ppb	Ba ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Hg ppm
Count	110	110	110	110	110	110	110	110	110	110
Count > LDL	48	110	105	110	106	95	110	110	110	72
Median	<0.1	1.9	3.65	114.5	0.3	0.2	5.2	8	10.45	0.01
Maximum	0.7	5.3	117.5	957	5	2.2	15.5	19	37.4	0.07
2nd Largest	0.6	5.2	98.9	943	1.7	1	12.4	17	33.7	0.05
3rd Largest	0.5	4.3	83.8	659	1.7	1	10.3	16	31.1	0.05
4th Largest	0.5	4.2	54.7	355	1.1	0.9	9.7	15	26.4	0.04
5th Largest	0.3	4.2	53.4	353	1.1	0.9	9.4	14	25.7	0.04
UCC Average	0.053	4.8	1.5	628	0.16	0.09	17.3	92	28	0.05

Table 11. Ag, As, Au, Ba, Bi, Cd, Co, Cr, Cu and Hg values for 2018 VG Zone talus fine fraction and soil samples. Also listed are estimates of average element concentrations in the upper continental crust (UCC Average) from Rodnick and Gao (2014). LDL = lower analytical detection limit.

Sample	Mn ppm	Mo ppm	Ni ppm	Pb ppm	S %	Sb ppm	Se ppm	Te ppm	Zn ppm
Count	110	110	110	110	110	110	110	110	110
Count > LDL	110	110	110	110	1	52	2	4	110
Median	717	0.6	5.45	19.5	<0.05	<0.1	<0.5	<0.2	56
Maximum	3424	4.7	11.4	150.4	0.06	0.3	0.9	0.4	203
2nd Largest	2150	4.2	10.2	76.5	<0.05	0.2	0.8	0.3	122
3rd Largest	2051	3.2	10.2	62.8	<0.05	0.2	<0.5	0.3	115
4th Largest	1811	3	10.1	62.4	<0.05	0.2	<0.5	0.2	111
5th Largest	1786	2.8	9.3	61.7	<0.05	0.2	<0.5	<0.2	106
UCC Average	774	1.1	47	17	0.062	0.4	0.09	0.027	67

Table 12. Mn, Mo, Ni, Pb, S, Sb, Se, Te and Zn values for 2018 VG Zone talus fine fraction and soil samples. Also listed are estimates of average element concentrations in the upper continental crust (UCC Average) from Rodnick and Gao (2014) and Hu and Gao (2008, Te value). LDL = lower analytical detection limit.

Spearman rank correlation coefficients, obtained using JASP statistical software, are presented in Table 13. Elements that exhibit potentially significant correlations with Au include Ag (correlation coefficient of 0.533) and Cu (correlation coefficient of 0.511).

	Ag	Al	As	Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La
Ag	—															
Al	0.078	—														
As	0.081	0.376	—													
Au	0.533	0.156	0.157	—												
Ba	0.467	0.360	0.081	0.409	—											
Bi	0.422	0.239	0.291	0.296	0.372	—										
Ca	0.432	0.441	-0.042	0.267	0.627	0.474	—									
Cd	0.476	0.107	0.080	0.250	0.393	0.547	0.409	—								
Co	0.388	0.583	0.126	0.435	0.667	0.262	0.648	0.343	—							
Cr	-0.183	0.381	0.492	0.019	-0.014	-0.047	-0.117	-0.173	0.197	—						
Cu	0.605	0.447	0.097	0.511	0.723	0.467	0.651	0.475	0.848	0.133	—					
Fe	0.291	0.570	0.420	0.239	0.443	0.562	0.522	0.383	0.662	0.230	0.587	—				
Ga	0.007	0.828	0.192	0.160	0.218	0.141	0.317	0.051	0.488	0.330	0.382	0.445	—			
Hg	0.431	0.304	0.326	0.215	0.215	0.254	0.186	0.427	0.278	0.047	0.375	0.291	0.247	—		
K	0.342	0.187	-0.178	0.086	0.392	0.476	0.660	0.496	0.383	-0.349	0.419	0.397	0.090	0.092	—	
La	0.343	0.290	0.042	0.120	0.427	0.644	0.671	0.549	0.325	-0.260	0.421	0.461	0.108	0.270	0.602	—
Mg	0.267	0.697	0.078	0.374	0.509	0.075	0.544	0.092	0.769	0.348	0.663	0.448	0.655	0.200	0.253	0.146
Mn	0.338	0.386	0.139	0.153	0.557	0.675	0.656	0.686	0.529	-0.209	0.559	0.668	0.237	0.339	0.629	0.842
Mo	0.372	0.036	0.498	0.130	0.158	0.607	0.114	0.335	0.060	-0.026	0.137	0.437	-0.102	0.150	0.202	0.382
Na	0.109	0.027	0.337	0.021	-0.071	0.118	0.105	-0.022	0.010	0.210	-0.069	0.124	-0.023	-0.023	0.132	0.095
Ni	0.067	0.574	0.425	0.186	0.348	0.130	0.321	0.051	0.587	0.766	0.482	0.463	0.398	0.110	0.046	0.089
P	0.349	0.275	-0.126	0.339	0.485	0.103	0.638	0.213	0.737	0.039	0.670	0.442	0.254	0.203	0.382	0.239
Pb	0.326	0.305	0.219	0.152	0.398	0.839	0.575	0.593	0.293	-0.201	0.404	0.587	0.109	0.227	0.636	0.833
Sb	-0.009	0.153	0.493	0.090	0.140	0.232	-0.001	0.032	0.052	0.400	0.111	0.226	0.049	0.183	-0.116	0.082
Sc	0.474	0.543	0.166	0.307	0.654	0.482	0.823	0.450	0.749	0.072	0.728	0.644	0.376	0.259	0.542	0.723
Sr	0.283	0.563	0.002	0.203	0.607	0.415	0.854	0.428	0.601	0.044	0.582	0.461	0.451	0.218	0.607	0.602
Th	0.368	0.022	-0.138	0.168	0.401	0.329	0.644	0.352	0.245	-0.416	0.315	0.207	-0.118	0.047	0.513	0.683
Ti	-0.154	-0.053	-0.030	0.114	-0.198	-0.601	-0.362	-0.447	-0.005	0.485	-0.115	-0.285	0.084	-0.110	-0.579	-0.663
Tl	0.060	0.283	-0.078	0.057	0.324	0.209	0.283	0.220	0.346	-0.255	0.344	0.281	0.270	0.088	0.356	0.376
V	-0.185	0.441	0.269	0.023	0.003	-0.277	-0.088	-0.272	0.342	0.765	0.192	0.301	0.494	0.051	-0.317	-0.404
W	0.146	-0.084	0.175	0.161	-0.025	0.207	-0.121	0.070	-0.111	0.222	0.027	-0.007	-0.120	0.058	-0.105	-0.067
Zn	0.509	0.443	0.188	0.316	0.523	0.729	0.707	0.653	0.628	-0.107	0.691	0.751	0.316	0.347	0.662	0.784

Table 13, Part A. Spearman rank correlation coefficients for 110 talus fine fraction and soil samples from the VG Zone area obtained using JASP statistical software. JASP is an open-source project supported by the University of Amsterdam.

	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Th	Ti	Tl	V	W	Zn
Mg	—															
Mn	0.234	—														
Mo	-0.185	0.443	—													
Na	0.088	-0.012	0.265	—												
Ni	0.551	0.163	0.071	0.184	—											
P	0.591	0.321	-0.078	-0.001	0.356	—										
Pb	0.046	0.860	0.573	0.065	0.106	0.113	—									
Sb	-0.053	0.138	0.295	0.010	0.403	-0.046	0.215	—								
Sc	0.582	0.732	0.276	0.211	0.491	0.527	0.605	0.117	—							
Sr	0.566	0.643	0.006	0.066	0.399	0.485	0.528	0.058	0.743	—						
Th	0.072	0.536	0.210	0.057	-0.084	0.318	0.544	-0.058	0.600	0.429	—					
Ti	0.239	-0.642	-0.501	0.107	0.240	0.019	-0.753	-0.012	-0.296	-0.247	-0.505	—				
Tl	0.191	0.512	0.063	-0.114	0.002	0.148	0.383	0.059	0.349	0.353	0.202	-0.282	—			
V	0.536	-0.243	-0.269	0.056	0.591	0.238	-0.404	0.199	0.020	0.044	-0.488	0.629	-0.090	—		
W	-0.165	-0.065	0.236	0.051	0.217	-0.144	0.040	0.233	-0.082	-0.079	-0.083	0.090	-0.169	-0.005	—	
Zn	0.378	0.865	0.466	0.117	0.282	0.459	0.829	0.121	0.784	0.615	0.528	-0.548	0.427	-0.173	-0.027	—

Table 13, Part B. Spearman rank correlation coefficients for 110 talus fine fraction and soil samples from the VG Zone area obtained using JASP statistical software. JASP is an open-source project supported by the University of Amsterdam.

Exploratory factor analysis results obtained using JASP statistical software are displayed in Table 14. Analysis options used include varimax orthogonal rotation and the data was log normalized before loading in an effort to make the data distribution more normal as recommended by Reimann et al. (2002). The number of factors was chosen by parallel analysis (JASP default). The number of variables (elements) included in the analysis was reduced to increase the validity of the validity of the outcome Reimann et al. (2002).

Factor 1 includes positive factor loadings for Bi, Ca, Fe, K, La, Mn, Pb and Zn along. The strongest loadings are for Pb (0.884), Mn (0.869), La (0.851), Zn (0.883), Ca (0.758) and K (0.742). This may reflect an association of these elements in Mn and Fe oxide alteration, sericitic alteration and/or carbonate alteration. The Spearman Rank correlation coefficient values are 0.668 between Mn and Fe, 0.865 between Mn and Zn, and 0.860 between Mn and Pb suggesting possible scavenging of metals during weathering by Mn and Fe oxides (e.g. Gasparatos, 2013). The high La and K loadings suggest there may also be a relationship between Factor 1 and felsic rocks (compare to Factor 2).

Factor 2 includes Al, Cu, Fe, Mg, Ni, and V (all positive). This may reflect a mafic to intermediate igneous rock component. The Spearman rank correlation coefficient between Al and Mg is 0.697.

Factor 3 contains As, Bi, Fe and Mo.

Factor 4 includes Au, Ag, Cu (factor loadings of between 0.630 and 0.765). This grouping is striking for not including some elements commonly associated with gold mineralization including As, Bi, Fe, Pb and Zn.

Element	Factor 1	Factor 2	Factor 3	Factor 4
Ag	-	-	-	0.765
Al	-	0.699	-	-
As	-	-	0.753	-
Au	-	-	-	0.679
Bi	0.653	-	0.466	-
Ca	0.758	-	-	-
Cu	-	0.486	-	0.630
Fe	0.527	0.508	0.428	-
K	0.742	-	-	-
La	0.851	-	-	-
Mg	-	0.813	-	-
Mn	0.869	-	-	-
Mo	-	-	0.754	-
Ni	-	0.802	-	-
Pb	0.884	-	-	-
V	-	0.840	-	-
Zn	0.833	-	-	-

Table 14. Matrix of factor (component) loadings determined by exploratory factor analysis using JASP statistical software. JASP is an open-source project supported by the University of Amsterdam.

VG Zone – Rock Sample Geochemistry

During the course of soil sampling one rock sample was also collected from the VG Property in 2018. This sample, number VG201, consists of angular quartz talus containing a minor amount of fracture-controlled, limonitic Fe-oxide and up to 0.5% pyrite (disseminated and along irregular, hairline fractures), It returned 6.14 g/t Au (by fire assay) and 9.2 g/t Ag. The field location of sample VG201 along with compiled rock data from previous reports is shown in Figure 20.

Results for selected element concentrations in sample VG201 are listed in Tables 15 and 16. Also shown are data reported by from MacKinnon and Wilkins (1988) for 8 rock samples from the VG Zone area that returned >1 g/t Au. Average Au and Ag values of these 9 samples are 18.91 g/t Au and 3.74 g/t Ag. Au to Ag ratios for these 9 samples range from 15.43 to 0.67 with an average Au to Ag ratio of 7.16. Sample descriptions indicate that the samples consist primarily of quartz vein material and contain little or no sulphide (mainly pyrite) consistent with the limited amount of Fe and S data available. Lead values are somewhat elevated in 3 samples (101 to 256 ppm Pb) and one sample displays minor As enrichment (59 ppm As). In addition, the Bi value of 7.4 ppm for sample VG201 is somewhat elevated relative to average values in upper continental crust.

Sample	Au g/t	Ag g/t	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Bi ppm
88-5C-5F-12	71.18	5.4	5.0	101.0	2	9.0		
88-5D-5F-5	1.05	0.1	5.0	3.0	14	4.0	2.0	2.0
88-5D-5F-10	4.01	2.1	5.0	14.0	14	2.0		
88-5D-5R-1	7.17	6.3	8.0	21.0	57	59.0	2.0	2.0
88-5D-10F-5	64.59	7.8	7.0	48.0	15	8.0		
88-5D-10F-6	3.09	0.2	6.0	13.0	11	5.0		
88-5D-10F-10	4.70	0.5	5.0	256.0	5	6.0		
88-5D-10R-3	8.23	2.1	59.0	20.0	67	2.0		
VG201	6.14	9.2	69.1	163.5	64	5.8	0.3	7.4
UCC Average	0.002	0.053	28	17	67	4.8	0.4	0.16

Table 15. Au, Ag, Cu, Pb, Zn, As, Sb and Bi values for samples collected in 1988 with >1 g/t Au from the VG Zone area (MacKinnon and Wilkins, 1988) and for 2018 sample VG201. Sb and Bi data are not available for the 1988 samples. Also listed are estimates of average element concentrations in the upper continental crust (UCC Average) from Rodnick and Gao (2014).

Sample	Fe %	S %	Ba ppm	Mo ppm	Se ppm	Te ppm	Hg ppm
88-5D-5F-5	0.56		27	1			
88-5D-5R-1	1.17		91	1			
VG201	0.54	0.11	46	2.2	<0.5	0.9	0.02
UCC Average	3.92	0.06	628	1.1	0.09	0.027	0.05

Table 16. Fe, S, Ba, Mo, Se, Te and Hg values for samples collected in 1988 with >1 g/t Au from the VG Zone area (MacKinnon and Wilkins, 1988) and for 2018 sample VG201. S, Se, Te and Hg data are not available for the 1988 samples. Also listed are estimates of average element concentrations in the upper continental crust (UCC Average) from Rodnick and Gao (2014) and Hu and Gao (2008, Te value).

VG Zone – Geochemical Compilation

Figure 21 shows a compilation of talus fines, soil and rock geochemical results for an area centred on the VG Property and extending from Watson River to Thompson Creek. The data show a significant anomalous gold concentrations underlying parts of the VG Property and that the intensity of anomalous values appears to increase, in general, toward the west.

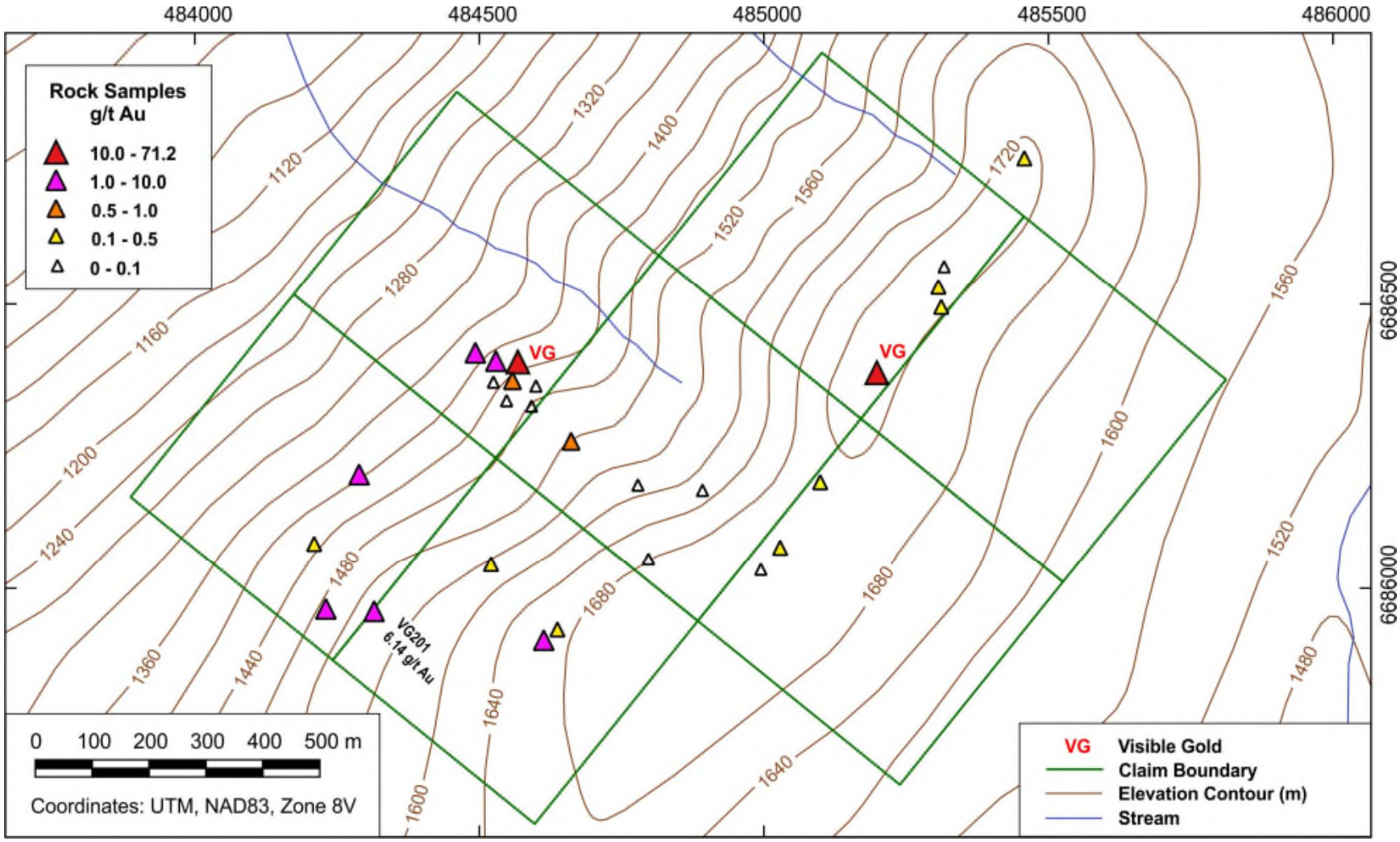

Figure 20. VG Property – rock sample gold results from previous exploration (MacKinnon and Wilkins, 1988; Glynn, 1998) and 2018 sampling (sample VG201).

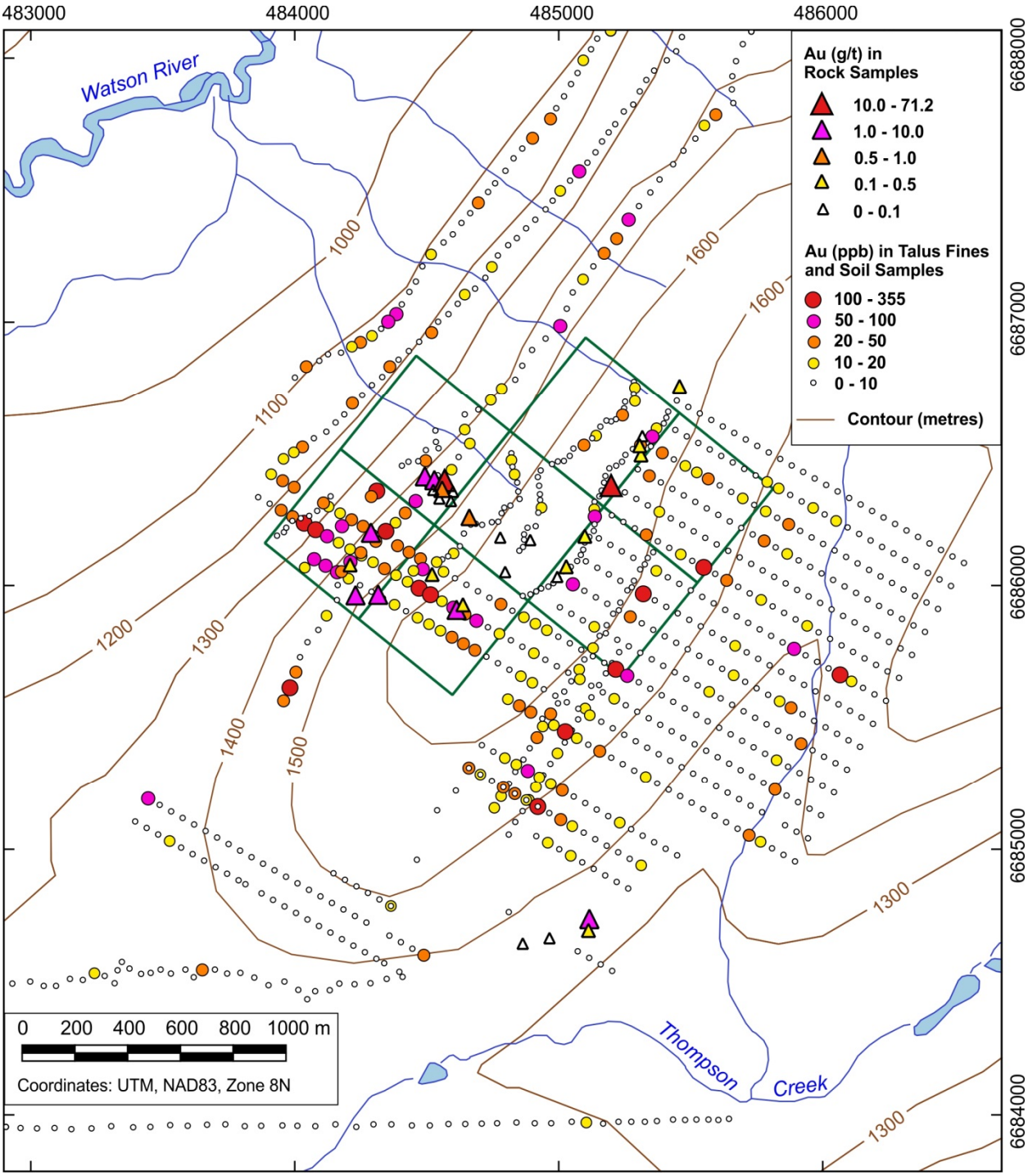

Figure 21. Geochemical compilation of gold results in the VG Property area showing both 2018 and pre-2018 data (MacKinnon and Wilkins, 1988; MacKinnon, 1990; Glynn, 1998).

Conclusions and Recommendations

Alligator Zone: The limited amount of talus fine fraction sampling completed on the Alligator Zone in 2018, which returned up to 560 ppm W and 96 ppm Mo, has demonstrated the potential for a tungsten and molybdenum resource. Previously recorded work on the Alligator Zone focused on copper and molybdenum and is likely that the tungsten potential of the Alligator Zone has not been previously investigated.

The Yukon Geological Survey occurrence details description of the Logtung (Northern Dancer) porphyry W deposit includes the following resource information:

> "A Preliminary Economic Assessment, dated march 2011, was prepared by AMC Mining Consultants for Largo Resources Ltd. The report states that a lower cut-off grade of 0.04% WO_3 was more appropriate than the 0.06% WO_3 cut-off grade used in the 2009 estimate, considering current metal prices and economic parameters. The 2011 mineral inventory estimate, reported at a 0.04% WO_3 cut-off grade, contains Measured mineral resources of 37.2 million tonnes grading 0.10% WO_3 and 0.030% Mo, and Indicated mineral resources of 266.1 million tonnes grading 0.09% WO3 and 0.03% Mo. Inferred mineral resources were estimated to be 241.9 million tonnes grading 0.06% WO_3 and 0.02% Mo."

The 0.04% WO_3 cut-off grade used for the Logtung (Northern Dancer) deposit is equivalent to 317 ppm W (0.0317% W).

At the Alligator Zone the average of 6 contiguous talus fine fraction samples collected across a distance of 125 m is 329 ppm W (0.0329% W) with a maximum value of 560 ppm W (0.0560% W). These samples occur within a group of 10 anomalous W samples collected across a distance of 230 m (open to the west) with an average of 218 ppm W (0.0218% W). The best Mo value obtained from these samples is 88 ppm (0.0088% Mo).

An extensive program of geological mapping, prospecting, talus fine fraction (+/- soil) sampling, rock sampling and mineralogy is recommended for the Alligator Property. The sulphide content of host rocks should be noted and, if deemed adequate to generate an I.P. response, an I.P. survey should be undertaken. If results are promising a drilling campaign would follow.

TK Zone: The grades of mineralized samples from the TK Zone are interesting but the volume of mineralized material appears limited. No further work is recommended.

VG Zone: The main part of the VG Zone gold anomaly, based on both (i) talus fines and soil results and (ii) rock (coarse talus) results, covers an area of about 800 m by 600 m that is underlain primarily by talus. The anomaly remains open to the west. Previous exploration within this area has located quartz vein material (coarse talus) containing visible gold that returned an assay of 1.884 oz/ton Au (64.59 g/t Au) in addition to several other rock samples in the 1 to 10 g/t Au range. The one sample of quartz vein material (coarse talus) collected in 2018 from this area returned 6.14 g/t Au. Talus fine fraction and soil samples have yielded results of up to 355 ppb (pre-2018 samples) and 117.5 ppb Au (2018 samples).

Recommendations include additional talus fines/soil sampling to the west of the existing coverage as well as prospecting and rock sampling.

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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).

January 27, 2019

Sherwood Park, Alberta

Glen Prior

Appendix 1

Rock Sample Descriptions

Location Coordinates: UTM Zone 8V, NAD83

Sample	Zone	East	North	Elev. (m)	Date	Description
VG201	08V	484315	6685954	1503	2018_08_26	Angular talus (~8x5x4 cm). Quartz vein material. White. Very weak, fracture-controlled, limonitic Fe-oxide. Trace to 0.5% very fine to fine grained pyrite - disseminated and along irregular hairline fractures.
TK201	08V	489020	6686953	1592	2018_08_25	Angular talus block (~20x10x10 cm) located ~5 m below TK Zone outcrop. Quartz vein material. Weak to moderate limonitic Fe-oxide along hairline fractures. Trace to 1% fine grained chalcopyrite along multidirectional hairline fractures commonly associated with dark reddish brown, goethitic Fe-oxide. Trace to 1% malachite on hairline fractures and rock surface.
TK202	08V	489016	6686958	1602	2018_08_25	Angular talus block / rubble (~30x20x15 cm) located ~2 m TK Zone outcrop. Quartz vein material. 1 to 5% very fine grained magnetite along irregular, multidirectional fractures and veinlets up to 5 mm wide. Trace amount of very fine grained chalcopyrite in blebs within magnetite veinlets. Overall impression is that magnetite is not very common in TK Zone.
TK203	08V	489017	6686968	1606	2018_08_25	Outcrop. A 5 to 10 cm wide Cu-bearing zone (sampled) occurs within an approximately 1.2 m wide quartz vein. The quartz vein exhibits minor amounts of fracture controlled and surface Fe-oxide alteration. The vein trend ~330° and in near vertical. The Cu-rich zone, which lies within the vein and is parallel to vein margins, contains trace to 1% fracture controlled malachite, trace amounts of chalcopyrite in disseminated blebs, and possible trace amounts of tetrahedrite.

Appendix 2

Talus Fine Fraction and Soil Sample Descriptions

Location Coordinates: UTM Zone 8V, NAD83

Sample	Zone	East	North	Elev. (m)	Date	Depth (cm)	Colour	Site	Material	Comment
AL401	08V	481493	6687840	1265	2018_08_19	20	medium orangy brown	talus slope	talus fine fraction	Within gossanous talus (near western limit) related to disseminated pyrite in granitoid). ~0.25% very fine roots.
AL402	08V	481504	6687845	1265	2018_08_19	25	medium orangy brown	talus slope	talus fine fraction	Within gossanous talus zone with gossanous outcrop ~25 m upslope. ~0.25% very fine roots.
AL403	08V	481514	6687845	1265	2018_08_19	25	medium orangy brown	talus slope	talus fine fraction	Within gossanous talus zone with gossanous outcrop ~15 m upslope. ~0.25% very fine roots.
AL404	08V	481524	6687841	1268	2018_08_19	25	medium orangy brown	talus slope	talus fine fraction	Within gossanous talus zone (near eastern limit) with gossanous outcrop ~25 m upslope. ~0.25% very fine roots.
AL405	08V	482067	6687809	1167	2018_08_29	20	medium brown to locally orangy brown	talus slope	talus fine fraction	In area where small gossanous outcrops and gossanous talus occur locally (east of main gossanous zone). ~0.25% very fine roots.
AL406	08V	482041	6687802	1165	2018_08_29	25	medium brown	talus slope	talus fine fraction	Just east of main gossanous zone. Patchy gossanous outcrop and a minor amount of gossanous talus present upslope). no roots.
AL407	08V	482022	6687784	1161	2018_08_29	20	medium (orangy) brown	talus slope	talus fine fraction	Moderately gossanous hillside. ~0.25% very fine roots.
AL408	08V	481998	6687773	1160	2018_08_29	25	medium orangy brown	talus slope	talus fine fraction	Moderately gossanous hillside. ~0.25% very fine roots.
AL409	08V	481974	6687764	1159	2018_08_29	30	medium orangy brown	talus slope	talus fine fraction	Moderately gossanous hillside. no roots.
AL410	08V	481949	6687756	1159	2018_08_29	25	medium orangy brown	talus slope	talus fine fraction	Moderately to strongly gossanous hillside. Sample ~ 1 m downslope from gossanous outcrop. ~0.25% very fine roots.
AL411	08V	481921	6687754	1162	2018_08_29	30	medium orangy brown	talus slope	talus fine fraction	Moderately gossanous hillside. no roots.
AL412	08V	481903	6687748	1165	2018_08_29	20	medium orangy brown	talus slope	talus fine fraction	Strongly gossanous hillside. ~3 m downslope from gossanous outcrop on which a light yellow surface stain is common (ferrimolybdite?). ~0.25% very fine roots.
AL413	08V	481887	6687742	1158	2018_08_29	20	medium orangy brown	talus slope	talus fine fraction	Strongly gossanous hillside. ~2 m below gossanous outcrop on which a light yellow surface stain is common (ferrimolybdite?). <0.25% very fine roots.

AL414	08V	481852	6687746	1157	2018_08_29	15	medium (orangy) brown	talus slope	talus fine fraction	Moderately to strongly gossanous hillside (near western limit of moderate to strong gossan zone). <0.25% very fine roots.
AL415	08V	481818	6687736	1165	2018_08_29	30	medium orangy brown	talus slope	talus fine fraction	Most of hillside is not gossanous but isolated areas of gossanous outcrop and talus exist (~20% of hillside). <0.25% very fine roots.
VG401	08V	485285	6686774	1618	2018_08_08	20	medium brown	talus slope	talus fine fraction	
VG402	08V	485289	6686751	1616	2018_08_08	30	medium brown	talus slope	talus fine fraction	
VG403	08V	485284	6686727	1616	2018_08_08	25	medium brown	talus slope	talus fine fraction	
VG404	08V	485289	6686700	1616	2018_08_08	40	medium brown	talus slope	talus fine fraction	
VG405	08V	485252	6686697	1596	2018_08_08	35	medium (orangy) brown	talus slope below large area of fresh talus containing large talus blocks	talus fine fraction	
VG406	08V	485248	6686672	1596	2018_08_08	30	medium brown	talus slope (less fine material than usual)	talus fine fraction	
VG407	08V	485242	6686646	1597	2018_08_08	25	medium brown	talus slope	talus fine fraction	
VG408	08V	485217	6686630	1611	2018_08_08	30	medium brown	talus slope	talus fine fraction	
VG409	08V	485199	6686622	1621	2018_08_08	30	medium brown	talus slope	talus fine fraction	
VG410	08V	485181	6686625	1628	2018_08_08	20	medium (orangy) brown	talus slope	talus fine fraction	
VG411	08V	485158	6686602	1626	2018_08_08	30	medium brown	talus slope	talus fine fraction	
VG412	08V	485142	6686568	1624	2018_08_08	20	medium brown	talus slope	talus fine fraction	
VG413	08V	485127	6686558	1623	2018_08_08	25	medium (orangy) brown	talus slope	talus fine fraction	

VG414	08V	485096	6686532	1623	2018_08_08	30	medium (orangy) brown	talus slope (west of large area of fresh, coarse talus)	talus fine fraction	
VG415	08V	485056	6686519	1614	2018_08_08	25	medium brown	on small "spur" within talus slope	talus fine fraction	~1% very fine roots.
VG416	08V	485415	6686659	1718	2018_08_09	20	medium brown	upper talus slope (~0.4 m below rim)	talus fine fraction / B-horizon soil (silt to gravel)	~1% very fine roots.
VG417	08V	485408	6686636	1719	2018_08_09	10	medium brown	upper talus slope (~0.3 m below rim)	talus fine fraction / B-horizon soil	~1% very fine roots.
VG419	08V	485371	6686596	1716	2018_08_09	25	medium brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~1% very fine roots.
VG420	08V	485355	6686564	1719	2018_08_09	20	medium brown	upper talus slope (~0.5 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG421	08V	485333	6686541	1714	2018_08_09	25	medium brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG422	08V	485310	6686532	1715	2018_08_09	20	medium brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG423	08V	485281	6686517	1716	2018_08_09	25	medium brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG424	08V	485253	6686495	1719	2018_08_09	20	dark brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG425	08V	485240	6686469	1715	2018_08_09	25	light brown with local white spots	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	White spots may be altered feldspar. ~0.25% very fine roots.

VG426	08V	485218	6686454	1716	2018_08_09	20	medium brown	upper talus slope (~2.0 m below rim)	talus fine fraction / B-horizon soil	~0.25% very fine roots.
VG427	08V	485192	6686444	1718	2018_08_09	30	medium brown	upper talus slope (~2.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG428	08V	485177	6686415	1718	2018_08_09	20	medium brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~0.25% very fine roots.
VG429	08V	485172	6686390	1717	2018_08_09	25	medium brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.25% very fine roots.
VG430	08V	485163	6686360	1718	2018_08_09	30	medium brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~0.25% very fine roots.
VG431	08V	485154	6686338	1723	2018_08_10	25	dark brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG432	08V	485136	6686317	1722	2018_08_10	20	dark (orangy) brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG433	08V	485135	6686289	1724	2018_08_10	20	dark brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG434	08V	485137	6686261	1721	2018_08_10	15	medium brown	upper talus slope (~2.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG435	08V	485136	6686232	1714	2018_08_10	15	medium brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG436	08V	485133	6686207	1723	2018_08_10	15	medium brown	upper talus slope (~0.4 m below rim)	talus fine fraction / B-horizon soil	~0.5% to 1.0% very fine roots.
VG437	08V	485116	6686184	1721	2018_08_10	25	dark brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.

VG438	08V	485099	6686163	1719	2018_08_10	15	dark brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG439	08V	485093	6686136	1718	2018_08_10	20	dark (orangy) brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG440	08V	485084	6686116	1716	2018_08_10	25	medium brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG441	08V	485070	6686093	1714	2018_08_10	15	medium brown	upper talus slope (~0.4 m below rim)	talus fine fraction / B-horizon soil	~1.0% very fine roots.
VG442	08V	485046	6686071	1714	2018_08_10	20	medium brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG443	08V	485019	6686054	1712	2018_08_10	20	medium brown	upper talus slope (~2.0 m below rim)	talus fine fraction / B-horizon soil	~0.25% very fine roots.
VG444	08V	484999	6686028	1713	2018_08_10	15	medium brown	upper talus slope (~1.0 m below rim)	talus fine fraction / B-horizon soil	~0.25% very fine roots.
VG445	08V	484980	6686009	1712	2018_08_10	20	medium brown with white spots	upper talus slope (~2.0 m below rim)	talus fine fraction / B-horizon soil	White spots (<5%, up to 1 mm across) may be altered feldspar. ~0.25% very fine roots.
VG446	08V	484961	6685996	1713	2018_08_10	25	medium brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG447	08V	484934	6685989	1713	2018_08_10	30	light brown with white spots	upper talus slope (~2.0 m below rim)	talus fine fractions / crumbly (weathered) bedrock	1 to 5% disseminated, white spots up to 4 mm across appear to be altered feldspar (some feldspar shapes remain)
VG448	08V	484915	6685978	1712	2018_08_10	30	medium brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~0.25% very fine roots.
VG449	08V	484893	6685967	1712	2018_08_10	20	medium brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~0.25% very fine roots.

VG450	08V	484864	6685961	1709	2018_08_10	30	medium (locally orangy) brown	upper talus slope (~1.5 m below rim)	talus fine fraction / B-horizon soil	~10 to 20 m from SW posts within claims. ~0.25% very fine roots.
VG451	08V	485042	6686491	1614	2018_08_11	20	dark brown	talus slope	talus fine fraction	
VG452	08V	485020	6686472	1595	2018_08_11	15	dark brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG453	08V	484997	6686470	1581	2018_08_11	20	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG454	08V	484975	6686460	1569	2018_08_11	10	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG455	08V	484932	6686436	1582	2018_08_11	15	medium brown	talus slope	talus fine fraction	~0.5% very fine roots.
VG456	08V	484921	6686411	1577	2018_08_11	15	dark brown	talus slope	talus fine fraction	~0.5% very fine roots.
VG457	08V	484926	6686378	1580	2018_08_11	20	medium brown	talus slope	talus fine fraction	~0.5% very fine roots.
VG458	08V	484929	6686346	1581	2018_08_11	20	medium brown	talus slope	talus fine fraction	~0.5% very fine roots.
VG459	08V	484930	6686324	1576	2018_08_11	25	light brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG460	08V	484935	6686295	1577	2018_08_11	30	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG461	08V	484923	6686276	1580	2018_08_11	20	medium brown	talus slope	talus fine fraction	
VG462	08V	484913	6686225	1582	2018_08_11	30	medium brown	talus slope	talus fine fraction	Coarse talus between samples VG461 and VG462. .
VG463	08V	484882	6686219	1580	2018_08_11	20	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG464	08V	484869	6686194	1579	2018_08_11	10	medium brown	talus slope	talus fine fraction	Coarse talus between samples VG463 and VG464. ~0.5% very fine roots.
VG465	08V	484869	6686174	1582	2018_08_11	25	medium brown	talus slope	talus fine fraction	
VG466	08V	484865	6686146	1587	2018_08_11	25	medium brown	talus slope	talus fine fraction	
VG467	08V	484851	6686132	1587	2018_08_11	25	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG468	08V	484533	6686587	1312	2018_08_22	30	medium brown	talus slope	talus fine fraction / B-horizon soil	~0.25% very fine roots.

VG469	08V	484535	6686544	1306	2018_08_22	20	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG470	08V	484545	6686520	1317	2018_08_22	20	medium brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG471	08V	484497	6686513	1312	2018_08_22	25	medium brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG472	08V	484496	6686473	1317	2018_08_22	25	medium brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG473	08V	484468	6686471	1315	2018_08_22	25	medium (orangy) brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG474	08V	484431	6686469	1315	2018_08_22	20	medium brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG475	08V	484406	6686454	1312	2018_08_22	35	medium brown	talus slope	talus fine fraction / B-horizon soil	~0.25% very fine roots.
VG476	08V	484311	6686358	1303	2018_08_22	20	medium brown	talus slope	talus fine fraction / B-horizon soil	Large, blocky talus between samples VG475 and VG476. Some trees in area. ~0.5% very fine roots.
VG477	08V	484290	6686337	1302	2018_08_22	30	medium orangy brown	talus slope	talus fine fraction / B-horizon soil	Buckbrush nearby. ~0.5% very fine roots.
VG478	08V	484179	6686225	1294	2018_08_22	25	medium brown	talus slope	talus fine fraction	Large, blocky talus between samples VG477 and VG478. ~0.25% very fine roots.
VG479	08V	484821	6686501	1507	2018_08_23	30	medium brown	talus slope	talus fine fraction / B-horizon soil	50 m (+) interval of coarse, blocky talus to north. ~0.25% very fine roots.
VG480	08V	484821	6686475	1505	2018_08_23	15	medium brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG481	08V	484825	6686450	1512	2018_08_23	15	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG482	08V	484833	6686421	1515	2018_08_23	15	light-medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG483	08V	484843	6686390	1514	2018_08_23	25	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG484	08V	484847	6686356	1514	2018_08_23	10	medium brown	talus slope	talus fine fraction / B-horizon soil	~10 cm thick layer (veneer) of talus/soil over talus. ~2% very fine roots.
VG485	08V	484852	6686328	1525	2018_08_23	20	medium brown	talus slope	talus fine fraction	~0.5% very fine roots.

VG486	08V	484817	6686303	1521	2018_08_23	30	medium brown	talus slope	talus fine fraction	
VG487	08V	484794	6686295	1520	2018_08_23	10	medium (orangy) brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG488	08V	484784	6686274	1509	2018_08_23	15	medium orangy brown	talus slope	talus fine fraction	
VG489	08V	484771	6686242	1503	2018_08_23	20	medium brown	talus slope	talus fine fraction	
VG490	08V	484747	6686240	1501	2018_08_23	25	medium brown	talus slope	talus fine fraction / B-horizon soil	~30 cm soil-bearing veneer over talus. ~0.5% very fine roots.
VG491	08V	484710	6686230	1505	2018_08_23	25	medium brown	talus slope	talus fine fraction	Isolated pocket of talus containing some fine-grained material down slope from large boulder within extensive area of large, blocky talus. ~0.5% very fine roots.
VG492	08V	484686	6686234	1503	2018_08_23	20	medium brown	talus slope	talus fine fraction	Isolated pocket of talus containing some fine-grained material down slope from large boulder within extensive area of large, blocky talus. ~0.5% very fine roots.
VG493	08V	484667	6686231	1504	2018_08_23	15	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG494	08V	484641	6686197	1503	2018_08_23	20	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG495	08V	484626	6686149	1499	2018_08_23	20	medium brown	talus slope	talus fine fraction	~0.5% very fine roots.
VG496	08V	484602	6686122	1496	2018_08_23	15	medium brown	talus slope	talus fine fraction	~0.5% very fine roots.
VG497	08V	484581	6686111	1499	2018_08_23	20	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG498	08V	484559	6686099	1503	2018_08_23	35	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG499	08V	484538	6686089	1503	2018_08_23	30	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG500	08V	484485	6686062	1501	2018_08_23	20	medium brown	talus slope	talus fine fraction	~0.25% very fine roots.
VG501	08V	484450	6686056	1488	2018_08_23	15	medium brown	talus slope	talus fine fraction	
VG502	08V	484038	6686068	1313	2018_08_26	15	medium brown	talus slope	talus fine fraction	~1% very fine roots.

VG503	08V	483933	6686189	1229	2018_08_26	20	light brown	talus slope (party vegetated)	talus fine fraction / B-horizon soil	Near upper limit of trees (~1 m downslope from spruce tree). Buckbrush abundant nearby. ~0.5% very fine roots.
VG504	08V	483959	6686202	1223	2018_08_26	35	medium brown	talus slope (vegetated)	B-horizon soil	B horizon soil (silt to very fine sand) beneath 20 cm Ah horizon (moss). No cobbles or boulders nearby. No Ae horizon or visual evidence of enrichment in upper part of B horizon. Buckbrush, alders, moss and Labrador tea present. present.
VG505	08V	483968	6686219	1221	2018_08_26	25	light brown	talus slope (vegetated)	B-horizon soil / talus fine fraction	B horizon soil (mainly silt to very fine sand). Clasts up to boulder size present at site. 2 cm thick Ae horizon, no Ae horizon, no visual evidence of enrichment in upper B horizon. Buck brush moss and minor lichen present. A few spruce and pine trees nearby (near upper limit of trees). ~0.5% very fine roots.
VG506	08V	483991	6686245	1224	2018_08_26	25	light (orangy) brown	talus slope (vegetated)	B-horizon soil / talus fine fraction	B horizon soil (silt to very coarse sand with silt to very fine sand dominant). Site includes larger clasts up to boulders. 2 cm Ah horizon, 2 cm Ae horizon, no visual evidence of upper B horizon enrichment. Buck brush and moss present. ~0.5% very fine roots.
VG507	08V	484023	6686255	1226	2018_08_26	30	light to medium brown	talus slope (vegetated)	B-horizon soil / talus fine fraction	B horizon soil (silt to very coarse sand with silt to very fine sand dominant). Site includes larger clasts up to boulders. Buck brush, moss, and lichen present. Spruce trees nearby (near upper limit of trees) ~0.5% very fine roots.
VG508	08V	484055	6686264	1231	2018_08_26	30	light brown	talus slope (vegetated)	B-horizon soil / talus fine fraction	B horizon soil (silt to very coarse sand with silt to fine sand dominant). Site includes larger clasts up to boulders. 1 cm Ah horizon, no Ae horizon, no visual evidence of upper B horizon enrichment. Buck brush and minor amounts of moss present. Spruce trees nearby (widely spaced). present.
VG509	08V	484085	6686283	1235	2018_08_26	30	light brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.
VG510	08V	484109	6686313	1241	2018_08_26	35	medium brown	talus slope	talus fine fraction	~0.5% very fine roots.
VG511	08V	484136	6686338	1240	2018_08_26	25	medium brown	talus slope	talus fine fraction / B-horizon soil	~0.5% very fine roots.

Appendix 3

Rock Analytical Results

Multi-Element Analyses

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

Company:	Mr. Glen Prior	TSL Report:	S55928
Geologist:	G. Prior	Date Received:	Nov 26, 2018
Project:	VG-TK	Date Reported:	Dec 05, 2018
Purchase Order:		Invoice:	76147

Sample Type:	Number	Size Fraction	Sample Preparation
Rock	4	Reject ~ 70% -10 mesh (1.70 mm) Pulp ~ 95% -150 mesh (106 µm)	Crush, Riffle Split, Pulverize
Pulp	0		None

ICP-MS Aqua Regia Digestion HCl-HNO_3

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
Ag	0.1 ppm	100 ppm
Al *	0.01 %	10 %
As	0.5 ppm	10000 ppm
Au	0.5 ppb	100 ppm
B *	1 ppm	2000 ppm
Ba *	1 ppm	1000 ppm
Bi	0.1 ppm	2000 ppm
Ca *	0.01%	40 %
Cd	0.1 ppm	2000 ppm
Co	0.1 ppm	2000 ppm
Cr *	1 ppm	10000 ppm
Cu	0.1 ppm	10000 ppm
Fe *	0.01%	40 %
Ga *	1 ppm	1000 ppm
Hg	0.01 ppm	100 ppm
K *	0.01%	10 %
La *	1 ppm	10000 ppm
Mg *	0.01%	30 %

Element Name	Lower Detection Limit	Upper Detection Limit
Mn *	1 ppm	10000 ppm
Mo	0.1 ppm	2000 ppm
Na *	0.001%	10 %
Ni	0.1 ppm	10000 ppm
P *	0.001%	5 %
Pb	0.1 ppm	10000 ppm
S	0.05 %	10 %
Sb	0.1 ppm	2000 ppm
Sc	0.1 ppm	100 ppm
Se	0.5 ppm	1000 ppm
Sr *	1 ppm	10000 ppm
Te	1 ppm	2000 ppm
Th *	0.1 ppm	2000 ppm
Ti *	0.001%	10 %
Tl	0.1 ppm	1000 ppm
U *	0.1 ppm	2000 ppm
V *	2 ppm	10000 ppm
W *	0.1 ppm	100 ppm
Zn	1 ppm	10000 ppm

TSL LABORATORIES INC.

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

Mr. Glen Prior
Attention: G. Prior
Project: VG-TK
Sample: 4 Rock

Report No: S55928
Date: December 5, 2018

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P
Sample	ppm	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	%
TK201	>100.0	0.07	0.6	29.6	<20	39	971.9	0.07	1.8	1.1	151	>10000.0	1.6	<1	<0.01	<0.01	<1	0.03	57	152.5	<0.001	4.8	<0.001
TK202	>100.0	0.45	<0.5	69.1	<20	38	>2000.0	0.85	15.6	4.4	149	747.8	4.49	2	<0.01	0.01	<1	0.76	306	37.7	<0.001	9.6	0.004
TK203	>100.0	0.2	0.7	14.3	<20	10	548.2	1.08	3.8	1.7	167	1739.3	0.8	<1	<0.01	0.02	<1	0.62	328	142.5	<0.001	5.9	0.005
VG201	9.2	0.02	5.8	7436	<20	46	7.4	<0.01	1.9	0.9	160	69.1	0.54	<1	0.02	<0.01	<1	<0.01	22	2.2	<0.001	3.3	<0.001
STD OREAS45EA	0.3	3.13	11.2	47.4	<20	139	0.2	0.03	<0.1	49.5	817	674.4	21.48	12	0.02	0.06	7	0.1	392	1.5	0.017	367.4	0.028
STD DS11	1.6	1.08	42.7	67.9	<20	416	11.3	1	2	12.9	54	144.8	3.04	4	0.23	0.39	17	0.79	997	13.5	0.067	73.7	0.069
STD OREAS262	0.5	1.17	35	51.6	<20	244	1	2.88	0.5	25.9	38	112.1	3.13	4	0.16	0.29	14	1.11	521	0.6	0.063	58.6	0.038
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 30 g sample is digested with 3:1 HCl-HNO3
at 95C for 1 hour and diluted with DI H2O.

Signed:_____
Mark Acres - Quality Assurance

TSL LABORATORIES INC.

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

Mr. Glen Prior
Attention: G. Prior
Project: VG-TK
Sample: 4 Rock

Report No: S55928
Date: December 5, 2018

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
TK201	4006.2	0.58	<0.1	0.2	11.2	10	40.7	<0.1	<0.001	<0.1	3	>100.0	22
TK202	4479.4	0.15	0.2	0.9	24.6	18	221.8	<0.1	0.002	<0.1	14	67.1	60
TK203	2424.7	<0.05	0.1	0.7	4.9	34	20.8	<0.1	<0.001	<0.1	10	>100.0	47
VG201	163.5	0.11	0.3	<0.1	<0.5	1	0.9	<0.1	<0.001	<0.1	<1	0.8	64
STD OREAS45EA	13.2	<0.05	0.2	76.9	0.9	4	<0.2	9.6	0.093	<0.1	291	<0.1	29
STD DS11	130.4	0.28	6.2	3.1	2.2	63	4.2	7	0.084	4.7	48	2.4	323
STD OREAS262	52.5	0.27	2.2	3	<0.5	34	0.2	8.4	0.003	0.4	21	<0.1	140
BLK	0.2	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<1	<0.1	<1

A 30 g sample is digested with 3:1 HCl-HNO3
at 95C for 1 hour and diluted with DI H2O.

Signed: _____
Mark Acres - Quality Assurance

Appendix 4

Talus Fine Fraction and Soil Analytical Results

Multi-Element Analyses

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

Company:	Mr. Glen Prior	TSL Report:	S55927
Geologist:	G. Prior	Date Received:	Nov 26, 2018
Project:	VG-AL	Date Reported:	Dec 13, 2018
Purchase Order:		Invoice:	76175

Sample Type:	Number	Size Fraction	Sample Preparation
Soil	125	-80 mesh	Dry, Screen

ICP-MS Aqua Regia Digestion $HCl-HNO_3$

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
Ag	0.1 ppm	100 ppm
Al *	0.01 %	10 %
As	0.5 ppm	10000 ppm
Au	0.5 ppb	100 ppm
B *	1 ppm	2000 ppm
Ba *	1 ppm	1000 ppm
Bi	0.1 ppm	2000 ppm
Ca *	0.01%	40 %
Cd	0.1 ppm	2000 ppm
Co	0.1 ppm	2000 ppm
Cr *	1 ppm	10000 ppm
Cu	0.1 ppm	10000 ppm
Fe *	0.01%	40 %
Ga *	1 ppm	1000 ppm
Hg	0.01 ppm	100 ppm
K *	0.01%	10 %
La *	1 ppm	10000 ppm
Mg *	0.01%	30 %

Element Name	Lower Detection Limit	Upper Detection Limit
Mn *	1 ppm	10000 ppm
Mo	0.1 ppm	2000 ppm
Na *	0.001%	10 %
Ni	0.1 ppm	10000 ppm
P *	0.001%	5 %
Pb	0.1 ppm	10000 ppm
S	0.05 %	10 %
Sb	0.1 ppm	2000 ppm
Sc	0.1 ppm	100 ppm
Se	0.5 ppm	1000 ppm
Sr *	1 ppm	10000 ppm
Te	1 ppm	2000 ppm
Th *	0.1 ppm	2000 ppm
Ti *	0.001%	10 %
Tl	0.1 ppm	1000 ppm
U *	0.1 ppm	2000 ppm
V *	2 ppm	10000 ppm
W *	0.1 ppm	100 ppm
Zn	1 ppm	10000 ppm

TSL LABORATORIES INC.

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

Mr. Glen Prior
Attention: D. G. Prior
Project: VG-AL
Sample: 125 Soil

Report No: S55927
Date: December 13, 2018

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P
Sample	ppm	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	%
AL401	0.3	2.48	2.2	10.5	<20	596	10.9	0.36	0.4	8.2	17	153.9	4.29	6	0.02	0.29	23	0.65	382	59.6	0.015	11.6	0.102
AL402	0.1	1.74	0.8	2.9	<20	349	6.5	0.27	<0.1	3.1	17	12.8	3.27	7	<0.01	0.64	13	0.98	205	38.4	0.014	7.5	0.104
AL403	0.4	2.05	1.4	10	<20	376	15.1	0.34	1	6.5	12	21.3	3.84	5	<0.01	0.26	36	0.66	226	96.1	0.045	8.4	0.08
AL404	0.2	3.73	1.2	8.5	<20	534	0.9	0.99	0.8	30.9	113	41.2	5.09	10	<0.01	0.49	46	2.24	1300	13.2	0.021	43.4	0.098
AL405	0.6	1.76	<0.5	2.4	<20	868	1.2	2.39	0.2	8.6	3	101	1.71	2	<0.01	0.1	25	0.37	204	6.4	0.056	5.2	0.091
AL406	0.5	1.27	0.8	3	<20	236	2	0.3	0.4	14.3	8	321.6	3.43	4	0.01	0.4	16	0.66	578	57.3	0.012	7.2	0.113
AL407	0.5	1.15	0.6	2.2	<20	211	4.2	0.23	0.2	7.8	6	231.2	2.95	4	0.01	0.29	13	0.58	450	63.8	0.011	5.8	0.093
AL408	1.8	1.88	0.9	4.8	<20	143	4.8	0.11	0.3	7.4	9	250.5	3.77	5	0.01	0.17	9	0.76	422	54.8	0.008	7.2	0.089
AL409	0.8	1.21	0.8	3.4	<20	246	4.9	0.17	0.2	4.3	7	185.4	3.59	4	<0.01	0.35	16	0.68	341	60.2	0.017	4.7	0.119
AL410	0.9	1.62	1.4	3.5	<20	357	10.1	0.18	0.4	4.4	10	196	4.99	5	0.05	0.3	18	0.65	321	38.1	0.022	6	0.131
AL411	0.3	1.23	<0.5	1.7	<20	218	3	0.27	0.2	8.9	6	146.2	3.14	4	0.01	0.37	13	0.66	482	47.2	0.015	5.4	0.101
AL412	0.6	1.57	1	2.1	<20	246	7.5	0.14	0.2	4.1	10	116.6	4.44	6	0.03	0.41	9	0.9	460	26.8	0.031	5.5	0.132
AL413	1.2	1.18	<0.5	7.9	<20	704	10.1	0.19	0.2	5	4	75.8	3.35	3	0.04	0.1	10	0.66	382	88	0.017	3	0.146
AL414	0.3	1.44	0.7	3.4	<20	244	5.4	0.25	0.1	8.5	9	104.1	3.26	5	0.03	0.38	12	0.75	495	22.5	0.02	6.3	0.118
AL415	0.4	1.73	1.1	3.5	<20	248	7.5	0.32	<0.1	7.3	9	88.4	2.99	5	<0.01	0.31	13	0.69	364	22.6	0.031	7.5	0.076
AL415 Re	0.4	1.68	1.2	16.4	<20	231	7.2	0.32	<0.1	8	9	84.9	3.05	5	<0.01	0.29	11	0.68	357	21	0.029	7.5	0.075
VG401	<0.1	1.08	3.3	2.1	<20	74	0.4	0.14	0.2	4.2	12	8.4	1.9	4	<0.01	0.09	22	0.32	451	0.9	0.009	7.3	0.023
VG402	0.2	1.21	1.6	13.8	<20	227	0.2	0.36	0.3	7.2	8	15.7	1.78	4	0.02	0.13	62	0.5	795	0.7	0.008	7.2	0.067
VG403	0.2	0.83	2.1	6.2	<20	280	0.4	0.35	0.4	6	8	19.1	1.78	3	0.01	0.13	41	0.32	1044	1	0.007	6.2	0.062
VG404	0.7	0.95	0.9	17.3	<20	193	0.7	0.48	0.7	4.7	6	17.7	1.67	4	0.01	0.19	54	0.36	875	0.7	0.002	4.3	0.057
VG405	0.3	1.25	2.3	3.7	<20	247	0.3	0.44	0.4	9.4	9	26.4	2.36	4	0.02	0.11	46	0.4	1222	1.8	0.006	9.2	0.083
VG406	0.2	1.18	1.1	5.4	<20	291	0.5	0.4	0.2	6	4	16.1	1.81	4	0.02	0.16	47	0.48	726	0.6	0.006	5.2	0.091
VG407	0.5	1.45	1.4	32.2	<20	659	0.7	0.49	0.4	7.1	7	21.9	2.06	5	0.02	0.13	52	0.6	1069	0.6	0.005	6	0.092
VG408	0.2	1.35	0.8	4.1	<20	242	0.3	0.52	0.4	8.6	12	18.7	2.27	6	0.02	0.11	86	0.86	862	0.3	0.006	10.1	0.09
VG409	0.2	1.13	1.1	5.1	<20	76	0.4	0.5	0.9	5.3	7	15.1	1.61	4	0.07	0.14	347	0.32	904	0.4	0.002	5.6	0.077
VG410	0.1	1.72	3.2	6.2	<20	242	0.9	0.42	0.3	9.7	15	17.3	2.92	6	0.03	0.07	65	0.56	1786	4.2	0.003	10.2	0.071
VG411	0.1	0.94	0.9	4.5	<20	100	0.5	0.38	0.5	3.8	5	11.2	1.49	3	0.02	0.09	103	0.29	1206	0.3	<0.001	4.2	0.042
VG412	0.2	1.39	1.3	10.6	<20	127	0.3	0.43	0.3	8.3	9	18.4	2.33	5	0.02	0.1	50	0.67	982	0.4	0.003	7.7	0.078
VG413	0.2	0.76	1.5	4.9	<20	128	0.6	0.27	0.5	5.2	4	14.7	1.93	3	0.03	0.11	71	0.21	1012	0.8	0.003	3.7	0.063
VG414	0.1	1.53	2.9	23.4	<20	943	0.6	0.61	0.4	12.4	5	25.7	2.88	5	0.02	0.17	45	0.62	1764	1	<0.001	5.3	0.087
VG415	<0.1	1.08	2.4	1.2	<20	81	1.1	0.17	0.2	3.9	10	9.3	2.08	4	0.02	0.11	20	0.28	716	0.8	<0.001	4.5	0.057
VG416	<0.1	1.5	2.6	8.6	<20	231	0.3	0.14	0.2	6.3	11	16.1	1.91	5	0.03	0.07	25	0.44	718	0.4	0.002	7.5	0.059
VG417	<0.1	1.62	2.6	8.5	<20	355	0.2	0.16	0.2	6.7	11	18.8	1.99	5	0.01	0.07	25	0.55	816	0.4	<0.001	8.1	0.045
VG419	<0.1	0.93	2.2	16.8	<20	117	0.1	0.2	0.3	4.5	10	8.4	1.52	3	0.02	0.05	23	0.32	383	0.4	<0.001	6.4	0.056
VG420	0.1	1	1.5	83.8	<20	957	0.7	0.25	0.2	5.1	9	33.7	1.61	4	0.01	0.06	36	0.35	554	0.3	0.002	6	0.051
VG421	<0.1	0.9	1.4	1	<20	232	0.2	0.17	0.2	4.2	8	8.3	1.5	3	0.01	0.05	26	0.3	453	0.3	<0.001	5.3	0.051
VG422	<0.1	0.99	1.7	42.5	<20	135	0.4	0.21	0.2	6.6	9	10.9	1.64	4	0.01	0.07	22	0.33	509	0.7	0.007	5.9	0.053
VG423	<0.1	0.73	1.1	6.6	<20	154	0.1	0.22	0.2	4.3	7	7.3	1.41	3	<0.01	0.07	25	0.3	424	0.3	0.007	4.9	0.053
VG424	<0.1	1.37	1.9	1.1	<20	67	0.3	0.2	0.3	4.9	9	9.4	1.76	5	0.02	0.09	133	0.32	1379	0.5	0.007	5.6	0.045
VG425	<0.1	1.32	1.1	2.5	<20	154	0.2	0.39	0.2	6.5	7	12.6	1.73	5	<0.01	0.11	39	0.58	644	0.2	0.006	5.4	0.067

A 30 g sample is digested with 3:1 HCl-HNO3
at 95C for 1 hour and diluted with DI H2O.

Signed:_____
Mark Acres - Quality Assurance

TSL LABORATORIES INC.

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

Mr. Glen Prior
Attention: D. G. Prior
Project: VG-AL
Sample: 125 Soil

Report No: S55927
Date: December 13, 2018

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P
Sample	ppm	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	%
VG426	<0.1	0.9	1.1	1.9	<20	100	0.1	0.19	<0.1	4.5	9	8.8	1.94	4	<0.01	0.06	20	0.34	385	0.2	0.006	4.6	0.065
VG427	<0.1	1.22	2.5	1.6	<20	118	0.2	0.19	0.2	5.9	10	11.2	2.14	5	0.01	0.08	17	0.44	562	0.6	0.007	6.2	0.065
VG428	<0.1	1.11	1.3	3.6	<20	93	0.2	0.31	0.1	6.3	8	10.9	1.82	4	<0.01	0.07	23	0.49	525	0.4	0.007	5.1	0.061
VG429	<0.1	1.03	1.3	6.8	<20	82	<0.1	0.19	<0.1	5.1	7	8	1.74	4	<0.01	0.07	17	0.35	374	0.3	0.006	4.7	0.058
VG430	<0.1	1.16	1.7	5.4	<20	103	0.2	0.2	0.1	5.7	9	14.3	2.15	5	0.01	0.07	20	0.44	488	0.4	0.006	5.8	0.066
VG431	<0.1	1.21	1.2	4.5	<20	107	0.1	0.21	0.1	5.9	8	10.5	1.97	4	0.02	0.07	17	0.43	436	0.3	0.006	5.2	0.072
VG432	<0.1	1.21	1.5	6.6	<20	82	0.2	0.2	<0.1	6.3	8	11.1	2.07	4	<0.01	0.1	15	0.44	419	0.3	0.006	6	0.068
VG433	0.2	0.97	4.2	16.4	<20	83	0.2	0.18	0.2	5.2	8	10.4	1.86	3	0.02	0.06	22	0.34	396	0.3	0.006	4.6	0.06
VG434	0.3	1.45	1.9	53.4	<20	185	0.3	0.33	0.2	6.8	10	37.4	2.12	6	0.02	0.09	26	0.58	667	0.3	0.009	6.8	0.078
VG434 Re	0.4	1.43	2.3	51.9	<20	174	0.4	0.31	0.1	6.7	9	35.6	2.07	5	0.01	0.08	21	0.55	638	0.3	0.008	6.5	0.074
VG435	<0.1	1.16	1.8	6.7	<20	99	0.2	0.25	0.1	5.6	8	9.3	1.85	5	<0.01	0.06	15	0.46	491	0.3	0.007	5.4	0.072
VG436	<0.1	1.06	1.3	0.8	<20	74	<0.1	0.18	0.1	5.3	8	8	1.67	4	<0.01	0.1	16	0.46	433	0.2	0.008	5.1	0.047
VG437	<0.1	1.02	1.6	<0.5	<20	91	0.1	0.12	0.2	4.2	9	7.4	1.68	4	0.01	0.06	11	0.27	522	0.7	0.006	4.7	0.05
VG438	<0.1	1.24	2.1	2.6	<20	84	0.2	0.1	0.1	5.2	10	8.8	1.85	5	0.02	0.05	16	0.34	576	0.6	0.006	5.5	0.045
VG439	<0.1	1.01	1.6	1.1	<20	64	0.1	0.16	<0.1	3.9	9	7.7	1.87	4	0.02	0.05	16	0.27	268	0.4	0.005	4.6	0.071
VG440	<0.1	0.89	1	0.9	<20	59	<0.1	0.15	0.1	4.1	7	5.9	1.42	3	<0.01	0.07	16	0.3	357	0.2	0.007	3.7	0.049
VG441	<0.1	2.18	2.3	1.7	<20	214	0.2	0.38	0.3	8.3	19	15.7	2.43	7	0.02	0.09	32	0.81	876	0.4	0.008	9.3	0.048
VG442	<0.1	1.23	1.6	1	<20	137	0.2	0.26	0.1	4.8	7	8.5	1.58	4	<0.01	0.07	27	0.36	597	0.3	0.006	4.4	0.05
VG443	<0.1	0.77	0.6	<0.5	<20	91	0.4	0.17	0.3	1.6	3	3.7	1.08	3	0.01	0.21	36	0.15	602	0.2	0.006	1.8	0.024
VG444	<0.1	0.85	1.4	2.6	<20	88	0.1	0.3	0.2	4.7	9	7.5	1.54	3	<0.01	0.08	26	0.34	486	0.3	0.009	5.3	0.067
VG445	<0.1	1.44	0.9	1.9	<20	170	<0.1	0.58	0.2	6	7	11.3	1.82	5	<0.01	0.18	28	0.57	796	0.2	0.004	5.8	0.078
VG446	<0.1	1.09	2.3	0.9	<20	68	0.2	0.14	<0.1	3.7	9	6.7	1.71	5	0.01	0.07	16	0.33	235	0.6	0.007	5.1	0.045
VG447	<0.1	1.68	1	1.4	<20	164	0.2	0.53	<0.1	8.5	10	17.9	2.03	7	0.01	0.2	52	0.9	709	0.1	0.006	8	0.094
VG448	<0.1	0.71	1.4	6.5	<20	96	0.1	0.3	0.2	4.6	8	7.1	1.42	3	<0.01	0.07	23	0.34	420	0.3	0.01	4.8	0.08
VG449	<0.1	1.08	2.5	0.6	<20	81	0.1	0.18	0.1	5	11	8.5	1.7	4	0.01	0.09	17	0.37	376	0.4	0.007	6.7	0.044
VG450	<0.1	1.43	2.1	1.9	<20	108	0.4	0.51	0.6	8.8	6	10.1	3.68	5	0.01	0.16	115	0.27	1757	0.5	0.009	6.1	0.106
VG451	0.1	1.52	2.8	3.2	<20	189	0.5	0.52	0.5	10.3	16	15.1	3.17	6	0.02	0.13	48	0.63	1188	0.8	0.011	8.8	0.093
VG452	<0.1	1.14	2.2	2.8	<20	123	0.6	0.45	0.4	5	8	9.8	1.99	4	0.02	0.14	75	0.3	1161	1.2	0.009	5.7	0.066
VG453	0.2	1.14	2.1	4.4	<20	115	0.8	0.36	0.4	5.4	6	12.5	1.98	4	0.01	0.12	60	0.33	849	1	0.006	4.6	0.062
VG454	<0.1	1.21	1.9	2.5	<20	91	0.5	0.35	0.2	5.2	9	10.5	2.13	5	0.02	0.1	50	0.38	925	0.8	0.008	5.9	0.072
VG455	<0.1	1.98	1.9	0.9	<20	79	0.4	0.46	0.2	4	7	4.4	2.7	7	0.02	0.17	135	0.35	1067	0.6	0.008	5.4	0.035
VG456	<0.1	1.89	4.2	2.8	<20	119	0.8	0.33	0.1	7.8	17	11.4	2.75	8	0.02	0.07	109	0.5	1282	1	0.01	11.4	0.058
VG457	<0.1	1.32	2.3	4.1	<20	87	0.8	0.22	0.2	4.3	10	8.8	1.79	5	<0.01	0.08	41	0.31	706	0.9	0.009	6.7	0.032
VG458	0.1	1.4	3.3	1.9	<20	117	0.5	0.12	0.4	5.1	14	10.9	2.24	5	0.02	0.12	35	0.36	817	1.3	0.009	8.4	0.055
VG459	<0.1	0.98	2.5	2.6	<20	132	0.4	0.25	<0.1	4.5	12	7	1.95	3	<0.01	0.08	32	0.3	595	1.2	0.01	7	0.046
VG460	0.2	1.08	1.8	11	<20	184	1.1	0.44	1	7.2	10	18.4	2.15	3	<0.01	0.12	57	0.42	964	0.9	0.01	7.5	0.076
VG461	<0.1	0.76	1.1	0.7	<20	122	0.3	0.2	0.2	2.2	3	3.7	1.17	2	<0.01	0.18	58	0.15	856	0.6	0.006	2.5	0.024
VG462	<0.1	0.66	0.8	1.6	<20	51	0.2	0.18	0.1	3.5	6	8.4	1.4	3	<0.01	0.09	35	0.26	483	0.4	0.008	4.2	0.05
VG463	<0.1	1.01	1.8	1.2	<20	87	0.5	0.16	0.3	5	8	9.4	2.07	4	0.01	0.09	29	0.26	897	1.1	0.008	5	0.052
VG464	0.1	1.25	1.3	6.6	<20	239	0.5	0.29	0.5	5	5	8.2	2.49	4	<0.01	0.13	130	0.36	2150	2.1	0.009	4.5	0.041

A 30 g sample is digested with 3:1 HCl-HNO3
at 95C for 1 hour and diluted with DI H2O.

Signed:_____
Mark Acres - Quality Assurance

TSL LABORATORIES INC.

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

Mr. Glen Prior
Attention: D. G. Prior
Project: VG-AL
Sample: 125 Soil

Report No: S55927
Date: December 13, 2018

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P
Sample	ppm	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	%
VG465	0.2	0.62	1	4.1	<20	117	1.7	0.28	1	5.3	5	16	2.09	2	<0.01	0.16	65	0.17	1269	1.3	0.008	4.6	0.056
VG466	<0.1	1.18	1.5	5.5	<20	82	0.7	0.34	0.2	6.2	9	11.4	2.39	4	<0.01	0.13	89	0.37	1323	1.4	0.01	6.5	0.071
VG467	<0.1	1.16	1.3	3.2	<20	81	0.3	0.3	0.3	4.7	6	6.3	1.86	4	<0.01	0.15	69	0.37	936	0.6	0.006	3.7	0.057
VG468	<0.1	0.71	1.7	2.7	<20	55	0.1	0.12	0.1	3.2	7	6	1.59	3	<0.01	0.07	12	0.23	167	0.2	0.009	3.9	0.036
VG469	0.1	0.78	1.9	3.1	<20	145	0.5	0.33	0.3	4.7	9	11.7	1.89	3	<0.01	0.11	34	0.33	489	0.8	0.009	5.5	0.08
VG469 Re	0.2	0.75	1.4	24	<20	132	0.5	0.34	<0.1	4.3	9	11.3	2	3	<0.01	0.1	34	0.34	518	0.8	0.012	6.4	0.065
VG470	0.1	0.75	1.9	5.3	<20	103	0.4	0.29	0.1	4.4	8	9.3	1.85	3	0.02	0.08	41	0.33	439	0.5	0.01	4.6	0.067
VG471	<0.1	1.08	2.8	<0.5	<20	62	0.2	0.15	0.1	3.6	10	6.4	1.61	3	0.03	0.06	15	0.27	184	0.4	0.008	5.1	0.04
VG472	0.2	0.97	1.8	20.5	<20	114	0.6	0.32	0.2	5.6	9	17.4	1.96	3	<0.01	0.13	37	0.43	416	2.8	0.009	6.2	0.065
VG473	<0.1	1.11	3	4.7	<20	53	0.2	0.11	0.2	4.1	11	7	1.93	4	0.01	0.06	15	0.31	318	0.7	0.009	6.9	0.035
VG474	<0.1	0.69	2.2	4.9	<20	35	0.2	0.06	0.2	2.5	9	5.4	1.67	5	<0.01	0.06	9	0.2	179	0.8	0.007	4.1	0.026
VG475	<0.1	1.05	2.7	0.8	<20	60	0.2	0.17	0.2	3.4	10	6.2	1.63	3	0.02	0.07	12	0.32	165	0.7	0.01	5.8	0.039
VG476	0.2	1.34	3	117.5	<20	101	0.2	0.26	0.1	5.5	12	8.9	1.86	4	<0.01	0.1	17	0.51	327	0.7	0.012	8	0.056
VG477	<0.1	0.99	2.1	28.4	<20	47	0.3	0.13	<0.1	3.4	8	5.7	1.56	4	<0.01	0.07	17	0.26	193	0.9	0.008	4.6	0.047
VG478	0.2	1.15	2.6	54.7	<20	256	0.2	0.35	0.2	6.5	6	13.2	2.01	4	0.05	0.15	54	0.52	856	0.7	0.013	5.4	0.081
VG479	0.1	1.3	2.8	2.2	<20	117	0.3	0.24	0.1	4.8	12	9.8	1.74	4	<0.01	0.07	22	0.42	452	1	0.01	8.2	0.049
VG480	0.3	1.51	2.9	11.6	<20	262	0.7	0.54	0.3	6.9	13	19.2	2.19	6	0.03	0.11	45	0.58	816	0.5	0.012	10.2	0.064
VG481	0.1	1.44	2.5	2.6	<20	170	0.9	0.57	0.3	5.4	8	12.7	2.06	6	0.02	0.11	51	0.48	1026	0.5	0.012	6.3	0.043
VG482	<0.1	1.14	2.7	11.7	<20	108	0.5	0.21	<0.1	4.2	8	6.3	2.01	4	<0.01	0.09	27	0.28	734	1.2	0.006	5.1	0.036
VG483	<0.1	1.12	2.9	4.8	<20	79	0.4	0.21	0.2	5.3	10	8.7	1.89	3	0.02	0.08	40	0.33	649	0.6	0.007	6.7	0.047
VG484	<0.1	0.89	2.5	2.8	<20	107	0.5	0.31	0.8	5	10	8.6	2.09	3	0.02	0.14	22	0.32	885	0.7	0.008	6.2	0.052
VG485	0.1	0.87	2.1	3.2	<20	81	0.3	0.28	<0.1	3.9	9	8.3	1.82	3	<0.01	0.09	80	0.31	547	1	0.01	6.4	0.047
VG486	<0.1	1.02	2.9	4.5	<20	135	0.4	0.33	<0.1	5	11	9.8	2.24	3	0.01	0.09	41	0.33	798	0.8	0.008	6.9	0.066
VG487	<0.1	1.4	1.7	1.4	<20	144	0.6	0.54	<0.1	3.1	3	4.3	1.88	4	<0.01	0.11	74	0.26	722	0.6	0.007	2.4	0.025
VG488	0.1	0.85	2	0.8	<20	245	0.4	0.64	0.2	15.5	2	15.2	3.62	2	<0.01	0.13	44	0.1	2051	2.4	0.005	8	0.097
VG489	<0.1	0.91	0.5	1.5	<20	69	0.5	0.27	0.7	4.8	6	9.5	1.87	4	0.01	0.13	45	0.42	948	0.5	0.006	4.1	0.06
VG490	0.1	1.28	3.7	3.6	<20	181	0.7	0.32	0.2	5.3	11	11.4	2.17	4	<0.01	0.07	52	0.45	842	3.2	0.008	7.1	0.065
VG491	0.2	1.24	3.6	1.6	<20	106	0.5	0.31	0.4	5.3	13	13	2.18	3	0.03	0.09	74	0.42	849	1.4	0.009	8.6	0.068
VG492	0.2	1.58	1.9	2.2	<20	157	0.4	0.65	0.3	8.5	7	24.3	2.51	5	0.02	0.15	90	0.57	1455	3	0.007	5.5	0.104
VG493	<0.1	1.04	5.3	0.6	<20	104	0.2	0.17	0.3	2.5	5	4.7	1.57	3	0.02	0.06	104	0.16	991	2	0.009	3.7	0.027
VG494	<0.1	0.85	1.5	<0.5	<20	108	0.3	0.17	0.1	3.1	5	6.3	1.64	2	0.01	0.11	75	0.18	881	1.9	0.008	3.3	0.028
VG495	<0.1	2.39	2.3	6	<20	133	0.8	0.68	0.4	6.6	8	17.8	2.13	9	0.04	0.14	149	0.72	1155	0.5	0.018	6.2	0.087
VG496	0.3	1.26	4.3	11.8	<20	88	0.7	0.32	0.2	5.3	7	16	2.07	5	0.04	0.12	76	0.44	918	0.9	0.02	5	0.061
VG497	0.2	0.86	2.5	4.1	<20	133	1.7	0.32	0.8	4.5	4	12.5	2.56	3	0.01	0.16	93	0.27	1811	1.9	0.009	3.2	0.046
VG498	0.2	0.84	1.9	6.9	<20	159	0.7	0.27	0.9	6.4	7	13.6	2.37	3	0.03	0.11	93	0.33	1657	2.7	0.008	4.6	0.051
VG498 Re	0.1	0.83	2.3	8.6	<20	153	0.7	0.26	0.9	6	7	14.4	2.31	3	0.04	0.11	93	0.3	1493	2.6	0.007	4.5	0.054
VG499	0.3	0.94	2.1	14.8	<20	243	0.6	0.26	0.8	7.1	5	17.4	2.39	3	0.03	0.13	67	0.35	1612	2	0.009	3.9	0.07
VG500	0.5	0.98	1.3	98.9	<20	221	0.4	0.33	0.3	6.1	6	15.2	2.02	4	0.02	0.11	34	0.48	909	0.5	0.006	5	0.089
VG501	0.6	1.47	5.2	14.5	<20	353	5	0.63	2.2	7.7	7	31.1	3.02	7	0.04	0.1	73	0.45	3424	4.7	0.008	3	0.053
VG502	0.2	1.02	1.4	12.3	<20	149	0.5	0.32	0.2	5.9	6	13.9	1.8	4	0.02	0.14	19	0.46	537	0.8	0.009	5.1	0.075

A 30 g sample is digested with 3:1 HCl-HNO3
at 95C for 1 hour and diluted with DI H2O.

Signed:_____
Mark Acres - Quality Assurance

TSL LABORATORIES INC.

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

Mr. Glen Prior
Attention: D. G. Prior
Project: VG-AL
Sample: 125 Soil

Report No: S55927
Date: December 13, 2018

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 %
VG503	0.2	0.88	1.2	2.6	<20	56	0.2	0.12	0.3	3	6	5.4	1.49	4	0.02	0.07	12	0.24	155	0.9	0.009	2.8	0.028
VG504	0.2	1.45	2	6.2	<20	203	0.3	0.43	<0.1	6.1	9	15	1.84	5	0.01	0.11	38	0.56	583	0.6	0.016	6.3	0.072
VG505	<0.1	0.83	0.8	0.7	<20	106	0.1	0.31	<0.1	5.4	9	8.5	1.52	4	<0.01	0.1	18	0.46	374	0.1	0.011	5.1	0.08
VG506	0.3	0.81	1.2	2.3	<20	28	0.1	0.1	<0.1	2.7	4	4.9	1.28	3	0.03	0.05	8	0.2	136	0.8	0.006	2.7	0.032
VG507	0.1	1.2	2.5	7.2	<20	86	0.3	0.14	0.2	4.3	10	7.3	1.69	4	0.02	0.07	14	0.32	310	0.6	0.008	5.6	0.042
VG508	<0.1	0.92	1	0.6	<20	122	0.1	0.29	0.1	5.3	9	11.3	1.66	3	<0.01	0.13	19	0.43	458	0.2	0.011	5.8	0.064
VG509	0.1	0.6	1.3	2.8	<20	89	0.1	0.23	0.1	3.7	6	7.7	1.39	3	0.02	0.07	24	0.27	366	0.6	0.009	3.8	0.059
VG510	0.2	1.13	2.9	28.2	<20	218	0.2	0.31	0.6	6.6	8	14.1	1.96	4	0.05	0.13	36	0.41	1104	0.7	0.012	5.8	0.084
VG511	<0.1	0.65	1.9	<0.5	<20	60	0.2	0.13	0.1	2.4	6	5.2	1.4	3	<0.01	0.06	20	0.19	167	0.8	0.006	3.4	0.024
STD OREAS45EA	0.2	3.12	11.8	49.6	<20	143	0.2	0.04	<0.1	51.1	826	651.9	24.4	13	0.01	0.05	7	0.09	417	1.6	0.015	371.4	0.028
STD DS11	1.7	1.21	44.6	66.4	<20	378	11.9	1.06	2.5	14.2	62	156.1	3.28	5	0.26	0.42	19	0.87	1068	14.5	0.071	80.6	0.075
STD OREAS262	0.5	1.34	38.4	72.7	<20	264	1.1	3.11	0.7	28	44	121	3.5	4	0.17	0.32	18	1.26	569	0.7	0.066	65.8	0.042
STD OREAS45EA	0.2	2.76	11.3	53.8	<20	127	0.3	0.03	<0.1	44.3	797	591.5	19.67	12	<0.01	0.05	6	0.09	361	1.3	0.024	343.9	0.026
STD DS11	1.6	1.05	39	75.2	<20	395	10.7	0.96	2.2	13.1	56	134.5	2.99	4	0.23	0.39	16	0.77	946	13.3	0.07	75	0.059
STD OREAS262	0.5	1.04	36.4	79	<20	240	1	2.87	0.5	23.5	35	107.8	3.25	3	0.14	0.25	14	1.08	524	0.5	0.074	61.1	0.034
STD OREAS45EA	0.2	3.33	10.5	56.3	<20	140	0.3	0.03	<0.1	48.6	883	670.8	22.54	13	<0.01	0.05	7	0.1	396	2	0.019	370.7	0.031
STD DS11	2.1	1.18	45.8	422.7	<20	407	11.7	1.04	2.4	12.7	61	151	3.3	5	0.27	0.39	19	0.9	1105	16.1	0.075	81.2	0.062
STD OREAS262	0.5	1.29	35.8	56.5	<20	241	1	2.97	0.6	28.9	44	111.3	3.41	4	0.15	0.31	15	1.19	528	0.5	0.062	66.8	0.041
STD OREAS45EA	0.2	3.31	11.4	43.9	<20	139	0.3	0.03	<0.1	50.7	893	699.4	24.38	13	0.01	0.05	7	0.1	455	1.6	0.021	372.9	0.03
STD DS11	1.7	1.19	45.7	56.3	<20	409	11.8	1.1	2.2	14	62	152.5	3.25	5	0.21	0.43	19	0.85	1067	14.8	0.068	82.1	0.075
STD OREAS262	0.4	1.34	38.4	60.7	<20	272	1	2.99	0.5	28.8	46	119.5	3.6	4	0.19	0.34	17	1.17	593	0.6	0.063	68.5	0.045
STD OREAS45EA	0.3	3.21	12.3	48.7	<20	145	0.3	0.04	<0.1	53.4	856	687.7	25.64	13	0.01	0.06	7	0.09	429	1.6	0.017	393.2	0.028
STD DS11	1.8	1.24	49.2	67.3	<20	405	12.2	1.06	2.5	14.6	63	159.6	3.39	5	0.26	0.44	20	0.86	1104	14.1	0.073	82.5	0.075
STD OREAS262	0.5	1.34	38.9	68	<20	267	1.1	3.16	0.7	28	44	122.2	3.57	4	0.17	0.32	19	1.22	563	0.6	0.069	64.8	0.043
STD OREAS45EA	0.3	3.46	11.5	50.3	<20	139	0.3	0.04	<0.1	52.6	860	685.7	22.98	14	0.02	0.05	7	0.1	420	1.6	0.021	364.4	0.031
STD DS11	1.8	1.07	44.2	92.5	<20	431	11.1	1	2.5	13.9	59	137.3	3.12	5	0.21	0.41	17	0.78	1071	14.2	0.072	76.5	0.066
STD OREAS262	0.5	1.36	38.5	69.6	<20	272	0.9	3.03	0.6	28.4	45	125.1	3.39	4	0.16	0.35	16	1.09	555	0.8	0.06	66.6	0.045
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
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
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 30 g sample is digested with 3:1 HCl-HNO3 at 95C for 1 hour and diluted with DI H2O.

Signed: ____________________
Mark Acres - Quality Assurance

TSL LABORATORIES INC.

Mr. Glen Prior
Attention: D. G. Prior
Project: VG-AL
Sample: 125 Soil

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

Report No: S55927
Date: December 13, 2018

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	V	W	Zn
Sample	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
AL401	56.2	0.08	0.2	2.7	<0.5	210	4.4	9	0.045	0.2	41	0.8	89
AL402	6.7	0.22	<0.1	3.3	<0.5	62	3	7.2	0.136	0.4	53	1.9	21
AL403	21.5	0.16	0.1	2.3	<0.5	237	5.2	7.3	0.07	0.2	35	1	29
AL404	4.6	<0.05	0.2	5.2	<0.5	204	0.2	4	0.159	0.2	125	0.3	74
AL405	9	0.05	<0.1	2.1	<0.5	76	<0.2	7.6	<0.001	0.1	16	0.3	25
AL406	13	0.19	0.1	2.2	<0.5	100	<0.2	9.5	0.108	0.2	36	52.1	54
AL407	14.3	0.15	0.1	1.8	<0.5	88	0.3	8	0.092	0.2	31	38.4	62
AL408	22.9	0.16	0.2	2	1	65	0.5	8	0.139	0.2	33	56.8	76
AL409	20.2	0.28	0.2	2.1	1.2	109	0.3	10.9	0.109	0.2	35	>100.0	59
AL410	24.8	0.37	0.2	2.6	0.8	184	0.4	10.6	0.098	0.2	36	>100.0	76
AL411	18.4	0.21	<0.1	2	<0.5	135	<0.2	9.4	0.097	0.2	31	54.3	48
AL412	19.4	0.35	0.1	3.5	1.4	99	0.3	12.1	0.124	0.3	49	>100.0	68
AL413	60.1	0.12	<0.1	1.1	<0.5	218	0.4	26.6	0.011	0.2	13	>100.0	51
AL414	14.8	0.17	<0.1	2	0.7	117	<0.2	10.4	0.085	0.3	35	>100.0	50
AL415	13.9	0.18	0.1	2.6	<0.5	112	<0.2	9.5	0.094	0.3	38	59.2	52
AL415 Re	12.5	0.16	0.2	2.5	0.6	109	0.2	9.5	0.089	0.3	40	53.9	52
VG401	24.6	<0.05	0.2	1.6	<0.5	11	<0.2	2.6	0.019	0.1	29	0.2	52
VG402	12.8	<0.05	<0.1	2.6	<0.5	25	<0.2	6.1	0.016	<0.1	24	0.2	62
VG403	23	<0.05	0.1	2.7	<0.5	22	<0.2	9.7	0.024	0.1	23	0.2	61
VG404	42.3	<0.05	<0.1	1.8	<0.5	31	<0.2	12.1	0.011	0.1	21	0.2	74
VG405	26.6	<0.05	0.1	3.7	<0.5	23	<0.2	12.5	0.01	0.1	27	0.2	82
VG406	23	<0.05	<0.1	1.9	<0.5	16	<0.2	10.1	0.005	<0.1	16	0.2	65
VG407	26.8	<0.05	0.1	2.8	<0.5	50	<0.2	8.2	0.026	0.1	27	0.3	74
VG408	18.9	<0.05	<0.1	3.8	<0.5	24	<0.2	7.8	0.07	<0.1	38	0.1	83
VG409	49.5	<0.05	0.1	2.8	0.9	31	<0.2	13.6	0.016	0.1	18	0.2	100
VG410	24.3	<0.05	0.2	3.5	<0.5	25	<0.2	3.2	0.028	0.2	43	0.2	72
VG411	39	<0.05	0.1	2	<0.5	22	<0.2	11.4	0.014	0.1	15	0.2	65
VG412	23.1	<0.05	<0.1	3.3	<0.5	33	<0.2	6.2	0.061	0.1	34	0.3	77
VG413	29.9	<0.05	<0.1	2.1	<0.5	14	<0.2	11.4	0.011	0.1	14	0.2	87
VG414	58.7	<0.05	0.2	4.1	<0.5	32	<0.2	8.5	0.005	0.1	27	<0.1	92
VG415	26.8	<0.05	0.1	0.7	<0.5	18	<0.2	0.5	0.015	<0.1	31	0.2	52
VG416	15.1	<0.05	0.1	1.9	<0.5	26	<0.2	3	0.042	0.2	33	0.3	61
VG417	13.5	<0.05	0.1	2.4	<0.5	17	<0.2	4.2	0.03	0.2	32	0.1	55
VG419	9.3	<0.05	0.2	1.7	<0.5	15	<0.2	6.9	0.045	<0.1	28	0.1	41
VG420	20.1	<0.05	0.1	2.2	<0.5	17	0.4	7.2	0.039	<0.1	26	0.1	46
VG421	10.6	<0.05	0.1	1.4	<0.5	14	<0.2	5.4	0.035	<0.1	25	0.1	38
VG422	13	<0.05	0.1	2	<0.5	15	0.2	6.3	0.042	<0.1	27	0.3	41
VG423	9	<0.05	<0.1	1.6	<0.5	16	<0.2	6.7	0.053	0.1	26	0.2	38
VG424	33.1	<0.05	0.1	2.4	0.8	18	<0.2	7.4	0.023	0.2	27	0.2	58
VG425	14.6	<0.05	<0.1	2.1	<0.5	22	<0.2	17.3	0.017	0.1	27	0.2	57

A 30 g sample is digested with 3:1 HCl-HNO3
at 95C for 1 hour and diluted with DI H2O.

Signed:_____
Mark Acres - Quality Assurance

TSL LABORATORIES INC.

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

Mr. Glen Prior
Attention: D. G. Prior
Project: VG-AL
Sample: 125 Soil

Report No: S55927
Date: December 13, 2018

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
VG426	7.6	<0.05	<0.1	1.6	<0.5	13	<0.2	5.5	0.049	<0.1	35	0.1	40
VG427	12.5	<0.05	0.1	1.7	<0.5	15	<0.2	3.9	0.052	0.1	35	0.1	56
VG428	10.3	<0.05	<0.1	2.1	<0.5	20	<0.2	6.9	0.061	0.1	30	0.1	49
VG429	8.4	<0.05	<0.1	1.5	<0.5	13	<0.2	3.3	0.054	0.1	31	<0.1	44
VG430	9.8	<0.05	0.1	1.6	<0.5	14	<0.2	3.4	0.049	0.1	37	0.1	50
VG431	9.5	<0.05	<0.1	1.4	<0.5	13	<0.2	4.4	0.046	<0.1	33	0.7	45
VG432	9.8	<0.05	<0.1	1.6	<0.5	13	<0.2	4.6	0.055	0.1	35	<0.1	50
VG433	8.7	<0.05	<0.1	1.3	<0.5	13	<0.2	3.7	0.04	<0.1	31	0.1	41
VG434	12.7	<0.05	0.1	2.6	<0.5	33	<0.2	6.5	0.071	0.2	38	0.1	62
VG434 Re	11.9	<0.05	<0.1	2.4	<0.5	32	<0.2	6	0.068	0.1	37	0.1	61
VG435	8.6	<0.05	<0.1	1.7	<0.5	17	<0.2	4	0.064	0.1	33	0.1	51
VG436	9.1	<0.05	<0.1	1.8	<0.5	14	<0.2	3.9	0.066	0.1	32	0.1	49
VG437	8.9	<0.05	0.1	0.6	<0.5	14	<0.2	1.4	0.032	0.1	32	0.1	36
VG438	11.7	<0.05	0.2	1.1	<0.5	12	<0.2	1.1	0.044	0.2	35	0.1	43
VG439	8.6	<0.05	0.1	1	<0.5	10	<0.2	3.7	0.033	<0.1	33	0.1	32
VG440	8.3	<0.05	<0.1	1.2	<0.5	11	<0.2	3.3	0.047	<0.1	27	0.1	36
VG441	25.4	<0.05	0.1	3.6	<0.5	36	<0.2	4.7	0.078	0.1	43	0.1	64
VG442	14.2	<0.05	<0.1	1.9	<0.5	17	<0.2	4.7	0.017	<0.1	23	<0.1	44
VG443	16.1	<0.05	<0.1	0.9	<0.5	17	<0.2	3.5	0.006	0.2	12	<0.1	42
VG444	11.4	<0.05	<0.1	1.9	<0.5	20	<0.2	7.7	0.052	<0.1	27	0.1	42
VG445	12.2	<0.05	<0.1	2.8	<0.5	27	<0.2	10.4	0.011	0.2	32	<0.1	52
VG446	7.9	<0.05	0.1	1.3	<0.5	10	<0.2	3	0.046	<0.1	32	0.3	40
VG447	14.6	<0.05	<0.1	3.1	<0.5	31	<0.2	10.9	0.011	0.1	32	<0.1	74
VG448	9.1	<0.05	<0.1	1.6	<0.5	21	<0.2	19.1	0.053	<0.1	27	0.1	40
VG449	10.3	<0.05	<0.1	1.8	<0.5	14	<0.2	4.4	0.05	<0.1	31	0.1	45
VG450	33.4	<0.05	<0.1	4.4	<0.5	38	<0.2	13.4	0.011	0.1	22	0.1	102
VG451	32.3	<0.05	0.1	4.3	<0.5	27	<0.2	8.7	0.013	<0.1	44	<0.1	96
VG452	32.5	<0.05	0.1	2.1	<0.5	29	<0.2	8.3	0.011	0.1	22	0.2	81
VG453	32.2	<0.05	<0.1	2.1	<0.5	21	<0.2	8.3	0.007	0.1	20	<0.1	85
VG454	28.3	<0.05	<0.1	2.1	<0.5	22	<0.2	7.6	0.015	0.1	25	0.2	79
VG455	37.1	<0.05	<0.1	2.9	<0.5	40	<0.2	11.3	0.005	<0.1	27	<0.1	56
VG456	37.3	<0.05	0.2	3.3	<0.5	25	<0.2	10.1	0.021	0.1	49	0.1	82
VG457	30.9	<0.05	<0.1	1.7	<0.5	15	<0.2	4.2	0.013	0.1	25	0.2	55
VG458	38	0.06	0.2	1.7	<0.5	15	<0.2	2.2	0.02	0.1	34	0.2	77
VG459	19.2	<0.05	0.2	2.1	<0.5	18	<0.2	5	0.026	<0.1	29	0.7	45
VG460	43.2	<0.05	0.1	3	<0.5	22	<0.2	8.2	0.018	<0.1	30	0.1	98
VG461	39.8	<0.05	<0.1	1.6	<0.5	19	<0.2	9.6	0.003	0.1	9	0.2	37
VG462	12.2	<0.05	<0.1	1.6	<0.5	10	<0.2	5.3	0.019	0.1	23	0.1	44
VG463	23.7	<0.05	<0.1	1.6	<0.5	14	<0.2	1.7	0.019	<0.1	29	0.2	58
VG464	57.8	<0.05	<0.1	2.8	<0.5	21	<0.2	11.9	0.013	0.2	20	0.3	88

A 30 g sample is digested with 3:1 HCl-HNO3
at 95C for 1 hour and diluted with DI H2O.

Signed:_____
Mark Acres - Quality Assurance

TSL LABORATORIES INC.

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

Mr. Glen Prior
Attention: D. G. Prior
Project: VG-AL
Sample: 125 Soil

Report No: S55927
Date: December 13, 2018

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	V	W	Zn
Sample	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
VG465	56.3	<0.05	<0.1	2.2	<0.5	15	<0.2	10.4	0.004	0.1	13	0.2	100
VG466	44.3	<0.05	0.1	3.2	<0.5	18	<0.2	7.7	0.011	0.1	27	0.1	102
VG467	27.6	<0.05	<0.1	1.8	<0.5	19	<0.2	8.4	0.011	<0.1	21	<0.1	67
VG468	6.4	<0.05	<0.1	1.2	<0.5	9	<0.2	6.3	0.03	<0.1	27	0.2	31
VG469	19.7	<0.05	0.2	2.3	<0.5	15	<0.2	16.9	0.024	<0.1	25	0.3	68
VG469 Re	19.3	<0.05	0.1	2.3	<0.5	15	<0.2	10.7	0.024	<0.1	22	<0.1	64
VG470	14.8	<0.05	0.1	1.9	<0.5	14	<0.2	6.1	0.028	0.1	28	0.2	50
VG471	9	<0.05	<0.1	1.4	<0.5	10	<0.2	6.9	0.034	<0.1	29	0.3	37
VG472	19.3	<0.05	0.1	2.2	<0.5	17	0.3	8.2	0.034	0.1	29	1.3	53
VG473	11.8	<0.05	0.1	1.5	<0.5	9	<0.2	3.3	0.043	<0.1	33	0.2	44
VG474	7	<0.05	0.1	1.2	<0.5	7	<0.2	2.1	0.035	<0.1	31	0.6	34
VG475	8.5	<0.05	<0.1	1.5	<0.5	11	<0.2	4.7	0.044	<0.1	29	0.2	36
VG476	13.8	<0.05	<0.1	2.1	<0.5	16	<0.2	5.7	0.054	<0.1	30	0.2	46
VG477	13.8	<0.05	<0.1	1.3	<0.5	7	<0.2	6.5	0.029	<0.1	25	0.1	42
VG478	16.5	<0.05	0.1	2.6	<0.5	19	<0.2	11	0.026	0.1	28	<0.1	70
VG479	15.2	<0.05	0.1	2	<0.5	16	<0.2	5.3	0.036	<0.1	29	0.2	51
VG480	20.7	<0.05	0.2	3.3	<0.5	35	<0.2	7.1	0.042	<0.1	34	0.2	69
VG481	30.1	<0.05	<0.1	2.7	<0.5	42	<0.2	6.6	0.026	0.1	31	0.2	73
VG482	40.1	<0.05	0.1	1.6	<0.5	15	<0.2	8.6	0.014	0.1	22	0.3	60
VG483	24.9	<0.05	0.2	1.9	<0.5	15	<0.2	6.8	0.017	<0.1	26	0.2	55
VG484	25.8	<0.05	0.2	1.3	<0.5	21	<0.2	2.2	0.026	<0.1	28	0.2	55
VG485	22.7	<0.05	0.2	2.5	<0.5	16	<0.2	10.7	0.029	<0.1	23	0.2	61
VG486	29.7	<0.05	0.1	2.2	<0.5	18	<0.2	6.7	0.026	<0.1	33	0.1	60
VG487	62.8	<0.05	0.3	1.9	<0.5	28	<0.2	10.4	0.001	0.2	8	<0.1	60
VG488	76.5	<0.05	0.2	2.8	<0.5	18	<0.2	13.5	<0.001	0.2	18	0.2	99
VG489	28.9	<0.05	<0.1	1.9	<0.5	17	<0.2	6.9	0.009	0.1	23	<0.1	84
VG490	25.1	<0.05	<0.1	2.3	<0.5	18	<0.2	5.2	0.019	<0.1	29	0.2	70
VG491	26.5	<0.05	0.1	2.6	<0.5	19	<0.2	8.2	0.028	<0.1	33	0.2	68
VG492	30.2	<0.05	<0.1	3.9	<0.5	25	<0.2	23.7	0.006	0.2	30	<0.1	76
VG493	24.3	<0.05	0.1	2	<0.5	11	<0.2	13.3	0.012	0.1	13	0.1	51
VG494	27.3	<0.05	0.1	1.9	<0.5	11	<0.2	9.3	0.012	0.1	17	<0.1	56
VG495	62.4	<0.05	<0.1	2.9	<0.5	40	<0.2	3.8	0.007	0.2	25	0.1	115
VG496	34.3	<0.05	0.2	2.7	<0.5	18	<0.2	9.3	0.026	0.1	24	0.2	106
VG497	61.7	<0.05	<0.1	2.3	<0.5	19	<0.2	12.7	0.005	0.1	15	0.2	111
VG498	55.3	<0.05	<0.1	2.4	<0.5	15	<0.2	10.1	0.008	0.1	18	0.1	122
VG498 Re	53.4	<0.05	<0.1	2.2	<0.5	14	<0.2	10.9	0.009	0.2	18	0.1	116
VG499	43	<0.05	<0.1	3	<0.5	14	<0.2	9.5	0.01	0.2	20	<0.1	101
VG500	19.8	<0.05	<0.1	2.3	<0.5	14	0.3	14.3	0.027	0.1	24	0.1	70
VG501	150.4	<0.05	<0.1	5.1	<0.5	23	<0.2	18.2	0.004	0.1	22	<0.1	203
VG502	15.9	<0.05	<0.1	2	<0.5	19	<0.2	5.8	0.044	<0.1	27	0.2	55

A 30 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: D. G. Prior
Project: VG-AL
Sample: 125 Soil

TSL LABORATORIES INC.

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

Report No: S55927
Date: December 13, 2018

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
VG503	8.5	<0.05	<0.1	1.2	<0.5	13	<0.2	3.2	0.033	<0.1	24	0.1	46
VG504	16	<0.05	<0.1	2.8	<0.5	27	<0.2	6.2	0.051	0.1	29	0.1	59
VG505	6.9	<0.05	<0.1	2	<0.5	20	<0.2	5.8	0.066	0.1	29	<0.1	40
VG506	8	<0.05	<0.1	1	<0.5	10	<0.2	1.8	0.027	<0.1	18	0.2	30
VG507	12.5	<0.05	0.1	1.8	<0.5	12	<0.2	4.7	0.045	<0.1	27	0.2	46
VG508	8.6	<0.05	<0.1	2.1	<0.5	22	<0.2	5.8	0.062	0.1	30	0.1	43
VG509	9.8	<0.05	<0.1	1.6	<0.5	14	<0.2	8.7	0.035	<0.1	20	0.1	38
VG510	15.5	<0.05	0.1	2.1	<0.5	22	<0.2	4.7	0.038	0.1	29	0.1	76
VG511	10.4	<0.05	<0.1	1.1	<0.5	11	<0.2	4.3	0.02	<0.1	19	<0.1	40
STD OREAS45EA	14.3	<0.05	0.3	81.8	1	4	<0.2	10.6	0.101	<0.1	254	<0.1	30
STD DS11	142.8	0.3	7.6	3.3	2.2	69	4.8	8.2	0.103	5	52	2.8	343
STD OREAS262	59.4	0.27	3.2	3.4	<0.5	38	<0.2	9.5	0.003	0.5	23	0.1	156
STD OREAS45EA	12.4	<0.05	0.3	67.5	0.5	3	<0.2	9.1	0.088	<0.1	268	<0.1	29
STD DS11	131.2	0.28	7.4	2.6	1.6	62	4.1	6.9	0.081	4.8	46	2.8	330
STD OREAS262	52.7	0.27	3.5	3.2	<0.5	34	0.2	8.5	0.002	0.5	19	0.2	146
STD OREAS45EA	13.5	<0.05	0.3	82	1.1	4	<0.2	10	0.097	<0.1	303	<0.1	29
STD DS11	138.2	0.26	6.8	3.6	3.3	70	4.3	7.6	0.094	5	52	2.5	327
STD OREAS262	55.9	0.26	2.5	3.2	<0.5	35	0.2	8.7	0.003	0.5	22	0.1	143
STD OREAS45EA	14	<0.05	0.2	80.6	1.2	4	<0.2	10	0.101	<0.1	293	<0.1	30
STD DS11	142.4	0.29	7.7	3.3	1.9	71	4.5	8.1	0.098	5.2	53	2.7	325
STD OREAS262	58.7	0.25	2.4	2.9	<0.5	39	0.4	9.8	0.003	0.4	25	0.1	148
STD OREAS45EA	14.1	<0.05	0.2	83.9	1	4	<0.2	10.5	0.106	<0.1	268	<0.1	33
STD DS11	139.5	0.27	7.6	3.3	2.6	72	4.5	7.9	0.103	4.9	53	2.5	347
STD OREAS262	59.8	0.25	2.7	3.5	<0.5	38	0.2	9.9	0.004	0.5	23	0.1	158
STD OREAS45EA	13.7	0.06	0.2	75.4	1.5	4	<0.2	10.2	0.098	<0.1	319	<0.1	31
STD DS11	138.9	0.29	7.2	3.2	2.3	62	4.9	7.8	0.085	5.2	47	2.7	336
STD OREAS262	58.9	0.29	2.9	3.4	<0.5	36	0.2	9.9	0.003	0.5	23	0.1	152
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<2	<0.1	<1
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<2	<0.1	<1
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<2	<0.1	<1
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<2	<0.1	<1
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<2	<0.1	<1
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<2	<0.1	<1

A 30 g sample is digested with 3:1 HCl-HNO3 at 95C for 1 hour and diluted with DI H2O.

Signed:

Mark Acres - Quality Assurance

Appendix 5

Rock Analytical Results

Assays

TSL LABORATORIES
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: VG-TK

TSL Report: S56002
Date Received: Dec 10, 2018
Date Reported: Dec 14, 2018
Invoice: 76179

Remarks: Original Report S55928

Sample Type:	Number	Size Fraction	Sample Preparation
Rock Pulp	4		None

Standard Procedure:

Samples for Au Fire Assay/Gravimetric (g/tonne) are weighed at 1 AT (29.16 g)
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	HNO_3-HF-$HClO_4$-HCl/AA	1	1500
Cu	%	HNO_3-HF-$HClO_4$-HCl/AA	0.01	80
Bi	%	HNO_3-HF-$HClO_4$-HCl/AA	0.01	80
W	%	HNO_3-HF-$HClO_4$-HCl/AA	0.01	80

TSL LABORATORIES
#2 – 302 48th Street · Saskatoon, SK · S7K 6A4
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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM

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

REPORT No.
S56002

SAMPLE(S) OF

4 Rock Pulp

INVOICE #:76179
P.O.:

G. Prior
Project: VG-TK

Original Report S55928

	Au g/t	Ag g/t	Cu %	Bi %	W %	File Name
TK201		451.0	1.30		.075	S56002
TK202		932.5		.267		S56002
TK203		275.5			.095	S56002
VG201	6.14					S56002
GS-7E	7.82					S56002
ME-1605			.38			S56002
Oreas-604		488.1	2.17			S56002

COPIES TO:
INVOICE TO: G. Prior, Alberta

Dec 14/18

SIGNED

Mark Acres - Quality Assurance

Appendix 6

Talus Fine Fraction Analytical Results

Assays

Sample	W %
AL 409	0.056
AL 410	0.019
AL 412	0.037
AL 413	0.030
AL 414	0.050

Tungsten assay results received from TSL Laboratories on January 25, 2019.