BC Geological Survey
Assessment Report
40012

Ministry of Energy and Mines
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: PROSPECTING

TOTAL COST: 105,689.03

AUTHOR(S): LIAM F CONNOR (Updated by A Randell) **SIGNATURE(S):**

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A **YEAR OF WORK:** 2021

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5856767

PROPERTY NAME: SELLER CREEK / CARIBOO VALLEY / 2 ACES WEST

CLAIM NAME(S) (on which the work was done): 1060916, 1060810, 1060914, 1060815, 1060814, 1060813, 1060811, 1061178, 1061546, 1061725, 1061176, 1061179, 1061718, 1061545, 1060470, 1060468, 1060466, 1060809

COMMODITIES SOUGHT: GOLD, SILVER, COPPER, COBALT, ZINC, LEAD, NICKEL

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: CARIBOO **NTS/BCGS:** 093A

LATITUDE: 121 ° 17' '30 " **LONGITUDE:** 52 ° 46 '31 " **(at centre of work)**

OWNER(S):

1) HAWKEYE GOLD AN DIAMONDS INC 2)

MAILING ADDRESS:

202 - 1985 ALBERNI STREET, VANCOUVER,
BC, CANADA, V6G 0A2

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

1) AS ABOVE 2)

MAILING ADDRESS:

AS ABOVE

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

CARIBOO, QUESNELLIA, BARKERVILLE, KOOTENAY TERRANE, PALAEOZOIC, SEDIMENTARY, VOLCANIC, ZINC, SCHIST, GOOSE PEAK SUCCESSION, COPPER, LIMONITE, COBALT, LEAD, GOLD, SILVER

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	PROSPECTING TEAM	ALL	20,350.61
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne	DRONE SURVEY	ALL	3,898.13
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt	STREAM SEDIMENTS X12	ALL	517.92
Rock	X65	ALL	3,706.95
Other	XRF X73	ALL	4,350.80
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			72,864.62
		TOTAL COST:	105,689.03

Assessment Report describing Geological and Geochemical Surveys at the Seller Creek, Cariboo Valley, and 2 Aces West Claims, British Columbia

Mineral Claims
NTS 093A
Cariboo Mining Division

UTM (NAD83 Zone 10): 615051 E / 5848811 N
Longitude/Latitude: 121° 17’ 30” W / 52° 46’ 31” N

Report for:
Hawkeye Gold & Diamond Inc.
M 202 – 1985 Alberni Street
Vancouver, BC
Canada
V6G 0A2

Work Performed: between September 23rd, 2021, and October 24th, 2021
on
Mineral Titles:

Seller Creek (614773 E, 5840518 N) (121° 17’ 58” W, 52° 42’ 05” N)	**Cariboo Valley (615051 E, 5848811 N) (121° 17’ 30” W, 52° 46’ 31” N)**	**2 Aces West (619379 E, 5851234 N) (121° 13’ 45” W, 52° 47’ 59” N)**
1060916, 1060815, 1060814, 1060813, 1060810, 1060914, 1060811	1061176, 1061178, 1061179, 1061546, 1061718, 1061725	1060466, 1060468, 1060470, 1060809, 1061545

Authored by:
Liam F. Connor, MESci
SGDS Hive
January 15, 2023

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1.0 Introduction

The Seller Creek, Cariboo Valley and 2 Aces West claims are located in central British Columbia within the Cariboo Mining Division. The property is situated within the central part of the Cariboo Mountains, an area that comprises steep and rugged terrane. Elevations over the Cariboo Valley property area range from 800 m near Cariboo River to over 1900 m west of Mount Borland. Elevations over the Seller Creek property area range from 850 m on the southwestern most part of the property to over 2000 m on the east side of the property on Browntop Mountain. Elevations over the 2 Aces West property area range from 800 m near Cariboo River to over 2000 m at Mount Barker.

The Seller Creek, Cariboo Valley and 2 Aces West project area is situated within the Barkerville Subterrane, consisting of a late Proterozoic and/or Paleozoic sequence of continental shelf and slope deposits developed adjacent to the craton of Ancestral North America and includes clastic sedimentary rocks along with lesser amounts of volcanic rocks and carbonates (**Struik, 1986; 1988**).

Based on the recommendations from the 2018 magnetic survey completed on the claims (Albano and Mitchell, 2019a; 2019b; 2019c) and further interpretation completed in 2021 by Campbell & Walker Geophysics Ltd. (Appendix I; J; K), Hawkeye Gold & Diamond contracting SGDS Hive to complete an exploration program to help advance their Barkerville Claims including the Seller Creek, Cariboo Valley, and 2 Aces West projects. The work program consisted of geological mapping, rock sampling, pXRF analysis in the field, prospecting, stream sediment sampling, and orthoimage capturing via a Remotely Piloted Aircraft System (RPAS). The work program was completed between September 23rd, 2021, and October 24th, 2021.

Within the Seller Creek area, copper grades averaged 26.29 ppm and a single sample grading 240 ppm Cu (Sample: C00065236). Anomalous zinc was also observed with five samples returning values over 200 ppm Zn, including sample C00065217 which assayed 383 ppm Zn.

Stream sediment sampling across the 2 Aces West and Cariboo Valley claims yielded anomalous cobalt grades. 4 separate streams had anomalous cobalt ranging from 438 ppm to 705 ppm Co. No source has been identified for the anomalous grades. Follow-up sampling is recommended.

2.0 Location & Access

The Seller Creek, Cariboo Valley and 2 Aces West claims are located in central British Columbia within the Cariboo Mining Division. The properties are located directly southeast of Cariboo Lake and is centered on 52°46'43.63"N latitude and 121°17'38.78"W longitude (**Fig. 1**). The property is situated within the central part of the Cariboo Mountains, an area that comprises steep and rugged terrane. Elevations over the Cariboo Valley property area range from 800 m near Cariboo River to over 1900 m west of Mount Borland. Elevations over the Seller Creek property area range from 850 m on the southwestern most part of the property to over 2000 m on the east side of the property on Browntop Mountain. Elevations over the 2 Aces West property area range from 800 m near Cariboo River to over 2000 m at Mount Barker. The project area is occupied by mature stands of spruce, pine, fir, hemlock and cedar with an understory of thick alder. Extensive timber harvesting has been ongoing on and in the vicinity of the property. The area has a humid continental climate, with mild summers and cold winters. Summer temperatures range from about 15 degrees to a high of 20 degrees Celsius and winter temperatures range from about - 3 degrees to as low as -10 degrees Celsius. Average precipitation for the area is approximately 700 mm with about 200 cm of snowfall during the winter months.

The Cariboo Valley and 2 Aces West properties can be accessed by four-wheel drive vehicle on a network of logging roads from the town of Likely. However, the majority of the higher elevations and outcrop are only accessible by helicopter. The Seller Creek property is only accessible by helicopter. All three projects were accessed in 2021.

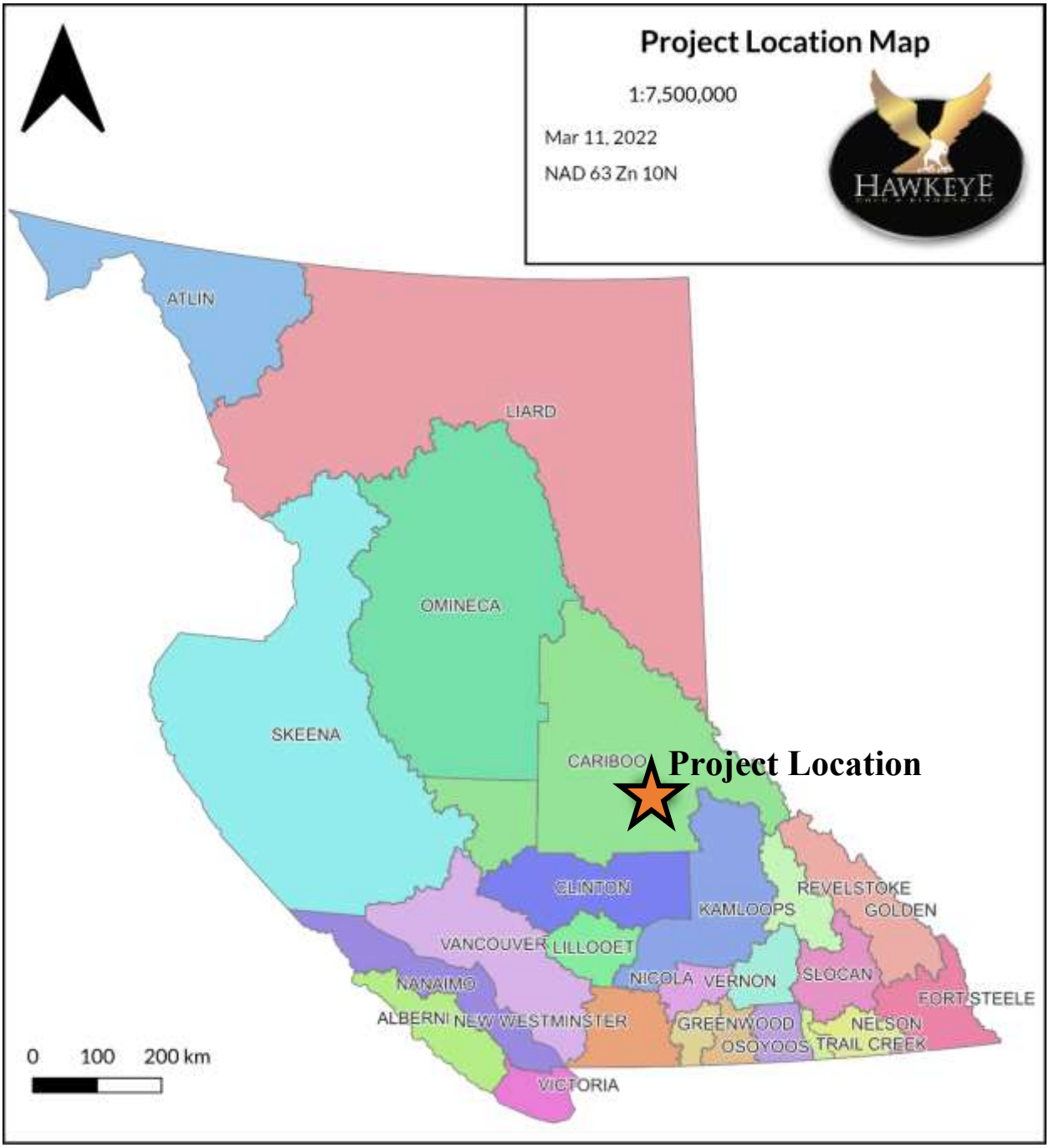


Figure 1: Project location map showing the different Mining Divisions of British Columbia.

3.0 Claim Location and Description

The Seller Creek project consists of seven mineral claims across 5367.30 hectares (ha). The Cariboo Valley project consists of six mineral tenures across 2131.69 ha; the 2 Aces West project consists of five mineral tenures across 3381.74 ha. All mineral tenures were optioned by Hawkeye Gold & Diamond in 2017. **Table 1** shows the specifics regarding the mineral tenures, **Figure 2** shows the location of the described mineral tenures.

Table 1: List of claim details

Mineral Tenure Number	Claim Name	Issue Date	Good To Date	Area (Ha)	Owner Name	Claim Group
1060916	SURRUCA89	02/06/2018	01/04/2021	508.8972	HAWKEYE GOLD & DIAMOND INC.	Seller Ck
1060810	SURRUCA81	28/05/2018	01/04/2021	881.2777	HAWKEYE GOLD & DIAMOND INC.	Seller Ck
1060914	SURRUCA88	02/06/2018	01/04/2021	587.3676	HAWKEYE GOLD & DIAMOND INC.	Seller Ck
1060815	SURRUCA85	28/05/2018	01/04/2021	764.19	HAWKEYE GOLD & DIAMOND INC.	Seller Ck
1060814	SURRUCA84	28/05/2018	01/04/2021	822.8928	HAWKEYE GOLD & DIAMOND INC.	Seller Ck
1060813	SURRUCA83	28/05/2018	01/04/2021	822.9982	HAWKEYE GOLD & DIAMOND INC.	Seller Ck
1060811	SURRUCA82	28/05/2018	01/04/2021	979.6767	HAWKEYE GOLD & DIAMOND INC.	Seller Ck
1061178	SURRUCA91	14/06/2018	01/04/2021	704.1841	HAWKEYE GOLD & DIAMOND INC.	Cariboo Valley
1061546	SURRUCA94	04/07/2018	01/04/2021	391.0499	HAWKEYE GOLD & DIAMOND INC.	Cariboo Valley
1061725	SURRUCA107	10/07/2018	01/04/2021	19.5473	HAWKEYE GOLD & DIAMOND INC.	Cariboo Valley
1061176	SURRUCA90	14/06/2018	01/04/2021	704.096	HAWKEYE GOLD & DIAMOND INC.	Cariboo Valley
1061179	SURRUCA92	14/06/2018	01/04/2021	293.2601	HAWKEYE GOLD & DIAMOND INC.	Cariboo Valley
1061718	SURRUCA102	10/07/2018	01/04/2021	19.5475	HAWKEYE GOLD & DIAMOND INC.	Cariboo Valley
1061545	SURRUCA93	04/07/2018	01/04/2021	97.6469	HAWKEYE GOLD & DIAMOND INC.	2 Aces West

1060470	SURRUCA67	06/05/2018	01/04/2021	977.9024	HAWKEYE GOLD & DIAMOND INC.	2 Aces West
1060468	SURRUCA65	06/05/2018	01/04/2021	977.4384	HAWKEYE GOLD & DIAMOND INC.	2 Aces West
1060466	SURRUCA66	06/05/2018	01/04/2021	977.0468	HAWKEYE GOLD & DIAMOND INC.	2 Aces West
1060809	SURRUCA 80	28/05/2018	01/04/2021	351.7024	HAWKEYE GOLD & DIAMOND INC.	2 Aces West

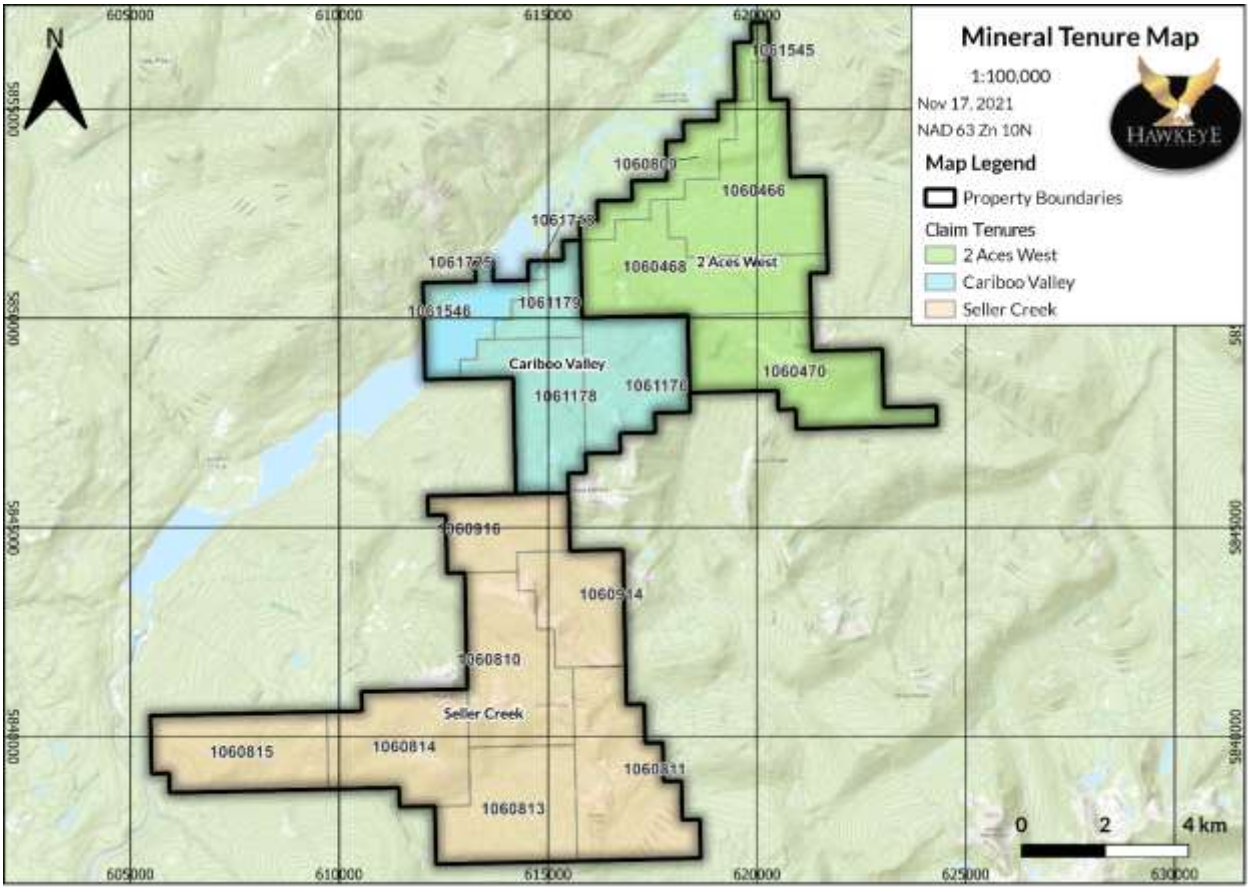


Figure 2: Mineral Tenure Map of the Seller Creek, Cariboo Valley and 2 Aces West Projects.

4.0 Exploration History

Prior to Hawkeye Gold & Diamond's acquisition of the Seller Creek, 2 Aces West, and Cariboo Valley claims, the 3 claim groups had been explored independent of one another. The following describes the work completed on each of the claim groups as reported by the BC ARIS database.

Seller Creek

The Seller Creek property is located along trend of the of the Cariboo Gold Belt, host to the world-class Barkerville gold camp with a rich history of mining dating from the Cariboo gold rush in the 1860's. Recorded gold production from the Cariboo Gold Belt totals more than 4.5 million ounces from alluvial and lode deposits (Albano and Mitchell, 2019a). In the 1980s, the BC Geological Survey collected over 4000 stream sediment samples to cover NTS map sheets 93A, 93B, G and N and parts of NTS map sheet 93H. The pulps of the samples were reanalysed by Geoscience BC in 2008 by inductively-coupled plasma mass spectrometry (ICP-MS). One stream sediment sample (Sample - STRM93A805136) collected from a drainage southwest of Browntop Mountain, on the south part of the Seller Creek property, returned 869.3 ppm As, 101.9 ppm Zn, 7.1 ppm Mo, 14.29 ppm Pb and 1.5 ppb Au (Jackaman and Balfour, 2007). In 1981, Canadian Nickel Company completed geological mapping at a scale of 1:15,840 and collected a total of 46 rock chip and 16 stream sediment samples over the Seller Creek property, primarily to the south and west of Goose Peak. Two adjacent quartz veins with minor pyrite and up to 60 % carbonate returned anomalous values of 130 and 250 ppb Au. One stream sediment sample returned 330 ppb Au and was collected from a stream draining the ridge top where the two anomalous quartz veins were taken (Jones, 1981). In 1981, E & B Explorations collected 35 soil and 8 silt samples from a drainage to the southwest of Browntop Mountain. Results indicated moderate to highly anomalous arsenic in soils and silts (values up to 345 ppm As) and two samples returned highly anomalous lead (125 and 1500 ppm Pb) (Livingstone and Christie, 1981**).** In 1984, Esso Minerals Canada collected 9 stream sediment, 3 heavy mineral and 2 soil samples from a stream draining into Seller Creek on the south part of the Seller Creek property. One of the heavy mineral samples collected returned a high of 188 ppb, 159 ppm As and 20 ppm Sb. The two soil samples collected further up the stream returned up to 558 ppm As and 62 ppm Sb (Marr, 1984). In 2018, an airborne magnetic survey was flown over the Seller Creek property.

Hawkeye contracted GEOTECH to fly a total of 406 line-km along east-west oriented lines spaced at 100 m apart (Albano & Mitchell, 2019a)

Cariboo Valley

The Cariboo Valley property is located along trend of the of the Cariboo Gold Belt, host to the world-class Barkerville gold camp with a rich history of mining dating from the Cariboo gold rush in the 1860's. Recorded gold production from the Cariboo Gold Belt totals more than 4.5 million ounces from alluvial and lode deposits (Albano and Mitchell, 2019b). In the 1980s, the BC Geological Survey collected over 4000 stream sediment samples to cover NTS map sheets 93A, 93B, G and N and parts of NTS map sheet 93H. The pulps of these samples were reanalysed by Geoscience BC in 2008 by inductively-coupled plasma mass spectrometry (ICP-MS). In 1991, Formosa Resources collected 5 rock, 56 silt and 21 soil samples along with 2500 hectares (ha) of geological mapping at a scale of 1:10,000 and 388 line km of airborne electromagnetic and magnetic surveys (McClintock, 1991). In 1996, Barker Minerals collected 43 soil samples over the eastern part of the 2-Aces property. Soil samples returned a high of 0.8 ppm Ag, 61 ppm Pb, 8 ppb Au and 96 ppm copper (Doyle, 1997). In 1997, Barker Minerals collected 2 rock samples from the north part of the Cariboo Valley property (Samples: 9701 and 9701A). Unfortunately, neither sample returned anomalous values for base or precious metals (Payne, 1998). In 2018, an airborne magnetic survey was flown over the Cariboo Valley property. Hawkeye contracted GEOTECH to fly a total of 138 line-km along east-west oriented lines spaced at 100 m apart. (Albano and Mitchell, 2019b)

2 Aces West

No Previous results are noted for the 2 Aces West claims, however in 2018 Hawkeye Gold & Diamond contracted GEOTECH to fly a total of 502 line-km along east-west oriented lines spaced at 100 m apart across their 2 Aces West and 2 Aces East claims (Albano and Mitchell, 2019c)

5.0 Economic Assessment

The Property is an early exploration stage project. To date, an economic assessment of the Property has yet to be inferred.

6.0 Regional and Property Geology

The Seller Creek, Cariboo Valley and 2 Aces West project area is situated within the Barkerville Subterrane (**Fig. 3**), a subset of the Kootenay Terrane, with which it shares many similarities (Struik, 1986; 1988). The Barkerville Subterrane consists of a late Proterozoic and/or Paleozoic sequence of continental shelf and slope deposits developed adjacent to the craton of Ancestral North America and includes clastic sedimentary rocks along with lesser amounts of volcanic rocks and carbonates. Rocks of the Seller Creek, Cariboo Valley and 2 Aces West project area have been metamorphosed from upper greenschist to lower amphibolite facies (Ferri and O'Brien, 2001).

Rocks of the Barkerville Subterrane were subjected to an early period of ductile deformation that resulted in a westward directed, asymmetrical folds that plunge shallowly to the northwest. Post metamorphic open folds with upright cleavage are superimposed on earlier structures. During Late Cretaceous to Early Tertiary time, the terrane was disrupted by northwest-trending dextral strike-slip faults (Struik, 1988). Northwest- and north-trending faults, with an important normal component and generally apparent right lateral displacements, record extension, probably associated with transcurrent movement. The north striking cross faults are an important control for the gold-bearing vein systems within the Cariboo Gold Belt.

West of the property lies the Quesnel Terrane, which comprises an early Mesozoic Island arc assemblage consisting of basaltic, andesitic, pyroclastic, volcaniclastic and greywacke rocks. The Quesnel Terrane has been thrust west to east onto the Barkerville Subterrane, along the Eureka Thrust Fault. On the north end of the properties and to the east, the Cassiar Terrane, a late Proterozoic to Paleozoic sequence of continental shelf clastic and carbonate rocks have been thrust from east to west onto the Barkerville Subterrane along the Pleasant Valley Thrust Fault (**Fig. 4**).

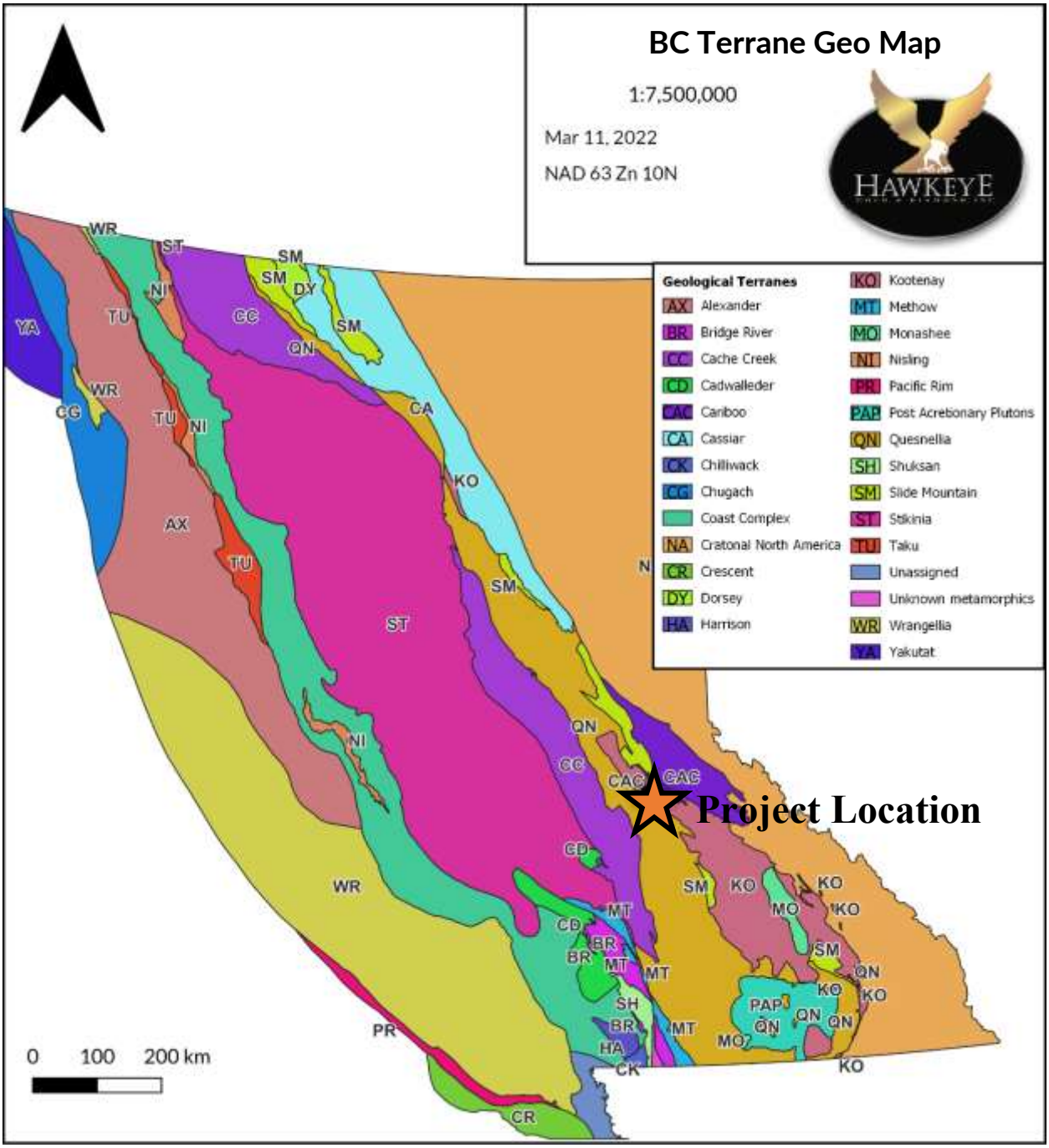


Figure 3: Geological Terrane map of the British Columbia, including the location of the project.

At a property scale, the BCGS (Logan et al., 2010) has mapped to area as predominately consisting of the Harvey's Ridge Succession formation of the Snowshoe Group (Unit: PzSHR; **Fig. 4**). This formation is made up of dark grey to grey phyllite, schist, siltstone, quartzite; locally includeing marble and schistose metavolvanic rocks. Within the Seller Creek and Cariboo Valley claims, the second-most common outcropping rock succession of the Snowshoe Group is the Goose Peak Succession consisting of quartzites, phyllites and conglomerates (Unit: PzSGP; **Fig. 4**). The Keithley Succession (Unit: uPrPzSK; **Fig. 4**) is another formation within the Snowshoe group composed of micaceous quartzite, quartzite, phyllite, and locally includes marble and amphibolite. The Keithley Succession only outcrops within the Seller Creek claims. The Devonian to Carboniferous aged Quesnel Lake Gneiss (Unit: DMQ; **Fig. 4**) composed primarily of megacrystic granodiorite to granite augen orthogneiss also occurs within the Seller Creek claim often juxtaposed to younger rocks of the Triassic aged Nicola Group metasedimentary black phyllites (Unit: muTrNbp1; **Fig. 4**) by the Eureka Thrust Fault. The Nicola Group black phyllites are the youngest known rocks within the project area.

Within the 2 Aces West claim, and in very small areas within the Cariboo Valley and Seller Creek claims, the Downey Succession of the Snowshoe Group outcrops consisting of metavolcanic rocks: chlorite-actinolite schist, amphibolite, mafic metatuff; locally includes phyllite, quartzite, and marble (Unit: uPrPzSDv; **Fig. 4**). This unit has been intruded into by Carboniferous aged dioritic intrusives described as diorite, diabase, and minor pegmatites (Unit: Mdr; **Fig. 4**).

The main structural features in the area include a dominate WNW-ESE trending trust faults which includes the previously mentioned Eureka Thrust Fault located within the southern half of the Seller Creek claim group and the Pleasant Valley Thrust Fault in the north of the 2 Aces West claims (**Fig. 4**). The second dominate structural trend is a NE-SW trending serious of inferred faults with no observed or known orientation (**Fig. 4)**.

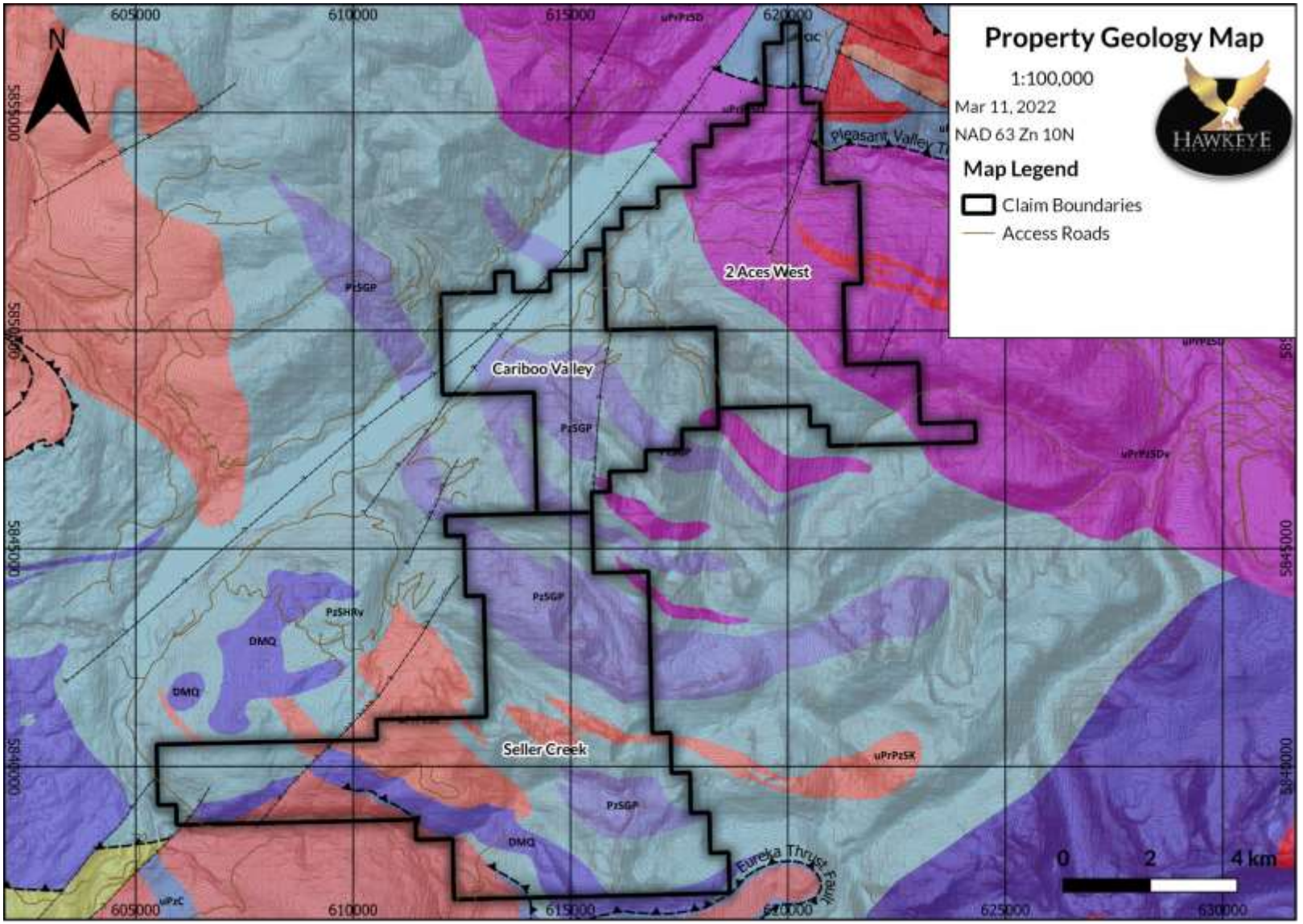


Figure 4: Property-scale geological map of the Seller Creek, Cariboo Valley, and 2 Aces West claims. Geological legend over leaf. BCGS digitized geological layers (**Logan et al., 2010**).

Property Geology Legend

BC Geology

BC Faults

Fault

Thrust fault

7.0 2021 Work Program

In 2021, SGDS Hive was contracted by Hawkeye Gold & Diamond to complete an exploration program to help advance their Barkerville Claims including the Seller Creek, Cariboo Valley, and 2 Aces West projects. The work program consisted of geological mapping, rock sampling, pXRF analysis in the field, prospecting, stream sediment sampling, and orthoimage capturing via a Remotely Piloted Aircraft System (RPAS). The work program was completed between September 23rd, 2021, and October 24th, 2021.

Prior to commencing field work, SGDS Hive completed a detailed desktop study, where all the historical information publicly available on the ARIS database (https://aris.empr.gov.bc.ca/) was collected and were possible digitized into GIS compatible data and into numerical databases.

Related to the Seller Creek claims, the following was digitized within the desktop study: From assessment report 15804, 103 soil samples, and 35 geological outcrops (Schmidt, 1986). A detailed geological map and structures were digitized from assessment report 13154 that spanned part of the Seller Creek claims (Marr, 1984). Assessment report 22642 had 128 soil sample points digitized, along with a geological outcrop map and structures (Donaldson, 1992). Assessment report 10264 contained two rock chip samples, 39 silt samples, and 11 soil samples (Christie et al., 1982). Forty-two rock chip samples, and eleven stream sediment samples were digitized from assessment report 10252 along with outcrop geology (Jones, 1981).

Nine rock samples and a geological map from assessment report 11848 related to the Cariboo Valley claims was also digitized (Landsberg, 1983). In addition, a property geological map which spanned the majority of the Seller Creek claims, and the entirety of the Cariboo valley and 2 Aces West claims was digitized from assessment report 27954 (Doyle, 2005).

In the field program of 2021, within the Seller Creek project, 46 geological observations were made of different outcrops on the property (**Appendix E**) along with 46 rock samples sent to SGS Labs in Burnaby, and 46 averaged (3 tests for each sample) pXRF analyses completed in the field. Seller Creek is dominated by high elevation peaks, as such, during the time of the work program, the ground was mostly snow covered with little flowing streams and so no stream

sediments were collected on the property. RPAS captured orthoimagery was collected over a total area of 213 hectares (ha) on the Seller Creek claims (**Appendix D**).

Across the Cariboo Valley claims, no rock outcrop was mapped, nor any rock samples sent to the lab or analysed by the pXRF due to a lack of outcrop in the traversed area. Two stream sediment stations were sampled within the Cariboo Valley claims, with a total of 4 samples taken and 4 QA/QC samples sent to the lab. Methodology for stream sediment survey discussed in 8.2.4 Stream Sediment Sampling (**Appendix H**).

Within the 2 Aces West claims, a total of 19 geological observations were made (**Appendix E**), along with 19 rock samples were sent to the lab (**Appendix F**), and 19 averaged pXRF analyses completed in the field (**Appendix G**). Four stream sediment stations were set up with 7 samples and 4 QA/QC samples sent to SGS Labs, Burnaby. Methodology for stream sediment survey discussed in 8.2.4 Stream Sediment Sampling (**Appendix H**).

Also, as part of the 2021 Work Program, Campbell & Walker Geophysics Ltd. were contracted by Hawkeye Gold & Diamond prior to completing field work to interpret the airborne magnetic data collected on the Seller Creek, Cariboo Valley, and 2 Aces West claims in 2018. The details of their interpretation can be viewed in **Appendix I - K.**

Their analysis and interpretation included a suite of filters and derivatives applied to the aeromagnetic gridded data, followed by a multiscale edge detection, and automated grid 'fractal' analysis to identify regions prospective for gold mineralization based upon structural complexity as inferred from magnetics being indicative of significant faults, and/or shears.

They recognised specific areas of interest, identified by Centre for Exploration Targeting grid analysis. For the Cariboo Valley and 2 Aces West claims, the report identifies two somewhat broad features on the contact occurrence density 'heatmap' with a separation into component parts by the occurrence entropy (**Appendix I**; Campbell, 2021a; **Appendix J**; Campbell, 2021b). For the Seller Creek claims, the areas of interest identified by Centre for Exploration Targeting grid analysis include one by the contact occurrence density 'heatmap' with an additional three more general areas identified by the occurrence entropy (**Appendix K**; Campbell, 2021c). Campbell (2021c) draws particular attention on a structurally complex zone in the centre-east of

the Seller Creek claim group, and the presence of a significant NW-trending linear, inferred shear/fault zone (**Appendix K**).

The recommendation for the Seller Creek, Cariboo Valley, and 2 Aces West suggests future work to verify the potential of these areas of interest should include prospecting, surface mapping, geochemical sampling, and ground geophysics (e.g., induced polarization/resistivity) (**Appendix I**; Campbell, 2021a; **Appendix J**; Campbell, 2021b; **Appendix K**; Campbell, 2021c). All of which, were the focus of the 2021 field program with the exception of ground geophysics due to the weather conditions as the field portion of the program was completed late in the field season.

8.0 Methodology

8.1 Geological Survey

Reconnaissance was planned based off historical targets, anomalous zones, and the targets recognised from the 2018 airborne geophysical surveys flown and interpretations made in early 2021 by Campbell & Walker Geophysics Ltd (**Appendix I**; Campbell, 2021a; **Appendix J;** Campbell, 2021b; **Appendix K;** Campbell, 2021c). Notable observations, such as physical outcrops or structural measurements, were sketched on a mylar clipboard. Observation and sample stations were located using a Garmin 64st GPS unit, exported using ExpertGPS, and digitized into Microsoft Excel and ESRI ArcGIS/QGIS.

Field stations refer to any observation a field personnel regarded as worth noting with context to geology (Table 11). Stations range from outcropping lithology types and structural measurements to notable changes in the immediate area (anthropogenic, physiography, vegetation).

8.2 Geochemical Survey

Select grab (rock) samples were retrieved during geological reconnaissance (prospecting) and chosen based on observable lithology, mineralization, structure, and/or alteration. Types of select grab samples are based on the proximity to the source (float, subcrop, outcrop).

8.2.1 Sampling Protocol and Analysis

All samples were located using a standard Garmin GPS handheld unit and cataloged using a digital tablet where the information was stored locally on the machine as well as being uploaded to the cloud and stored in a database system accessible by Microsoft Excel. All samples were shipped to SGS Laboratories ("SGS") in Burnaby, British Columbia. QAQC control to sampling was used for the 2021 geochemical surveys, with field duplicates, lab preparation duplicates, and OREAS standard material were sent to the lab alongside each shipment. A full description of each lab method can be found on SGS's Geochemistry Guide **(SGS, 2020).**

8.2.2 Select Rock Grabs

Wearing proper PPE for the sampling, a standard rock hammer was used to chip at sample stations. The samples were collected as select grab samples, large fragments of homogenous material at the specific location. Unique sample tags were issued to each individual sample, bagged in medium-sized polyurethane bags, and zip-tied at the sample location site.

8.2.3 Chip Samples and pXRF

Small rock chip samples were collected at all stations where a rock/grab sample was collected. These rock chips are used to be representative sample of the sample sent to the assay lab. The team used a portable XRF machine (Olympus Vanta XRF supplied by IMDEX) to collect geochemical data on these chips on the evening they were collected to help guide the field program and recognised possibly important early trends such as host lithologies, alteration and weathering patterns. The pXRF equipment was operated in accordance with NRCan requirements and was desktop mounted with protective radiation shield always attached while in use. A total of three measurements were taken for each rock chip, results were then averaged in the provided Olympus Vanta XRF software.

8.2.4 Stream Sediment Sampling

Stream sediment stations were set-up across the projects where suitable to collect stream sediment samples for both precious metal and base metal concentrations. At each sampling station, sediment was sieved and split into a sample with sediment less than 125 µm (sieve size: 120) for a precious metal sample; with sediment between 2000 µm (sieve size: 10) and 125 µm (sieve size: 120) suitable for a base metal sample. All samples were shipped to SGS Laboratories (“SGS”) in Burnaby, British Columbia. Samples of the sediment were taken via scoop method using a shovel; scoops from various sections of the sample area were taken to ensure a representative, composite sample. These were passed through the sieves, and the sieves were shaken aggressively to arrange the sediments by size. Sediments larger than 2000 µm were discarded, while sediments between 2000 and 125 µm, and sediments finer than 125 microns were both sent for analysis. Sediments between 2000 and 125 µm were analysed for base metals by aqua regia digest, and sediments smaller than 125 µm were analysed for gold by fire assay, and by aqua regia digest for base metals. For QA/QC, field duplicates, lab

preparation duplicates, and OREAS standard material was sent to the lab with each shipment. A full description of each lab method can be found on SGS's Geochemistry Guide **(SGS, 2020).**

8.3 RPAS Orthoimagery Acquisition and Processing

A Remotely Piloted Aircraft System (RPAS) was used to capture orthoimagery of select areas to produced merged imagery as well as obtain elevation data to produce a Digital Surface Model (DSM) and Digital Terrain Model (DTM). A DJI Mavic Pro was flown over the areas to capture images which was piloted from the ground and the flight missions designed in Pix4D Capture mobile software. Image processing was completed in Pix4D Mapper for desktop PC. The finished product was then reviewed in ESRI ArcScene 10.7.1 and QGIS 3.22.0.

9.0 Results

9.1 Geological Mapping and Prospecting

9.1.1. Seller Creek

An area approximately 0.2 km^2 was mapped along the ridges of the Goose Peak in the southern half of the Seller Creek claims (**Appendix E**). The area mapped and sampled consisted of primarily Paleozoic aged, interlayered marble, schist, and lesser phyllite of the Harvey's Ridge Succession, a formation from the Snowshoe Group. The marble was massive in texture, often micaceous with common thick rusty to fresh quartz and quartz-carbonate veins with rare pyrite (**Fig. 5**). Interlayered with the marble, was a foliated schist (**Fig. 6**) which varied in its quartz-content based on the protolith, again likely associated with the Harvey's Ridge Succession. Quartzites and phyllites (**Fig. 7**) also outcropped within the mapped area, believed to be related to the Keithley Succession of the Snowshoe group.

Quartz (+/- carbonate) veining was very common, varying from sub-centimetre veinlets to thick (5-20cm) sub-parallel sheeted vein systems, predominantly hosted by the marble and quartzites. These veins were often rusty with hematitic staining (**Fig. 8**) or rarely contained visible sulphides primarily pyrite (up to 2%) or chalcopyrite (often less than 1%, where present).

Table 2 details all of the rock samples collected within the Seller Creek claims.

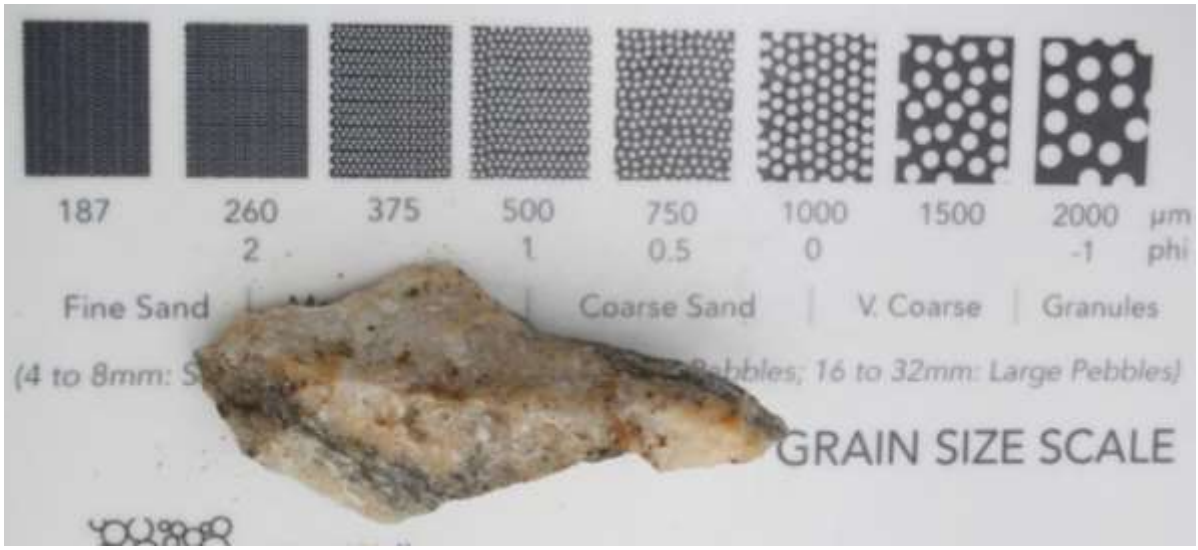


Figure 5: Rock chip of sample C00065215 collected from Seller Creek. The sample is a micaceous marble common within the area mapped in 2021.

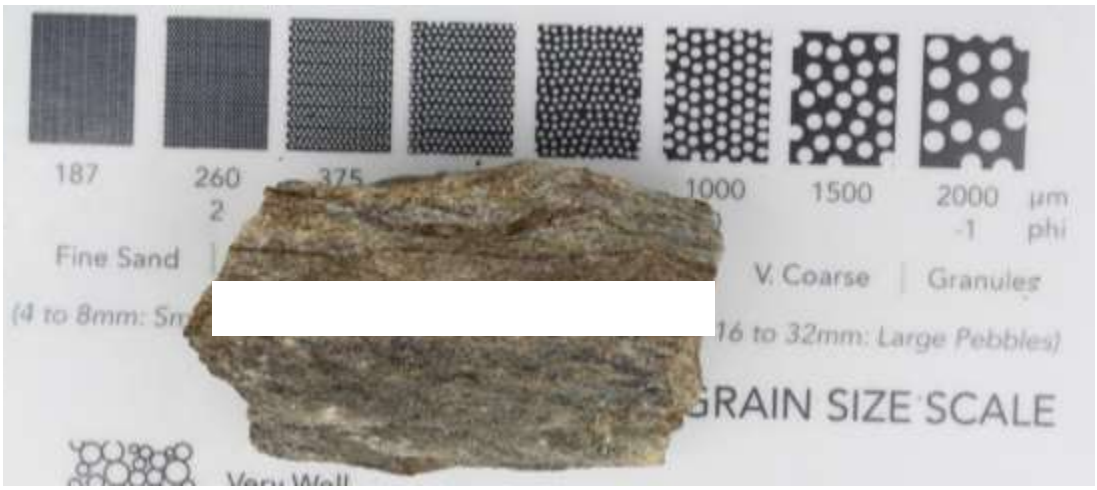
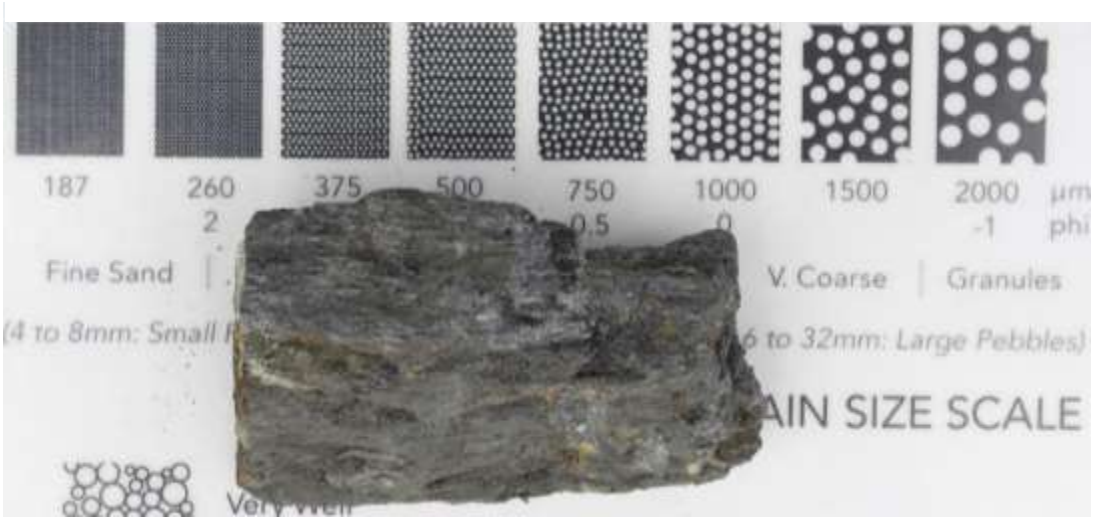


Figure 6: Rock chip of sample C00065233 collected from Seller Creek. The sample is a foliated schist common within the area mapped in 2021.



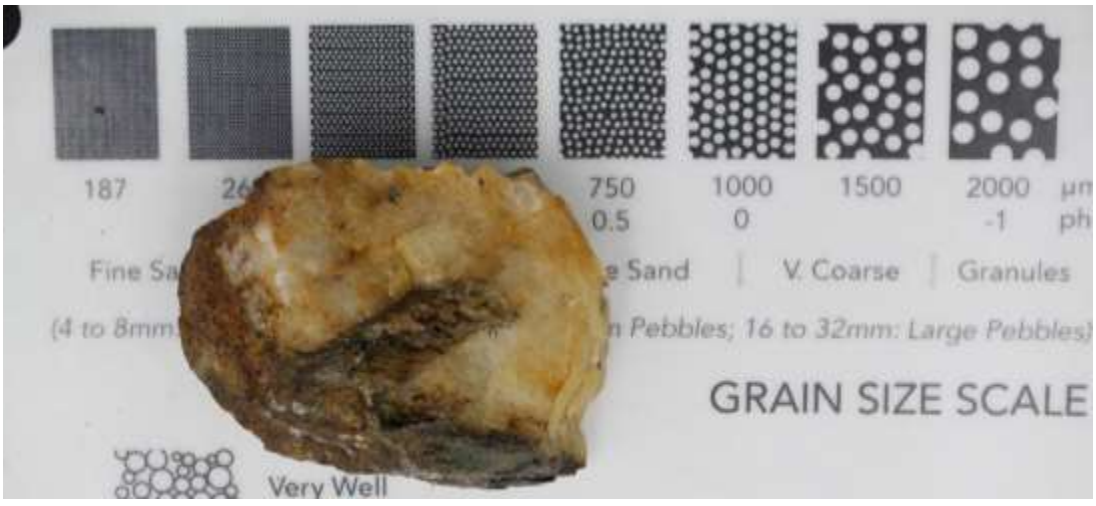


Figure 8: Rock chip of sample C00065223 collected from Seller Creek. The sample is a massive quartz vein with a hematitic rind.

9.1.2. 2 Aces West

Two small areas were accessed within the 2 Aces West claims for the purpose of rock sampling and geological mapping. The first area was 0.22 km^2 and was road accessible, while the second area was helicopter-only accessible, and a small area sampled (0.008 km^2). The road accessible area to the north consisted of primarily Downey Succession phyllites and quartzites (Fig. 9). Metavolcanics and phyllites of the Harvey's Ridge succession were found to outcrop at the southerly helicopter-only mapping area along the Mt. Barker Peak. Quartz veins were found cross-cutting cleavage within phyllites, often with a notable hematitic crust. Veining was more prominent in the north within the Downey Succession meta-pelites, meta-arenites, and meta-volcanics. Appendix E contains 1:1000 scale outcrop maps of both mapping grids within the 2 Aces West claims. Table 3 details all of the rock samples collected within the 2 Aces West claims.

Structurally, a strong foliation was noted through all rock units, with the exception of massive quartzite units. Within the south a strong North-South foliation can be observed, while in the north, a NW-SE foliation with a secondary crenulation perpendicular was noted. (Appendix E). Veining generally was oblique to the foliation and trending NNW-SSE.

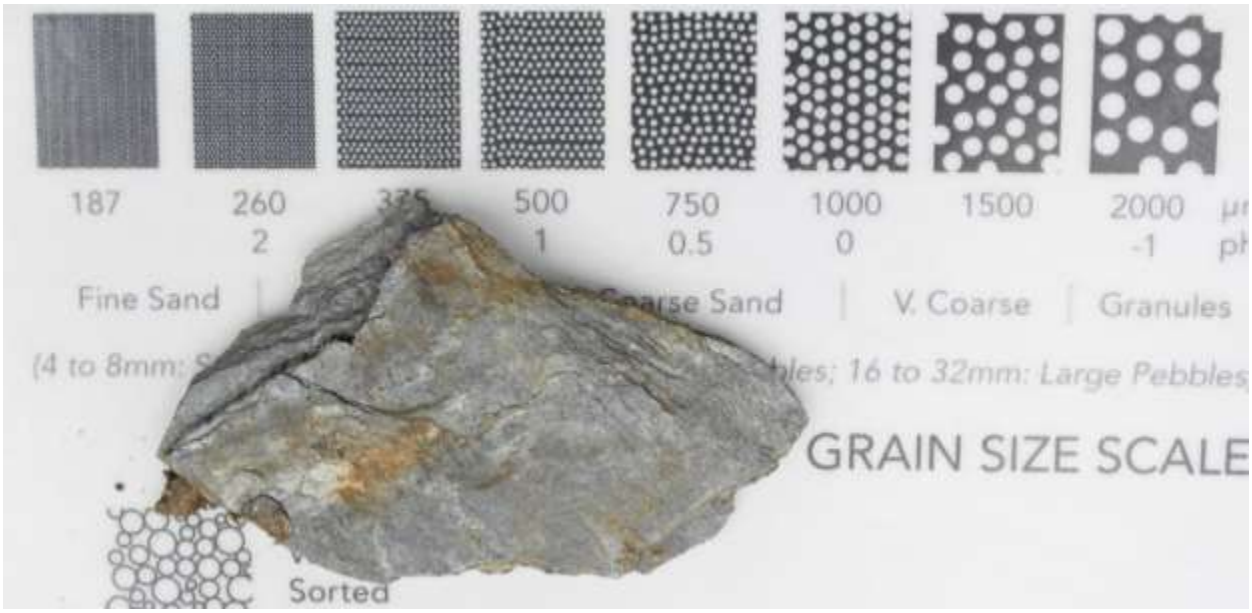


Figure 9: Rock chip of sample C00065106 collected from 2 Aces West. The sample is a foliated phyllite, the main country rock sampled on the property.

Figure 10: Rock chip of sample C00065113 collected from 2 Aces West. The sample is a hematitic quartz vein hosted by phyllite as part of a sub-parallel sheeted vein system.

Table 2: Rock sample descriptions from the Seller Creek claims. -99 signifies values below detection limit. -999 indicates elements that were not analysed. Co:Ni Ratio calculated for those samples were both Co and Ni were analysed and above the lab detection limit.

PROSPECT / TARGET ZONE	SAMPLE TYPE	SAMPLE NUMBER	UTM EASTING	UTM NORTHING	ELEVATION	SAMPLE DESCRIPTION	Au (ppm)	Ag (ppm)	Cu (ppm)	Co (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Co:Ni Ratio
Seller Creek	ROCK - Grab or Outcrop	C00065087	615399	5840776	1992	foliated micaceous schist with rusty quartz veins.	-99	-99	81.7	8	37	15	47	0.22
Seller Creek	ROCK - Grab or Outcrop	C00065088	615468	5840761	1987	foliated micaceous schist with rusty qtz veins	-99	-99	20.4	12	22	20	105	0.55
Seller Creek	ROCK - Grab or Outcrop	C00065089	615288	5840782	1989	foliated micaceous schist with quartz carbonate veins. possible disseminated sphalerite (0.5%)	-99	-99	3.8	2	7	-99	5	0.29
Seller Creek	ROCK - Grab or Outcrop	C00065090	615236	5840787	1981	graphitic/carbonaceous foliated schist with quartz carbonate veins	-99	-99	31.4	2	23	10	73	0.09
Seller Creek	ROCK - Grab or Outcrop	C00065091	615197	5840744	1971	graphitic foliated schist with vuggy quartz lenses	-99	-99	58.4	1	22	32	45	0.05
Seller Creek	ROCK - Grab or Outcrop	C00065092	615159	5840725	164	foliated graphitic/carbonaceous schist with quartz vein	-99	-99	3.7	-99	41	21	259	-
Seller Creek	ROCK - Grab or Outcrop	C00065093	615105	584030	1950	foliated graphitic/carbonaceous schist with thin to thick quartz veins with hematitic staining	-99	-99	27.2	-99	21	19	217	-
Seller Creek	ROCK - Grab or Outcrop	C00065094	615070	5840709	1942	foliated micaceous schist with rusty quartz veins	-99	-99	15.6	4	20	34	60	0.20
Seller Creek	ROCK - Grab or Outcrop	C00065095	615000	5840691	1930	micaceous schistose schist with rusty quartz veins and lenses. subtle segregation of light and dark bands	-99	-99	12.6	8	28	12	67	0.29
Seller Creek	ROCK - Grab or Outcrop	C00065096	614946	5840686	1921	schistose schist with moderate segregation of quartz rich and quartz poor layers. gneissic bands. intense hematitic staining. possible fault contact.	-99	-99	10.4	6	17	16	27	0.35
Seller Creek	ROCK -	C00065097	614938	5840675	1924	equigranular meta-	-99	-99	18.6	8	28	12	56	0.29

	Grab or Outcrop					arenite/quartzite								
Seller Creek	ROCK - Grab or Outcrop	C00065201	615925	5840587	2064	quartz vein on schist	-99	-99	7.7	1	6	8	13	0.17
Seller Creek	ROCK - Grab or Outcrop	C00065202	615925	5840587	2064	schist	-99	-99	19.8	7	16	16	73	0.44
Seller Creek	ROCK - Grab or Outcrop	C00065203	615906	5840582	2049	schist with quartz bands/veins	-99	-99	21.3	5	14	14	26	0.36
Seller Creek	ROCK - Grab or Outcrop	C00065204	615886	5840581	2047	Schist with vuggy quartz vein. strong purple-red hematite staining in vugs. disseminated pyrite.	-99	-99	15.4	6	13	16	66	0.46
Seller Creek	ROCK - Grab or Outcrop	C00065205	615869	5840568	2040	massive quartz vein with ds pyrite and rare vugs. schist country rock. possible thin marble layer along vein.	-99	-99	3.3	-99	4	-99	5	-
Seller Creek	ROCK - Grab or Outcrop	C00065206	615856	5840576	2040	massive quartz vein with vuggy margins. muscovite selvage. ds py in vein.	-99	-99	2.7	-99	4	-99	2	-
Seller Creek	ROCK - Grab or Outcrop	C00065207	615857	5840579	2041	quartz-rich marble with bands of muscovite	-99	-99	4.7	-99	3	6	10	-
Seller Creek	ROCK - Grab or Outcrop	C00065208	615827	5840604	2037	marble with quartz vein contact. muscovite throughout.	-99	-99	2.6	-99	4	2	4	-
Seller Creek	ROCK - Grab or Outcrop	C00065209	615780	5840629	2020	thick 5-7cm qtz vein in jointed musc rich marble.	0.007	-99	8.2	-99	5	2	12	-
Seller Creek	ROCK - Grab or Outcrop	C00065210	615763	5840642	2018	marble with thick quartz vein (v0) with perpendicular smaller quartz veins (v1)	-99	-99	2.4	-99	5	6	3	-
Seller Creek	ROCK - Grab or Outcrop	C00065211	615923	5840551	2052	massive quartz vein with bands of muscovite. hematite staining along fractures.	0.011	-99	7.3	-99	6	4	6	-
Seller Creek	ROCK - Grab or Outcrop	C00065212	615930	5840547	2052	equigranular schist	-99	-99	26	7	16	17	98	0.44
Seller Creek	ROCK - Grab or	C00065213	615917	5840504	2037	massive quartz vein with hematized fractures.	-99	-99	1.8	-99	4	-99	-99	-

	Outcrop					hosted by equigranular schist.								
Seller Creek	ROCK - Grab or Outcrop	C00065214	615896	5840496	2033	interlayered quartzite and schist (metapelite).	-99	-99	8.2	5	13	11	59	0.38
Seller Creek	ROCK - Grab or Outcrop	C00065215	615896	5840493	2034	marble with quartz vein	0.006	-99	11.5	1	7	4	30	0.14
Seller Creek	ROCK - Grab or Outcrop	C00065216	615905	5840440	2025	interlayered schist and quartzite	-99	-99	163	4	63	28	313	0.06
Seller Creek	ROCK - Grab or Outcrop	C00065217	615892	5840406	2010	schist with foliated veins and post metamorphic V1 qtz vein	-99	-99	60.5	2	22	46	383	0.09
Seller Creek	ROCK - Grab or Outcrop	C00065218	615906	5840336	1994	schist with quartz bands/veins. hematite staining along fractures.	-99	-99	52.9	2	20	9	245	0.10
Seller Creek	ROCK - Grab or Outcrop	C00065219	615877	5840301	1988	massive, thick (8-15cm) quartz vein in schist.	-99	-99	15.7	9	18	11	61	0.50
Seller Creek	ROCK - Grab or Outcrop	C00065220	615889	5840254	1976	large outcrop face. foliated schist overlying equigranular sugary quartzite with qtz veins.	-99	-99	17.6	23	48	7	105	0.48
Seller Creek	ROCK - Grab or Outcrop	C00065221	615877	5840189	1971	Interlayered quartzite and schist.	-99	-99	12.2	7	18	17	30	0.39
Seller Creek	ROCK - Grab or Outcrop	C00065222	615899	5840088	1961	Schist interlayered with quartzite. quartz lenses and veins follow foliation	-99	-99	17.2	6	18	30	53	0.33
Seller Creek	ROCK - Grab or Outcrop	C00065223	615915	5840072	1950	interbedded schist and quartzite with hematized sheeted and folded quartz veins	-99	-99	24.4	9	27	17	62	0.33
Seller Creek	ROCK - Grab or Outcrop	C00065224	615924	5840016	1956	Schist with folded bands and lenses of quartz	-99	-99	46	3	23	7	173	0.13
Seller Creek	ROCK - Grab or Outcrop	C00065225	616123	5839901	2008	Schist with bands and lenses of quartz.	-99	-99	4.4	-99	5	5	46	-
Seller Creek	ROCK - Grab or Outcrop	C00065226	616084	5839902	1998	Schist with quartz bands and veins.	-99	-99	8	-99	5	10	16	-
Seller Creek	ROCK - Grab or	C00065227	616159	5839792	1993	schist with bands and lenses of quartz	-99	-99	7.9	5	17	14	48	0.29

	Outcrop													
Seller Creek	ROCK - Grab or Outcrop	C00065228	616176	5839766	1993	Meta-Arenite/Quartzite with fine layers of schist.	-99	-99	22	12	23	15	69	0.52
Seller Creek	ROCK - Float	C00065230	615734	5840650	2015	Quartz float, some bornite stain?	0.007	-99	9.4	2	9	3	25	0.22
Seller Creek	ROCK - Grab or Outcrop	C00065231	615731	5840664	2016	Mica schist with some quartz veining	-99	-99	32.8	13	34	15	64	0.38
Seller Creek	ROCK - Grab or Outcrop	C00065232	615707	5840665	2007	Quartz vein	-99	-99	7.5	-99	5	2	8	-
Seller Creek	ROCK - Subcrop	C00065233	615628	5840698	2005	Banded quartzite? Black sulphides?	-99	-99	-99	1	11	3	33	0.09
Seller Creek	ROCK - Grab or Outcrop	C00065234	615626	5840713	2008	Phyllite with some quartz veins	-99	-99	14.1	10	29	15	44	0.34
Seller Creek	ROCK - Subcrop	C00065235	615592	5840731	2006	Quartz vein subcrop/ float	-99	4	0.6	-99	3	42	1	-
Seller Creek	ROCK - Subcrop	C00065236	615168	5840716	1957	Phyllite	-99	-99	240	-99	15	9	75	-

Table 3: Rock sample descriptions from the 2 Aces West claims. -99 signifies values below detection limit. -999 indicates elements that were not analysed. Co:Ni Ratio calculated for those samples were both Co and Ni were analysed and above the lab detection limit.

PROSPECT / TARGET ZONE	SAMPLE TYPE	SAMPLE NUMBER	UTM EASTING	UTM NORTHING	ELEVATION	SAMPLE DESCRIPTION	Au (ppm)	Ag (ppm)	Cu (ppm)	Co (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Co:Ni Ratio
2 Aces West	ROCK - Grab or Outcrop	C00065007	620431	5849071	2001	interbedded, foliated quartzite and phyllite. veins sub-parallel to	-99	-99	2.2	1	5	9	10	0.20

						parallel to foliation								
2 Aces West	ROCK - Grab or Outcrop	C00065008	620457	5849041	2004	interlayered phyllite and quartzite with thin to thick quartz veins. possible MnO staining on outer surfaces	-99	-99	3.2	-99	3	4	12	-
2 Aces West	ROCK - Grab or Outcrop	C00065061	620339	5849163	1976	foliated, jointed, chloritic, sericitic, banded meta-basite/volcanic. disseminated pyrite (0.5%).	-99	-99	3.9	-99	4	17	12	-
2 Aces West	ROCK - Grab or Outcrop	C00065085	620348	5849152	1981	foliated, jointed, silicified, sericitic, interlayered meta-basite/volcanic and foliated, micaceous phyllite. cross-cutting hematized quartz veins.	-99	-99	1.4	-99	5	7	13	-
2 Aces West	ROCK - Grab or Outcrop	C00065086	620392	5849106	1999	interlayered foliated phyllite and quartzite/meta-arenite.	-99	-99	4.2	1	5	6	18	0.20
2 Aces West	ROCK - Float	C00065101	619350	5851887		quartz vein material in creek	-99	-99	6.4	2	8	11	16	0.25
2 Aces West	ROCK - Subcrop	C00065102	618954	5852073	1155	porphyroblastic phyllite interbedded with quartzite.	-99	-99	12.8	9	19	24	58	0.47
2 Aces West	ROCK - Grab or Outcrop	C00065103	618842	5852072	1142	equigranular phyllite and interbedded quartzite	-99	-99	28.7	18	47	32	125	0.38
2 Aces West	ROCK - Grab or Outcrop	C00065104	618842	5852075	1142	thick (5-8cm) quartz vein with ds py	-99	-99	4.2	3	7	9	10	0.43
2 Aces West	ROCK - Grab or Outcrop	C00065105	618777	5852072	1137	quartz vein with trace py	-99	-99	14.6	7	16	21	28	0.44
2 Aces West	ROCK - Grab or Outcrop	C00065106	618778	5852073	1135	phyllite+quartzite	-99	-99	15.7	10	24	14	78	0.42
2 Aces West	ROCK - Grab or Outcrop	C00065107	618739	5852066	1132	interbedded phyllites and quartzites. less foliated more competent. possible lens of metabasite with flow bands	-99	-99	17.3	6	14	11	30	0.43
2 Aces West	ROCK - Grab or Outcrop	C00065108	618534	5852036	1109	interbedded quartzite phyllite and marble with qtz-carb veins	-99	-99	6.2	2	7	13	16	0.29
2 Aces West	ROCK -	C00065109	618530	5852030	1109	Interbedded phyllite-	-99	-99	15.2	7	16	13	38	0.44

	Grab or Outcrop					quartzite and flow banded metabasite								
2 Aces West	ROCK - Grab or Outcrop	C00065110	618404	5852036	1097	thick (5-10cm) quartz vein in phyllite	-99	-99	8.9	2	6	20	11	0.33
2 Aces West	ROCK - Subcrop	C00065111	618389	5852031	1096	porphyroblastic phyllite	-99	-99	13	13	36	30	124	0.36
2 Aces West	ROCK - Grab or Outcrop	C00065112	618287	5852022	1080	equigranular phyllite	-99	-99	15.6	11	24	18	65	0.46
2 Aces West	ROCK - Grab or Outcrop	C00065113	618279	5852040	1078	phyllite with sheeted sub parellel quartz veins.	-99	-99	7.8	2	6	4	5	0.33
2 Aces West	ROCK - Grab or Outcrop	C00065114	617924	5852032	1030	porphyroblastic phyllite	-99	-99	30.2	17	31	19	106	0.55

9.2 Rock Sample Geochemistry (Lab Assays and pXRF)

9.2.1. Seller Creek Results

Table 4 summarizes the assay results for the rock (grab) samples collected in 2021 from the Seller Creek claims. In total 46 rocks were sent to the lab. For gold, only four samples returned values above the lab detection limit, with the maximum value of 0.011 ppm. A single sample assayed 4 ppm silver. Copper grades were more notable, with an average grade of 26.29 ppm and a single sample grading 240 ppm Cu (Sample: C00065236). Anomalous Zinc was also observed with five samples returning values over 200 ppm Zn, including sample C00065217 which assayed 383 ppm Zn. Figures 11 – 18 show the distribution of the key assayed elements across the Seller Creek mapping area. Full assay results can be seen in Appendix A. Rock sample locations are shown in 1:1000 scale in Appendix F.

All the samples that were sent to the lab for assaying, also had a representative rock chip which was analysed in the field via portable XRF (pXRF). The results agree with the lab assays, although appear to on average over-estimate Cu, Co, Ni. Pb, Zn and underreport Au, Ag. Table 5 summarizes the pXRF results for the Seller Creek claims.

Table 6 shows the correlation between pXRF and lab assayed elements. No particularly strong normal or inverse correlations are noted between elements, with the exception of Ni and Zn in the Lab Assays (R^2 = 0.62) (Table 6).

Table 4: Summary table of 2021 rock sampling program on the Seller Creek Claims.

Seller Creek - Rock Samples (Lab Assays)	Au (ppm)	Ag (ppm)	Cu (ppm)	Co (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)
# Samples	46.000	46.000	46.000	46.000	46.000	46.000	46.000
# Samples (above detection limit)	4.000	1.000	45.000	31.000	46.000	42.000	45.000
Average Grade (mean)	0.008	4.000	26.287	6.161	17.370	14.333	71.600
Max	0.011	4.000	240.000	23.000	63.000	46.000	383.000
Min	0.006	4.000	0.600	1.000	3.000	2.000	1.000

Table 5: Summary table of 2021 pXRF analysis completed in the field on the Seller Creek Claims. pXRF samples are of rock chips taken at the same location, of the same rock outcrop sent to the lab as a rock sample.

Seller Creek (pXRF results)	Au (ppm)	Ag (ppm)	Cu (ppm)	Co (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)
# Samples	46.000	46.000	46.000	46.000	46.000	46.000	46.000
# Samples (above detection limit)	0.000	1.000	27.000	3.000	35.000	30.000	26.000
Average Grade (mean)	-	2.000	68.296	157.333	49.686	29.767	100.846
Max	-	2.000	322.000	275.000	489.000	215.000	895.000
Min	-	2.000	6.000	81.000	4.000	2.000	7.000

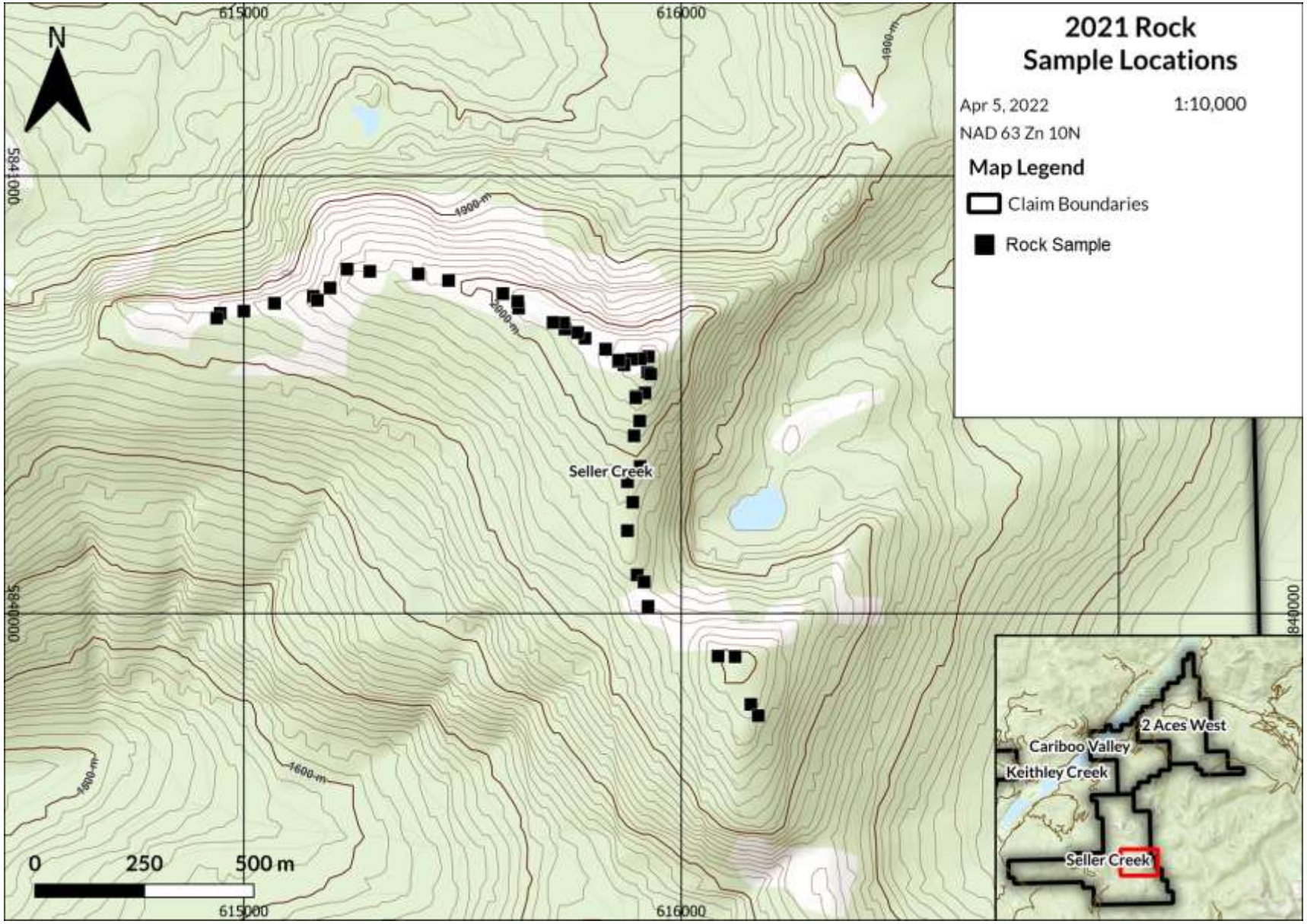


Figure 11: Rock (grab) sample locations within the Seller Creek claims.

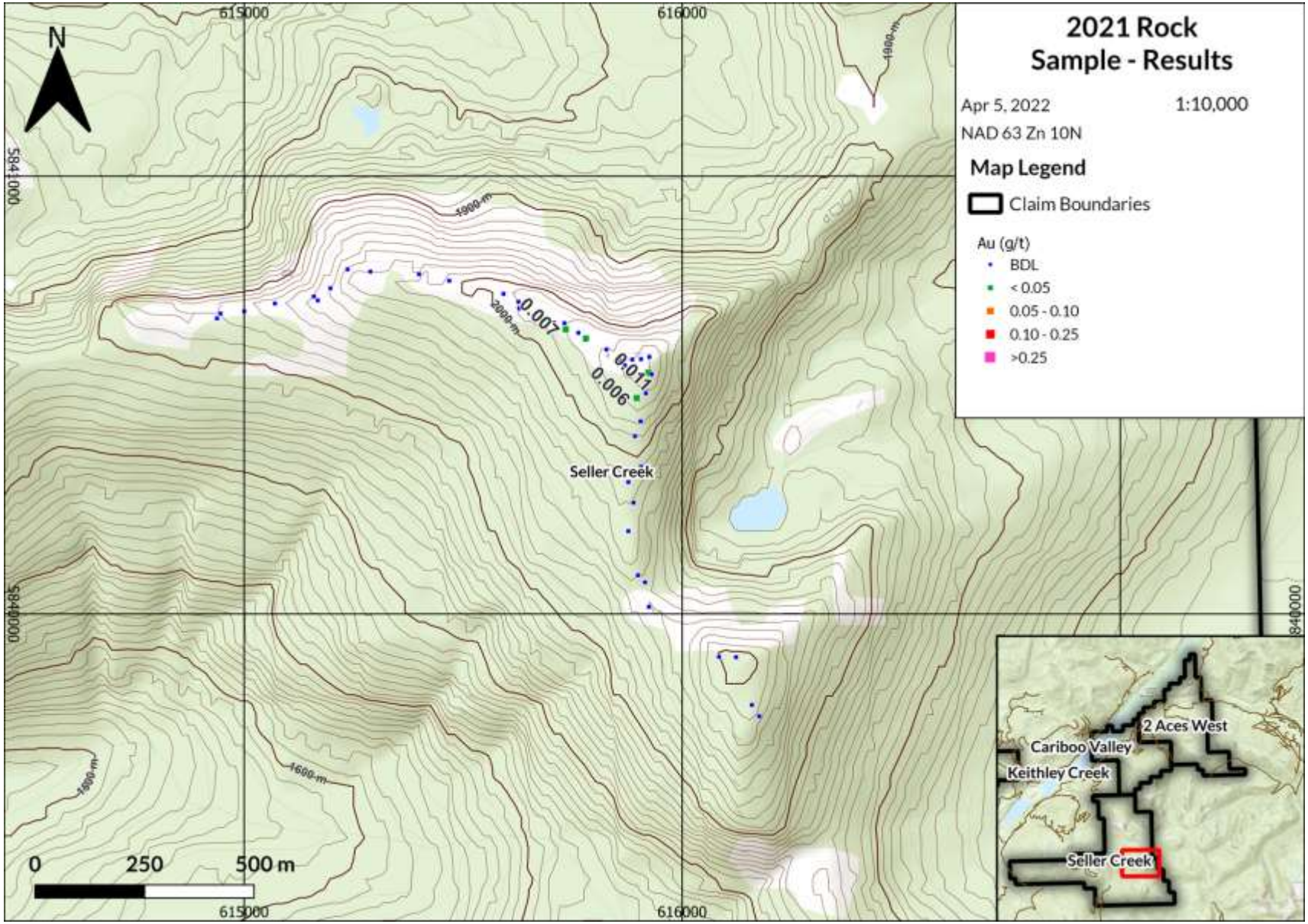


Figure 12: 2021 Gold assay samples within the Seller Creek claims.

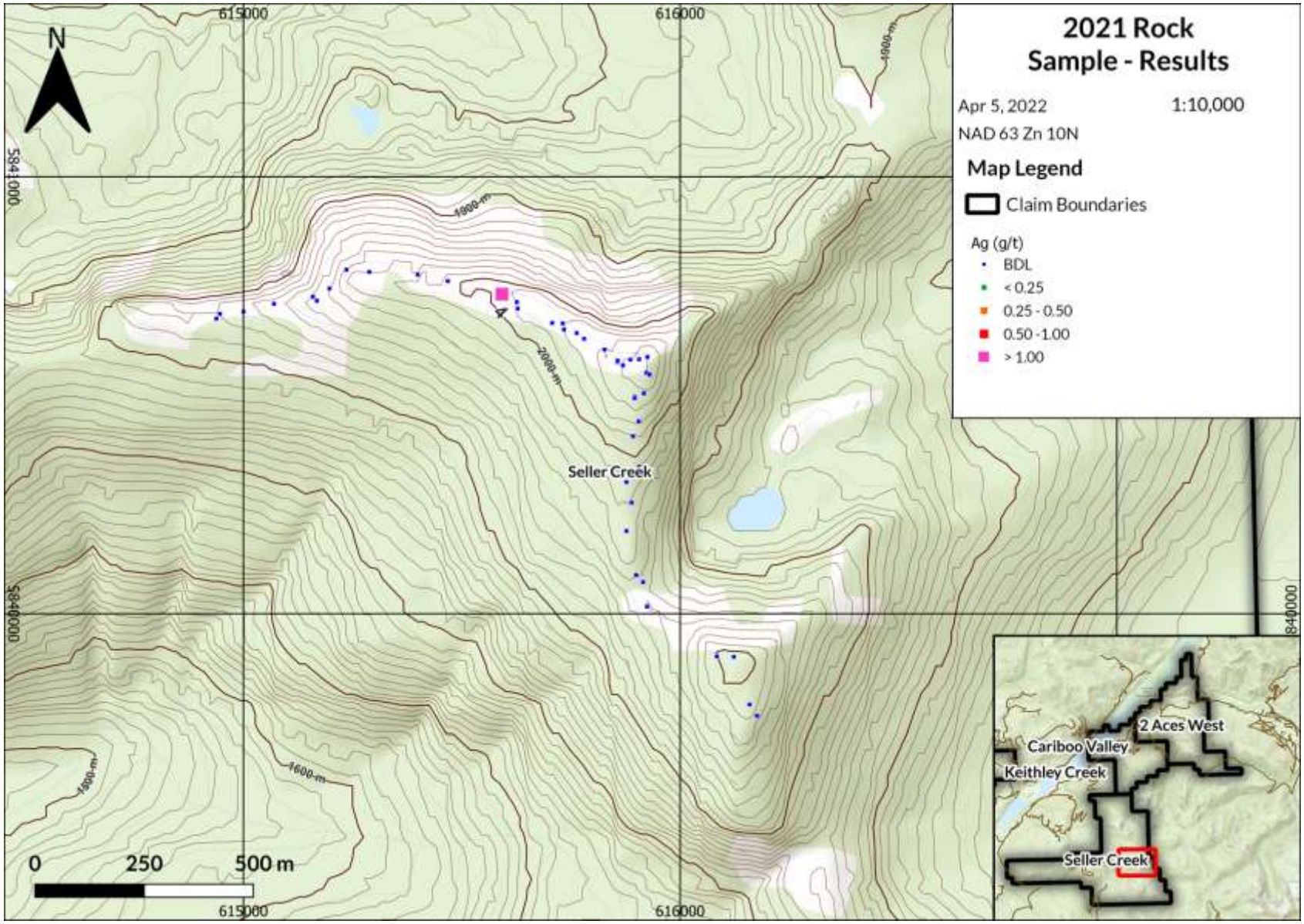


Figure 13: 2021 Silver assay samples within the Seller Creek claims.

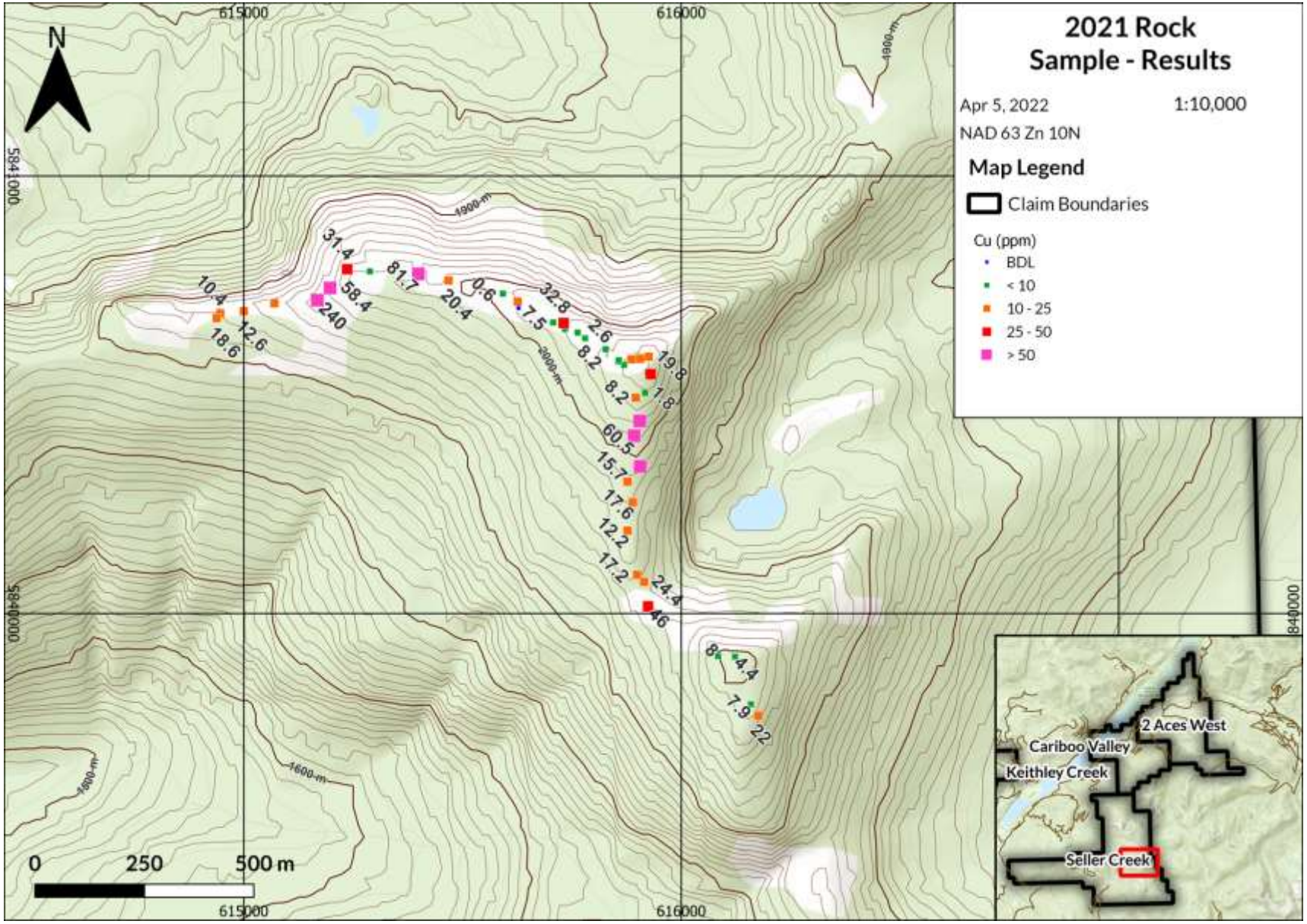


Figure 14: 2021 Copper assay samples within the Seller Creek claims.

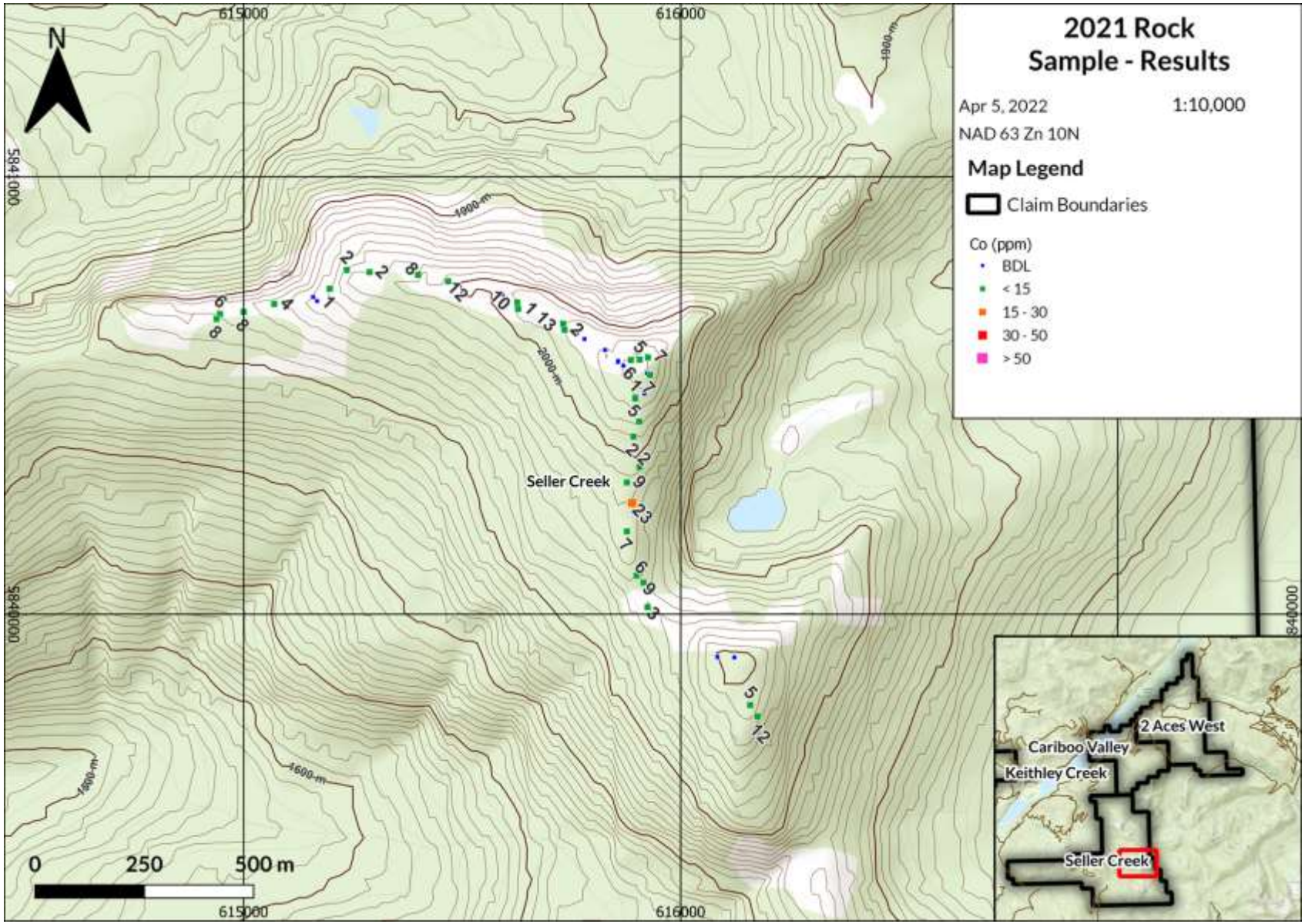


Figure 15: 2021 Cobalt assay samples within the Seller Creek claims.

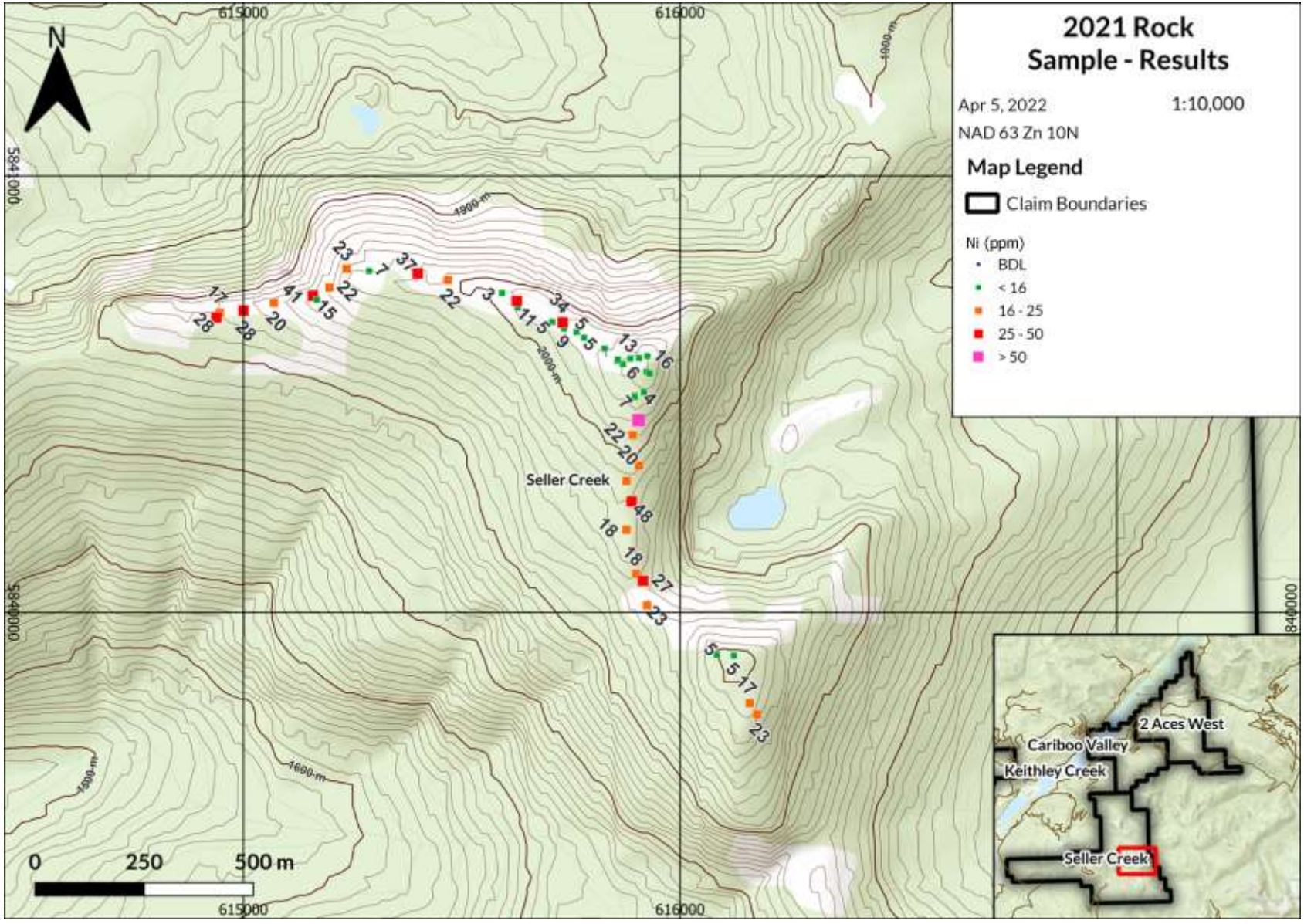


Figure 16: 2021 Nickel assay samples within the Seller Creek claims.

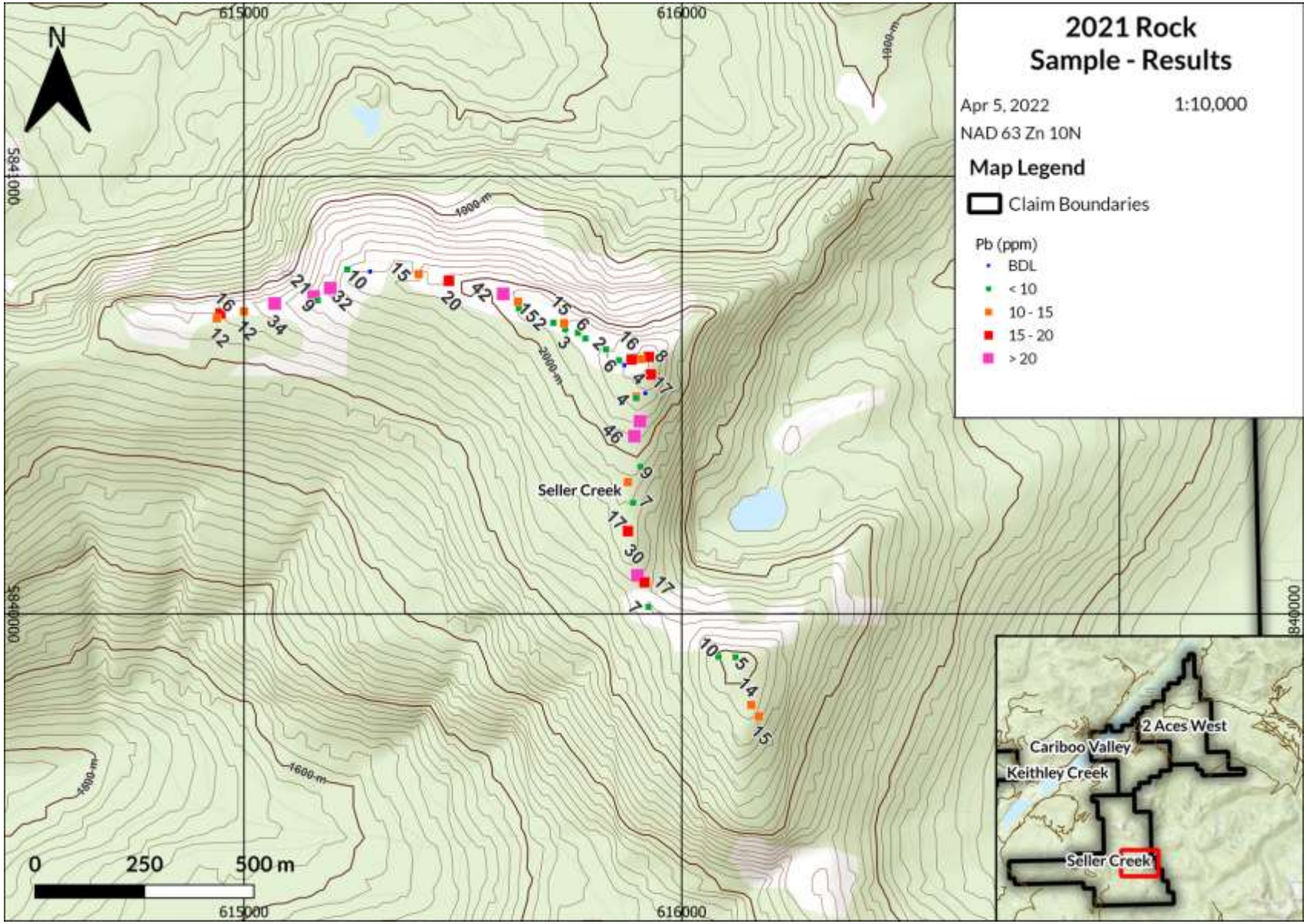


Figure 17: 2021 Lead assay samples within the Seller Creek claims.

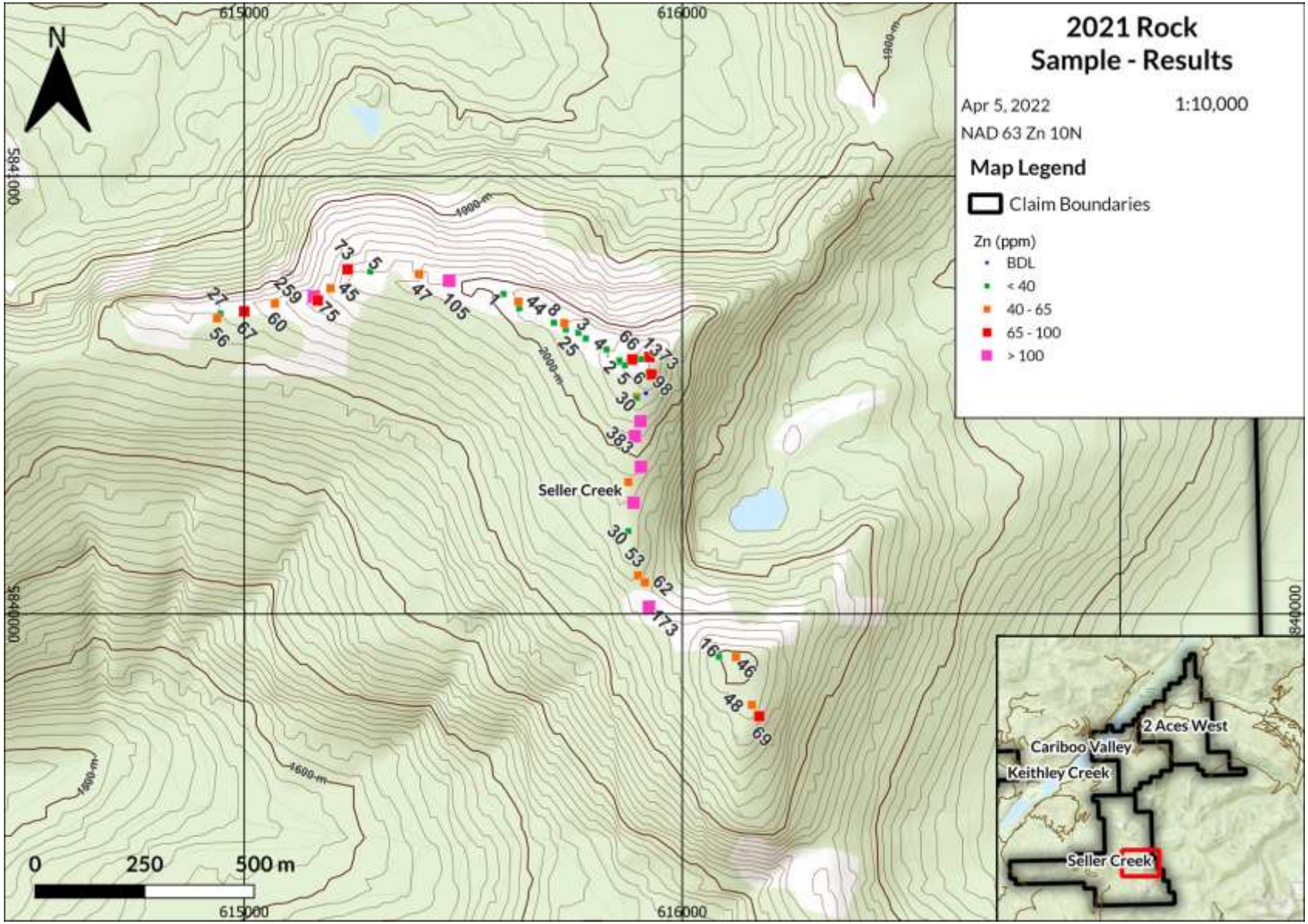


Figure 18: 2021 Zinc assay samples within the Seller Creek claims.

Table 6: Correlation Table for Rock samples from Seller Creek. Correlation matrix between lab assay elements and pXRF in-field results.

	Au_ppm	Ag_ppm	Cu_ppm	Co_ppm	Ni_ppm	Pb_ppm	Zn_ppm	Co-Ni_Ratio	Au_ppm_XRF	Ag_ppm_XRF	Cu_ppm_XRF	Co_ppm_XRF	Ni_ppm_XRF	Pb_ppm_XRF	Zn_ppm_XRF	Co-Ni_Ratio_XRF
Au_ppm		-0.044969375	-0.095651674	-0.132434196	-0.25760943	-0.013576014	-0.172183262	-0.118369507	-0.02774667	-0.029414043	0.48106389	-0.031854282	0.479437382	-0.035652165	-0.09683468	-0.044969375
Ag_ppm	-0.044969375		-0.073951976	-0.214727899	-0.16854179	0.16604033	-0.112676844	-0.215352754	0.076651423	0.075503658	-0.018028655	0.073541747	-0.017542484	0.083582724	0.075865242	-0.02173913
Cu_ppm	-0.095651674	-0.073951976		0.025632005	0.422328842	0.194469634	0.408693674	0.025032152	0.166374084	0.173250325	-0.039754688	0.124812335	-0.036489338	0.167081144	0.254966558	-0.398671975
Co_ppm	-0.132434196	-0.214727899	0.025632005		0.502452873	0.334348163	0.22711191	0.997112482	0.318261725	0.321239828	0.097279203	0.322727305	0.103675116	0.317861887	0.347080096	0.085189226
Ni_ppm	-0.25760943	-0.16854179	0.422328842	0.502452873		0.382720184	0.624431921	0.473819814	0.412205035	0.41972577	-0.084000088	0.399666595	-0.076363437	0.466853289	0.528218256	-0.074657771
Pb_ppm	-0.013576014	0.16604033	0.194469634	0.334348163	0.382720184		0.423308174	0.33072578	0.275216126	0.275976303	0.001599104	0.271021241	0.005848595	0.314065448	0.349496072	-0.007676522
Zn_ppm	-0.172183262	-0.112676844	0.408693674	0.22711191	0.624431921	0.423308174		0.232564519	0.274534068	0.272145493	-0.061989517	0.265357267	-0.056953569	0.323120708	0.563514386	-0.058063253
Co-Ni_Ratio	-0.118369507	-0.215352754	0.025032152	0.997112482	0.473819814	0.33072578	0.232564519		0.31319336	0.315983327	0.109858323	0.31927656	0.116136394	0.313555185	0.348511257	0.100883184
Au_ppm_XRF	-0.02774667	0.076651423	0.166374084	0.318261725	0.412205035	0.275216126	0.274534068	0.31319336		0.999227336	0.107227582	0.995112163	0.123220604	0.987965529	0.898667315	0.076651423
Ag_ppm_XRF	-0.029414043	0.075503658	0.173250325	0.321239828	0.41972577	0.275976303	0.272145493	0.315983327	0.999227336		0.106059842	0.994235465	0.122030507	0.987497469	0.896146127	0.075503658
Cu_ppm_XRF	0.48106389	-0.018028655	-0.039754688	0.097279203	-0.084000088	0.001599104	-0.061989517	0.109858323	0.107227582	0.106059842		0.104280713	0.999862217	0.076808054	0.051653765	-0.016242658
Co_ppm_XRF	-0.031854282	0.073541747	0.124812335	0.322727305	0.399666595	0.271021241	0.265357267	0.31927656	0.995112163	0.994235465	0.104280713		0.120065748	0.987502983	0.901926678	0.174737345
Ni_ppm_XRF	0.479437382	-0.017542484	-0.036489338	0.103675116	-0.076363437	0.005848595	-0.056953569	0.116136394	0.123220604	0.122030507	0.999862217	0.120065748		0.092539925	0.065874748	-0.016327477
Pb_ppm_XRF	-0.035652165	0.083582724	0.167081144	0.317861887	0.466853289	0.314065448	0.323120708	0.313555185	0.987965529	0.987497469	0.076808054	0.987502983	0.092539925		0.924556671	0.11981578
Zn_ppm_XRF	-0.09683468	0.075865242	0.254966558	0.347080096	0.528218256	0.349496072	0.563514386	0.348511257	0.898667315	0.896146127	0.051653765	0.901926678	0.065874748	0.924556671		0.1461429
Co-Ni_Ratio_XRF	-0.044969375	-0.02173913	-0.398671975	0.085189226	-0.074657771	-0.007676522	-0.058063253	0.100883184	0.076651423	0.075503658	-0.016242658	0.174737345	-0.016327477	0.11981578	0.1461429	

9.2.2. 2 Aces West Results

Table 7 summarizes the lab assay results for the 19 rock (grab) samples analysed in 2021. No samples returned values for gold or silver above detection limit. Copper values were up to 30.20 ppm (Sample: C00065114), while averaging 11.13 ppm Cu. Sample C00065103 assayed 125 ppm Zn. No notable Co, Pb or Ni values were reported. Figures 19 – 24 show the distribution of the key assayed elements across the Seller Creek mapping area. Full assay results can be seen in Appendix A. Rock sample locations are shown in 1:1000 scale in Appendix F.

All the samples that were sent to the lab for assaying, also had a representative rock chip which was analysed in the field via portable XRF (pXRF). pXRF results reported notably higher results, particularly for Cu, Co, Pb and Zn (Table 8).

Table 9 shows the correlation between pXRF and lab assayed elements. Strong correlations were observed between Cu and Ni, Cu and Zn, and Pb and Zn (Table 9)

Table 7: Summary table of 2021 rock sampling program on the 2 Aces West Claims.

2 Aces West Rock Samples (Lab Assays)	Au (ppm)	Ag (ppm)	Cu (ppm)	Co (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)
# Samples	19.000	19.000	19.000	19.000	19.000	19.000	19.000
# Samples (above detection limit)	0.000	0.000	19.000	16.000	19.000	19.000	19.000
Average Grade (mean)	-	-	11.132	6.938	14.895	14.842	40.789
Max	-	-	30.200	18.000	47.000	32.000	125.000
Min	-	-	1.400	1.000	3.000	4.000	5.000

Table 8: Summary table of 2021 pXRF analysis completed in the field on the 2 Aces West Claims. pXRF samples are of rock chips taken at the same location, of the same rock outcrop sent to the lab as a rock sample.

2 Aces West (pXRF results)	Au (ppm)	Ag (ppm)	Cu (ppm)	Co (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)
# Samples	19.000	19.000	19.000	19.000	19.000	19.000	19.000
# Samples (above detection limit)	0.000	0.000	14.000	2.000	17.000	16.000	13.000
Average Grade (mean)	-	-	56.143	164.500	50.176	19.938	86.077
Max	-	-	158.000	264.000	159.000	110.000	138.000
Min	-	-	5.000	65.000	5.000	2.000	11.000

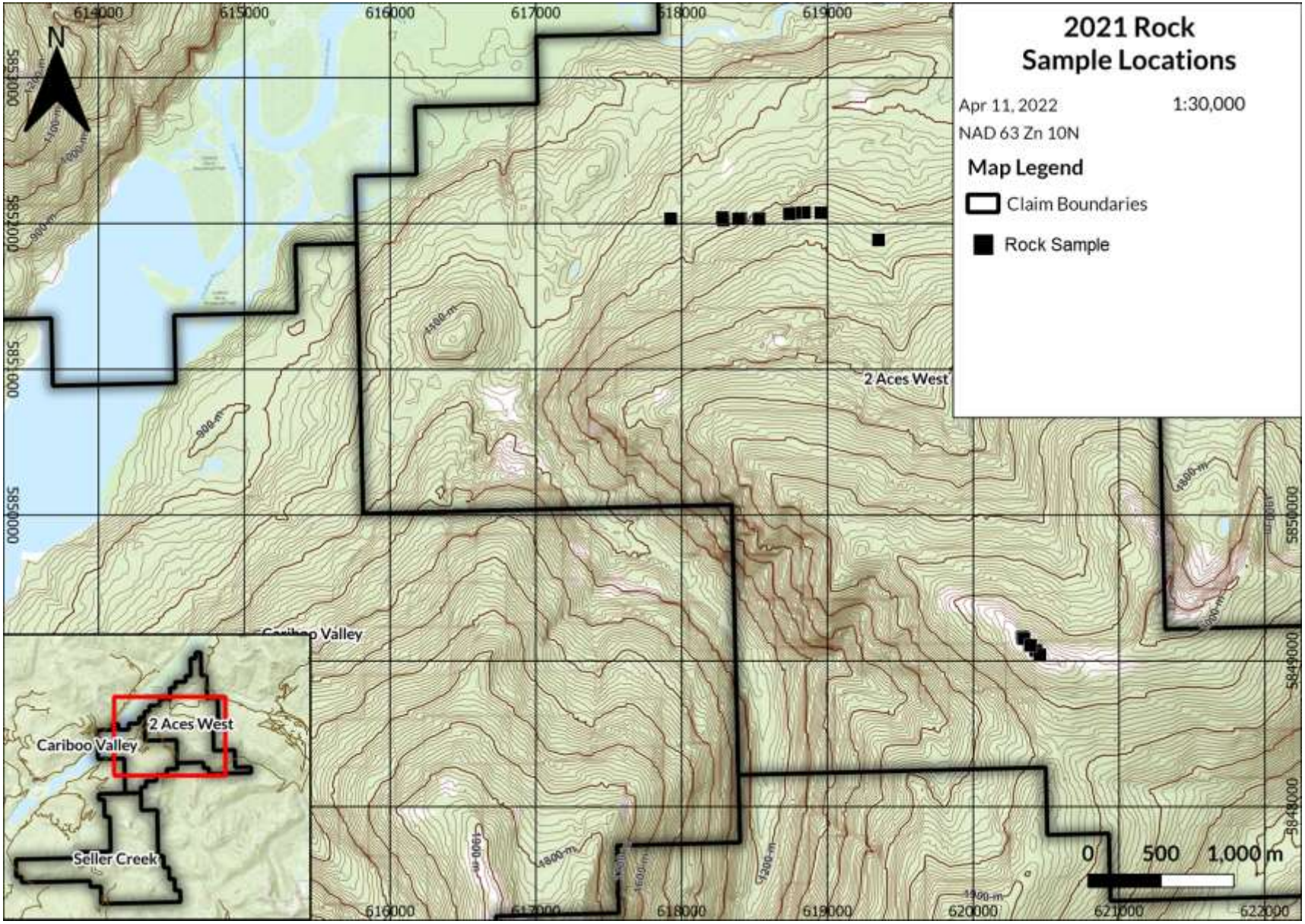


Figure 19: Rock (grab) sample locations within the Seller Creek claims.

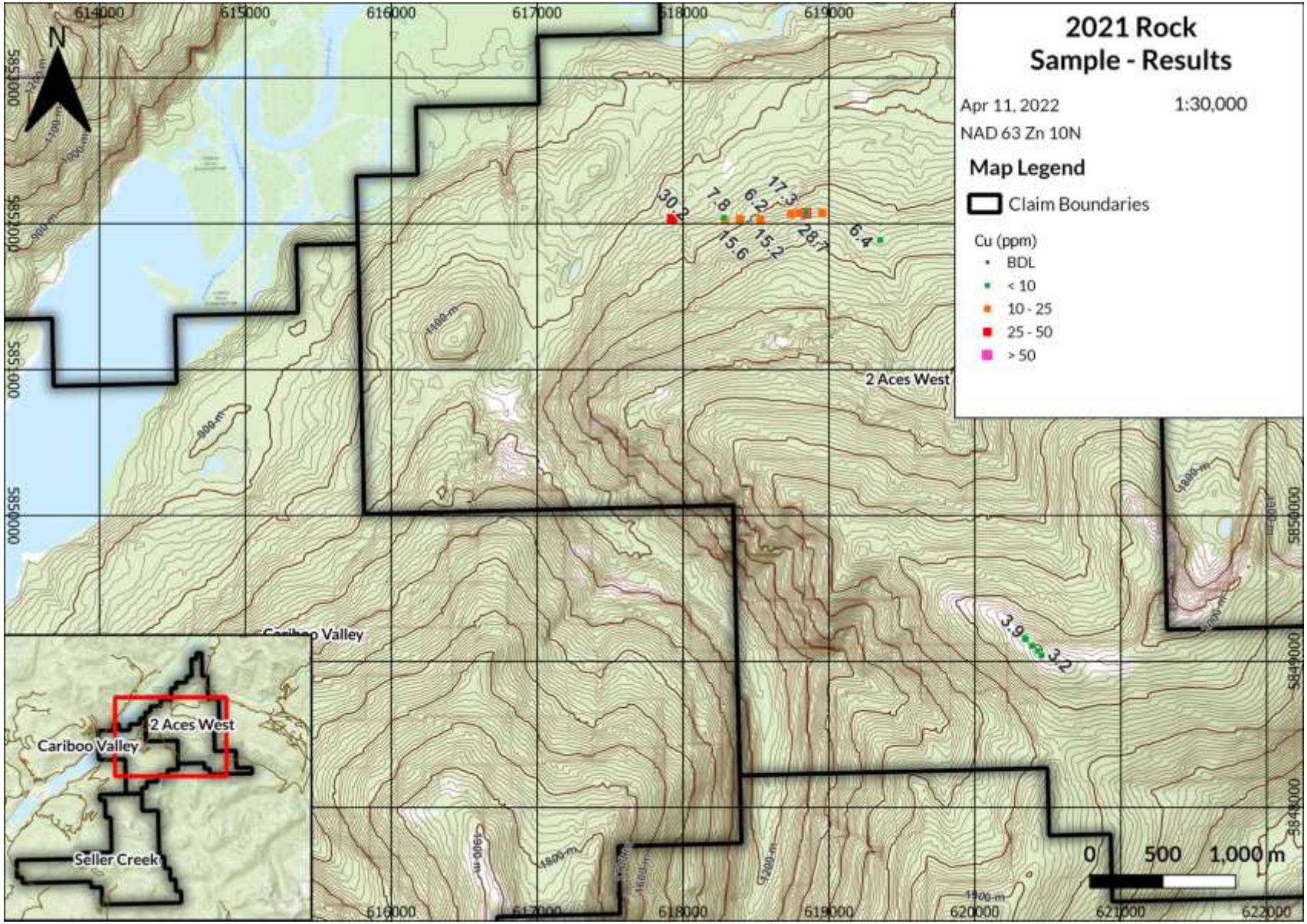


Figure 20: 2021 Copper assay samples within the 2 Aces West claims.

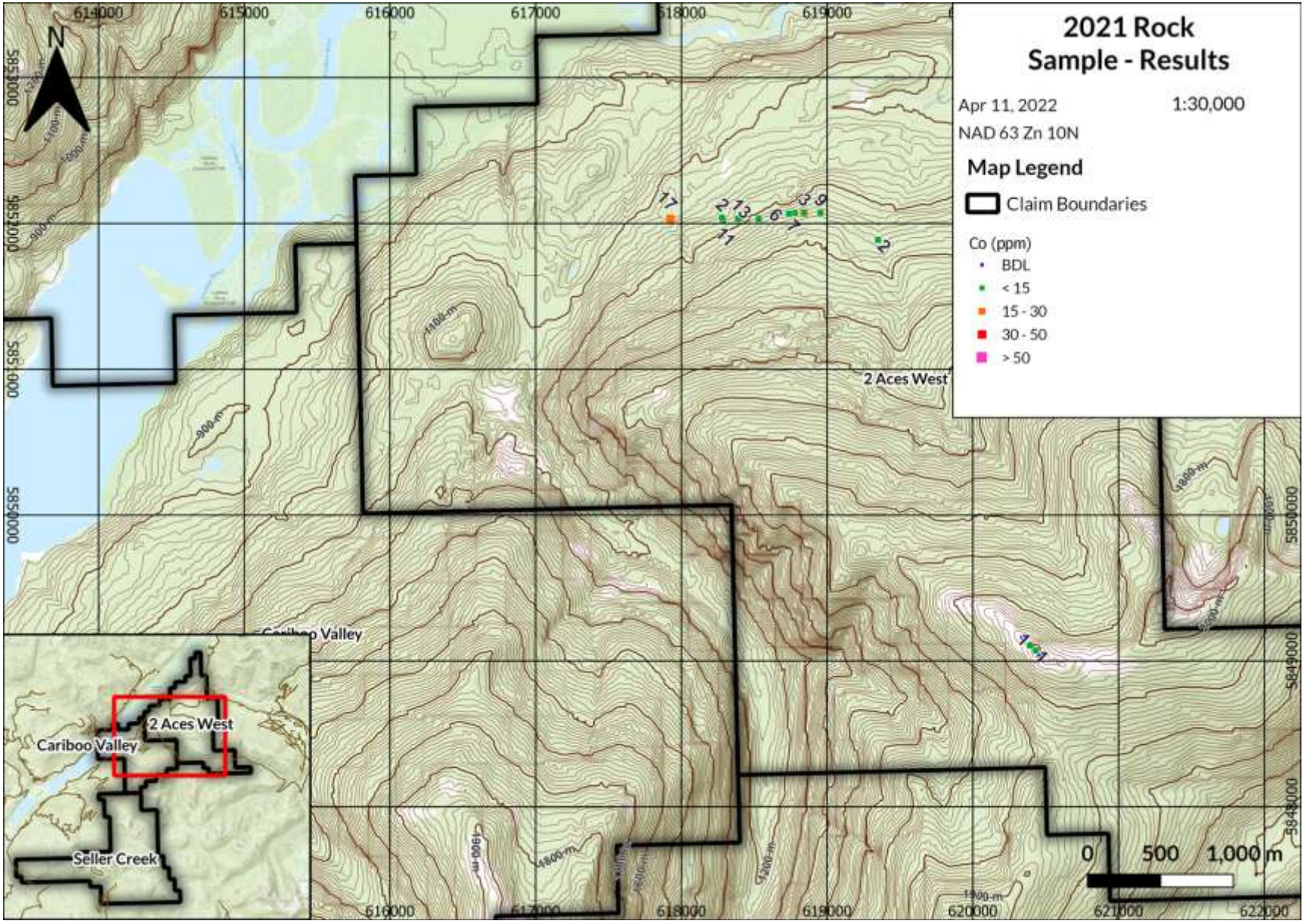


Figure 21: 2021 Cobalt assay samples within the 2 Aces West claims.

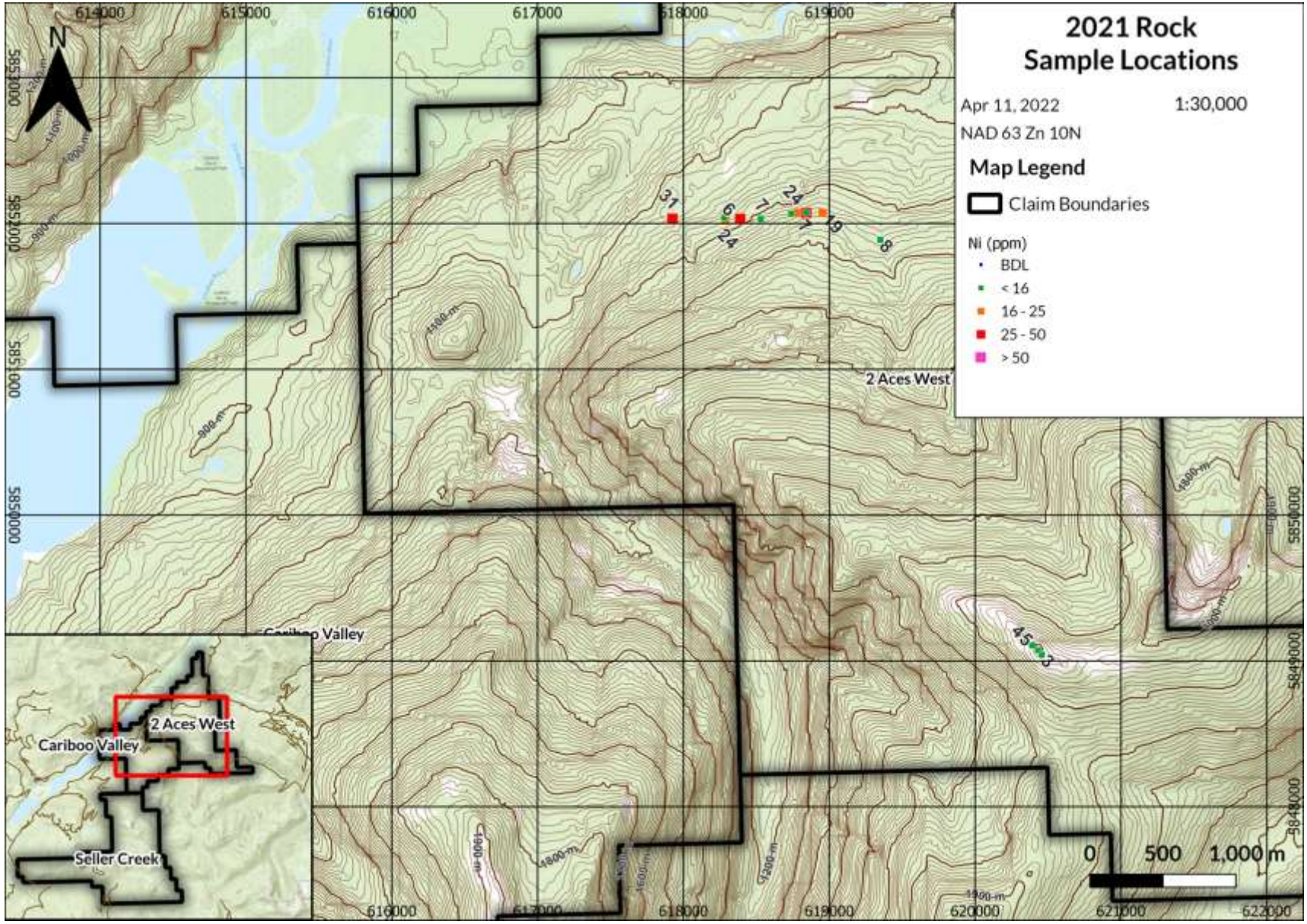


Figure 22: 2021 Nickel assay samples within the 2 Aces West claims.

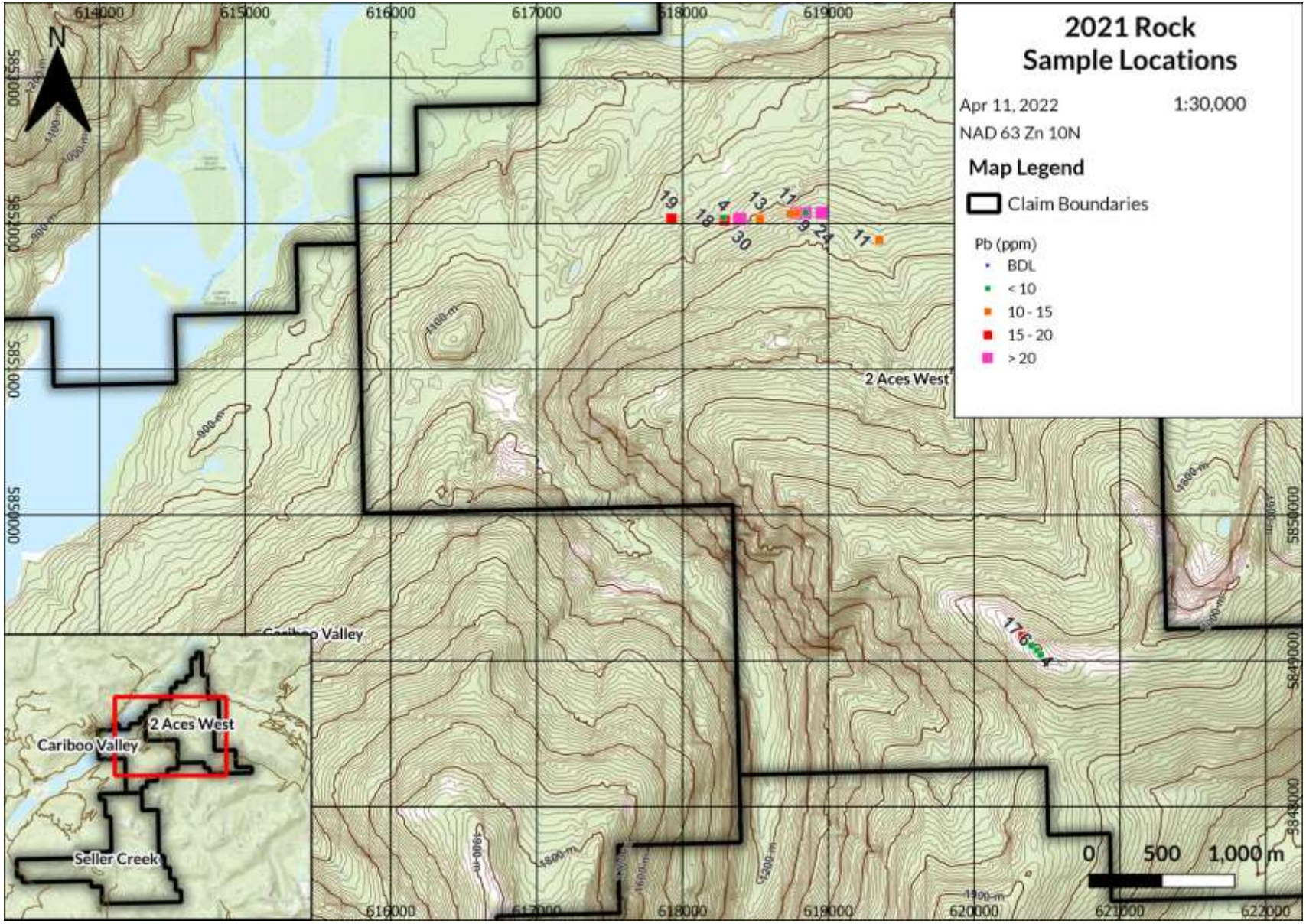


Figure 23: 2021 Lead assay samples within the 2 Aces West claims.

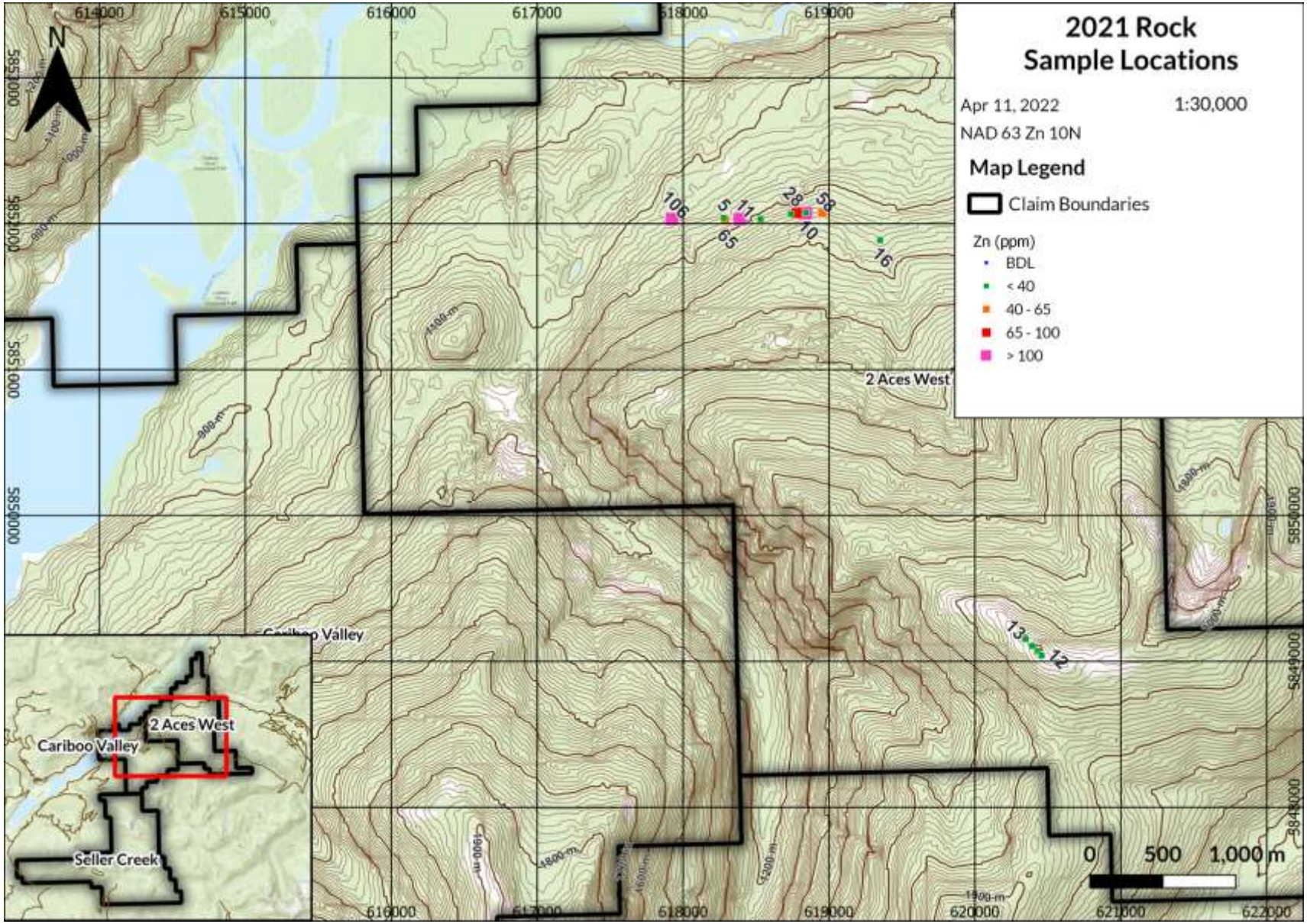


Figure 24: 2021 Zinc assay samples within the 2 Aces West claims.

Table 9: Correlation Table for Rock samples from 2 Aces West. Correlation matrix between key elements from lab assay and pXRF in-field results.

	Au_ppm	Ag_ppm	Cu_ppm	Co_ppm	Ni_ppm	Pb_ppm	Zn_ppm	Co-Ni_Ratio	Au_ppm_XRF	Ag_ppm_XRF	Cu_ppm_XRF	Co_ppm_XRF	Ni_ppm_XRF	Pb_ppm_XRF	Zn_ppm_XRF	Co-Ni_Ratio_XRF
Au_ppm																
Ag_ppm																
Cu_ppm				0.546759862	0.86218419	0.642772199	0.808255442	0.445921577	0.097416915	0.097416915	0.095046429	0.216153468	0.1898059	0.094805519	0.237534153	0.429402481
Co_ppm			0.546759862		0.499407794	0.389087091	0.428414263	0.991749266	-0.071340156	-0.071340156	-0.100846233	0.034932528	-0.008479266	-0.077371695	0.001637631	0.260735577
Ni_ppm			0.86218419	0.499407794		0.806713885	0.972984521	0.388326236	0.172522646	0.172522646	0.244836803	0.433343171	0.315666361	0.222449866	0.421429239	0.74006699
Pb_ppm			0.642772199	0.389087091	0.806713885		0.775851675	0.302197931	0.32365462	0.32365462	0.389270295	0.529235171	0.418498671	0.368685362	0.485888228	0.575488749
Zn_ppm			0.808255442	0.428414263	0.972984521	0.775851675		0.315153398	0.215679822	0.215679822	0.284977188	0.491165899	0.343040616	0.263270932	0.447716784	0.755271838
Co-Ni_Ratio			0.445921577	0.991749266	0.388326236	0.302197931	0.315153398		-0.102036103	-0.102036103	-0.140253556	-0.019052987	-0.052837358	-0.111181891	-0.053503129	0.187515679
Au_ppm_XRF			0.097416915	-0.071340156	0.172522646	0.32365462	0.215679822	-0.102036103			0.956286985	0.914529726	0.965757071	0.97711509	0.894025026	0.102061933
Ag_ppm_XRF			0.097416915	-0.071340156	0.172522646	0.32365462	0.215679822	-0.102036103			0.956286985	0.914529726	0.965757071	0.97711509	0.894025026	0.102061933
Cu_ppm_XRF			0.095046429	-0.100846233	0.244836803	0.389270295	0.284977188	-0.140253556	0.956286985	0.956286985		0.907962189	0.978328943	0.981820505	0.954118924	0.198892665
Co_ppm_XRF			0.216153468	0.034932528	0.433343171	0.529235171	0.491165899	-0.019052987	0.914529726	0.914529726	0.907962189		0.927036101	0.926887874	0.919954894	0.464887769
Ni_ppm_XRF			0.1898059	-0.008479266	0.315666361	0.418498671	0.343040616	-0.052837358	0.965757071	0.965757071	0.978328943	0.927036101		0.973002526	0.962312653	0.232740462
Pb_ppm_XRF			0.094805519	-0.077371695	0.222449866	0.368685362	0.263270932	-0.111181891	0.97711509	0.97711509	0.981820505	0.926887874	0.973002526		0.948365241	0.193177028
Zn_ppm_XRF			0.237534153	0.001637631	0.421429239	0.485888228	0.447716784	-0.053503129	0.894025026	0.894025026	0.954118924	0.919954894	0.962312653	0.948365241		0.40591639
Co-Ni_Ratio_XRF			0.429402481	0.260735577	0.74006699	0.575488749	0.755271838	0.187515679	0.102061933	0.102061933	0.198892665	0.464887769	0.232740462	0.193177028	0.40591639	

9.3 Stream Sediment Survey Results

9.3.1 2 Aces West Stream Sediment Survey Results

Eight stream sediments were collected from four sample stations across the 2 Aces West claims. Anomalous Cobalt up to 704 ppm Co (Sample: C00065153) was collected from a stream which runs north-westerly from Mt. Barker, no further samples have been taken upslope of this sample and the source is not currently identified. Table 10 details the stream sediment sample highlights. Figures 25 – 32 detail the sample locations and distribution of key elements across the 2 Aces West claims. Appendix B consists of the full lab assay certificates for the stream sediment samples. Appendix H includes 1:1000 scale maps of the stream sediment sample sites.

9.3.2 Cariboo Valley Stream Sediment Survey Results

Four stream sediments were collected from two sample stations across the Cariboo Valley. As with 2 Aces West, anomalous Cobalt values were noted at both sample stations: 562 ppm Co (Sample: C00065159) and 438 ppm Co (Sample: C00065162) both from separate north-westerly running streams from higher elevations which no further samples have been taken and thus no source has been identified. Table 11 details the stream sediment sample highlights. Figures 25 – 32 detail the sample locations and distribution of key elements across the Cariboo Valley claims. Appendix B consists of the full lab assay certificates for the stream sediment samples. Appendix H includes 1:1000 scale maps of the stream sediment sample sites.

Table 11: Summary table of 2021 Stream Sediment survey samples from the 2 Aces West claims.

2 Aces West							
	Au (ppb)	**Ag (ppm)**	**Cu (ppm)**	**Co (ppm)**	**Ni (ppm)**	**Pb (ppm)**	**Zn (ppm)**
# Samples	8.000	8.000	8.000	8.000	8.000	8.000	8.000
# Samples (above detection limit)	6.000	7.000	7.000	7.000	7.000	7.000	7.000
Average Grade (mean)	3.167	0.063	27.643	192.371	30.986	8.771	57.429
Max	6.000	0.110	49.200	704.000	50.200	14.000	78.000
Min	2.000	0.040	15.200	8.500	17.700	6.300	45.000

Table 10: Summary table of 2021 Stream Sediment survey samples from the 2 Aces West claims.

Cariboo Valley							
	Au (ppb)	**Ag (ppm)**	**Cu (ppm)**	**Co (ppm)**	**Ni (ppm)**	**Pb (ppm)**	**Zn (ppm)**
# Samples	4.000	4.000	4.000	4.000	4.000	4.000	4.000
# Samples (above detection limit)	2.000	4.000	4.000	4.000	4.000	4.000	4.000
Average Grade (mean)	3.500	0.110	30.850	256.325	24.950	10.300	55.500
Max	4.000	0.170	40.700	562.000	29.500	11.800	64.000
Min	3.000	0.040	21.000	11.700	19.400	8.100	49.000

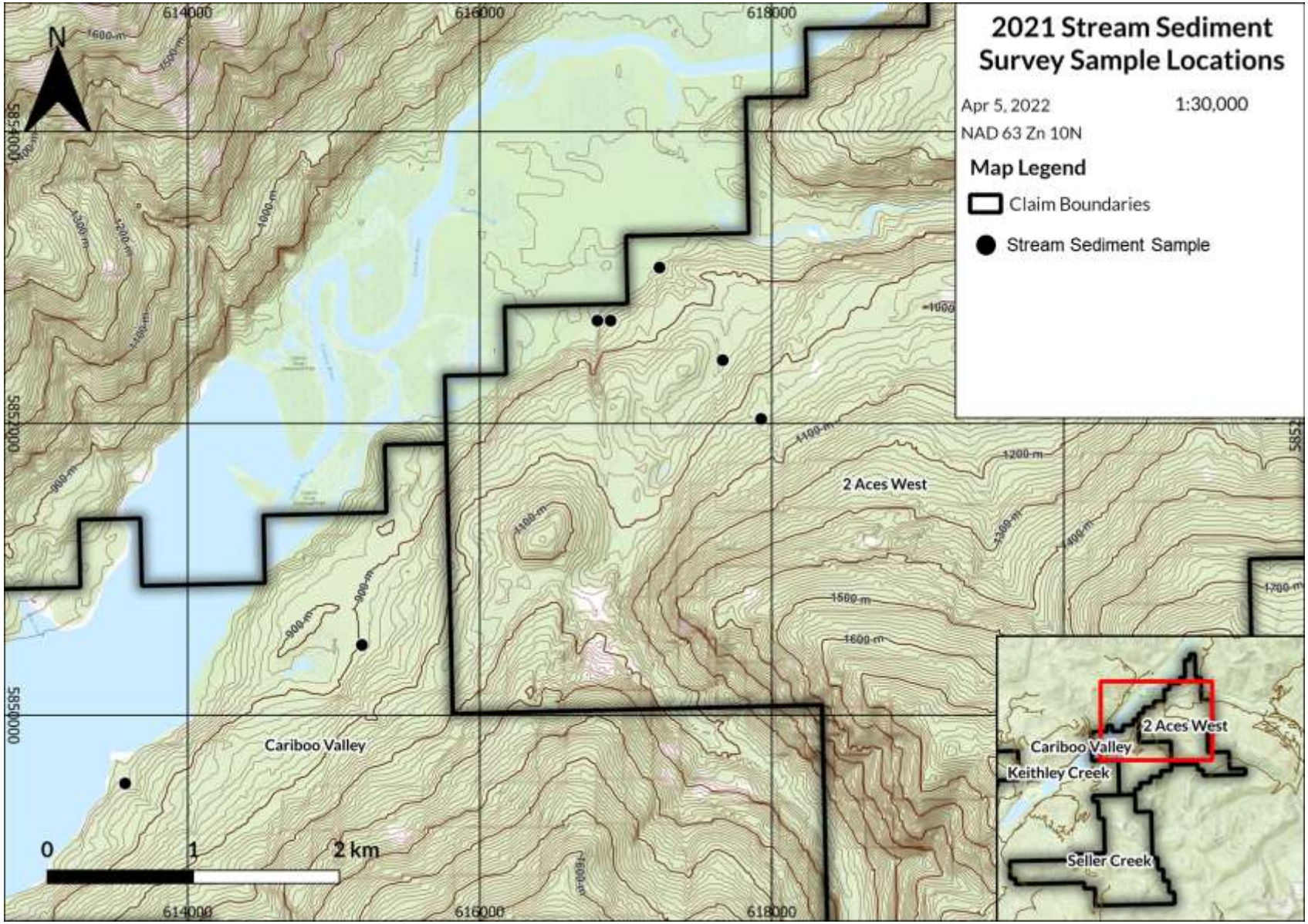


Figure 25: 2021 Stream Sediment Sample Locations within the Cariboo Valley and 2 Aces West claims.

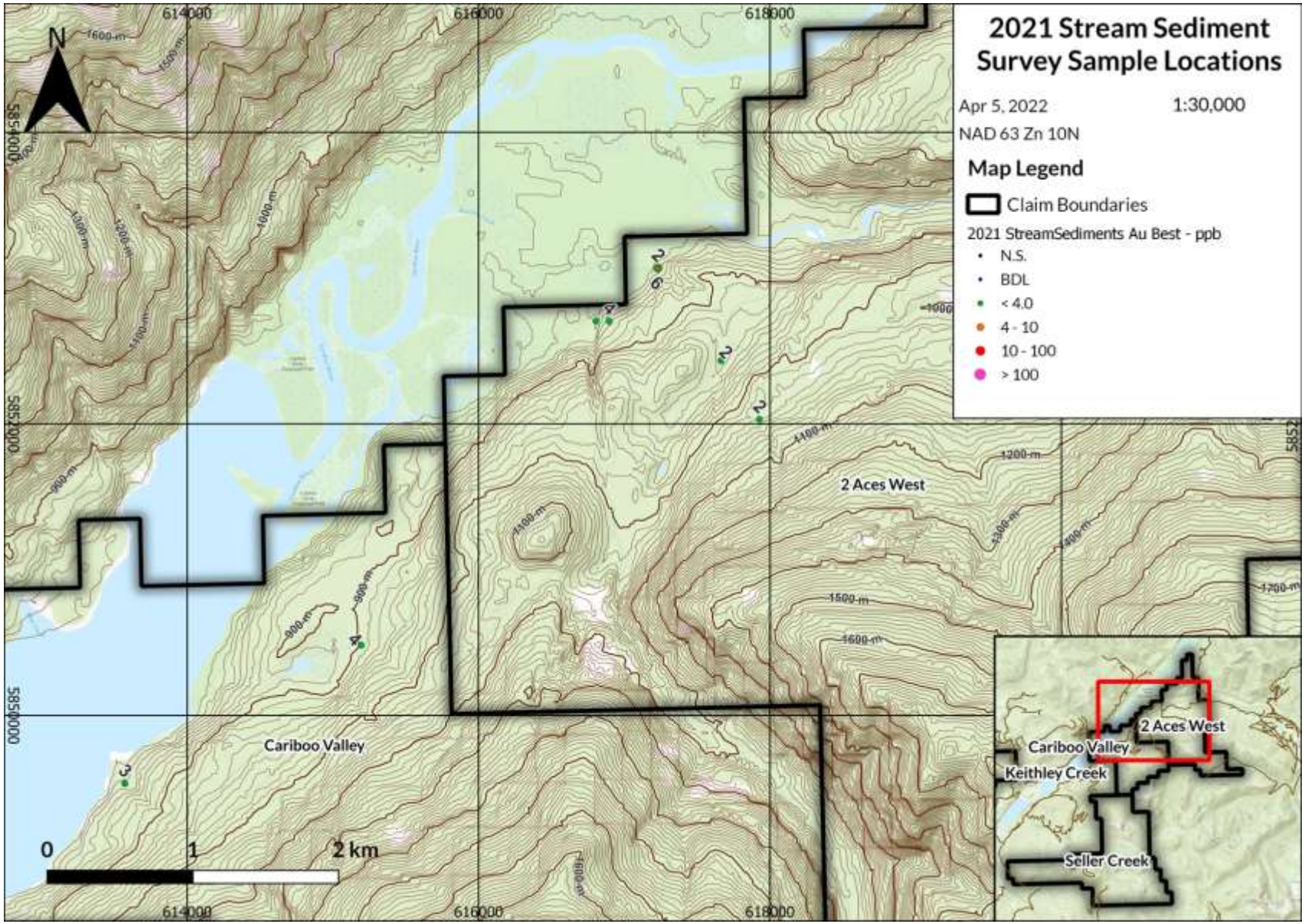


Figure 26: 2021 Stream Sediment Gold Assay Values within the Cariboo Valley and 2 Aces West claims.

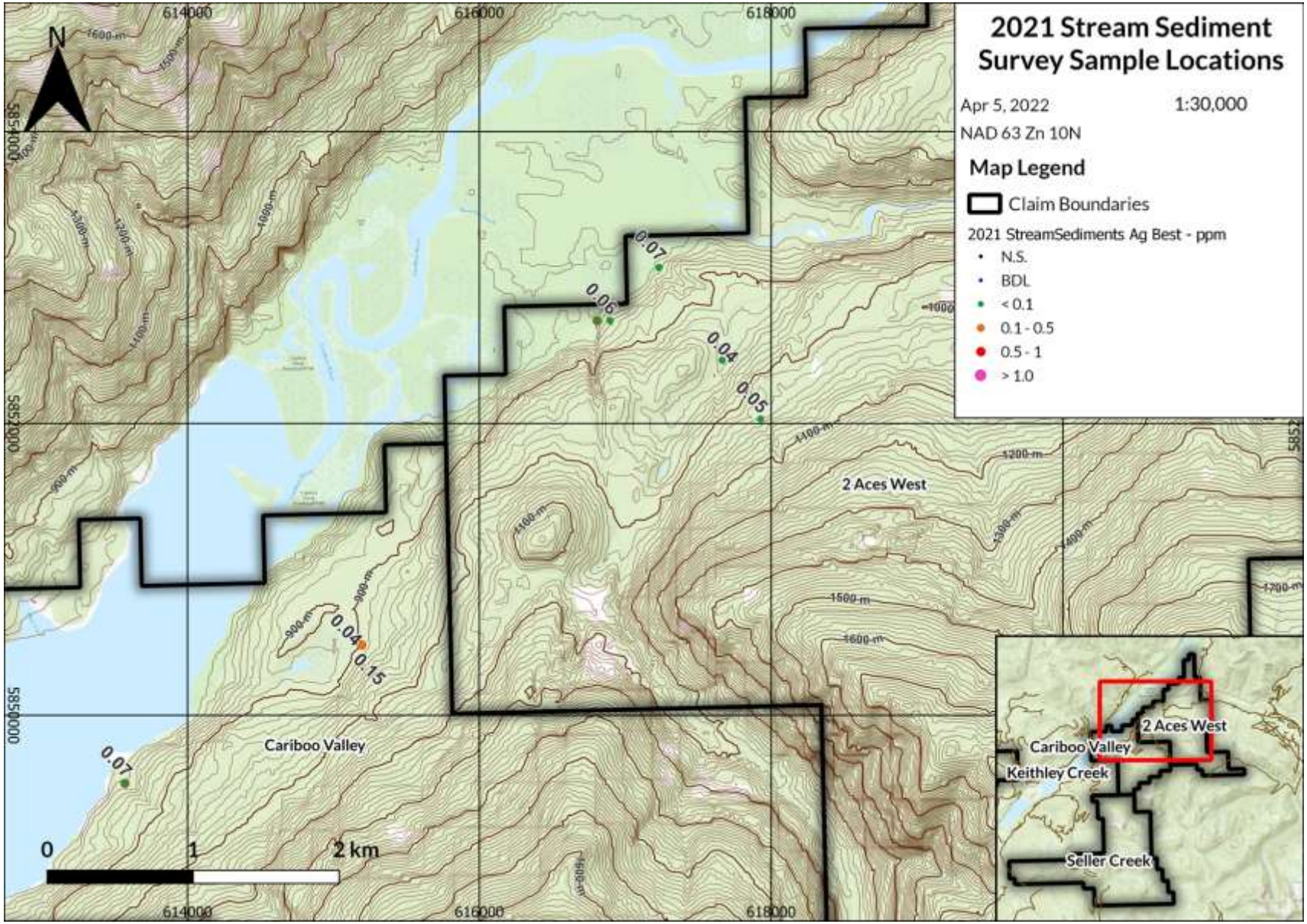


Figure 27: 2021 Stream Sediment Silver Assay Values within the Cariboo Valley and 2 Aces West claims.

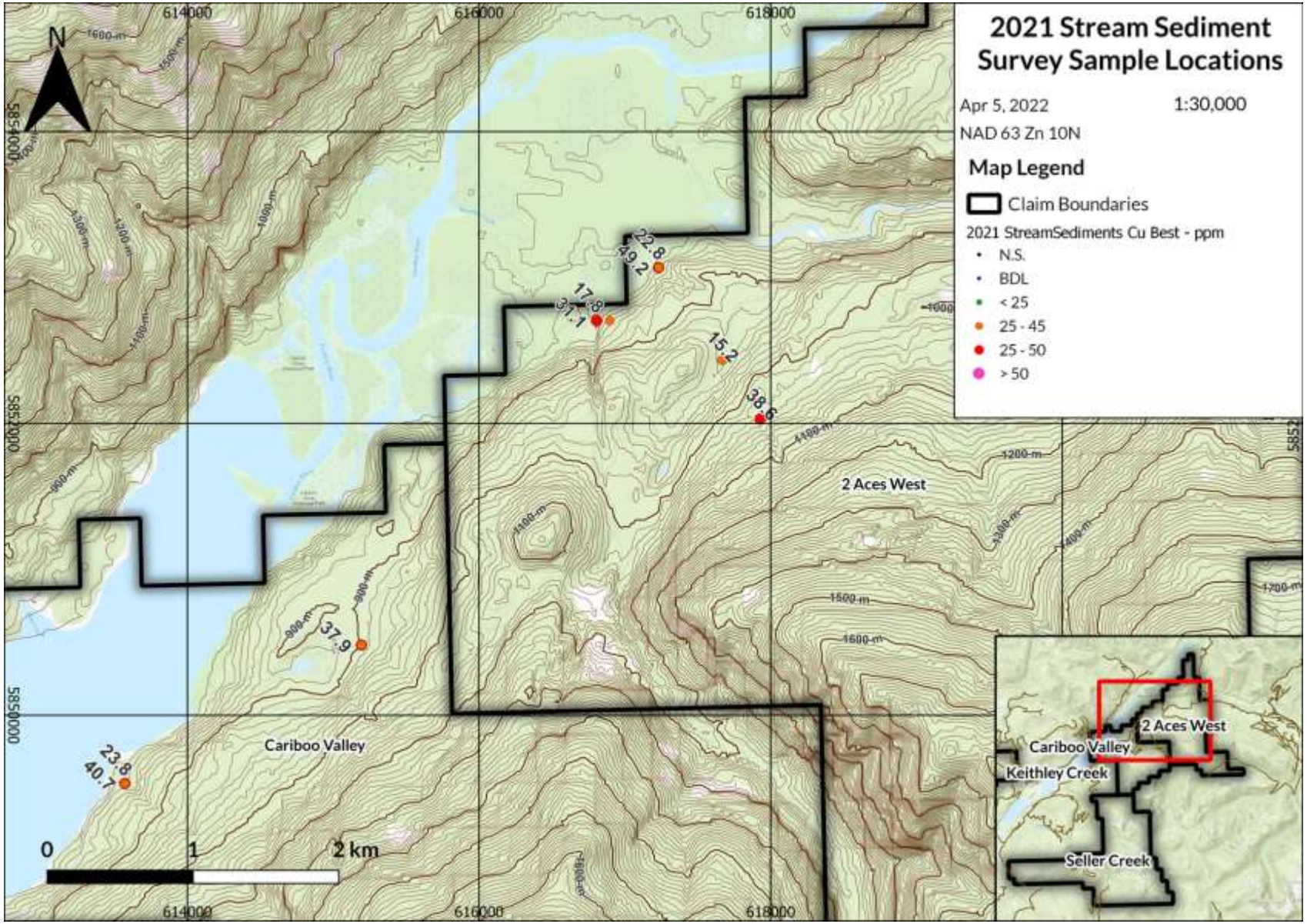


Figure 28: 2021 Stream Sediment Copper Assay Values within the Cariboo Valley and 2 Aces West claims.

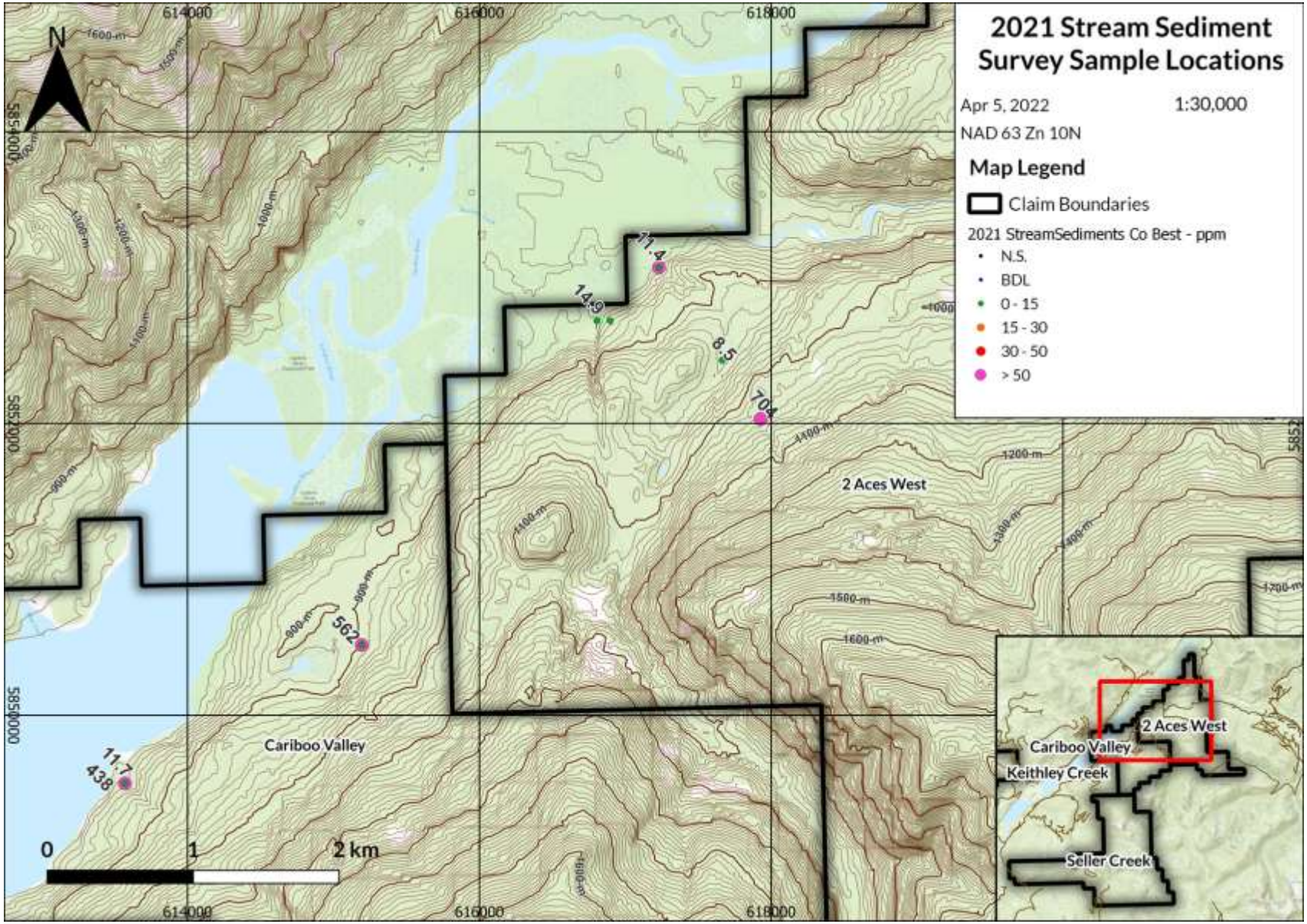


Figure 29: 2021 Stream Sediment Cobalt Assay Values within the Cariboo Valley and 2 Aces West claims.

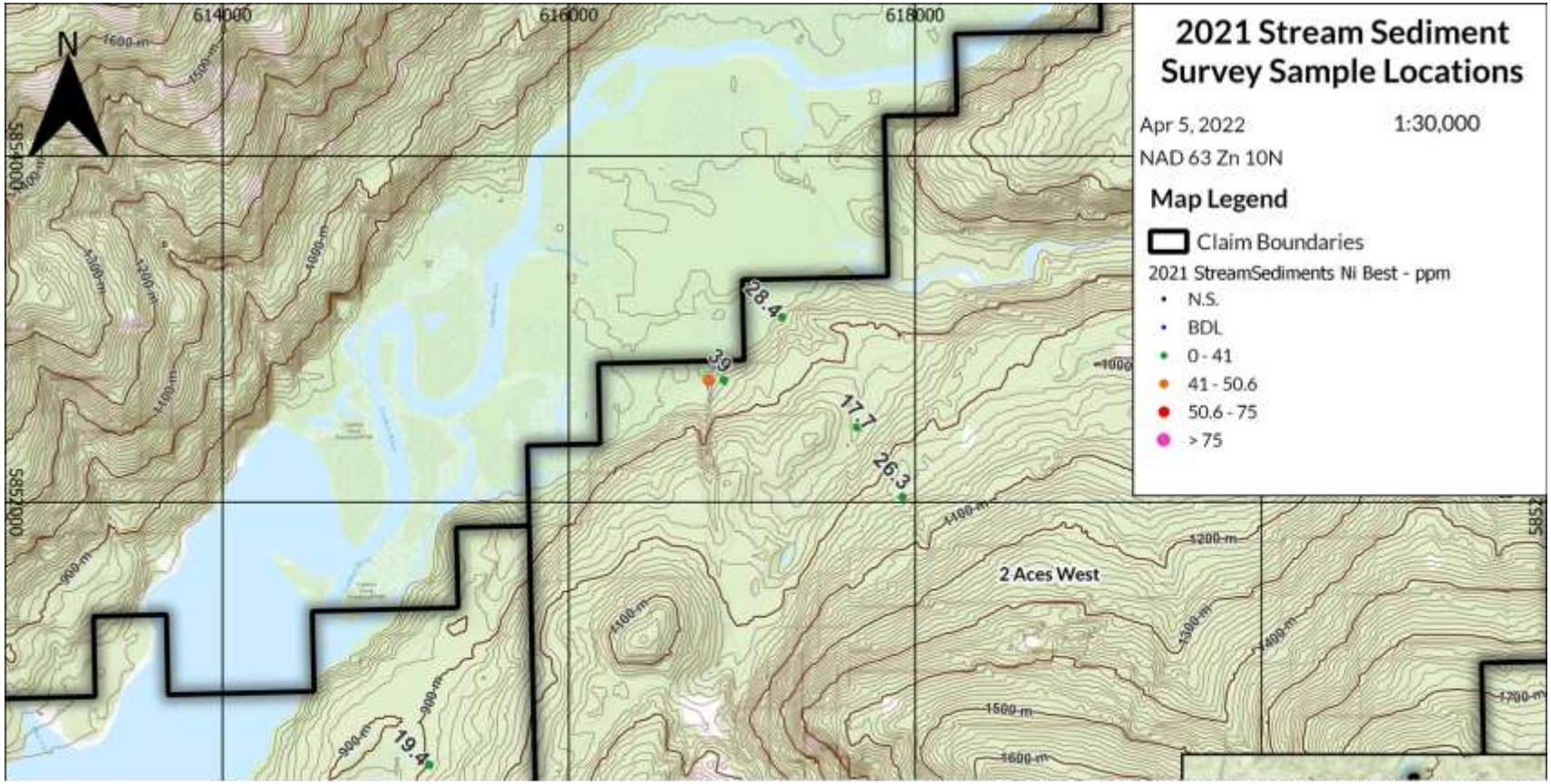


Figure 30: 2021 Stream Sediment Nickel Assay Values within the Cariboo Valley and 2 Aces West claims.

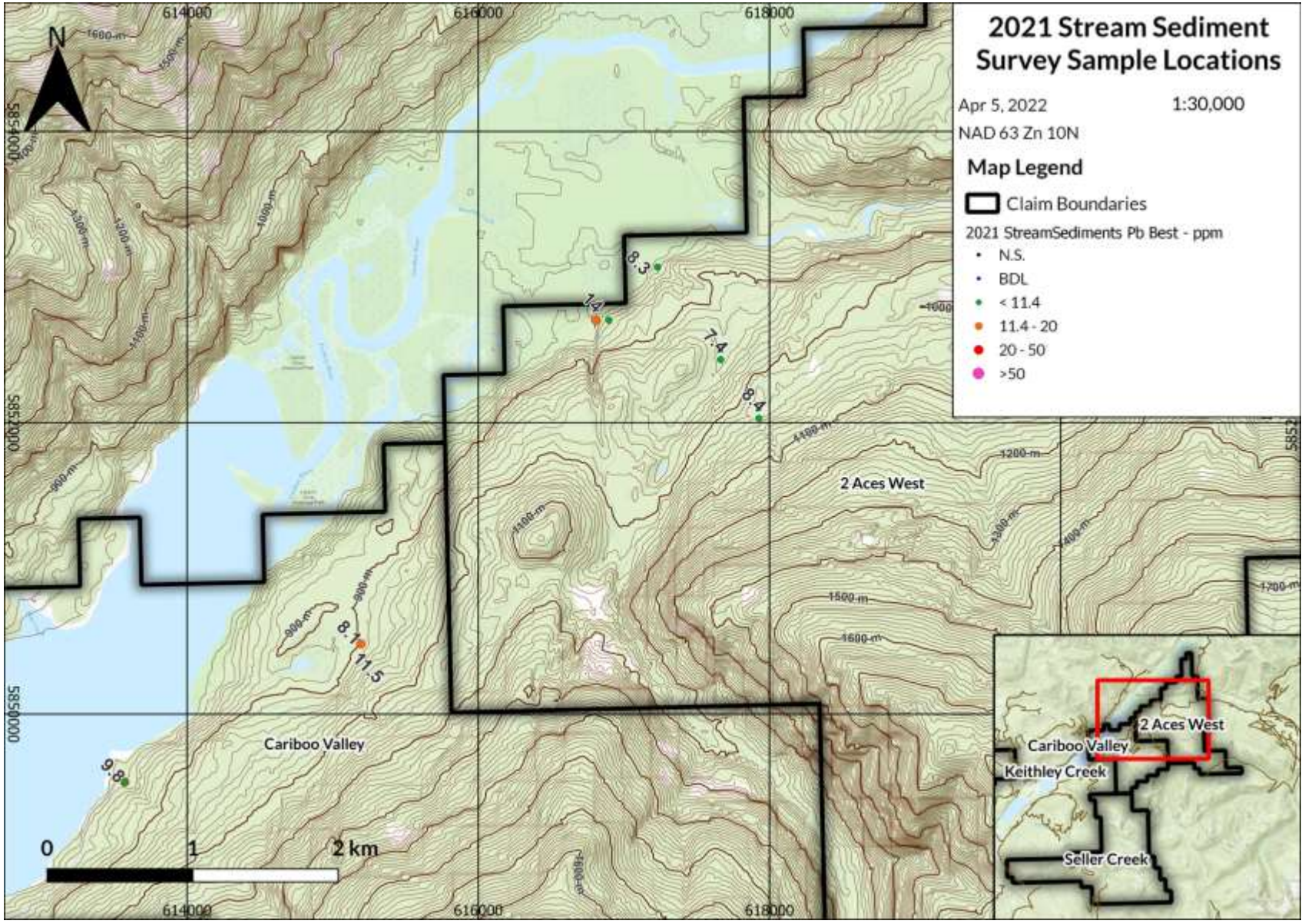


Figure 31: 2021 Stream Sediment Lead Assay Values within the Cariboo Valley and 2 Aces West claims.

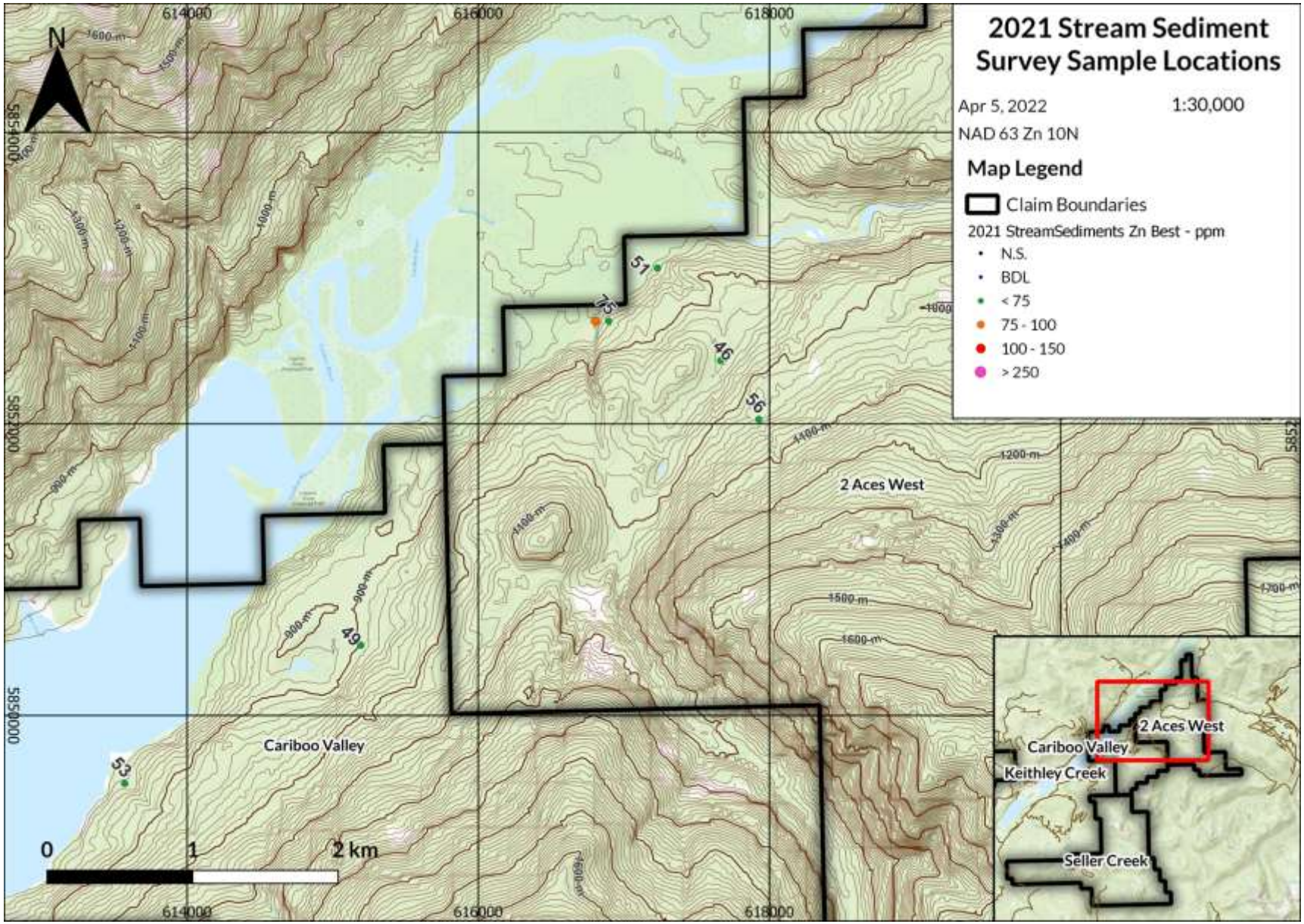


Figure 32: 2021 Stream Sediment Zinc Assay Values within the Cariboo Valley and 2 Aces West claims.

9.4 RPAS Orthoimagery and DSM/DTM models

A total of 213 hectares of orthoimagery was captured by the RPAS across the Seller Creek claims (**Fig. 33**). The area was focussed on the Goose Peaks within the southern half of the claims, where the majority of the rock sampling and geological mapping was being completed. A total of 1914 images were taken and stitched together in Pix4D Mapper software to create the final orthoimagery (**Fig. 34**). The Average Ground Sampling Distance (GSD) was 7.49cm. The software successfully modelled a Digital Surface Model (DSM) out of the captured imagery (**Fig. 35**). The software was also able to compute a Digital Terrain Model (DTM) from the 1917 images, however as seen in **Figure 36**, a few minor artefacts exist related to the more densely vegetated areas.

The DSM and DTM can be used within 3D modelling software and GIS to drape and display data from the Goose Peak area within the Seller Creek claims on; **Figure 37** shows copper assay values from the 2021 field program displayed on the orthoimagery draped on top of the 2021 RPAS-acquired DTM.

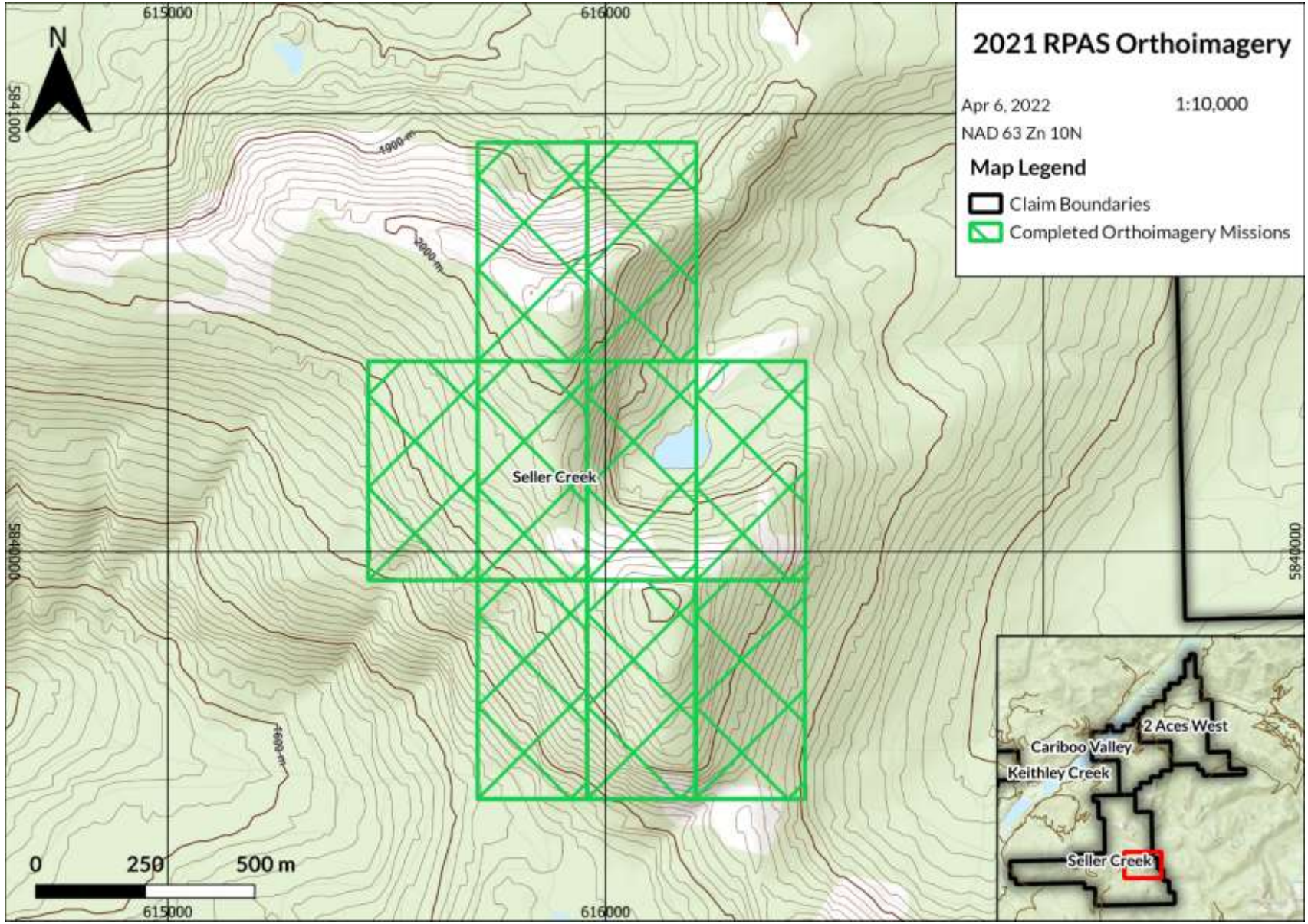


Figure 33: RPAS flight mission orthoimagery grids across the Seller Creek claims.

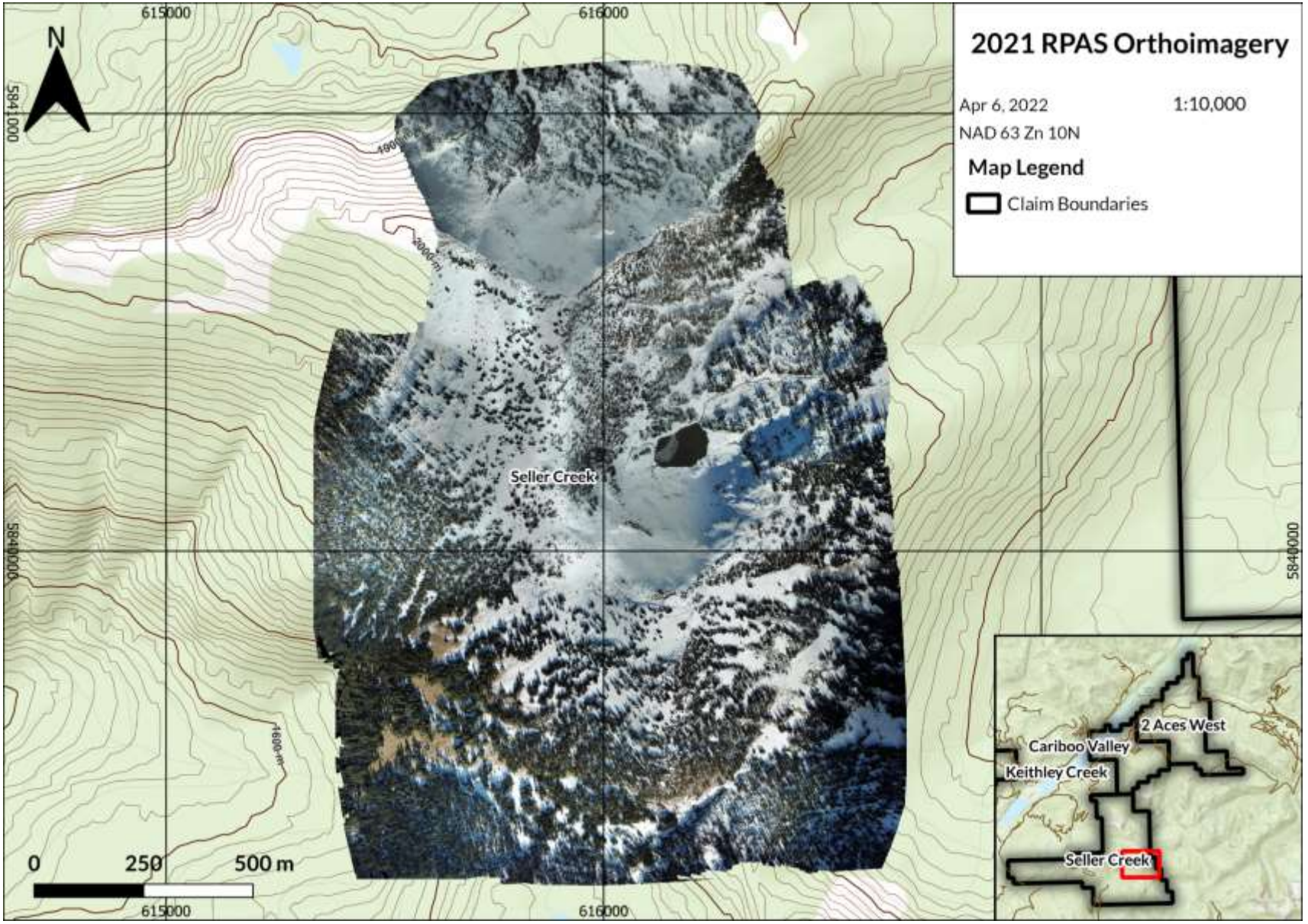


Figure 34: RPAS-acquired orthoimagery mozaic from 1917 images covering 213 hectares collected in 2021 on the Seller Creek claims.

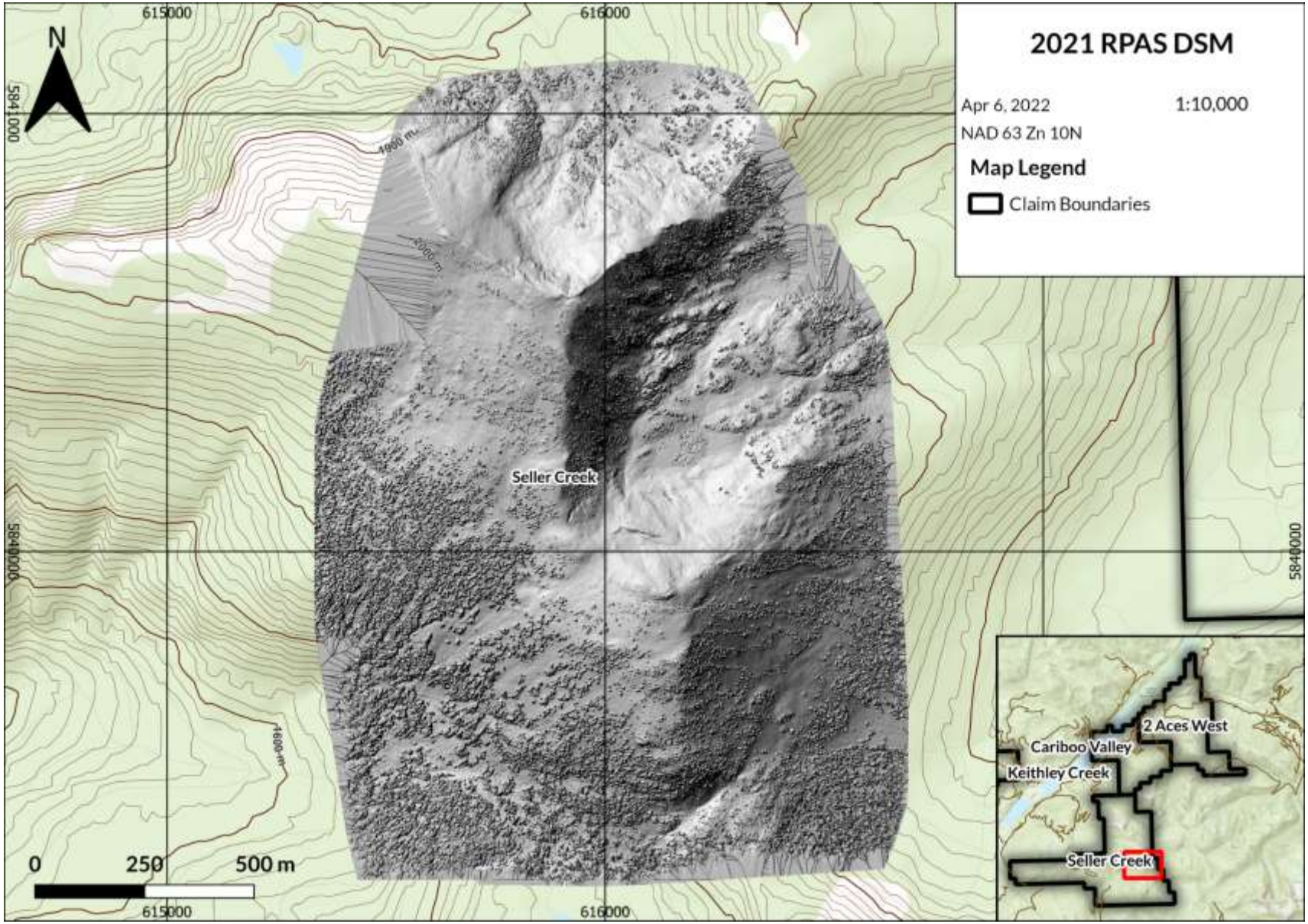


Figure 35: Computed Digital Surface Model (DSM) collected in 2021 on the Seller Creek claims.

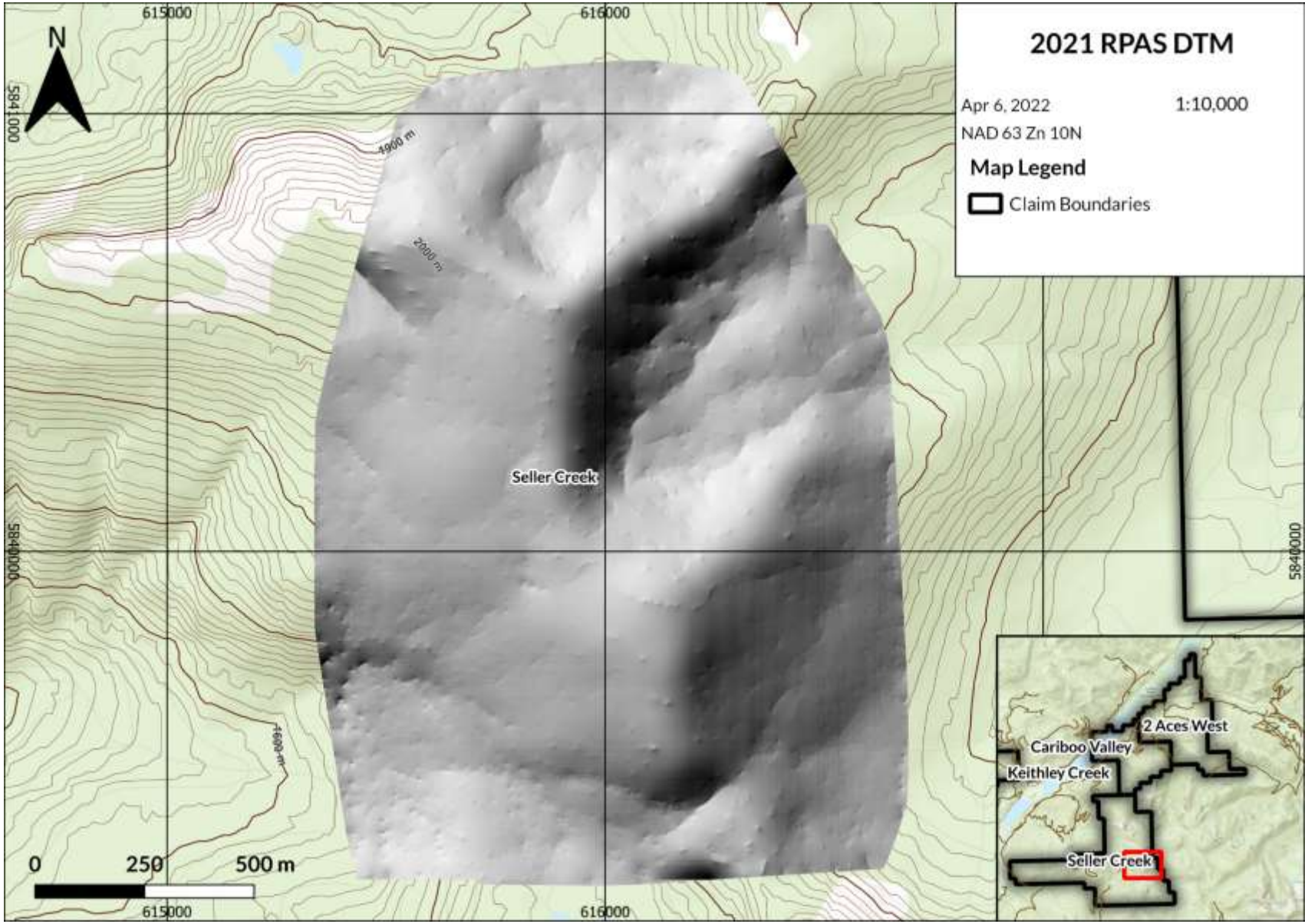


Figure 36: Modelled Digital Terrain Model (DTM) from the data collected in 2021 on the Seller Creek claims.

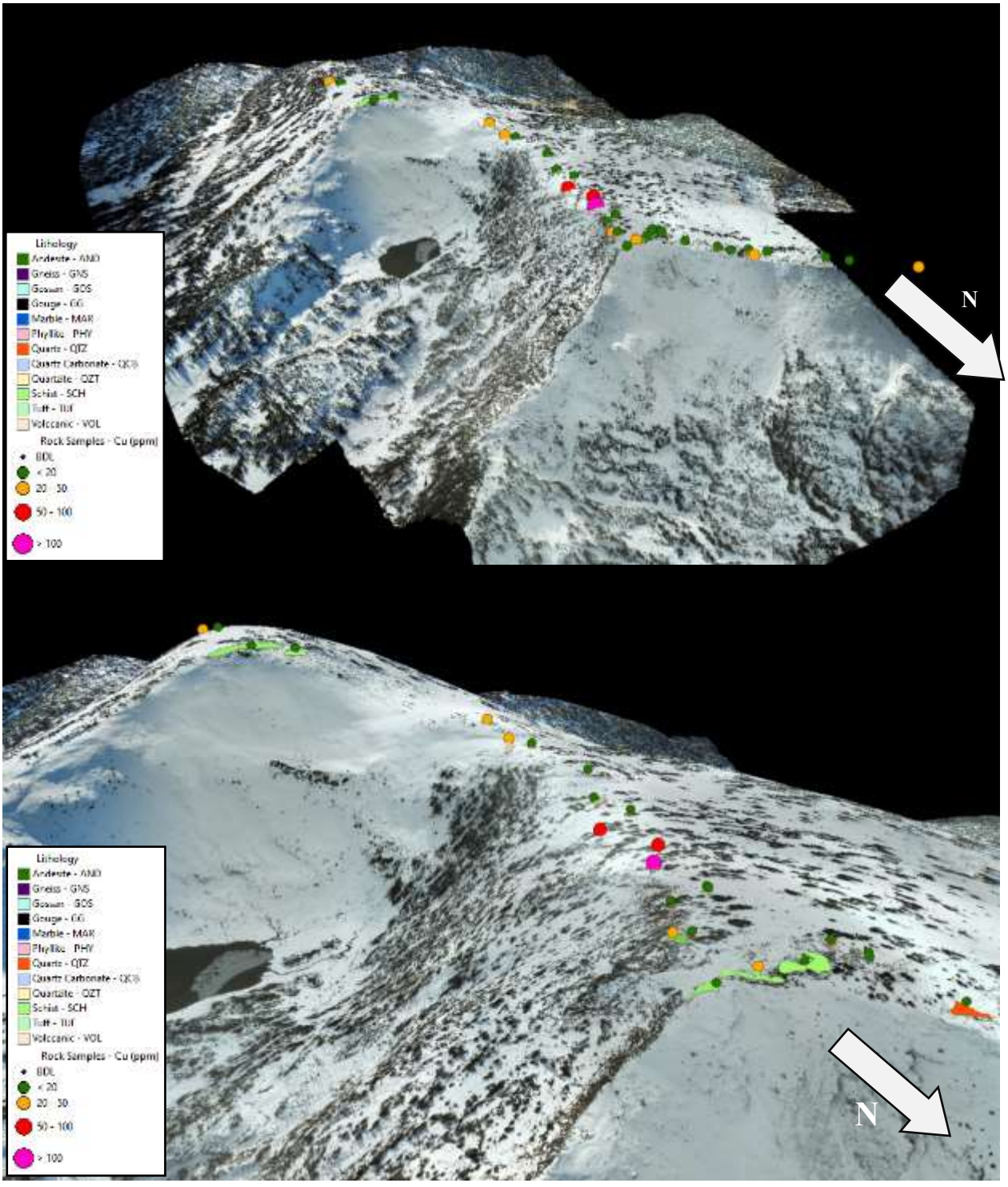


Figure 37: Draped orthoimagery on DTM with mapped rock outcrops and copper assays from 2021. Modelled in ArcScene 10.7.1

10.0 Interpretation

From the 2021 work program completed and the results obtained from the Seller Creek, 2 Aces West, and Cariboo Valley claims, the Author believes the following interpretations are valid and warrant following up:

Within area worked as part of the Seller Creek claims, anomalous Cu-Pb-Zn rock samples were obtained predominantly hosted by rusty quartz veins associated with the exposed marble units. There is significant distribution of anomalous samples across the ridges (Fig. 38). The anomalous Cu-Pb-Zn also coincide with the margins of a magnetic high anomaly (Fig. 39).

The Cariboo Valley and 2 Aces West claims both had promising cobalt results from the stream sediment survey conducted in 2021. Values ranging from 438 ppm Co to 705 ppm Co were collected from northwesterly flowing streams which lead into Cariboo Lake. The source of these anomalies is unknown, but likely spans from the peaks to the southeast near Mount Barker. Follow-up stream sediment sampling to zone in on the anomaly should be a focus in the future. In addition to the cobalt stream sediment anomalies, several rock samples taken in the northern elevated Pb-Zn.

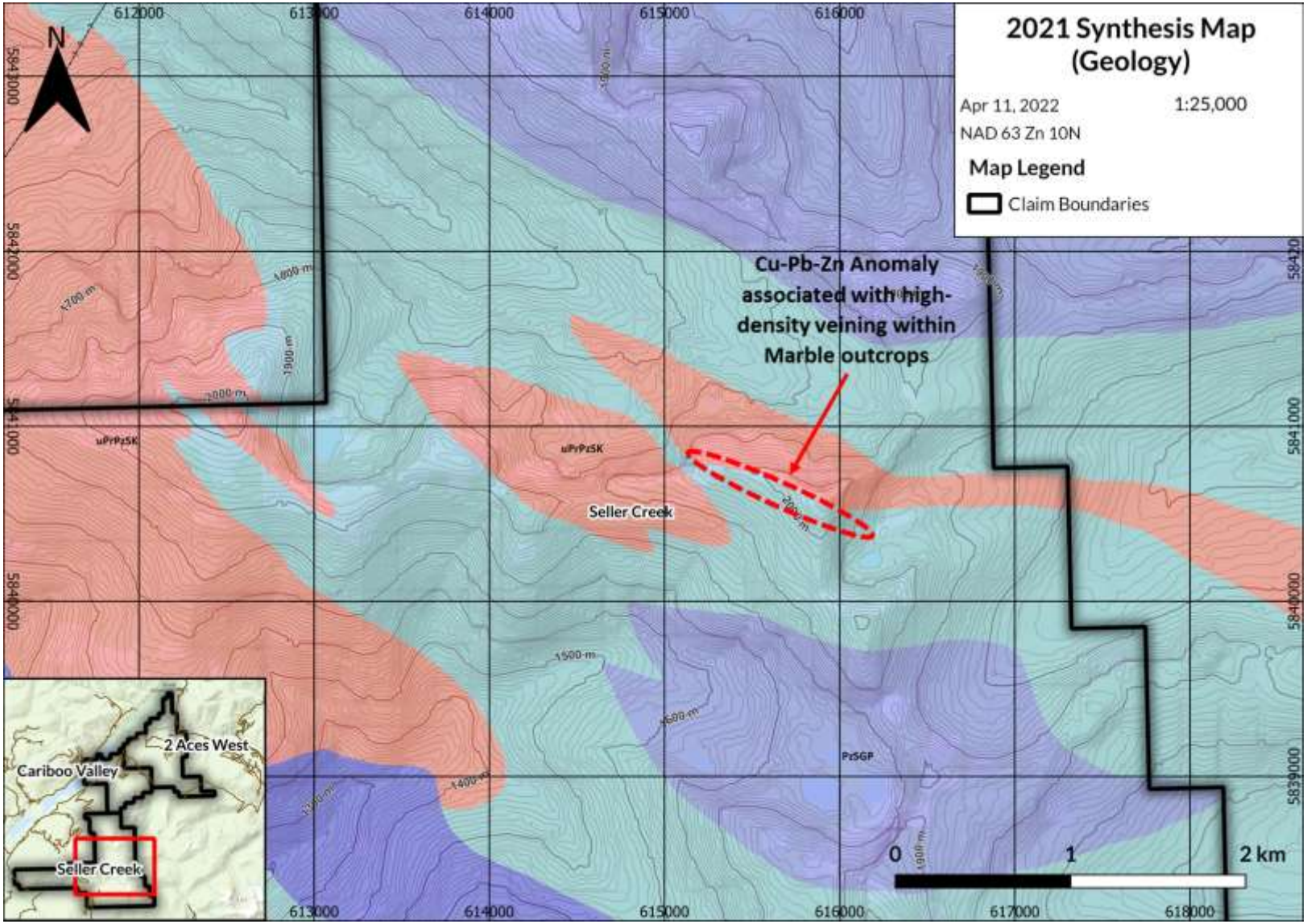


Figure 38: Geology synthesis map of the Seller Creek claims focussed on the area mapped in 2021. The geology legend is the same as Figure 4.

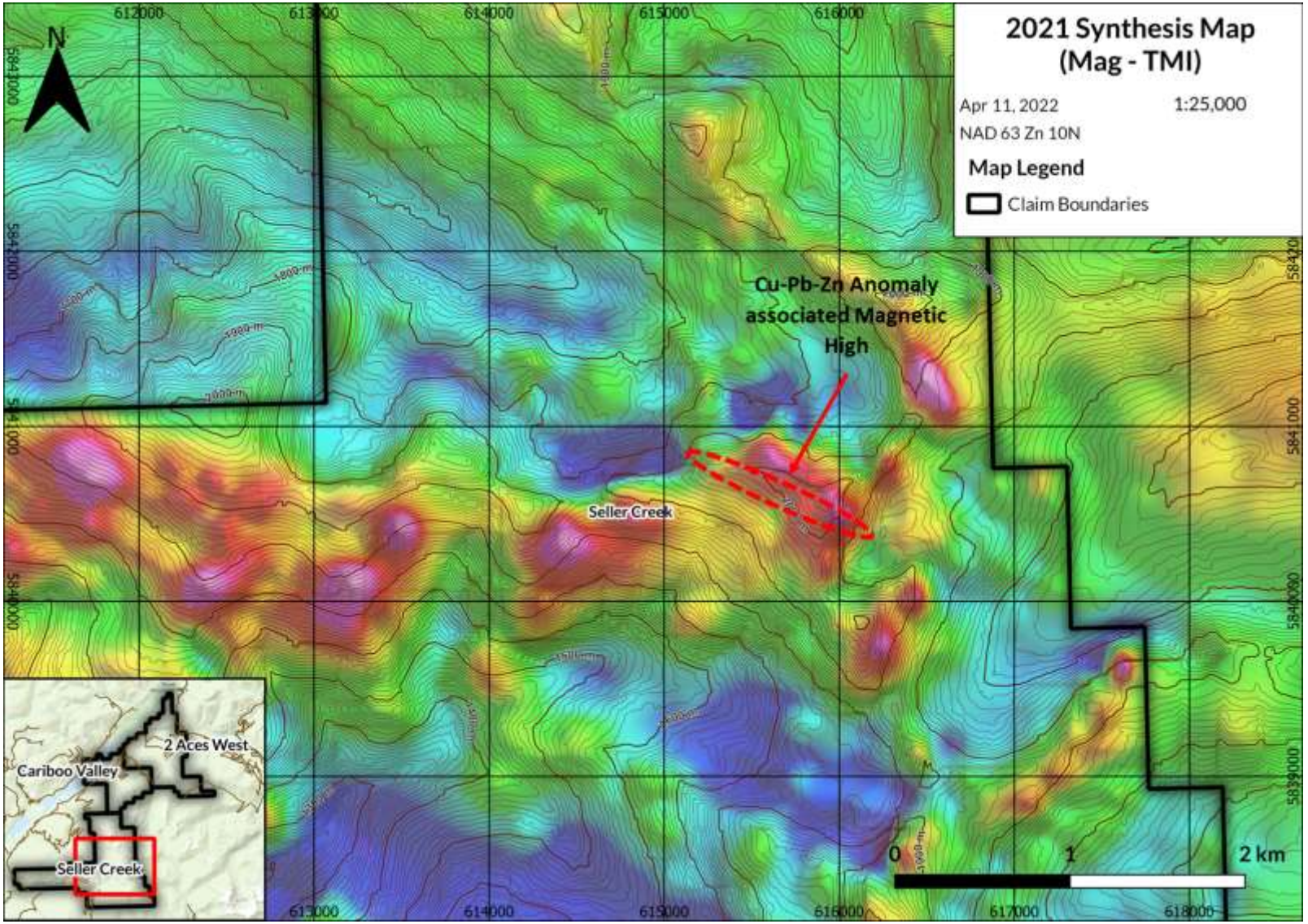


Figure 39: Total Magnetic Intensity (TMI) synthesis map of the Seller Creek claims focussed on the area mapped in 2021. Magnetic data from the 2018 survey.

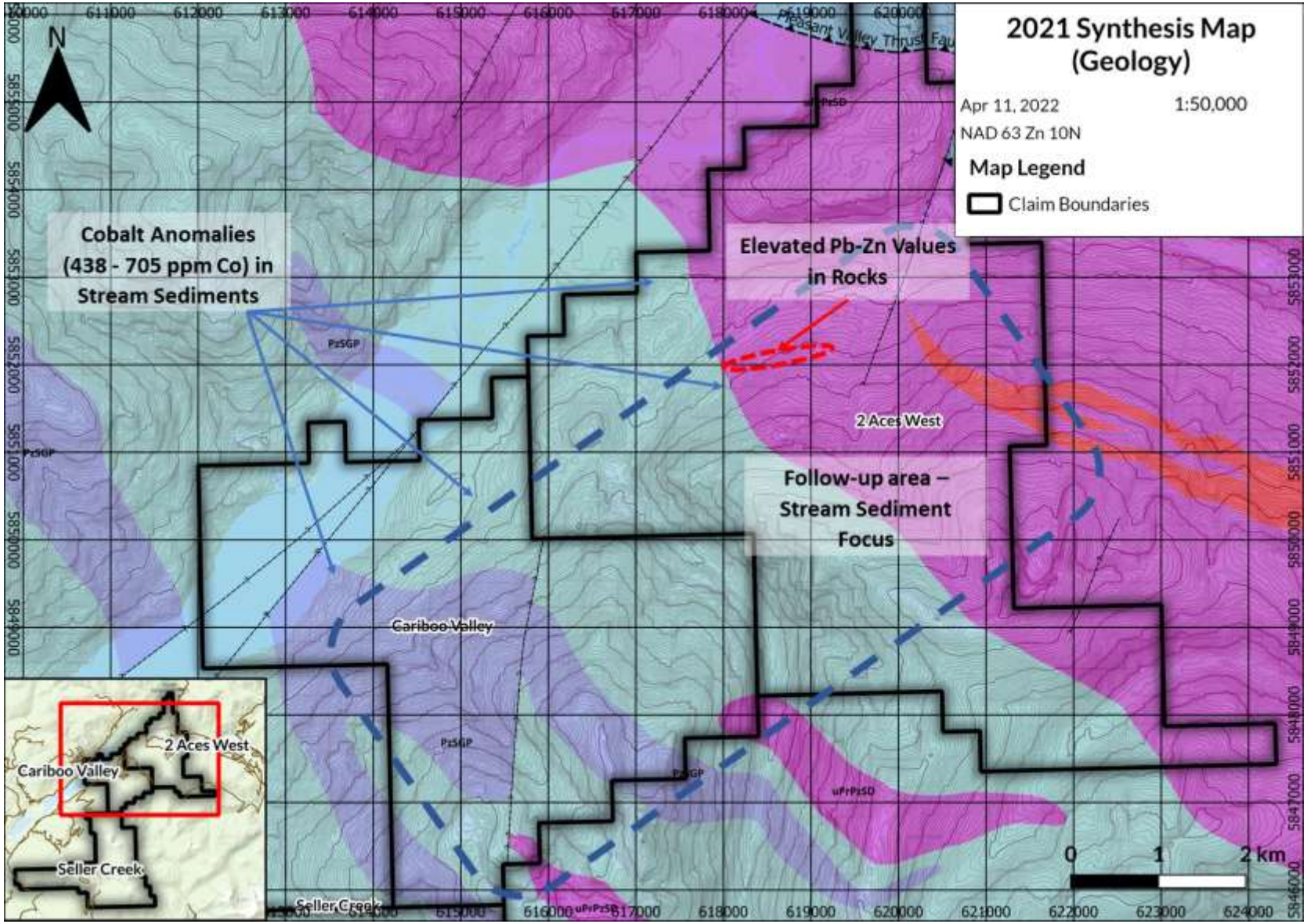


Figure 40: Geology synthesis map of the 2 Aces West and Cariboo Valley claims focussed on the area worked in 2021. The geology legend is the same as Figure 4.

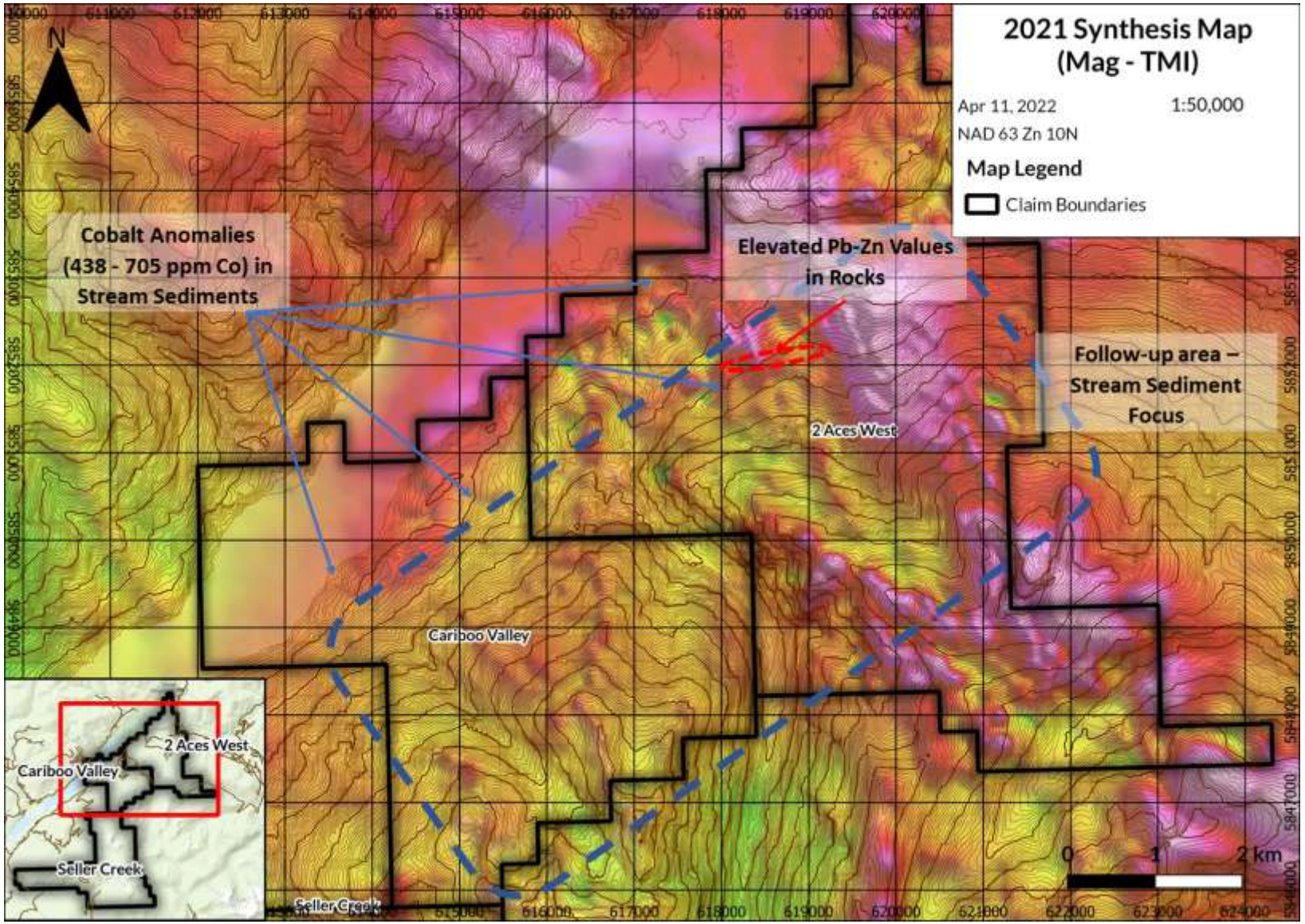


Figure 41: Total Magnetic Intensity (TMI) synthesis map of the 2 Aces West and Cariboo Valley claims focussed on the area mapped in 2021. Magnetic data from the 2018 survey.

11.0 Conclusions & Recommendations

The Author recommends the following exploration work program based on the results and interpretations of the 2021 exploration program:

Detailed geological mapping (1:1000 scale) of the rock exposure within the Seller Creek claims, particular in the south within the goose range mountains. Promising base metal anomalies are noted within the marble outcrops in this area, coupled with the geophysics anomaly recognised by Campbell & Walker Geophysics Ltd. (**Appendix K**) warrant further follow up in this area.

Access was limited to Cariboo Valley claims in 2021 due to the weather conditions in the late season. This area should be explored in the next work program with focus again on the potential of the geophysics anomalies noted within the Campbell & Walker Geophysics Ltd. report (**Appendix J**). Stream sediment sampling was very successful in this area and highlighted two samples stations with anomalous cobalt. A stream sediment sampling program should be used to follow-up on these anomalies tracing the source up-stream to the southeast.

2 Aces West was rock-sampled, and stream sediment sampled in 2021. Rock samples highlighted elevated Pb-Zn in the north, an area that should be revisited and mapping continued. Mt. Barker was very briefly visited in 2021 and minimal ground was covered. Although no significant results were located in Mt. Barker, the area is noted by Campbell & Walker Geophysics Ltd. (**Appendix I**) as a potential structural target and so further work is warranted. Coupled with the 705 ppm Co stream sediment sample located downstream of Mt. Barker would make the area a focus for the next season of work.

12.0 References

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13.0 Statement of Qualifications

I, Liam F. Connor, of 1215 Arawana Road, Naramata, British Columbia, Canada, hereby certify that:

1) I am a graduate of Cardiff University, Wales with a Masters in Earth Sciences (MESci, Exploration and Resource Geology, 2019).
2) I have been employed in the Mining and Metals industry for 3 years and have been exploring for gold, silver, copper and base metals in British Columbia, Ontario, and the Yukon Territories, Canada for SGDS Hive, a geological consultancy based in Vancouver, British Columbia.
3) I am a Fellow of the Geological Society (FGS) a recognised position with the Geological Society of London (License # 0001028047)
4) I am not aware of any material fact of material change with respect to the subject matter of this report that is not reflected in the report, the omission to disclose which makes the report misleading.
5) I have no direct or indirect interest in the property described herein, nor do I expect to receive any.
6) I am the author of the report entitled: Assessment Report describing Geological and Geochemical Surveys at the Seller Creek, Cariboo Valley, and 2 Aces West Claims, British Columbia, dated January 15, 2023

Dated in Naramata, British Columbia January 15, 2023

Liam F. Connor, MESci, FGS

Table 11. Location of geological stations.

STATION ID	PROSPECT / TARGET ZONE	UTM EASTING	UTM NORTHING	ELEVATION	DESCRIPTION
CA21_HWG_CBL_004	Cariboo Lake	620431	5849071	2001	interbedded, foliated quartzite and phyllite. veins sub-parallel to parallel to foliation
CA21_HWG_CBL_005	Cariboo Lake	620457	5849041	2004	interlayered phyllite and quartzite with thin to thick quartz veins. possible MnO staining on outer surfaces
CA21_HWG_CBL_001	Cariboo Lake	620339	5849163	1976	foliated, jointed, chloritic, sericitic, banded meta-basite/volcanic. disseminated pyrite (0.5%).
CA21_HWG_CBL_002	Cariboo Lake	620348	5849152	1981	foliated, jointed, silicified, sericitic, interlayered meta-basite/volcanic and foliated, micaceous phyllite. cross-cutting hematized quartz veins.
CA21_HWG_CBL_003	Cariboo Lake	620392	5849106	1999	interlayered foliated phyllite and quartzite/meta-arenite.
LC21_HWG_CLK_002	Cariboo Lake	619350	5851887		quartz vein material in creek
LC21_HWG_CLK_003	Cariboo Lake	618954	5852073	1155	porphyroblastic phyllite interbedded with quartzite.
LC21_HWG_CLK_004	Cariboo Lake	618842	5852072	1142	equigranular phyllite and interbedded quartzite
LC21_HWG_CLK_005	Cariboo Lake	618842	5852075	1142	thick (5-8cm) quartz vein with ds py
LC21_HWG_CLK_007	Cariboo Lake	618777	5852072	1137	quartz vein with trace py
LC21_HWG_CLK_006	Cariboo Lake	618778	5852073	1135	phyllite+quartzite

LC21_HWG_CLK_008	Cariboo Lake	618739	5852066	1132	interbedded phyllites and quartzites. less foliated more competent. possible lens of metabasite with flow bands
LC21_HWG_CLK_009	Cariboo Lake	618530	5852030	1109	Interbedded phyllite-quartzite and flow banded metabasite
LC21_HWG_CLK_010	Cariboo Lake	618404	5852036	1097	thick (5-10cm) quartz vein in phyllite
LC21_HWG_CLK_011	Cariboo Lake	618389	5852031	1096	porphyroblastic phyllite
LC21_HWG_CLK_012	Cariboo Lake	618287	5852022	1080	equigranular phyllite
LC21_HWG_CLK_013	Cariboo Lake	618279	5852040	1078	phyllite with sheeted sub parellel quartz veins.
LC21_HWG_CLK_014	Cariboo Lake	617924	5852032	1030	porphyroblastic phyllite
LC21_HWG_CLK_001	Cariboo Lake	620647	5854485	1317	Quartz carbonate vein 20 cm wide at thickest part. 20m long. Moderate hem weathering. Hosted in Grey green andesite. On a slight slope near river.
DR21_HWG_CBL_001	Cariboo Lake	621290	5849367	2051	Chloritized green schist
CA21_HWG_SCK_003	Seller Creek	615399	5840776	1992	foliated micaceous schist with rusty quartz veins.
CA21_HWG_SCK_004	Seller Creek	615288	5840782	1989	foliated micaceous schist with quartz carbonate veins. possible disseminated sphalerite (0.5%)
CA21_HWG_SCK_005	Seller Creek	615236	5840787	1981	graphitic/carbonaceous foliated schist with quartz carbonate veins
CA21_HWG_SCK_006	Seller Creek	615197	5840744	1971	graphitic foliated schist with vuggy quartz lenses
CA21_HWG_SCK_007	Seller Creek	615159	5840725	164	foliated graphitic/carbonaceous schist with quartz vein

CA21_HWG_SCK_008	Seller Creek	615105	584030	1950	foliated graphitic/carbonaceous schist with thin to thick quartz veins with hematitic staining
CA21_HWG_SCK_009	Seller Creek	615070	5840709	1942	foliated micaceous schist with rusty quartz veins
CA21_HWG_SCK_010	Seller Creek	615000	5840691	1930	micaceous schistose schist with rusty quartz veins and lenses. subtle segregation of light and dark bands
CA21_HWG_SCK_011	Seller Creek	614946	540686	1921	schistose schist with moderate segregation of quartz rich and quartz poor layers. gneissic bands. intense hematitic staining. possible fault contact.
CA21_HWG_SCK_013	Seller Creek	614938	5840675	1924	equigranular meta-arenite/quartzite
CA21_HWG_SCK_001	Seller Creek	615925	5840587	2064	quartz vein on schist
CA21_HWG_SCK_002	Seller Creek	615925	5840587	2064	schist
LC21_HWG_SCK_001	Seller Creek	615906	5840582	2049	schist with quartz bands/veins
LC21_HWG_SCK_002	Seller Creek	615886	5840581	2047	Schist with vuggy quartz vein. strong purple-red hematite staining in vugs. disseminated pyrite.
LC21_HWG_SCK_003	Seller Creek	615869	5840568	2040	massive quartz vein with ds pyrite and rare vugs. schist country rock. possible thin marble layer along vein.
LC21_HWG_SCK_004	Seller Creek	615856	5840576	2040	massive quartz vein with vuggy margins. muscovite selvage. ds py in vein.
LC21_HWG_SCK_005	Seller Creek	615857	5840579	2041	quartz-rich marble with bands of muscovite
LC21_HWG_SCK_006	Seller Creek	615827	5840604	2037	marble with quartz vein contact. muscovite throughout.

LC21_HWG_SCK_007	Seller Creek	615780	5840629	2020	thick 5-7cm qtz vein in jointed musc rich marble.
LC21_HWG_SCK_008	Seller Creek	615763	5840642	2018	marble with thick quartz vein (v0) with perpendicular smaller quartz veins (v1)
LC21_HWG_SCK_009	Seller Creek	615923	5840551	2052	massive quartz vein with bands of muscovite. hematite staining along fractures.
LC21_HWG_SCK_010	Seller Creek	615930	5840547	2052	equigranular schist
LC21_HWG_SCK_011	Seller Creek	615917	5840504	2037	massive quartz vein with hematized fractures. hosted by equigranular schist.
LC21_HWG_SCK_012	Seller Creek	615896	5840496	2033	interlayered quartzite and schist (metapelite).
LC21_HWG_SCK_013	Seller Creek	615896	5840493	2034	marble with quartz vein
LC21_HWG_SCK_014	Seller Creek	615905	5840440	2025	interlayered schist and quartzite
LC21_HWG_SCK_015	Seller Creek	615892	5840406	2010	schist with foliated veins and post metamorphic V1 qtz vein
LC21_HWG_SCK_016	Seller Creek	615906	5840336	1994	schist with quartz bands/veins. hematite staining along fractures.
LC21_HWG_SCK_017	Seller Creek	615877	5840301	1988	massive, thick (8-15cm) quartz vein in schist.
LC21_HWG_SCK_018	Seller Creek	615889	5840254	1976	large outcrop face. foliated schist overlying equigranular sugary quartzite with qtz veins.
LC21_HWG_SCK_019	Seller Creek	615877	5840189	1971	Interlayered quartzite and schist.
LC21_HWG_SCK_020	Seller Creek	615899	5840088	1961	Schist interlayered with quartzite. quartz lenses and veins follow foliation
LC21_HWG_SCK_021	Seller Creek	615915	5840072	1950	interbedded schist and quartzite with hematized sheeted and folded quartz veins

LC21_HWG_SCK_022	Seller Creek	615924	5840016	1956	Schist with folded bands and lenses of quartz
LC21_HWG_SCK_024	Seller Creek	616123	5839901	2008	Schist with bands and lenses of quartz.
LC21_HWG_SCK_023	Seller Creek	616084	5839902	1998	Schist with quartz bands and veins.
LC21_HWG_SCK_025	Seller Creek	616159	5839792	1993	schist with bands and lenses of quartz
LC21_HWG_SCK_026	Seller Creek	616176	5839766	1993	Meta-Arenite/Quartzite with fine layers of schist.
CA21_HWG_SCK_012	Seller Creek	614932	5840686	1917	inferred fault gouge
CA21_HWG_2AC_005	2 Aces	633356	5850247	1557	biotite schist with lenses of quartz
DR_HWG_2ACE_001	2 Aces	633327	5850244	1557	Bralco marble
CA21_HWG_2AC_009	2 Aces	632441	5849864	1596	micaceous pelite
CA21_HWG_2AC_010	2 Aces	632430	5449825	1595	micaceous schist
CA21_HWG_2AC_004	2 Aces	633412	5850172	1540	bralco marble

Table 12. Stream sediment and associated location coordinates.

Sample Number	Property	Coordinate System	UTM Zone	UTM Easting	UTM Northing	Elevation
C00065159	Cariboo Valley	NAD 83	10N	615193	5850481	905
C00065160	Cariboo Valley	NAD 83	10N	615193	5850481	905
C00065161	Cariboo Valley	NAD 83	10N	613571	5849532	839
C00065162	Cariboo Valley	NAD 83	10N	613571	5849532	839
C00065152	2 Aces West	NAD 83	10N	617231	5853068	821
C00065153	2 Aces West	NAD 83	10N	617927	5852030	1031
C00065154	2 Aces West	NAD 83	10N	617231	5853068	821
C00065155	2 Aces West	NAD 83	10N	617664	5852433	919
C00065156	2 Aces West	NAD 83	10N	617664	5852433	919
C00065157	2 Aces West	NAD 83	10N	616806	5852704	827
C00065158	2 Aces West	NAD 83	10N	616806	5852704	827

14.0 Statement of Costs

Exploration Work Type	Comment	Days		
Personnel Name (Position)	Field Days (Actual Days)	Days	Rate	Subtotal
L. Connor (Project Geologist)	September 20 .5 September 23 .5	1	$645.59	$645.59
J. Moffat (Geotechnician)	September 20 .5 September 23 .5	1	$490.00	$490.00

L. Connor (Project Geologist)	October 24 Travel Cariboo Valley and Seller Creek .25 each	.5	$577.50	$288.75
L. Connor (Project Geologist)	Cariboo Lake Field Days Oct 4 - .25 Oct 5 – 1 Oct 11 - .25 Oct 18 - .25 Oct 20 – 1 Oct 23 - .25	3	$682.50	$2047.50
L. Connor (Project Geologist)	Cariboo Valley Field Days Oct 11 -.25 Oct 18 - .25 Oct 23 - .25	.75	$682.50	$511.88
L. Connor (Project Geologist)	Seller Creek Field Days Oct 4 - .5 Oct 6 – 1 Oct 8 -1 Oct 11 -.25 Oct 22 -1 Oct 23 - .25	4	$682.50	$2730.00
D. Ramirez (Geologist)	Travel Day Cariboo Valley October 24 .25	.25	$472.50	$118.13
D. Ramirez (Geologist)	Cariboo Lake Field Days October 5 – 1 October 20 – 1	2	$577.50	$1155.00
D. Ramirez (Geologist)	Cariboo Valley Field Days October 5 - .25 October 11 -.25 October 18 -.25	.75	$577.50	$433.13
D. Ramirez (Geologist)	Seller Creek Field Days October 4 - .5 October 6 -1 October 8 -1 October 18 -1 October 22 -1 October 23 -.75	5.25	$577.50	$3031.88
C. Austin (Geotechnician)	October 2 Cariboo Valley	.5	$420.00	$210.00

	and Seller Creek Travel - .25 each			
C. Austin (Geotechnician)	Cariboo Lake Field Days Oct 5 – 1 Oct 17 - .5 Oct 20 1	2.5	$525.00	$1312.50
C. Austin (Geotechnician)	Cariboo Valley Field Days Oct 5 – 1 Oct 11 - .25 Oct 18 -.25	1.5	$525.00	$787.50
C. Austin (Geotechnician)	Seller Creek Field Days Oct 4 - .5 Oct 6 -1 Oct 8 – 1 Oct 11 - .25 Oct 18 -.25 Oct 22 -1 Oct 24 - .5	4.5	$525.00	$2362.50
J. Moffat (Geotechnician)	October 2 Cariboo Lake and Seller Creek Travel .25 each	.5	$420.00	$210.00
J. Moffat (Geotechnician)	Cariboo Lake Field Days	0	0	0
J. Moffat (Geotechnician)	Cariboo Valley Field Days October 5 -1 Oct 11 -.50 October 18 – 1	2.5	$525.00	$1312.50
J. Moffat (Geotechnician)	Seller Creek Field Days Oct 4 - .5 Oct 6 -1 Oct 8 – 1 Oct 22 - .75	3.25	$525.00	$1706.25
Andrew Randell (Professional Geoscientist)	October 15 .25 Cariboo Lake Travel	.25	$945.00	$236.25
Andrew Randell (Professional Geoscientist)	October 18 Seller Creek Travel	.25	$945.00	$236.25
Andrew Randell (Professional Geoscientist)	Cariboo Valley Field Day Oct 17 - .25	.25	$1050.00	$262.50

Andrew Randell (Professional Geoscientist)	Seller Creek Field Day Oct 17 - .25	.25	$1050.00	$262.50
Total Field Work				$20350.61

Office Studies	Personnel – Office Only	Units	Rate	Subtotal
Category	Name	Hours (Unless Indicated)		
Literature Search	L. Connor (Project Geologist)	13	$73.50	$955.50
Literature Search	D. Ramirez (Geologist)	10	$52.50	$525.00
Literature Search	C. Austin (Geotechnician)	20	$42.00	$840.00
Database Compilation	L. Connor (Project Geologist)	88.25	$73.50	$6486.38
Database Compilation	D. Ramirez (Geologist)	117	$52.50	$6142.50
Database Compilation	C. Austin (Geotechnician)	104	$42.00	$4368.00
Database Compilation	J. Moffat (Geotechnician)	67.5	$42.00	$2835.00
Computer Modelling	L. Connor	20	$73.50	$1470.00
Reprocessing of Data	C. Austin (Geotechnician)	16	$42.00	$672.00
Reprocessing of Data	J. Moffat (Geotechnician)	3	$42.00	$126.00
General Research	J. Sly (Office Manager)	.5	$42.00	$21.00
General Research	Andrew Randell (Professional Geoscientist)	4.25	$136.50	$580.13
General Research	C. Austin (Geotechnician)	5.5	$42.00	$231.00
General Research	J. Moffat (Geotechnician)	3	$42.00	$126.00
Report Preparation	L. Connor (Project Geologist)	120	$73.50	$8820.00
Report Preparation	C. Austin (Geotechnician)	35	$42.00	$1470.00
Report Preparation	C. Campbell (Campbell & Walker	3.375 Days	$1575.00	$5315.63

	Geophysics Ltd.)			
Total				$40984.14

Remote Sensing	Area in Hectares			
Aerial Photography	Drone Rental, Flight Costs and data processing	1.0	$3898.13	$3898.13
Total				$3898.13

Geochemical Surveying	Number of Samples	No.	Rate	Subtotal
Stream Sediment	12	12	$43.16	$517.92
Rock	65	46	$57.03	$3,706.95
Other (XRF Cost per sample)	73	73	$59.60	$4,350.80
Total				$8,575.67

Transportation		No.	Rate	Subtotal
Truck Rental	Actual Cost	1	$2650.26	$2650.26
Fuel	Actual Cost	1	$973.19	$973.19
Helicopter	Hours	15	$1102.50	$16537.50
Fuel	Litres / Hour	1541.28	$1.62	$2496.87
Landing Fees	Actual Cost	0	0	0
Total				$22657.82

Accommodation and Food	Rates Per Day of Actual Cost			
Accommodation	Actual Cost	1	$2609.09	$2609.09
Meals	Actual Cost	1	$1471.10	$1471.10
				$4080.19

Miscellaneous				
Travel Communications	Actual Cost	1	$14.67	$14.67
Total				$14.67

Equipment Rentals				
Field Gear	Hammers, Safety Gear, Winter Gear, Field Comms	1	$814.26	$814.26
Satellite Phone		1	$65.38	$68.38
Total				$879.64

Other				
5% on Wages	$19425.00	1	$1019.81	$1019.81
10% on Expenses	$7018.46	1	$736.93	$736.93

10% on Helicopter	$19376.71	1	$2034.54	$2034.54
10% on XRF Rental	$4350.80	1	$456.88	$456.88
10% ON SGS				
Total				$4248.16

Total Program: $105,689.03

APPENDIX A – ROCK SAMPLE ASSAY CERTIFICATES

ANALYSIS REPORT BBM21-14351

To STRATA GEODATA SERVICES LTD
ANDY RANDELL
UNIT 330
470 GRANVILLE STREET
VANCOUVER V6C 1V4
BC
CANADA

Order Number	21HWG-001	Date Received	26-Oct-2021
Submission Number	*BBY* SGDS HIVE/21HWG-001/26	Date Analysed	21-Nov-2021 - 30-Jan-2022
Rocks		Date Completed	30-Jan-2022
Number of Samples	26	SGS Order Number	BBM21-14351

Methods Summary

Number of Sample	Method Code	Description
26	G_WGH_KG	Weight of samples received
26	GE_FAA30V5	Au, FAS, exploration grade, AAS, 30g-5ml
26	GE_ICP40Q12	4 Acid Digest (HCL/HCLO4/HF/HNO3), ICP, 0.2g-12ml

Authorised Signatory

John Chiang
Laboratory Operations Manager

SCC Accredited LAB Accrédité CCN

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WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-001
Submission Number *BBY* SGDS HIVE/21HWG-001/26
Rocks
Number of Samples 26

ANALYSIS REPORT BBM21-14351

Element	WTKG	@Au	@Ag	@Al	@As	@Ba
Method	G_WGH_KG	GE_FAA30V5	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	2	0.01	3	1
Upper Limit	--	10,000	100	15	10,000	10,000
Unit	kg	ppb	ppm m / m	%	ppm m / m	ppm m / m
C00065051	2.39	<5	<2	0.03	<3	6
C00065052	1.99	<5	<2	0.01	<3	5
C00065053	3.04	<5	<2	0.13	<3	41
C00065054	2.41	<5	<2	2.46	5	17
C00065055	2.73	<5	<2	0.26	<3	192
C00065056	-	<5	<2	0.25	<3	189
C00065057	1.40	<5	<2	8.95	<3	722
C00065058	2.24	<5	<2	0.09	<3	19
C00065059	2.06	<5	<2	9.69	<3	427
C00065060	2.44	<5	<2	10.36	<3	522
C00065301	2.67	<5	<2	0.02	<3	36
C00065302	1.80	<5	<2	0.54	<3	245
C00065303	2.45	<5	<2	0.06	<3	17
C00065304	2.54	<5	<2	8.97	<3	287
C00065305	2.33	5	<2	0.17	<3	31
C00065306	0.09	209	<2	7.82	35	782
C00065307	1.68	<5	<2	9.85	<3	886
C00065308	1.92	<5	<2	7.87	16	31
C00065230	1.35	7	<2	0.28	14	21
C00065231	1.58	<5	<2	9.32	<3	1160
C00065232	1.38	<5	<2	0.64	5	91
C00065233	1.58	<5	<2	1.24	<3	150
C00065234	1.58	<5	<2	5.65	<3	767
C00065235	1.42	<5	4	0.02	<3	4
C00065236	1.67	<5	<2	6.96	<3	4976
C00065237	-	<5	<2	7.06	<3	5017
*Std SL105	-	4970	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Std OREAS 503d	-	653	-	-	-	-

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-001
Submission Number *BBY* SGDS HIVE/21HWG-001/26
Rocks
Number of Samples 26

ANALYSIS REPORT BBM21-14351

Element	WTKG	@Au	@Ag	@Al	@As	@Ba
Method	G_WGH_KG	GE_FAA30V5	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	2	0.01	3	1
Upper Limit	--	10,000	100	15	10,000	10,000
Unit	kg	ppb	ppm m / m	%	ppm m / m	ppm m / m
*Rep C00065055	-	<5	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Std SN106	-	8210	-	-	-	-
*Rep C00065236	-	<5	-	-	-	-
*Std OREAS 601b	-	-	50	6.36	288	290
*Std OREAS 520	-	-	<2	5.67	165	464
*Blk BLANK	-	-	<2	<0.01	<3	<1

Element	@Be	@Bi	@Ca	@Cd	@Co	@Cr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	5	0.01	1	1	1
Upper Limit	2,500	10,000	15	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	ppm m / m	ppm m / m
C00065051	<0.5	<5	>15.00	<1	<1	<1
C00065052	<0.5	<5	>15.00	<1	<1	1
C00065053	<0.5	<5	>15.00	<1	<1	2
C00065054	0.8	<5	0.35	<1	20	42
C00065055	<0.5	<5	>15.00	<1	<1	20
C00065056	<0.5	<5	>15.00	<1	<1	19
C00065057	2.3	<5	0.24	<1	13	81
C00065058	<0.5	<5	<0.01	<1	<1	52
C00065059	2.9	<5	0.44	<1	4	92
C00065060	2.8	<5	0.48	<1	3	93
C00065301	<0.5	<5	>15.00	<1	<1	2
C00065302	1.2	<5	0.02	<1	<1	76
C00065303	<0.5	<5	>15.00	<1	<1	2
C00065304	2.7	<5	0.29	<1	19	96
C00065305	<0.5	<5	>15.00	<1	<1	13
C00065306	2.8	<5	1.03	<1	37	105

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Submission Number *BBY* SGDS HIVE/21HWG-001/26
Rocks
Number of Samples 26

ANALYSIS REPORT BBM21-14351

Element	@Be	@Bi	@Ca	@Cd	@Co	@Cr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	5	0.01	1	1	1
Upper Limit	2,500	10,000	15	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	ppm m / m	ppm m / m
C00065307	2.5	<5	0.40	<1	16	78
C00065308	0.5	<5	6.67	<1	33	27
C00065230	<0.5	<5	<0.01	<1	2	48
C00065231	2.7	<5	0.17	<1	13	100
C00065232	<0.5	<5	<0.01	<1	<1	57
C00065233	<0.5	<5	0.02	<1	1	38
C00065234	1.6	<5	0.02	<1	10	81
C00065235	<0.5	86	<0.01	<1	<1	23
C00065236	2.4	<5	0.62	<1	<1	120
C00065237	2.5	<5	0.64	<1	<1	132
*Std OREAS 601b	2.1	14	0.82	2	3	21
*Std OREAS 520	1.0	<5	3.93	<1	214	30
*Blk BLANK	<0.5	<5	<0.01	<1	<1	<1

Element	@Cu	@Fe	@K	@La	@Li	@Mg
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	0.01	0.01	0.5	1	0.01
Upper Limit	10,000	15	15	10,000	10,000	15
Unit	ppm m / m	%	%	ppm m / m	ppm m / m	%
C00065051	<0.5	0.09	0.01	0.5	<1	0.51
C00065052	<0.5	0.02	<0.01	<0.5	<1	0.92
C00065053	<0.5	0.12	0.03	1.8	1	0.67
C00065054	25.6	3.31	0.07	17.0	32	0.84
C00065055	<0.5	0.17	0.11	2.7	1	0.42
C00065056	<0.5	0.17	0.11	2.7	1	0.40
C00065057	14.5	5.83	3.43	24.7	47	1.24
C00065058	0.8	0.87	0.04	<0.5	<1	<0.01
C00065059	20.8	5.42	2.59	35.6	30	1.21
C00065060	17.9	5.29	2.92	44.8	31	1.29

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Submission Number *BBY* SGDS HIVE/21HWG-001/26
Rocks
Number of Samples 26

ANALYSIS REPORT BBM21-14351

Element	@Cu	@Fe	@K	@La	@Li	@Mg
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	0.01	0.01	0.5	1	0.01
Upper Limit	10,000	15	15	10,000	10,000	15
Unit	ppm m / m	%	%	ppm m / m	ppm m / m	%
C00065301	<0.5	0.61	0.02	1.6	2	12.61
C00065302	5.7	1.26	0.25	2.0	4	0.06
C00065303	<0.5	0.32	0.02	<0.5	1	13.31
C00065304	23.9	5.32	2.77	27.3	42	1.29
C00065305	<0.5	0.10	0.08	1.5	1	0.54
C00065306	93.8	4.26	2.83	46.6	37	1.04
C00065307	25.2	5.95	2.67	42.2	34	1.44
C00065308	47.0	6.84	0.12	3.9	9	2.64
C00065230	9.4	4.40	0.05	1.7	<1	0.05
C00065231	32.8	6.32	3.08	57.7	32	1.01
C00065232	7.5	1.23	0.27	10.7	<1	0.02
C00065233	<0.5	1.37	0.49	16.1	2	0.07
C00065234	14.1	3.77	1.99	48.7	21	0.61
C00065235	0.6	0.55	<0.01	<0.5	<1	<0.01
C00065236	240	2.33	2.57	32.5	31	1.30
C00065237	226	2.39	2.60	31.5	32	1.32
*Std OREAS 601b	989	2.20	2.34	34.1	23	0.09
*Std OREAS 520	2988	>15.00	3.56	83.1	19	1.17
*Blk BLANK	1.2	<0.01	<0.01	<0.5	<1	<0.01

Element	@Mn	@Mo	@Na	@Ni	@P	@Pb
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	1	0.01	1	0.01	2
Upper Limit	10,000	10,000	15	10,000	15	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	%	ppm m / m
C00065051	53	<1	<0.01	<1	0.01	<2
C00065052	16	<1	<0.01	<1	<0.01	<2
C00065053	62	3	0.01	1	0.04	32
C00065054	376	3	0.70	22	0.01	10

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Submission Number *BBY* SGDS HIVE/21HWG-001/26
Rocks
Number of Samples 26

ANALYSIS REPORT BBM21-14351

Element	@Mn	@Mo	@Na	@Ni	@P	@Pb
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	1	0.01	1	0.01	2
Upper Limit	10,000	10,000	15	10,000	15	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	%	ppm m / m
C00065055	65	<1	0.01	2	<0.01	8
C00065056	64	<1	<0.01	2	<0.01	8
C00065057	362	1	1.21	26	0.05	11
C00065058	88	10	<0.01	6	<0.01	<2
C00065059	552	3	1.00	9	0.05	15
C00065060	547	2	1.04	7	0.05	16
C00065301	537	<1	<0.01	<1	<0.01	<2
C00065302	129	6	0.01	6	<0.01	<2
C00065303	238	<1	<0.01	1	0.01	<2
C00065304	565	2	0.66	27	0.03	16
C00065305	55	<1	0.02	<1	0.01	<2
C00065306	505	<1	0.42	86	0.05	36
C00065307	1498	<1	0.82	28	0.05	9
C00065308	1280	<1	1.56	28	0.05	4
C00065230	167	5	0.02	9	0.06	3
C00065231	307	2	0.23	34	0.13	15
C00065232	98	4	0.02	5	<0.01	2
C00065233	180	3	0.04	11	0.03	3
C00065234	228	3	0.14	29	0.05	15
C00065235	58	5	<0.01	3	<0.01	42
C00065236	78	7	0.17	15	0.46	9
C00065237	89	6	0.17	15	0.40	9
*Std OREAS 601b	206	5	1.84	6	0.03	296
*Std OREAS 520	2264	61	1.40	73	0.08	6
*Blk BLANK	<2	<1	<0.01	<1	<0.01	<2

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Rocks
Number of Samples 26

ANALYSIS REPORT BBM21-14351

Element	@S	@Sb	@Sc	@Sn	@Sr	@Ti
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	0.5	10	0.5	0.01
Upper Limit	5	10,000	10,000	10,000	10,000	15
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%
C00065051	0.01	<5	<0.5	<10	1187	<0.01
C00065052	0.01	<5	<0.5	<10	2903	<0.01
C00065053	0.02	<5	<0.5	<10	1541	<0.01
C00065054	<0.01	<5	3.9	<10	63.1	0.17
C00065055	0.02	<5	<0.5	<10	886	<0.01
C00065056	0.02	<5	<0.5	<10	878	<0.01
C00065057	0.01	<5	17.6	<10	89.4	0.67
C00065058	<0.01	<5	<0.5	<10	0.6	<0.01
C00065059	0.02	<5	18.8	<10	144	0.56
C00065060	0.04	<5	19.5	<10	163	0.64
C00065301	<0.01	<5	<0.5	<10	478	<0.01
C00065302	<0.01	<5	0.9	<10	4.1	0.02
C00065303	<0.01	<5	<0.5	<10	130	<0.01
C00065304	0.01	<5	18.1	<10	114	0.52
C00065305	0.01	<5	<0.5	<10	736	<0.01
C00065306	0.15	13	14.4	<10	48.7	0.35
C00065307	<0.01	<5	19.1	<10	99.3	0.45
C00065308	<0.01	<5	32.3	<10	196	0.62
C00065230	<0.01	<5	<0.5	<10	3.3	<0.01
C00065231	<0.01	<5	19.6	<10	83.2	0.40
C00065232	<0.01	<5	0.8	<10	7.8	0.02
C00065233	<0.01	<5	2.3	<10	11.8	0.08
C00065234	<0.01	<5	9.7	<10	51.0	0.28
C00065235	<0.01	<5	<0.5	<10	<0.5	<0.01
C00065236	<0.01	<5	11.0	<10	202	0.16
C00065237	<0.01	<5	11.1	<10	206	0.10
*Std OREAS 601b	1.49	25	3.4	<10	228	0.13
*Std OREAS 520	1.01	<5	17.4	<10	104	0.47
*Blk BLANK	<0.01	<5	<0.5	<10	<0.5	<0.01

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Rocks
Number of Samples 26

ANALYSIS REPORT BBM21-14351

Element	@V	@W	@Y	@Zn	@Zr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	10	0.5	1	0.5
Upper Limit	10,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065051	<2	<10	0.6	3	<0.5
C00065052	<2	<10	<0.5	1	<0.5
C00065053	<2	<10	1.4	4	0.6
C00065054	25	<10	9.6	63	1.4
C00065055	11	<10	1.6	32	0.9
C00065056	10	22	1.5	32	1.1
C00065057	123	<10	12.7	85	11.9
C00065058	2	<10	<0.5	2	<0.5
C00065059	109	<10	13.0	75	12.9
C00065060	118	<10	10.6	82	14.0
C00065301	19	<10	0.8	15	<0.5
C00065302	9	<10	<0.5	3	1.0
C00065303	<2	<10	0.6	13	<0.5
C00065304	124	<10	9.9	96	8.2
C00065305	9	<10	0.9	4	0.7
C00065306	108	<10	21.6	134	132
C00065307	111	<10	19.9	98	48.6
C00065308	279	<10	24.6	65	26.7
C00065230	4	<10	0.8	25	2.2
C00065231	127	<10	10.1	64	55.9
C00065232	6	<10	1.9	8	8.6
C00065233	17	<10	2.8	33	9.8
C00065234	62	<10	13.5	44	38.2
C00065235	<2	71	<0.5	1	<0.5
C00065236	538	<10	17.4	75	68.9
C00065237	534	<10	17.8	75	42.6
*Std OREAS 601b	12	<10	10.1	304	181
*Std OREAS 520	264	29	19.6	20	139
*Blk BLANK	<2	<10	<0.5	2	<0.5

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number	21HWG-001
Submission Number	*BBY* SGDS HIVE/21HWG-001/26
Rocks	
Number of Samples	26

ANALYSIS REPORT BBM21-14351

SGS Canada Minerals Burnaby conforms to the requirements of ISO/IEC17025 for specific tests as listed on their scope of accreditation found at https://www.scc.ca/en/search/laboratories/sgs
Tests and Elements marked with an "@" symbol in the report denote ISO/IEC17025 accreditation.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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ANALYSIS REPORT BBM21-14350

To STRATA GEODATA SERVICES LTD
ANDY RANDELL
UNIT 330
470 GRANVILLE STREET
VANCOUVER V6C 1V4
BC
CANADA

Order Number	21HWG-002	Date Received	26-Oct-2021
Submission Number	*BBY* SGDS HIVE/21HWG-002/41	Date Analysed	21-Nov-2021 - 30-Jan-2022
Rocks		Date Completed	30-Jan-2022
Number of Samples	41	SGS Order Number	BBM21-14350

Methods Summary

Number of Sample	Method Code	Description
41	G_WGH_KG	Weight of samples received
41	GE_FAA30V5	Au, FAS, exploration grade, AAS, 30g-5ml
41	GE_ICP40Q12	4 Acid Digest (HCL/HCLO4/HF/HNO3), ICP, 0.2g-12ml

Authorised Signatory

John Chiang
Laboratory Operations Manager

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- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	WTKG	@Au	@Ag	@Al	@As	@Ba
Method	G_WGH_KG	GE_FAA30V5	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	2	0.01	3	1
Upper Limit	--	10,000	100	15	10,000	10,000
Unit	kg	ppb	ppm m / m	%	ppm m / m	ppm m / m
C00065201	2.02	<5	<2	2.12	<3	206
C00065202	2.12	<5	<2	10.35	<3	1087
C00065203	2.14	<5	<2	8.11	5	656
C00065204	1.78	<5	<2	7.45	<3	934
C00065205	2.12	<5	<2	0.42	<3	44
C00065206	2.06	<5	<2	0.06	<3	7
C00065207	2.41	<5	<2	0.42	9	44
C00065208	1.83	<5	<2	0.13	<3	16
C00065209	2.13	7	<2	0.68	8	91
C00065210	2.20	<5	<2	0.60	5	84
C00065211	2.80	11	<2	0.78	31	76
C00065212	1.92	<5	<2	9.28	3	894
C00065213	2.82	<5	<2	0.05	<3	8
C00065214	1.20	<5	<2	6.46	<3	553
C00065215	1.44	6	<2	2.18	5	170
C00065216	1.78	<5	<2	7.01	<3	7091
C00065217	1.17	<5	<2	6.88	<3	7456
C00065218	1.60	<5	<2	6.71	<3	4498
C00065219	1.69	<5	<2	4.52	<3	314
C00065220	2.47	<5	<2	3.28	<3	136
C00065221	2.37	<5	<2	3.39	<3	156
C00065222	1.77	<5	<2	5.45	<3	443
C00065223	1.61	<5	<2	4.91	<3	325
C00065224	2.29	<5	<2	5.38	<3	4347
C00065225	2.05	<5	<2	1.30	<3	305
C00065226	1.76	<5	<2	2.53	<3	638
C00065227	2.07	<5	<2	2.64	<3	220
C00065228	1.98	<5	<2	6.79	<3	492
C00065229	0.08	203	<2	8.22	34	786

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	WTKG	@Au	@Ag	@Al	@As	@Ba
Method	G_WGH_KG	GE_FAA30V5	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	2	0.01	3	1
Upper Limit	--	10,000	100	15	10,000	10,000
Unit	kg	ppb	ppm m / m	%	ppm m / m	ppm m / m
C00065087	1.55	<5	<2	2.39	<3	463
C00065088	2.14	<5	<2	9.82	<3	761
C00065089	2.32	<5	<2	0.26	<3	63
C00065090	1.69	<5	<2	4.18	<3	1774
C00065091	2.59	<5	<2	1.98	<3	1510
C00065092	1.88	<5	<2	2.22	<3	1511
C00065093	1.95	<5	<2	4.26	<3	2495
C00065094	2.08	<5	<2	2.30	<3	168
C00065095	1.91	<5	<2	5.63	<3	412
C00065096	3.00	<5	<2	0.99	<3	66
C00065097	1.72	<5	<2	5.32	<3	304
C00065098	0.08	210	<2	7.69	37	759
*Dup C00065096	-	<5	<2	0.99	<3	62
*Std OREAS 601b	-	-	50	6.36	288	290
*Std OREAS 520	-	-	<2	5.67	165	464
*Blk BLANK	-	-	<2	<0.01	<3	<1
*Rep C00065096	-	-	<2	0.96	<3	62
*Std SL105	-	5060	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Std SL105	-	4970	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Rep C00065224	-	<5	-	-	-	-
*Std OREAS 503d	-	653	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Std SN106	-	8210	-	-	-	-
*Std OREAS 520	-	-	<2	5.95	155	517
*Blk BLANK	-	-	<2	<0.01	<3	2
*Std OREAS 601b	-	-	52	6.62	279	236
*Rep C00065226	-	-	<2	2.47	<3	619

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@Be	@Bi	@Ca	@Cd	@Co	@Cr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	5	0.01	1	1	1
Upper Limit	2,500	10,000	15	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	ppm m / m	ppm m / m
C00065201	0.6	<5	0.01	<1	1	55
C00065202	3.2	<5	<0.01	<1	7	107
C00065203	2.3	<5	<0.01	<1	5	126
C00065204	2.3	<5	0.05	<1	6	68
C00065205	<0.5	<5	<0.01	<1	<1	59
C00065206	<0.5	<5	<0.01	<1	<1	50
C00065207	<0.5	<5	<0.01	<1	<1	76
C00065208	<0.5	<5	<0.01	<1	<1	40
C00065209	<0.5	<5	<0.01	<1	<1	37
C00065210	<0.5	<5	<0.01	<1	<1	37
C00065211	<0.5	<5	<0.01	<1	<1	31
C00065212	3.0	<5	0.02	<1	7	90
C00065213	<0.5	<5	<0.01	<1	<1	24
C00065214	2.1	<5	0.03	<1	5	78
C00065215	0.8	<5	0.02	<1	1	60
C00065216	2.2	<5	0.23	<1	4	127
C00065217	2.4	<5	0.25	<1	2	107
C00065218	2.3	<5	0.13	<1	2	103
C00065219	1.4	<5	0.25	<1	9	81
C00065220	<0.5	<5	0.38	<1	23	52
C00065221	0.6	<5	0.06	<1	7	44
C00065222	1.5	<5	0.05	<1	6	77
C00065223	1.3	<5	0.05	<1	9	67
C00065224	1.6	<5	0.03	<1	3	83
C00065225	<0.5	<5	0.03	<1	<1	67
C00065226	0.8	<5	<0.01	<1	<1	90
C00065227	0.7	<5	0.07	<1	5	46
C00065228	1.6	<5	0.41	<1	12	68
C00065229	2.9	<5	1.13	<1	36	94

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@Be	@Bi	@Ca	@Cd	@Co	@Cr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	5	0.01	1	1	1
Upper Limit	2,500	10,000	15	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	ppm m / m	ppm m / m
C00065087	0.9	<5	0.01	<1	8	73
C00065088	3.0	<5	0.05	<1	12	103
C00065089	<0.5	<5	<0.01	<1	2	31
C00065090	1.6	<5	1.56	<1	2	118
C00065091	1.3	<5	0.05	<1	1	63
C00065092	1.0	<5	<0.01	<1	<1	70
C00065093	1.6	<5	1.20	<1	<1	94
C00065094	0.6	<5	0.08	<1	4	97
C00065095	1.4	<5	0.14	<1	8	75
C00065096	<0.5	<5	0.07	<1	6	38
C00065097	1.1	<5	0.02	<1	8	51
C00065098	2.7	<5	1.04	<1	36	98
*Dup C00065096	<0.5	<5	0.10	<1	6	50
*Std OREAS 601b	2.1	14	0.82	2	3	21
*Std OREAS 520	1.0	<5	3.93	<1	214	30
*Blk BLANK	<0.5	<5	<0.01	<1	<1	<1
*Rep C00065096	<0.5	<5	0.06	<1	6	47
*Std OREAS 520	1.0	<5	4.10	<1	213	28
*Blk BLANK	<0.5	<5	<0.01	<1	<1	<1
*Std OREAS 601b	2.1	14	0.87	<1	3	18
*Rep C00065226	0.8	<5	<0.01	<1	<1	76

Element	@Cu	@Fe	@K	@La	@Li	@Mg
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	0.01	0.01	0.5	1	0.01
Upper Limit	10,000	15	15	10,000	10,000	15
Unit	ppm m / m	%	%	ppm m / m	ppm m / m	%
C00065201	7.7	1.35	0.77	9.5	6	0.18
C00065202	19.8	4.68	3.75	51.5	32	1.01

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@Cu	@Fe	@K	@La	@Li	@Mg
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	0.01	0.01	0.5	1	0.01
Upper Limit	10,000	15	15	10,000	10,000	15
Unit	ppm m / m	%	%	ppm m / m	ppm m / m	%
C00065203	21.3	5.13	2.90	48.5	21	0.66
C00065204	15.4	3.88	2.51	38.8	23	0.77
C00065205	3.3	0.88	0.15	8.5	<1	0.04
C00065206	2.7	0.91	0.02	1.3	<1	<0.01
C00065207	4.7	1.27	0.13	20.2	<1	0.04
C00065208	2.6	0.87	0.05	<0.5	<1	<0.01
C00065209	8.2	1.70	0.27	4.8	<1	0.02
C00065210	2.4	1.13	0.25	9.3	<1	0.02
C00065211	7.3	1.71	0.29	29.8	1	0.05
C00065212	26.0	6.36	3.42	56.3	24	0.87
C00065213	1.8	0.83	0.02	<0.5	<1	<0.01
C00065214	8.2	3.05	2.24	36.2	15	0.54
C00065215	11.5	2.28	0.61	15.1	6	0.32
C00065216	163	5.02	2.59	38.2	32	1.75
C00065217	60.5	3.41	2.78	33.8	27	1.36
C00065218	52.9	2.70	2.68	33.8	22	1.19
C00065219	15.7	3.62	1.47	18.3	15	0.63
C00065220	17.6	3.16	0.41	18.6	19	1.13
C00065221	12.2	2.41	0.66	21.5	15	0.82
C00065222	17.2	3.65	2.03	16.2	19	0.78
C00065223	24.4	3.77	1.56	27.4	21	0.81
C00065224	46.0	3.91	1.87	23.1	22	1.33
C00065225	4.4	2.03	0.35	13.4	5	0.21
C00065226	8.0	2.44	0.77	14.1	6	0.20
C00065227	7.9	2.53	0.74	13.9	11	0.62
C00065228	22.0	3.50	2.17	21.8	20	0.99
C00065229	90.8	4.39	3.03	41.1	39	1.09
C00065087	81.7	3.72	0.89	15.8	4	0.18
C00065088	20.4	6.06	3.07	31.8	32	1.38

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@Cu	@Fe	@K	@La	@Li	@Mg
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	0.01	0.01	0.5	1	0.01
Upper Limit	10,000	15	15	10,000	10,000	15
Unit	ppm m / m	%	%	ppm m / m	ppm m / m	%
C00065089	3.8	0.95	0.08	1.4	<1	0.03
C00065090	31.4	2.73	1.68	16.1	7	0.21
C00065091	58.4	1.45	0.85	16.3	12	0.18
C00065092	3.7	2.00	0.95	13.1	6	0.17
C00065093	27.2	2.57	1.81	20.5	14	0.46
C00065094	15.6	3.16	0.78	11.9	11	0.45
C00065095	12.6	3.46	2.09	21.6	20	0.65
C00065096	10.4	1.64	0.31	5.0	7	0.19
C00065097	18.6	3.40	1.50	24.9	20	0.65
C00065098	87.4	4.20	2.97	41.9	38	1.01
*Dup C00065096	23.2	1.85	0.31	5.1	7	0.20
*Std OREAS 601b	989	2.20	2.34	34.1	23	0.09
*Std OREAS 520	2988	>15.00	3.56	83.1	19	1.17
*Blk BLANK	1.2	<0.01	<0.01	<0.5	<1	<0.01
*Rep C00065096	9.3	1.59	0.30	5.3	6	0.19
*Std OREAS 520	3056	>15.00	3.56	86.0	19	1.23
*Blk BLANK	<0.5	<0.01	<0.01	<0.5	<1	<0.01
*Std OREAS 601b	998	2.24	2.33	33.2	23	0.10
*Rep C00065226	7.9	2.38	0.75	13.7	6	0.20

Element	@Mn	@Mo	@Na	@Ni	@P	@Pb
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	1	0.01	1	0.01	2
Upper Limit	10,000	10,000	15	10,000	15	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	%	ppm m / m
C00065201	71	5	0.07	6	0.02	8
C00065202	134	3	0.28	16	0.05	16
C00065203	154	5	0.20	14	0.07	14
C00065204	101	2	0.22	13	0.08	16

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@Mn	@Mo	@Na	@Ni	@P	@Pb
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	1	0.01	1	0.01	2
Upper Limit	10,000	10,000	15	10,000	15	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	%	ppm m / m
C00065205	69	4	0.02	4	<0.01	<2
C00065206	84	5	<0.01	4	<0.01	<2
C00065207	55	5	0.02	3	0.01	6
C00065208	81	6	<0.01	4	<0.01	2
C00065209	102	4	0.03	5	0.02	2
C00065210	99	6	0.02	5	<0.01	6
C00065211	98	5	0.03	6	0.02	4
C00065212	146	3	0.21	16	0.07	17
C00065213	102	5	<0.01	4	<0.01	<2
C00065214	108	4	0.36	13	0.06	11
C00065215	123	4	0.12	7	0.04	4
C00065216	98	7	0.12	63	0.29	28
C00065217	76	8	0.12	22	0.24	46
C00065218	68	6	0.14	20	0.14	9
C00065219	336	4	0.21	18	0.06	11
C00065220	722	3	0.84	48	0.04	7
C00065221	357	3	0.82	18	0.02	17
C00065222	207	4	0.23	18	0.05	30
C00065223	250	4	0.39	27	0.05	17
C00065224	141	8	0.14	23	0.12	7
C00065225	123	5	0.08	5	0.05	5
C00065226	125	7	0.19	5	0.02	10
C00065227	244	4	0.19	17	0.04	14
C00065228	627	2	0.92	23	0.03	15
C00065229	509	<1	0.42	77	0.05	38
C00065087	127	10	0.08	37	0.06	15
C00065088	438	3	0.54	22	0.05	20
C00065089	102	6	0.01	7	<0.01	<2
C00065090	153	7	0.18	23	0.93	10

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@Mn	@Mo	@Na	@Ni	@P	@Pb
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	1	0.01	1	0.01	2
Upper Limit	10,000	10,000	15	10,000	15	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	%	ppm m / m
C00065091	111	11	0.05	22	0.08	32
C00065092	85	19	0.07	41	0.18	21
C00065093	93	7	0.11	21	0.72	19
C00065094	187	7	0.08	20	0.07	34
C00065095	369	3	0.67	28	0.06	12
C00065096	205	5	0.10	17	0.02	16
C00065097	359	2	1.20	28	0.03	12
C00065098	485	<1	0.42	81	0.05	35
*Dup C00065096	238	7	0.10	18	0.02	17
*Std OREAS 601b	206	5	1.84	6	0.03	296
*Std OREAS 520	2264	61	1.40	73	0.08	6
*Blk BLANK	<2	<1	<0.01	<1	<0.01	<2
*Rep C00065096	201	5	0.10	17	0.02	15
*Std OREAS 520	2358	61	1.40	70	0.08	5
*Blk BLANK	<2	<1	<0.01	<1	<0.01	<2
*Std OREAS 601b	212	5	1.83	6	0.03	306
*Rep C00065226	123	7	0.18	4	0.02	9

Element	@S	@Sb	@Sc	@Sn	@Sr	@Ti
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	0.5	10	0.5	0.01
Upper Limit	5	10,000	10,000	10,000	10,000	15
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%
C00065201	<0.01	<5	3.5	<10	22.5	0.06
C00065202	0.01	<5	19.9	<10	104	0.16
C00065203	0.01	<5	16.1	<10	75.7	0.25
C00065204	<0.01	<5	15.2	<10	74.0	0.19
C00065205	<0.01	<5	0.8	<10	5.0	0.02
C00065206	<0.01	<5	<0.5	<10	0.9	<0.01

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@S	@Sb	@Sc	@Sn	@Sr	@Ti
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	0.5	10	0.5	0.01
Upper Limit	5	10,000	10,000	10,000	10,000	15
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%
C00065207	<0.01	<5	0.9	<10	4.9	0.02
C00065208	<0.01	<5	<0.5	<10	1.7	<0.01
C00065209	<0.01	<5	1.2	<10	7.4	0.03
C00065210	<0.01	<5	0.9	<10	8.2	0.02
C00065211	<0.01	<5	1.2	<10	6.6	0.02
C00065212	0.01	<5	17.5	<10	73.0	0.13
C00065213	<0.01	<5	<0.5	<10	1.3	<0.01
C00065214	0.01	<5	12.9	<10	58.9	0.18
C00065215	<0.01	<5	4.2	<10	23.2	0.06
C00065216	0.01	<5	10.5	<10	79.0	0.19
C00065217	<0.01	<5	10.8	<10	76.8	0.20
C00065218	0.02	<5	11.2	<10	76.2	0.23
C00065219	0.03	<5	8.9	<10	43.2	0.20
C00065220	<0.01	<5	6.2	<10	39.5	0.15
C00065221	<0.01	<5	4.0	<10	33.5	0.11
C00065222	0.02	<5	9.5	<10	41.5	0.16
C00065223	0.01	<5	8.4	<10	33.1	0.18
C00065224	0.02	<5	8.5	<10	66.1	0.14
C00065225	0.01	<5	2.6	<10	33.2	0.03
C00065226	<0.01	<5	4.8	<10	66.5	0.07
C00065227	<0.01	<5	4.0	<10	25.3	0.11
C00065228	<0.01	<5	10.3	<10	104	0.40
C00065229	0.14	15	14.9	<10	48.0	0.38
C00065087	<0.01	<5	3.8	<10	28.4	0.04
C00065088	0.01	<5	19.0	<10	79.2	0.49
C00065089	<0.01	<5	0.5	<10	3.6	<0.01
C00065090	0.02	<5	8.7	<10	119	0.13
C00065091	<0.01	<5	3.4	<10	69.1	0.08
C00065092	0.02	<5	4.0	<10	39.5	0.08

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@S	@Sb	@Sc	@Sn	@Sr	@Ti
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	0.5	10	0.5	0.01
Upper Limit	5	10,000	10,000	10,000	10,000	15
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%
C00065093	0.01	<5	6.8	<10	133	0.11
C00065094	<0.01	<5	4.5	<10	24.8	0.10
C00065095	<0.01	<5	8.1	<10	36.5	0.26
C00065096	<0.01	<5	1.4	<10	5.3	0.05
C00065097	<0.01	<5	7.1	<10	36.9	0.20
C00065098	0.14	15	14.0	<10	44.8	0.37
*Dup C00065096	<0.01	<5	1.5	<10	7.2	0.05
*Std OREAS 601b	1.49	25	3.4	<10	228	0.13
*Std OREAS 520	1.01	<5	17.4	<10	104	0.47
*Blk BLANK	<0.01	<5	<0.5	<10	<0.5	<0.01
*Rep C00065096	<0.01	<5	1.4	<10	7.5	0.05
*Std OREAS 520	1.00	<5	18.2	<10	111	0.48
*Blk BLANK	<0.01	<5	<0.5	<10	<0.5	<0.01
*Std OREAS 601b	1.49	27	3.8	<10	244	0.13
*Rep C00065226	<0.01	<5	4.7	<10	64.8	0.06

Element	@V	@W	@Y	@Zn	@Zr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	10	0.5	1	0.5
Upper Limit	10,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065201	21	<10	2.1	13	7.0
C00065202	95	<10	6.0	73	38.0
C00065203	78	<10	6.1	26	45.8
C00065204	91	<10	7.0	66	39.6
C00065205	4	<10	1.0	5	3.1
C00065206	<2	<10	<0.5	2	0.7
C00065207	5	<10	1.9	10	10.1
C00065208	<2	<10	<0.5	4	0.8

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@V	@W	@Y	@Zn	@Zr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	10	0.5	1	0.5
Upper Limit	10,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065209	9	<10	0.8	12	6.0
C00065210	7	<10	1.2	3	7.2
C00065211	7	<10	2.3	6	7.7
C00065212	77	<10	6.4	98	35.5
C00065213	<2	<10	<0.5	<1	<0.5
C00065214	71	<10	6.7	59	32.6
C00065215	25	<10	2.5	30	13.3
C00065216	503	<10	11.3	313	79.5
C00065217	931	<10	8.7	383	66.0
C00065218	248	<10	8.4	245	83.2
C00065219	49	<10	9.4	61	19.2
C00065220	49	<10	9.3	105	22.2
C00065221	26	<10	5.6	30	52.0
C00065222	60	<10	5.5	53	37.0
C00065223	53	<10	7.0	62	46.4
C00065224	133	<10	4.9	173	53.6
C00065225	10	<10	2.1	46	4.8
C00065226	21	<10	3.3	16	11.4
C00065227	26	<10	6.1	48	18.0
C00065228	62	<10	10.6	69	38.5
C00065229	107	<10	21.9	139	136
C00065087	216	<10	6.1	47	16.6
C00065088	122	<10	9.4	105	57.3
C00065089	5	<10	1.5	5	0.9
C00065090	489	<10	28.7	73	4.0
C00065091	856	<10	13.6	45	36.0
C00065092	503	<10	3.1	259	27.5
C00065093	519	<10	19.7	217	37.3
C00065094	31	<10	2.9	60	18.2

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-002
Submission Number *BBY* SGDS HIVE/21HWG-002/41
Rocks
Number of Samples 41

ANALYSIS REPORT BBM21-14350

Element	@V	@W	@Y	@Zn	@Zr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	10	0.5	1	0.5
Upper Limit	10,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065095	46	<10	3.8	67	49.9
C00065096	11	<10	1.4	27	9.0
C00065097	42	<10	3.5	56	47.7
C00065098	101	<10	21.0	133	133
*Dup C00065096	11	<10	1.4	36	8.0
*Std OREAS 601b	12	<10	10.1	304	181
*Std OREAS 520	264	29	19.6	20	139
*Blk BLANK	<2	<10	<0.5	2	<0.5
*Rep C00065096	11	<10	1.3	26	7.6
*Std OREAS 520	265	36	20.3	20	141
*Blk BLANK	<2	<10	<0.5	<1	<0.5
*Std OREAS 601b	12	<10	10.6	304	186
*Rep C00065226	20	<10	3.1	15	11.1

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Tests and Elements marked with an "@" symbol in the report denote ISO/IEC17025 accreditation.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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ANALYSIS REPORT BBM21-14360

To STRATA GEODATA SERVICES LTD
ANDY RANDELL
UNIT 330
470 GRANVILLE STREET
VANCOUVER V6C 1V4
BC
CANADA

Order Number	21HWG-005	Date Received	26-Oct-2021
Submission Number	*BBY* SGDS HIVE/21HWG-005/ 28	Date Analysed	22-Nov-2021 - 30-Jan-2022
Rock		Date Completed	30-Jan-2022
Number of Samples	28	SGS Order Number	BBM21-14360

Methods Summary

Number of Sample	Method Code	Description
28	G_WGH_KG	Weight of samples received
26	G_PRP	Combined Sample Preparation
28	GE_FAA30V5	Au, FAS, exploration grade, AAS, 30g-5ml
28	GE_ICP40Q12	4 Acid Digest (HCL/HCLO4/HF/HNO3), ICP, 0.2g-12ml

Authorised Signatory

John Chiang
Laboratory Operations Manager

SCC Accredited LAB Accrédité CCN

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- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	WTKG	@Au	@Ag	@Al	@As	@Ba
Method	G_WGH_KG	GE_FAA30V5	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	2	0.01	3	1
Upper Limit	--	10,000	100	15	10,000	10,000
Unit	kg	ppb	ppm m / m	%	ppm m / m	ppm m / m
C00065101	3.02	<5	<2	0.86	<3	47
C00065102	2.99	<5	<2	6.78	<3	489
C00065103	2.26	<5	<2	11.57	<3	1063
C00065104	1.61	<5	<2	1.74	<3	110
C00065105	1.85	<5	<2	2.32	<3	142
C00065106	1.90	<5	<2	5.21	<3	375
C00065107	2.02	<5	<2	3.80	<3	289
C00065108	2.73	<5	<2	1.64	<3	88
C00065109	2.77	<5	<2	4.14	<3	391
C00065110	1.61	<5	<2	1.09	<3	75
C00065111	2.15	<5	<2	10.22	<3	1135
C00065112	1.58	<5	<2	5.31	<3	454
C00065113	1.14	<5	<2	0.35	<3	35
C00065114	1.55	<5	<2	8.83	<3	717
C00065115	0.09	209	<2	7.26	31	722
C00065007	1.07	<5	<2	1.02	<3	127
C00065008	1.32	<5	<2	1.77	<3	185
C00065061	3.78	<5	<2	2.28	<3	341
C00065085	1.60	<5	<2	1.55	<3	187
C00065086	1.62	<5	<2	2.23	<3	252
C00065401	1.35	<5	<2	7.89	<3	21
C00065402	1.17	<5	<2	4.95	<3	429
C00065403	1.38	<5	<2	9.78	<3	735
C00065404	1.26	<5	<2	8.30	<3	51
C00065405	1.47	9	<2	8.32	<3	69
C00065406	1.45	<5	<2	5.35	<3	484
C00065407	0.98	<5	<2	1.51	<3	146
C00065408	0.08	207	<2	7.26	31	699
*Rep C00065402	-	<5	-	-	-	-

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	WTKG	@Au	@Ag	@Al	@As	@Ba
Method	G_WGH_KG	GE_FAA30V5	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	2	0.01	3	1
Upper Limit	--	10,000	100	15	10,000	10,000
Unit	kg	ppb	ppm m / m	%	ppm m / m	ppm m / m
*Std SL105	-	4850	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Std OREAS 503d	-	643	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Std SN106	-	8340	-	-	-	-
*Std SL105	-	4970	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Std OREAS 503d	-	653	-	-	-	-
*Blk BLANK	-	<5	-	-	-	-
*Std SN106	-	8210	-	-	-	-
*Rep C00065407	-	-	<2	1.53	<3	143
*Std OREAS 520	-	-	<2	5.41	154	404
*Std OREAS 601b	-	-	49	6.31	277	234
*Blk BLANK	-	-	<2	<0.01	<3	<1
*Std OREAS 601b	-	-	50	6.36	288	290
*Std OREAS 520	-	-	<2	5.67	165	464
*Blk BLANK	-	-	<2	<0.01	<3	<1

Element	@Be	@Bi	@Ca	@Cd	@Co	@Cr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	5	0.01	1	1	1
Upper Limit	2,500	10,000	15	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	ppm m / m	ppm m / m
C00065101	<0.5	<5	0.14	<1	2	35
C00065102	2.1	<5	1.57	<1	9	39
C00065103	2.9	<5	0.10	<1	18	92
C00065104	<0.5	<5	0.16	<1	3	31
C00065105	0.5	<5	0.19	<1	7	71
C00065106	1.4	<5	0.19	<1	10	41

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	@Be	@Bi	@Ca	@Cd	@Co	@Cr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	5	0.01	1	1	1
Upper Limit	2,500	10,000	15	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	ppm m / m	ppm m / m
C00065107	1.0	<5	0.07	<1	6	64
C00065108	<0.5	<5	0.04	<1	2	18
C00065109	1.0	<5	0.04	<1	7	36
C00065110	<0.5	<5	0.03	<1	2	23
C00065111	3.3	<5	0.15	<1	13	68
C00065112	1.4	<5	0.06	<1	11	60
C00065113	<0.5	<5	<0.01	<1	2	31
C00065114	2.2	<5	0.08	<1	17	82
C00065115	2.6	<5	1.08	<1	32	91
C00065007	<0.5	<5	0.02	<1	1	13
C00065008	<0.5	<5	0.02	<1	<1	15
C00065061	0.5	<5	<0.01	<1	<1	36
C00065085	<0.5	<5	0.09	<1	<1	21
C00065086	<0.5	<5	0.03	<1	1	34
C00065401	0.8	<5	4.26	<1	44	16
C00065402	1.3	<5	0.46	<1	21	47
C00065403	2.5	<5	0.16	<1	15	94
C00065404	1.0	<5	5.09	<1	33	12
C00065405	0.9	<5	3.07	<1	40	31
C00065406	1.4	<5	0.89	<1	6	33
C00065407	<0.5	<5	0.02	<1	2	34
C00065408	2.6	<5	1.07	<1	33	87
*Rep C00065407	<0.5	<5	0.02	<1	2	20
*Std OREAS 520	1.0	<5	4.03	<1	198	33
*Std OREAS 601b	2.0	16	0.89	2	3	18
*Blk BLANK	<0.5	<5	<0.01	<1	<1	1
*Std OREAS 601b	2.1	14	0.82	2	3	21
*Std OREAS 520	1.0	<5	3.93	<1	214	30
*Blk BLANK	<0.5	<5	<0.01	<1	<1	<1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	@Cu	@Fe	@K	@La	@Li	@Mg
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	0.01	0.01	0.5	1	0.01
Upper Limit	10,000	15	15	10,000	10,000	15
Unit	ppm m / m	%	%	ppm m / m	ppm m / m	%
C00065101	6.4	1.00	0.17	9.1	4	0.08
C00065102	12.8	3.09	2.12	46.9	34	0.71
C00065103	28.7	5.20	4.46	67.2	59	1.21
C00065104	4.2	1.13	0.37	12.3	3	0.06
C00065105	14.6	1.91	0.58	18.7	5	0.09
C00065106	15.7	2.51	1.84	30.6	36	0.73
C00065107	17.3	1.79	1.15	25.1	17	0.32
C00065108	6.2	1.21	0.23	13.4	2	0.04
C00065109	15.2	2.20	1.35	24.0	12	0.32
C00065110	8.9	0.97	0.26	9.6	3	0.05
C00065111	13.0	6.60	4.45	63.5	47	1.00
C00065112	15.6	2.27	1.83	32.8	31	0.42
C00065113	7.8	0.91	0.13	1.9	1	0.02
C00065114	30.2	4.30	3.23	40.6	42	1.04
C00065115	82.1	3.98	2.81	39.1	33	0.96
C00065007	2.2	0.69	0.41	6.2	4	0.09
C00065008	3.2	1.04	0.62	7.9	5	0.14
C00065061	3.9	1.13	1.05	13.0	8	0.17
C00065085	1.4	0.77	0.62	8.7	4	0.14
C00065086	4.2	1.16	0.91	10.2	8	0.21
C00065401	101	8.94	0.02	21.1	68	2.67
C00065402	47.3	4.12	1.62	29.4	23	0.82
C00065403	23.5	7.07	3.21	35.0	51	1.65
C00065404	72.5	7.91	0.08	21.0	51	2.12
C00065405	97.9	8.18	0.17	20.1	47	2.94
C00065406	8.1	2.37	1.60	34.7	23	0.57
C00065407	7.8	1.21	0.53	5.8	5	0.16
C00065408	81.0	4.03	2.80	40.3	33	0.97
*Rep C00065407	7.8	1.22	0.54	5.9	5	0.16

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	@Cu	@Fe	@K	@La	@Li	@Mg
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.5	0.01	0.01	0.5	1	0.01
Upper Limit	10,000	15	15	10,000	10,000	15
Unit	ppm m / m	%	%	ppm m / m	ppm m / m	%
*Std OREAS 520	2757	14.43	3.43	81.2	17	1.12
*Std OREAS 601b	956	2.21	2.33	33.6	21	0.10
*Blk BLANK	<0.5	<0.01	<0.01	<0.5	<1	<0.01
*Std OREAS 601b	989	2.20	2.34	34.1	23	0.09
*Std OREAS 520	2988	>15.00	3.56	83.1	19	1.17
*Blk BLANK	1.2	<0.01	<0.01	<0.5	<1	<0.01

Element	@Mn	@Mo	@Na	@Ni	@P	@Pb
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	1	0.01	1	0.01	2
Upper Limit	10,000	10,000	15	10,000	15	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	%	ppm m / m
C00065101	192	5	0.28	8	0.03	11
C00065102	978	<1	1.24	19	0.04	24
C00065103	359	<1	0.27	47	0.05	32
C00065104	427	3	0.70	7	<0.01	9
C00065105	536	4	0.82	16	<0.01	21
C00065106	394	5	0.60	24	0.03	14
C00065107	302	2	0.68	14	0.02	11
C00065108	781	4	0.95	7	<0.01	13
C00065109	499	2	0.77	16	0.01	13
C00065110	328	5	0.45	6	<0.01	20
C00065111	485	2	0.56	36	0.05	30
C00065112	240	2	0.64	24	0.02	18
C00065113	175	4	0.04	6	<0.01	4
C00065114	320	2	1.13	31	0.03	19
C00065115	514	1	0.40	73	0.05	35
C00065007	121	2	0.22	5	<0.01	9
C00065008	100	2	0.55	3	0.01	4

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	@Mn	@Mo	@Na	@Ni	@P	@Pb
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	1	0.01	1	0.01	2
Upper Limit	10,000	10,000	15	10,000	15	10,000
Unit	ppm m / m	ppm m / m	%	ppm m / m	%	ppm m / m
C00065061	102	3	0.32	4	0.01	17
C00065085	141	3	0.34	5	0.01	7
C00065086	198	3	0.47	5	0.01	6
C00065401	1730	1	1.94	14	0.13	55
C00065402	862	2	0.41	30	0.04	4
C00065403	649	2	0.44	33	0.08	6
C00065404	1697	1	2.60	13	0.12	17
C00065405	1471	1	3.34	19	0.13	11
C00065406	489	2	1.50	12	0.03	7
C00065407	163	2	0.25	6	<0.01	3
C00065408	501	1	0.40	72	0.05	35
*Rep C00065407	164	2	0.25	6	0.01	3
*Std OREAS 520	2341	57	1.32	68	0.08	6
*Std OREAS 601b	227	6	1.82	6	0.03	299
*Blk BLANK	<2	<1	<0.01	<1	<0.01	<2
*Std OREAS 601b	206	5	1.84	6	0.03	296
*Std OREAS 520	2264	61	1.40	73	0.08	6
*Blk BLANK	<2	<1	<0.01	<1	<0.01	<2

Element	@S	@Sb	@Sc	@Sn	@Sr	@Ti
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	0.5	10	0.5	0.01
Upper Limit	5	10,000	10,000	10,000	10,000	15
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%
C00065101	<0.01	<5	0.6	<10	18.5	0.01
C00065102	<0.01	<5	9.7	<10	210	0.36
C00065103	0.06	<5	17.6	<10	146	0.47
C00065104	0.02	<5	1.7	<10	28.2	0.08
C00065105	0.07	<5	2.4	<10	58.0	0.11

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	@S	@Sb	@Sc	@Sn	@Sr	@Ti
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	0.5	10	0.5	0.01
Upper Limit	5	10,000	10,000	10,000	10,000	15
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%
C00065106	0.17	<5	7.8	<10	84.6	0.17
C00065107	0.19	<5	5.6	<10	63.6	0.11
C00065108	<0.01	<5	1.5	<10	40.0	0.03
C00065109	<0.01	<5	5.3	<10	61.8	0.16
C00065110	<0.01	<5	1.3	<10	15.8	0.05
C00065111	<0.01	<5	19.5	<10	126	0.54
C00065112	0.01	<5	7.6	<10	89.0	0.18
C00065113	0.01	<5	0.6	<10	6.1	0.01
C00065114	0.01	<5	13.5	<10	102	0.32
C00065115	0.13	11	13.2	<10	41.8	0.28
C00065007	<0.01	<5	0.8	<10	9.8	0.05
C00065008	<0.01	<5	1.5	<10	14.9	0.09
C00065061	0.02	<5	2.1	<10	16.9	0.14
C00065085	<0.01	<5	1.2	<10	14.4	0.07
C00065086	<0.01	<5	2.0	<10	19.4	0.12
C00065401	<0.01	<5	29.6	<10	1271	0.56
C00065402	0.04	<5	9.9	<10	67.3	0.35
C00065403	0.02	<5	20.0	<10	99.0	0.60
C00065404	0.04	<5	24.8	<10	818	0.52
C00065405	0.03	<5	30.1	<10	341	0.54
C00065406	<0.01	<5	6.6	<10	112	0.25
C00065407	<0.01	<5	1.7	<10	15.5	0.06
C00065408	0.13	11	13.2	<10	42.0	0.28
*Rep C00065407	<0.01	<5	1.7	<10	15.8	0.06
*Std OREAS 520	1.01	<5	16.2	<10	99.4	0.39
*Std OREAS 601b	1.48	23	3.6	<10	227	0.12
*Blk BLANK	<0.01	<5	<0.5	<10	<0.5	<0.01
*Std OREAS 601b	1.49	25	3.4	<10	228	0.13
*Std OREAS 520	1.01	<5	17.4	<10	104	0.47

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	@S	@Sb	@Sc	@Sn	@Sr	@Ti
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	0.01	5	0.5	10	0.5	0.01
Upper Limit	5	10,000	10,000	10,000	10,000	15
Unit	%	ppm m / m	ppm m / m	ppm m / m	ppm m / m	%
*Blk BLANK	<0.01	<5	<0.5	<10	<0.5	<0.01

Element	@V	@W	@Y	@Zn	@Zr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	10	0.5	1	0.5
Upper Limit	10,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065101	5	<10	2.0	16	3.9
C00065102	54	<10	19.0	58	19.6
C00065103	112	<10	8.6	125	73.4
C00065104	10	<10	2.4	10	7.4
C00065105	16	<10	4.3	28	12.1
C00065106	74	<10	6.1	78	20.7
C00065107	38	<10	3.2	30	32.6
C00065108	8	<10	2.6	16	6.0
C00065109	34	<10	3.3	38	21.0
C00065110	8	<10	1.7	11	4.9
C00065111	100	<10	6.1	124	24.9
C00065112	48	<10	4.2	65	39.2
C00065113	4	<10	0.7	5	2.8
C00065114	75	<10	4.8	106	53.7
C00065115	97	<10	20.3	139	118
C00065007	6	<10	1.6	10	7.4
C00065008	11	<10	1.6	12	7.6
C00065061	15	<10	1.5	12	13.4
C00065085	8	<10	2.5	13	14.6
C00065086	14	<10	2.7	18	16.6
C00065401	292	<10	23.5	171	13.6
C00065402	63	<10	13.3	68	7.8

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-005
Submission Number *BBY* SGDS HIVE/21HWG-005/ 28
Rock
Number of Samples 28

ANALYSIS REPORT BBM21-14360

Element	@V	@W	@Y	@Zn	@Zr
Method	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12	GE_ICP40Q12
Lower Limit	2	10	0.5	1	0.5
Upper Limit	10,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065403	126	<10	16.7	128	17.0
C00065404	276	<10	23.5	114	16.6
C00065405	282	<10	22.9	158	17.7
C00065406	35	<10	11.2	56	24.5
C00065407	11	<10	1.3	16	10.9
C00065408	96	<10	20.0	133	116
*Rep C00065407	12	<10	1.4	16	11.2
*Std OREAS 520	247	39	20.3	20	133
*Std OREAS 601b	12	<10	11.0	317	184
*Blk BLANK	<2	<10	<0.5	<1	<0.5
*Std OREAS 601b	12	<10	10.1	304	181
*Std OREAS 520	264	29	19.6	20	139
*Blk BLANK	<2	<10	<0.5	2	<0.5

SGS Canada Minerals Burnaby conforms to the requirements of ISO/IEC17025 for specific tests as listed on their scope of accreditation found at https://www.scc.ca/en/search/laboratories/sgs
Tests and Elements marked with an "@" symbol in the report denote ISO/IEC17025 accreditation.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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APPENDIX B – STREAM SEDIMENT SAMPLE ASSAY CERTIFICATES

ANALYSIS REPORT BBM21-14353

To STRATA GEODATA SERVICES LTD
ANDY RANDELL
UNIT 330
470 GRANVILLE STREET
VANCOUVER V6C 1V4
BC
CANADA

Order Number	21HWG-006	Date Received	26-Oct-2021
Submission Number	*BBY* SGDS HIVE/21HWG-006/4	Date Analysed	21-Nov-2021 - 10-Feb-2022
Sediments		Date Completed	10-Feb-2022
Number of Samples	4	SGS Order Number	BBM21-14353

Methods Summary

Number of Sample	Method Code	Description
4	G_WGH_KG	Weight of samples received
4	GE_FAI30V5	Au, Pt, Pd, FAS, exploration grade, ICP-AES, 30g-5mL
4	GE_ARM3V25	2 Acid leach (HCL/HNO3), ICP-MS

Authorised Signatory

John Chiang
Laboratory Operations Manager

SCC Accredited LAB Accrédité CCN

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- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-006
Submission Number *BBY* SGDS HIVE/21HWG-006/4
Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14353

Element	WTKG	@Au	Ag	As	Au	Ba
Method	G_WGH_KG	GE_FAI30V5	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.01	1	0.02	0.5	1	0.5
Upper Limit	--	10,000	70	2,000	500	5,000
Unit	kg	ppb	ppm m / m	ppm m / m	ppb	ppm m / m
C00065159	0.44	4	0.04	1.3	2	37.9
C00065162	0.38	3	0.08	2.4	3	40.7
C00129401	-	3	0.07	2.6	2	41.3
C00129402	0.09	4930	1.05	>2000	>500	28.9
*Rep C00129401	-	5	-	-	-	-
*Std OREAS 905	-	-	0.55	30.0	374	239
*Std OREAS 151b	-	-	0.63	32.4	69	80.6
*Blk BLANK	-	-	<0.02	<0.5	2	<0.5
*Std OREAS 261	-	-	0.20	15.1	39	154

Element	Be	Bi	Cd	Ce	Co	Cs
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.02	0.01	0.02	0.05	0.1	0.01
Upper Limit	500	500	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065159	0.20	0.12	0.09	32.64	8.4	0.80
C00065162	0.22	0.22	0.08	31.52	8.5	1.15
C00129401	0.23	0.22	0.08	33.76	8.5	1.17
C00129402	0.35	0.18	0.21	18.04	29.9	2.67
*Std OREAS 905	1.07	5.44	0.34	74.73	12.8	1.16
*Std OREAS 151b	0.29	0.38	0.64	17.06	11.6	1.32
*Blk BLANK	<0.02	<0.01	<0.02	<0.05	<0.1	<0.01
*Std OREAS 261	1.24	0.48	0.23	28.38	27.0	3.17

Element	Cu	Dy	Er	Eu	Ga	Gd
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.5	0.01	0.01	0.01	0.05	0.01
Upper Limit	5,000	1,000	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-006
Submission Number *BBY* SGDS HIVE/21HWG-006/4
Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14353

Element	Cu	Dy	Er	Eu	Ga	Gd
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.5	0.01	0.01	0.01	0.05	0.01
Upper Limit	5,000	1,000	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065159	10.8	1.23	0.55	0.52	2.98	2.13
C00065162	15.4	1.31	0.61	0.52	2.75	2.14
C00129401	15.7	1.35	0.61	0.56	2.87	2.23
C00129402	161	3.22	1.56	0.74	8.20	4.08
*Std OREAS 905	1477	1.76	0.53	1.01	6.07	3.94
*Std OREAS 151b	1788	2.49	1.35	0.68	8.95	2.87
*Blk BLANK	<0.5	<0.01	<0.01	<0.01	<0.05	<0.01
*Std OREAS 261	55.2	2.30	1.16	0.71	4.16	3.38

Element	Hf	Hg	Ho	In	La	Li
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.01	0.02	0.01	0.005	0.05	0.1
Upper Limit	1,000	1,000	1,000	1,000	1,000	2,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065159	0.02	<0.02	0.21	0.007	17.60	19.4
C00065162	0.02	<0.02	0.23	0.006	16.79	17.1
C00129401	0.02	<0.02	0.23	0.006	17.77	17.6
C00129402	0.04	<0.02	0.60	0.048	9.86	13.7
*Std OREAS 905	1.09	<0.02	0.23	0.676	37.14	4.6
*Std OREAS 151b	0.12	<0.02	0.48	0.092	7.69	7.6
*Blk BLANK	<0.01	<0.02	<0.01	<0.005	<0.05	<0.1
*Std OREAS 261	0.14	0.07	0.42	0.027	13.68	23.3

Element	Lu	Mn	Mo	Nb	Nd	Ni
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.002	0.5	0.02	0.02	0.03	0.5
Upper Limit	1,000	5,000	2,000	1,000	1,000	5,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065159	0.048	562	0.39	0.23	14.56	19.4

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-006
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Sediments
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Element	Lu	Mn	Mo	Nb	Nd	Ni
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.002	0.5	0.02	0.02	0.03	0.5
Upper Limit	1,000	5,000	2,000	1,000	1,000	5,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065162	0.056	438	0.48	0.14	14.24	22.6
C00129401	0.059	442	0.49	0.15	14.90	22.8
C00129402	0.175	3722	3.70	0.08	12.14	107
*Std OREAS 905	0.035	325	3.02	0.09	31.17	9.5
*Std OREAS 151b	0.156	286	56.23	0.02	10.17	16.8
*Blk BLANK	<0.002	<0.5	<0.02	<0.02	<0.03	<0.5
*Std OREAS 261	0.135	407	0.47	<0.02	13.54	70.9

Element	Pb	Pr	Rb	Re	Sb	Sc
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.2	0.01	0.05	0.001	0.02	0.1
Upper Limit	1,000	1,000	1,000	100	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065159	8.1	4.35	13.30	0.002	0.16	1.1
C00065162	9.8	4.18	12.27	0.001	0.19	1.1
C00129401	9.8	4.45	12.71	0.001	0.16	1.2
C00129402	10.4	2.94	6.62	0.005	8.02	8.5
*Std OREAS 905	15.9	8.67	16.91	<0.001	1.37	1.6
*Std OREAS 151b	39.6	2.51	23.14	0.205	0.94	9.9
*Blk BLANK	<0.2	<0.01	<0.05	0.001	<0.02	<0.1
*Std OREAS 261	29.0	3.64	16.26	0.001	2.78	2.9

Element	Se	Sm	Sn	Sr	Ta	Tb
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.5	0.02	0.05	0.1	0.01	0.005
Upper Limit	2,500	1,000	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065159	<0.5	2.53	0.11	10.4	<0.01	0.241
C00065162	<0.5	2.47	0.10	8.4	<0.01	0.252

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-006
Submission Number *BBY* SGDS HIVE/21HWG-006/4
Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14353

Element	Se	Sm	Sn	Sr	Ta	Tb
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.5	0.02	0.05	0.1	0.01	0.005
Upper Limit	2,500	1,000	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00129401	<0.5	2.63	0.10	8.5	<0.01	0.255
C00129402	3.3	3.08	0.95	97.8	<0.01	0.557
*Std OREAS 905	2.1	5.14	1.35	12.4	<0.01	0.410
*Std OREAS 151b	3.2	2.41	1.33	43.5	<0.01	0.414
*Blk BLANK	<0.5	<0.02	<0.05	<0.1	<0.01	<0.005
*Std OREAS 261	<0.5	3.07	0.49	16.8	<0.01	0.426

Element	Te	Th	Tl	U	W	Y
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.02	0.01	0.01	0.01	1	0.02
Upper Limit	1,000	1,000	1,000	1,000	100	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065159	0.05	6.69	0.13	0.95	<1	5.64
C00065162	0.06	7.28	0.14	1.69	<1	5.89
C00129401	0.05	7.74	0.14	1.73	<1	6.02
C00129402	0.22	2.39	0.09	0.88	<1	18.04
*Std OREAS 905	0.09	8.42	0.14	2.22	<1	7.04
*Std OREAS 151b	0.14	2.87	0.18	0.74	<1	13.80
*Blk BLANK	<0.02	0.02	<0.01	<0.01	<1	<0.02
*Std OREAS 261	0.05	9.28	0.29	1.20	<1	11.48

Element	Yb	Zn	Zr
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.01	1	0.1
Upper Limit	1,000	5,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m
C00065159	0.36	49	0.4
C00065162	0.42	52	0.3
C00129401	0.43	53	0.4

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-006
Submission Number *BBY* SGDS HIVE/21HWG-006/4
Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14353

Element	Yb	Zn	Zr
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.01	1	0.1
Upper Limit	1,000	5,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m
C00129402	1.17	100	5.9
*Std OREAS 905	0.25	68	41.0
*Std OREAS 151b	1.10	251	3.5
*Blk BLANK	<0.01	<1	<0.1
*Std OREAS 261	0.87	117	6.5

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ANALYSIS REPORT BBM21-14359

To STRATA GEODATA SERVICES LTD
ANDY RANDELL
UNIT 330
470 GRANVILLE STREET
VANCOUVER V6C 1V4
BC
CANADA

Order Number	21HWG-007	Date Received	26-Oct-2021
Submission Number	*BBY* SGDS HIVE/21HWG-007/ 4	Date Analysed	22-Nov-2021 - 22-Jan-2022
Sediments		Date Completed	22-Jan-2022
Number of Samples	4	SGS Order Number	BBM21-14359

Methods Summary

Number of Sample	Method Code	Description
4	G_WGH_KG	Weight of samples received
4	GE_ICP21B20	Aqua Regia Digest (HCL/HNO3), ICP-AES, 0.25g-20mL
4	GE_IMS21B20	Aqua Regia Digest (HCL/HNO3),ICP-MS , 0.25g-20ml

Authorised Signatory

John Chiang
Laboratory Operations Manager

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- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-007
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Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14359

Element	WTKG	@Al	@Ba	@Ca	@Cr	@Cu
Method	G_WGH_KG	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20
Lower Limit	0.01	0.01	5	0.01	1	0.5
Upper Limit	--	15	10,000	15	10,000	10,000
Unit	kg	%	ppm m / m	%	ppm m / m	ppm m / m
C00065160	0.04	1.70	136	0.38	40	21.0
C00065161	0.05	1.53	130	0.33	37	23.8
C00129403	-	I.S.	I.S.	I.S.	I.S.	I.S.
C00129404	0.09	2.20	130	3.23	70	169
*Blk BLANK	-	<0.01	<5	<0.01	<1	<0.5
*Std OREAS 260	-	1.41	142	0.92	54	48.0
*Blk BLANK	-	<0.01	<5	<0.01	<1	<0.5
*Std OREAS 502c	-	1.92	394	1.13	65	7843

Element	@Fe	@K	@Li	@Mg	@Mn	@Na
Method	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20
Lower Limit	0.01	0.01	1	0.01	2	0.01
Upper Limit	15	15	10,000	15	10,000	15
Unit	%	%	ppm m / m	%	ppm m / m	%
C00065160	4.84	0.46	21	0.50	1277	0.08
C00065161	4.31	0.47	17	0.47	767	0.06
C00129403	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
C00129404	10.14	0.10	12	2.15	3335	0.17
*Blk BLANK	<0.01	<0.01	<1	<0.01	<2	<0.01
*Std OREAS 260	3.88	0.30	23	0.60	434	0.09
*Blk BLANK	<0.01	<0.01	<1	<0.01	<2	<0.01
*Std OREAS 502c	4.37	1.01	30	1.18	393	0.20

Element	@P	@S	@Sr	@Ti	@V	@Zn
Method	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20
Lower Limit	0.01	0.01	0.5	0.01	1	1
Upper Limit	15	5	10,000	15	10,000	10,000
Unit	%	%	ppm m / m	%	ppm m / m	ppm m / m
C00065160	0.07	0.02	40.8	0.21	29	64

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14359

Element	@P	@S	@Sr	@Ti	@V	@Zn
Method	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20
Lower Limit	0.01	0.01	0.5	0.01	1	1
Upper Limit	15	5	10,000	15	10,000	10,000
Unit	%	%	ppm m / m	%	ppm m / m	ppm m / m
C00065161	0.09	0.03	27.9	0.09	25	57
C00129403	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
C00129404	0.23	2.83	94.1	0.13	81	96
*Blk BLANK	<0.01	<0.01	<0.5	<0.01	<1	<1
*Std OREAS 260	0.04	0.08	15.2	<0.01	22	134
*Blk BLANK	<0.01	<0.01	<0.5	<0.01	<1	<1
*Std OREAS 502c	0.10	0.85	69.6	0.36	106	107

Element	@Zr	@Ag	@As	@Be	@Bi	@Cd
Method	GE_ICP21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.5	0.01	1	0.1	0.02	0.01
Upper Limit	10,000	100	10,000	100	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065160	0.8	0.15	2	0.5	0.23	0.16
C00065161	<0.5	0.17	3	0.5	0.33	0.12
C00129403	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
C00129404	16.5	0.90	3650	0.3	0.16	0.17
*Blk BLANK	<0.5	<0.01	<1	<0.1	<0.02	<0.01
*Std OREAS 260	8.9	0.15	13	1.2	0.55	0.20
*Blk BLANK	<0.5	<0.01	<1	<0.1	<0.02	<0.01
*Std OREAS 502c	9.0	0.77	54	0.5	0.66	0.36

Element	@Ce	@Co	@Cs	@Ga	@Ge	@Hf
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.05	0.1	0.05	0.1	0.1	0.05
Upper Limit	1,000	10,000	1,000	10,000	10,000	500
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065160	72.61	13.6	1.11	5.1	<0.1	<0.05
C00065161	65.74	11.7	1.39	4.6	<0.1	<0.05

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-007
Submission Number *BBY* SGDS HIVE/21HWG-007/ 4
Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14359

Element	@Ce	@Co	@Cs	@Ga	@Ge	@Hf
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.05	0.1	0.05	0.1	0.1	0.05
Upper Limit	1,000	10,000	1,000	10,000	10,000	500
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00129403	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
C00129404	16.72	27.3	2.09	6.1	0.1	0.41
*Blk BLANK	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
*Std OREAS 260	68.28	33.5	2.94	4.7	<0.1	0.36
*Blk BLANK	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
*Std OREAS 502c	58.54	13.0	8.76	8.0	0.2	0.41

Element	@Hg	@In	@La	@Lu	@Mo	@Nb
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.01	0.02	0.1	0.01	0.05	0.05
Upper Limit	100	500	10,000	1,000	10,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065160	0.02	<0.02	45.6	0.12	1.72	4.03
C00065161	0.02	<0.02	38.3	0.10	1.51	1.98
C00129403	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
C00129404	0.01	0.03	11.2	0.14	3.32	0.29
*Blk BLANK	<0.01	<0.02	<0.1	<0.01	<0.05	<0.05
*Std OREAS 260	0.04	0.03	33.1	0.13	0.44	0.06
*Blk BLANK	<0.01	<0.02	<0.1	<0.01	<0.05	<0.05
*Std OREAS 502c	0.04	0.06	27.9	0.20	229	1.34

Element	Ni	@Pb	@Rb	@Sb	@Sc	@Se
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.5	0.2	0.2	0.05	0.1	1
Upper Limit	10,000	10,000	10,000	10,000	10,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065160	29.5	11.5	25.0	0.30	3.6	<1
C00065161	28.3	11.8	22.7	0.46	2.8	<1
C00129403	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-007
Submission Number *BBY* SGDS HIVE/21HWG-007/ 4
Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14359

Element	Ni	@Pb	@Rb	@Sb	@Sc	@Se
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.5	0.2	0.2	0.05	0.1	1
Upper Limit	10,000	10,000	10,000	10,000	10,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00129404	88.3	8.2	5.2	3.90	7.2	3
*Blk BLANK	<0.5	<0.2	<0.2	0.10	<0.1	<1
*Std OREAS 260	74.6	29.1	19.9	1.21	3.4	<1
*Blk BLANK	<0.5	<0.2	<0.2	0.10	<0.1	<1
*Std OREAS 502c	33.5	10.6	124	4.15	7.5	3

Element	@Sn	@Ta	@Tb	@Te	@Th	@Tl
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.3	0.05	0.02	0.05	0.1	0.02
Upper Limit	1,000	10,000	10,000	1,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065160	<0.3	<0.05	0.61	<0.05	8.7	0.20
C00065161	<0.3	<0.05	0.53	<0.05	8.5	0.18
C00129403	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
C00129404	0.4	<0.05	0.45	0.19	2.3	0.06
*Blk BLANK	<0.3	<0.05	<0.02	<0.05	<0.1	<0.02
*Std OREAS 260	<0.3	<0.05	0.54	0.06	11.2	0.23
*Blk BLANK	<0.3	<0.05	<0.02	<0.05	<0.1	<0.02
*Std OREAS 502c	2.3	<0.05	0.55	0.45	16.7	0.68

Element	@U	@W	@Y	@Yb
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.05	0.1	0.05	0.1
Upper Limit	10,000	10,000	10,000	100
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065160	2.49	0.4	12.30	0.9
C00065161	3.87	0.2	10.92	0.8
C00129403	I.S.	I.S.	I.S.	I.S.
C00129404	0.79	1.1	12.98	1.0

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-007
Submission Number *BBY* SGDS HIVE/21HWG-007/ 4
Sediments
Number of Samples 4

ANALYSIS REPORT BBM21-14359

Element	@U	@W	@Y	@Yb
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.05	0.1	0.05	0.1
Upper Limit	10,000	10,000	10,000	100
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m
*Blk BLANK	<0.05	<0.1	<0.05	<0.1
*Std OREAS 260	1.32	<0.1	11.90	1.0
*Blk BLANK	<0.05	<0.1	<0.05	<0.1
*Std OREAS 502c	4.26	2.9	15.74	1.5

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Tests and Elements marked with an "@" symbol in the report denote ISO/IEC17025 accreditation.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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ANALYSIS REPORT BBM21-14371

To STRATA GEODATA SERVICES LTD
ANDY RANDELL
UNIT 330
470 GRANVILLE STREET
VANCOUVER V6C 1V4
BC
CANADA

Order Number	21HWG-008	Date Received	26-Oct-2021
Submission Number	*BBY* SGDS HIVE / 21HWG-008 / 8	Date Analysed	22-Nov-2021 - 10-Feb-2022
Sediments		Date Completed	10-Feb-2022
Number of Samples	8	SGS Order Number	BBM21-14371

Methods Summary

Number of Sample	Method Code	Description
8	G_WGH_KG	Weight of samples received
8	GE_FAI30V5	Au, Pt, Pd, FAS, exploration grade, ICP-AES, 30g-5mL
8	GE_ARM3V25	2 Acid leach (HCL/HNO3), ICP-MS

Authorised Signatory

John Chiang
Laboratory Operations Manager

SCC Accredited LAB Accrédité CCN

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- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-008
Submission Number *BBY* SGDS HIVE / 21HWG-008 / 8
Sediments
Number of Samples 8

ANALYSIS REPORT BBM21-14371

Element	WTKG	@Au	Ag	As	Au	Ba
Method	G_WGH_KG	GE_FAI30V5	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.01	1	0.02	0.5	1	0.5
Upper Limit	--	10,000	70	2,000	500	5,000
Unit	kg	ppb	ppm m / m	ppm m / m	ppb	ppm m / m
C00065152	0.18	4	0.05	3.3	6	49.2
C00065153	0.44	2	0.05	1.7	2	38.6
C00065154	0.06	-	0.07	2.4	2	95.6
C00065155	0.50	4	0.04	1.7	2	19.6
C00065156	0.48	-	0.07	2.1	2	82.9
C00065157	0.15	3	0.05	1.5	3	54.9
C00129405	-	4	0.06	1.7	2	68.0
C00129406	0.09	-	0.95	>2000	>500	28.3
*Std OREAS 905	-	-	0.55	30.0	374	239
*Std OREAS 151b	-	-	0.63	32.4	69	80.6
*Blk BLANK	-	-	<0.02	<0.5	2	<0.5
*Std OREAS 261	-	-	0.20	15.1	39	154
*Rep C00129406	-	-	1.00	>2000	>500	27.2

Element	Be	Bi	Cd	Ce	Co	Cs
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.02	0.01	0.02	0.05	0.1	0.01
Upper Limit	500	500	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065152	0.24	0.16	0.08	33.14	9.6	0.74
C00065153	0.23	0.20	0.06	35.32	11.0	0.93
C00065154	0.40	0.25	0.09	59.69	10.7	0.78
C00065155	0.15	0.15	0.04	28.39	7.7	0.64
C00065156	0.37	0.16	0.07	56.53	10.2	0.83
C00065157	0.38	0.20	0.08	37.62	9.2	0.93
C00129405	0.44	0.22	0.09	48.57	10.8	1.09
C00129406	0.33	0.16	0.18	16.88	26.4	2.44
*Std OREAS 905	1.07	5.44	0.34	74.73	12.8	1.16
*Std OREAS 151b	0.29	0.38	0.64	17.06	11.6	1.32

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-008
Submission Number *BBY* SGDS HIVE / 21HWG-008 / 8
Sediments
Number of Samples 8

ANALYSIS REPORT BBM21-14371

Element	Be	Bi	Cd	Ce	Co	Cs
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.02	0.01	0.02	0.05	0.1	0.01
Upper Limit	500	500	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
*Blk BLANK	<0.02	<0.01	<0.02	<0.05	<0.1	<0.01
*Std OREAS 261	1.24	0.48	0.23	28.38	27.0	3.17
*Rep C00129406	0.34	0.16	0.19	17.47	28.3	2.60

Element	Cu	Dy	Er	Eu	Ga	Gd
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.5	0.01	0.01	0.01	0.05	0.01
Upper Limit	5,000	1,000	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065152	15.4	1.33	0.64	0.53	3.32	2.13
C00065153	20.7	1.42	0.63	0.57	3.71	2.33
C00065154	22.8	2.26	1.00	0.95	4.14	3.95
C00065155	15.2	1.08	0.50	0.46	2.77	1.83
C00065156	19.4	2.28	1.05	0.92	4.69	3.74
C00065157	17.8	1.42	0.63	0.56	3.66	2.37
C00129405	20.9	1.78	0.78	0.72	4.43	3.08
C00129406	143	2.99	1.45	0.68	7.47	3.70
*Std OREAS 905	1477	1.76	0.53	1.01	6.07	3.94
*Std OREAS 151b	1788	2.49	1.35	0.68	8.95	2.87
*Blk BLANK	<0.5	<0.01	<0.01	<0.01	<0.05	<0.01
*Std OREAS 261	55.2	2.30	1.16	0.71	4.16	3.38
*Rep C00129406	151	3.10	1.49	0.71	7.99	3.79

Element	Hf	Hg	Ho	In	La	Li
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.01	0.02	0.01	0.005	0.05	0.1
Upper Limit	1,000	1,000	1,000	1,000	1,000	2,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065152	0.02	<0.02	0.23	0.009	16.74	17.6

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-008
Submission Number *BBY* SGDS HIVE / 21HWG-008 / 8
Sediments
Number of Samples 8

ANALYSIS REPORT BBM21-14371

Element	Hf	Hg	Ho	In	La	Li
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.01	0.02	0.01	0.005	0.05	0.1
Upper Limit	1,000	1,000	1,000	1,000	1,000	2,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065153	0.02	<0.02	0.23	0.009	18.46	20.3
C00065154	0.03	<0.02	0.37	0.013	30.52	17.3
C00065155	0.02	<0.02	0.19	0.007	14.78	16.1
C00065156	0.07	<0.02	0.39	0.014	29.69	17.3
C00065157	0.02	<0.02	0.24	0.008	19.81	24.1
C00129405	0.02	<0.02	0.29	0.011	25.41	28.8
C00129406	0.04	<0.02	0.55	0.043	9.29	12.6
*Std OREAS 905	1.09	<0.02	0.23	0.676	37.14	4.6
*Std OREAS 151b	0.12	<0.02	0.48	0.092	7.69	7.6
*Blk BLANK	<0.01	<0.02	<0.01	<0.005	<0.05	<0.1
*Std OREAS 261	0.14	0.07	0.42	0.027	13.68	23.3
*Rep C00129406	0.03	<0.02	0.57	0.046	9.65	13.2

Element	Lu	Mn	Mo	Nb	Nd	Ni
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.002	0.5	0.02	0.02	0.03	0.5
Upper Limit	1,000	5,000	2,000	1,000	1,000	5,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065152	0.076	587	0.72	0.23	13.94	21.4
C00065153	0.070	704	0.60	0.18	15.75	26.3
C00065154	0.109	659	1.56	0.39	25.85	28.4
C00065155	0.050	317	0.29	0.13	12.24	17.7
C00065156	0.119	963	6.98	0.49	25.49	39.7
C00065157	0.062	473	2.55	0.07	15.92	33.2
C00129405	0.077	583	2.96	0.09	20.84	39.0
C00129406	0.165	3364	3.34	0.06	11.22	96.1
*Std OREAS 905	0.035	325	3.02	0.09	31.17	9.5
*Std OREAS 151b	0.156	286	56.23	0.02	10.17	16.8
*Blk BLANK	<0.002	<0.5	<0.02	<0.02	<0.03	<0.5

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-008
Submission Number *BBY* SGDS HIVE / 21HWG-008 / 8
Sediments
Number of Samples 8

ANALYSIS REPORT BBM21-14371

Element	Lu	Mn	Mo	Nb	Nd	Ni
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.002	0.5	0.02	0.02	0.03	0.5
Upper Limit	1,000	5,000	2,000	1,000	1,000	5,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
*Std OREAS 261	0.135	407	0.47	<0.02	13.54	70.9
*Rep C00129406	0.170	3578	3.57	0.06	11.77	101

Element	Pb	Pr	Rb	Re	Sb	Sc
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.2	0.01	0.05	0.001	0.02	0.1
Upper Limit	1,000	1,000	1,000	100	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065152	8.3	4.11	12.40	0.002	0.17	2.1
C00065153	8.4	4.57	13.53	0.001	0.12	1.8
C00065154	9.1	7.21	15.85	0.002	0.28	2.6
C00065155	6.2	3.65	9.31	0.001	0.07	1.3
C00065156	7.4	7.10	16.30	0.002	0.32	3.4
C00065157	7.9	4.79	13.90	0.001	0.15	1.4
C00129405	9.2	5.94	16.50	0.001	0.17	1.8
C00129406	9.5	2.70	6.09	0.004	7.00	7.7
*Std OREAS 905	15.9	8.67	16.91	<0.001	1.37	1.6
*Std OREAS 151b	39.6	2.51	23.14	0.205	0.94	9.9
*Blk BLANK	<0.2	<0.01	<0.05	0.001	<0.02	<0.1
*Std OREAS 261	29.0	3.64	16.26	0.001	2.78	2.9
*Rep C00129406	9.9	2.81	6.51	0.005	7.42	8.2

Element	Se	Sm	Sn	Sr	Ta	Tb
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.5	0.02	0.05	0.1	0.01	0.005
Upper Limit	2,500	1,000	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065152	<0.5	2.42	0.17	14.7	<0.01	0.254
C00065153	<0.5	2.74	0.13	16.3	<0.01	0.267

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-008
Submission Number *BBY* SGDS HIVE / 21HWG-008 / 8
Sediments
Number of Samples 8

ANALYSIS REPORT BBM21-14371

Element	Se	Sm	Sn	Sr	Ta	Tb
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.5	0.02	0.05	0.1	0.01	0.005
Upper Limit	2,500	1,000	1,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065154	<0.5	4.56	0.35	25.4	<0.01	0.454
C00065155	<0.5	2.23	0.09	8.1	<0.01	0.228
C00065156	<0.5	4.43	0.47	27.7	<0.01	0.441
C00065157	<0.5	2.74	0.16	10.6	<0.01	0.277
C00129405	<0.5	3.59	0.20	12.8	<0.01	0.351
C00129406	2.9	2.83	0.86	89.8	<0.01	0.505
*Std OREAS 905	2.1	5.14	1.35	12.4	<0.01	0.410
*Std OREAS 151b	3.2	2.41	1.33	43.5	<0.01	0.414
*Blk BLANK	<0.5	<0.02	<0.05	<0.1	<0.01	<0.005
*Std OREAS 261	<0.5	3.07	0.49	16.8	<0.01	0.426
*Rep C00129406	3.2	2.97	0.89	94.8	<0.01	0.521

Element	Te	Th	Tl	U	W	Y
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.02	0.01	0.01	0.01	1	0.02
Upper Limit	1,000	1,000	1,000	1,000	100	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065152	0.03	6.34	0.11	0.93	<1	6.49
C00065153	0.03	8.36	0.10	1.07	<1	6.22
C00065154	0.06	9.60	0.14	1.73	<1	9.95
C00065155	0.05	7.00	0.07	0.77	<1	4.84
C00065156	0.05	9.51	0.12	1.56	<1	10.16
C00065157	0.03	9.78	0.12	1.33	<1	6.42
C00129405	<0.02	10.23	0.14	1.57	<1	7.53
C00129406	0.14	2.21	0.08	0.81	<1	16.13
*Std OREAS 905	0.09	8.42	0.14	2.22	<1	7.04
*Std OREAS 151b	0.14	2.87	0.18	0.74	<1	13.80
*Blk BLANK	<0.02	0.02	<0.01	<0.01	<1	<0.02
*Std OREAS 261	0.05	9.28	0.29	1.20	<1	11.48

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Sediments
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ANALYSIS REPORT BBM21-14371

Element	Te	Th	Tl	U	W	Y
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.02	0.01	0.01	0.01	1	0.02
Upper Limit	1,000	1,000	1,000	1,000	100	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
*Rep C00129406	0.16	2.33	0.08	0.85	<1	17.13

Element	Yb	Zn	Zr
Method	GE_ARM3V25	GE_ARM3V25	GE_ARM3V25
Lower Limit	0.01	1	0.1
Upper Limit	1,000	5,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m
C00065152	0.51	51	0.7
C00065153	0.47	56	0.5
C00065154	0.76	58	1.5
C00065155	0.35	40	0.6
C00065156	0.81	46	3.9
C00065157	0.44	63	0.8
C00129405	0.55	75	1.0
C00129406	1.09	90	6.0
*Std OREAS 905	0.25	68	41.0
*Std OREAS 151b	1.10	251	3.5
*Blk BLANK	<0.01	<1	<0.1
*Std OREAS 261	0.87	117	6.5
*Rep C00129406	1.12	95	5.4

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Tests and Elements marked with an "@" symbol in the report denote ISO/IEC17025 accreditation.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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ANALYSIS REPORT BBM21-14374

To STRATA GEODATA SERVICES LTD
ANDY RANDELL
UNIT 330
470 GRANVILLE STREET
VANCOUVER V6C 1V4
BC
CANADA

Order Number	21HWG-009	Date Received	26-Oct-2021
Submission Number	*BBY* SGDS HIVE / 21HWG-009 / 7	Date Analysed	22-Nov-2021 - 22-Jan-2022
Sediments		Date Completed	22-Jan-2022
Number of Samples	7	SGS Order Number	BBM21-14374

Methods Summary

Number of Sample	Method Code	Description
7	G_WGH_KG	Weight of samples received
7	GE_ICP21B20	Aqua Regia Digest (HCL/HNO3), ICP-AES, 0.25g-20mL
7	GE_IMS21B20	Aqua Regia Digest (HCL/HNO3),ICP-MS , 0.25g-20ml

Authorised Signatory

John Chiang
Laboratory Operations Manager

SCC Accredited LAB Accrédité CCN

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WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-009
Submission Number *BBY* SGDS HIVE / 21HWG-009 / 7
Sediments
Number of Samples 7

ANALYSIS REPORT BBM21-14374

Element	WTKG	@Al	@Ba	@Ca	@Cr	@Cu
Method	G_WGH_KG	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20
Lower Limit	0.01	0.01	5	0.01	1	0.5
Upper Limit	--	15	10,000	15	10,000	10,000
Unit	kg	%	ppm m / m	%	ppm m / m	ppm m / m
C00065154	0.06	1.29	98	0.32	34	22.1
C00065155	0.50	0.78	18	0.12	14	12.7
C00065156	0.48	1.27	82	0.36	38	17.4
C00065157	0.15	1.14	65	0.13	20	17.7
C00065158	0.05	1.91	160	0.27	43	30.5
C00129407	-	1.97	166	0.28	43	31.1
C00129408	0.09	2.25	153	3.29	74	170
*Blk BLANK	-	<0.01	<5	<0.01	<1	<0.5
*Std OREAS 260	-	1.41	142	0.92	54	48.0
*Blk BLANK	-	<0.01	<5	<0.01	<1	<0.5
*Rep C00065155	-	0.76	17	0.11	14	13.2
*Std OREAS 502c	-	1.92	394	1.13	65	7843

Element	@Fe	@K	@Li	@Mg	@Mn	@Na
Method	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20
Lower Limit	0.01	0.01	1	0.01	2	0.01
Upper Limit	15	15	10,000	15	10,000	15
Unit	%	%	ppm m / m	%	ppm m / m	%
C00065154	3.97	0.34	15	0.42	772	0.07
C00065155	2.18	0.07	14	0.45	361	<0.01
C00065156	6.07	0.29	14	0.44	1181	0.08
C00065157	3.55	0.25	20	0.51	589	0.03
C00065158	6.18	0.59	22	0.53	1130	0.08
C00129407	6.20	0.61	22	0.54	1152	0.08
C00129408	9.66	0.11	12	2.18	3622	0.18
*Blk BLANK	<0.01	<0.01	<1	<0.01	<2	<0.01
*Std OREAS 260	3.88	0.30	23	0.60	434	0.09
*Blk BLANK	<0.01	<0.01	<1	<0.01	<2	<0.01
*Rep C00065155	2.20	0.06	13	0.43	350	0.01

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-009
Submission Number *BBY* SGDS HIVE / 21HWG-009 / 7
Sediments
Number of Samples 7

ANALYSIS REPORT BBM21-14374

Element	@Fe	@K	@Li	@Mg	@Mn	@Na
Method	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20
Lower Limit	0.01	0.01	1	0.01	2	0.01
Upper Limit	15	15	10,000	15	10,000	15
Unit	%	%	ppm m / m	%	ppm m / m	%
*Std OREAS 502c	4.37	1.01	30	1.18	393	0.20

Element	@P	@S	@Sr	@Ti	@V	@Zn
Method	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20	GE_ICP21B20
Lower Limit	0.01	0.01	0.5	0.01	1	1
Upper Limit	15	5	10,000	15	10,000	10,000
Unit	%	%	ppm m / m	%	ppm m / m	ppm m / m
C00065154	0.08	0.02	27.4	0.17	28	58
C00065155	0.04	<0.01	7.8	0.03	17	45
C00065156	0.07	0.01	30.1	0.43	35	45
C00065157	0.03	0.04	11.0	0.05	13	68
C00065158	0.07	0.09	27.7	0.15	25	78
C00129407	0.07	0.09	28.4	0.16	24	79
C00129408	0.23	3.06	93.5	0.14	88	101
*Blk BLANK	<0.01	<0.01	<0.5	<0.01	<1	<1
*Std OREAS 260	0.04	0.08	15.2	<0.01	22	134
*Blk BLANK	<0.01	<0.01	<0.5	<0.01	<1	<1
*Rep C00065155	0.03	<0.01	7.7	0.03	17	44
*Std OREAS 502c	0.10	0.85	69.6	0.36	106	107

Element	@Zr	@Ag	@As	@Be	@Bi	@Cd
Method	GE_ICP21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.5	0.01	1	0.1	0.02	0.01
Upper Limit	10,000	100	10,000	100	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065154	1.3	0.06	4	0.4	0.29	0.09
C00065155	<0.5	0.02	3	0.1	0.19	0.05
C00065156	2.8	0.06	2	0.3	0.18	0.08
C00065157	0.9	0.04	2	0.3	0.22	0.09

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-009
Submission Number *BBY* SGDS HIVE / 21HWG-009 / 7
Sediments
Number of Samples 7

ANALYSIS REPORT BBM21-14374

Element	@Zr	@Ag	@As	@Be	@Bi	@Cd
Method	GE_ICP21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.5	0.01	1	0.1	0.02	0.01
Upper Limit	10,000	100	10,000	100	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065158	<0.5	0.11	4	0.6	0.32	0.15
C00129407	<0.5	0.10	4	0.6	0.33	0.15
C00129408	15.6	0.96	3966	0.3	0.18	0.18
*Blk BLANK	<0.5	<0.01	<1	<0.1	<0.02	<0.01
*Std OREAS 260	8.9	0.15	13	1.2	0.55	0.20
*Blk BLANK	<0.5	<0.01	<1	<0.1	<0.02	<0.01
*Rep C00065155	<0.5	0.03	2	<0.1	0.16	0.04
*Std OREAS 502c	9.0	0.77	54	0.5	0.66	0.36

Element	@Ce	@Co	@Cs	@Ga	@Ge	@Hf
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.05	0.1	0.05	0.1	0.1	0.05
Upper Limit	1,000	10,000	1,000	10,000	10,000	500
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065154	75.21	11.4	0.74	4.0	<0.1	<0.05
C00065155	26.66	8.5	0.65	2.6	<0.1	<0.05
C00065156	69.83	10.6	0.70	4.2	<0.1	0.06
C00065157	47.42	10.2	0.80	3.6	<0.1	<0.05
C00065158	83.86	14.9	1.30	5.8	<0.1	<0.05
C00129407	87.20	14.4	1.31	5.6	<0.1	<0.05
C00129408	18.77	29.2	2.32	6.8	0.1	0.42
*Blk BLANK	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
*Std OREAS 260	68.28	33.5	2.94	4.7	<0.1	0.36
*Blk BLANK	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
*Rep C00065155	25.62	9.5	0.62	2.5	<0.1	<0.05
*Std OREAS 502c	58.54	13.0	8.76	8.0	0.2	0.41

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-009
Submission Number *BBY* SGDS HIVE / 21HWG-009 / 7
Sediments
Number of Samples 7

ANALYSIS REPORT BBM21-14374

Element	@Hg	@In	@La	@Lu	@Mo	@Nb
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.01	0.02	0.1	0.01	0.05	0.05
Upper Limit	100	500	10,000	1,000	10,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065154	<0.01	<0.02	38.1	0.09	1.48	2.75
C00065155	<0.01	<0.02	15.3	0.04	0.28	0.46
C00065156	<0.01	<0.02	36.0	0.11	6.53	4.39
C00065157	<0.01	<0.02	27.8	0.06	2.46	0.54
C00065158	<0.01	<0.02	53.7	0.12	6.87	2.26
C00129407	<0.01	<0.02	51.7	0.12	6.71	2.23
C00129408	<0.01	0.04	12.6	0.14	3.65	0.34
*Blk BLANK	<0.01	<0.02	<0.1	<0.01	<0.05	<0.05
*Std OREAS 260	0.04	0.03	33.1	0.13	0.44	0.06
*Blk BLANK	<0.01	<0.02	<0.1	<0.01	<0.05	<0.05
*Rep C00065155	<0.01	<0.02	15.0	0.03	0.29	0.46
*Std OREAS 502c	0.04	0.06	27.9	0.20	229	1.34

Element	Ni	@Pb	@Rb	@Sb	@Sc	@Se
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.5	0.2	0.2	0.05	0.1	1
Upper Limit	10,000	10,000	10,000	10,000	10,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065154	25.8	8.6	16.2	0.32	3.1	<1
C00065155	16.6	6.3	8.1	0.14	1.3	<1
C00065156	34.1	7.0	15.7	0.30	4.0	<1
C00065157	31.2	7.4	14.5	0.21	1.8	<1
C00065158	50.2	14.0	29.3	0.38	3.5	<1
C00129407	49.2	13.8	29.5	0.38	3.5	<1
C00129408	95.0	8.8	5.7	4.31	8.2	3
*Blk BLANK	<0.5	<0.2	<0.2	0.10	<0.1	<1
*Std OREAS 260	74.6	29.1	19.9	1.21	3.4	<1
*Blk BLANK	<0.5	<0.2	<0.2	0.10	<0.1	<1
*Rep C00065155	16.3	5.0	7.4	0.14	1.3	<1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Submission Number *BBY* SGDS HIVE / 21HWG-009 / 7
Sediments
Number of Samples 7

ANALYSIS REPORT BBM21-14374

Element	Ni	@Pb	@Rb	@Sb	@Sc	@Se
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.5	0.2	0.2	0.05	0.1	1
Upper Limit	10,000	10,000	10,000	10,000	10,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
*Std OREAS 502c	33.5	10.6	124	4.15	7.5	3

Element	@Sn	@Ta	@Tb	@Te	@Th	@Tl
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.3	0.05	0.02	0.05	0.1	0.02
Upper Limit	1,000	10,000	10,000	1,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065154	<0.3	<0.05	0.49	<0.05	10.1	0.12
C00065155	<0.3	<0.05	0.21	<0.05	6.4	0.06
C00065156	<0.3	<0.05	0.47	<0.05	9.7	0.11
C00065157	<0.3	<0.05	0.33	<0.05	10.7	0.12
C00065158	<0.3	<0.05	0.64	<0.05	12.3	0.20
C00129407	<0.3	<0.05	0.64	<0.05	12.4	0.22
C00129408	0.4	<0.05	0.49	0.18	2.5	0.07
*Blk BLANK	<0.3	<0.05	<0.02	<0.05	<0.1	<0.02
*Std OREAS 260	<0.3	<0.05	0.54	0.06	11.2	0.23
*Blk BLANK	<0.3	<0.05	<0.02	<0.05	<0.1	<0.02
*Rep C00065155	<0.3	<0.05	0.20	<0.05	6.0	0.05
*Std OREAS 502c	2.3	<0.05	0.55	0.45	16.7	0.68

Element	@U	@W	@Y	@Yb
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.05	0.1	0.05	0.1
Upper Limit	10,000	10,000	10,000	100
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065154	1.59	0.3	8.88	0.7
C00065155	0.68	<0.1	3.82	0.3
C00065156	1.55	0.3	9.66	0.9
C00065157	1.27	<0.1	5.78	0.5

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Order Number 21HWG-009
Submission Number *BBY* SGDS HIVE / 21HWG-009 / 7
Sediments
Number of Samples 7

ANALYSIS REPORT BBM21-14374

Element	@U	@W	@Y	@Yb
Method	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20	GE_IMS21B20
Lower Limit	0.05	0.1	0.05	0.1
Upper Limit	10,000	10,000	10,000	100
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m
C00065158	2.73	0.3	13.65	1.0
C00129407	2.69	0.3	13.24	1.0
C00129408	0.87	1.2	14.06	1.1
*Blk BLANK	<0.05	<0.1	<0.05	<0.1
*Std OREAS 260	1.32	<0.1	11.90	1.0
*Blk BLANK	<0.05	<0.1	<0.05	<0.1
*Rep C00065155	0.60	<0.1	3.54	0.3
*Std OREAS 502c	4.26	2.9	15.74	1.5

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APPENDIX C – PORTABLE X-RAY FLUORESCENCE (PXRF) RESULTS

Date	Sample ID	Project No.	Sample Typ	Operator	Notes	Units	Mg Compo	Mg Compo	Mg Compo	Mg Concer	Mg Error1s	Al Compou	Al Compou	Al Compou	Al Concent	Al Error1s	Si Compou	Si Compou	Si Compou	Si Concent	Si Error1s	P Compour	P Compour	P Compour
05/10/2021	Blank	Hawkeye C	Chip	DR	Blank	PPM	-999	-999	-999	-99	1171	-999	-999	-999	878	84	-999	-999	-999	535462	340	-999	-999	-999
05/10/2021	C00065001	Hawkeye C	Chip	LC	Pyllite	PPM	-999	-999	-999	13963	648	-999	-999	-999	120481	339	-999	-999	-999	213572	366	-999	-999	-999
05/10/2021	C00065001	Hawkeye C	Chip	LC	Pyllite/Qtz	PPM	-999	-999	-999	11270	626	-999	-999	-999	114489	329	-999	-999	-999	224138	373	-999	-999	-999
05/10/2021	C00065002	Hawkeye C	Chip	DR	Qtz vein	PPM	-999	-999	-999	1961	634	-999	-999	-999	7781	136	-999	-999	-999	390739	512	-999	-999	-999
05/10/2021	C00065003	Hawkeye C	Chip	DR	Phyllite	PPM	-999	-999	-999	2144	587	-999	-999	-999	120927	341	-999	-999	-999	172166	322	-999	-999	-999
05/10/2021	C00065004	Hawkeye C	Chip	DR	Quartz Vei	PPM	-999	-999	-999	18254	612	-999	-999	-999	128949	340	-999	-999	-999	172692	317	-999	-999	-999
05/10/2021	C00065005	Hawkeye C	Chip	DR	Quartz Vei	PPM	-999	-999	-999	4715	453	-999	-999	-999	47725	200	-999	-999	-999	392892	420	-999	-999	-999
05/10/2021	STD-Oreas-24b	Hawkeye C	Chip	DR	STD-Oreas-	PPM	-999	-999	-999	16243	540	-999	-999	-999	78180	258	-999	-999	-999	297185	405	-999	-999	-999
05/10/2021	STD-Oreas-503b	Hawkeye C	Chip	DR	STD-Oreas-	PPM	-999	-999	-999	17584	572	-999	-999	-999	67879	253	-999	-999	-999	272177	402	-999	-999	-999
06/10/2021	C00065001	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-99	1906	-999	-999	-999	42944	189	-999	-999	-999	333758	331	-999	-999	-999
06/10/2021	C00065002	Hawkeye C	Chip	DR		PPM	-999	-999	-999	6737	622	-999	-999	-999	55701	262	-999	-999	-999	97214	245	-999	-999	-999
06/10/2021	C00065003	Hawkeye C	Chip	DR		PPM	-999	-999	-999	2497	497	-999	-999	-999	61496	239	-999	-999	-999	271467	390	-999	-999	-999
06/10/2021	C00065005	Hawkeye C	Chip	DR		PPM	-999	-999	-999	1661	480	-999	-999	-999	23523	163	-999	-999	-999	359258	437	-999	-999	-999
06/10/2021	C00065005	Hawkeye C	Chip	DR		PPM	-999	-999	-999	2964	520	-999	-999	-999	33358	190	-999	-999	-999	289015	404	-999	-999	-999
06/10/2021	C00065006	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-99	2005	-999	-999	-999	55907	216	-999	-999	-999	322592	343	-999	-999	-999
06/10/2021	C00065007	Hawkeye C	Chip	DR		PPM	-999	-999	-999	3589	480	-999	-999	-999	53633	222	-999	-999	-999	196454	316	-999	-999	-999
06/10/2021	C00065007	Hawkeye C	Chip	DR		PPM	-999	-999	-999	3343	414	-999	-999	-999	28988	161	-999	-999	-999	356039	398	-999	-999	-999
06/10/2021	C00065008	Hawkeye C	Chip	DR		PPM	-999	-999	-999	3486	493	-999	-999	-999	25168	166	-999	-999	-999	243304	362	-999	-999	-999
06/10/2021	C00065009	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-99	3254	-999	-999	-999	35026	236	-999	-999	-999	357530	469	-999	-999	-999
06/10/2021	C00065010	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-99	1965	-999	-999	-999	36164	190	-999	-999	-999	390127	375	-999	-999	-999
06/10/2021	C00065101	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-99	3251	-999	-999	-999	18295	175	-999	-999	-999	335576	390	-999	-999	-999
06/10/2021	C00065101	Hawkeye C	Chip	DR		PPM	-999	-999	-999	5347	549	-999	-999	-999	39219	203	-999	-999	-999	324749	440	-999	-999	-999
06/10/2021	C00065102	Hawkeye C	Chip	DR		PPM	-999	-999	-999	12215	588	-999	-999	-999	123902	329	-999	-999	-999	188144	323	-999	-999	-999
06/10/2021	C00065102	Hawkeye C	Chip	DR		PPM	-999	-999	-999	2008	571	-999	-999	-999	159225	360	-999	-999	-999	220155	350	-999	-999	-999
06/10/2021	C00065102	Hawkeye C	Chip	DR		PPM	-999	-999	-999	2384	435	-999	-999	-999	47888	195	-999	-999	-999	357682	387	-999	-999	-999
06/10/2021	C00065102	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999
06/10/2021	C00065102	Hawkeye C	Chip	DR		PPM	-999	-999	-999	12601	553	-999	-999	-999	101030	296	-999	-999	-999	207742	337	-999	-999	-999
06/10/2021	C00065103	Hawkeye C	Chip	DR		PPM	-999	-999	-999	10623	529	-999	-999	-999	127110	316	-999	-999	-999	215750	336	-999	-999	-999
06/10/2021	C00065104	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-99	1511	-999	-999	-999	7646	111	-999	-999	-999	457983	352	-999	-999	-999
06/10/2021	C00065105	Hawkeye C	Chip	DR		PPM	-999	-999	-999	2448	528	-999	-999	-999	8329	126	-999	-999	-999	391838	471	-999	-999	-999
06/10/2021	C00065106	Hawkeye C	Chip	DR		PPM	-999	-999	-999	19594	565	-999	-999	-999	135595	329	-999	-999	-999	222094	350	-999	-999	-999
06/10/2021	C00065107	Hawkeye C	Chip	DR		PPM	-999	-999	-999	1312	375	-999	-999	-999	35943	167	-999	-999	-999	436063	398	-999	-999	-999
06/10/2021	C00065108	Hawkeye C	Chip	DR		PPM	-999	-999	-999	10321	500	-999	-999	-999	120066	302	-999	-999	-999	205732	321	-999	-999	-999
06/10/2021	C00065109	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-99	1718	-999	-999	-999	100641	252	-999	-999	-999	333429	330	-999	-999	-999
06/10/2021	C00065110	Hawkeye C	Chip	DR		PPM	-999	-999	-999	-99	2213	-999	-999	-999	10470	145	-999	-999	-999	443737	417	-999	-999	-999
06/10/2021	C00065111	Hawkeye C	Chip	DR		PPM	-999	-999	-999	6482	470	-999	-999	-999	160865	328	-999	-999	-999	234697	333	-999	-999	-999
06/10/2021	C00065112	Hawkeye C	Chip	DR		PPM	-999	-999	-999	3252	465	-999	-999	-999	158328	331	-999	-999	-999	223802	328	-999	-999	-999
06/10/2021	C00065114	Hawkeye C	Chip	DR		PPM	-999	-999	-999	1594	421	-999	-999	-999	17211	138	-999	-999	-999	427240	426	-999	-999	-999
06/10/2021	C00065114	Hawkeye C	Chip	DR		PPM	-999	-999	-999	6945	728	-999	-999	-999	74554	323	-999	-999	-999	162583	370	-999	-999	-999
06/10/2021	C00129451	Hawkeye C	Chip	DR		PPM	-999	-999	-999	1689	379	-999	-999	-999	16472	128	-999	-999	-999	451721	408	-999	-999	-999
07/10/2021	Blank	Hawkeye C	Chip	DR	Blank	PPM	-999	-999	-999	1941	360	-999	-999	-999	2649	88	-999	-999	-999	519976	409	-999	-999	-999
07/10/2021	C00065251	Hawkeye C	Chip	DR		PPM	-999	-999	-999	35965	829	-999	-999	-999	58297	282	-999	-999	-999	190891	408	-999	-999	-999
07/10/2021	C00065252	Hawkeye C	Chip	DR		PPM	-999	-999	-999	12702	591	-999	-999	-999	125233	335	-999	-999	-999	212682	363	-999	-999	-999
07/10/2021	C00065253	Hawkeye C	Chip	DR		PPM	-999	-999	-999	15830	496	-999	-999	-999	123794	293	-999	-999	-999	230378	328	-999	-999	-999
07/10/2021	C00065254	Hawkeye C	Chip	DR		PPM	-999	-999	-999	11418	641	-999	-999	-999	82599	304	-999	-999	-999	136349	297	-999	-999	-999
07/10/2021	C00065255	Hawkeye C	Chip	DR		PPM	-999	-999	-999	11471	639	-999	-999	-999	91191	324	-999	-999	-999	135682	298	-999	-999	-999
07/10/2021	C00065256	Hawkeye C	Chip	DR		PPM	-999	-999	-999	8833	636	-999	-999	-999	76352	292	-999	-999	-999	138121	287	-999	-999	-999
07/10/2021	C00065257	Hawkeye C	Chip	DR		PPM	-999	-999	-999	4731	378	-999	-999	-999	36860	162	-999	-999	-999	415338	385	-999	-999	-999
07/10/2021	C00065258	Hawkeye C	Chip	LC	Hematite S	PPM	-999	-999	-999	8964	634	-999	-999	-999	82003	298	-999	-999	-999	121992	266	-999	-999	-999
07/10/2021	C00065258	Hawkeye C	Chip	DR	Hematite S	PPM	-999	-999	-999	15339	609	-999	-999	-999	91054	295	-999	-999	-999	198037	345	-999	-999	-999
07/10/2021	Oreas24b	Hawkeye C	Chip	DR	Oreas24b	PPM	-999	-999	-999	15286	529	-999	-999	-999	78286	257	-999	-999	-999	292193	399	-999	-999	-999
07/10/2021	Oreas503b	Hawkeye C	Chip	DR	Oreas503b	PPM	-999	-999	-999	17363	568	-999	-999	-999	68722	254	-999	-999	-999	270022	400	-999	-999	-999
08/10/2021	C00065211	Hawkeye C	Chip	DR		PPM	-999	-999	-999	1837	602	-999	-999	-999	39654	217	-999	-999	-999	291243	421	-999	-999	-999
08/10/2021	C00065212	Hawkeye C	Chip	DR		PPM	-999	-999	-999	4145	732	-999	-999	-999	96130	352	-999	-999	-999	124576	298	-999	-999	-999
08/10/2021	C00065213	Hawkeye C	Chip	DR		PPM	-999	-999	-999	1649	459	-999	-999	-999	6636	110	-999	-999	-999	443794	436	-999	-999	-999
08/10/2021	C00065214	Hawkeye C	Chip	DR		PPM	-999	-999	-999	2460	691	-999	-999	-999	56489	271	-999	-999	-999	272822	460	-999	-999	-999
08/10/2021	C00065215	Hawkeye C	Chip	DR		PPM	-999	-999	-999	2075	421	-999	-999	-999	10073	116	-999	-999	-999	413254	406	-999	-999	-999
08/10/2021	C00065216	Hawkeye C	Chip	DR		PPM	-999	-999	-999	25134	706	-999	-999	-999	80222	301	-999	-999	-999	121625	275	-999	-999	-999
08/10/2021	C00065216	Hawkeye C	Chip	DR		PPM	-999	-999	-999	5821	754	-999	-999	-999	35142	231	-999	-999	-999	58303	181	-999	-999	-999
08/10/2021	C00065217	Hawkeye C	Chip	DR		PPM	-999	-999	-999	7829	543	-999	-999	-999	56652	236	-999	-999	-999	181553	313	-999	-999	-999
08/10/2021	C00065218	Hawkeye C	Chip	DR		PPM	-999	-999	-999	3724	447	-999	-999	-999	27083	162	-999	-999	-999	369261	413	-999	-999	-999
08/10/2021	C00065219	Hawkeye C	Chip	DR		PPM	-999	-999	-999	2377	600	-999	-999	-999	10155	138	-999	-999	-999	327535	470	-999	-999	-999
08/10/2021	C00065220	Hawkeye C	Chip	DR		PPM	-999	-999	-999	10494	515	-999	-999	-999	43001	199	-999	-999	-999	308232	398	-999	-999	-999
08/10/2021	C00065221	Hawkeye C	Chip	DR		PPM	-999	-999	-999	5289	564	-999	-999	-999	41153	211	-999	-999	-999	355841	464	-999	-999	-999
08/10/2021	C00065222	Hawkeye C	Chip	DR		PPM	-999	-999	-999	4017	388	-999	-999	-999	19419	133	-999	-999	-999	439723	396	-999	-999	-999
08/10/2021	C00065223	Hawkeye C	Chip	DR		PPM	-999	-999	-999	4695	585	-999	-999	-999	33868	202	-999	-999	-999	299440	441	-999	-999	-999
08/10/2021	C00065224	Hawkeye C	Chip	DR		PPM	-999	-999	-999	3046	433	-999	-999	-999	20989	148	-999	-999	-999	403624	419	-999	-999	-999

08/10/2021	C00065225	Hawkeye C Chip	DR		PPM	-999	-999	-999	2464	418	-999	-999	-999	16473	134	-999	-999	-999	447657	423	-999	-999	-999
08/10/2021	C00065226	Hawkeye C Chip	DR		PPM	-999	-999	-999	3964	580	-999	-999	-999	27507	180	-999	-999	-999	136490	277	-999	-999	-999
08/10/2021	C00065227	Hawkeye C Chip	DR		PPM	-999	-999	-999	3028	434	-999	-999	-999	84304	247	-999	-999	-999	342977	389	-999	-999	-999
08/10/2021	C00065228	Hawkeye C Chip	DR		PPM	-999	-999	-999	8856	420	-999	-999	-999	63245	208	-999	-999	-999	299111	344	-999	-999	-999
10/10/2021	C00065301	Hawkeye C Chip	DR		PPM	-999	-999	-999	65388	909	-999	-999	-999	5896	134	-999	-999	-999	14874	76	-999	-999	-999
10/10/2021	C00065302	Hawkeye C Chip	DR	Quartz	PPM	-999	-999	-999	9432	595	-999	-999	-999	10445	122	-999	-999	-999	124133	247	-999	-999	-999
10/10/2021	C00065302	Hawkeye C Chip	DR	Schist	PPM	-999	-999	-999	5020	680	-999	-999	-999	45360	251	-999	-999	-999	100367	236	-999	-999	-999
10/10/2021	C00065303	Hawkeye C Chip	DR	Schist	PPM	-999	-999	-999	71992	932	-999	-999	-999	5796	136	-999	-999	-999	16503	83	-999	-999	-999
10/10/2021	C00065304	Hawkeye C Chip	DR		PPM	-999	-999	-999	10318	664	-999	-999	-999	62331	263	-999	-999	-999	135266	278	-999	-999	-999
10/10/2021	C00065305	Hawkeye C Chip	DR		PPM	-999	-999	-999	-99	2150	-999	-999	-999	4541	164	-999	-999	-999	16525	96	-999	-999	-999
11/10/2021	Blank	Hawkeye C Chip	DR	Blank	PPM	-999	-999	-999	1724	369	-999	-999	-999	4520	95	-999	-999	-999	504484	409	-999	-999	-999
11/10/2021	C00065051	Hawkeye C Chip	DR		PPM	-999	-999	-999	-99	1740	-999	-999	-999	2935	141	-999	-999	-999	8231	66	-999	-999	-999
11/10/2021	C00065052	Hawkeye C Chip	DR		PPM	-999	-999	-999	-99	2204	-999	-999	-999	3109	130	-999	-999	-999	7194	58	-999	-999	-999
11/10/2021	C00065053	Hawkeye C Chip	DR		PPM	-999	-999	-999	5786	838	-999	-999	-999	16676	190	-999	-999	-999	33461	132	-999	-999	-999
11/10/2021	C00065054	Hawkeye C Chip	DR		PPM	-999	-999	-999	6717	811	-999	-999	-999	9929	146	-999	-999	-999	90669	240	-999	-999	-999
11/10/2021	C00065055	Hawkeye C Chip	DR		PPM	-999	-999	-999	2639	769	-999	-999	-999	6680	144	-999	-999	-999	13397	76	-999	-999	-999
11/10/2021	C00065259	Hawkeye C Chip	DR		PPM	-999	-999	-999	11279	544	-999	-999	-999	137311	331	-999	-999	-999	213938	340	-999	-999	-999
11/10/2021	C00065260	Hawkeye C Chip	DR		PPM	-999	-999	-999	7621	484	-999	-999	-999	68494	235	-999	-999	-999	301951	380	-999	-999	-999
11/10/2021	C00065261	Hawkeye C Chip	DR		PPM	-999	-999	-999	3504	592	-999	-999	-999	100925	312	-999	-999	-999	221826	368	-999	-999	-999
11/10/2021	C00065262	Hawkeye C Chip	DR		PPM	-999	-999	-999	1549	513	-999	-999	-999	104881	297	-999	-999	-999	214032	332	-999	-999	-999
11/10/2021	C00065263	Hawkeye C Chip	DR		PPM	-999	-999	-999	7621	736	-999	-999	-999	70636	310	-999	-999	-999	201158	420	-999	-999	-999
11/10/2021	C00065264	Hawkeye C Chip	DR		PPM	-999	-999	-999	10325	601	-999	-999	-999	53888	238	-999	-999	-999	250941	401	-999	-999	-999
11/10/2021	C00065265	Hawkeye C Chip	DR		PPM	-999	-999	-999	17423	523	-999	-999	-999	109819	289	-999	-999	-999	250531	359	-999	-999	-999
11/10/2021	C00065266	Hawkeye C Chip	DR		PPM	-999	-999	-999	16025	595	-999	-999	-999	87909	289	-999	-999	-999	176598	326	-999	-999	-999
11/10/2021	C00065267	Hawkeye C Chip	DR		PPM	-999	-999	-999	-99	2614	-999	-999	-999	137049	341	-999	-999	-999	167429	286	-999	-999	-999
11/10/2021	C00065268	Hawkeye C Chip	DR		PPM	-999	-999	-999	9768	550	-999	-999	-999	76274	261	-999	-999	-999	237388	362	-999	-999	-999
11/10/2021	C00065271	Hawkeye C Chip	DR		PPM	-999	-999	-999	4685	548	-999	-999	-999	18495	153	-999	-999	-999	309178	409	-999	-999	-999
11/10/2021	C00065272	Hawkeye C Chip	DR		PPM	-999	-999	-999	6836	692	-999	-999	-999	71397	304	-999	-999	-999	117604	282	-999	-999	-999
11/10/2021	C00065273	Hawkeye C Chip	DR		PPM	-999	-999	-999	10108	583	-999	-999	-999	118263	325	-999	-999	-999	190528	330	-999	-999	-999
11/10/2021	C00065274	Hawkeye C Chip	DR		PPM	-999	-999	-999	12704	669	-999	-999	-999	67137	278	-999	-999	-999	163137	331	-999	-999	-999
11/10/2021	C00065275	Hawkeye C Chip	DR		PPM	-999	-999	-999	13965	563	-999	-999	-999	67137	249	-999	-999	-999	272370	395	-999	-999	-999
11/10/2021	C00065276	Hawkeye C Chip	DR		PPM	-999	-999	-999	6385	448	-999	-999	-999	63225	218	-999	-999	-999	333005	380	-999	-999	-999
11/10/2021	C00065277	Hawkeye C Chip	DR		PPM	-999	-999	-999	9787	542	-999	-999	-999	86965	277	-999	-999	-999	174048	304	-999	-999	-999
11/10/2021	C00065278	Hawkeye C Chip	DR		PPM	-999	-999	-999	8243	444	-999	-999	-999	85241	244	-999	-999	-999	250848	329	-999	-999	-999
11/10/2021	C00065279	Hawkeye C Chip	DR		PPM	-999	-999	-999	11330	653	-999	-999	-999	99340	326	-999	-999	-999	190860	357	-999	-999	-999
11/10/2021	C00065280	Hawkeye C Chip	DR		PPM	-999	-999	-999	51665	701	-999	-999	-999	77730	275	-999	-999	-999	240267	402	-999	-999	-999
11/10/2021	Oreas24B	Hawkeye C Chip	DR	Oreas24B	PPM	-999	-999	-999	15738	539	-999	-999	-999	76846	257	-999	-999	-999	283825	396	-999	-999	-999
11/10/2021	Oreas503B	Hawkeye C Chip	DR	Oreas503B	PPM	-999	-999	-999	18289	573	-999	-999	-999	70046	255	-999	-999	-999	267805	398	-999	-999	-999
12/10/2021	C00065307	Hawkeye C Chip	DR		PPM	-999	-999	-999	8230	809	-999	-999	-999	50244	270	-999	-999	-999	63934	189	-999	-999	-999
12/10/2021	C00065308	Hawkeye C Chip	DR		PPM	-999	-999	-999	6960	641	-999	-999	-999	44530	228	-999	-999	-999	215360	376	-999	-999	-999
19/10/2021	C00065063	Hawkeye C Chip	DR		PPM	-999	-999	-999	5095	724	-999	-999	-999	25995	203	-999	-999	-999	60488	180	-999	-999	-999
19/10/2021	C00065309	Hawkeye C Chip	DR		PPM	-999	-999	-999	3853	798	-999	-999	-999	16291	179	-999	-999	-999	33964	126	-999	-999	-999
19/10/2021	C00065310	Hawkeye C Chip	DR		PPM	-999	-999	-999	23262	909	-999	-999	-999	41280	264	-999	-999	-999	105030	305	-999	-999	-999
19/10/2021	C00065311	Hawkeye C Chip	DR		PPM	-999	-999	-999	11561	844	-999	-999	-999	23029	198	-999	-999	-999	65044	203	-999	-999	-999
19/10/2021	C00065312	Hawkeye C Chip	DR		PPM	-999	-999	-999	8927	777	-999	-999	-999	46789	268	-999	-999	-999	83556	237	-999	-999	-999
19/10/2021	C00065313	Hawkeye C Chip	DR		PPM	-999	-999	-999	6855	608	-999	-999	-999	30619	193	-999	-999	-999	272818	411	-999	-999	-999
19/10/2021	C00065314	Hawkeye C Chip	DR		PPM	-999	-999	-999	9160	613	-999	-999	-999	32325	194	-999	-999	-999	134266	267	-999	-999	-999
19/10/2021	C00065315	Hawkeye C Chip	DR		PPM	-999	-999	-999	10031	821	-999	-999	-999	25596	208	-999	-999	-999	93488	252	-999	-999	-999
19/10/2021	C00065316	Hawkeye C Chip	DR		PPM	-999	-999	-999	6733	698	-999	-999	-999	44749	244	-999	-999	-999	168573	343	-999	-999	-999
19/10/2021	C00065317	Hawkeye C Chip	DR		PPM	-999	-999	-999	6095	591	-999	-999	-999	83545	296	-999	-999	-999	154485	304	-999	-999	-999
19/10/2021	C00065318	Hawkeye C Chip	DR		PPM	-999	-999	-999	9828	830	-999	-999	-999	46483	274	-999	-999	-999	125170	333	-999	-999	-999
19/10/2021	C00065319	Hawkeye C Chip	DR		PPM	-999	-999	-999	5525	798	-999	-999	-999	38147	251	-999	-999	-999	100384	270	-999	-999	-999
20/10/2021	C00065064	Hawkeye C Chip	DR		PPM	-999	-999	-999	30469	820	-999	-999	-999	69839	303	-999	-999	-999	232323	458	-999	-999	-999
20/10/2021	C00065065	Hawkeye C Chip	DR		PPM	-999	-999	-999	6260	843	-999	-999	-999	23129	213	-999	-999	-999	61366	195	-999	-999	-999
20/10/2021	C00065066	Hawkeye C Chip	DR		PPM	-999	-999	-999	6670	424	-999	-999	-999	43254	180	-999	-999	-999	344305	377	-999	-999	-999
20/10/2021	C00065067	Hawkeye C Chip	DR		PPM	-999	-999	-999	42170	6292	-999	-999	-999	146204	1870	-999	-999	-999	485975	3927	-999	-999	-999
20/10/2021	C00065067	Hawkeye C Chip	DR		PPM	-999	-999	-999	5386	548	-999	-999	-999	71614	261	-999	-999	-999	211047	347	-999	-999	-999
20/10/2021	C00065068	Hawkeye C Chip	DR		PPM	-999	-999	-999	6065	674	-999	-999	-999	54201	260	-999	-999	-999	227988	410	-999	-999	-999
20/10/2021	C00065069	Hawkeye C Chip	DR		PPM	-999	-999	-999	7780	540	-999	-999	-999	126994	327	-999	-999	-999	190127	322	-999	-999	-999
20/10/2021	C00065070	Hawkeye C Chip	DR		PPM	-999	-999	-999	3774	481	-999	-999	-999	113715	297	-999	-999	-999	93214	196	-999	-999	-999
20/10/2021	C00065071	Hawkeye C Chip	DR		PPM	-999	-999	-999	18158	706	-999	-999	-999	72737	301	-999	-999	-999	109212	270	-999	-999	-999
20/10/2021	C00065072	Hawkeye C Chip	DR		PPM	-999	-999	-999	12637	575	-999	-999	-999	99213	302	-999	-999	-999	193553	337	-999	-999	-999
20/10/2021	C00065073	Hawkeye C Chip	DR		PPM	-999	-999	-999	4546	630	-999	-999	-999	25958	188	-999	-999	-999	98676	227	-999	-999	-999
20/10/2021	C00065074	Hawkeye C Chip	DR		PPM	-999	-999	-999	6902	447	-999	-999	-999	125122	286	-999	-999	-999	299345	367	-999	-999	-999
20/10/2021	C00065075	Hawkeye C Chip	DR		PPM	-999	-999	-999	9015	526	-999	-999	-999	90879	275	-999	-999	-999	267838	383	-999	-999	-999
20/10/2021	C00065076	Hawkeye C Chip	DR		PPM	-999	-999	-999	11253	549	-999	-999	-999	92425	284	-999	-999	-999	223222	352	-999	-999	-999
20/10/2021	C00065077	Hawkeye C Chip	DR		PPM	-999	-999	-999	7086	635	-999	-999	-999	112954	348	-999	-999	-999	187512	363	-999	-999	-999
20/10/2021	C00065078	Hawkeye C Chip	DR		PPM	-999	-999	-999	4920	401	-999	-999	-999	53332	193	-999	-999	-999	363147	372	-999	-999	-999

20/10/2021	C00065079	Hawkeye C Chip	DR		PPM	-999	-999	-999	3957	772	-999	-999	-999	30158	226	-999	-999	-999	326915	553	-999	-999	-999
20/10/2021	C00065081	Hawkeye C Chip	DR		PPM	-999	-999	-999	3826	571	-999	-999	-999	36279	205	-999	-999	-999	201673	352	-999	-999	-999
20/10/2021	C00065082	Hawkeye C Chip	DR		PPM	-999	-999	-999	30760	692	-999	-999	-999	87375	308	-999	-999	-999	165937	338	-999	-999	-999
20/10/2021	C00065083	Hawkeye C Chip	DR		PPM	-999	-999	-999	2200	422	-999	-999	-999	18101	138	-999	-999	-999	436001	423	-999	-999	-999
20/10/2021	C00065084	Hawkeye C Chip	DR		PPM	-999	-999	-999	1828	435	-999	-999	-999	43100	193	-999	-999	-999	388971	417	-999	-999	-999
20/10/2021	C00065401	Hawkeye C Chip	DR		PPM	-999	-999	-999	25747	727	-999	-999	-999	64554	278	-999	-999	-999	184288	382	-999	-999	-999
20/10/2021	C00065402	Hawkeye C Chip	DR		PPM	-999	-999	-999	13633	550	-999	-999	-999	110730	313	-999	-999	-999	154540	288	-999	-999	-999
20/10/2021	C00065403	Hawkeye C Chip	DR		PPM	-999	-999	-999	29304	693	-999	-999	-999	73102	285	-999	-999	-999	177034	358	-999	-999	-999
20/10/2021	C00065404	Hawkeye C Chip	DR		PPM	-999	-999	-999	11781	849	-999	-999	-999	36878	255	-999	-999	-999	193367	449	-999	-999	-999
21/10/2021	Blank	Hawkeye C Chip	DR	Blank	PPM	-999	-999	-999	1436	345	-999	-999	-999	2469	86	-999	-999	-999	524510	402	-999	-999	-999
21/10/2021	C00065007	Hawkeye C Chip	DR		PPM	-999	-999	-999	8365	510	-999	-999	-999	74953	249	-999	-999	-999	231489	338	-999	-999	-999
21/10/2021	C00065008	Hawkeye C Chip	DR		PPM	-999	-999	-999	3317	456	-999	-999	-999	24541	159	-999	-999	-999	386849	421	-999	-999	-999
21/10/2021	C00065061	Hawkeye C Chip	DR		PPM	-999	-999	-999	3792	457	-999	-999	-999	53448	213	-999	-999	-999	271557	354	-999	-999	-999
21/10/2021	C00065085	Hawkeye C Chip	DR		PPM	-999	-999	-999	6222	435	-999	-999	-999	107772	266	-999	-999	-999	274458	341	-999	-999	-999
21/10/2021	C00065086	Hawkeye C Chip	DR		PPM	-999	-999	-999	3664	520	-999	-999	-999	56739	233	-999	-999	-999	312573	414	-999	-999	-999
21/10/2021	C00065282	Hawkeye C Chip	DR		PPM	-999	-999	-999	11785	588	-999	-999	-999	89144	299	-999	-999	-999	141193	286	-999	-999	-999
21/10/2021	C00065283	Hawkeye C Chip	DR		PPM	-999	-999	-999	9237	548	-999	-999	-999	79145	275	-999	-999	-999	130925	262	-999	-999	-999
21/10/2021	C00065405	Hawkeye C Chip	DR		PPM	-999	-999	-999	32123	787	-999	-999	-999	70820	300	-999	-999	-999	170123	374	-999	-999	-999
21/10/2021	C00065406	Hawkeye C Chip	DR		PPM	-999	-999	-999	11783	641	-999	-999	-999	108992	343	-999	-999	-999	187175	360	-999	-999	-999
21/10/2021	C00065407	Hawkeye C Chip	DR		PPM	-999	-999	-999	2178	400	-999	-999	-999	3934	95	-999	-999	-999	431029	414	-999	-999	-999
21/10/2021	Oreas24b	Hawkeye C Chip	DR	Oreas24b	PPM	-999	-999	-999	16687	528	-999	-999	-999	77742	256	-999	-999	-999	288644	397	-999	-999	-999
21/10/2021	Oreas503b	Hawkeye C Chip	DR	Oreas503b	PPM	-999	-999	-999	17325	557	-999	-999	-999	68055	251	-999	-999	-999	267767	396	-999	-999	-999
22/10/2021	Blank	Hawkeye C Chip	DR	Blank	PPM	-999	-999	-999	1144	356	-999	-999	-999	2042	87	-999	-999	-999	528078	407	-999	-999	-999
22/10/2021	C00065087	Hawkeye C Chip	DR		PPM	-999	-999	-999	4437	815	-999	-999	-999	13980	173	-999	-999	-999	215166	427	-999	-999	-999
22/10/2021	C00065088	Hawkeye C Chip	DR		PPM	-999	-999	-999	3385	604	-999	-999	-999	15940	156	-999	-999	-999	329391	461	-999	-999	-999
22/10/2021	C00065089	Hawkeye C Chip	DR		PPM	-999	-999	-999	3065	510	-999	-999	-999	21749	159	-999	-999	-999	382127	440	-999	-999	-999
22/10/2021	C00065090	Hawkeye C Chip	DR		PPM	-999	-999	-999	2085	471	-999	-999	-999	9523	120	-999	-999	-999	345624	399	-999	-999	-999
22/10/2021	C00065091	Hawkeye C Chip	DR		PPM	-999	-999	-999	3537	506	-999	-999	-999	42645	205	-999	-999	-999	278622	381	-999	-999	-999
22/10/2021	C00065092	Hawkeye C Chip	DR		PPM	-999	-999	-999	5463	450	-999	-999	-999	85053	249	-999	-999	-999	284343	356	-999	-999	-999
22/10/2021	C00065093	Hawkeye C Chip	DR		PPM	-999	-999	-999	5997	573	-999	-999	-999	76900	277	-999	-999	-999	245070	389	-999	-999	-999
22/10/2021	C00065094	Hawkeye C Chip	DR		PPM	-999	-999	-999	4475	566	-999	-999	-999	34679	199	-999	-999	-999	215607	347	-999	-999	-999
22/10/2021	C00065095	Hawkeye C Chip	DR		PPM	-999	-999	-999	5630	541	-999	-999	-999	68372	259	-999	-999	-999	198256	337	-999	-999	-999
22/10/2021	C00065096	Hawkeye C Chip	DR		PPM	-999	-999	-999	-99	1872	-999	-999	-999	14770	141	-999	-999	-999	417129	377	-999	-999	-999
22/10/2021	C00065097	Hawkeye C Chip	DR		PPM	-999	-999	-999	2990	427	-999	-999	-999	105904	271	-999	-999	-999	258236	339	-999	-999	-999
22/10/2021	C00065230	Hawkeye C Chip	DR		PPM	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999	-999
22/10/2021	C00065230	Hawkeye C Chip	DR		PPM	-999	-999	-999	7227	526	-999	-999	-999	12173	121	-999	-999	-999	114160	223	-999	-999	-999
22/10/2021	C00065231	Hawkeye C Chip	DR		PPM	-999	-999	-999	4915	877	-999	-999	-999	25139	221	-999	-999	-999	173907	428	-999	-999	-999
22/10/2021	C00065232	Hawkeye C Chip	DR		PPM	-999	-999	-999	3183	494	-999	-999	-999	10074	126	-999	-999	-999	406355	445	-999	-999	-999
22/10/2021	C00065233	Hawkeye C Chip	DR		PPM	-999	-999	-999	1685	507	-999	-999	-999	34613	191	-999	-999	-999	363462	436	-999	-999	-999
22/10/2021	C00065234	Hawkeye C Chip	DR		PPM	-999	-999	-999	-99	1916	-999	-999	-999	37947	181	-999	-999	-999	352689	331	-999	-999	-999
22/10/2021	C00065235	Hawkeye C Chip	DR		PPM	-999	-999	-999	5828	580	-999	-999	-999	4120	116	-999	-999	-999	431929	507	-999	-999	-999
22/10/2021	C00065236	Hawkeye C Chip	DR		PPM	-999	-999	-999	10603	640	-999	-999	-999	70327	278	-999	-999	-999	221834	384	-999	-999	-999
22/10/2021	Oreas24b	Hawkeye C Chip	DR	Oreas24b	PPM	-999	-999	-999	15488	528	-999	-999	-999	78906	257	-999	-999	-999	291406	396	-999	-999	-999
22/10/2021	Oreas503b	Hawkeye C Chip	DR	Oreas503b	PPM	-999	-999	-999	17042	569	-999	-999	-999	69192	255	-999	-999	-999	271721	401	-999	-999	-999

P Concentr	P Error1s	S Compour	S Compour	S Compour	S Concentr	S Error1s	K Compou	K Compou	K Compour	K Concentr	K Error1s	Ca Compo	Ca Compo	Ca Compo	Ca Concen	Ca Error1s	Ti Compou	Ti Compou	Ti Compou	Ti Concenti	Ti Error1s	V Compou	V Compou	V Compou	V Concentr
83	11	-999	-999	-999	126	16	-999	-999	-999	-99	84	-999	-999	-999	-99	78	-999	-999	-999	-99	92	-999	-999	-999	-99
469	14	-999	-999	-999	87	15	-999	-999	-999	41719	84	-999	-999	-999	54	15	-999	-999	-999	8615	75	-999	-999	-999	119
619	15	-999	-999	-999	-99	126	-999	-999	-999	40746	82	-999	-999	-999	117	15	-999	-999	-999	19884	106	-999	-999	-999	193
226	15	-999	-999	-999	144	21	-999	-999	-999	959	17	-999	-999	-999	199	10	-999	-999	-999	-99	140	-999	-999	-999	-99
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V Error1s	Cr Compou	Cr Compou	Cr Compou	Cr Concent	Cr Error1s	Mn Compo	Mn Compo	Mn Compo	Mn Concer	Mn Error1s	Fe Compou	Fe Compou	Fe Compou	Fe Concent	Fe Error1s	Co Compou	Co Compou	Co Compou	Co Concen	Co Error1s	Ni Compou	Ni Compou	Ni Compou	Ni Concent	Ni Error1s
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La Concent	La Error1s	Ce Compou	Ce Compou	Ce Compou	Ce Concen	Ce Error1s	Pr Compou	Pr Compou	Pr Compou	Pr Concent	Pr Error1s	Nd Compo	Nd Compo	Nd Compo	Nd Concen	Nd Error1s	W Compou	W Compou	W Compou	W Concent	W Error1s	Au Compo	Au Compo	Au Compo	Au Concen
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-999	-999	-999	629109	398
-999	-999	-999	581139	527
-999	-999	-999	555536	531
-999	-999	-999	516113	521
-999	-999	-999	558798	440
-999	-999	-999	988168	66
-999	-999	-999	565958	512
-999	-999	-999	532784	497
-999	-999	-999	530032	353
-999	-999	-999	571428	522
-999	-999	-999	516177	516
-999	-999	-999	505997	414
-999	-999	-999	570810	483
-999	-999	-999	513578	359
-999	-999	-999	541281	419
-999	-999	-999	464491	471
-999	-999	-999	502065	472
-999	-999	-999	544677	452
-999	-999	-999	638791	657
-999	-999	-999	515324	421
-999	-999	-999	473741	401
-999	-999	-999	514903	682
-999	-999	-999	544485	547
-999	-999	-999	539062	468
-999	-999	-999	652401	585
-999	-999	-999	592628	586
-999	-999	-999	621047	563
-999	-999	-999	520543	408
-999	-999	-999	656736	569
-999	-999	-999	567798	544
-999	-999	-999	520628	499
-999	-999	-999	507532	522
-999	-999	-999	632259	555
-999	-999	-999	649069	648
-999	-999	-999	541741	460
-999	-999	-999	618668	625
-999	-999	-999	564529	439
-999	-999	-999	622264	613
-999	-999	-999	771297	676
-999	-999	-999	656039	510
-999	-999	-999	551978	459
-999	-999	-999	627845	574
-999	-999	-999	597848	493
-999	-999	-999	572821	539
-999	-999	-999	526461	413
-999	-999	-999	623445	558
-999	-999	-999	554427	454

-999	-999	-999	524755	440
-999	-999	-999	761124	544
-999	-999	-999	517034	446
-999	-999	-999	574930	422
-999	-999	-999	688043	775
-999	-999	-999	788848	546
-999	-999	-999	773858	623
-999	-999	-999	690296	800
-999	-999	-999	734347	602
-999	-999	-999	611419	517
-999	-999	-999	485025	406
-999	-999	-999	592298	486
-999	-999	-999	756898	348
-999	-999	-999	617493	732
-999	-999	-999	852455	748
-999	-999	-999	638607	695
-999	-999	-999	520427	509
-999	-999	-999	591797	474
-999	-999	-999	626553	553
-999	-999	-999	620923	498
-999	-999	-999	624279	661
-999	-999	-999	613239	553
-999	-999	-999	517024	489
-999	-999	-999	611997	545
-999	-999	-999	579510	401
-999	-999	-999	633439	519
-999	-999	-999	646606	522
-999	-999	-999	669541	620
-999	-999	-999	582585	534
-999	-999	-999	603480	588
-999	-999	-999	577233	520
-999	-999	-999	559449	446
-999	-999	-999	639443	509
-999	-999	-999	581510	439
-999	-999	-999	607599	586
-999	-999	-999	460249	579
-999	-999	-999	528704	503
-999	-999	-999	506207	522
-999	-999	-999	824622	744
-999	-999	-999	658880	579
-999	-999	-999	602223	642
-999	-999	-999	611751	684
-999	-999	-999	683898	782
-999	-999	-999	811852	757
-999	-999	-999	753651	695
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-999	-999	-999	788328	574
-999	-999	-999	820989	750
-999	-999	-999	731537	639
-999	-999	-999	649777	548
-999	-999	-999	638661	711
-999	-999	-999	566584	686
-999	-999	-999	535876	680
-999	-999	-999	492208	714
-999	-999	-999	548958	431
-999	-999	-999	-99	0
-999	-999	-999	633011	519
-999	-999	-999	652712	613
-999	-999	-999	538318	512
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-999	-999	-999	671011	631
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-999	-999	-999	616138	517
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-999	-999	-999	554780	419

-999	-999	-999	614496	696
-999	-999	-999	697195	543
-999	-999	-999	582697	606
-999	-999	-999	535672	445
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-999	-999	-999	552338	632
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-999	-999	-999	647004	738
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-999	-999	-999	566722	467
-999	-999	-999	614710	456
-999	-999	-999	545511	437
-999	-999	-999	588748	506
-999	-999	-999	641343	545
-999	-999	-999	680977	518
-999	-999	-999	578948	668
-999	-999	-999	554847	585
-999	-999	-999	545381	436
-999	-999	-999	522549	498
-999	-999	-999	510297	517
-999	-999	-999	468023	397
-999	-999	-999	743939	735
-999	-999	-999	629103	570
-999	-999	-999	581779	498
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-999	-999	-999	719578	541
-999	-999	-999	628318	513
-999	-999	-999	559341	380
-999	-999	-999	552794	443
-999	-999	-999	-99	525129
-999	-999	-999	793377	491
-999	-999	-999	693588	770
-999	-999	-999	564821	488
-999	-999	-999	570502	498
-999	-999	-999	586226	340
-999	-999	-999	556133	548
-999	-999	-999	634551	582
-999	-999	-999	518682	496
-999	-999	-999	505021	522

APPENDIX D – RPAS ORTHOIMAGERY AND DSM/DTM PROCESSING REPORT

Quality Report

Generated with Pix4Dmapper version 4.6.4

Important: Click on the different icons for:

Help to analyze the results in the Quality Report

Additional information about the sections

Click here for additional tips to analyze the Quality Report

Summary

Project	20211028_HWG_SCK
Processed	2021-10-28 20:19:51
Camera Model Name(s)	FC220_4.7_4000x3000 (RGB)
Average Ground Sampling Distance (GSD)	7.49 cm / 2.95 in
Area Covered	2.131 km^2 / 213.1147 ha / 0.82 sq. mi. / 526.8906 acres
Time for Initial Processing (without report)	05h:10m:25s

Quality Check

Images	median of 38894 keypoints per image	✓
Dataset	1914 out of 1914 images calibrated (100%), all images enabled	✓
Camera Optimization	1.04% relative difference between initial and optimized internal camera parameters	✓
Matching	median of 11853.5 matches per calibrated image	✓
Georeferencing	yes, no 3D GCP	⚠

Preview

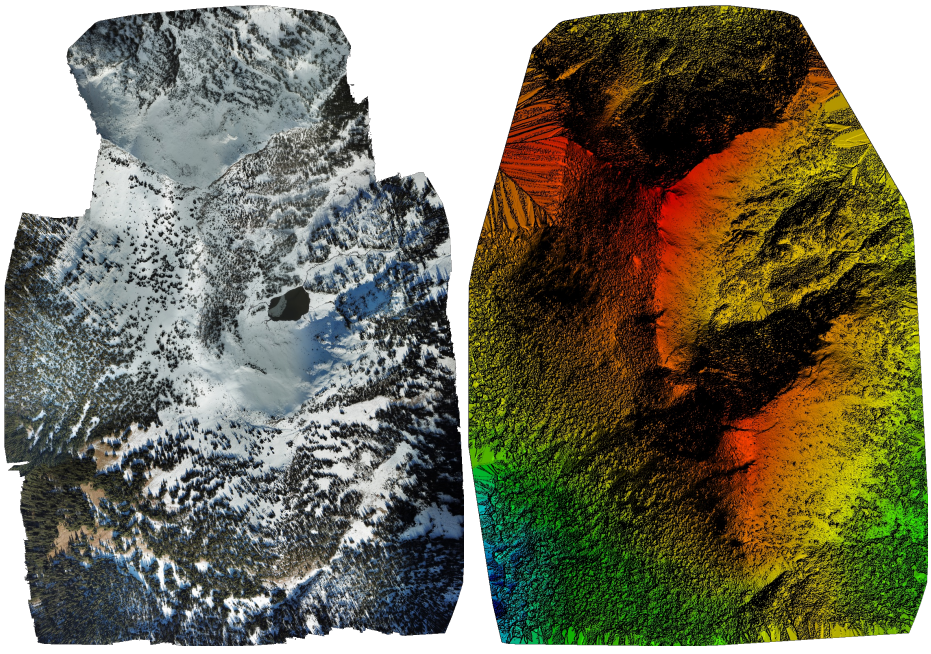


Figure 1: Orthomosaic and the corresponding sparse Digital Surface Model (DSM) before densification.

Calibration Details

Number of Calibrated Images	1914 out of 1914
Number of Geolocated Images	1914 out of 1914

Initial Image Positions

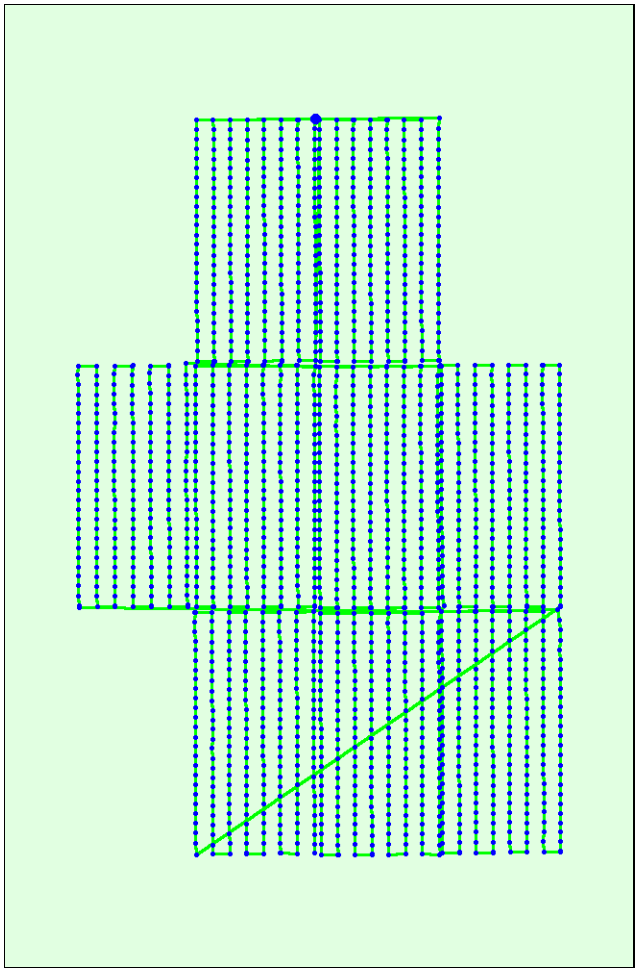


Figure 2: Top view of the initial image position. The green line follows the position of the images in time starting from the large blue dot.

Computed Image/GCPs/Manual Tie Points Positions

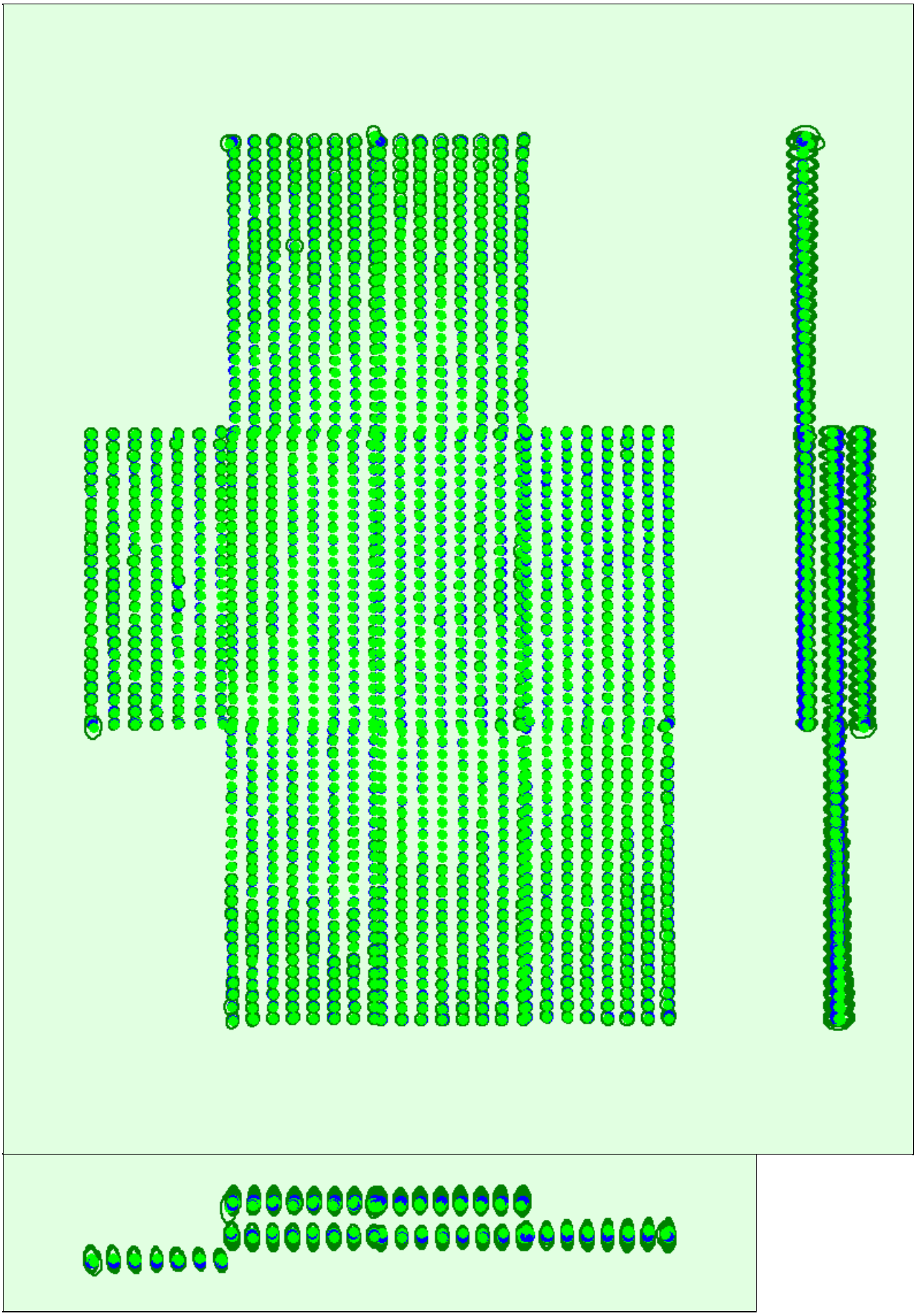


Figure 3: Offset between initial (blue dots) and computed (green dots) image positions as well as the offset between the GCPs initial positions (blue crosses) and their computed positions (green crosses) in the top-view (XY plane), front-view (XZ plane), and side-view (YZ plane). Dark green ellipses indicate the absolute position uncertainty of the bundle block adjustment result.

Absolute camera position and orientation uncertainties

	X [m]	Y [m]	Z [m]	Omega [degree]	Phi [degree]	Kappa [degree]
Mean	0.159	0.162	0.331	0.037	0.042	0.015
Sigma	0.027	0.028	0.066	0.005	0.003	0.002

Overlap

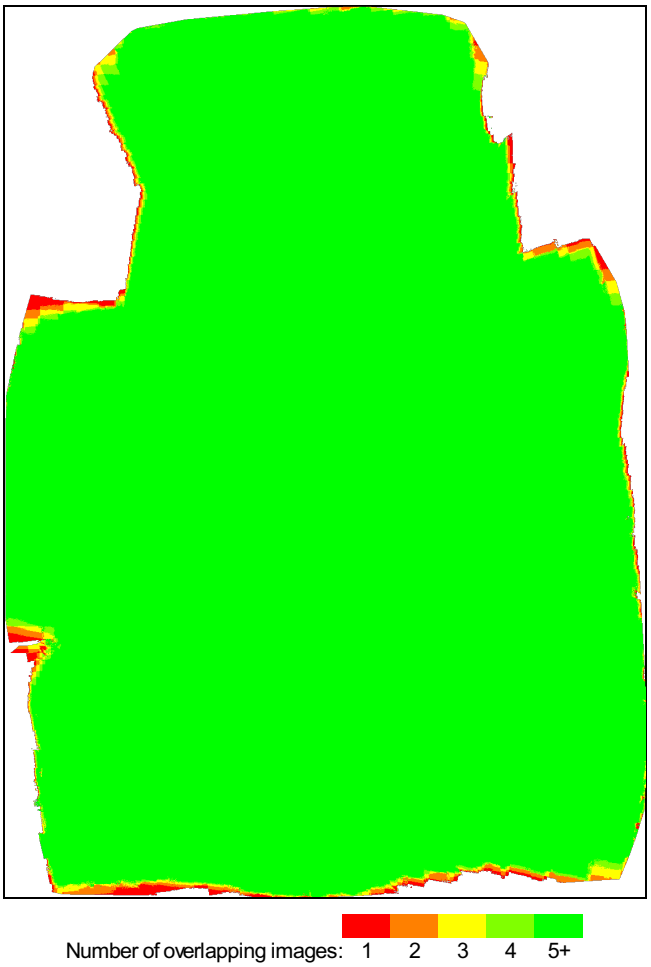


Figure 4: Number of overlapping images computed for each pixel of the orthomosaic.
Red and yellow areas indicate low overlap for which poor results may be generated. Green areas indicate an overlap of over 5 images for every pixel. Good quality results will be generated as long as the number of keypoint matches is also sufficient for these areas (see Figure 5 for keypoint matches).

Bundle Block Adjustment Details

Number of 2D Keypoint Observations for Bundle Block Adjustment	23040760
Number of 3D Points for Bundle Block Adjustment	7038141
Mean Reprojection Error [pixels]	0.198

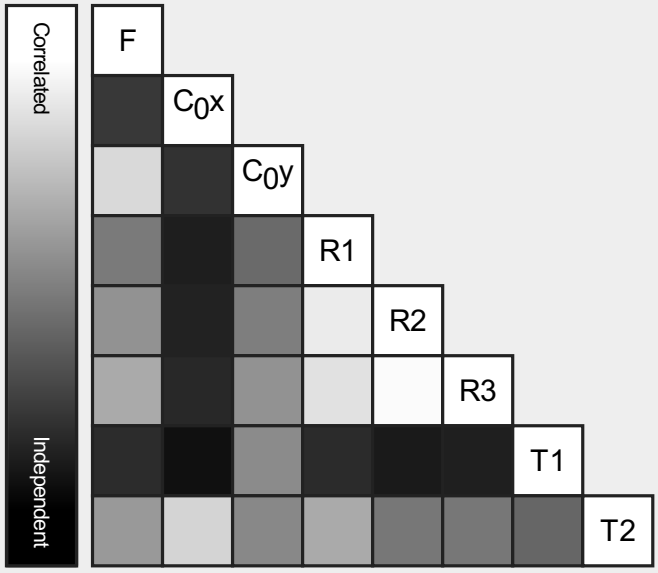
Internal Camera Parameters

FC220_4.7_4000x3000 (RGB). Sensor Dimensions: 6.327 [mm] x 4.745 [mm]

EXIF ID: FC220_4.7_4000x3000

	Focal Length	Principal Point x	Principal Point y	R1	R2	R3	T1	T2
Initial Values	3073.410 [pixel] 4.861 [mm]	1917.790 [pixel] 3.033 [mm]	1485.800 [pixel] 2.350 [mm]	0.033	-0.086	0.078	0.000	-0.001

Optimized Values	3041.419 [pixel] 4.811 [mm]	1978.180 [pixel] 3.129 [mm]	1499.556 [pixel] 2.372 [mm]	0.065	-0.161	0.158	-0.001	0.000
Uncertainties (Sigma)	2.137 [pixel] 0.003 [mm]	0.085 [pixel] 0.000 [mm]	0.115 [pixel] 0.000 [mm]	0.000	0.001	0.001	0.000	0.000



The correlation between camera internal parameters determined by the bundle adjustment. White indicates a full correlation between the parameters, ie. any change in one can be fully compensated by the other. Black indicates that the parameter is completely independent, and is not affected by other parameters.

The number of Automatic Tie Points (ATPs) per pixel, averaged over all images of the camera model, is color coded between black and white. White indicates that, on average, more than 16 ATPs have been extracted at the pixel location. Black indicates that, on average, 0 ATPs have been extracted at the pixel location. Click on the image to the see the average direction and magnitude of the re-projection error for each pixel. Note that the vectors are scaled for better visualization. The scale bar indicates the magnitude of 1 pixel error.

2D Keypoints Table

	Number of 2D Keypoints per Image	Number of Matched 2D Keypoints per Image
Median	38894	11854
Min	18779	669
Max	64089	31535
Mean	39150	12038

3D Points from 2D Keypoint Matches

	Number of 3D Points Observed
In 2 Images	3917718
In 3 Images	1429288
In 4 Images	659326
In 5 Images	350115
In 6 Images	202634
In 7 Images	127575
In 8 Images	84092
In 9 Images	58458
In 10 Images	42164
In 11 Images	31027
In 12 Images	23968
In 13 Images	18275
In 14 Images	14650
In 15 Images	11926
In 16 Images	9736
In 17 Images	8098
In 18 Images	6728

In 19 Images	5552
In 20 Images	4822
In 21 Images	4161
In 22 Images	3359
In 23 Images	2908
In 24 Images	2556
In 25 Images	2239
In 26 Images	1960
In 27 Images	1697
In 28 Images	1426
In 29 Images	1269
In 30 Images	1074
In 31 Images	1001
In 32 Images	839
In 33 Images	766
In 34 Images	661
In 35 Images	610
In 36 Images	501
In 37 Images	439
In 38 Images	395
In 39 Images	363
In 40 Images	303
In 41 Images	307
In 42 Images	248
In 43 Images	233
In 44 Images	216
In 45 Images	211
In 46 Images	177
In 47 Images	182
In 48 Images	151
In 49 Images	153
In 50 Images	132
In 51 Images	135
In 52 Images	100
In 53 Images	107
In 54 Images	96
In 55 Images	76
In 56 Images	81
In 57 Images	75
In 58 Images	67
In 59 Images	60
In 60 Images	44
In 61 Images	44
In 62 Images	51
In 63 Images	46
In 64 Images	36
In 65 Images	27
In 66 Images	30
In 67 Images	27
In 68 Images	32
In 69 Images	31
In 70 Images	28
In 71 Images	26
In 72 Images	19
In 73 Images	19
In 74 Images	18
In 75 Images	20
In 76 Images	13
In 77 Images	13

In 78 Images	12
In 79 Images	15
In 80 Images	12
In 81 Images	9
In 82 Images	7
In 83 Images	16
In 84 Images	5
In 85 Images	6
In 86 Images	8
In 87 Images	6
In 88 Images	5
In 89 Images	1
In 90 Images	3
In 91 Images	3
In 92 Images	1
In 93 Images	2
In 94 Images	1
In 95 Images	5
In 96 Images	1
In 97 Images	3
In 98 Images	2
In 102 Images	2
In 104 Images	1
In 106 Images	2
In 107 Images	1
In 108 Images	2

2D Keypoint Matches

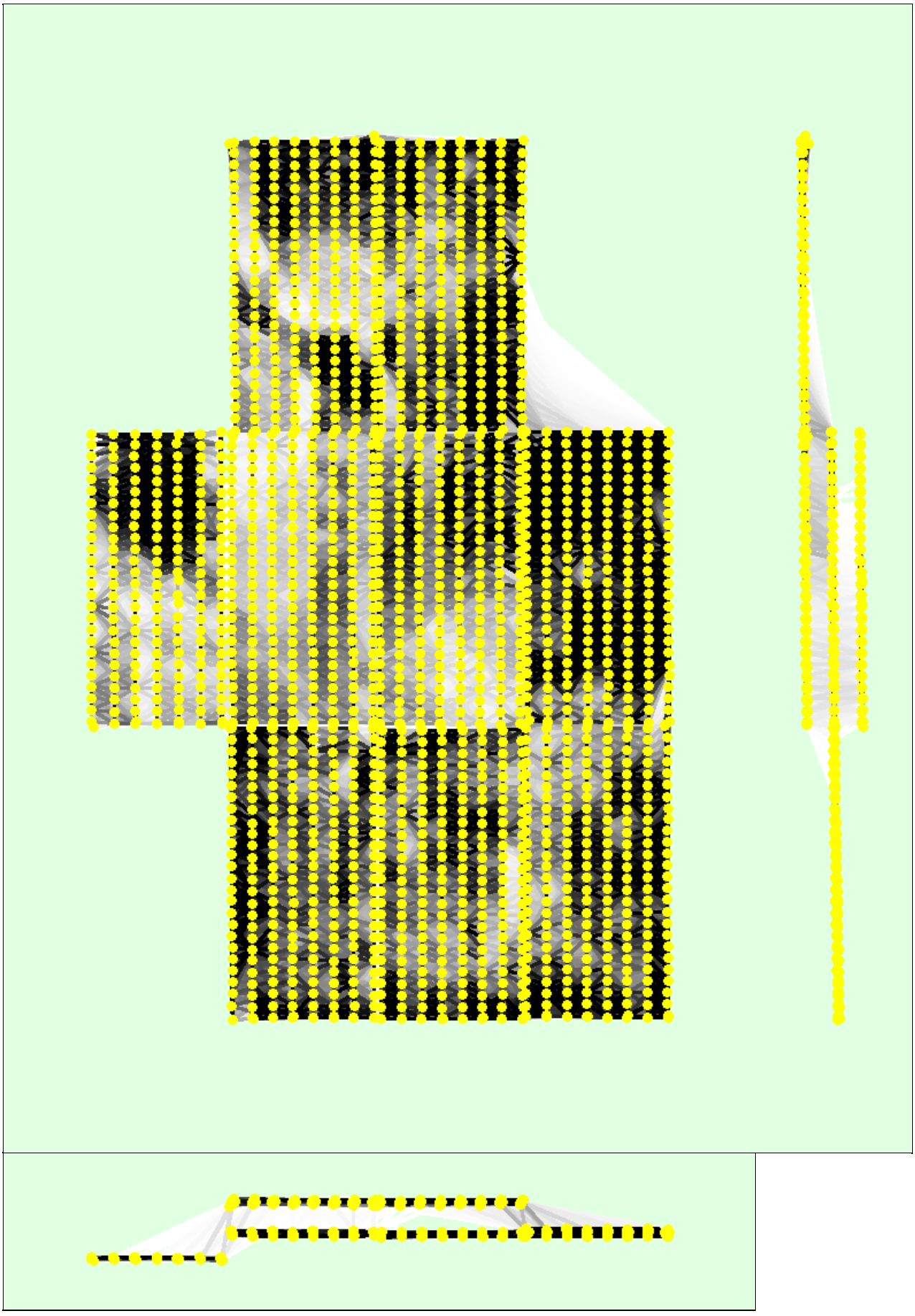


Figure 5: Computed image positions with links between matched images. The darkness of the links indicates the number of matched 2D keypoints between the images. Bright links indicate weak links and require manual tie points or more images.

Geolocation Details

Absolute Geolocation Variance

Min Error [m]	Max Error [m]	Geolocation Error X [%]	Geolocation Error Y [%]	Geolocation Error Z [%]
-	-15.00	0.00	0.00	0.00
-15.00	-12.00	0.00	0.00	0.00
-12.00	-9.00	0.00	0.05	3.97
-9.00	-6.00	0.00	0.05	10.71
-6.00	-3.00	0.00	4.34	13.32
-3.00	0.00	48.69	39.24	16.25
0.00	3.00	51.15	56.11	23.77
3.00	6.00	0.10	0.10	23.46
6.00	9.00	0.00	0.10	8.41
9.00	12.00	0.05	0.00	0.05
12.00	15.00	0.00	0.00	0.05
15.00	-	0.00	0.00	0.00
Mean [m]		-0.000000	0.000000	-0.000000
Sigma [m]		1.193080	1.457167	4.777336
RMS Error [m]		1.193080	1.457167	4.777336

Min Error and Max Error represent geolocation error intervals between -1.5 and 1.5 times the maximum accuracy of all the images. Columns X, Y, Z show the percentage of images with geolocation errors within the predefined error intervals. The geolocation error is the difference between the initial and computed image positions. Note that the image geolocation errors do not correspond to the accuracy of the observed 3D points.

Relative Geolocation Variance

Relative Geolocation Error	Images X [%]	Images Y [%]	Images Z [%]
[-1.00, 1.00]	99.90	99.74	98.07
[-2.00, 2.00]	99.95	100.00	100.00
[-3.00, 3.00]	100.00	100.00	100.00
Mean of Geolocation Accuracy [m]	5.000000	5.000000	10.000000
Sigma of Geolocation Accuracy [m]	0.000000	0.000000	0.000000

Images X, Y, Z represent the percentage of images with a relative geolocation error in X, Y, Z.

Geolocation Orientational Variance	RMS [degree]
Omega	94.817
Phi	0.596
Kappa	91.807

Geolocation RMS error of the orientation angles given by the difference between the initial and computed image orientation angles.

Initial Processing Details

System Information

Hardware	CPU: Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz RAM: 16GB GPU: Intel(R) UHD Graphics 620 (Driver: 27.20.100.8478)
Operating System	Windows 10 Home, 64-bit

Coordinate Systems

Image Coordinate System	WGS 84 (EGM96 Geoid)
Output Coordinate System	NAD83 / UTM zone 10N (EGM96 Geoid)

Processing Options

Detected Template	3D Maps
Keypoints Image Scale	Full, Image Scale: 1
Advanced: Matching Image Pairs	Aerial Grid or Corridor
Advanced: Matching Strategy	Use Geometrically Verified Matching: no
Advanced: Keypoint Extraction	Targeted Number of Keypoints: Automatic
Advanced: Calibration	Calibration Method: Standard Internal Parameters Optimization: All External Parameters Optimization: All Rematch: Auto, no

Point Cloud Densification details

Processing Options

Image Scale	multiscale, 1/2 (Half image size, Default)
Point Density	Optimal
Minimum Number of Matches	3
3D Textured Mesh Generation	yes
3D Textured Mesh Settings:	Resolution: Medium Resolution (default) Color Balancing: no
LOD	Generated: no
Advanced: 3D Textured Mesh Settings	Sample Density Divider: 1
Advanced: Image Groups	group1
Advanced: Use Processing Area	yes
Advanced: Use Annotations	yes
Time for Point Cloud Densification	05h:39m:28s
Time for Point Cloud Classification	NA
Time for 3D Textured Mesh Generation	46m:46s

Results

Number of Processed Clusters	46
Number of Generated Tiles	4
Number of 3D Densified Points	95837856
Average Density (per m^3)	10.77

DSM, Orthomosaic and Index Details

Processing Options

DSM and Orthomosaic Resolution	1 x GSD (7.49 [cm/pixel])
DSM Filters	Noise Filtering: yes Surface Smoothing: yes, Type: Sharp
Raster DSM	Generated: yes Method: Inverse Distance Weighting Merge Tiles: yes
Orthomosaic	Generated: yes Merge Tiles: yes GeoTIFF Without Transparency: no Google Maps Tiles and KML: no
Raster DTM	Generated: yes Merge Tiles: yes

DTM Resolution	5 x GSD (7.49 [cm/pixel])
Time for DSM Generation	02h:28m:56s
Time for Orthomosaic Generation	03h:04m:43s
Time for DTM Generation	14m:58s
Time for Contour Lines Generation	00s
Time for Reflectance Map Generation	00s
Time for Index Map Generation	00s

APPENDIX E – 1:1000 SCALE OUTCROP MAPS

617700 617800 617900 618000 618100 618200 618300 618400 618500 618600 618700 618800 618900 619000 619100 619200 619300 619400 619500 619600

5852500 5852400 5852300 5852200 5852100 5852000 5851900 5851800 5851700 5851600 5851500 5851400

2 Aces West

0 100 200 300 400 m

Feb 28, 2022

NAD 63 Zn 10N

Map Legend

Outcrop - Primary Lithology Structures

- Andesite - AND
- Gneiss (GNS)
- Gossan - GOS
- Gouge - GG
- Marble - MAR
- Phyllite - PHY
- Quartz - QTZ
- Quartz Carbonate - QCB
- Quartzite - QZT
- Schist - SCH
- Tuff - TUF
- Volcanic - VOL

- Fault
- J1 - Jointing
- S1 - Foliation
- V0 - Veining
- S0 - Bedding

619500 619600 619700 619800 619900 620000 620100 620200 620300 620400 620500 620600 620700 620800 620900 621000 621100 621200 621300

5849600 5849500 5849400 5849300 5849200 5849100 5849000 5848900 5848800 5848700 5848600 5848500 5848400

2 Axes West

0 100 200 300 400 m

Feb 28, 2022

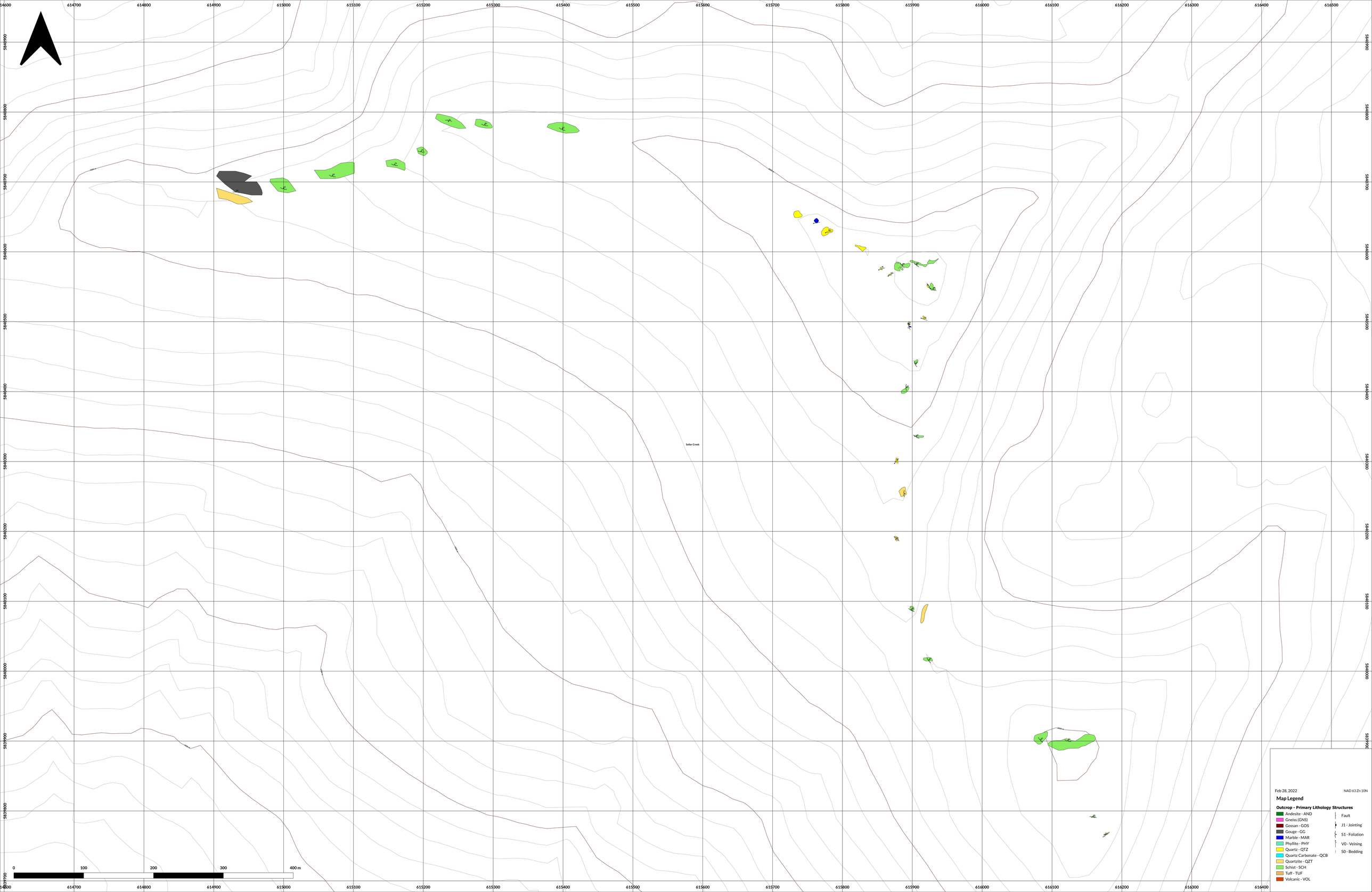
NAD 63 Zn 10N

Map Legend

Outcrop - Primary Lithology Structures

- Andesite - AND
- Gneiss (GNS)
- Gossan - GOS
- Gouge - GG
- Marble - MAR
- Phyllite - PHY
- Quartz - QTZ
- Quartz Carbonate - QCB
- Quartzite - QZT
- Schist - SCH
- Tuff - TUF
- Volcanic - VOL

- Fault
- J1 - Jointing
- S1 - Foliation
- V0 - Veining
- S0 - Bedding


614600
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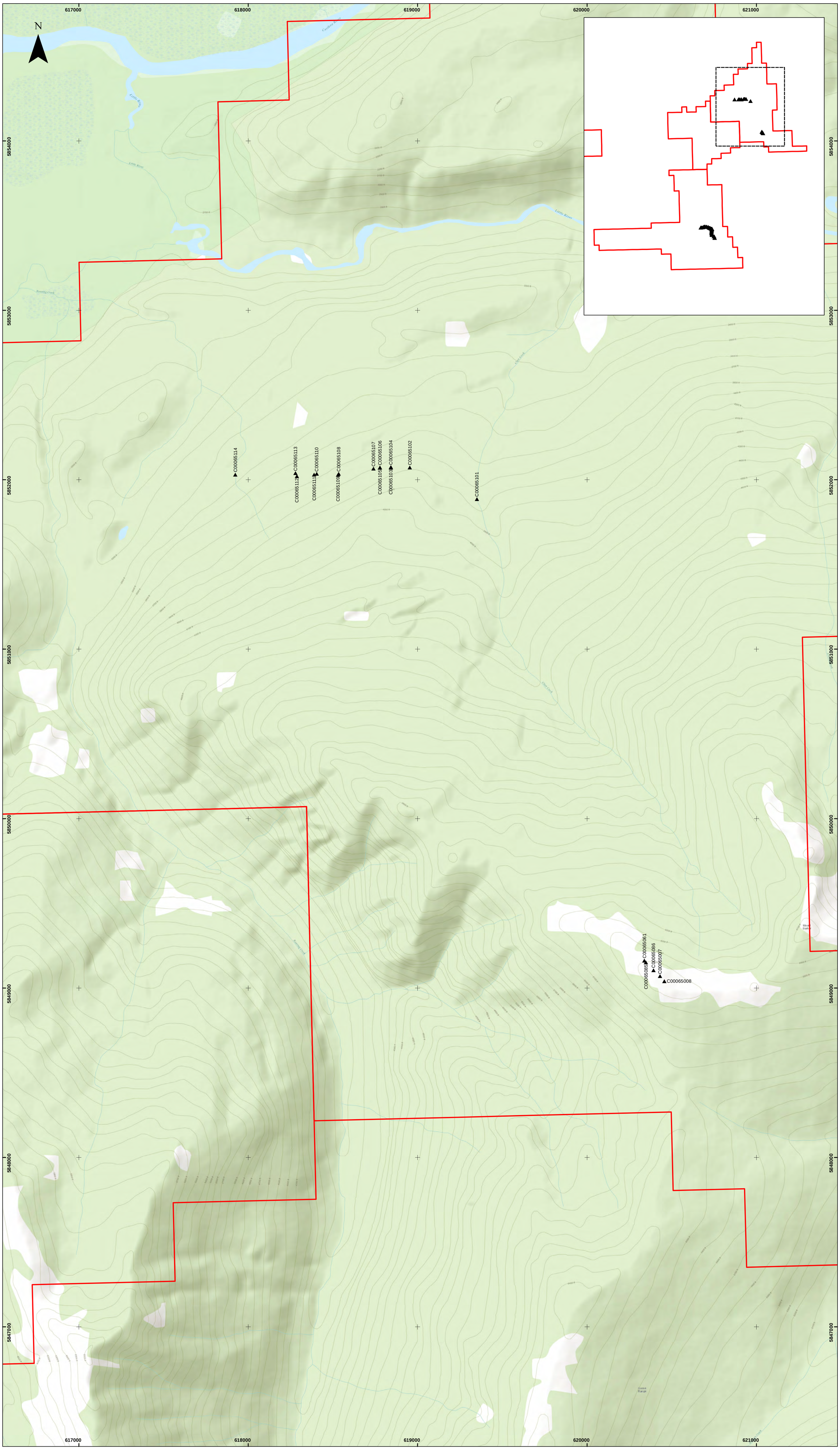
5843700
5843800
5843900
5844000
5844100
5844200
5844300
5844400
5844500
5844600
5844700
5844800
5844900
5845000
Seller Creek
0
100
200
300
400 m
Feb 28, 2022
NAD 63 Zn 10N
Map Legend
Outcrop - Primary Lithology Structures
Andesite - AND
Gneiss (GNS)
Gossan - GOS
Gouge - GG
Marble - MAR
Phyllite - PHY
Quartz - QTZ
Quartz Carbonate - QCB
Quartzite - QZT
Schist - SCH
Tuff - TUF
Volcanic - VOL
Fault
J1 - Jointing
S1 - Foliation
V0 - Veining
S0 - Bedding

APPENDIX F – ROCK SAMPLE LOCATION MAPS



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2022 Rock Sample Locations

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2 Aces West Property
2022 Rock Sample Location Map

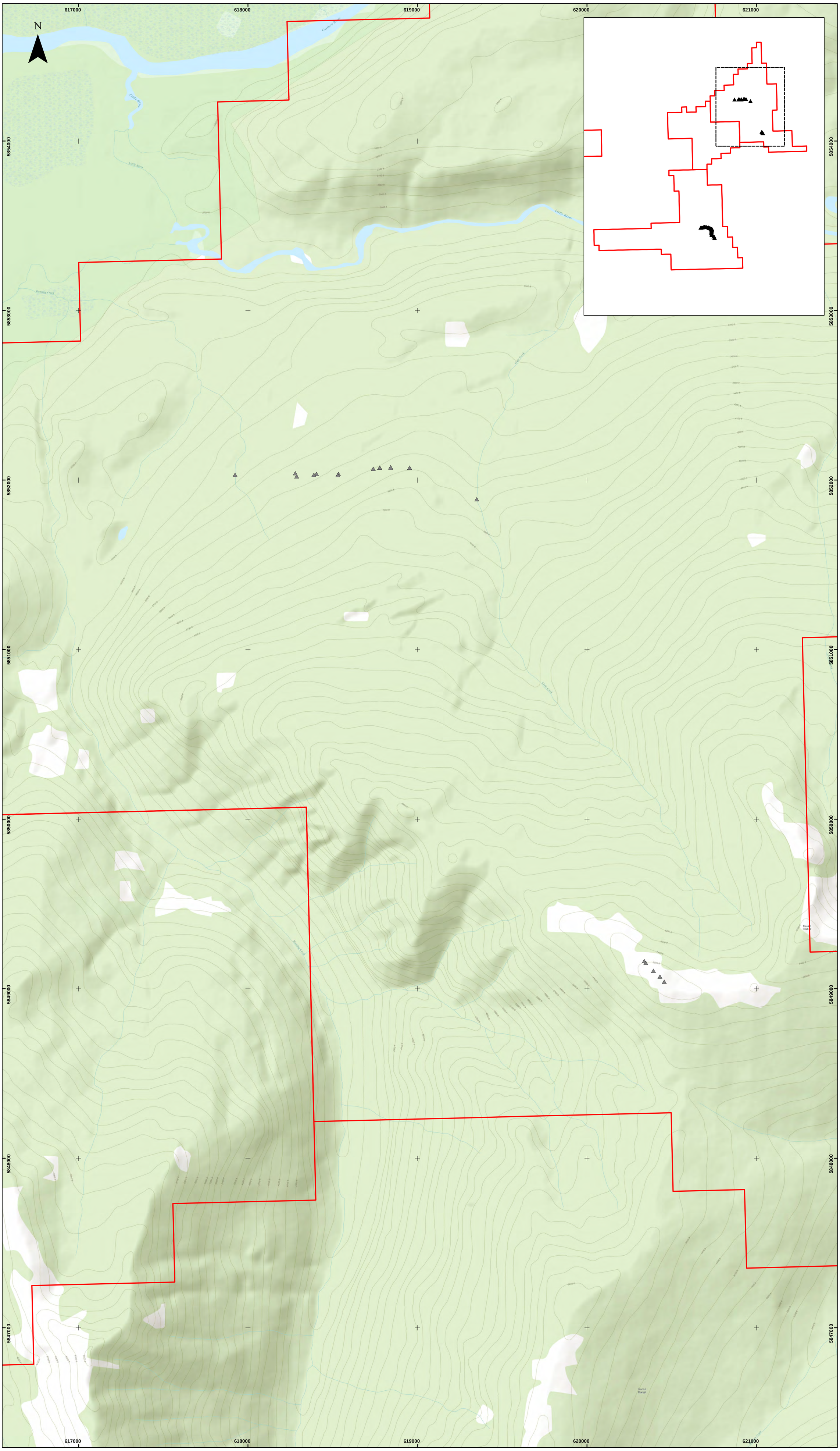
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Silver Results - Lab Results

< Below Detection Limit (-99)

4 ppm Ag

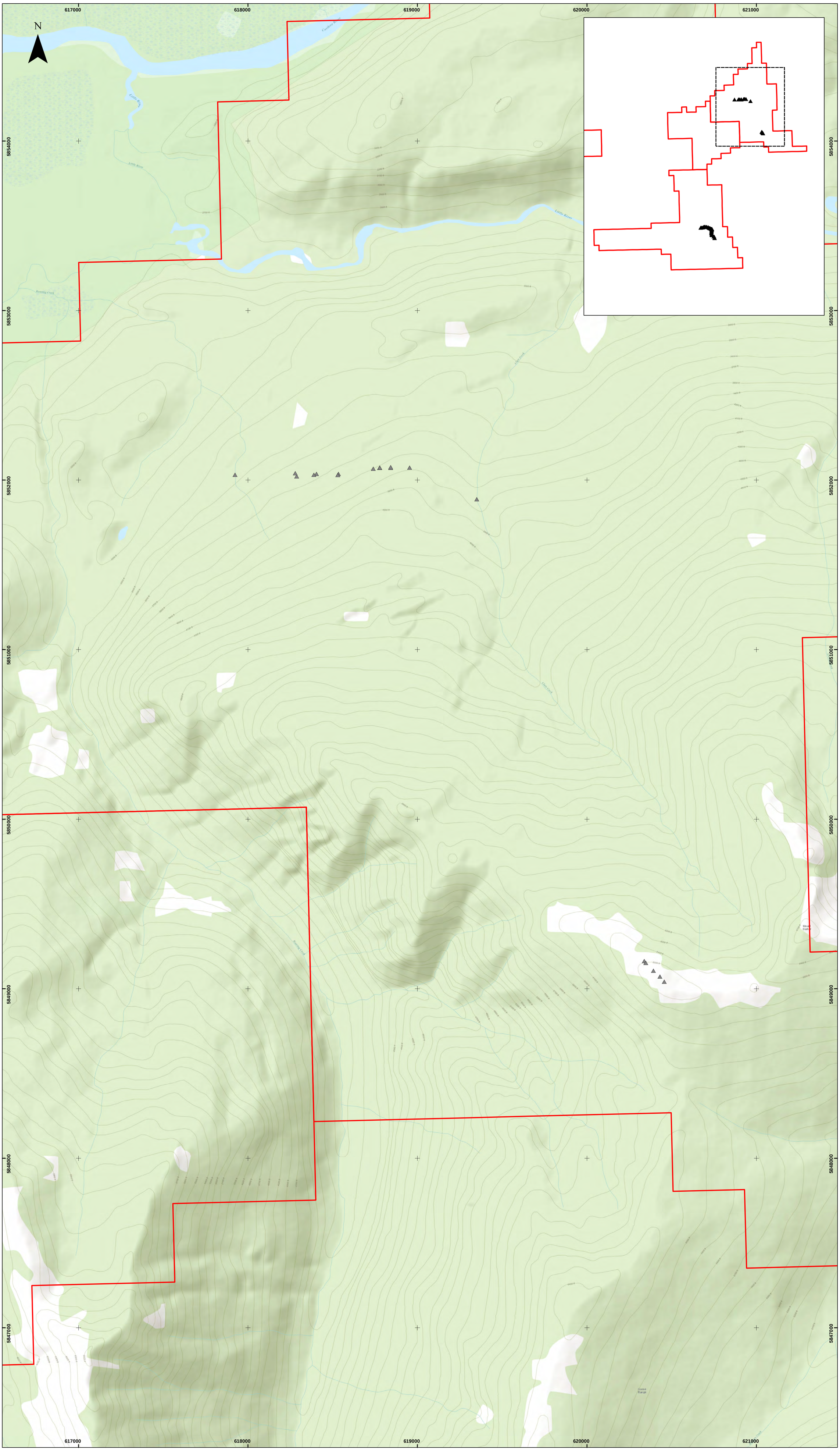
2 Aces West Property
2022 Rock Sample
Silver Results - Lab Results

0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N
Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Gold Results - Lab Results

< Lower Detection Limit (-99)

6 ppb Au

7 ppb Au

11 ppb Au

2 Aces West Property
2022 Rock Sample
Gold Results - Lab Results

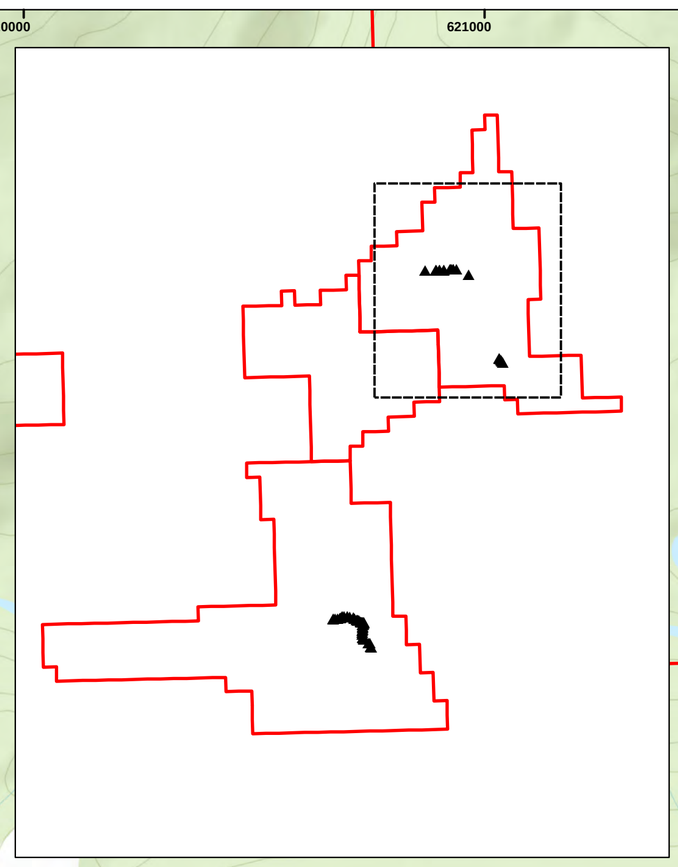
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

617000 618000 619000 620000 621000

5854000 5853000 5852000 5851000 5850000 5849000 5848000 5847000

N

Little River Caribou River Roaring Creek Clay Creek Goose Range

17 2 11 2 13 2 7 6 7 10 18 3 9 2 -99 1 1 -99

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Cobalt Results - Lab Results

< Detection Limit (-99)

Detection Limit - 4 ppm Co

4 - 8 ppm Co

8 - 12 ppm Co

> 12 ppm Co

2 Aces West Property
2022 Rock Sample
Cobalt Results - Lab Results

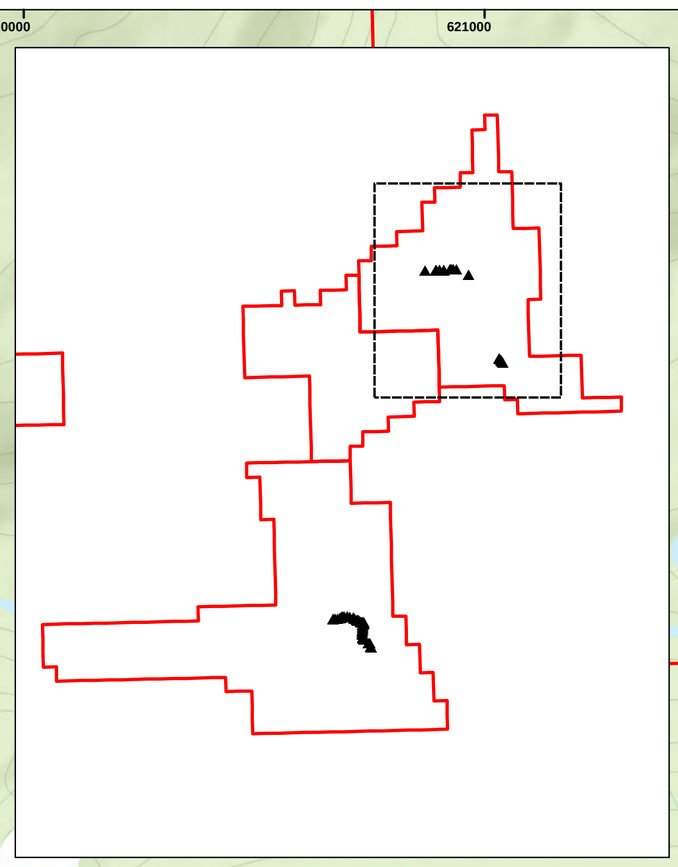
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

617000 618000 619000 620000 621000

5854000 5853000 5852000 5851000 5850000 5849000 5848000 5847000

N

Little River

Caribou River

Roaring Creek

Clay Creek

30.2

7.8 15.6 8.9 13 15.2 6.2

17.3 14.6 15.7 28.7 4.2 12.8

6.4

3.9 1.4 4.2 2.2 3.2

Goose Range

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Copper Results - Lab Results

- < Detection Limit (-99)
- Detection Limit - 15 ppm Cu
- 15 - 30 ppm Cu
- 30 - 80 ppm Cu
- > 80 ppm Cu

2 Aces West Property 2022 Rock Sample Copper Results - Lab Results

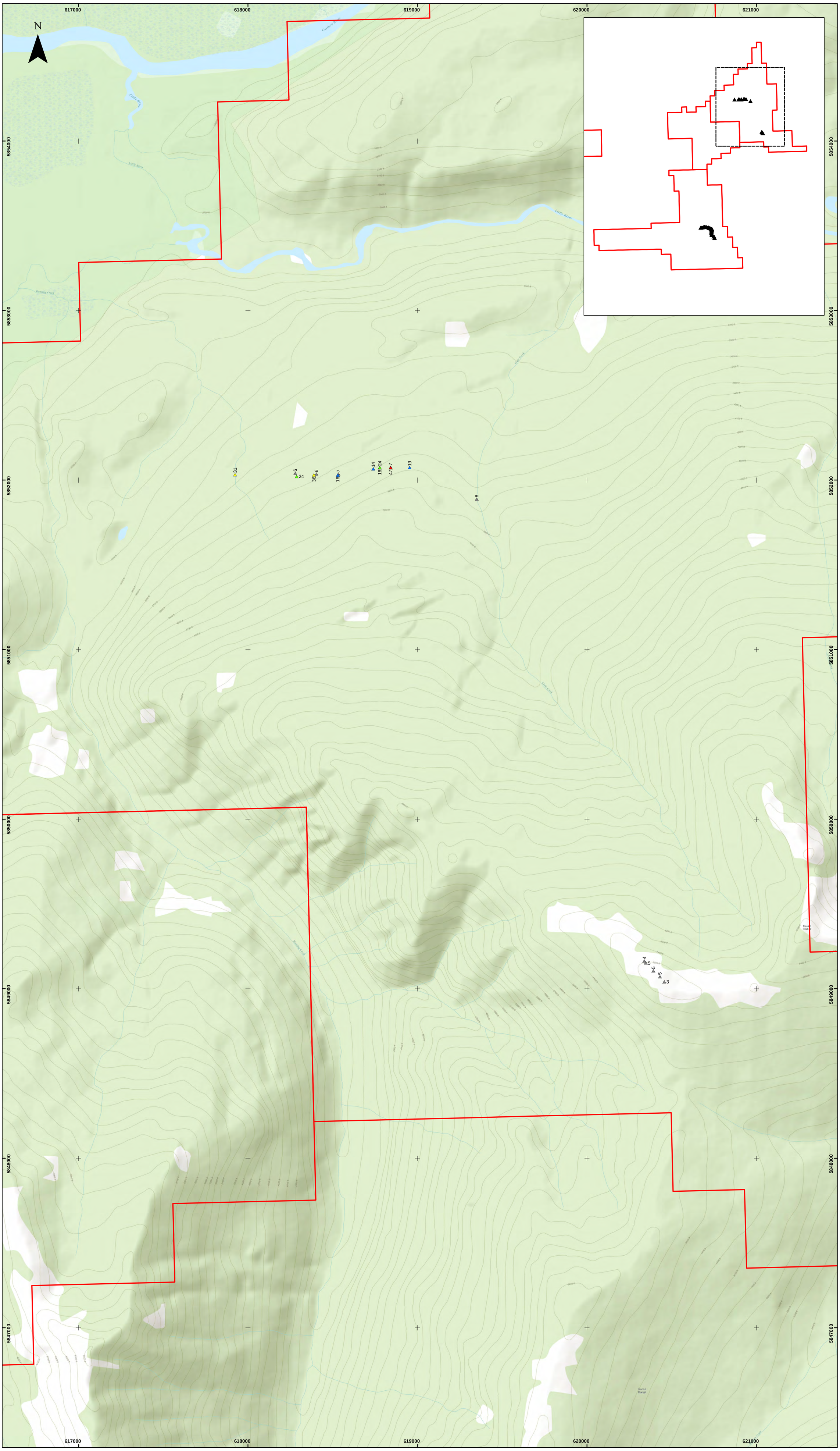
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Nickel Results - Lab Results

< 10 ppm Ni

10 - 20 ppm Ni

20 - 30 ppm Ni

30 - 40 ppm Ni

> 40 ppm Ni

2 Aces West Property
2022 Rock Sample
Nickel Results - Lab Results

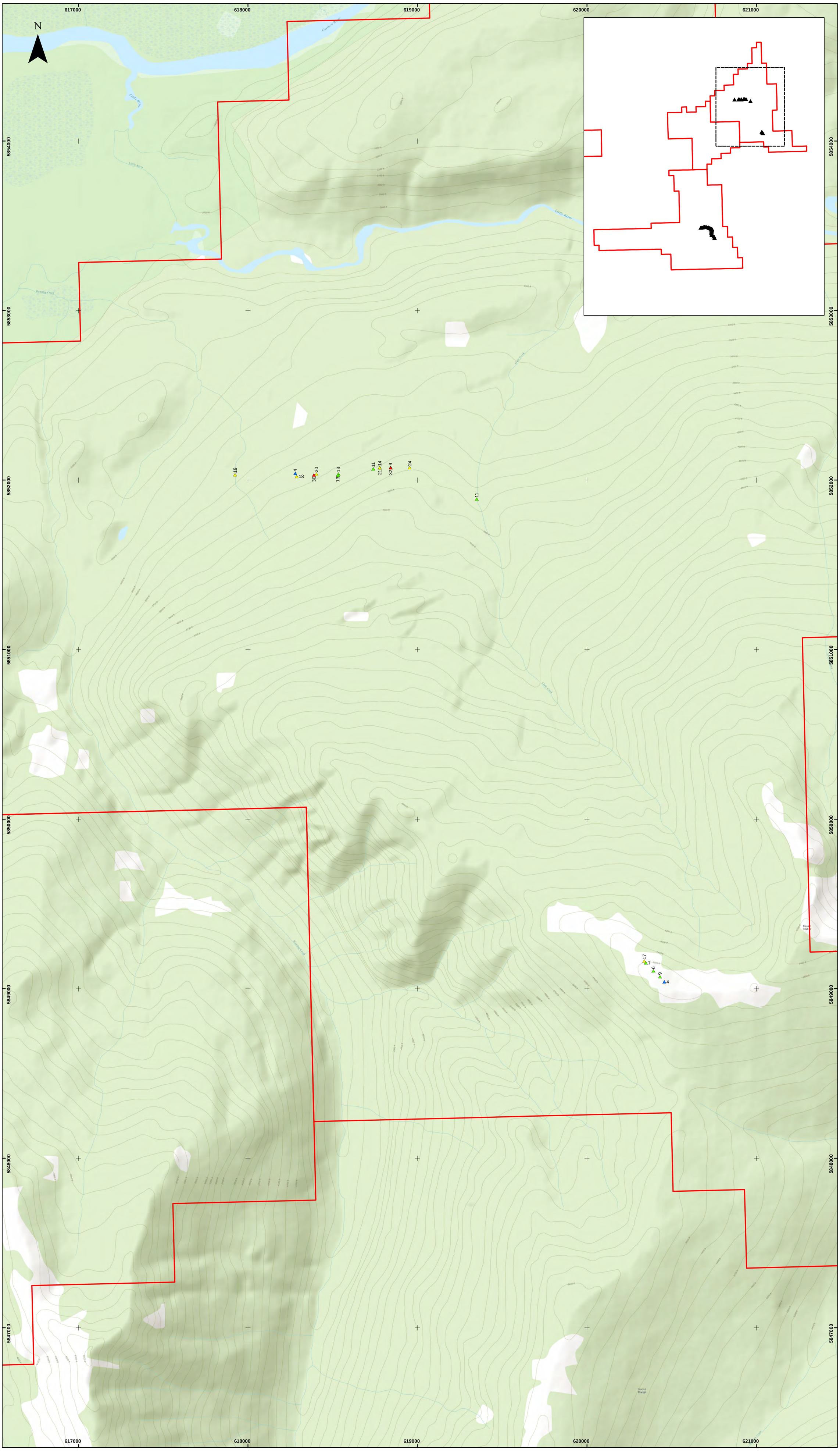
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Lead Results - Lab Results

< Detection Limit (-99)

Detection Limit - 5 ppm Pb

5 - 15 ppm Pb

15 - 25 ppm Pb

> 25 ppm Pb

2 Aces West Property
2022 Rock Sample
Lead Results - Lab Results

0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22

HAWKEYE

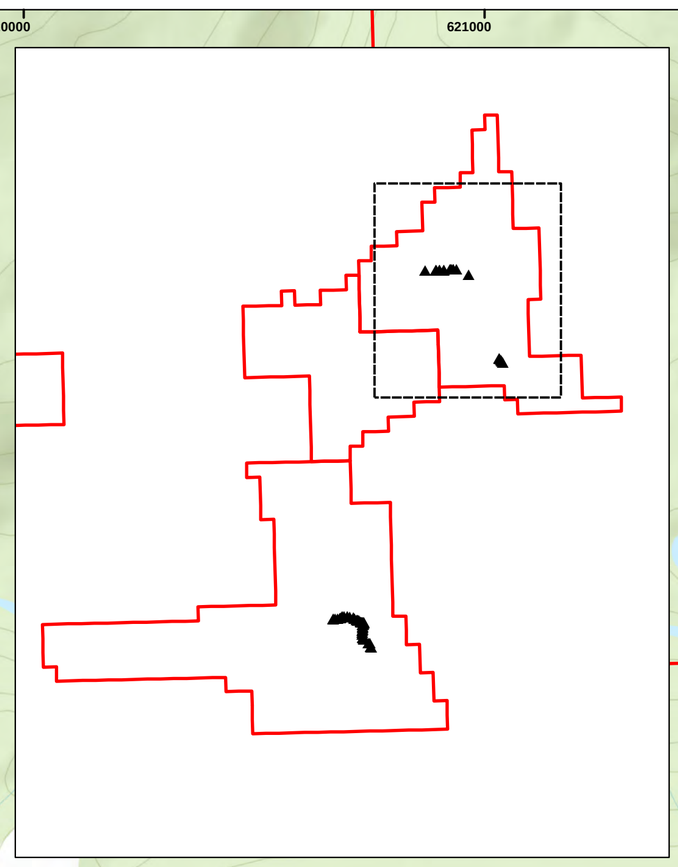
Prepared by:

SGDS HIVE

N

617000 618000 619000 620000 621000

5854000 5853000 5852000 5851000 5850000 5849000 5848000 5847000



106 5 65 124 11 38 16 30 28 78 125 10 58 16 13 12 18 10 12

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Zinc Results - Lab Results

< Detection Limit

Detection Limit - 30 ppm Zn

30 - 70 ppm Zn

70 - 150 ppm Zn

> 150 ppm Zn

2 Aces West Property
2022 Rock Sample
Zinc Results - Lab Results

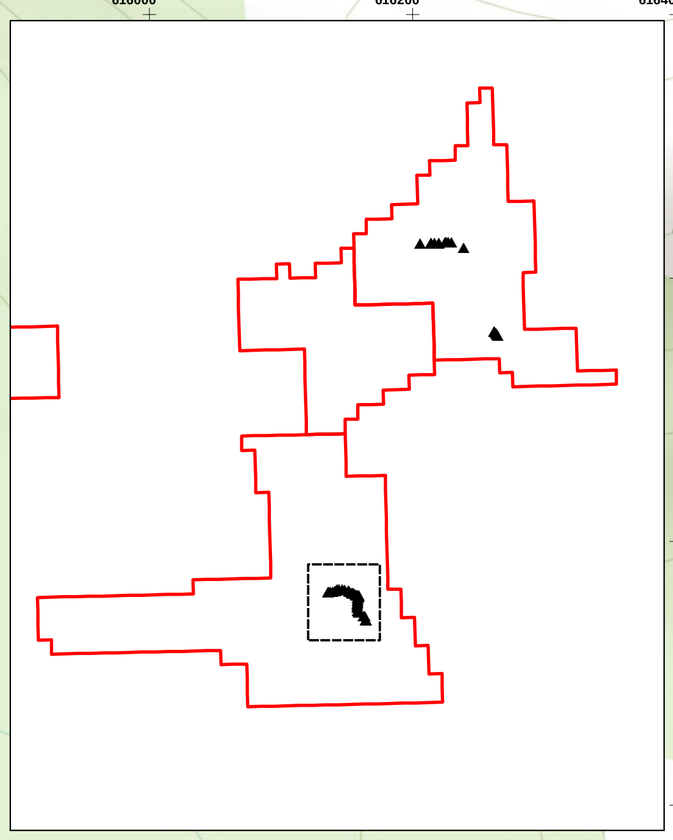
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

C00065096
C00065095
C00065094
C00065092
C00065091
C00065090
C00065089
C00065087
C00065088
C00065235
C00065234
C00065232
C00065231
C00065210
C00065209
C00065208
C00065207
C00065205
C00065204
C00065203
C00065202
C00065206
C00065214
C00065217
C00065219
C00065220
C00065221
C00065222
C00065223
C00065226
C00065225
C00065227
C00065228
C00065236
C00065233
C00065230
C00065212
C00065215
C00065216
C00065218
C00065224
C00065097

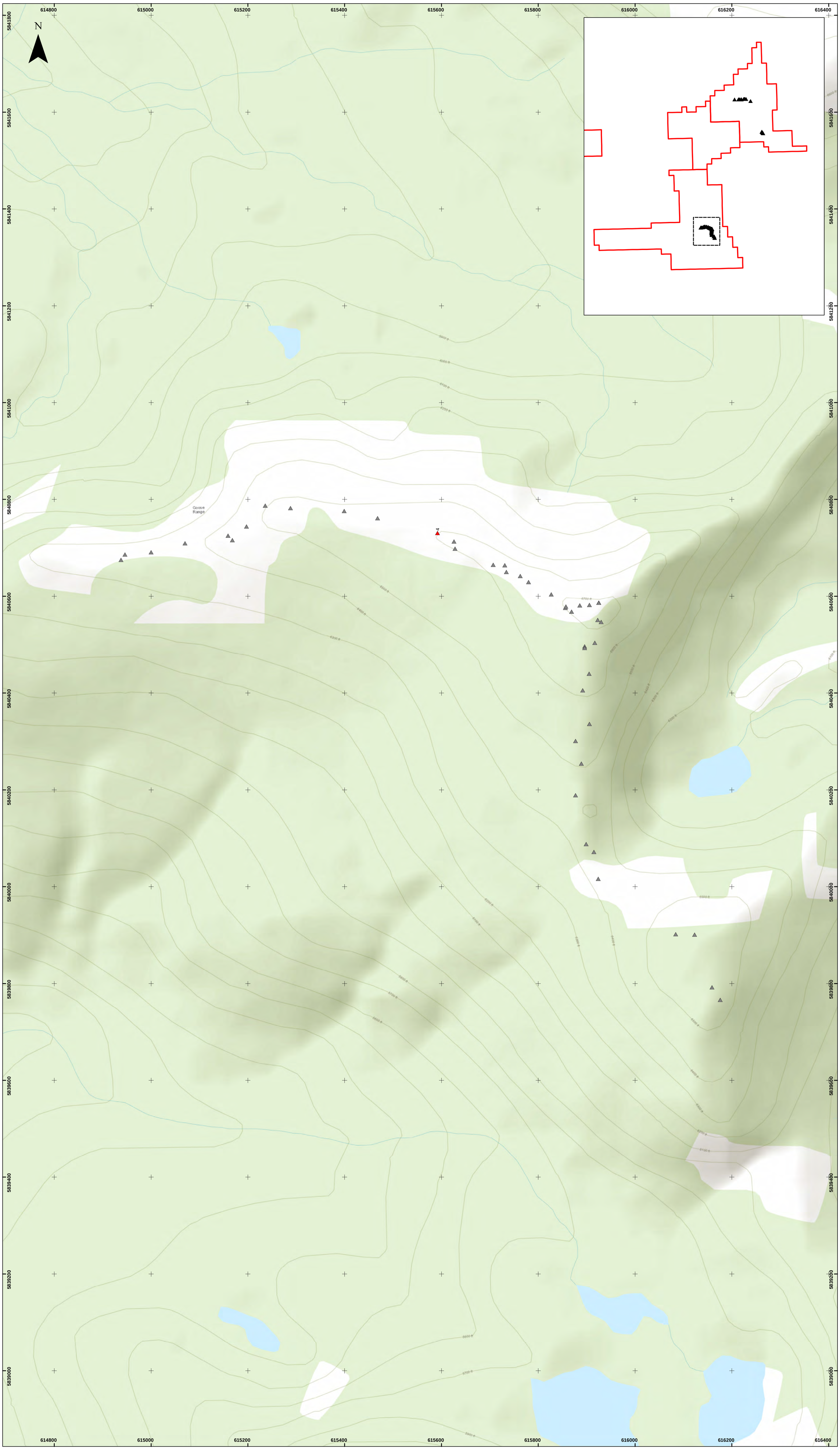
Goose Range

- Minfile Occurences
- 2022 Rock Sample Locations
- 2 Aces West, Cariboo Valley and Sellers Tenure Outlines

Sellers Property
2022 Rock Sample Location Map

0 50 100
Meters
1:3,500

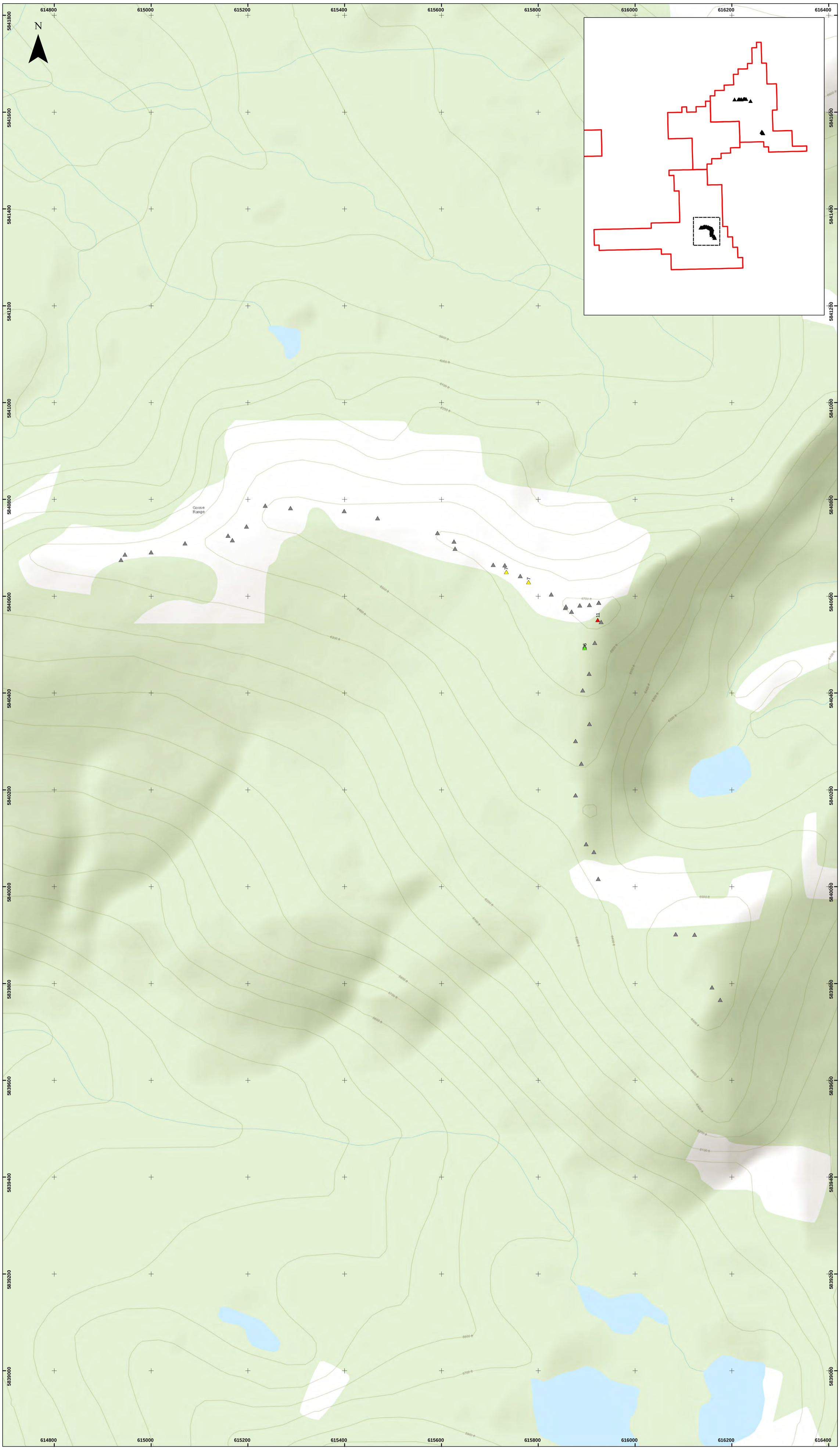
NAD83 UTM Zone 10N
Date: 2022-12-22



HAWKEYE

Prepared by:

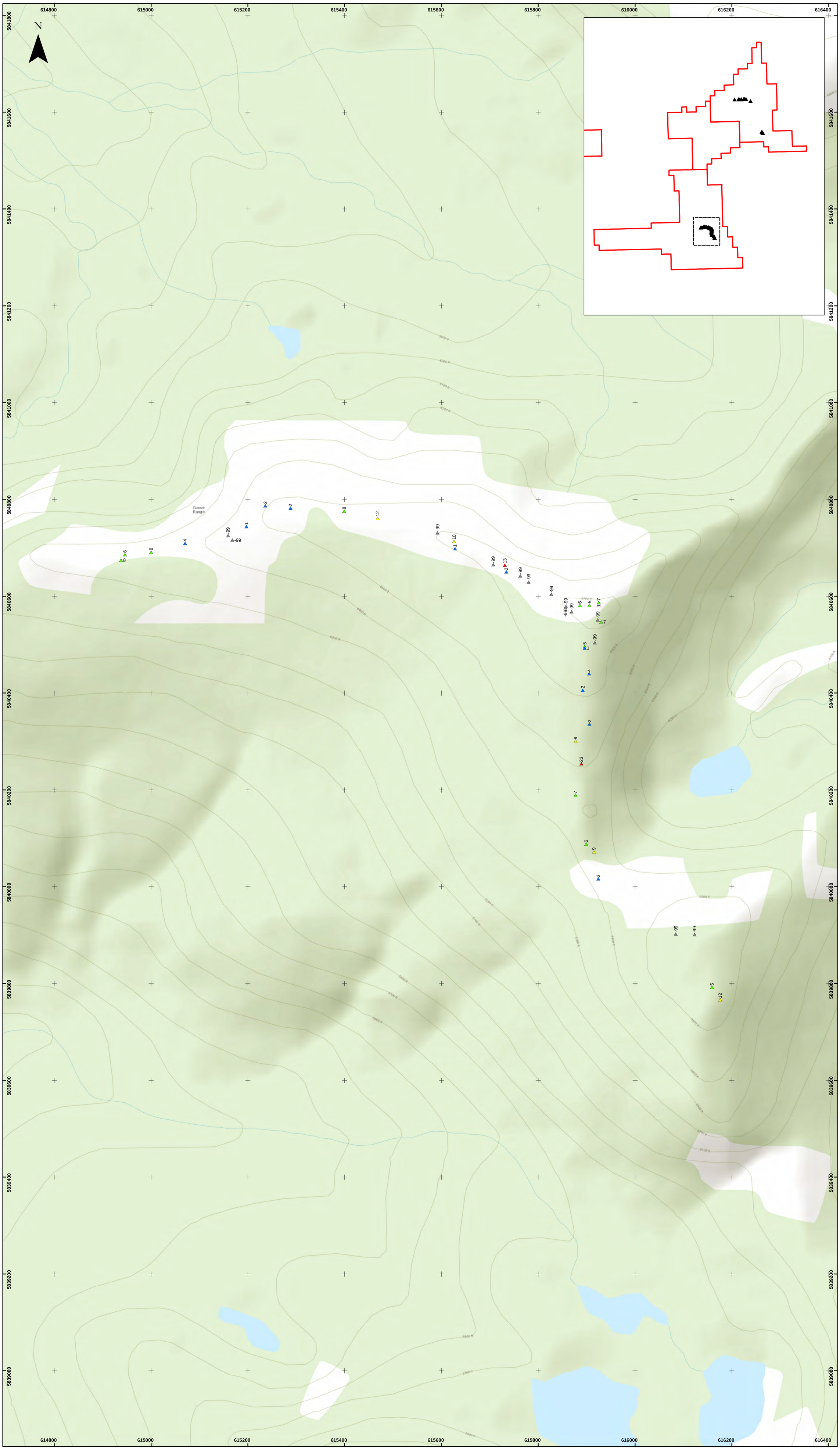
SGDS HIVE

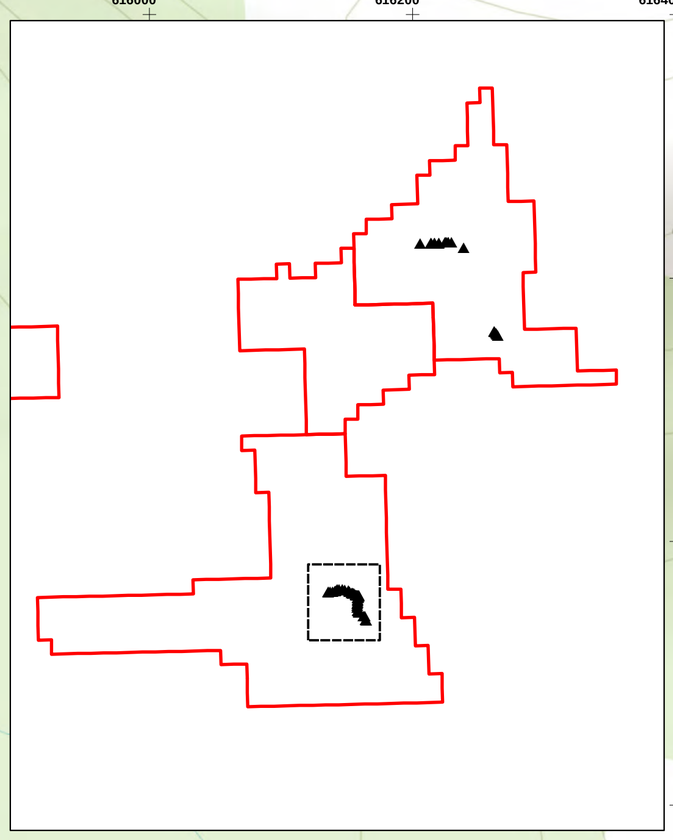


HAWKEYE

Prepared by:

SGDS HIVE


N
614800
615000
615200
615400
615600
615800
616000
616200
616400
5841800
5841600
5841400
5841200
5841000
5840800
5840600
5840400
5840200
5840000
5839800
5839600
5839400
5839200
5839000
Goose Range
5900 ft
6000 ft
6100 ft
6200 ft
6500 ft
6400 ft
6300 ft
5800 ft
5700 ft
5600 ft
6700 ft
6600 ft
6500 ft
6400 ft
6300 ft
6200 ft
6100 ft
5600 ft
5700 ft
5900 ft
-99
1
2
4
6
8
10
12
13
17
23
3
5
7
9
Prepared by:
HAWKEYE
SGDS HIVE
Minfile Occurences
2 Aces West, Cariboo Valley and Sellers Tenure Outlines
2022 Rock Sample Cobalt Results - Lab Results
< Detection Limit (-99)
Detection Limit - 4 ppm Co
4 - 8 ppm Co
8 - 12 ppm Co
> 12 ppm Co
Sellers Property
2022 Rock Sample
Cobalt Results - Lab Results
0
50
100
Meters
1:3,500
NAD83 UTM Zone 10N
Date: 2022-12-22



Prepared by:

Goose Range

10.4
18.6
12.6
15.6
3.7
240
58.4
31.4
3.8
81.7
20.4
0.6
14.1
-99
7.5
32.8
9.4
2.4
8.2
2.6
2.7
4.7
3.3
15.4
21.3
7.7
7.3
26
8.2
11.5
1.8
163
60.5
52.9
15.7
17.6
12.2
17.2
24.4
46
8
4.4
7.9
22

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Copper Results - Lab Results

< Detection Limit (-99)

Detection Limit - 15 ppm Cu

15 - 30 ppm Cu

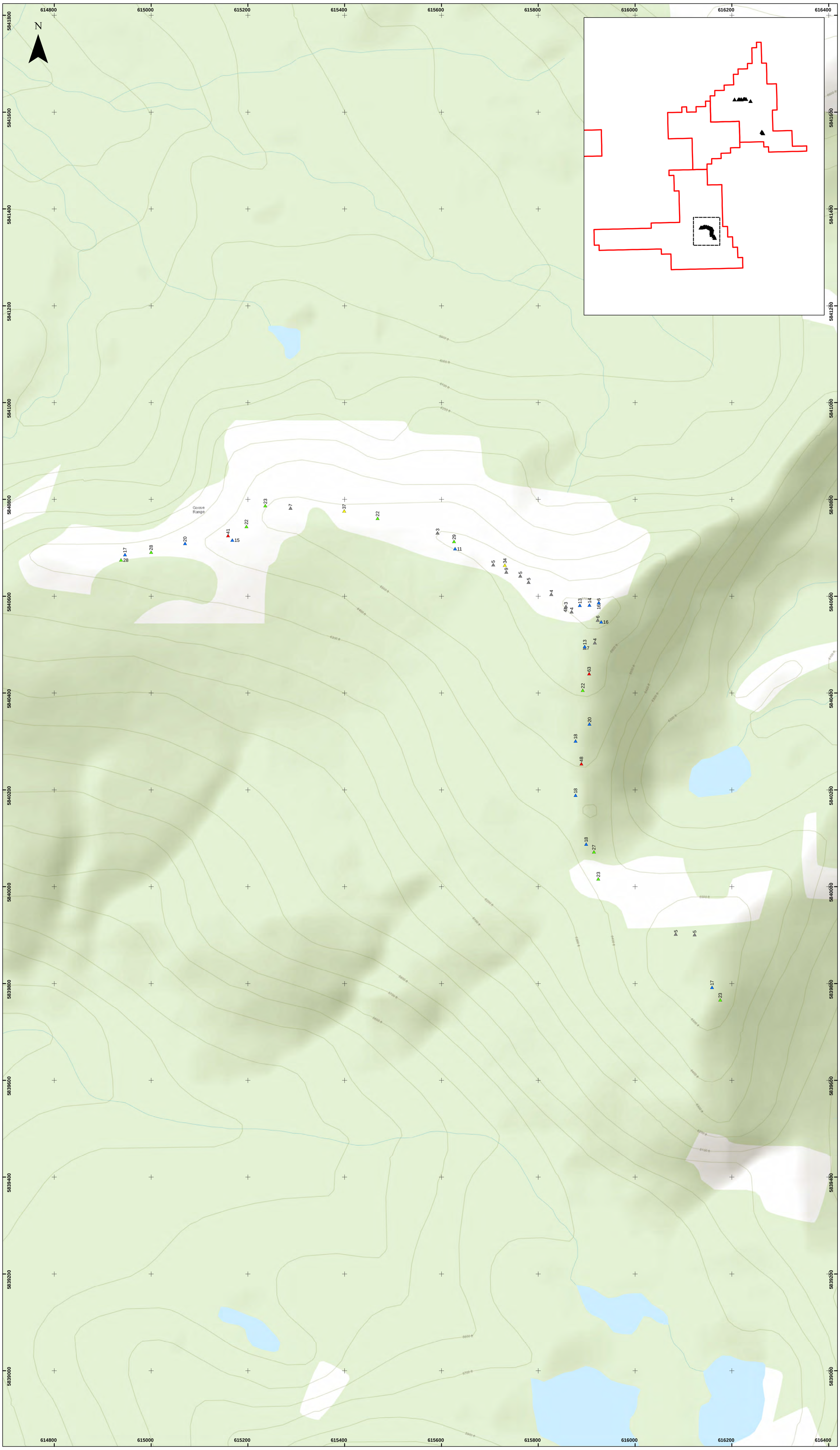
30 - 80 ppm Cu

> 80 ppm Cu

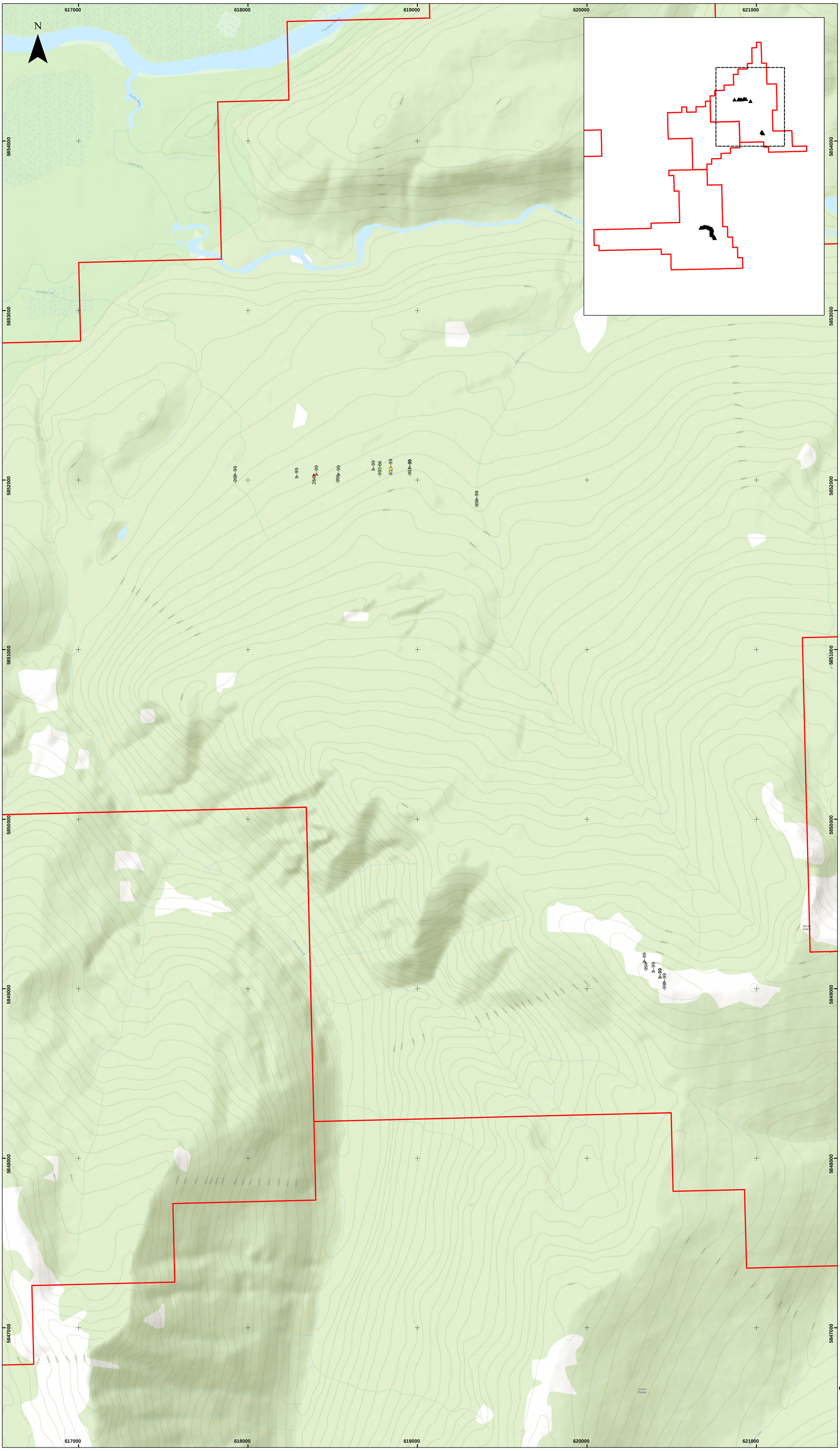
Sellers Property
2022 Rock Sample Copper Results - Lab Results

0 50 100
Meters
1:3,500

NAD83 UTM Zone 10N
Date: 2022-12-22


N
614800
615000
615200
615400
615600
615800
616000
616200
616400
5841800
5841600
5841400
5841200
5841000
5840800
5840600
5840400
5840200
5840000
5839800
5839600
5839400
5839200
5839000
Goose Range
6000 ft
6100 ft
6200 ft
6300 ft
6400 ft
6500 ft
5900 ft
5800 ft
5700 ft
5600 ft
5500 ft
6600 ft
6100 ft
6200 ft
6400 ft
6500 ft
6300 ft
6200 ft
6100 ft
5900 ft
5800 ft
5700 ft
5600 ft
5500 ft
6400 ft
6300 ft
6200 ft
6100 ft
HAWKEYE
Prepared by:
SGDS HIVE
Minfile Occurences
2 Aces West, Cariboo Valley and Sellers Tenure Outlines
2022 Rock Sample Nickel Results - Lab Results
< 10 ppm Ni
10 - 20 ppm Ni
20 - 30 ppm Ni
30 - 40 ppm Ni
> 40 ppm Ni
Sellers Property
2022 Rock Sample
Nickel Results - Lab Results
0
50
100
Meters
1:3,500
NAD83 UTM Zone 10N
Date: 2022-12-22

APPENDIX G – PXRF SAMPLE LOCATION MAPS


N
617000
618000
619000
620000
621000
5854000
5853000
5852000
5851000
5850000
5849000
5847000
5848000
Caribou River
Little River
Little River
Roaring Creek
Clay Creek
Clay Creek
Roaring Creek
Goose Range
-99
-99
-99
264
-99
-99
66
81
-99
-99
-99

HAWKEYE

Prepared by:

SGDS HIVE

N

617000 618000 619000 620000 621000

5854000 5853000 5852000 5851000 5850000 5849000 5848000 5847000

Little River Caribou River Roaring Creek Clay Creek Mount Barkley Goose Range

100 -99 37 17 -99 7 77 -99 -14 104 -99 104 -96 -99 11 33 5 9 13 -99 26 11 -99 27

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Copper Results - XRF Results

- < Detection Limit (-99)
- Detection Limit - 50 ppm Cu
- 50 - 100 ppm Cu
- 100 - 300 ppm Cu
- > 300 ppm Cu

2 Aces West Property 2022 Rock Sample Copper Results - XRF Results

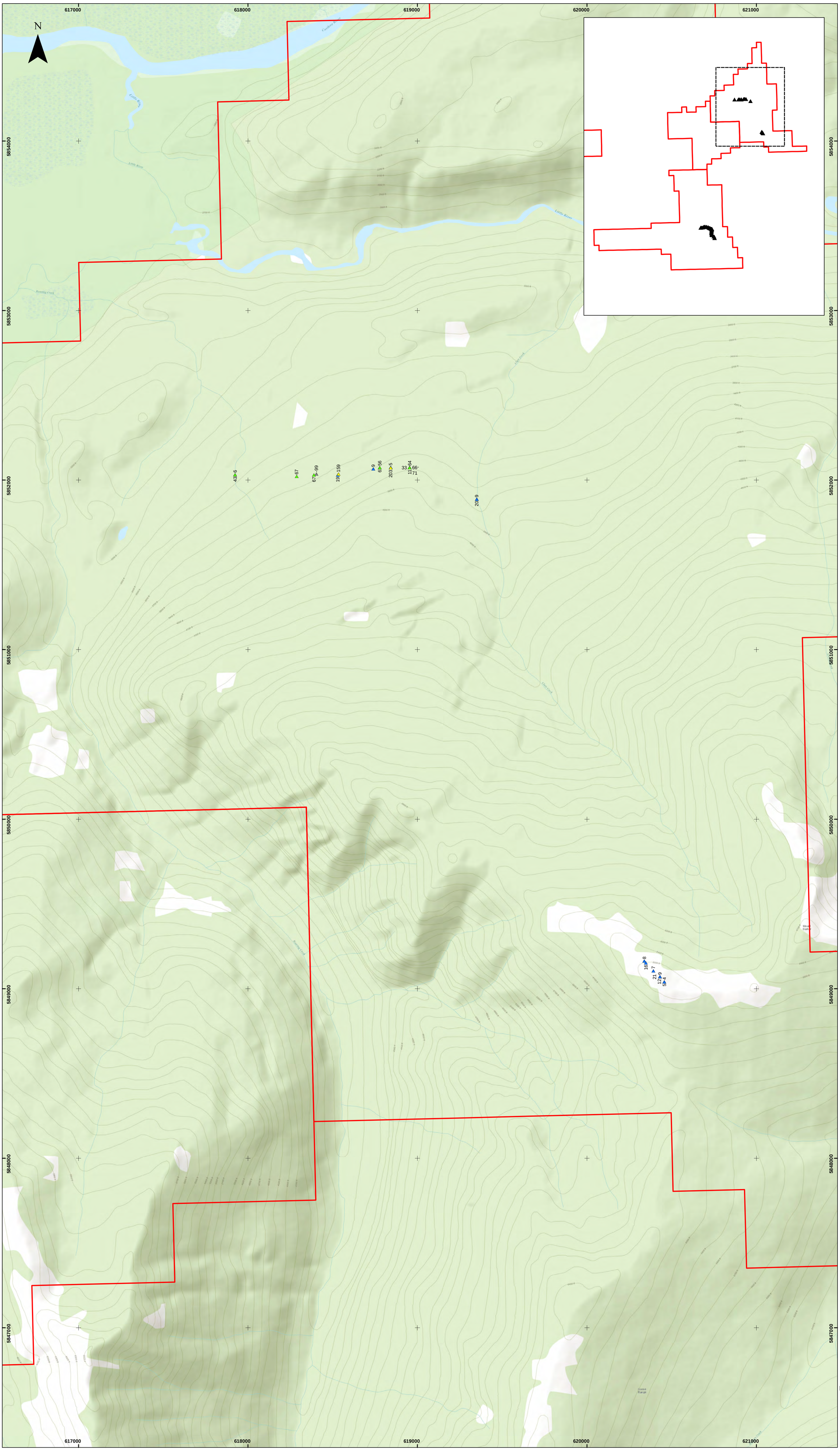
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Nickel Results - XRF Results

< Detection Limit (-99)

Detection Limit - 30 ppm Ni

30 - 80 ppm Ni

80 - 240 ppm Ni

> 240 ppm Ni

2 Aces West Property
2022 Rock Sample
Nickel Results - XRF Results

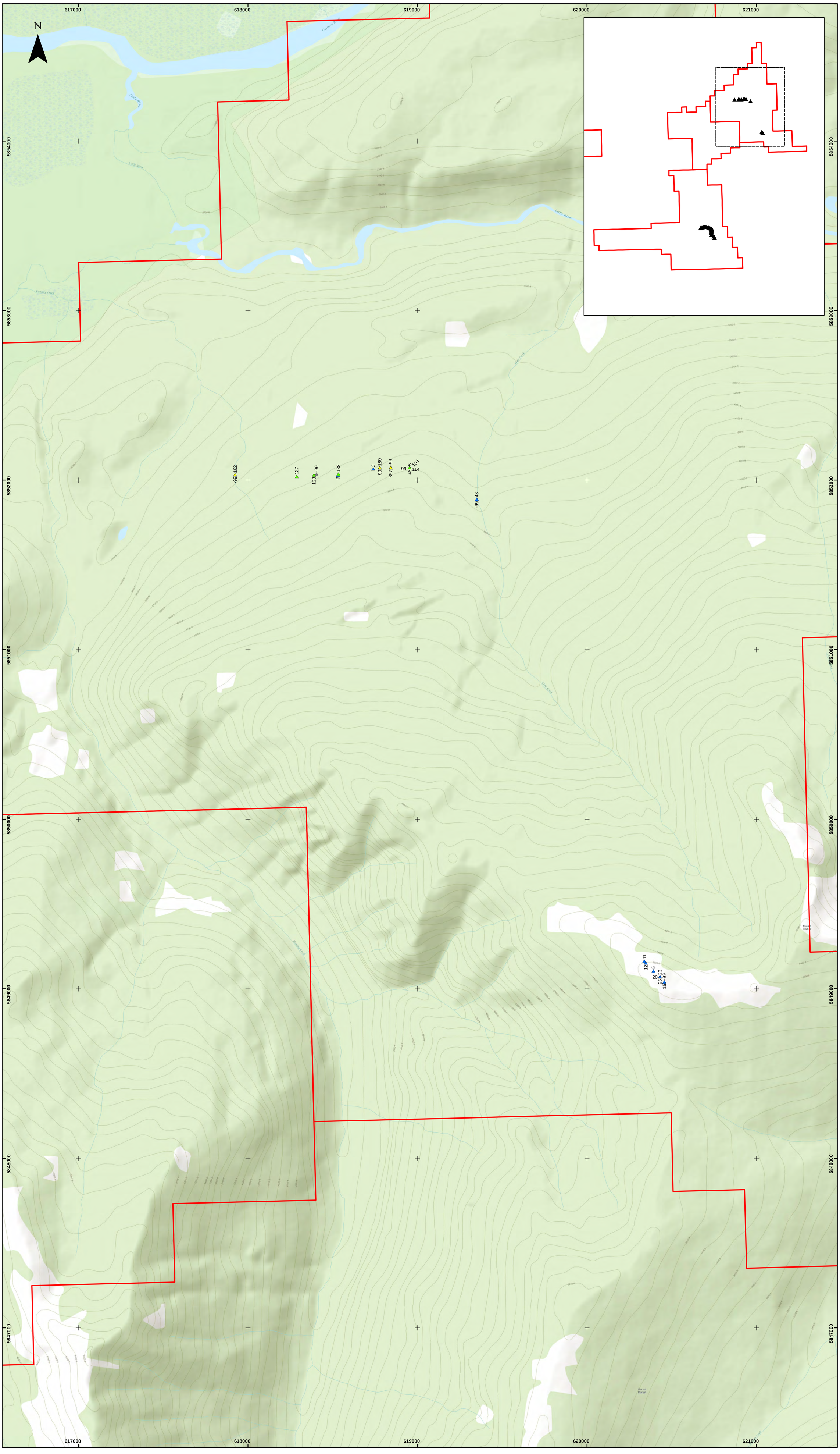
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Zinc Results - XRF Results

< Detection Limit (-99)

Detection Limit - 50 ppm Zn

50 - 150 ppm Zn

150 - 500 ppm Zn

> 500 ppm Zn

2 Aces West Property 2022 Rock Sample Zinc Results - XRF Results

0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22

HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Silver Results - XRF Results

< Detection Limit (-99)

2 ppm Ag

Sellers Property
2022 Rock Sample
Silver Results - XRF Results

0 50 100

Meters

1:3,500

NAD83 UTM Zone 10N

Date: 2022-12-22

HAWKEYE

Prepared by:

SGDSHIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Cobalt Results - XRF Results

< Detection Limit (-99)

66 ppm Co

81 ppm Co

264 ppm Co

Sellers Property
2022 Rock Sample
Cobalt Results - XRF Results

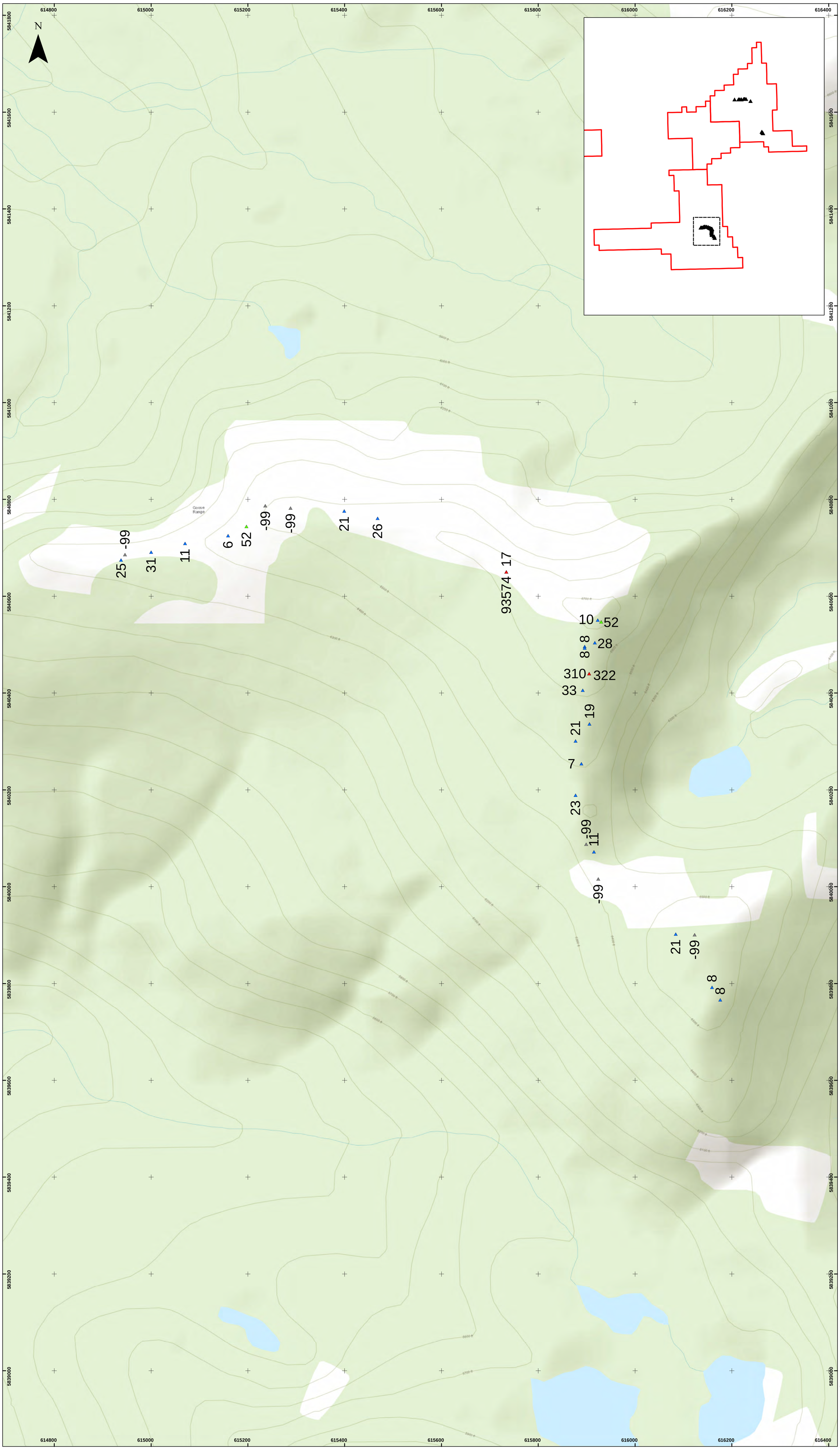
0 50 100

Meters

1:3,500

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Rock Sample Copper Results - XRF Results

< Detection Limit (-99)

Detection Limit - 50 ppm Cu

50 - 100 ppm Cu

100 - 300 ppm Cu

> 300 ppm Cu

Sellers Property
2022 Rock Sample Copper Results - XRF Results

0 50 100

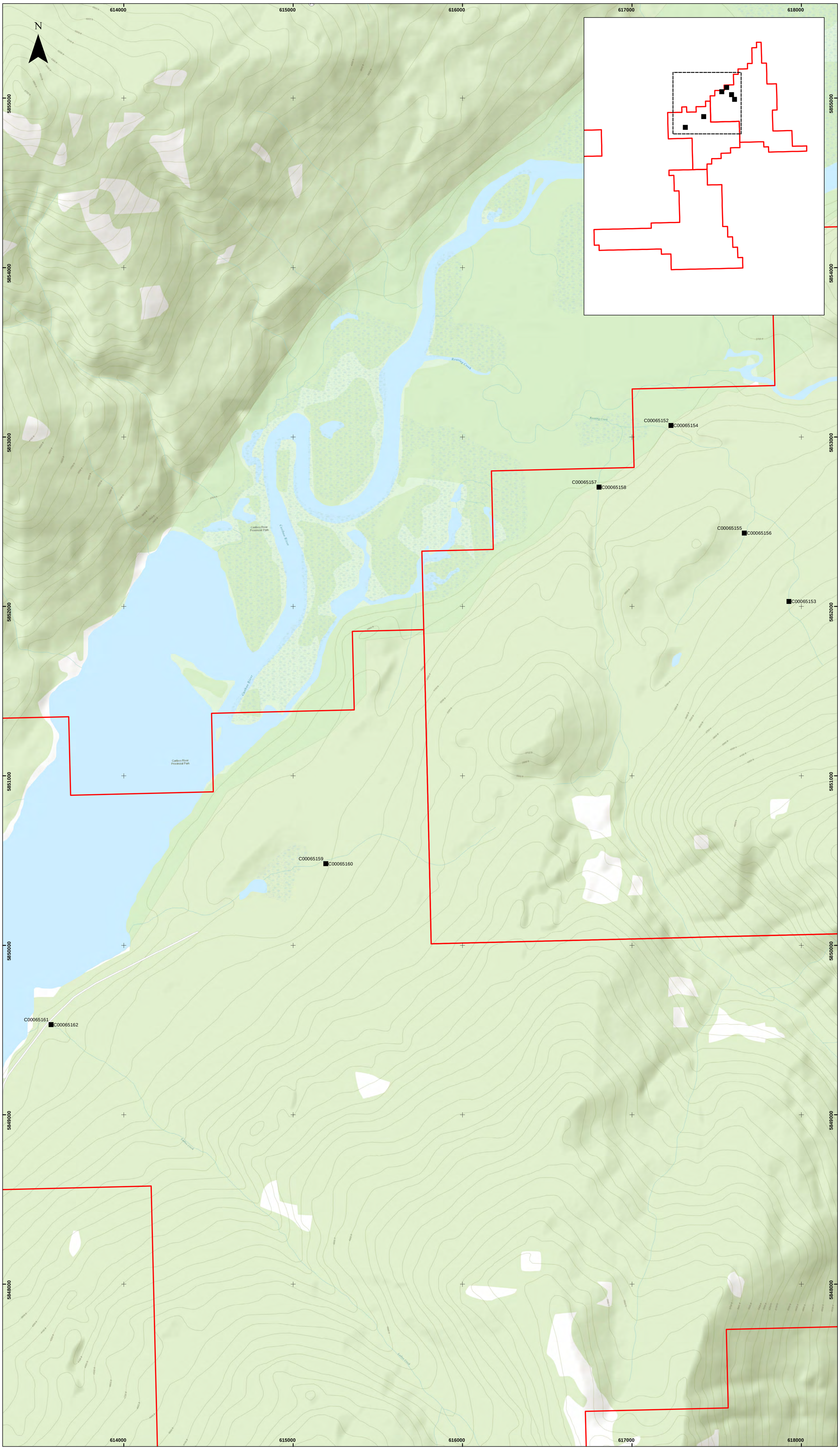
Meters

1:3,500

NAD83 UTM Zone 10N

Date: 2022-12-22

APPENDIX H – STREAM SEDIMENT SAMPLE LOCATION MAPS



Prepared by:

SGDS HIVE

2 Access West - Cariboo Valley Property
2022 Sediment Sample Location Map

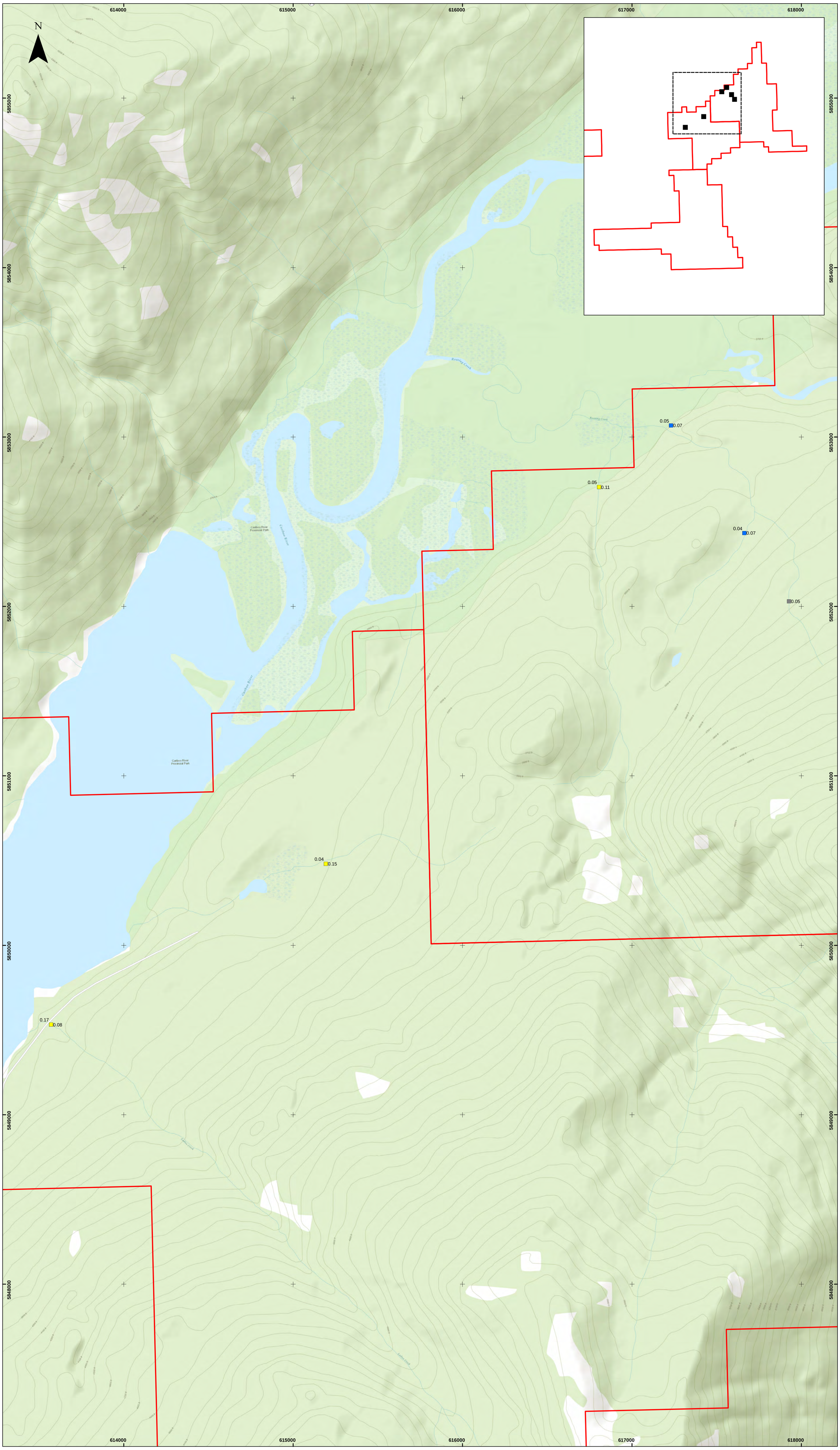
Minfile Occurences

2022 Sediment Sample Location

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

0 200 400
Meters
1:10,000

NAD83 UTM Zone 10N
Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

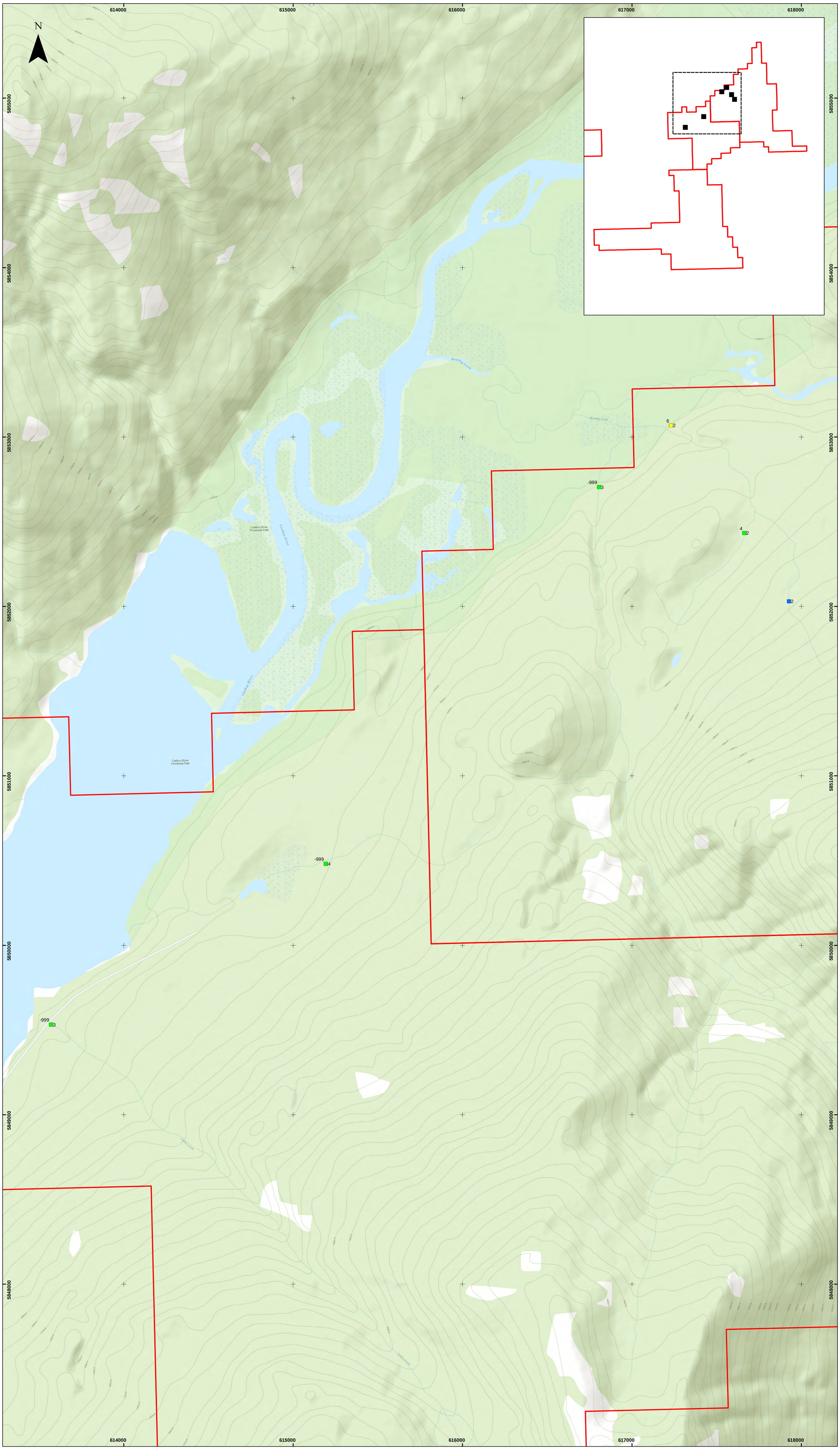
2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Sediment Sample Silver Results - Lab Analysis

- < 0.05 ppm Ag
- 0.05 - 0.08 ppm Ag
- 0.08 - 0.1 ppm Ag
- > 0.1 ppm Ag

2 Access West - Cariboo Valley Property
2022 Sediment Sample Silver Results - Lab Results

0 200 400
Meters
1:10,000
NAD83 UTM Zone 10N
Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Sediment Sample Gold Results - Lab Analysis

< Detection Limit (-999)

< 2 ppb

2 - 4 ppb

> 4 ppb

2 Access West - Cariboo Valley Property
2022 Sediment Sample Gold Results - Lab Results

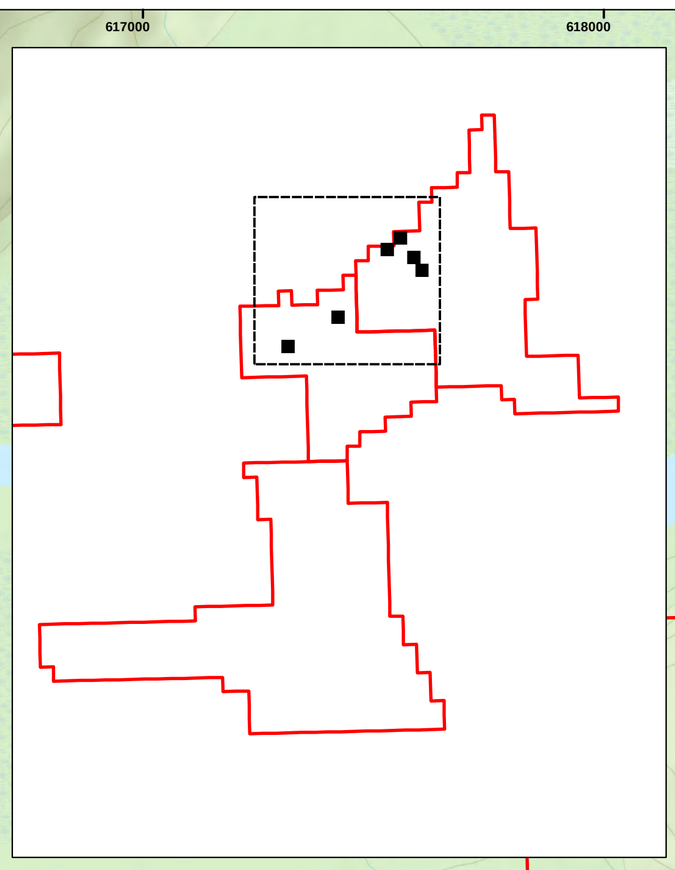
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

614000 615000 616000 617000 618000

5855000 5854000 5853000 5852000 5851000 5850000 5849000 5848000

11.4
587

10.2
14.9

10.6
8.5

704

13.6
562

11.7
438

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Sediment Sample Cobalt Results - Lab Analysis

< 10 ppm Co

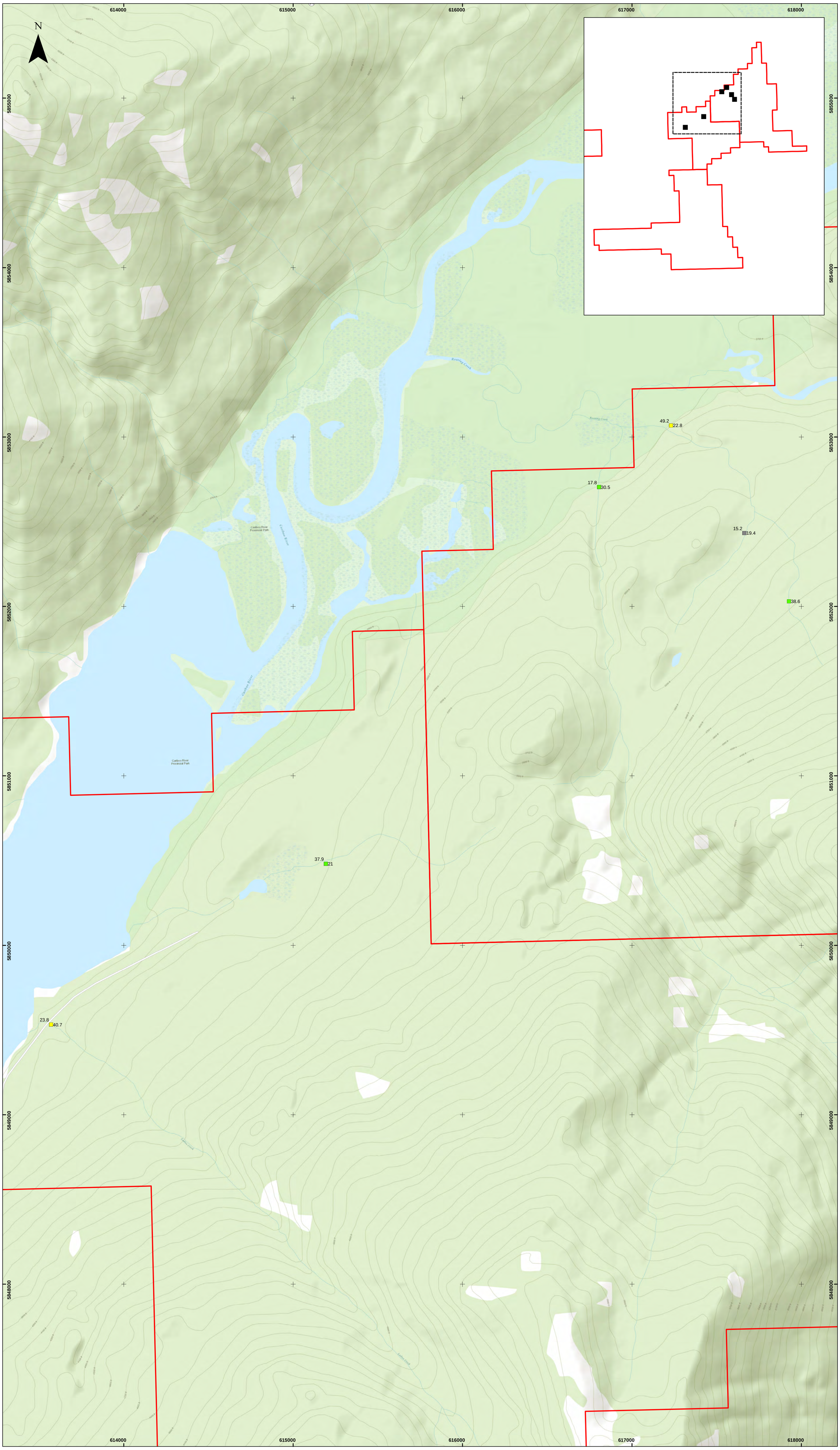
10 - 15 ppm Co

15 - 400 ppm Co

> 400 ppm Co

2 Access West - Cariboo Valley Property
2022 Sediment Sample Cobalt Results - Lab Results

0 200 400
Meters
1:10,000
NAD83 UTM Zone 10N
Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

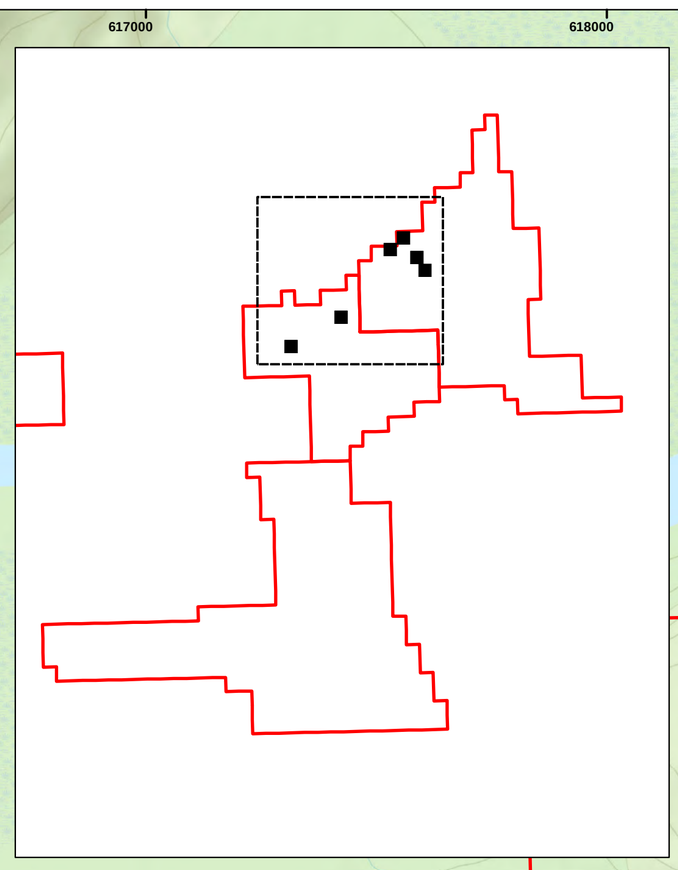
2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Sediment Sample Copper Results - Lab Analysis

- < 20 ppm Cu
- 20 - 30 ppm Cu
- 30 - 40 ppm Cu
- > 40 ppm Cu

2 Access West - Cariboo Valley Property
2022 Sediment Sample Copper Results - Lab Results

0 200 400
Meters
1:10,000
NAD83 UTM Zone 10N
Date: 2022-12-22



Prepared by:

21.400000
28.400000
33.200000
50.200000
17.700000
39.700000
26.300000
19.400000
29.500000
28.300000
22.600000

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Sediment Sample Nickel Results - Lab Analysis

< 20 ppm Ni

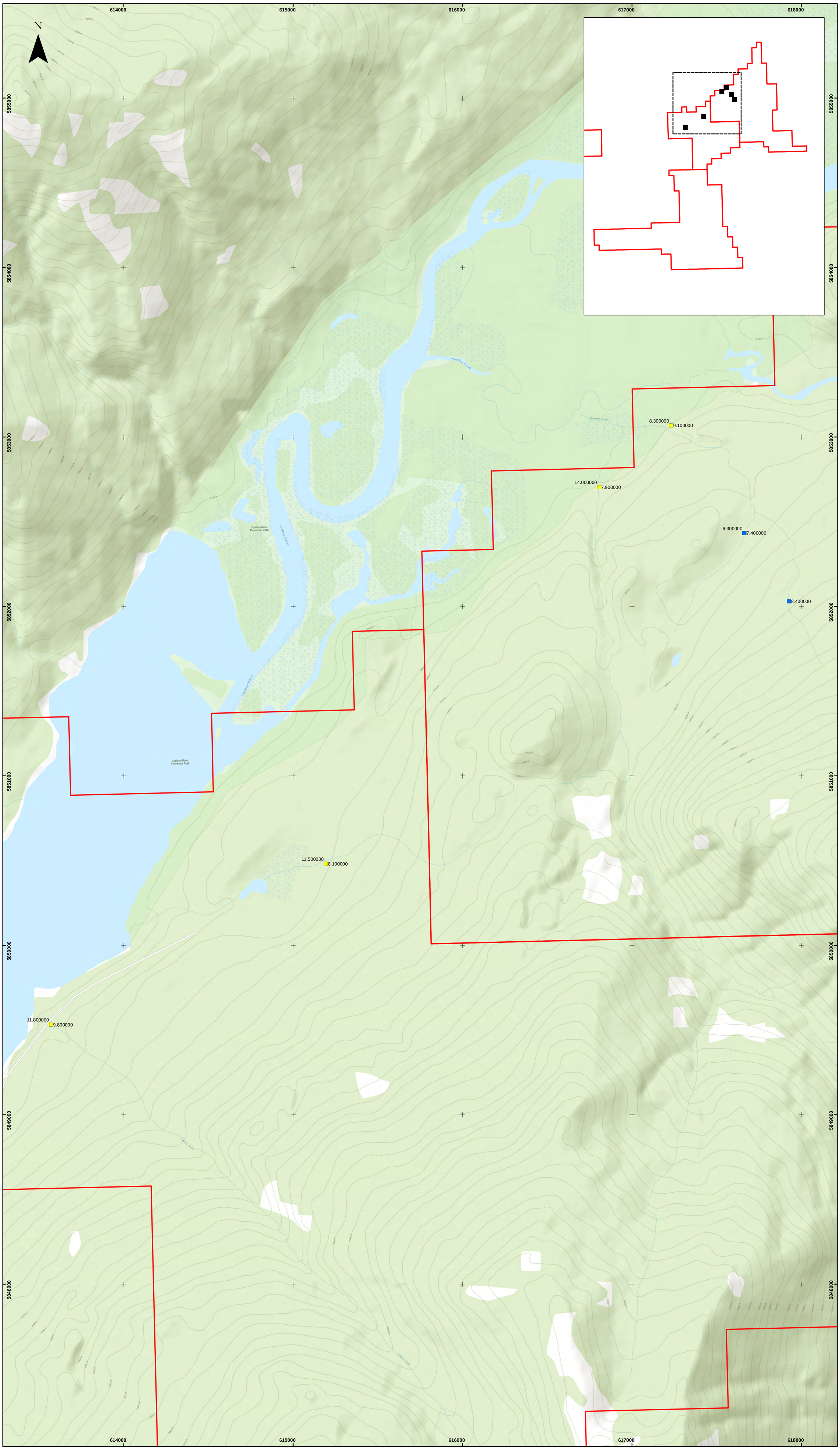
20 - 25 ppm Ni

25 - 30 ppm Ni

> 30 ppm Ni

2 Access West - Cariboo Valley Property
2022 Sediment Sample Nickel Results - Lab Results

0 200 400
Meters
1:10,000
NAD83 UTM Zone 10N
Date: 2022-12-22



HAWKEYE

Prepared by:

SGDS HIVE

Minfile Occurences

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2022 Sediment Sample Lead Results - Lab Analysis

< 7 ppm Pb

7 - 9 ppm Pb

> 9 ppm Pb

2 Access West - Cariboo Valley Property
2022 Sediment Sample Lead Results - Lab Results

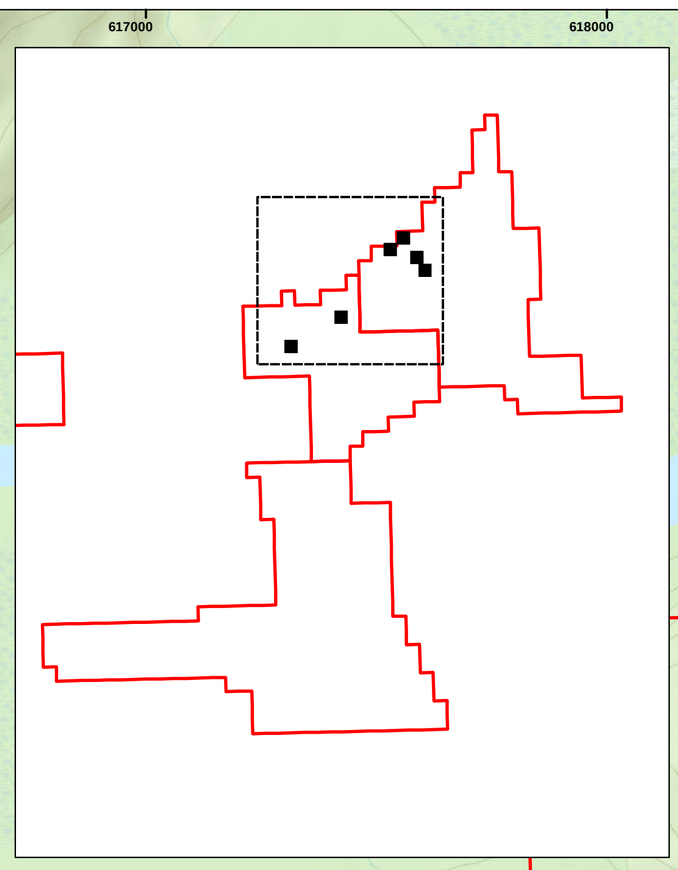
0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22



Prepared by:

614000 615000 616000 617000 618000

5855000 5854000 5853000 5852000 5851000 5850000 5849000 5848000

51.000000 58.000000

68.000000 78.000000

45.000000 46.000000

56.000000

49.000000 64.000000

57.000000 52.000000

Roaring Creek

Caribou River

Caribou River Provincial Park

Minfile Occurences

2022 Sediment Sample Zinc Results - Lab Analysis

< 50 ppm Zn

50 - 60 ppm Zn

> 60 ppm Zn

2 Aces West, Cariboo Valley and Sellers Tenure Outlines

2 Access West - Cariboo Valley Property
2022 Sediment Sample Zinc Results - Lab Results

0 200 400

Meters

1:10,000

NAD83 UTM Zone 10N

Date: 2022-12-22

APPENDIX I - CAMPBELL AND WALKER 2021 GEOPHYSICAL REPORT 2 ACES WEST (2 ACES).

2 ACES PROPERTY

ASSESSMENT REPORT

AEROMAGNETIC SURVEY

CARIBOO MINING DIVISION

BRITISH COLUMBIA

121° 17’ 4.5” W, 52° 45’ 28.6” N to 120° 58’ 37.8” W, 52° 52’ 15.8” N

615,760 mE, 5,846,723 mN to 636,150 mE, 5,859,844 mN

NTS MAP SHEETS: 093A/14–15

PREPARED FOR:

Hawkeye Gold & Diamond Inc.

SUITE 202, 1985 ALBERNI STREET
VANCOUVER, BRITISH COLUMBIA V6G 0A2

PREPARED BY:

C. CAMPBELL, P.GEO., GEOPHYSICIST

SUBMITTED: 08 OCTOBER MARCH 2021

Campbell & Walker
Geophysics Ltd.

SUMMARY

A combined magnetic and gamma-ray spectrometry survey over the 2 Aces property of Hawkeye Gold & Diamond Inc. acquired approximately 502 line-km of helicopter-borne geophysical data over a 7-day period in November–December 2018. The survey covers 10 active and good-standing claims amounting to approximately 5,394 ha located in the Cariboo Mining District, British Columbia.

The magnetic survey has provided valuable structural and geological information. A suite of filters and derivatives have been applied to the aeromagnetic gridded data, followed by a multiscale edge detection and automated grid 'fractal' analysis to identify regions prospective for gold mineralization based upon structural complexity as inferred from magnetics being indicative of significant faults, shears.

Due to the relatively high costs and slow progress, ground geophysics should be constrained in terms of follow-up to the investigation of discrete target zones themselves representing anomalous soil geochemistry and/or airborne geophysical anomalies.

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1 INTRODUCTION

A helicopter-borne magnetic survey was flown over the 2 Aces claims by Geotech Ltd. for Hawkeye Gold & Diamond Inc. The airborne geophysics was undertaken and completed in 7 days of actual flying spread over a longer period, November 16 to December 07, 2018; final results were delivered in January 2019. A subsequent interpretation and report of this data was completed by Campbell & Walker Geophysics Ltd. in September–October 2021. The survey coverage amounts to 502.410 line-kilometres spread over 5,033.7 hectares.

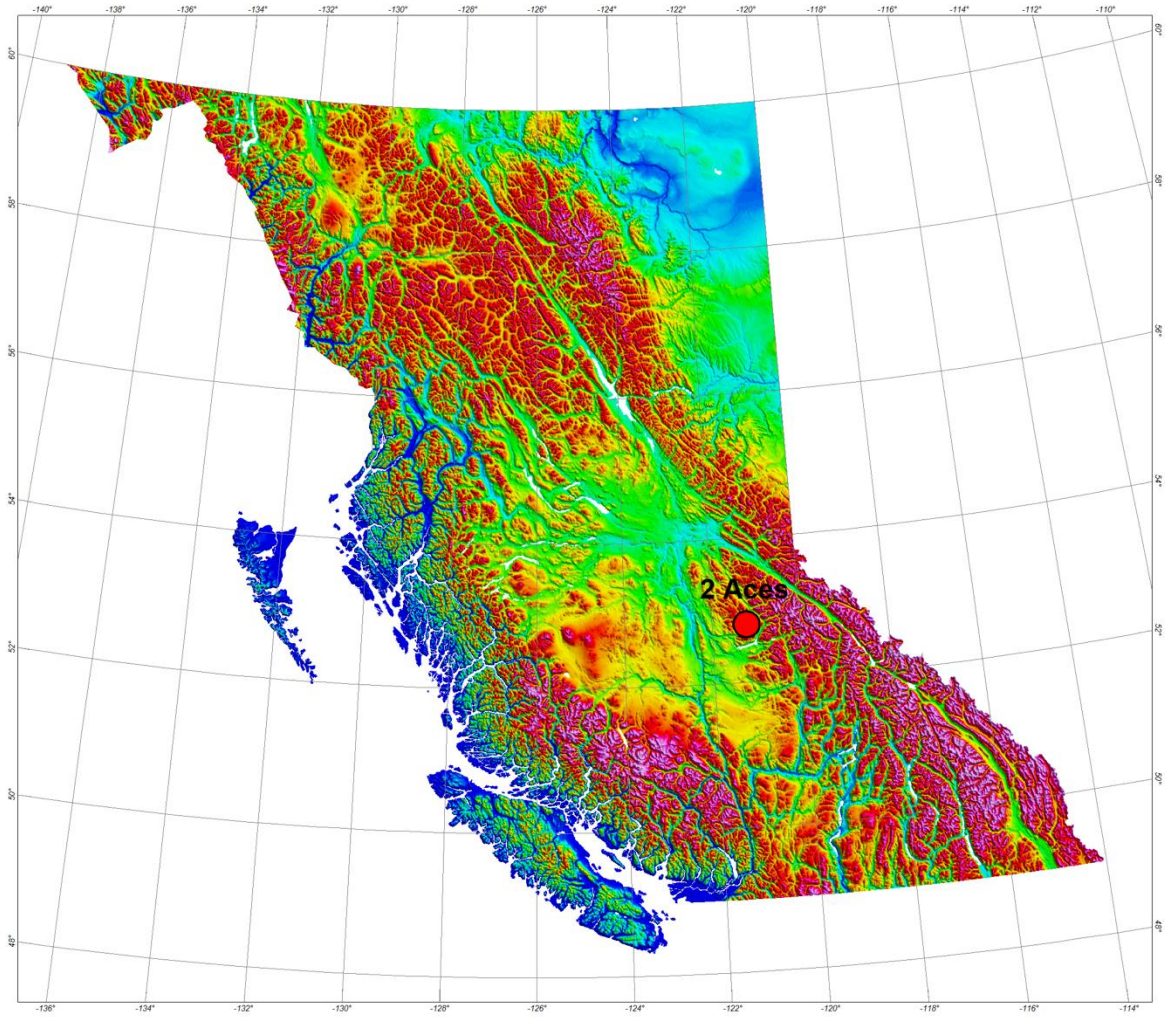

Figure 1. Location Map

2 AIRBORNE GEOPHYSICS

2.1 Acquisition and Processing

As stated in the Introduction, Geotech Ltd. was contracted to carry out a program of detailed airborne magnetics in November–December, 2018; The program was completed in 7 days of actual flying spread over a 3-week period. Technical issues at mobilization and in the initial start-up calibration/test flights plus inclement weather adversely impacted the overall production. A total of 502.410 line-kilometres was acquired on traverse lines oriented 090°/270° at 150 m intervals tied by 000°/360° control lines at 1,500 m spacing. Mean terrain clearance achieved was 72.4 m, approximately equivalent to half the traverse line spacing.

The base of operations for this airborne program was the airstrip at Likely, southwest of the survey block. Data was acquired using an Aerospatiale A-Star 350 B2, registration C-GXAH, at a nominal (contractual) height of 75 m, mean terrain clearance. The relatively rugged terrain and requirements for safe operations given the weather conditions precluded significantly lower flying heights.

Projection and Datum Specifications for East and West:

Map projection	NUTM10
Datum	WGS84
Central meridian	123° West
False Easting	500000 m
False Northing	0 m
Scale Factor	0.9996 m

The aeromagnetic data was subjected to standard heading, lag, and diurnal corrections; tie-line levelling and micro-levelling were then applied, followed finally by an IGRF correction. A calculated vertical gradient and digital elevation model were additionally generated by the Contractor.

2.2 Data Presentation and Imaging

The digital files have been provided in two formats, both as a Geosoft *.gdb file and as ASCII *.xyz files. Full descriptions of the digital data and contents are included in the contractor's report (Appendix A).

The digital data were gridded after standard processing and corrections and presented as Geosoft *.grd grid files, as listed below:

Total Magnetic Intensity (TMI)

Calculated Vertical Gradient (CVG) - first vertical derivative of TMI

Digital Elevation Model (DEM)

Representative images are shown following for each survey; additional maps/images are provided by the Contractor as *.pdf files in in Appendix A.

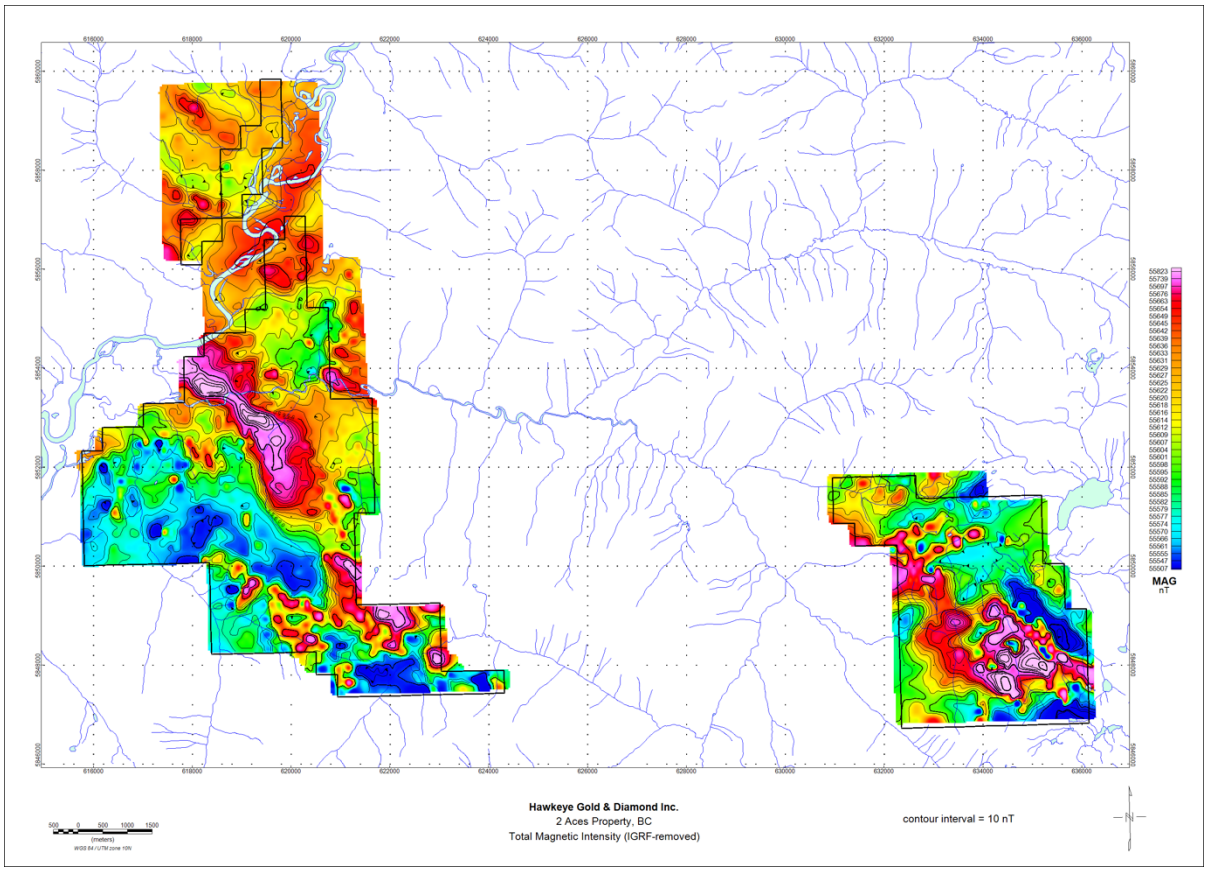

Figure 2. Residual Magnetic Intensity (total field w/ IGRF removed)

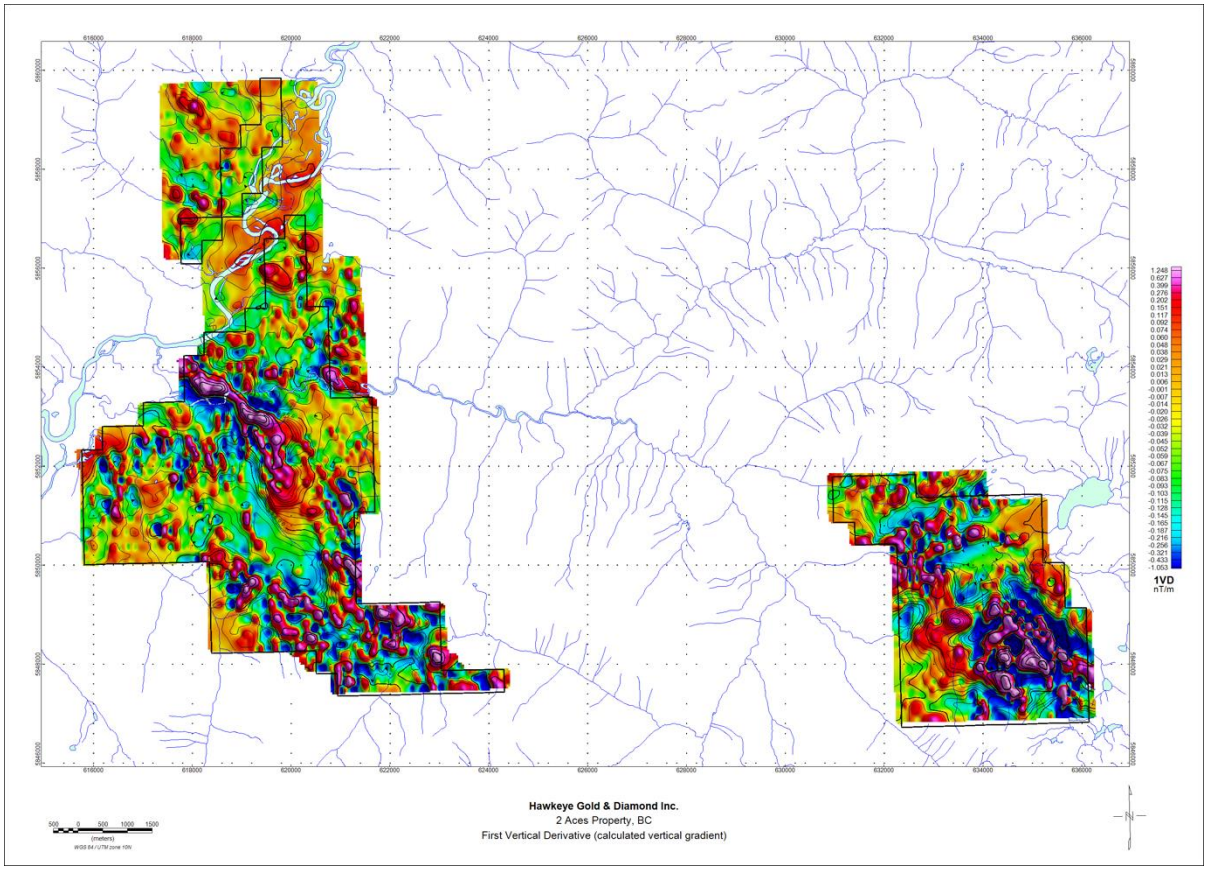

Figure 3. First Vertical Derivative (calculated vertical gradient)

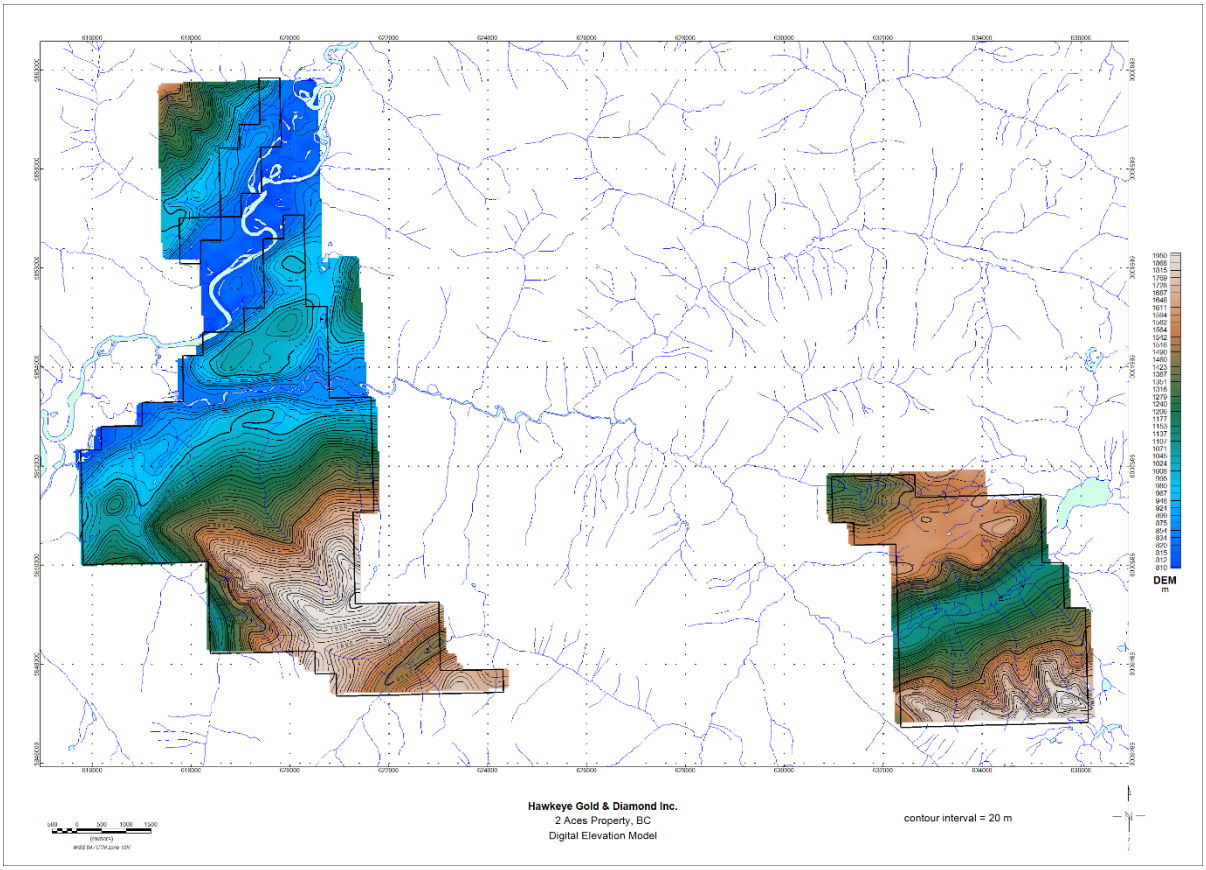

Figure 4. Digital Elevation Model

2.3 Interpretation

The aeromagnetic grids and images were examined particularly with a view to delineating and extracting indications of possible structural fabric on the premise that structural analysis plays a key role in resource exploration. Almost all styles of mineral deposits and hydrocarbon accumulations are controlled either directly or indirectly by some form of structural focus.

The reduced-to-pole ('RTP') grid often if not normally comprises the basis for these analyses. RTP is a fundamental process which, in most situations, yields imagery representing the geometry of magnetic rock units better than TMI data. Its physical basis is sourced in potential field theory (Baranov and Naudy, 1957) and where it can be successfully applied numerically it is considered a 'must' for the interpreter; in essence, the dipolar nature of magnetic anomalies is removed and peak RTP magnetic values relate more closely to the centre of magnetic rock bodies and asymmetries in the RTP imagery more closely reflect true dips and plunges (Isles and Rankin, 2013).

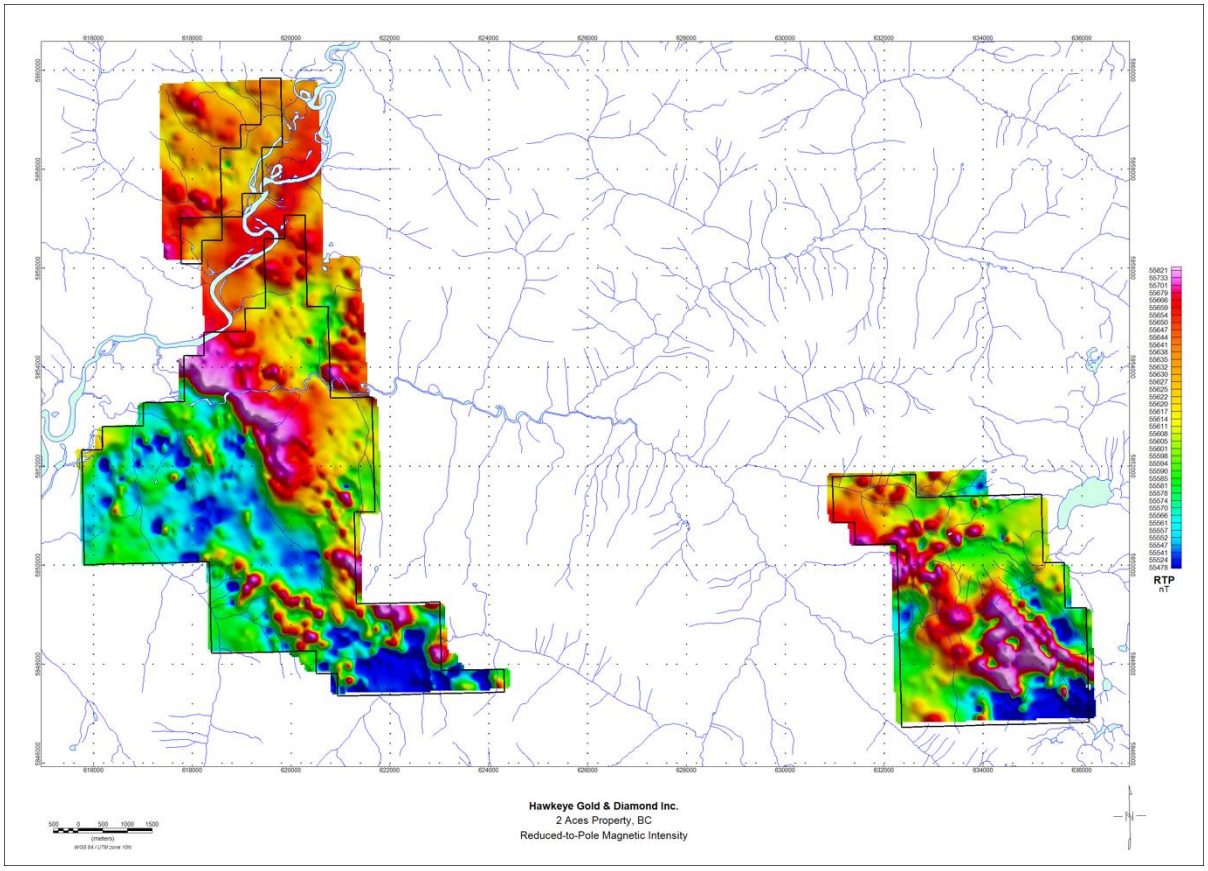

Figure 5. Reduced-to-Pole Magnetic Intensity

The goal of RTP is to simplify magnetic maps – essentially making them appear to be more like gravity maps. In practice, RTP is complicated because anomalies may be rotated by tectonism, rocks of different ages may be reverse or normally polarized and related factors. A further complication arises as the essentially 2D FFT is being here applied in an area of significant topographic relief (i.e., ~1,200 m), inherently non-2 dimensional and thus non-conforming to the underlaying assumptions of a 2D fourier operator. Although the derivatives in this study are all based on the reduced-to-pole magnetic intensity, some caution as to precise locations of specific features should be exercised. However, as the mean inclination of the Earth's field on the 2 Aces property is ~73.1º (considered to be a relatively 'high' inclination), large displacements of anomalies are not anticipated.

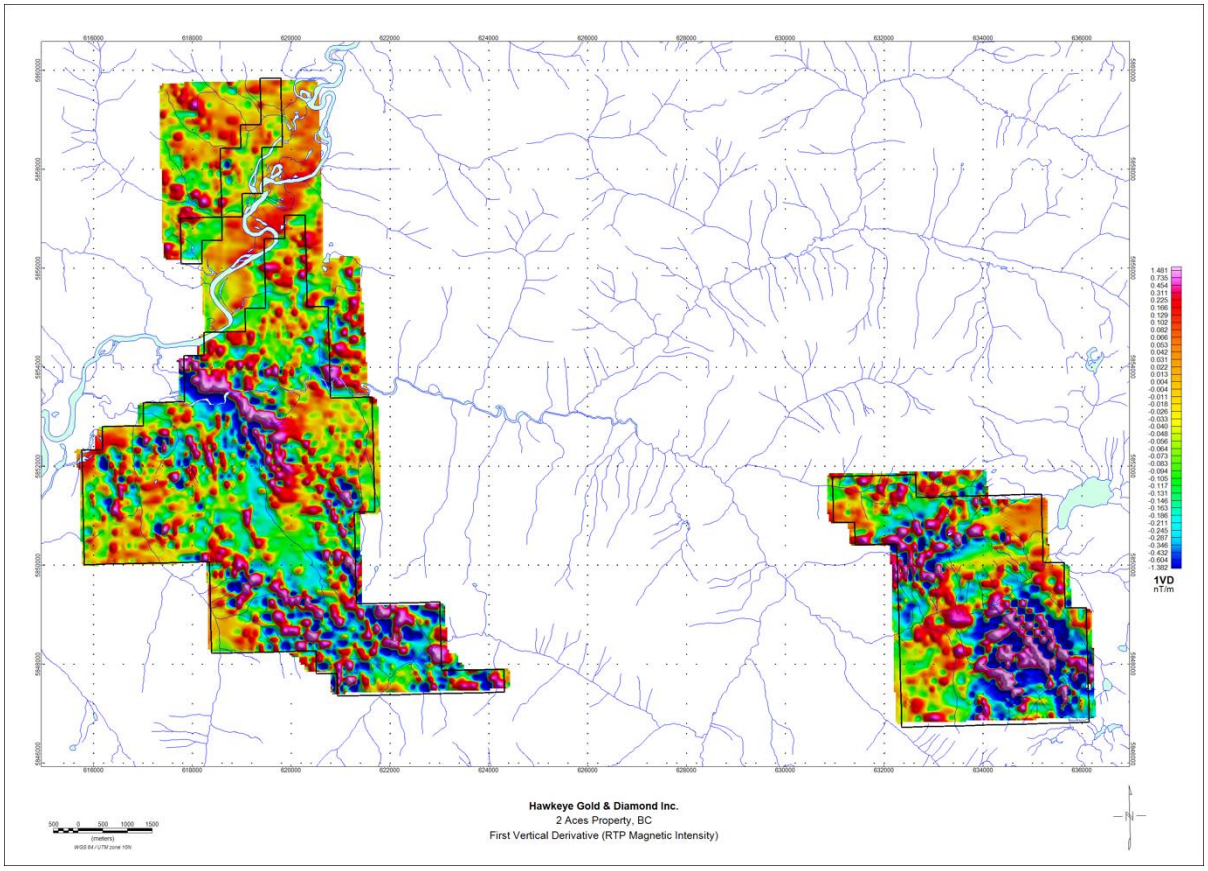

Figure 6. First Vertical Derivative (RTP Magnetic Intensity)

The RTP magnetic intensity was passed through several derivatives and filters, selected images shown above and following. The first vertical derivative or 1VD (shown above) is a common high-pass filter; both northwest and cross-cutting northeast linear features are accordingly mapped. The total horizontal derivative or THD (shown below) yields further information, with a maxima on both flanks of a feature as opposed to the 1VD single maxima.

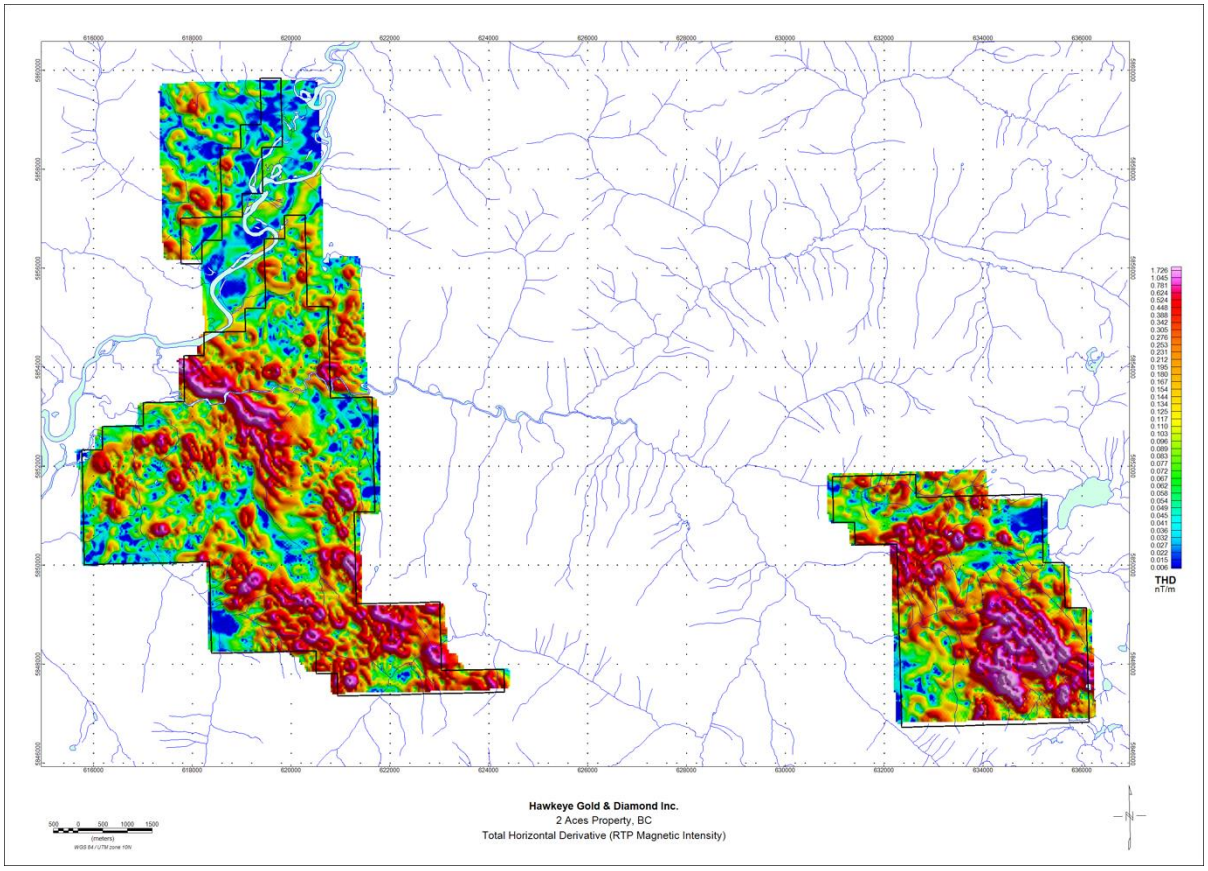

Figure 7. Total Horizontal Derivative (RTP Magnetic Intensity)

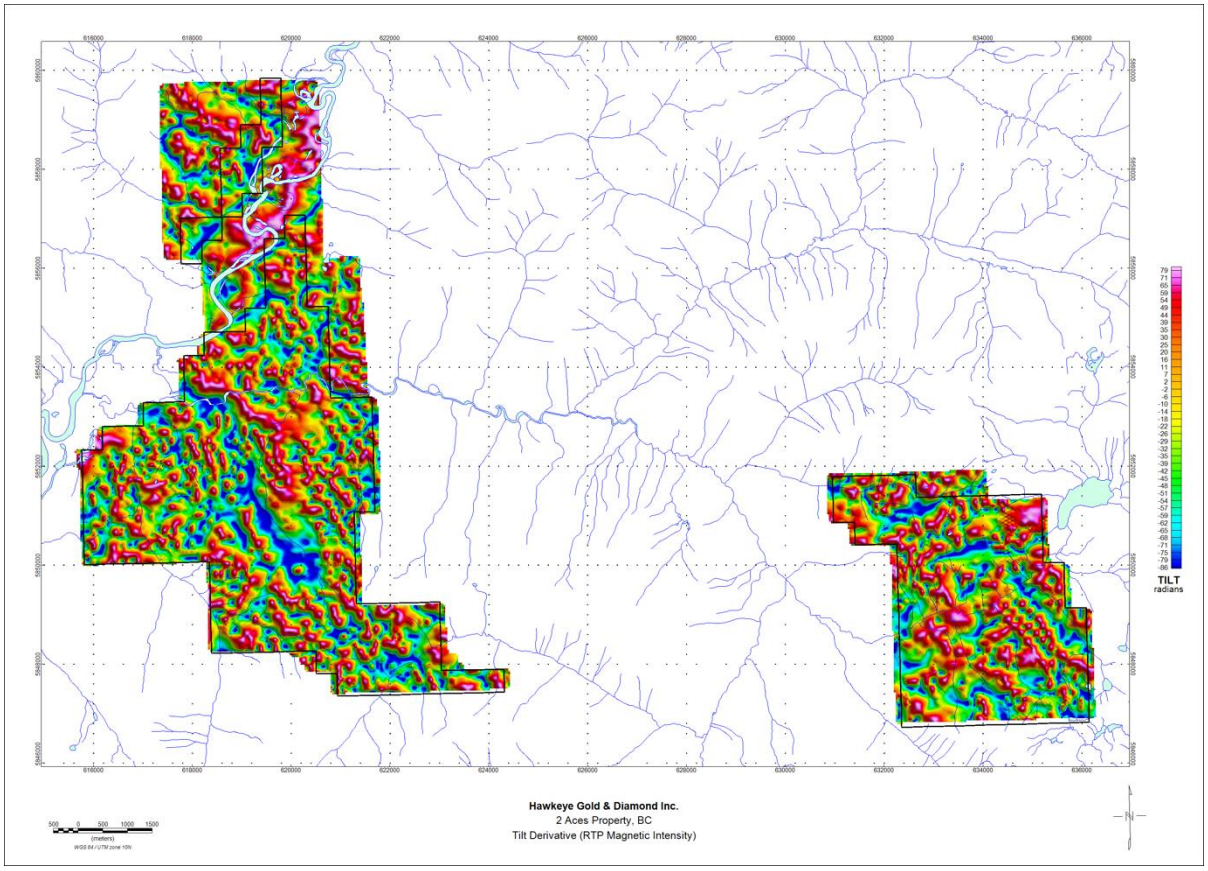

Figure 8. Tilt Derivative

Another common derivative or filter is the 'tilt derivative' or TDR (Miller and Singh, 1994) this is the arctan of the 1VD/THD. Because it is derived from a ratio, it has a normalized data intensity range. The TDR produces patterns similar to the 1VD and THD grid images, but portrays responses from deeper and shallower sources with similar amplitudes and may therefore be confusing. The positive phase only of the TDR is also shown below, helping to emphasize positive magnetization.

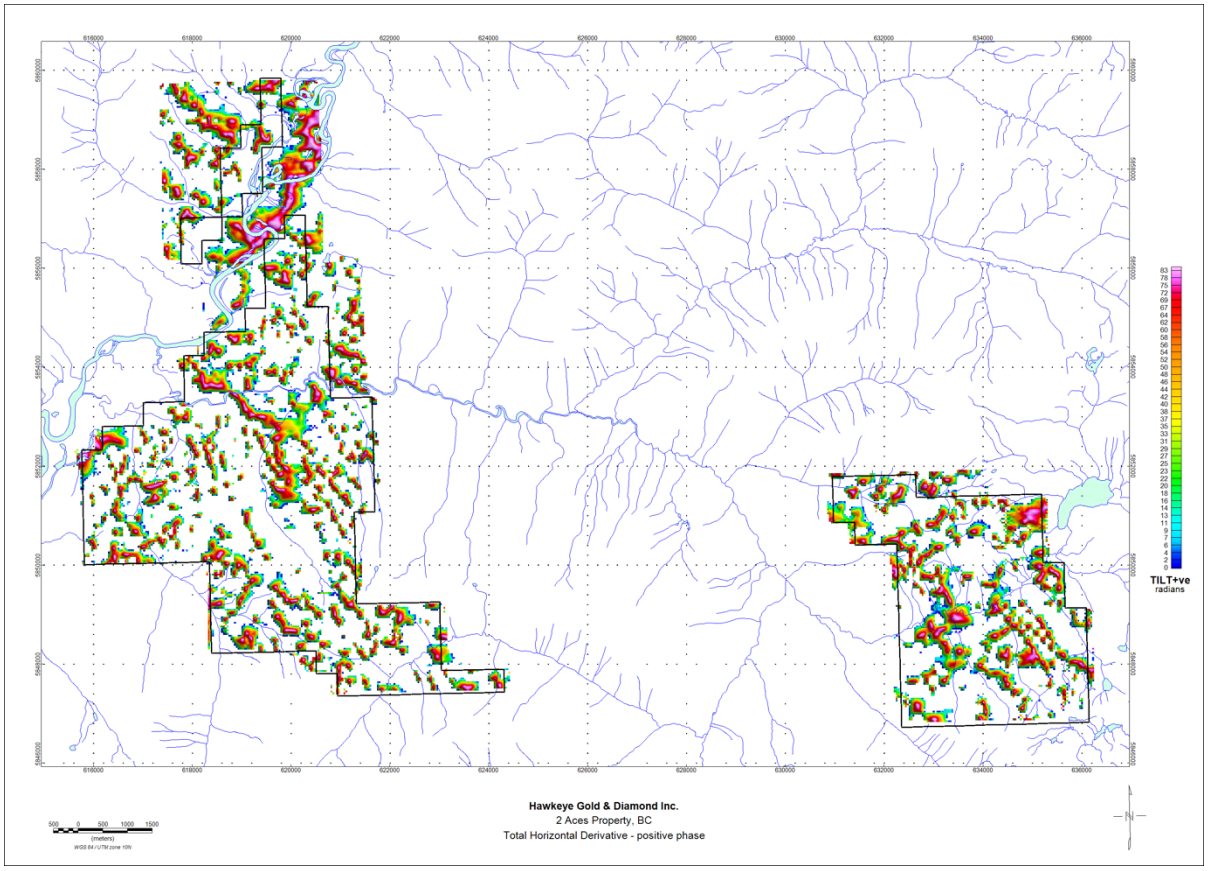

Figure 9. Tilt Derivative – positive phase only

New Enhancement Filters (Shi and Butt, 2004)

Besides the standard 1VD, THD, TDR and AS, etc., new enhancement filters for geological mapping have been developed for the purpose of enhancing weak magnetic anomalies from near-surface sources while simultaneously enhancing low-amplitude, long-wavelength magnetic anomalies from deep-seated or regional sources.

The Edge filter group highlights edges surrounding both shallow and deeper magnetic sources. The results are used to infer the location of the boundaries of magnetized lithologies.

The Block filter group has the effect of transforming the data into “zones” which, similar to image classification systems, segregate anomalous zones into apparent lithological categories. Both filter groups change the textural character of a dataset and thereby facilitate interpretation of geological structures. Representative images of the Edge and Block group are shown following:

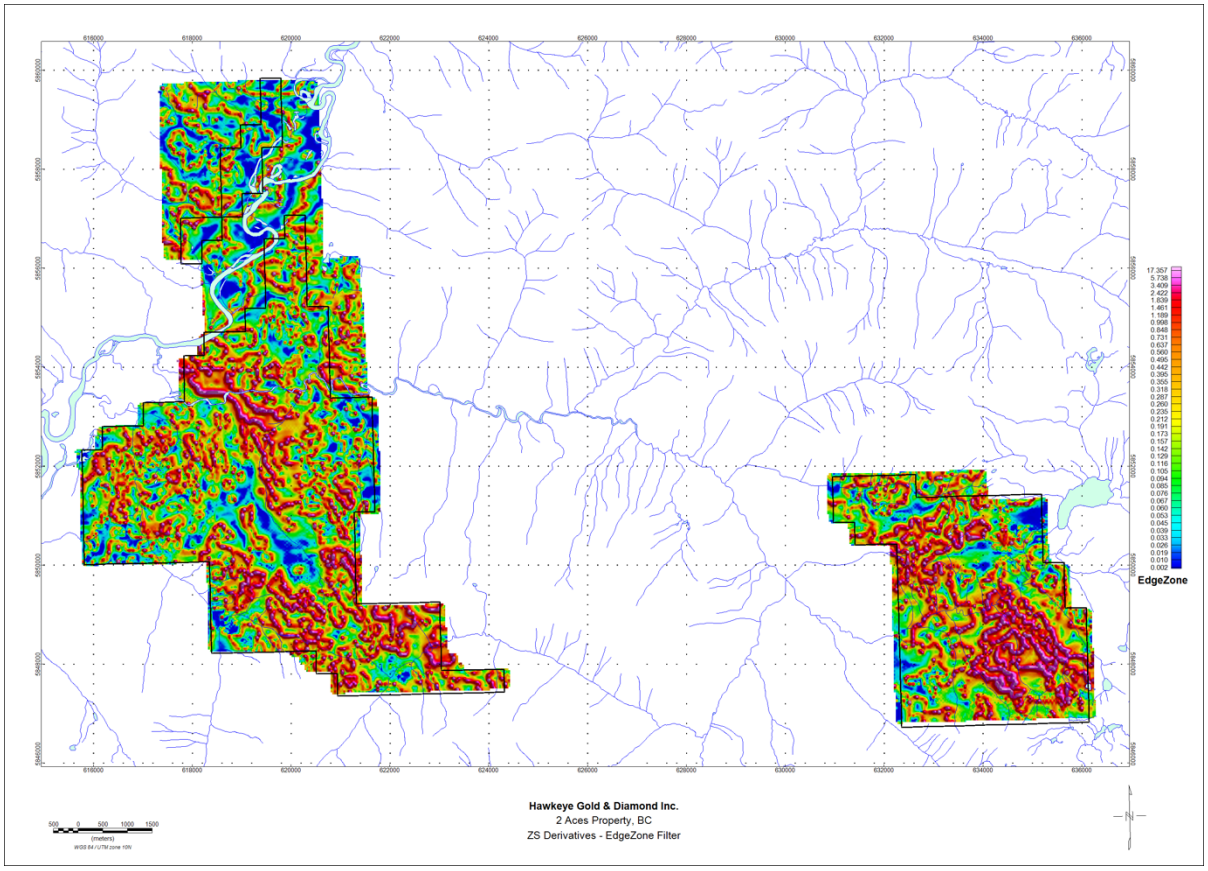

Figure 10. ZS EdgeZone Filter (Edge/EdgeZone group)

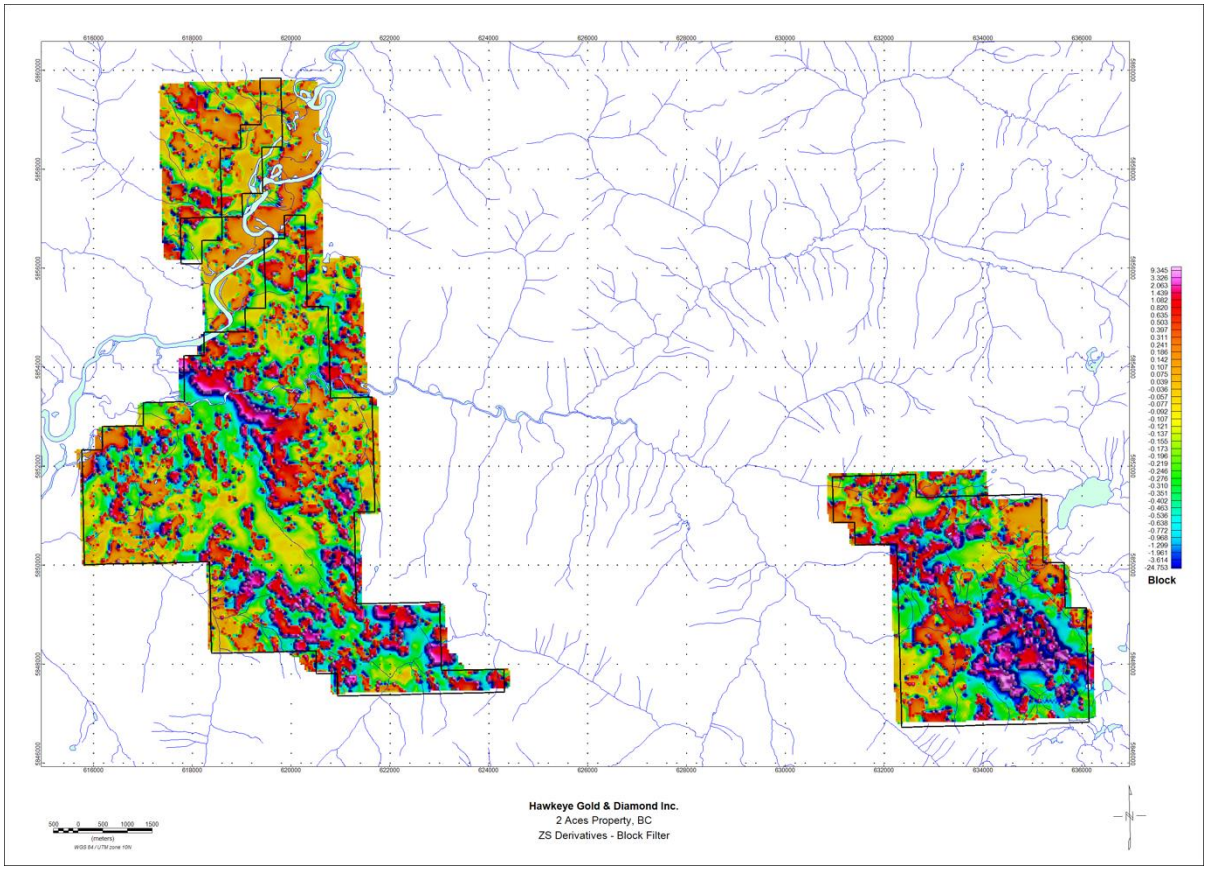

Figure 11. ZS Block Filter (Area/Block/Plateau group)

Structural Analysis: Multiscale Edge Detection ('worms')

A two-pronged approach was taken to identify and map magnetic 'fabric' … multiscale edge detection (also known as 'worms') as described by Milligan et al, 2004 as well as a fractal analysis as described by Holden et al, 2008. Current implementation (Intrepid software) of multiscale edge analysis includes the use of Eüler 'worms' which provide a view of structural geology obtained directly from potential field geophysical data. The method is based on Fourier techniques for continuation, reduction-to-pole and total horizontal derivatives coupled with automatic edge detection.

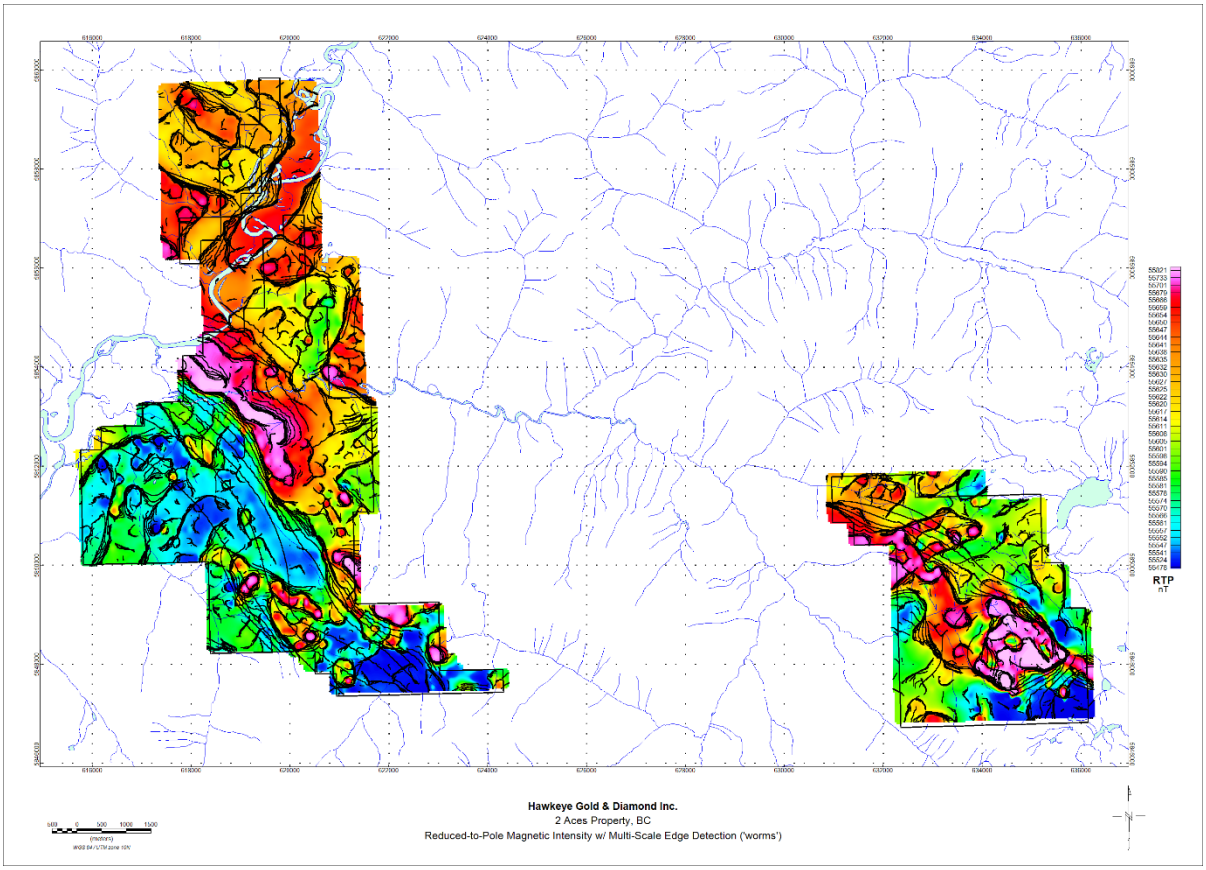

Figure 12. Multiscale Edge Detection 'worms' overlain on RTP Magnetic Intensity

The analysis of lineaments is of fundamental importance to understanding geological structures and the stress regimes in which they are produced. Automatic analysis of lineaments has previously been done with information mapped from remotely sensed data, using either satellite-based imagery or aerial photographs. Potential field data may also be analyzed in terms of their lineament content. Edge detection and automatic trend analysis using gradients in such data are methods for producing unbiased estimates of sharp lateral changes in physical properties of rocks. The assumption is made that the position of the maxima in the horizontal gradient of gravity or magnetic data represents the edges of the source bodies, although this should be used with caution. Such maxima can be detected and mapped as points, providing the interpreter with an unbiased estimate of their positions. The process of mapping maxima as points can be extended to many different levels of upward continuation, thus providing sets of points that can be displayed in three dimensions, using the height of upward continuation as the z-dimension.

Multi-scale edge detection was substantially developed by CSIRO in Perth in the late 1990s (Archibald *et al,* 1999). It combines wavelet analysis, potential field edge detection and upward continuation to attempt to recover the horizontal location of property contrast interfaces, and to characterize their extension in depth. The *Intrepid* software implementation of this technique is shown above on the interpretation map, Figure 12. The combination of 'worms' and pseudocolour magnetic intensity, above) and derived derivatives of the magnetic intensity, highlight structural fabric of the Seller Creek property.

Structural Analysis: CET Grid Analysis

The Centre for Exploration Targeting (CET) grid analysis (via a Geosoft plugin) provides tools for texture analysis, lineation detection and vectorization, leading to both structural complexity and orientation entropy 'heatmaps' shown on following images. Au mineralization is known to occur near major crustal breaks manifesting as large-scale shear zones, which act as conduits for mineralizing fluids; mineralization occurs in regions of structural complexity adjacent to the shear zones. Progressing towards the automatic detection of such regions, the CET grid analysis system:

- Delineates zones of magnetic discontinuity that correspond to both lithological boundaries and shear zones using a combination of texture analysis and symmetry feature detection techniques
- Examines the data using fractal analysis to find areas nearby with a complex magnetic expression (zones of structural complexity).
- The most prospective areas are those where inferred structural complexity occurs adjacent to the regions of magnetic discontinuity.
- This approach may have merit in this instance, with the applicability at Silver Ivan to be based upon correlation of known and/or inferred geology to the derived structural complexity and orientation entropy 'heat maps.'

The contact occurrence density (COD) process generates a heat map that highlights high density of structural contacts, which include junctions and intersections of different structures and locations where structures have significant orientation changes.

Given an input of vectorized structures/trends (in this case, the multiscale edge detection 'worms', pairs of line segments are analyzed to determine if they meet or intersect at an angle that is greater than a specified threshold. Each of these contact locations are then marked and used to cast a 2D Gaussian vote towards the overall Contact Occurrence Density in the resulting heatmap.

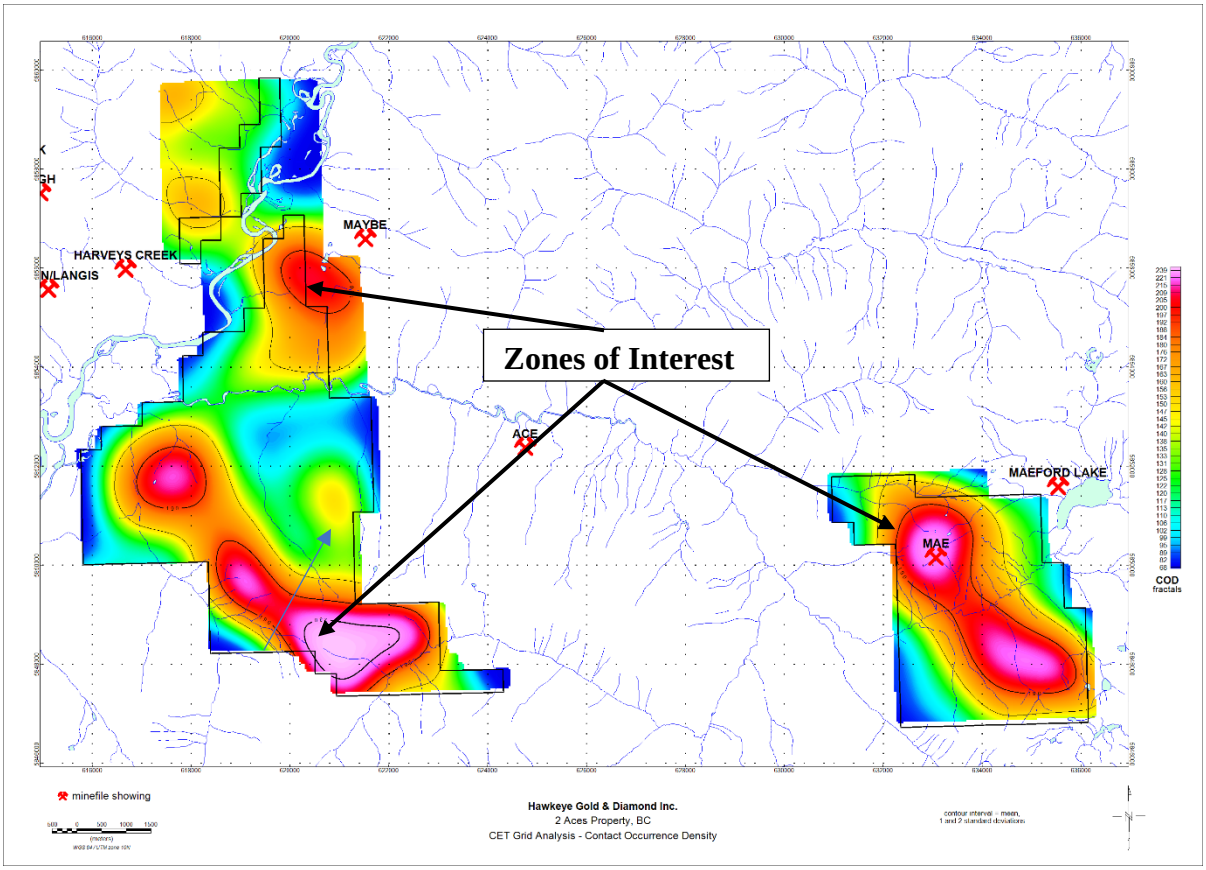

Figure 13. CET Grid Analysis: Contact Occurrence Density w/ 1 & 2 STD above means

Anomalous contact occurrences arbitrarily delineated by the 1 and 2 standard deviation contours on Figure 13 above; the anomaly coincident with the Mae Pb-Zn is area of interest ('AOI') as is the southeast extension. The strong NW-trending zone on the western group of claims is similarly noteworthy. These zones imply the presence of notable fractal intensity and in turn, significant structural breakage.

Orientation Entropy (OE) highlights regions where structures occur over a wide range of orientations, thus indicating areas of potential structural complexity. OE is based on the same fractal analysis / phase symmetry as the COD. The output grid comprises real values indicating the entropy of nearby structure orientations, centred about each cell. Regions of high entropy are considered to exhibit high statistical randomness, and thus areas of potential structural complexity.

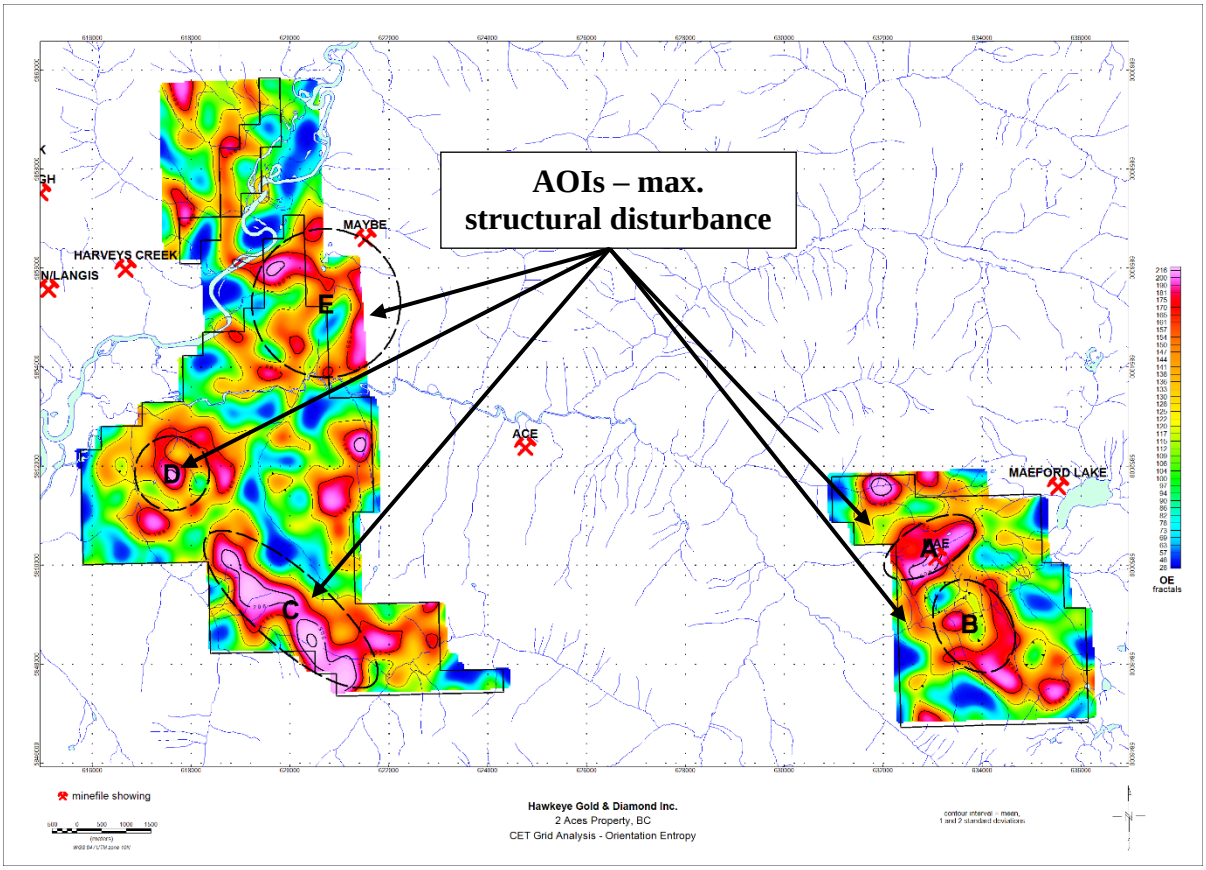

Figure 14. CET Grid Analysis: Orientation Entropy w/ 1 and 2 STDs above mean

Anomalous 'entropy' (e.g., 1 & 2 standard deviations above the mean, shown as heavy black contours) delineates regions of significant magnetic (i.e., geologic, including shear zones and lithological boundaries) discontinuity. If we accept that fault/shear zones play a role in the potential mineralization in the Cariboo gold camp, then the elliptical polygons mapped on the orientation entropy heat map should similarly reflect regions of significant structural complexity with high prospectivity for gold mineralization.

A single main area of interest, Zone A, in the eastern section coincides with the Mae Pb-Zn showing and lays proximal if not in, the Pleasant Valley thrust. A possible southeast extension of this is indicated as zone B. A very strong disturbance is mapped to the east as Zone C; an inferred northwest extension, Zone D, appears to be approximately circular. Zone E has some characteristics of a ring-like feature, although it lays mostly off the claim block. All these are presented as significant zones of structural complexity.

3 CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne magnetic and gamma-ray spectrometry survey over the 2 Aces property of Hawkeye Gold & Diamond Inc. acquired approximately 502 line-km of helicopter-borne geophysical data in November–December 2018. The survey covers 10 active and good-standing claims amounting to approximately 5,394 ha located in the Cariboo Mining District, British Columbia. All claims are assigned 100% to Hawkeye Gold & Diamond Inc.

The magnetic survey has provided valuable structural and geological information. A suite of filters and derivatives have been applied to the aeromagnetic gridded data, followed by a multiscale edge detection and automated grid 'fractal' analysis to identify regions prospective for gold mineralization based upon structural complexity as inferred from magnetics being indicative of significant faults, shears.

Specific areas of interest are identified by Centre for Exploration Targeting grid analysis: three somewhat broad features on the contact occurrence density 'heatmap' with an separation into component parts by the occurrence entropy; note that some degree of overlap exists between these two outputs.

Future work to verify the potential of these areas of interest should include prospecting, surface mapping, geochemical sampling and ground geophysics (e.g., induced polarization/resistivity).

The property remains a challenge in terms of inclement weather patterns, rugged terrain, and heavy undergrowth. Considerations for future work include both ground geophysics as well as extensive soils geochemistry and geological prospecting.

Due to the relatively high costs and slow progress, ground geophysics should be constrained in terms of follow-up to the investigation of discrete target zones themselves representing anomalous soil geochemistry and/or airborne geophysical anomalies.

4 STATEMENT OF QUALIFICATIONS

I, Christopher J. Campbell, B.Sc., M.B.A., P.Geo., with business address of 4505 Cove Cliff Road, North Vancouver British Columbia V7G 1H7, hereby certify that:

- I am a graduate (1972) of the University of British Columbia, with a Bachelor of Science degree in Geophysics.
- I am a graduate (1986) of the University of Denver, with a Masters of Business Administration.
- I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
- I have practised my profession for approximately 49 years in Canada (British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Newfoundland and Labrador, Yukon, Northwest Territories, and Nunavut), United States of America, Australia, Russia, and Africa.
- I have no interest, direct or indirect, in the properties or securities of Hawkeye Gold & Diamond Inc., or in any of their related companies or joint venture partners anywhere in Canada.
- Dated at North Vancouver, British Columbia, this 8th day of October 2021.

Christopher Campbell, B.Sc., M.B.A., P.Geo.

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Milligan, P. R., Read, G., Meixner, T. and FitzGerald, D., 2004, Towards automated mapping of depth to magnetic/gravity basement — examples using new extensions to an old method. Extended Abstracts, ASEG 17th Geophysical Conference and Exhibition, Sydney.

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APPENDIX A:

GEOTECH LTD., JANUARY 2019, REPORT ON A HELICOPTER-BORNE AEROMAGNETIC GEOPHYSICAL SURVEY, PROJECT GL180345

HELISTINGER

REPORT ON A HELICOPTER-BORNE AEROMAGNETIC GEOPHYSICAL SURVEY

PROJECT:	2 ACES
LOCATION:	LIKELY, BRITISH COLUMBIA
FOR:	HAWKEYE GOLD & DIAMONDS INC.
SURVEY FLOWN:	NOVEMBER – DECEMBER 2018
PROJECT:	GL180345

Geotech Ltd.
245 Industrial Parkway North
Aurora, ON Canada L4G 4C4

Tel: +1 905 841 5004
Web: www.geotech.ca
Email: info@geotech.ca

GEOTECH
AIRBORNE GEOPHYSICAL SURVEYS

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EXECUTIVE SUMMARY

2 Aces Blocks
LIKELY, BRITISH COLUMBIA

From November 16th to December 7th, 2018 Geotech Ltd. carried out a helicopter-borne geophysical survey over the 2 Aces Blocks situated near Likely, British Columbia.

The principal geophysical sensor was a caesium magnetometer. Ancillary equipment included a GPS navigation system, radar altimeter and laser altimeter. A total of 502 line-kilometres of geophysical data were acquired during the survey.

In-field data quality assurance and preliminary processing were carried out on a daily basis during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results are presented as the following maps:

- Total Magnetic Intensity (TMI),
- Calculated Vertical Gradient (CVG)
- Digital Terrain Model (DEM)

The survey report describes the procedures for data acquisition, description o equipment processing, final image presentation and the specifications for the digital data set.

1. INTRODUCTION

1.1 GENERAL CONSIDERATIONS

Geotech Ltd. performed a helicopter-borne geophysical survey over the 2 Aces Blocks situated near Likely, British Columbia (
Figure 1 & Figure 2).

Greg Neeld represented Hawkeye Gold & Diamonds Inc. during the data acquisition and data processing phases of this project.

The geophysical survey consisted of helicopter-borne aeromagnetics using a caesium magnetometer system. A total of 502 line-km of geophysical data were acquired during the survey.

The crew was based out of Likely, within the project area, for the acquisition phase of the survey. Survey flying started on November 16th, 2018 and was completed on December 7th, 2018.

Data quality control and quality assurance, and preliminary data processing were carried out on a daily basis during the acquisition phase of the project. Final data processing followed immediately after the end of the survey. Final reporting, data presentation and archiving were completed from the Aurora office of Geotech Ltd. in January, 2017.

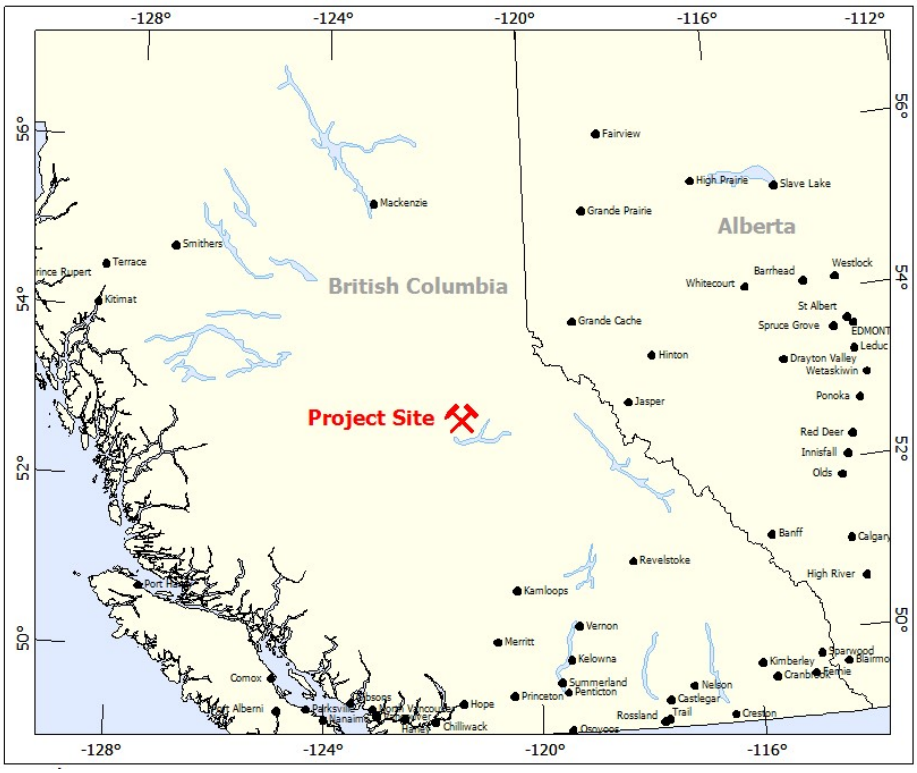

Figure 1: Survey location.

1.2 SURVEY AND SYSTEM SPECIFICATIONS

The survey area was located approximately 27 kilometres northeast of Likely, British Columbia (Figure 2).

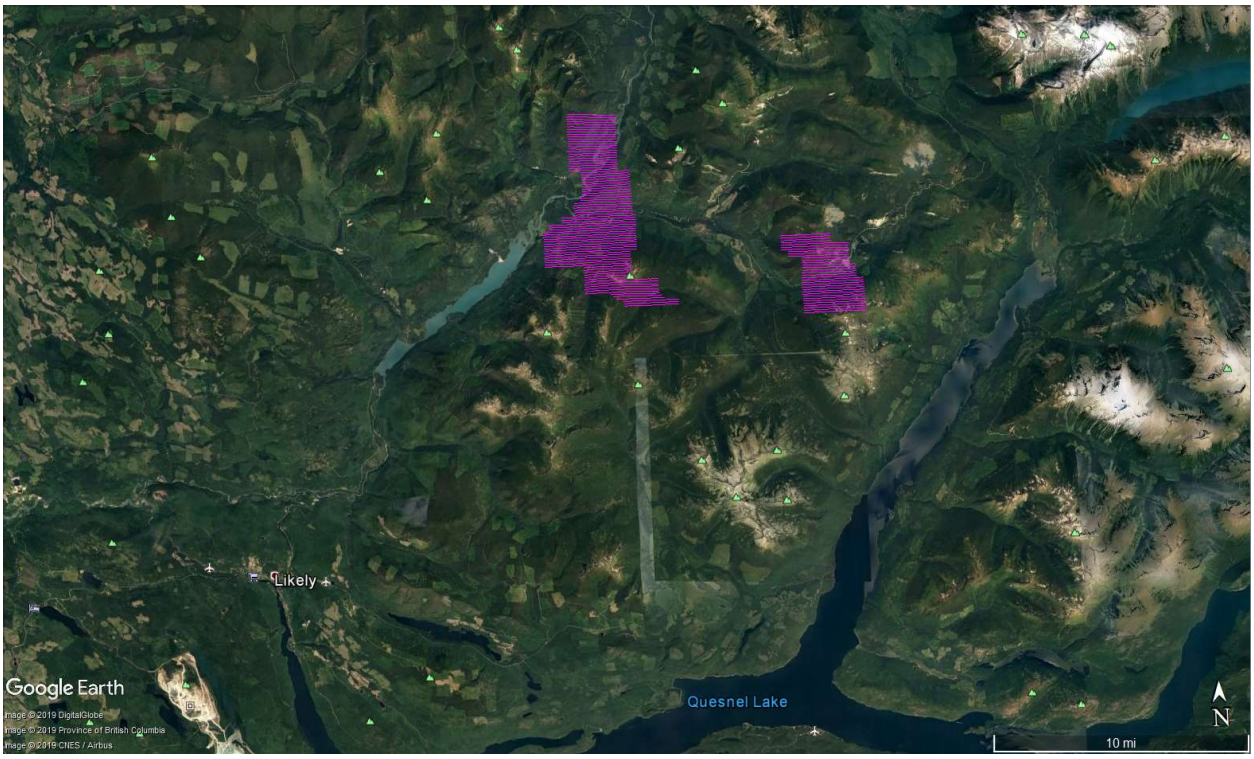

Figure 2: Survey area locations on Google Earth.

The survey was flown in an east to west (N 90° E azimuth) direction, with traverse line spacing of 150 as depicted in Figure 3. Tie lines were flown perpendicular to the traverse lines. For more detailed information on the flight spacing and direction see Table 1.

1.3 TOPOGRAPHIC RELIEF AND CULTURAL FEATURES

Topographically, the survey area exhibits a moderate relief with an elevation ranging from 808 to 2032 metres above mean sea level over an area of 60 square kilometres.

There are various rivers and streams running through the survey area which connect various lakes and wetlands. There are no visible signs of culture such as roads and buildings located in the survey area. (Figure 3)

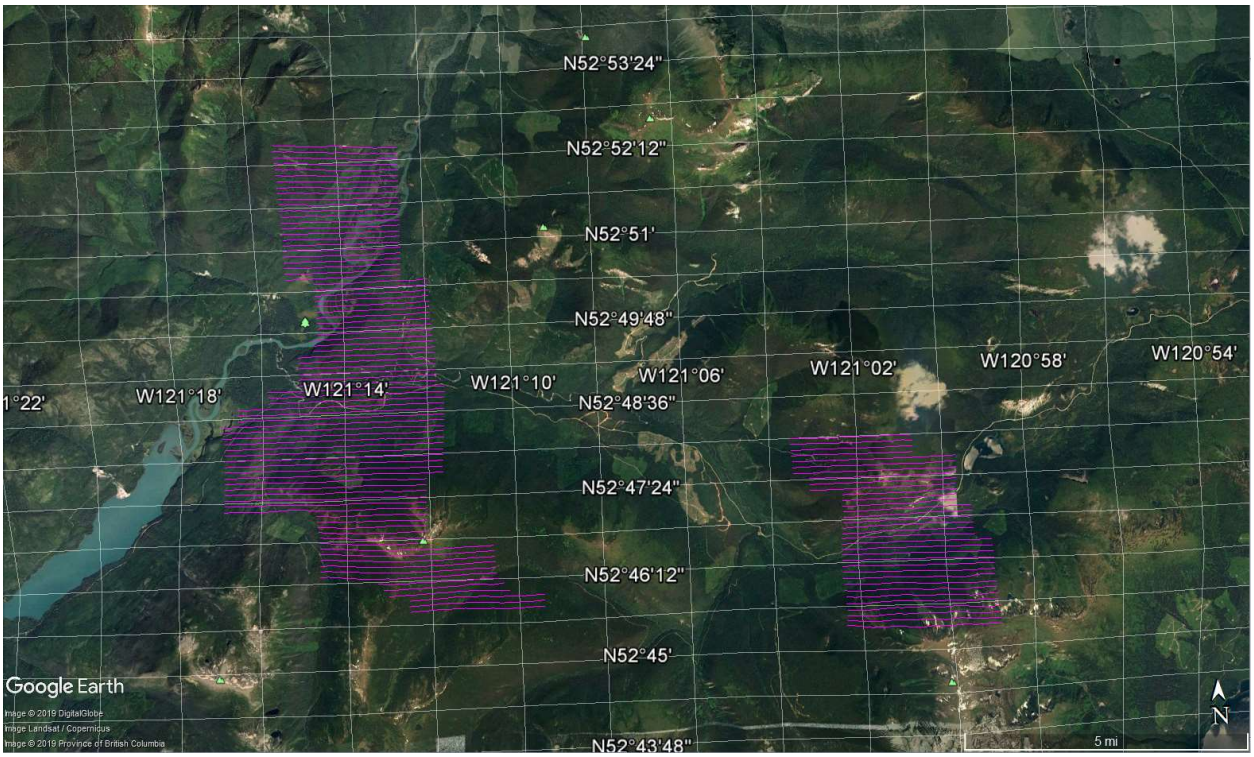

Figure 3: Flight path over a Google Earth Image.

2. DATA ACQUISITION

2.1 SURVEY AREA

The survey area (see Figure 3 and Appendix A) and general flight specifications are as follows:

Table 1: Survey Specifications

Survey Blocks	Line spacing (m)	Area (Km^2)	Planned[1] Line-km	Actual Line-km	Flight direction	Line numbers
2 Aces & 2 Aces East	Traverse: 150	60	489	502	N 90° E / N 270° E	L3020 – L6330
	Tie: 1500				N 0° E / N 180° E	T5000 – T7020
TOTAL		60	489	502		

Survey area boundaries co-ordinates are provided in Appendix B.

2.2 SURVEY OPERATIONS

Survey operations were based out of Likely, British Columbia from November 16th until December 7th 2018. The following table shows the timing of the flying.

Table 2: Survey schedule

Date	Comments
2018-11-16	Crew arrived in Okotoks, AB. Completed local logistics.
2018-11-17	Commenced system assembly.
2018-11-18	Completed system assembly.
2018-11-19	Commenced system testing, mag issue observed during testing. Commenced troubleshooting and located source, requested part from the office.
2018-11-20	Crew received shipment from the office.
2018-11-21	Replaced part, completed test line. Unable to complete high altitude test flights due to extreme high winds at altitude, will complete once onsite. Ground crew commenced mobilization towards Likely, BC.
2018-11-22	Ground crew arrived onsite, Heli arrival delayed due to weather.
2018-11-23	Heli arrival delayed due to weather, tested base stations.
2018-11-24	Heli arrived on site in the afternoon, completed recon flight, will re-adjust flying height due to 120-130ft trees in the survey area. Unable to complete test flights due to low ceilings.
2018-11-25	No test flights completed due to weather, low ceilings.
2018-11-26	No test flights completed due to weather, rain throughout the day.
2018-11-27	No test flights completed due to weather, rain and low ceilings throughout the day.
2018-11-28	Late start due to weather, crew was able to complete high altitude test flights, system cleared for production.
2018-11-29	1 short production flight completed in the morning, aborted due to low ceilings, once weather improved 2nd production flight completed in the afternoon, 267km flown.
2018-11-30	Late start due to weather, 2 production flights completed, 249km flown.
2018-12-01	Late start due to weather, 2 production flights completed, 222km flown.
2018-12-02	Late start due to weather, 1 production flight completed, 138km flown.
2018-12-03	2 short production flights completed, 53km flown. Some troubleshooting required.
2018-12-04	Completed troubleshooting, test flight completed, 9km flown.

[1] Note: Actual Line kilometres represent the total line kilometres in the final database. These line-km normally exceed the Planned Line-km, as indicated in the survey NAV files.

2018-12-05	Attempted production flight but aborted due to weather, low ceilings throughout the day.
2018-12-06	3 production flights completed, 355km flown.
2018-12-07	3 production flights completed, 169km flown. Flight Path Completed.

2.3 FLIGHT SPECIFICATIONS

During the survey the helicopter was maintained at a mean altitude of 73 metres above the ground with a nominal survey speed of 140 km/hour.

The on-board operator was responsible for monitoring the system integrity. The operator also maintained detailed flight logs during the survey, tracking the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer. The data were then uploaded via ftp to the Geotech office in Aurora for daily quality assurance and quality control by qualified personnel.

2.4 AIRCRAFT AND EQUIPMENT

2.4.1 SURVEY AIRCRAFT

The survey was flown using an Aerospatiale A-Star 350 B2, registration C-GXAH. The helicopter is owned and operated by Yellowhead Helicopters. Installation of the geophysical and ancillary equipment was carried out by a Geotech Ltd crew.

2.4.2 AIRBORNE MAGNETOMETER

The magnetic sensor utilized for the survey was Geometrics optically pumped cesium vapour magnetic field sensor was installed inside the stinger. The sensitivity of the magnetic sensor is 0.01 nanoTesla (nT) at a sampling interval of 0.025 seconds or at sampling frequency of 40Hz.

2.4.3 MAGNETIC COMPENSATION SYSTEM

The magnetic data were compensated in real-time using an RMS Instruments AARC510 Compensator, utilizing a three-axis (XYZ) Fluxgate magnetometer to measure roll, pitch and yaw movements of the survey aircraft. A 26-term model of the aircraft magnetic noise was determined during a pre-survey test flight, removing permanent, induced, and eddy current fields from the airborne magnetic measurements. The efficacy of this compensation was tested with a Figure of Merit (FOM) test; the total FOM was determined to be 1.071 nT (Appendix D).

2.4.4 ALTIMETER

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance.

2.4.5 VIDEO CAMERA

A colour 550 High-Resolution camera with auto gain control, 550 line resolution was used with a standard 3.6mm lens. Digital files provided with resolution of 768 by 494 at selectable 1-30 frames per second.

2.4.1 LASER ALTIMETER

A Schmitt Industries AR300 laser altimeter was used. Altitude range 0.5 to 300m and accuracy ± 5cm.

Figure 4: System Configuration.

2.4.2 GPS NAVIGATION SYSTEM

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's WAAS (Wide Area Augmentation System) enabled GPS receiver, Geotech navigation software, a full screen display with controls in front of the pilot to direct the flight and a NovAtel GPS antenna mounted on the helicopter tail (Figure 4). As many as 11 GPS and two WAAS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m; with WAAS active, it is 1.0 m. The co-ordinates of the Blocks were set-up prior to the survey and the information was fed into the airborne navigation system.

2.4.3 DIGITAL ACQUISITION SYSTEM

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. The data type and sampling interval as provided in Table 3.

Table 3: Acquisition Sampling Rates

Data Type	Sampling
Magnetometer	0.025 sec
GPS Position	0.2 sec
Pressure and Temperature	1 sec
Radar Altimeter	0.2 sec

2.5 BASE STATION MAGNETOMETER

A dedicated computer including a high sensitivity base station cesium magnetometer and a GPS system to record the GPS time together with the magnetic data was employed to record diurnal magnetic activity. A Geometrics G822B high-sensitivity caesium vapour magnetometer and integrated GPS unit for accurate time synchronization was used with 10Hz data output. Digital recordings of the ground magnetometer were recorded at all times during the survey. The digital data include the date, an absolute value of the magnetic field, and GPS time with accurate synchronization to the aircraft data acquisition system.

The base station magnetometer sensor was installed near the landing site, away from electric transmission lines and moving ferrous objects such as motor vehicles. The base station data were backed-up to the data processing computer at the end of each survey day.

2.6 GPS GROUND BASE STATION

A dedicated Novatel PROPAK-V3_TR20 GPS receiver and a dedicated ground based GPS antenna was used with a 10Hz Raw GPS data recording. Post-flight differential GPS data processing utilizing Novatel GrafNav 8.3 software was used to produce sub-meter accuracy of the airborne system location at 10Hz sampling interval.

3. PERSONNEL

The following Geotech Ltd. personnel were involved in the project.

FIELD:

Project Manager:	Shauna-Lee Hewitt (Office)
Data QC:	Dmitriy Danchenko (Office)
Crew chief:	Juan Carlos Florez Osorio
Operator:	n/a

The survey pilot and the mechanical engineer were employed directly by the helicopter operator – Yellowhead Helicopters.

Pilot:	Jason Cyr
Mechanical Engineer:	n/a

OFFICE:

Preliminary Data Processing:	Dmitriy Danchenko
Final Data Processing:	TaiChyi Shei
Data QA/QC:	Zihao Han
	Kanita Khaled
Reporting/Mapping:	Joseli Soares

Processing and Interpretation phases were carried out under the supervision of Alexander Prikhodko, P.Geo, PhD, and Director of Geophysics. The customer relations were looked after by Jean M. Legault.

4. DATA PROCESSING AND PRESENTATION

Data compilation and processing were carried out by the application of Geosoft Oasis Montaj and programs proprietary to Geotech Ltd.

4.1 FLIGHT PATH

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the WGS84 Datum, UTM Zone 10 North coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x, y positions from the navigation system. Positions are updated every second and expressed as UTM easting's (x) and UTM northing's (y).

4.2 MAGNETIC DATA

The processing of the magnetic data involved a correction for diurnal variations by using the digitally recorded ground base station magnetic values. The base station magnetometer data was edited and merged into the Geosoft GDB database on a daily basis. The aeromagnetic data was corrected for diurnal variations by subtracting the observed magnetic base station deviations.

Tie line levelling was carried out by adjusting intersection points along traverse lines. A micro-levelling procedure was applied to remove persistent low-amplitude components of flight-line noise remaining in the data.

The corrected magnetic data was interpolated between survey lines using a random point gridding method to yield x-y grid values for a standard grid cell size of 37.5 metres at the mapping scale. The Minimum Curvature algorithm was used to interpolate values onto a rectangular regular spaced grid.

5. DELIVERABLES

5.1 SURVEY REPORT

The survey report describes the data acquisition, processing, and final presentation of the survey results. The survey report is provided in two paper copies and digitally in PDF format.

5.2 MAPS

Final maps were produced at scale of 1:15,000 for best representation of the survey size and line spacing. The coordinate/projection system used was WGS84 Datum, UTM Zone 10 North. All maps show the flight path trace and topographic data; latitude and longitude are also noted on maps.

The preliminary and final results of the survey are presented as a colour TMI contour map and vertical derivative colour maps.

- Maps at 1:15,000 in Geosoft MAP format, as follows:

  GL180345_15K_TMI_2Aces: Total Magnetic Intensity (TMI)
  GL180345_15k_CVG_ 2Aces: Calculated Vertical Gradient (CVG)
  GL180345_15k_DEM_ 2Aces: Digital Elevation Model (DEM)

- Maps are also presented in PDF format.

- The topographic data base was derived from 1:50,000 Natural Resources Canada NTDB data www.geogratis.ca

- A Google Earth file *GL180345_Hawkeye_SellerCreek.kml* showing the flight path of the Blocks is included. Free versions of Google Earth software from: http://earth.google.com/download-earth.html

5.3 DIGITAL DATA

Two copies of the data on DVD were prepared to accompany the report. Each DVD contains a digital file of the line data in GDB Geosoft Montaj format as well as the maps in Geosoft Montaj Map and PDF format.

- DVD structure.

  Data contains databases, grids and maps, as described below.
  Report contains a copy of the report and appendices in PDF format.

Databases in Geosoft GDB format, containing the channels listed in Table 4.

Table 4: Geosoft GDB Data Format

Channel Name	Description
X	X Easting Positional data (meters) – WGS84 UTM 10N
Y	Y Northing Positional data (meters) – WGS84 UTM 10N
Z	GPS antenna elevation (meters – ASL)
Longitude	WGS84 GPS longitude (decimal degrees) from x
Latitude	WGS84 GPS latitude (decimal degrees) from y
Date	Flight Date (YYYY/MM/DD)
gtime	UTC time, second of the day
Fiducial	Sample Number
Flight	Survey Flight Number
Radar	Aircraft Terrain Clearance from Radar altimeter (metres)
DEM	Digital elevation model derived from Radar altimeter (metres)
Flux_X	Vector Magnetometer X Component (nT)
Flux_Y	Vector Magnetometer Y Component (nT)
Flux_Z	Vector Magnetometer Z Component (nT)
TFCMP1	Raw Total Compensated Magnetic field (nT)
Mag1	De-spiked and compensated Total Magnetic field (nT)
Basemag	Magnetic diurnal variation (nT)
Mag2	Diurnal corrected Total Magnetic field (nT)
Mag3	Final Levelled Total Magnetic field (nT)
CVG	First Vertical Derivative of Total Magnetic field (nT/m)

- Grids in Geosoft GRD and GeoTIFF format, as follows:

  GL180345_TMI_ 2Aces: Total magnetic intensity (nT)
  GL180345_CVG_ 2Aces: Calculated Vertical Derivative of TMI (nT/m)
  GL180345_DEM_ 2Aces: Digital Elevation Model (metres)

  A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information. A grid cell size of 37.5 metres was used.

6. CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne geophysical survey has been completed over the 2 Aces Blocks situated near Likely, British Columbia.

The total area coverage is 60 km^2. Total survey line coverage 502 line kilometres. The principal sensor was a high-sensitivity caesium magnetometer. Results have been presented as contour colour images at a scale of 1:15,000. A formal Interpretation has not been included or requested.

Based on the geophysical results obtained a formal magnetic interpretation is recommended and can be completed by Geotech. This includes the structural interpretation and 3D magnetic inversion and geological integration.

Respectfully submitted[2],

Dmitriy Danchenko
Geotech Ltd.

Tai-chyi Shei
Geotech Ltd.

Kanita Khaled, P.Geo
Geotech Ltd.

Joseli Soares
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ALEXANDER PRIKHODKO
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ONTARIO

Alexander Prikhodko, P.Geo, PhD
Geotech Ltd.

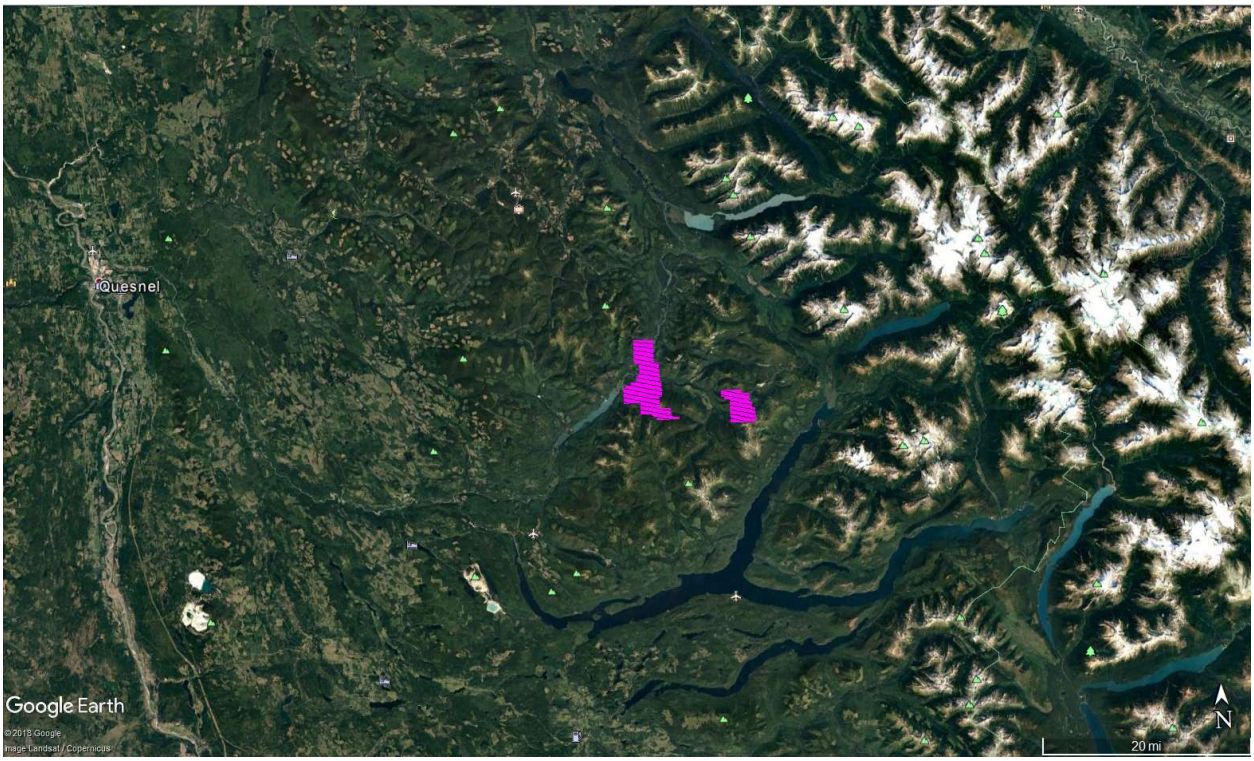
Zihao Han
Geotech Ltd.

January, 2019.

[2] Final data processing of the EM and magnetic data were carried out by Tai-chyi Shei, from the office of Geotech Ltd. in Aurora, Ontario, under the supervision of Alexander Prikhodko, P.Geo.

APPENDIX A

SURVEY AREA LOCATION MAP



Overview of the Survey Area

APPENDIX B

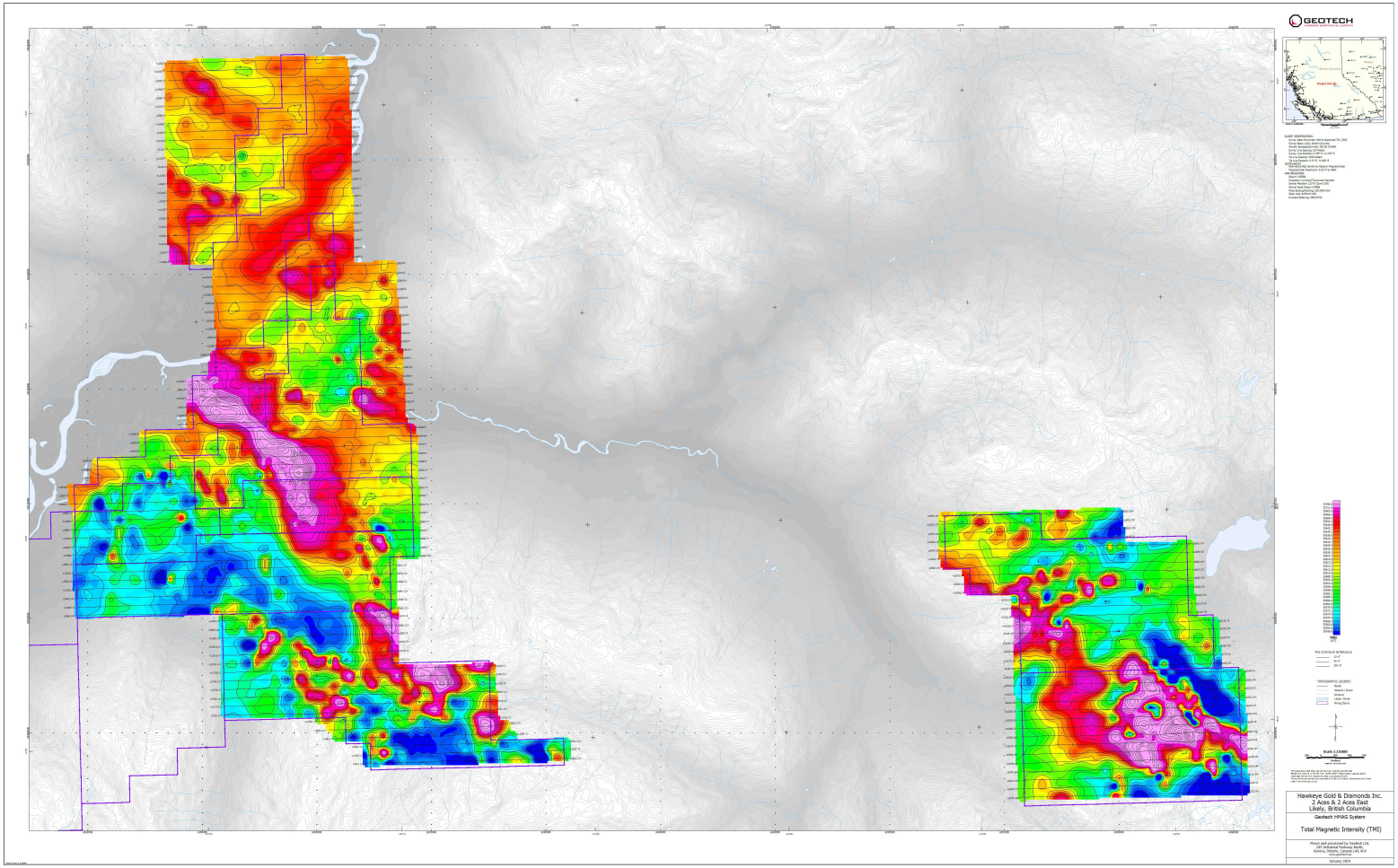
SURVEY AREA COORDINATES

(WGS 84, UTM Zone 10 North)

2 Aces	
X	Y
615746	5850050
615663	5852290
616095	5852331
616136	5852803
616876	5852824
616938	5853297
617718	5853297
617698	5854180
617944	5854201
618171	5856133
617513	5856194
617266	5859770
620534	5859749
620678	5856215
621397	5856235
621582	5853420
621787	5851057
621397	5850954
621397	5849186
623082	5849166
623144	5848262
623390	5848180
623411	5847933
624418	5847871
624459	5847440
620842	5847419
620780	5847871
620102	5847871
619979	5848262
618458	5848282
618314	5850009

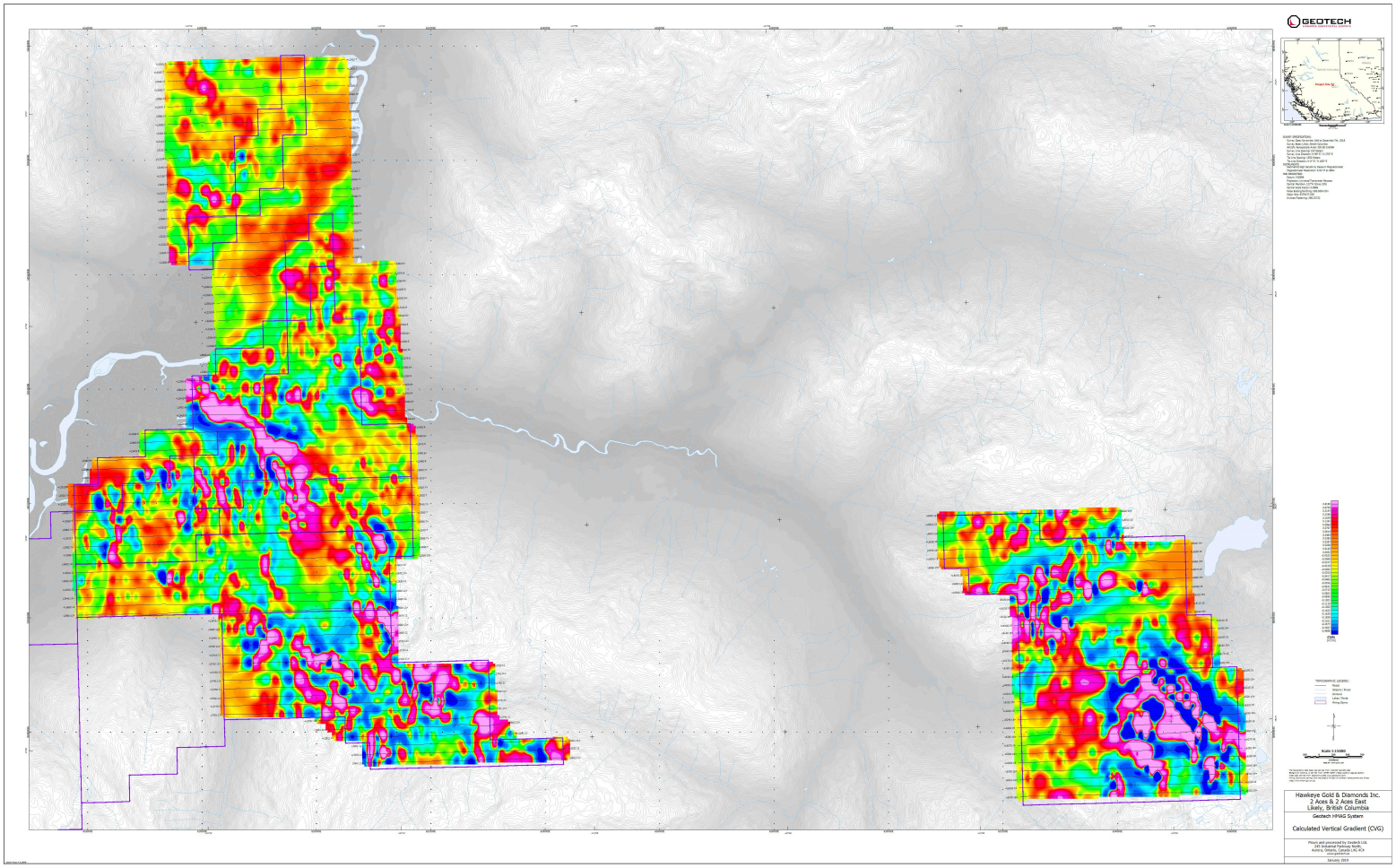
2 Aces East	
X	Y
633949	5851867
630950	5851787
630975	5850859
631397	5850870
634559	5850408
632252	5850431
632291	5849040
632354	5846723
636150	5846827
636085	5849145
635663	5849133
635637	5850060
635216	5850048
635177	5851438
633968	5854554
633949	5851867

APPENDIX C - GEOPHYSICAL MAPS[1]

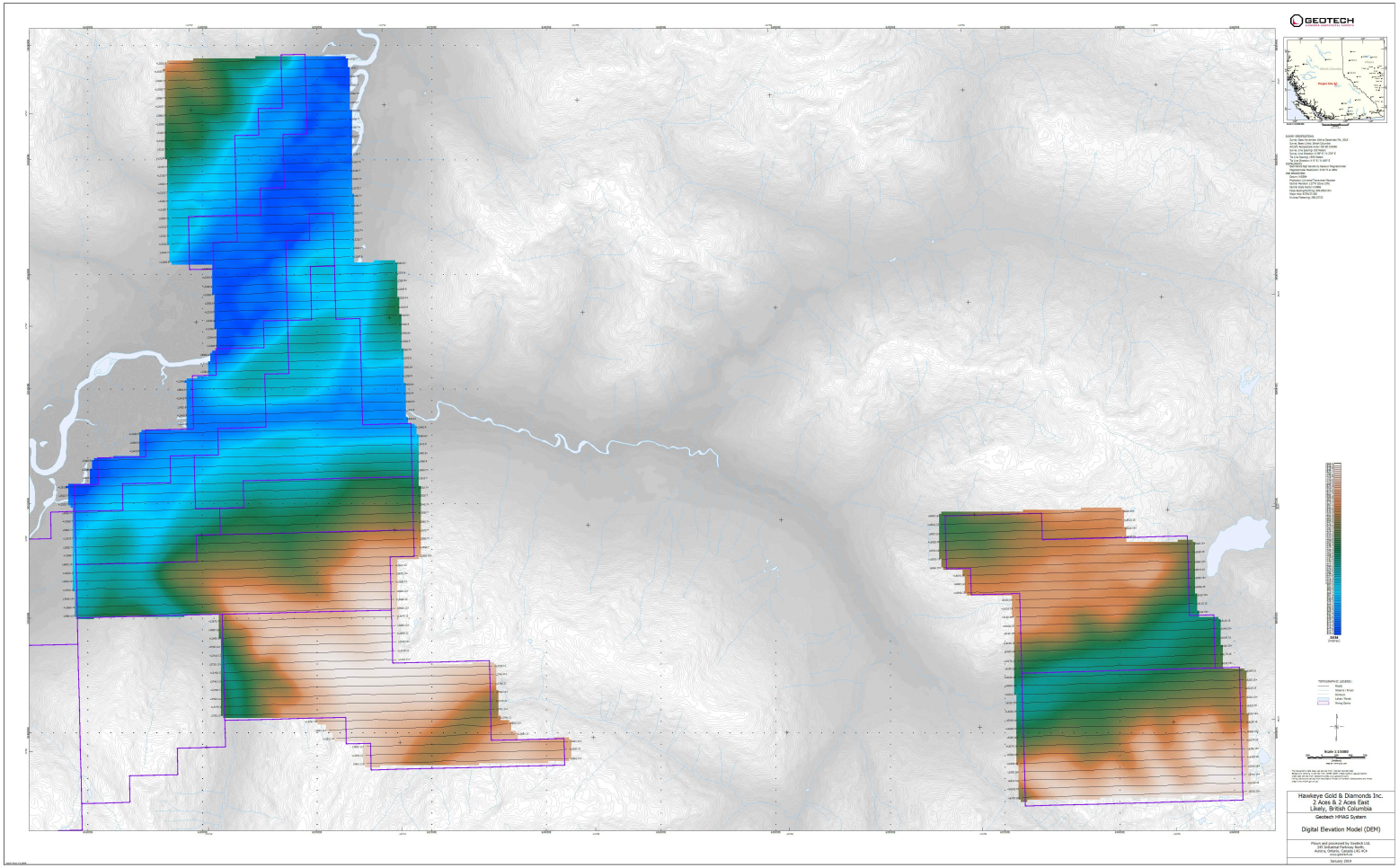


Total Magnetic Intensity (TMI)

[1] Full size geophysical maps are also available in PDF format on the final DVD



Calculated Vertical Gradient (CVG)



Digital Elevation Model (DEM)

APPENDIX D

FIGURE OF MERIT TEST

The Figure of Merit test was performed immediately after the compensation solution was acquired during a high-altitude test near Dragon, BC, on November 28, 2018.

During the test, the aircraft duplicates the roll, pitch and yaw maneuverers performed during the compensation test in all four survey directions. The absolute errors from each of the 12 manoeuvers are summed, and should be less than 2.0nT to confirm adequate compensation.

Figure of Merit result:

Total Field 1 (Stinger Sensor)

Direction	Roll	Pitch	Yaw	Total
0	0.118	0.125	0.088	**0.331**
90	0.088	0.079	0.098	**0.265**
180	0.109	0.068	0.086	**0.263**
270	0.063	0.075	0.074	**0.212**
Total	**0.378**	**0.347**	**0.346**	**1.071**

FOM = 1.071 nT

APPENDIX J - CAMPBELL AND WALKER 2021 GEOPHYSICAL REPORT CARIBOO VALLEY.

CARIBOO VALLEY PROPERTY

ASSESSMENT REPORT

AEROMAGNETIC SURVEY

CARIBOO MINING DIVISION

BRITISH COLUMBIA

121° 20’ 26.1” W, 52° 45’ 1.5” N to 121° 14’ 37.0” W, 52° 48’ 12.8” N

612,000 mE, 5,845,798 mN to 618,400 mE, 5,851,863 mN

NTS MAP SHEET: 093A/14

PREPARED FOR:

Hawkeye Gold & Diamond Inc.

SUITE 202, 1985 ALBERNI STREET
VANCOUVER, BRITISH COLUMBIA V6G 0A2

PREPARED BY:

C. CAMPBELL, P.GEO., GEOPHYSICIST

SUBMITTED: 08 OCTOBER MARCH 2021

Campbell & Walker
Geophysics Ltd.

SUMMARY

A combined magnetic and gamma-ray spectrometry survey over the Cariboo Valley property of Hawkeye Gold & Diamond Inc. acquired approximately 140 line-km of helicopter-borne geophysical data over a 6-day period in November–December 2018. The survey covers 4 active and good-standing claims amounting to approximately 2,092 ha located in the Cariboo Mining District, British Columbia.

The magnetic survey has provided valuable structural and geological information. A suite of filters and derivatives have been applied to the aeromagnetic gridded data, followed by a multiscale edge detection and automated grid 'fractal' analysis to identify regions prospective for gold mineralization based upon structural complexity as inferred from magnetics being indicative of significant faults, shears.

Several areas of interest are identified by the fractal analysis 'heatmaps' suggesting anomalous structural complexity / disturbance. Particular attention is focused on a structurally complex zone in the centre-east portion of the claim block. Further, subsidiary features are also identified.

Due to the relatively high costs and slow progress, ground geophysics should be constrained in terms of follow-up to the investigation of discrete target zones themselves representing anomalous soil geochemistry and/or airborne geophysical anomalies.

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Appendix A Geotech Ltd., January 2019, Report on a helicopter-borne aeromagnetic geophysical survey, Project GL180345, 23 p.

1 INTRODUCTION

A helicopter-borne magnetic survey was flown over the Cariboo Valley claims by Geotech Ltd. for Hawkeye Gold & Diamond Inc. The airborne geophysics was undertaken and completed in 6 days of actual flying spread over a longer period, November 16 to December 07, 2018; final results were delivered in January 2019. A subsequent interpretation and report of this data was completed by Campbell & Walker Geophysics Ltd. in September–October 2021. The survey coverage amounts to 139.793 line-kilometres spread over 2,092.6 hectares.

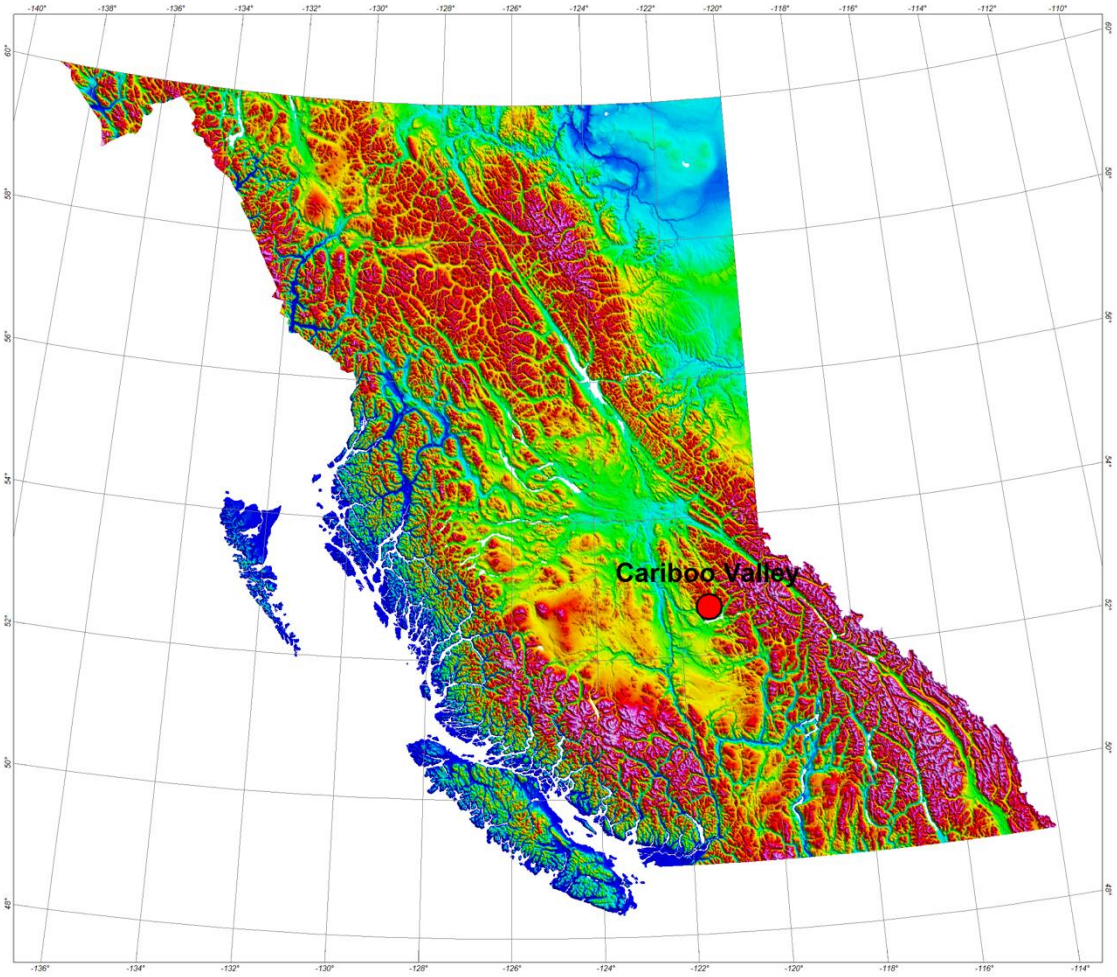

Figure 1. Location Map

In addition to the Geotech Ltd. report in Appendix B, a folder containing the complete Geotech report and raw deliverable data is provided as part 2 that accompanies the filing of this report for assessment work credit.

2 AIRBORNE GEOPHYSICS

2.1 Acquisition and Processing

As stated in the Introduction, Geotech Ltd. was contracted to carry out a program of detailed airborne magnetics in November–December, 2018; The program was completed in 6 days of actual flying spread over a 3-week period. Technical issues at mobilization and in the initial start-up calibration/test flights plus inclement weather adversely impacted the overall production. A total of 139.793 line-kilometres was acquired on traverse lines oriented 090°/270° at 150 m intervals tied by 000°/360° control lines at 1,500 m spacing. Mean terrain clearance achieved was 80.5 m, approximately equivalent to half the traverse line spacing.

The base of operations for this airborne program was the airstrip at Likely, southwest of the survey block. Data was acquired using an Aerospatiale A-Star 350 B2, registration C-GXAH, at a nominal (contractual) height of 75 m, mean terrain clearance. The relatively rugged terrain and requirements for safe operations given the weather conditions precluded significantly lower flying heights.

Projection and Datum Specifications for East and West:

Map projection	NUTM10
Datum	WGS84
Central meridian	123° West
False Easting	500000 m
False Northing	0 m
Scale Factor	0.9996 m

The aeromagnetic data was subjected to standard heading, lag, and diurnal corrections; tie-line levelling and micro-levelling were then applied, followed finally by an IGRF correction. A calculated vertical gradient and digital elevation model were additionally generated by the Contractor.

Complete details are provided by the Contractor in their logistics report, Appendix A attached to this report.

2.2 Data Presentation and Imaging

The digital files have been provided in two formats, both as a Geosoft *.gdb file and as ASCII *.xyz files. Full descriptions of the digital data and contents are included in the contractor's report (Appendix A).

The digital data were gridded after standard processing and corrections and presented as Geosoft *.grd grid files, as listed below:

Total Magnetic Intensity (TMI)

Calculated Vertical Gradient (CVG) - first vertical derivative of TMI

Digital Elevation Model (DEM)

Representative images are shown following for each survey; additional maps/images are provided by the Contractor as *.pdf files in in Appendix A.

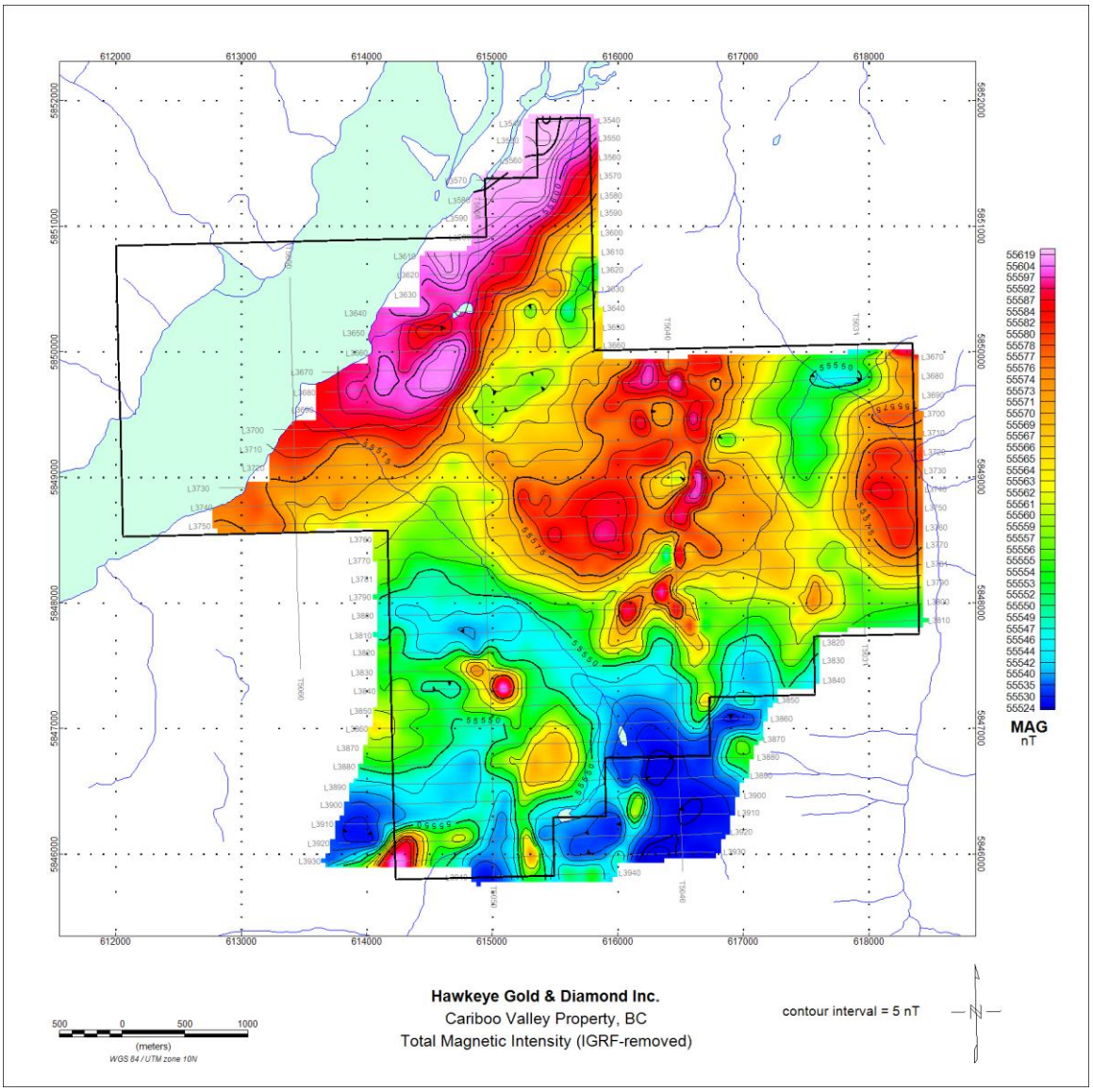

Figure 2. Residual Magnetic Intensity (total field w/ IGRF removed)

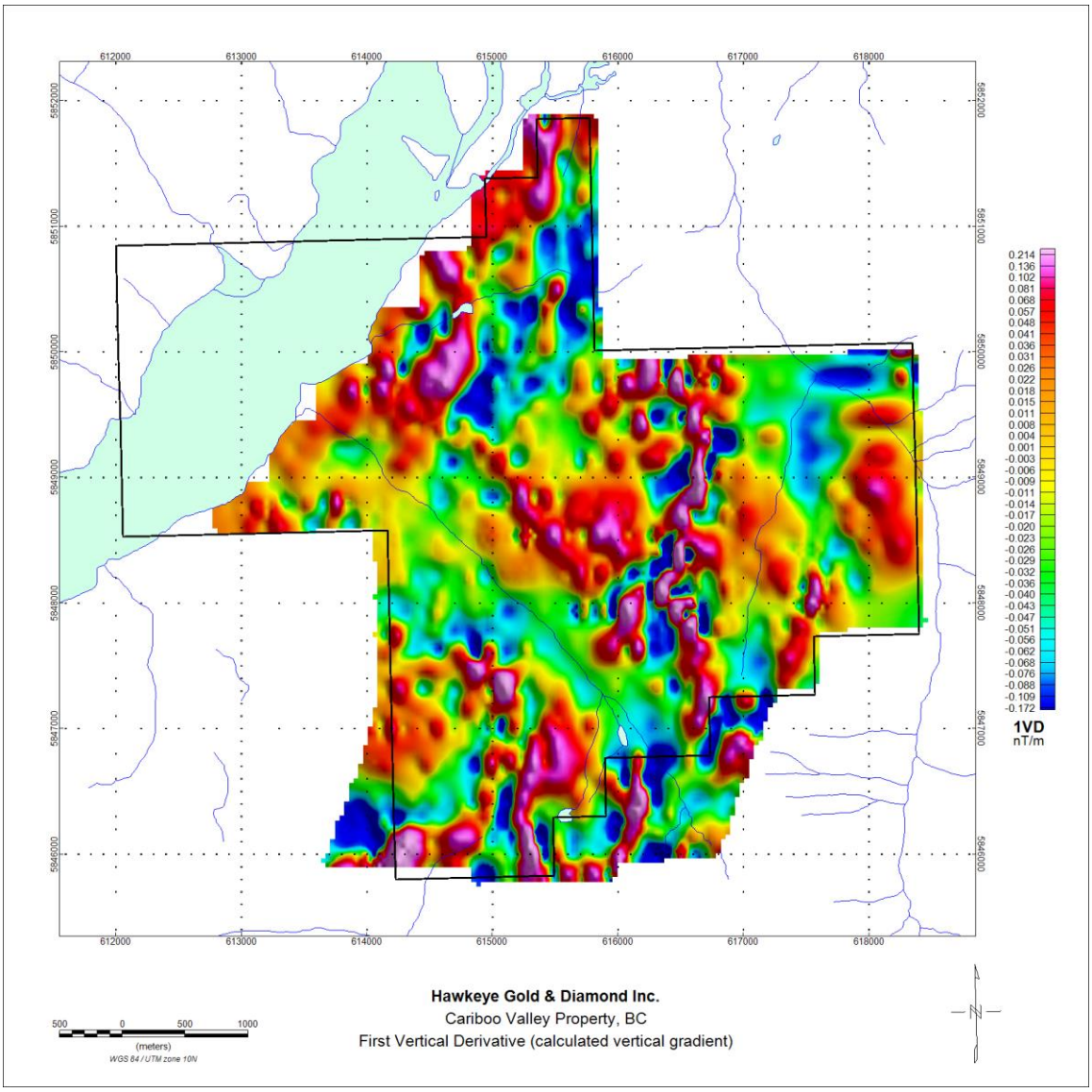

Figure 3. First Vertical Derivative (calculated vertical gradient)

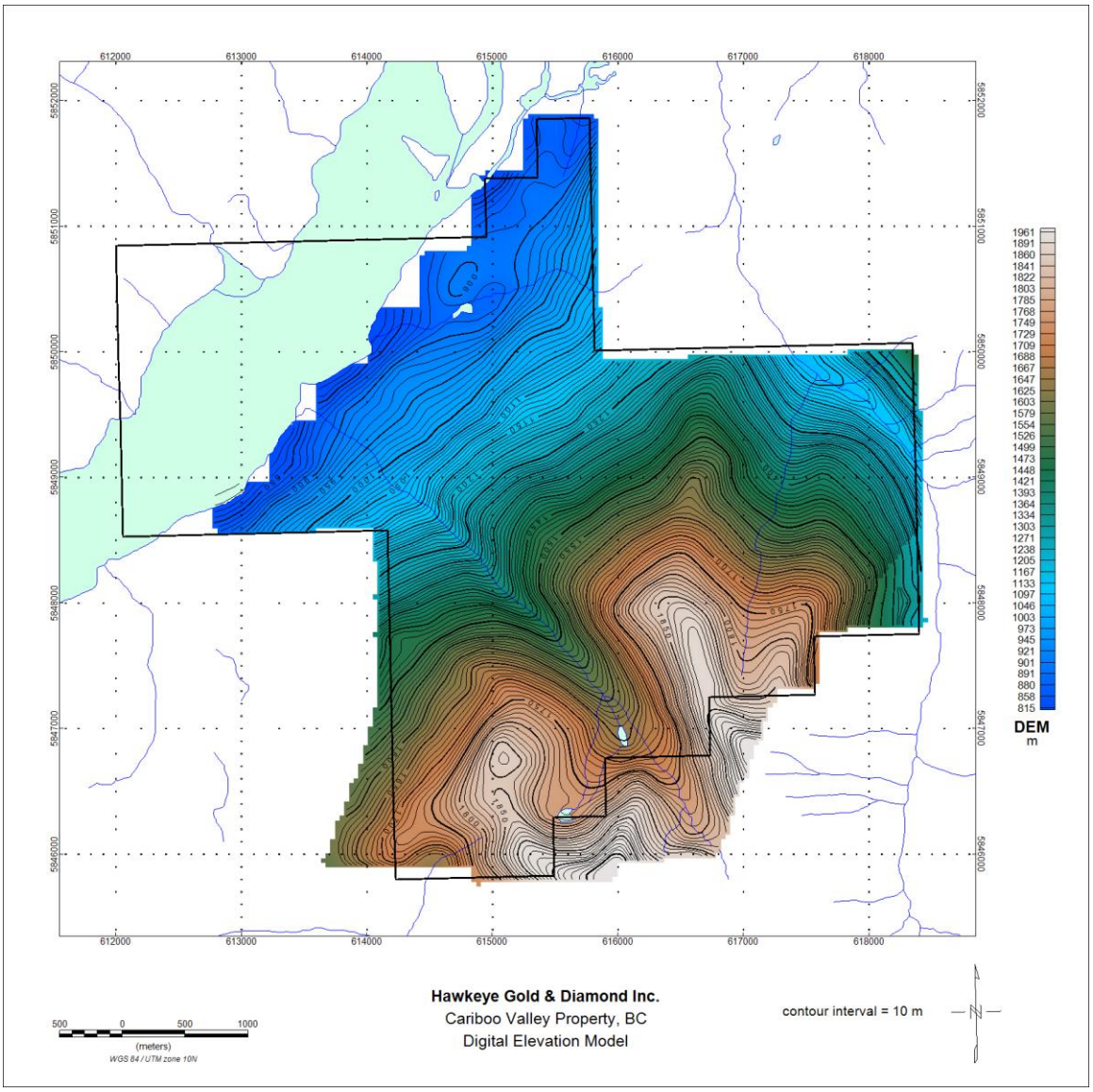

Figure 4. Digital Elevation Model

2.3 Interpretation

The aeromagnetic grids and images were examined particularly with a view to delineating and extracting indications of possible structural fabric on the premise that structural analysis plays a key role in resource exploration. Almost all styles of mineral deposits and hydrocarbon accumulations are controlled either directly or indirectly by some form of structural focus.

The reduced-to-pole ('RTP') grid often if not normally comprises the basis for these analyses. RTP is a fundamental process which, in most situations, yields imagery representing the geometry of magnetic rock units better than TMI data. Its physical basis is sourced in potential field theory

(Baranov and Naudy, 1957) and where it can be successfully applied numerically it is considered a 'must' for the interpreter; in essence, the dipolar nature of magnetic anomalies is removed and peak RTP magnetic values relate more closely to the centre of magnetic rock bodies and asymmetries in the RTP imagery more closely reflect true dips and plunges (Isles and Rankin, 2013).

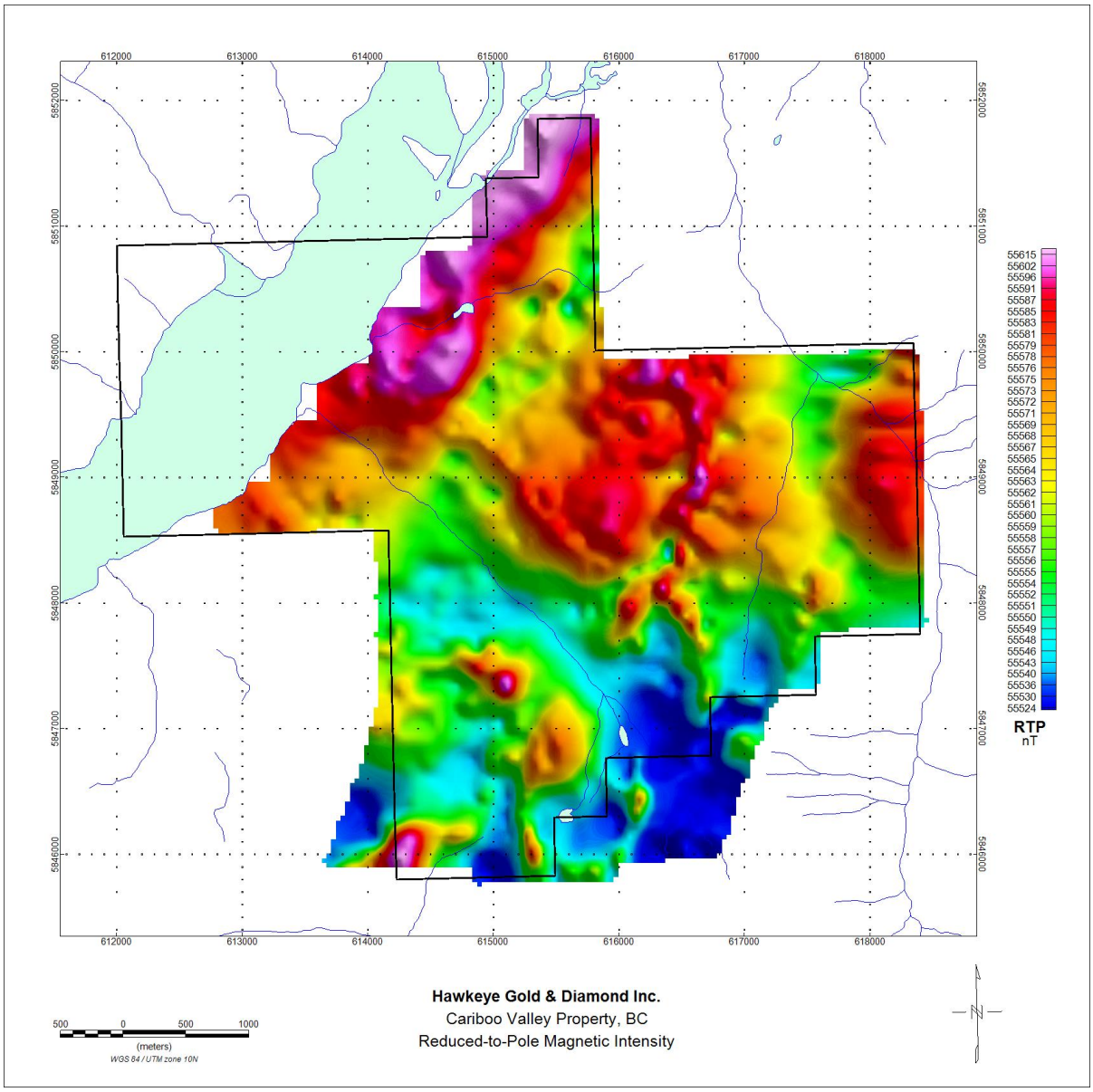

Figure 5. Reduced-to-Pole Magnetic Intensity

The goal of RTP is to simplify magnetic maps – essentially making them appear to be more like gravity maps. In practice, RTP is complicated because anomalies may be rotated by tectonism, rocks of different ages may be reverse or normally polarized and related factors. A further complication arises as the essentially 2D FFT is being here applied in an area of significant topographic relief (i.e., ~1,200 m), inherently non-2 dimensional and thus non-conforming to the underlaying assumptions of a 2D fourier operator. Although the derivatives in this study are all based on the reduced-to-pole magnetic intensity, some caution as to precise locations of specific features should be exercised.

However, as the mean inclination of the Earth's field on the Cariboo Valley property is ~73.1º (considered to be a relatively 'high' inclination), large displacements of anomalies are not anticipated.

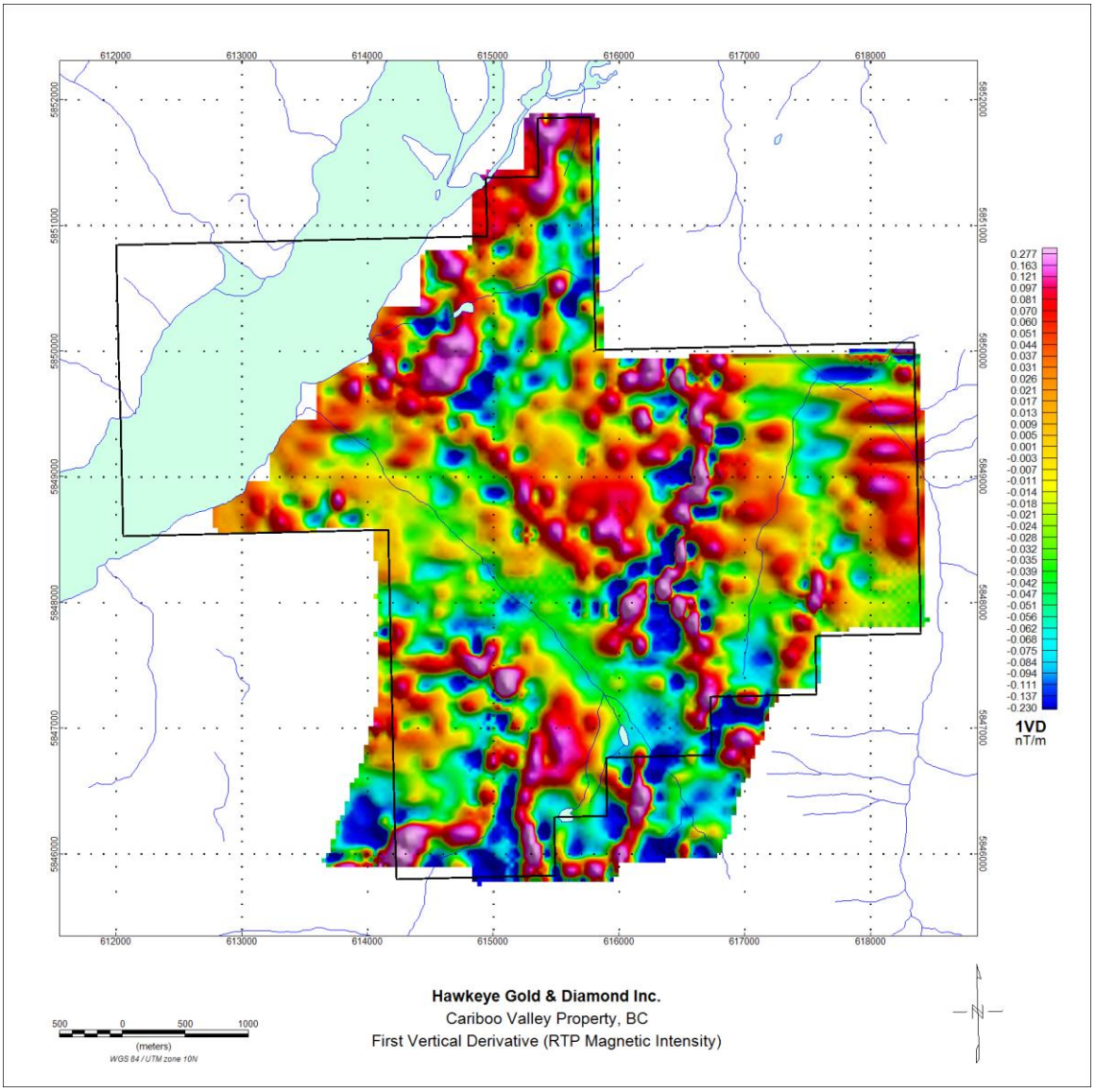

Figure 6. First Vertical Derivative (RTP Magnetic Intensity)

The RTP magnetic intensity was passed through several derivatives and filters, selected images shown above and following. The first vertical derivative or 1VD (shown above) is a common high-pass filter; both north-northeast and northwest linear features are accordingly mapped. The total horizontal derivative or THD (shown below) yields further information, with a maxima on both flanks of a feature as opposed to the 1VD single maxima.

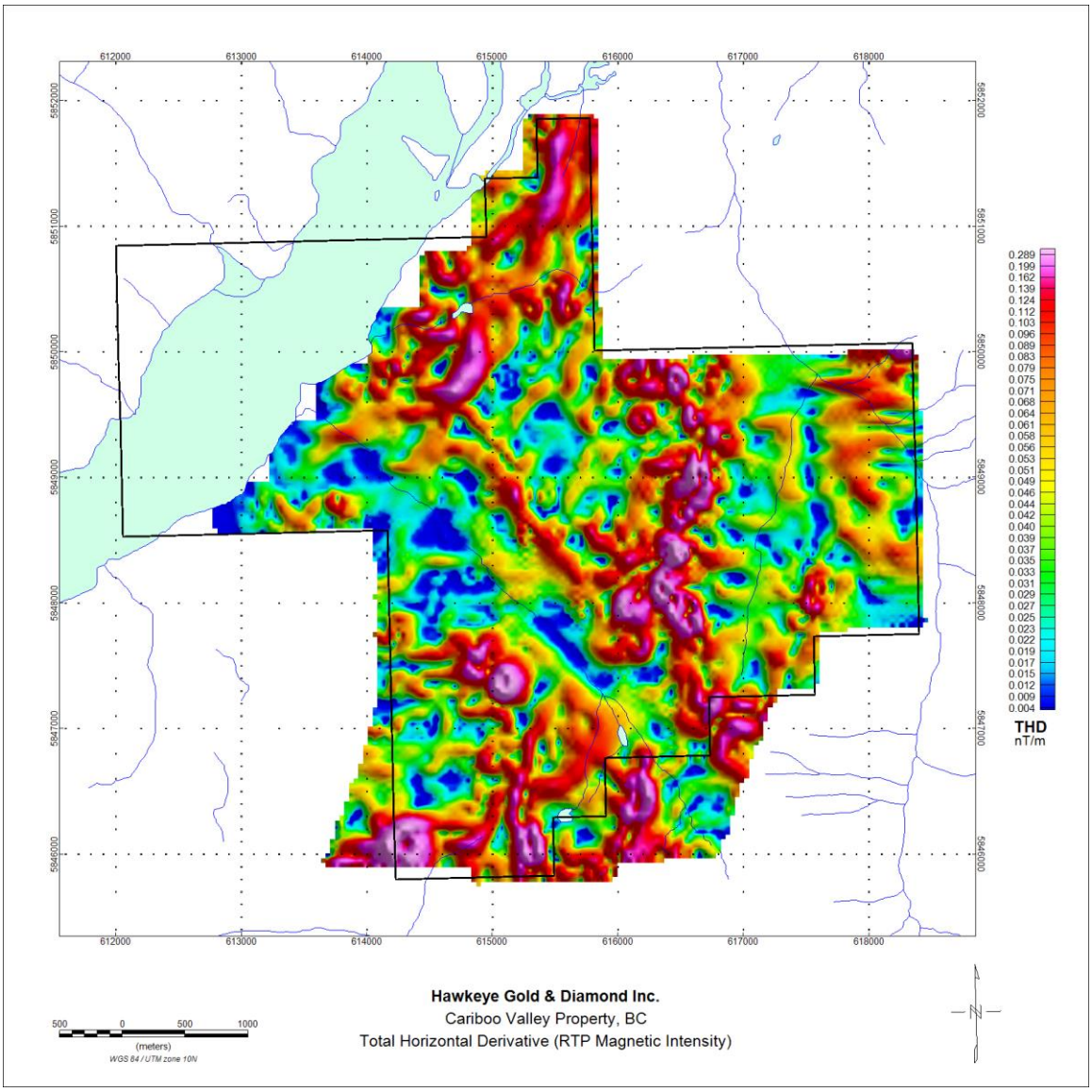

Figure 7. Total Horizontal Derivative (RTP Magnetic Intensity)

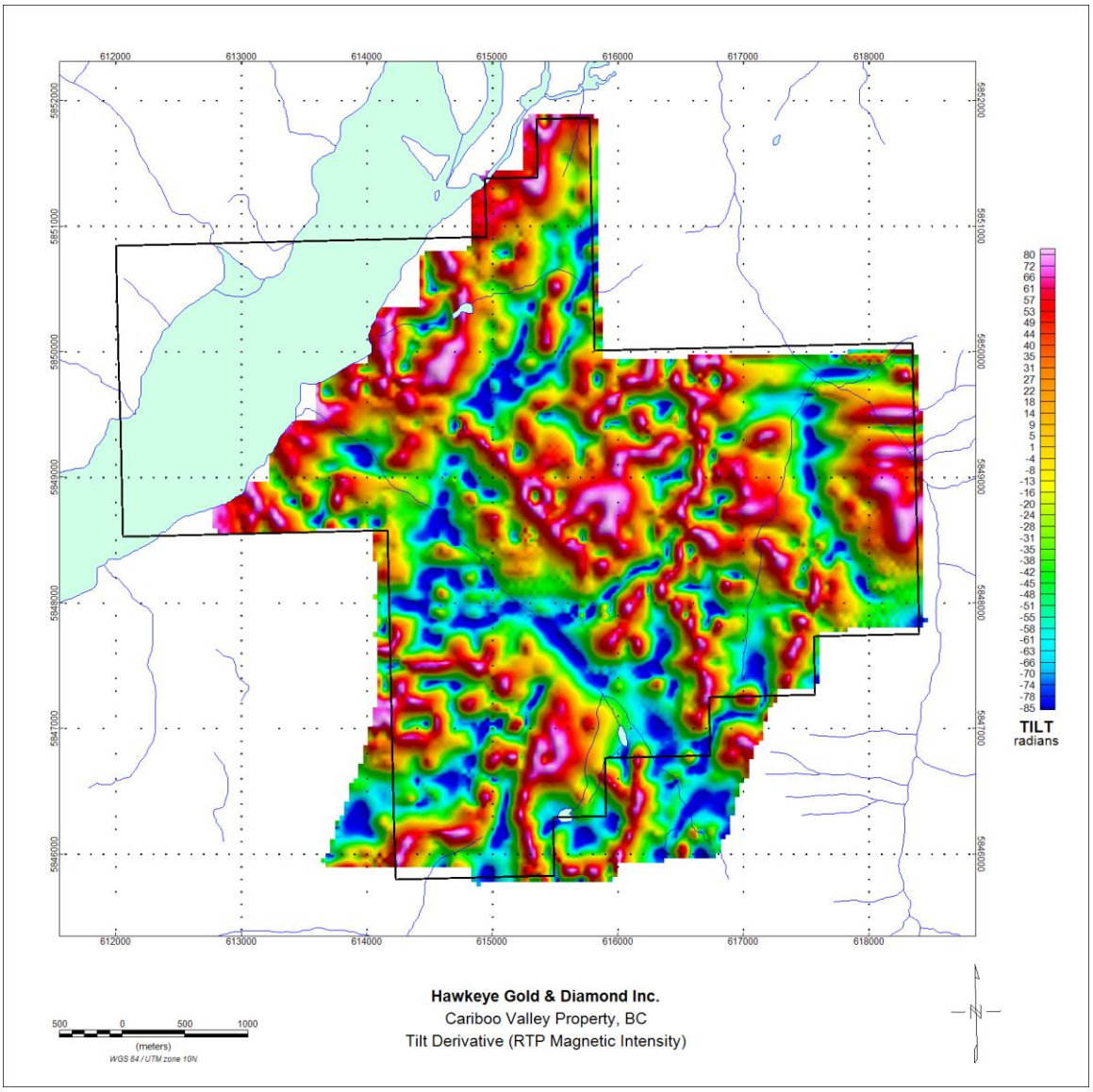

Figure 8. Tilt Derivative

Another common derivative or filter is the 'tilt derivative' or TDR (Miller and Singh, 1994) this is the arctan of the 1VD/THD. Because it is derived from a ratio, it has a normalized data intensity range. The TDR produces patterns similar to the 1VD and THD grid images, but portrays responses from deeper and shallower sources with similar amplitudes and may therefore be confusing. The positive phase only of the TDR is also shown below, helping to emphasize positive magnetization.

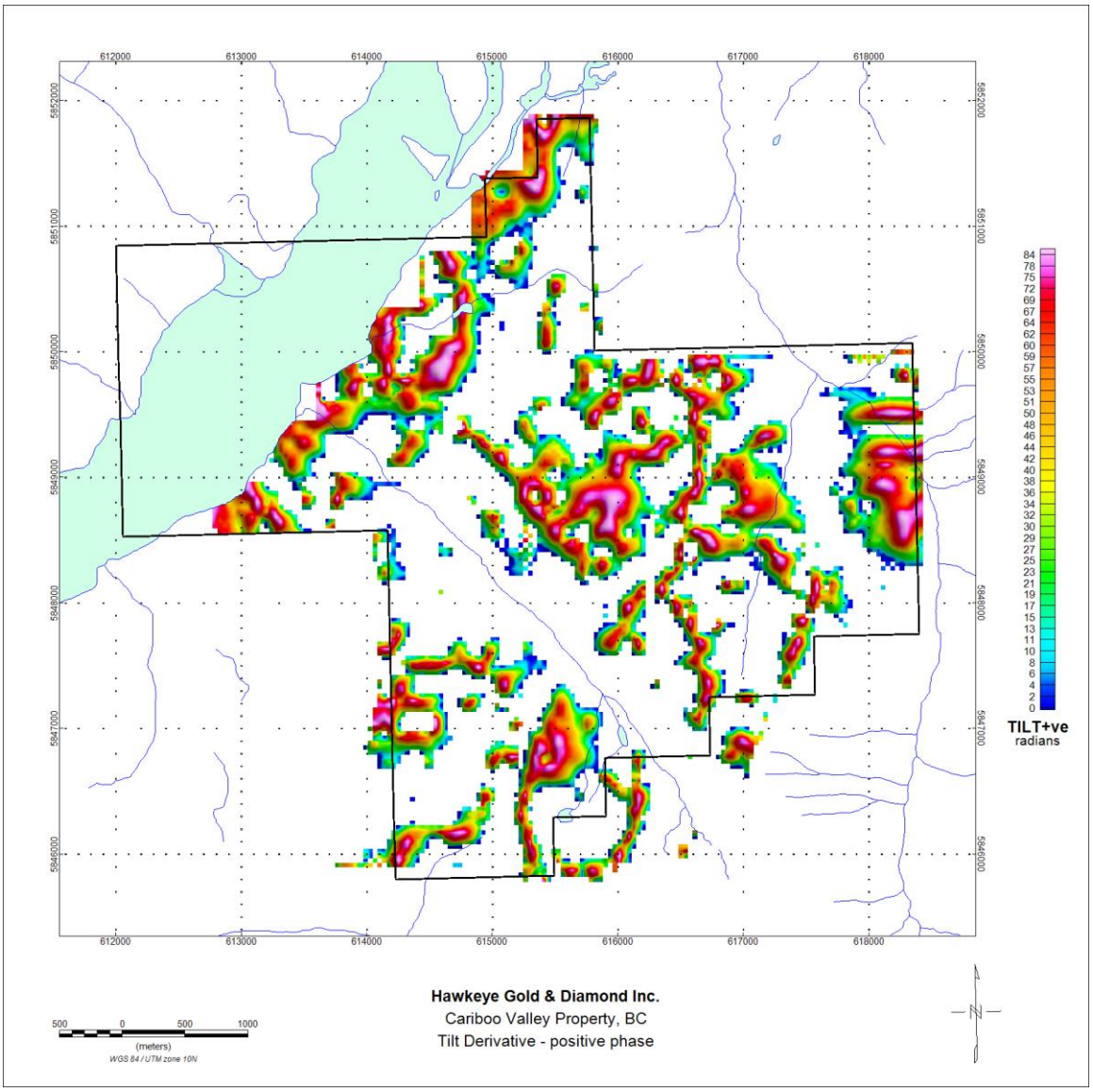

Figure 9. Tilt Derivative – positive phase only

New Enhancement Filters (Shi and Butt, 2004)

Besides the standard 1VD, THD, TDR and AS, etc., new enhancement filters for geological mapping have been developed for the purpose of enhancing weak magnetic anomalies from near-surface sources while simultaneously enhancing low-amplitude, long-wavelength magnetic anomalies from deep-seated or regional sources.

The Edge filter group highlights edges surrounding both shallow and deeper magnetic sources. The results are used to infer the location of the boundaries of magnetized lithologies.

The Block filter group has the effect of transforming the data into “zones” which, similar to image classification systems, segregate anomalous zones into apparent lithological categories. Both filter

groups change the textural character of a dataset and thereby facilitate interpretation of geological structures. Representative images of the Edge and Block group are shown following:

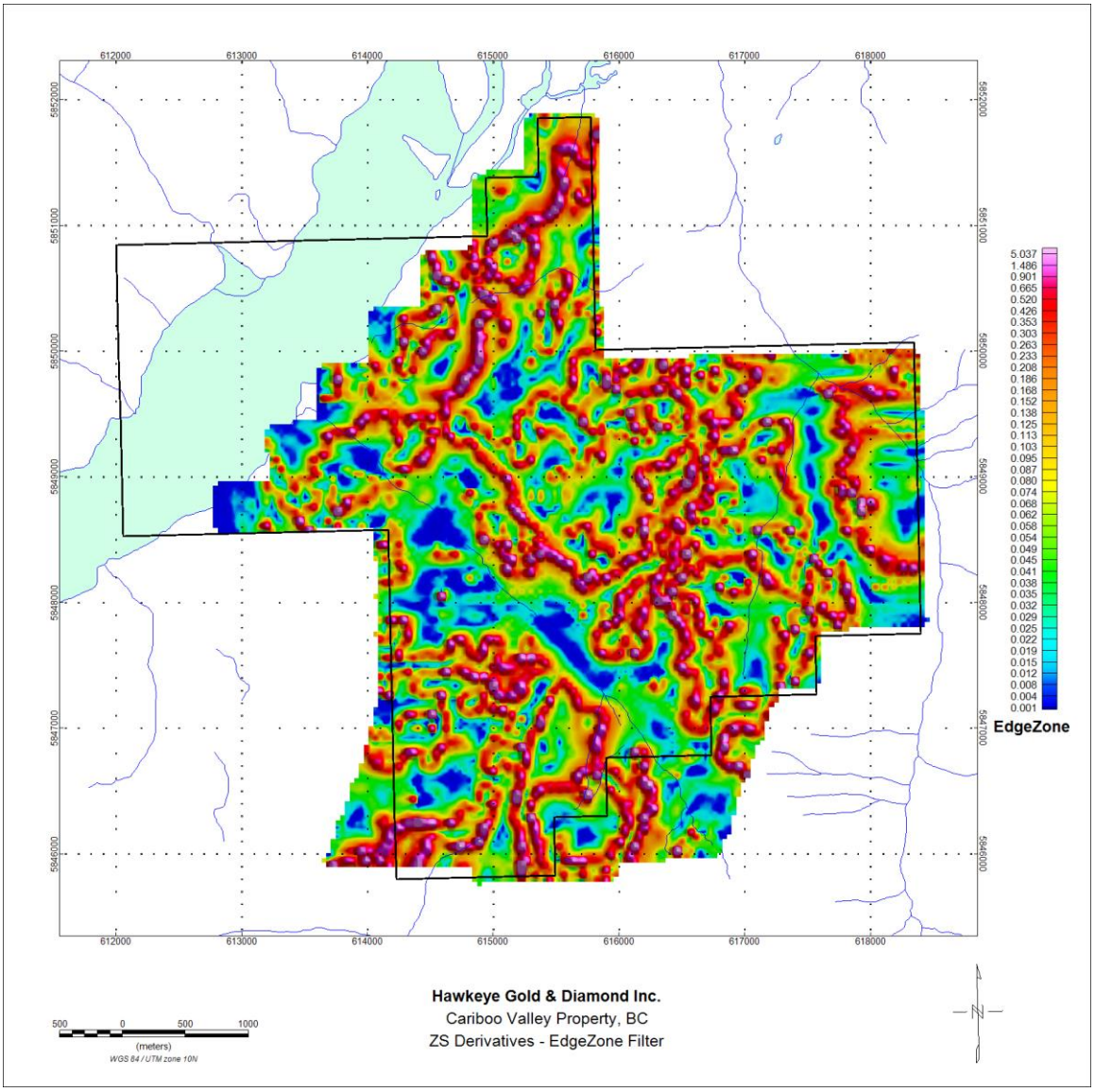

Figure 10. ZS EdgeZone Filter (Edge/EdgeZone group)

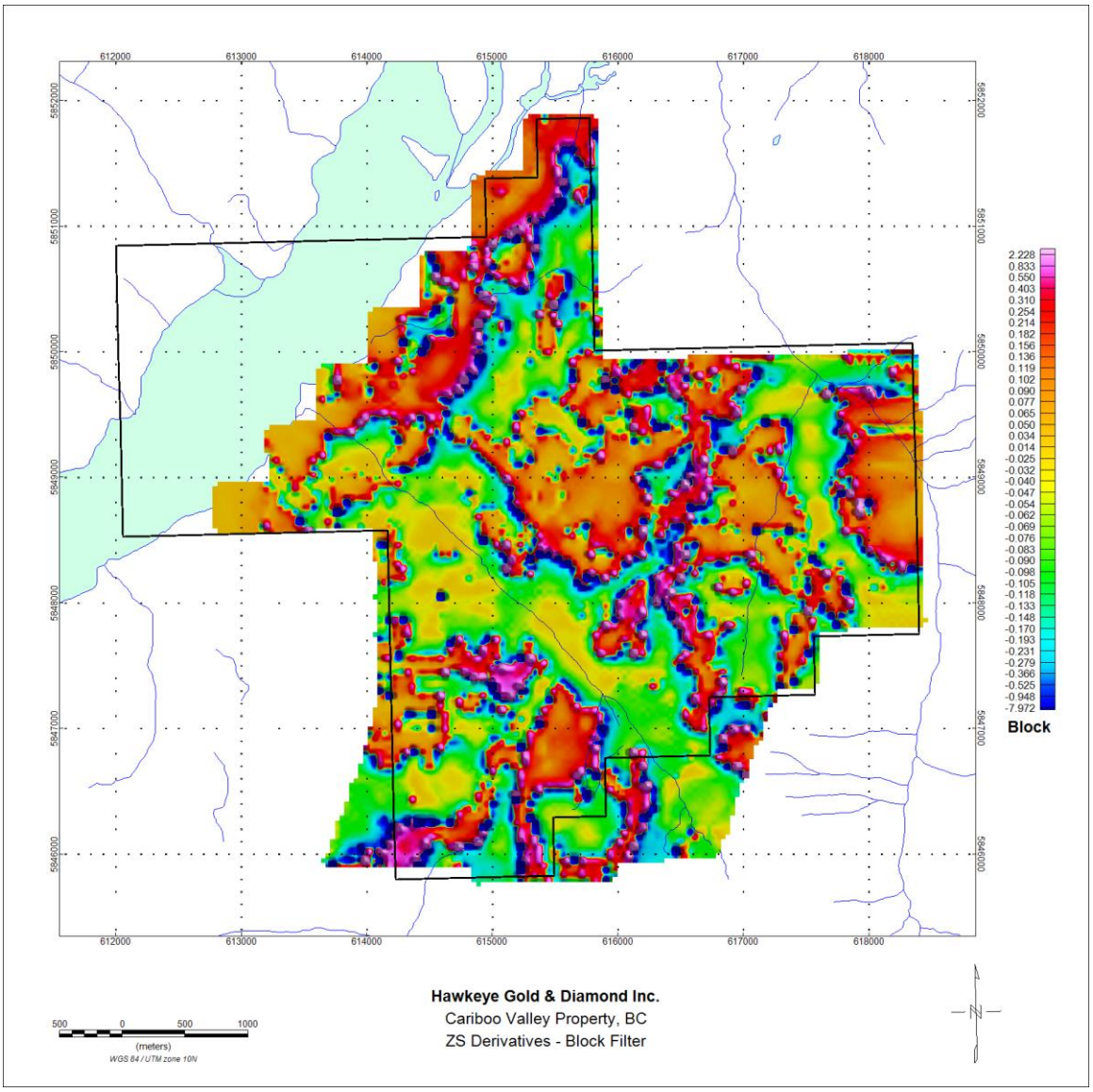

Figure 11. ZS Block Filter (Area/Block/Plateau group)

Structural Analysis: Multiscale Edge Detection ('worms')

A two-pronged approach was taken to identify and map magnetic 'fabric' … multiscale edge detection (also known as 'worms') as described by Milligan et al, 2004 as well as a fractal analysis as described by Holden et al, 2008. Current implementation (Intrepid software) of multiscale edge analysis includes the use of Eüler 'worms' which provide a view of structural geology obtained directly from potential field geophysical data. The method is based on Fourier techniques for continuation, reduction-to-pole and total horizontal derivatives coupled with automatic edge detection.

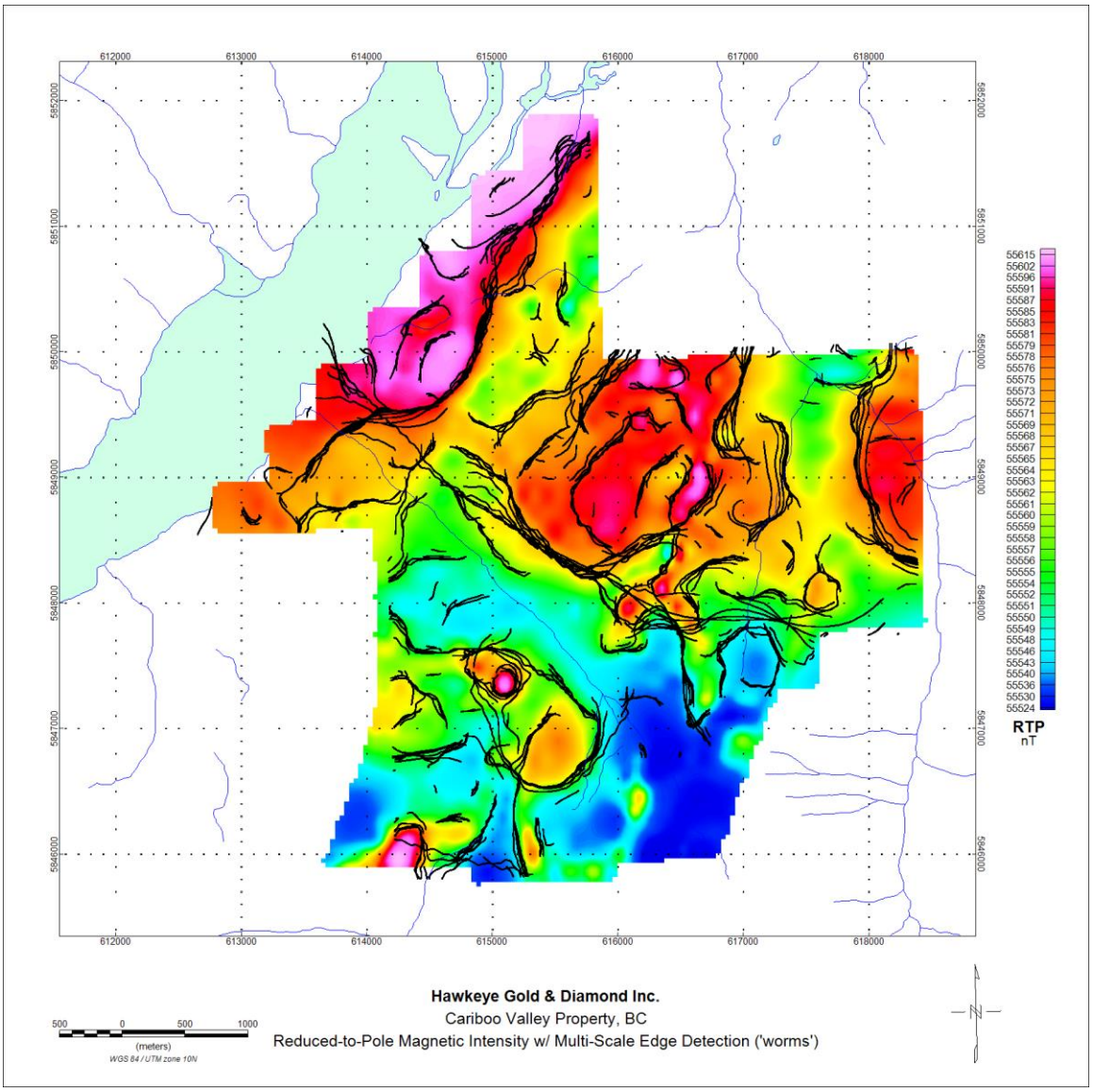

Figure 12. Multiscale Edge Detection 'worms' overlain on RTP Magnetic Intensity

The analysis of lineaments is of fundamental importance to understanding geological structures and the stress regimes in which they are produced. Automatic analysis of lineaments has previously been done with information mapped from remotely sensed data, using either satellite-based imagery or aerial photographs. Potential field data may also be analyzed in terms of their lineament content. Edge detection and automatic trend analysis using gradients in such data are methods for producing unbiased estimates of sharp lateral changes in physical properties of rocks. The assumption is made that the position of the maxima in the horizontal gradient of gravity or magnetic data represents the edges of the source bodies, although this should be used with caution. Such maxima can be detected and mapped as points, providing the interpreter with an unbiased estimate of their positions. The process of mapping maxima as points can be extended to many different levels of upward continuation, thus providing sets of points that can be displayed in three dimensions, using the height of upward continuation as the z-dimension.

Multi-scale edge detection was substantially developed by CSIRO in Perth in the late 1990s (Archibald *et al,* 1999). It combines wavelet analysis, potential field edge detection and upward continuation to attempt to recover the horizontal location of property contrast interfaces, and to characterize their extension in depth. The *Intrepid* software implementation of this technique is shown above on the interpretation map, Figure 12. The combination of 'worms' and pseudocolour magnetic intensity, above) and derived derivatives of the magnetic intensity, highlight structural fabric of the Seller Creek property.

Structural Analysis: CET Grid Analysis

The Centre for Exploration Targeting (CET) grid analysis (via a Geosoft plugin) provides tools for texture analysis, lineation detection and vectorization, leading to both structural complexity and orientation entropy 'heatmaps' shown on following images. Au mineralization is known to occur near major crustal breaks manifesting as large-scale shear zones, which act as conduits for mineralizing fluids; mineralization occurs in regions of structural complexity adjacent to the shear zones. Progressing towards the automatic detection of such regions, the CET grid analysis system:

- Delineates zones of magnetic discontinuity that correspond to both lithological boundaries and shear zones using a combination of texture analysis and symmetry feature detection techniques
- Examines the data using fractal analysis to find areas nearby with a complex magnetic expression (zones of structural complexity).
- The most prospective areas are those where inferred structural complexity occurs adjacent to the regions of magnetic discontinuity.
- This approach may have merit in this instance, with the applicability at Silver Ivan to be based upon correlation of known and/or inferred geology to the derived structural complexity and orientation entropy 'heat maps.'

The contact occurrence density (COD) process generates a heat map that highlights high density of structural contacts, which include junctions and intersections of different structures and locations where structures have significant orientation changes.

Given an input of vectorized structures/trends (in this case, the multiscale edge detection 'worms', pairs of line segments are analyzed to determine if they meet or intersect at an angle that is greater than a specified threshold. Each of these contact locations are then marked and used to cast a 2D Gaussian vote towards the overall Contact Occurrence Density in the resulting heatmap.

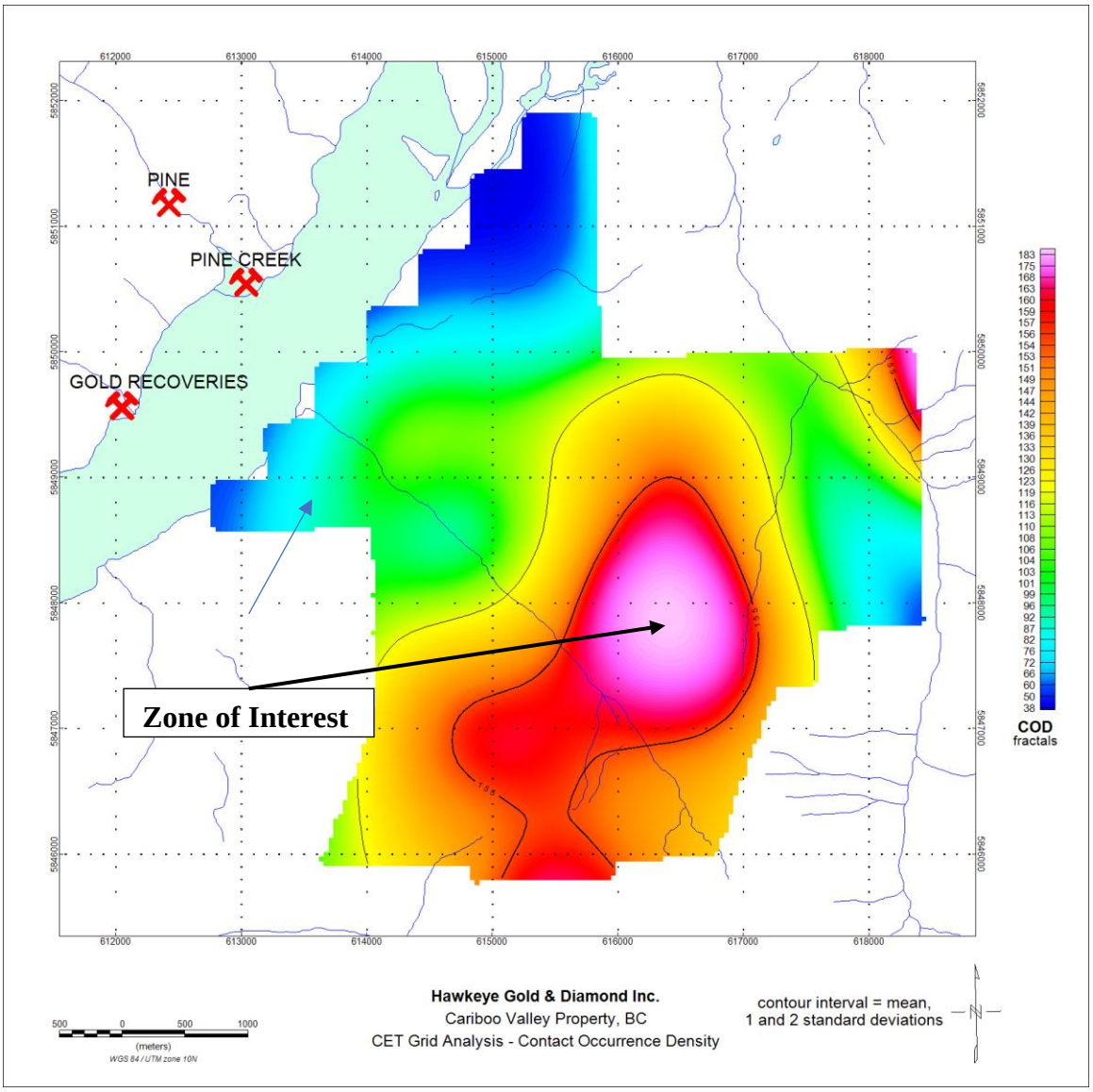

Figure 13. CET Grid Analysis: Contact Occurrence Density w/ 1 & 2 STD above means

Anomalous contact occurrences arbitrarily delineated by the 1 and 2 standard deviation contours on Figure 13 above; 1 area of interest ('AOI') become immediately apparent. This zone implies the presence of notable fractal intensity and in turn, significant structural breakage. Unfortunately, there are no recorded mineralized showings occurring on the claim block from which some information/correlations might be extracted.

Orientation Entropy (OE) highlights regions where structures occur over a wide range of orientations, thus indicating areas of potential structural complexity. OE is based on the same fractal analysis / phase symmetry as the COD. The output grid comprises real values indicating the entropy of nearby structure orientations, centred about each cell. Regions of high entropy are considered to exhibit high statistical randomness, and thus areas of potential structural complexity.

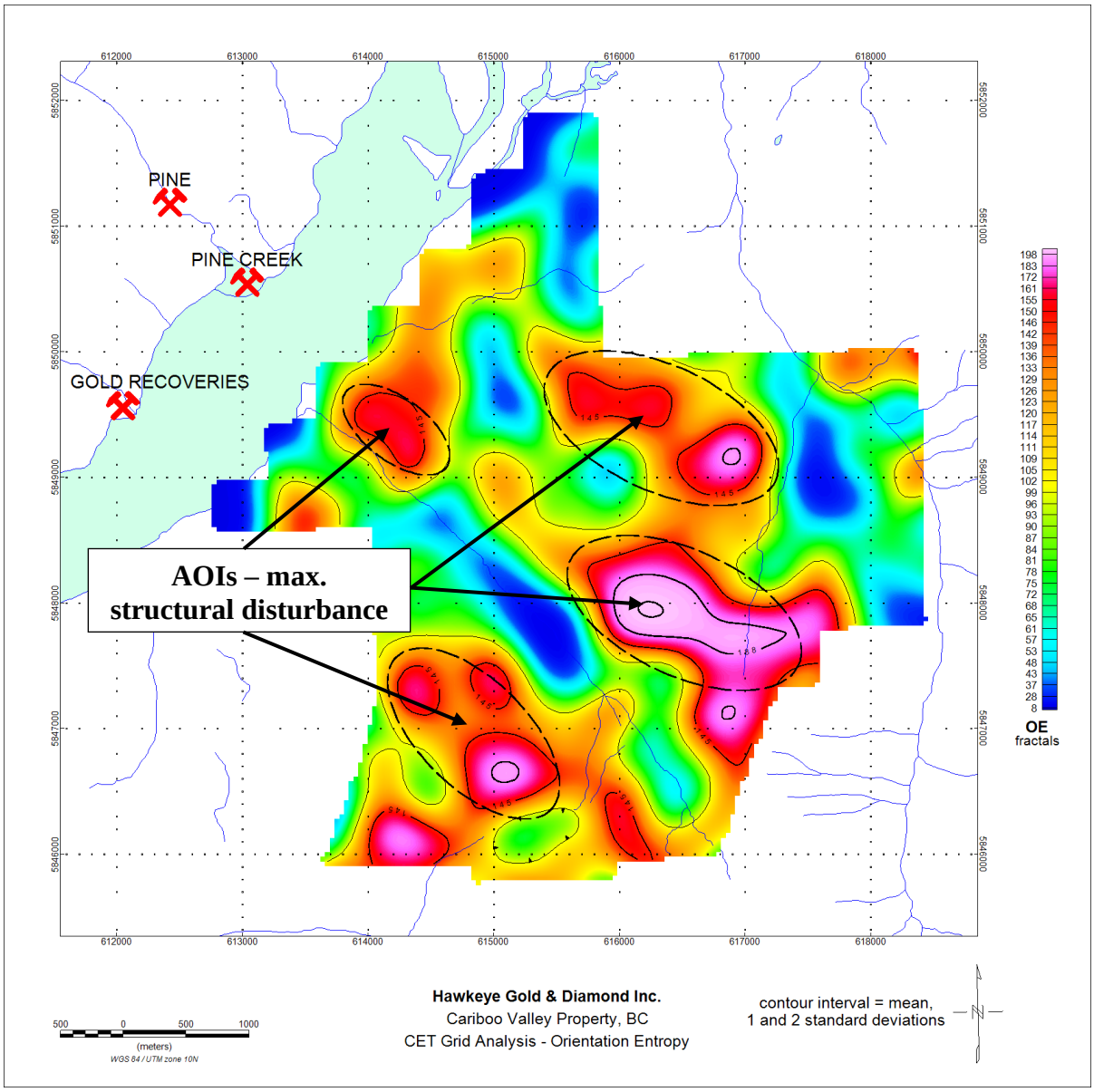

Figure 14. CET Grid Analysis: Orientation Entropy w/ 1 and 2 STDs above mean

Anomalous 'entropy' (e.g., 1 & 2 standard deviations above the mean, shown as heavy black contours) delineates regions of significant magnetic (i.e., geologic, including shear zones and lithological boundaries) discontinuity. If we accept that fault/shear zones play a role in the potential mineralization in the Cariboo gold camp, then the elliptical polygons mapped on the orientation entropy heat map should similarly reflect regions of significant structural complexity with high prospectivity for gold mineralization.

A single main area of interest in the eastern section, as well as 3 more subsidiary zones, are mapped approximately on the orientation entropy image above; The principal zone coincides with the anomalous COD zone previously noted. All these are presented as significant zones of structural complexity. A strong NW-trending linear (shear zone / possible geologic contact?) runs through the center of the block, with anomalous OE zones on either flank.

3 CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne magnetic and gamma-ray spectrometry survey over the Cariboo Valley property of Hawkeye Gold & Diamond Inc. acquired approximately 140 line-km of helicopter-borne geophysical data in November–December 2018. The survey covers 6 active and good-standing claims amounting to approximately 2,092 ha located in the Cariboo Mining District, British Columbia. All claims are assigned 100% to Hawkeye Gold & Diamond Inc.

The magnetic survey has provided valuable structural and geological information. A suite of filters and derivatives have been applied to the aeromagnetic gridded data, followed by a multiscale edge detection and automated grid 'fractal' analysis to identify regions prospective for gold mineralization based upon structural complexity as inferred from magnetics being indicative of significant faults, shears.

Specific areas of interest are identified by Centre for Exploration Targeting grid analysis: one by the contact occurrence density 'heatmap' with an additional three more general areas identified by the occurrence entropy; note that some degree of overlap exists between these two outputs. Particular attention is focused on a structurally complex zone in the centre-east of the claim block, and the presence of a significant NW-trending linear, inferred shear/fault zone.

Future work to verify the potential of these areas of interest should include prospecting, surface mapping, geochemical sampling and ground geophysics (e.g., induced polarization/resistivity).

The property remains a challenge in terms of inclement weather patterns, rugged terrain, and heavy undergrowth. Considerations for future work include both ground geophysics as well as extensive soils geochemistry and geological prospecting.

Due to the relatively high costs and slow progress, ground geophysics should be constrained in terms of follow-up to the investigation of discrete target zones themselves representing anomalous soil geochemistry and/or airborne geophysical anomalies.

4 STATEMENT OF QUALIFICATIONS

I, Christopher J. Campbell, B.Sc., M.B.A., P.Geo., with business address of 4505 Cove Cliff Road, North Vancouver British Columbia V7G 1H7, hereby certify that:

- I am a graduate (1972) of the University of British Columbia, with a Bachelor of Science degree in Geophysics.
- I am a graduate (1986) of the University of Denver, with a Masters of Business Administration.
- I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
- I have practised my profession for approximately 49 years in Canada (British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Newfoundland and Labrador, Yukon, Northwest Territories, and Nunavut), United States of America, Australia, Russia, and Africa.
- I have no interest, direct or indirect, in the properties or securities of Hawkeye Gold & Diamond Inc., or in any of their related companies or joint venture partners anywhere in Canada.
- Dated at North Vancouver, British Columbia, this 8th day of October 2021.

Christopher Campbell, B.Sc., M.B.A., P.Geo.

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APPENDIX A:

GEOTECH LTD., JANUARY 2019, REPORT ON A HELICOPTER-BORNE AEROMAGNETIC GEOPHYSICAL SURVEY, PROJECT GL180345

HELISTINGER

REPORT ON A HELICOPTER-BORNE AEROMAGNETIC GEOPHYSICAL SURVEY

PROJECT:	CARIBOO VALLEY
LOCATION:	LIKELY, BRITISH COLUMBIA
FOR:	HAWKEYE GOLD & DIAMONDS INC.
SURVEY FLOWN:	NOVEMBER – DECEMBER 2018
PROJECT:	GL180345

Geotech Ltd.
245 Industrial Parkway North
Aurora, ON Canada L4G 4C4

Tel: +1 905 841 5004
Web: www.geotech.ca
Email: info@geotech.ca

GEOTECH
AIRBORNE GEOPHYSICAL SURVEYS

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EXECUTIVE SUMMARY

CARIBOO VALLEY BLOCK
LIKELY, BRITISH COLUMBIA

From November 16th to December 7th, 2018 Geotech Ltd. carried out a helicopter-borne geophysical survey over the Cariboo Valley Block situated near Likely, British Columbia.

The principal geophysical sensor was a caesium magnetometer. Ancillary equipment included a GPS navigation system, radar altimeter and laser altimeter. A total of 140 line-kilometres of geophysical data were acquired during the survey.

In-field data quality assurance and preliminary processing were carried out on a daily basis during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results are presented as the following maps:

- Total Magnetic Intensity (TMI),
- Calculated Vertical Gradient (CVG)
- Digital Terrain Model (DEM)

The survey report describes the procedures for data acquisition, description o equipment processing, final image presentation and the specifications for the digital data set.

1. INTRODUCTION

1.1 GENERAL CONSIDERATIONS

Geotech Ltd. performed a helicopter-borne geophysical survey over the Cariboo Valley Block situated near Likely, British Columbia (Figure 1 & Figure 2).

Greg Neeld represented Hawkeye Gold & Diamonds Inc. during the data acquisition and data processing phases of this project.

The geophysical survey consisted of helicopter-borne aeromagnetics using a caesium magnetometer system. A total of 140 line-km of geophysical data were acquired during the survey.

The crew was based out of Likely, within the project area, for the acquisition phase of the survey. Survey flying started on November 16th, 2018 and was completed on December 7th, 2018.

Data quality control and quality assurance, and preliminary data processing were carried out on a daily basis during the acquisition phase of the project. Final data processing followed immediately after the end of the survey. Final reporting, data presentation and archiving were completed from the Aurora office of Geotech Ltd. in January, 2017.

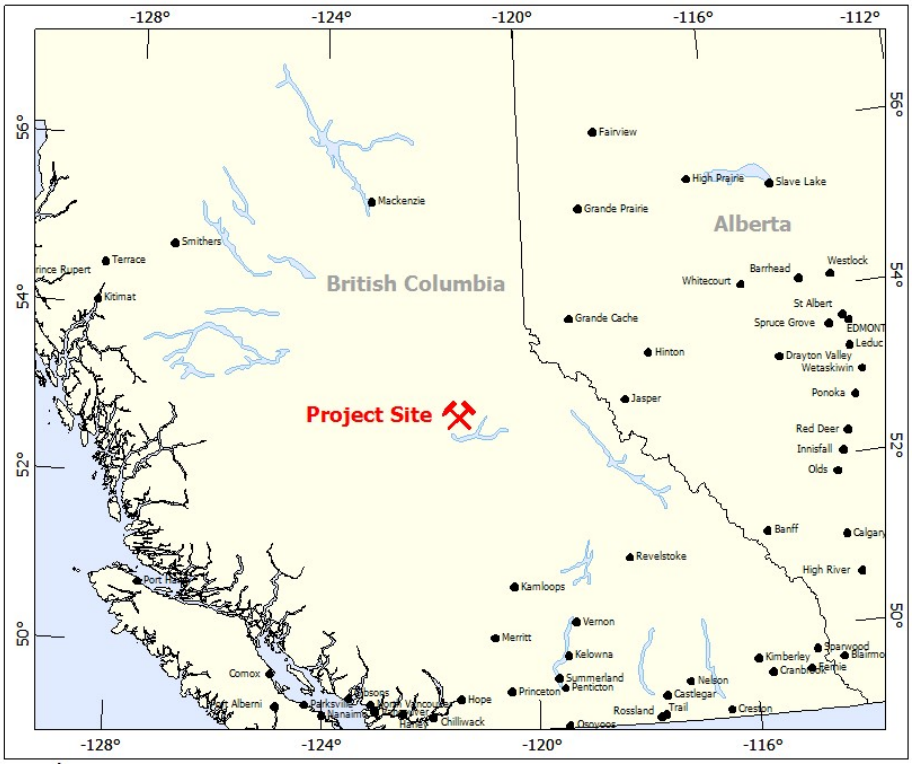


Figure 1: Survey location.

1.2 SURVEY AND SYSTEM SPECIFICATIONS

The survey area was located approximately 22 kilometres northeast of Likely, British Columbia (Figure 2).

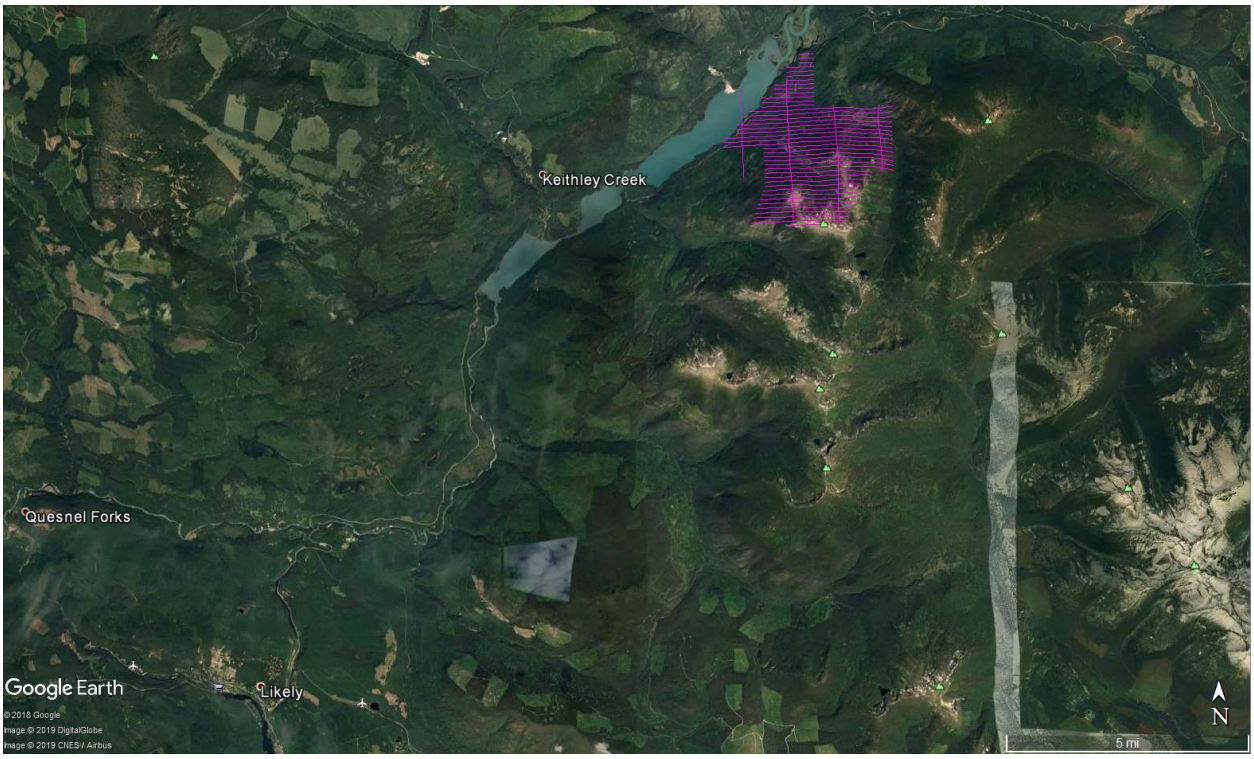


Figure 2: Survey area locations on Google Earth.

The survey was flown in an east to west (N 90° E azimuth) direction, with traverse line spacing of 150 as depicted in Figure 3. Tie lines were flown perpendicular to the traverse lines. For more detailed information on the flight spacing and direction see Table 1.

1.3 TOPOGRAPHIC RELIEF AND CULTURAL FEATURES

Topographically, the survey area exhibits a moderate relief with an elevation ranging from 805 to 2034 metres above mean sea level over an area of 45 square kilometres.

There are various rivers and streams running through the survey area which connect various lakes and wetlands. There are no visible signs of culture such as roads and buildings located in the survey area. (Figure 3)

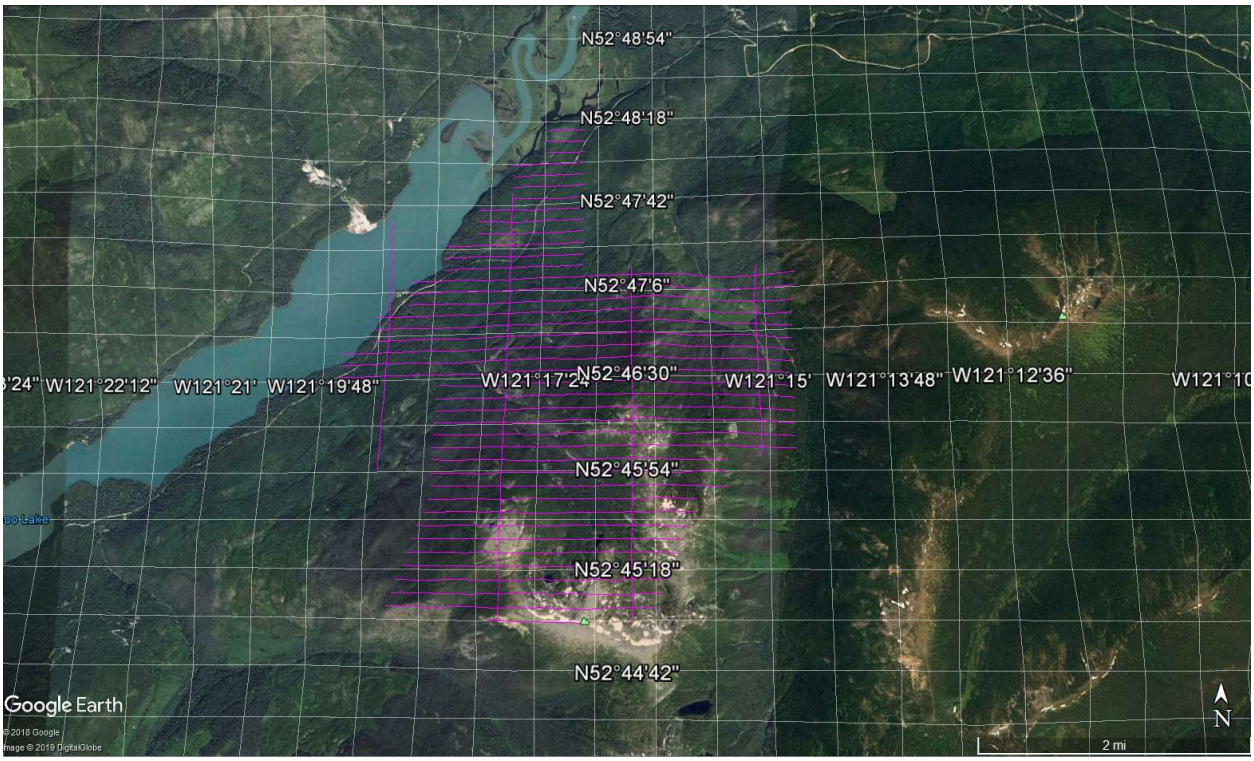


Figure 3: Flight path over a Google Earth Image.

2. DATA ACQUISITION

2.1 SURVEY AREA

The survey area (see Figure 3 and Appendix A) and general flight specifications are as follows:

Table 1: Survey Specifications

Survey block	Line spacing (m)	Area (Km^2)	Planned[1] Line-km	Actual Line-km	Flight direction	Line numbers
Cariboo Valley	Traverse: 150	22	138	140	N 90° E / N 270° E	L3540 – L3940
	Tie: 1500				N 0° E / N 180° E	T5031 – T5060
TOTAL		22	138	140		

Survey area boundaries co-ordinates are provided in Appendix B.

2.2 SURVEY OPERATIONS

Survey operations were based out of Likely, British Columbia from November 16th until December 7th 2018. The following table shows the timing of the flying.

Table 2: Survey schedule

Date	Comments
2018-11-16	Crew arrived in Okotoks, AB. Completed local logistics.
2018-11-17	Commenced system assembly.
2018-11-18	Completed system assembly.
2018-11-19	Commenced system testing, mag issue observed during testing. Commenced troubleshooting and located source, requested part from the office.
2018-11-20	Crew received shipment from the office.
2018-11-21	Replaced part, completed test line. Unable to complete high altitude test flights due to extreme high winds at altitude, will complete once onsite. Ground crew commenced mobilization towards Likely, BC.
2018-11-22	Ground crew arrived onsite, Heli arrival delayed due to weather.
2018-11-23	Heli arrival delayed due to weather, tested base stations.
2018-11-24	Heli arrived on site in the afternoon, completed recon flight, will re-adjust flying height due to 120-130ft trees in the survey area. Unable to complete test flights due to low ceilings.
2018-11-25	No test flights completed due to weather, low ceilings.
2018-11-26	No test flights completed due to weather, rain throughout the day.
2018-11-27	No test flights completed due to weather, rain and low ceilings throughout the day.
2018-11-28	Late start due to weather, crew was able to complete high altitude test flights, system cleared for production.
2018-11-29	1 short production flight completed in the morning, aborted due to low ceilings, once weather improved 2nd production flight completed in the afternoon, 267km flown.
2018-11-30	Late start due to weather, 2 production flights completed, 249km flown.
2018-12-01	Late start due to weather, 2 production flights completed, 222km flown.
2018-12-02	Late start due to weather, 1 production flight completed, 138km flown.
2018-12-03	2 short production flights completed, 53km flown. Some troubleshooting required.
2018-12-04	Completed troubleshooting, test flight completed, 9km flown.

[1] Note: Actual Line kilometres represent the total line kilometres in the final database. These line-km normally exceed the Planned Line-km, as indicated in the survey NAV files.

2018-12-05	Attempted production flight but aborted due to weather, low ceilings throughout the day.
2018-12-06	3 production flights completed, 355km flown.
2018-12-07	3 production flights completed, 169km flown. Flight Path Completed.

2.3 FLIGHT SPECIFICATIONS

During the survey the helicopter was maintained at a mean altitude of 73 metres above the ground with a nominal survey speed of 140 km/hour.

The on-board operator was responsible for monitoring the system integrity. The operator also maintained detailed flight logs during the survey, tracking the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer. The data were then uploaded via ftp to the Geotech office in Aurora for daily quality assurance and quality control by qualified personnel.

2.4 AIRCRAFT AND EQUIPMENT

2.4.1 SURVEY AIRCRAFT

The survey was flown using an Aerospatiale A-Star 350 B2, registration C-GXAH. The helicopter is owned and operated by Yellowhead Helicopters. Installation of the geophysical and ancillary equipment was carried out by a Geotech Ltd crew.

2.4.2 AIRBORNE MAGNETOMETER

The magnetic sensor utilized for the survey was Geometrics optically pumped cesium vapour magnetic field sensor was installed inside the stinger. The sensitivity of the magnetic sensor is 0.01 nanoTesla (nT) at a sampling interval of 0.025 seconds or at sampling frequency of 40Hz.

2.4.3 MAGNETIC COMPENSATION SYSTEM

The magnetic data were compensated in real-time using an RMS Instruments AARC510 Compensator, utilizing a three-axis (XYZ) Fluxgate magnetometer to measure roll, pitch and yaw movements of the survey aircraft. A 26-term model of the aircraft magnetic noise was determined during a pre-survey test flight, removing permanent, induced, and eddy current fields from the airborne magnetic measurements. The efficacy of this compensation was tested with a Figure of Merit (FOM) test; the total FOM was determined to be 1.071 nT (Appendix D).

2.4.4 ALTIMETER

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance.

2.4.5 VIDEO CAMERA

A colour 550 High-Resolution camera with auto gain control, 550 line resolution was used with a standard 3.6mm lens. Digital files provided with resolution of 768 by 494 at selectable 1-30 frames per second.

2.4.1 LASER ALTIMETER

A Schmitt Industries AR300 laser altimeter was used. Altitude range 0.5 to 300m and accuracy ± 5cm.

Figure 4: System Configuration.

2.4.2 GPS NAVIGATION SYSTEM

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's WAAS (Wide Area Augmentation System) enabled GPS receiver, Geotech navigation software, a full screen display with controls in front of the pilot to direct the flight and a NovAtel GPS antenna mounted on the helicopter tail (Figure 4). As many as 11 GPS and two WAAS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m; with WAAS active, it is 1.0 m. The co-ordinates of the block were set-up prior to the survey and the information was fed into the airborne navigation system.

2.4.3 DIGITAL ACQUISITION SYSTEM

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. The data type and sampling interval as provided in Table 3.

Table 3: Acquisition Sampling Rates

Data Type	Sampling
Magnetometer	0.025 sec
GPS Position	0.2 sec
Pressure and Temperature	1 sec
Radar Altimeter	0.2 sec

2.5 BASE STATION MAGNETOMETER

A dedicated computer including a high sensitivity base station cesium magnetometer and a GPS system to record the GPS time together with the magnetic data was employed to record diurnal magnetic activity. A Geometrics G822B high-sensitivity caesium vapour magnetometer and integrated GPS unit for accurate time synchronization was used with 10Hz data output. Digital recordings of the ground magnetometer were recorded at all times during the survey. The digital data include the date, an absolute value of the magnetic field, and GPS time with accurate synchronization to the aircraft data acquisition system.

The base station magnetometer sensor was installed near the landing site, away from electric transmission lines and moving ferrous objects such as motor vehicles. The base station data were backed-up to the data processing computer at the end of each survey day.

2.6 GPS GROUND BASE STATION

A dedicated Novatel PROPAK-V3_TR20 GPS receiver and a dedicated ground based GPS antenna was used with a 10Hz Raw GPS data recording. Post-flight differential GPS data processing utilizing Novatel GrafNav 8.3 software was used to produce sub-meter accuracy of the airborne system location at 10Hz sampling interval.

3. PERSONNEL

The following Geotech Ltd. personnel were involved in the project.

FIELD:

Project Manager:	Shauna-Lee Hewitt (Office)
Data QC:	Dmitriy Danchenko (Office)
Crew chief:	Juan Carlos Florez Osorio
Operator:	n/a

The survey pilot and the mechanical engineer were employed directly by the helicopter operator – Yellowhead Helicopters.

Pilot:	Jason Cyr
Mechanical Engineer:	n/a

OFFICE:

Preliminary Data Processing:	Dmitriy Danchenko
Final Data Processing:	TaiChyi Shei
Data QA/QC:	Zihao Han
	Kanita Khaled
Reporting/Mapping:	Joseli Soares

Processing and Interpretation phases were carried out under the supervision of Alexander Prikhodko, P.Geo, PhD, and Director of Geophysics. The customer relations were looked after by Jean M. Legault.

4. DATA PROCESSING AND PRESENTATION

Data compilation and processing were carried out by the application of Geosoft Oasis Montaj and programs proprietary to Geotech Ltd.

4.1 FLIGHT PATH

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the WGS84 Datum, UTM Zone 10 North coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x, y positions from the navigation system. Positions are updated every second and expressed as UTM easting's (x) and UTM northing's (y).

4.2 MAGNETIC DATA

The processing of the magnetic data involved a correction for diurnal variations by using the digitally recorded ground base station magnetic values. The base station magnetometer data was edited and merged into the Geosoft GDB database on a daily basis. The aeromagnetic data was corrected for diurnal variations by subtracting the observed magnetic base station deviations.

Tie line levelling was carried out by adjusting intersection points along traverse lines. A micro-levelling procedure was applied to remove persistent low-amplitude components of flight-line noise remaining in the data.

The corrected magnetic data was interpolated between survey lines using a random point gridding method to yield x-y grid values for a standard grid cell size of 37.5 metres at the mapping scale. The Minimum Curvature algorithm was used to interpolate values onto a rectangular regular spaced grid.

5. DELIVERABLES

5.1 SURVEY REPORT

The survey report describes the data acquisition, processing, and final presentation of the survey results. The survey report is provided in two paper copies and digitally in PDF format.

5.2 MAPS

Final maps were produced at scale of 1:15,000 for best representation of the survey size and line spacing. The coordinate/projection system used was WGS84 Datum, UTM Zone 10 North. All maps show the flight path trace and topographic data; latitude and longitude are also noted on maps.

The preliminary and final results of the survey are presented as a colour TMI contour map and vertical derivative colour maps.

- Maps at 1:15,000 in Geosoft MAP format, as follows:

GL180345_15K_TMI_CaribooValley:	Total Magnetic Intensity (TMI)
GL180345_15k_CVG_ CaribooValley:	Calculated Vertical Gradient (CVG)
GL180345_15k_DEM_ CaribooValley:	Digital Elevation Model (DEM)

- Maps are also presented in PDF format.
- The topographic data base was derived from 1:50,000 Natural Resources Canada NTDB data www.geogratis.ca
- A Google Earth file *GL180345_Hawkeye_SellerCreek.kml* showing the flight path of the block is included. Free versions of Google Earth software from: http://earth.google.com/download-earth.html

5.3 DIGITAL DATA

Two copies of the data on DVD were prepared to accompany the report. Each DVD contains a digital file of the line data in GDB Geosoft Montaj format as well as the maps in Geosoft Montaj Map and PDF format.

- DVD structure.

  Data contains databases, grids and maps, as described below.
  Report contains a copy of the report and appendices in PDF format.

Databases in Geosoft GDB format, containing the channels listed in Table 4.

Table 4: Geosoft GDB Data Format

Channel Name	Description
X	X Easting Positional data (meters) – WGS84 UTM 10N
Y	Y Northing Positional data (meters) – WGS84 UTM 10N
Z	GPS antenna elevation (meters – ASL)
Longitude	WGS84 GPS longitude (decimal degrees) from x
Latitude	WGS84 GPS latitude (decimal degrees) from y
Date	Flight Date (YYYY/MM/DD)
gtime	UTC time, second of the day
Fiducial	Sample Number
Flight	Survey Flight Number
Radar	Aircraft Terrain Clearance from Radar altimeter (metres)
DEM	Digital elevation model derived from Radar altimeter (metres)
Flux_X	Vector Magnetometer X Component (nT)
Flux_Y	Vector Magnetometer Y Component (nT)
Flux_Z	Vector Magnetometer Z Component (nT)
TFCMP1	Raw Total Compensated Magnetic field (nT)
Mag1	De-spiked and compensated Total Magnetic field (nT)
Basemag	Magnetic diurnal variation (nT)
Mag2	Diurnal corrected Total Magnetic field (nT)
Mag3	Final Levelled Total Magnetic field (nT)
CVG	First Vertical Derivative of Total Magnetic field (nT/m)

- Grids in Geosoft GRD and GeoTIFF format, as follows:

  GL180345_TMI_ CaribooValley: Total magnetic intensity (nT)
  GL180345_CVG_ CaribooValley: Calculated Vertical Derivative of TMI (nT/m)
  GL180345_DEM_ CaribooValley: Digital Elevation Model (metres)

  A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information. A grid cell size of 37.5 metres was used.

6. CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne geophysical survey has been completed over the Cariboo Valley Block situated near Likely, British Columbia.

The total area coverage is 22 km^2. Total survey line coverage 140 line kilometres. The principal sensor was a high-sensitivity caesium magnetometer. Results have been presented as contour colour images at a scale of 1:15,000. A formal Interpretation has not been included or requested.

Based on the geophysical results obtained a formal magnetic interpretation is recommended and can be completed by Geotech. This includes the structural interpretation and 3D magnetic inversion and geological integration.

Respectfully submitted[2],

Dmitriy Danchenko
Geotech Ltd.

Tai-chyi Shei
Geotech Ltd.

Kanita Khaled, P.Geo
Geotech Ltd.

Joseli Soares
Geotech Ltd.

PROFESSIONAL GEOSCIENTIST
ALEXANDER PRIKHODKO
PRACTISING MEMBER
1638
ONTARIO

Alexander Prikhodko, P.Geo, PhD
Geotech Ltd.

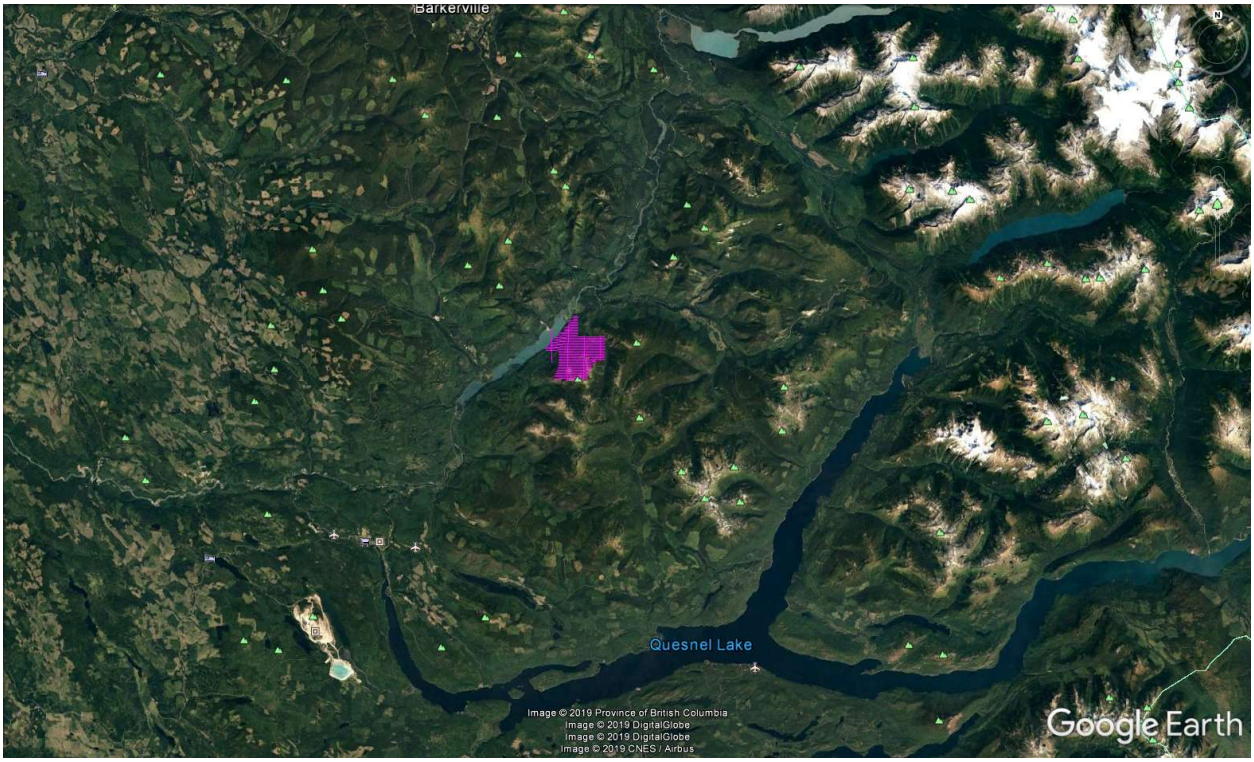
Zihao Han
Geotech Ltd.

January, 2019.

[2] Final data processing of the EM and magnetic data were carried out by Tai-chyi Shei, from the office of Geotech Ltd. in Aurora, Ontario, under the supervision of Alexander Prikhodko, P.Geo.

APPENDIX A

SURVEY AREA LOCATION MAP



Overview of the Survey Area

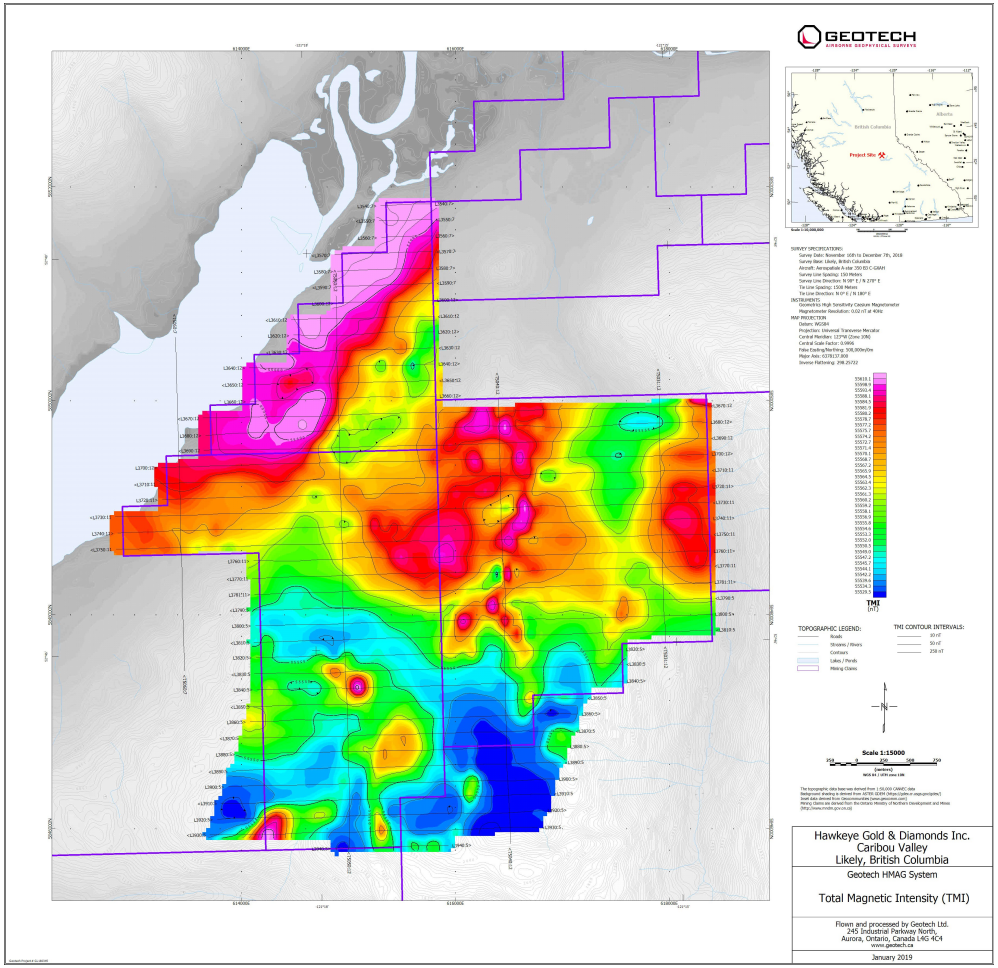
APPENDIX B

SURVEY AREA COORDINATES

(WGS 84, UTM Zone 10 North)

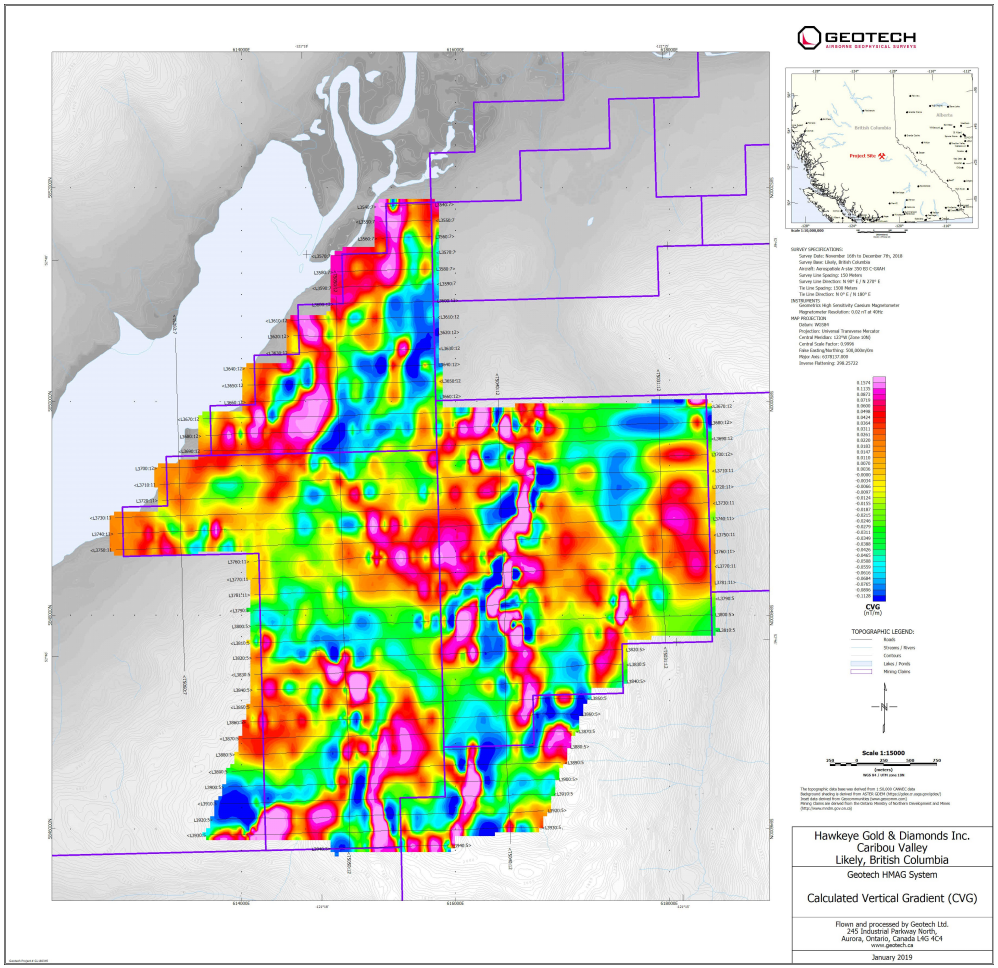
X	Y
612826	5848614
612818	5848916
613264	5849379
613640	5849839
615300	5851824
615771	5851840
615835	5849894
618346	5849953
618398	5847859
617576	5847834
617565	5847380
617152	5847368
616772	5846013
613703	5845943
614142	5847302
614195	5848648

APPENDIX C - GEOPHYSICAL MAPS[1]

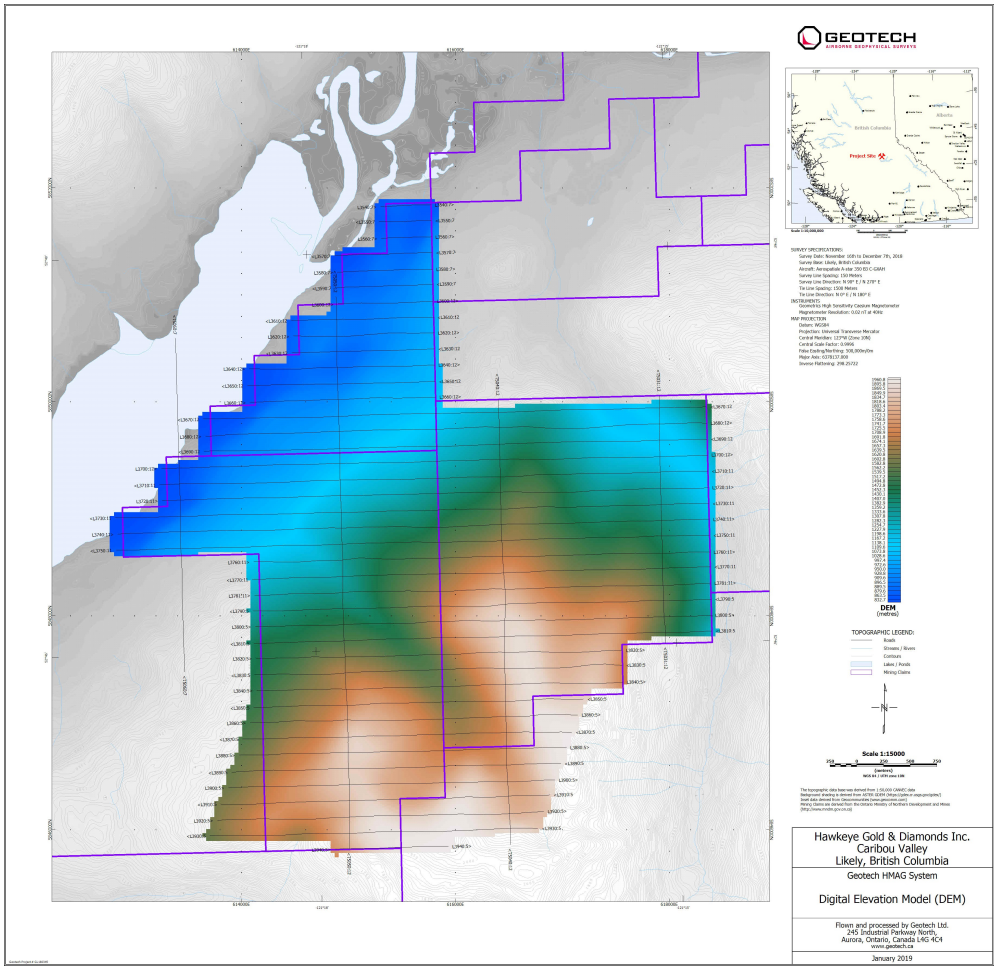


Total Magnetic Intensity (TMI)

[1] Full size geophysical maps are also available in PDF format on the final DVD



Calculated Vertical Gradient (CVG)



Digital Elevation Model (DEM)

APPENDIX D

FIGURE OF MERIT TEST

The Figure of Merit test was performed immediately after the compensation solution was acquired during a high-altitude test near Dragon, BC, on November 28, 2018.

During the test, the aircraft duplicates the roll, pitch and yaw maneuverers performed during the compensation test in all four survey directions. The absolute errors from each of the 12 manoeuvers are summed, and should be less than 2.0nT to confirm adequate compensation.

Figure of Merit result:

Total Field 1 (Stinger Sensor)

Direction	Roll	Pitch	Yaw	Total
0	0.118	0.125	0.088	**0.331**
90	0.088	0.079	0.098	**0.265**
180	0.109	0.068	0.086	**0.263**
270	0.063	0.075	0.074	**0.212**
Total	**0.378**	**0.347**	**0.346**	**1.071**

FOM =	1.071	nT

APPENDIX K - CAMPBELL AND WALKER 2021 GEOPHYSICAL REPORT SELLER CREEK.

SELLER CREEK PROPERTY

ASSESSMENT REPORT

AEROMAGNETIC SURVEY

CARIBOO MINING DIVISION

BRITISH COLUMBIA

121° 26’ 24.1” W, 52° 40’ 19.8” N to 121° 14’ 31.2” W, 52° 44’ 57.4” N

605479 mE, 5836943 mN to 618658 mE, 5845828 mN

NTS MAP SHEET: 093A/11

PREPARED FOR:

Hawkeye Gold & Diamond Inc.

SUITE 202, 1985 ALBERNI STREET
VANCOUVER, BRITISH COLUMBIA V6G 0A2

PREPARED BY:

C. CAMPBELL, P.GEO., GEOPHYSICIST

SUBMITTED: 08 OCTOBER MARCH 2021

Campbell & Walker
Geophysics Ltd.

SUMMARY

A combined magnetic and gamma-ray spectrometry survey over the Seller Creek property of Hawkeye Gold & Diamond Inc. acquired approximately 409 line-km of helicopter-borne geophysical data over a 7-day period in November–December 2018. The survey covers 7 active and good-standing claims amounting to approximately 5,365 ha located in the Cariboo Mining District, British Columbia.

The magnetic survey has provided valuable structural and geological information. A suite of filters and derivatives have been applied to the aeromagnetic gridded data, followed by a multiscale edge detection and automated grid 'fractal' analysis to identify regions prospective for gold mineralization based upon structural complexity as inferred from magnetics being indicative of significant faults, shears.

Several areas of interest are identified by the fractal analysis 'heatmaps' suggesting anomalous structural complexity / disturbance. Particular attention is focused on a structurally complex zone in the centre-east portion of the claim block. A second area which has to be considered priority lays westward.

Due to the relatively high costs and slow progress, ground geophysics should be constrained in terms of follow-up to the investigation of discrete target zones themselves representing anomalous soil geochemistry and/or airborne geophysical anomalies.

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Appendix A Geotech Ltd., January 2019, Report on a helicopter-borne aeromagnetic geophysical survey, Project GL180345, 23 p.

1 INTRODUCTION

A helicopter-borne magnetic survey was flown over the Seller Creek claims by Geotech Ltd. for Hawkeye Gold & Diamond Inc. The airborne geophysics was undertaken and completed in 7 days of actual flying spread over a longer period, November 16 to December 07, 2018; final results were delivered in January 2019. A subsequent interpretation and report of this data was completed by Campbell & Walker Geophysics Ltd. in September–October 2021. The survey coverage amounts to 408.996 line-kilometres spread over 5,364.7 hectares.

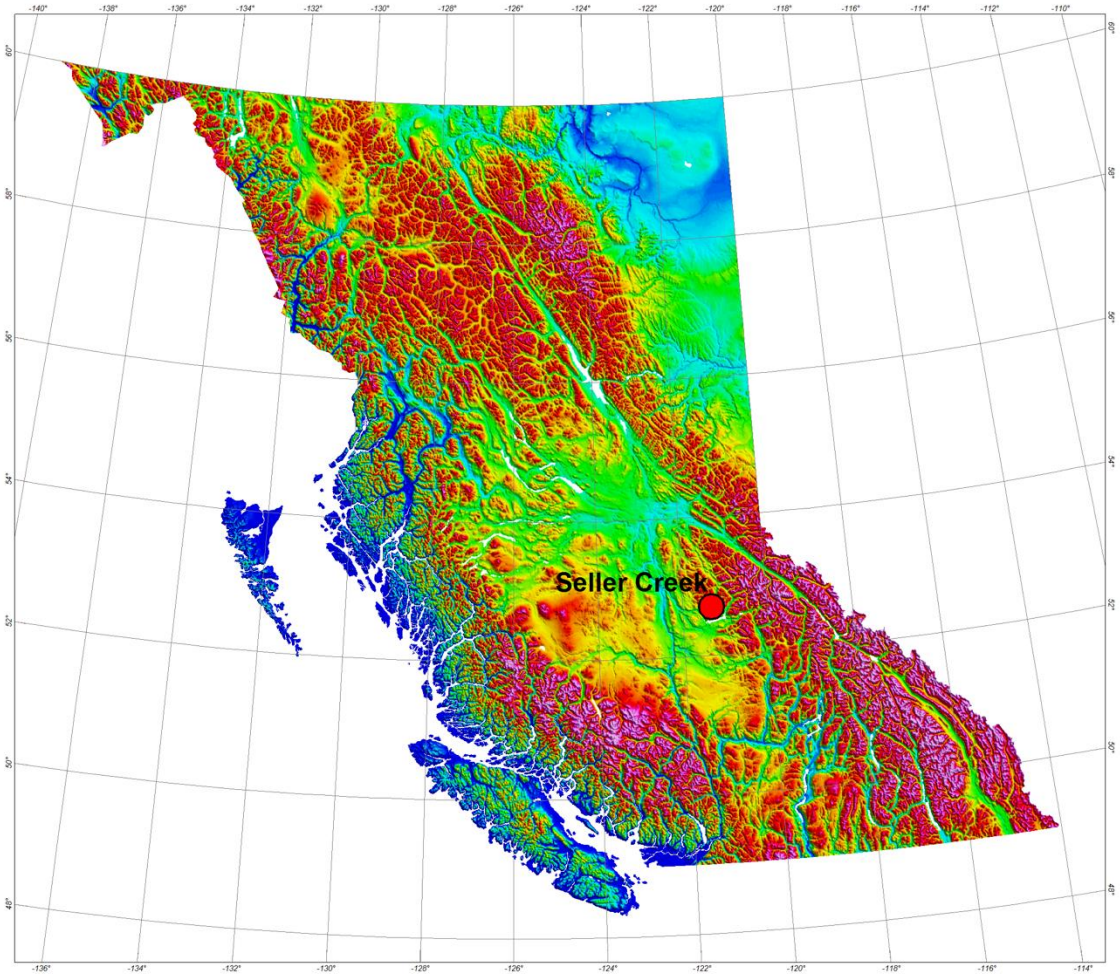

Figure 1. Location Map

In addition to the Geotech Ltd. report in Appendix A, a folder containing the complete Geotech report and raw deliverable data is provided as part 2 that accompanies the filing of this report for assessment work credit.

2 AIRBORNE GEOPHYSICS

2.1 Acquisition and Processing

As stated in the Introduction, Geotech Ltd. was contracted to carry out a program of detailed airborne magnetics in November–December, 2018; The program was completed in 7 days of actual flying spread over a 3-week period. Technical issues at mobilization and in the initial start-up calibration/test flights plus inclement weather adversely impacted the overall production. A total of 408.996 line-kilometres was acquired on traverse lines oriented 090°/270° at 150 m intervals tied by 000°/360° control lines at 1,500 m spacing. Mean terrain clearance achieved was 72.85 m, approximately equivalent to half the traverse line spacing.

The base of operations for this airborne program was the airstrip at Likely, southwest of the survey block. Data was acquired using an Aerospatiale A-Star 350 B2, registration C-GXAH, at a nominal (contractual) height of 75 m, mean terrain clearance. The relatively rugged terrain and requirements for safe operations given the weather conditions precluded significantly lower flying heights.

Projection and Datum Specifications for East and West:

Map projection	NUTM10
Datum	WGS84
Central meridian	123° West
False Easting	500000 m
False Northing	0 m
Scale Factor	0.9996 m

The aeromagnetic data was subjected to standard heading, lag, and diurnal corrections; tie-line levelling and micro-levelling were then applied, followed finally by an IGRF correction. A calculated vertical gradient and digital elevation model were additionally generated by the Contractor.

Complete details are provided by the Contractor in their logistics report, Appendix A attached to this report.

2.2 Data Presentation and Imaging

The digital files have been provided in two formats, both as a Geosoft *.gdb file and as ASCII *.xyz files. Full descriptions of the digital data and contents are included in the contractor's report (Appendix A).

The digital data were gridded after standard processing and corrections and presented as Geosoft *.grd grid files, as listed below:

Total Magnetic Intensity (TMI)

Calculated Vertical Gradient (CVG) - first vertical derivative of TMI

Digital Elevation Model (DEM)

Representative images are shown following for each survey; additional maps/images are provided by the Contractor as *.pdf files in in Appendix B.

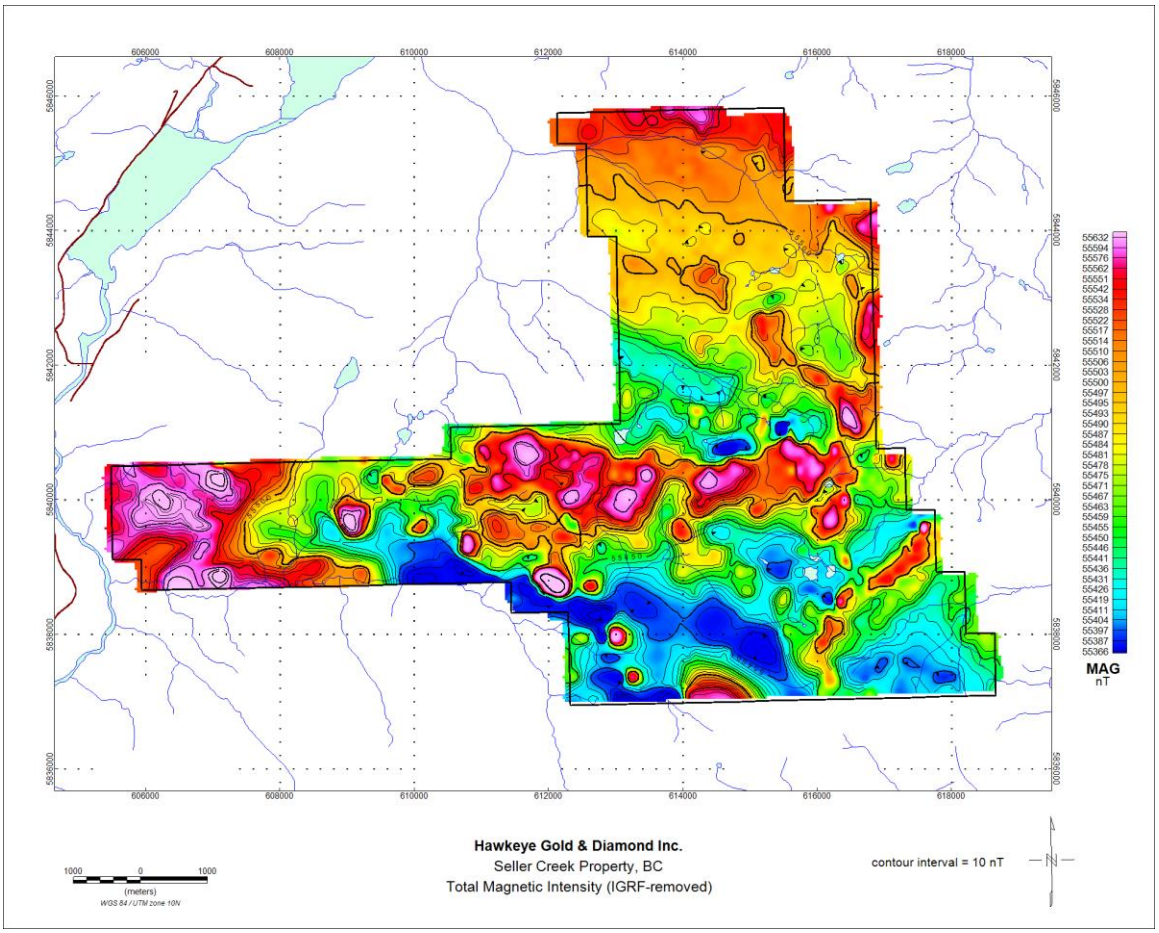

Figure 2. Residual Magnetic Intensity (total field w/ IGRF removed)

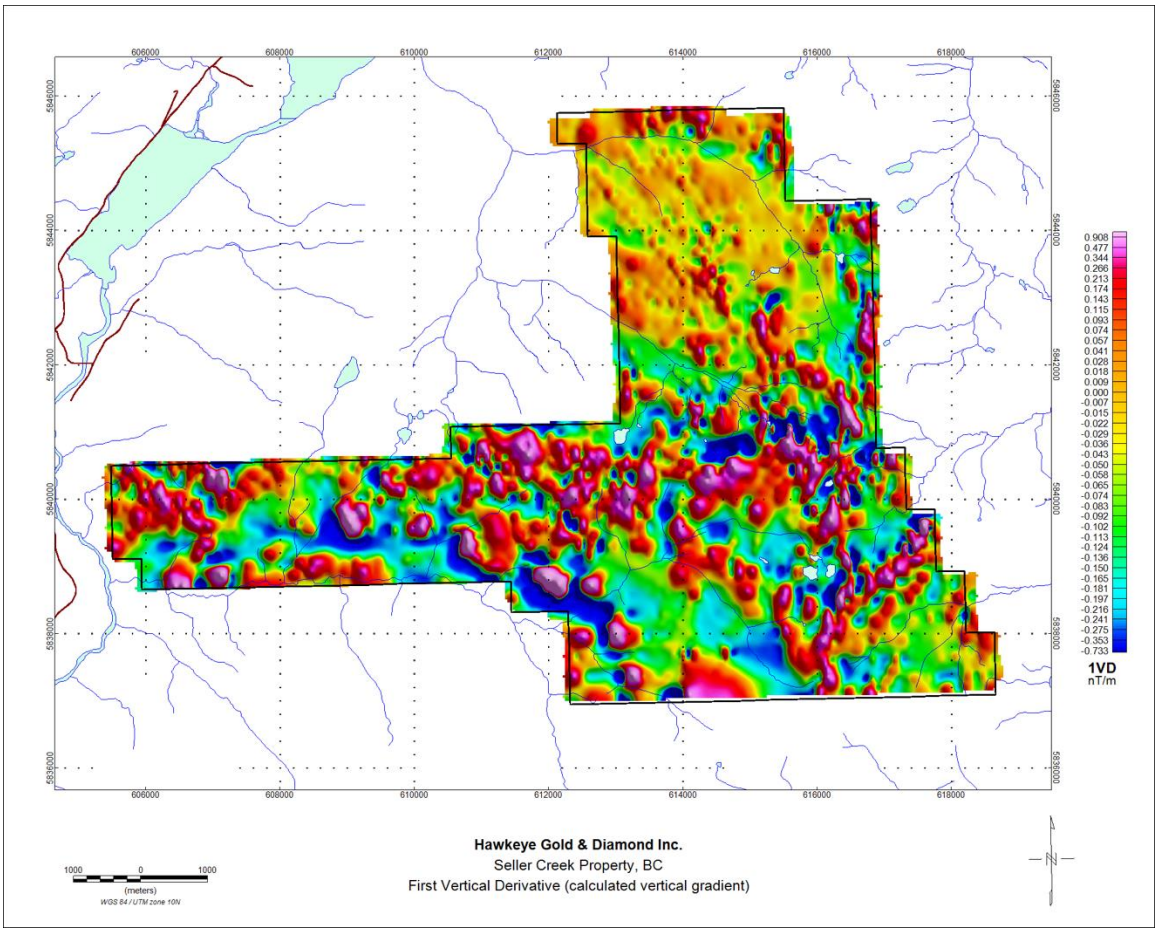

Figure 3. First Vertical Derivative (calculated vertical gradient)

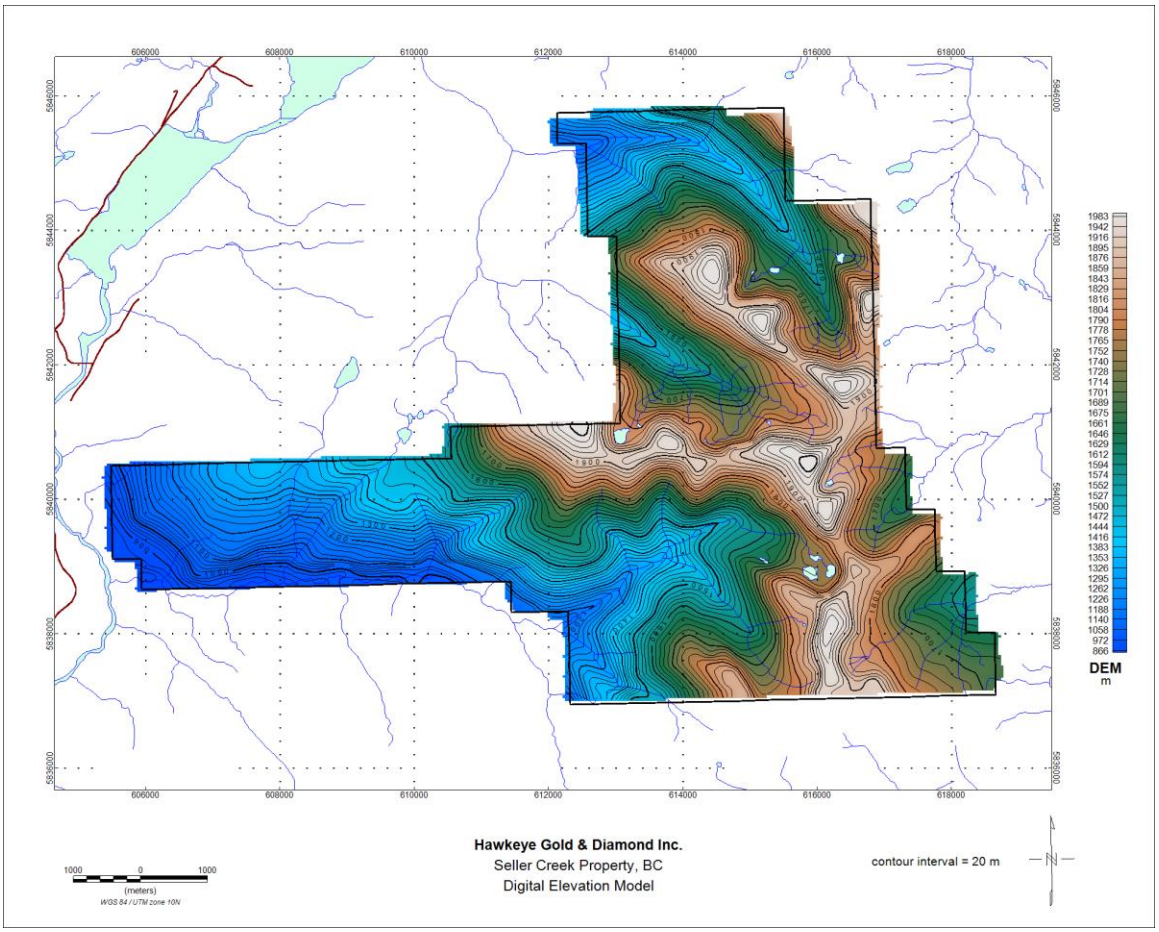

Figure 4. Digital Elevation Model

2.3 Interpretation

The aeromagnetic grids and images were examined particularly with a view to delineating and extracting indications of possible structural fabric on the premise that structural analysis plays a key role in resource exploration. Almost all styles of mineral deposits and hydrocarbon accumulations are controlled either directly or indirectly by some form of structural focus.

The reduced-to-pole ('RTP') grid often if not normally comprises the basis for these analyses. RTP is a fundamental process which, in most situations, yields imagery representing the geometry of magnetic rock units better than TMI data. Its physical basis is sourced in potential field theory (Baranov and Naudy, 1957) and where it can be successfully applied numerically it is considered a 'must' for the interpreter; in essence, the dipolar nature of magnetic anomalies is removed and peak RTP magnetic values relate more closely to the centre of magnetic rock bodies and asymmetries in the RTP imagery more closely reflect true dips and plunges (Isles and Rankin, 2013).

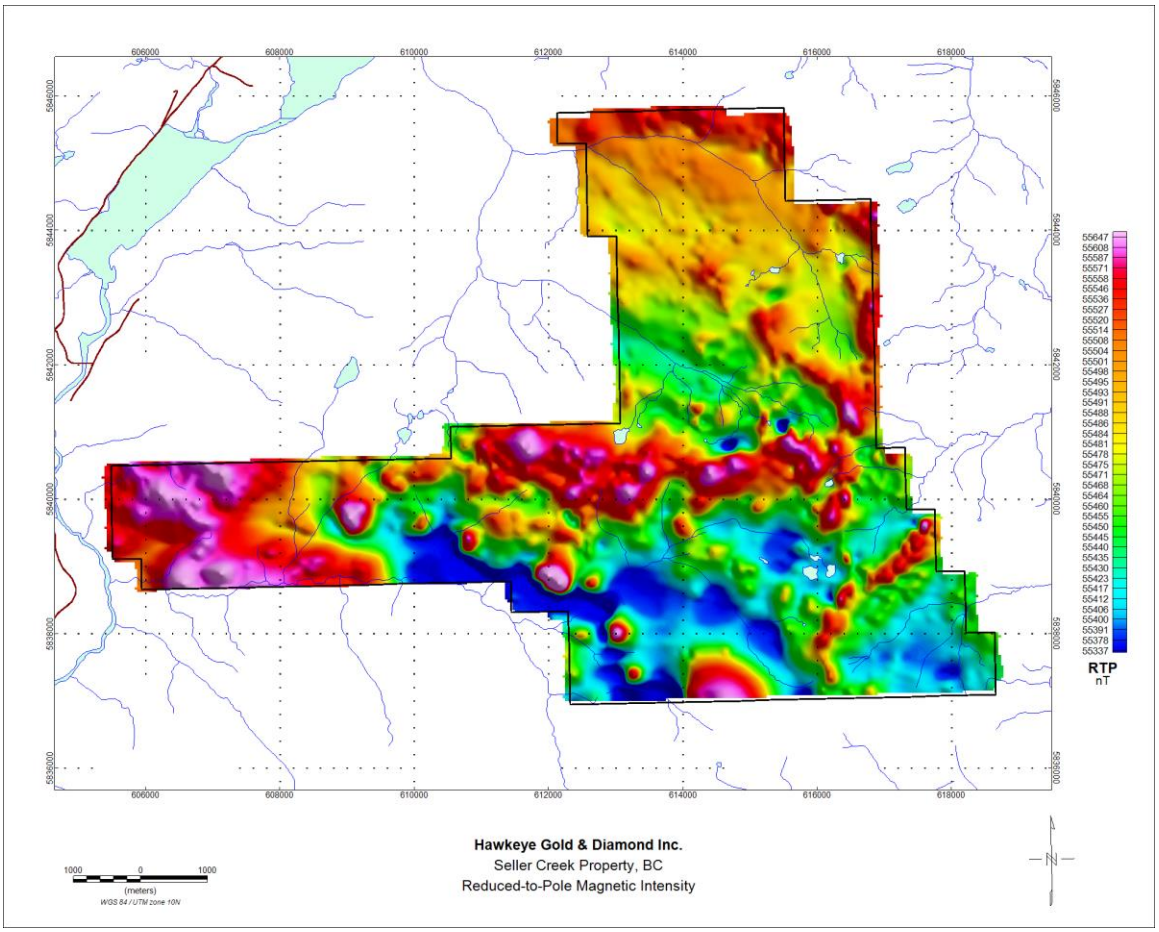

Figure 5. Reduced-to-Pole Magnetic Intensity

The goal of RTP is to simplify magnetic maps – essentially making them appear to be more like gravity maps. In practice, RTP is complicated because anomalies may be rotated by tectonism, rocks of different ages may be reverse or normally polarized and related factors. A further complication arises as the essentially 2D FFT is being here applied in an area of significant topographic relief (i.e.,r ~1,200 m), inherently non-2 dimensional and thus non-conforming to the underlaying assumptions of a 2D fourier operator. Although the derivatives in this study are all based on the reduced-to-pole magnetic intensity, some caution as to precise locations of specific features should be exercised. However, as the mean inclination of the Earth's field on the Seller Creek property is ~73.0º (considered to be a relatively 'high' inclination), large displacements of anomalies are not anticipated.

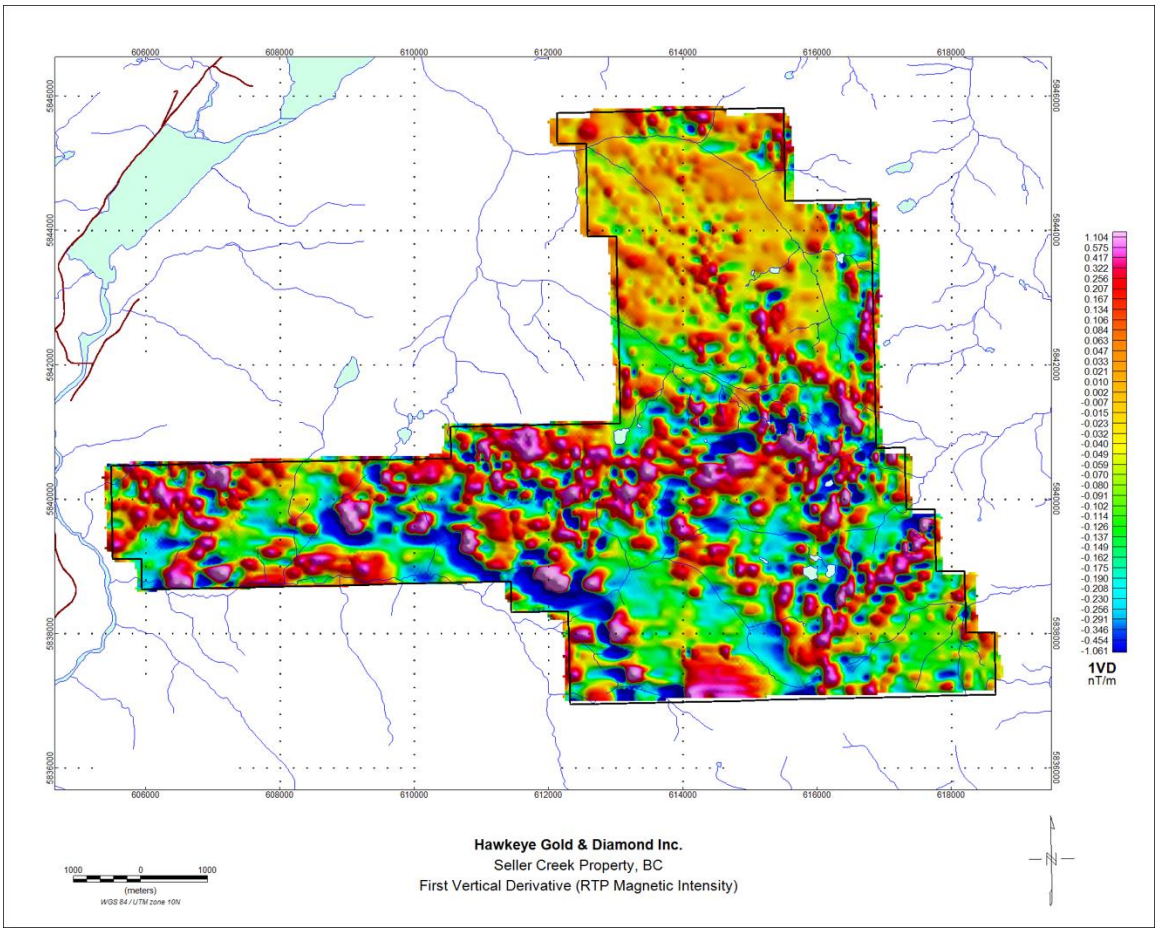

Figure 6. First Vertical Derivative (RTP Magnetic Intensity)

The RTP magnetic intensity was passed through several derivatives and filters, selected images shown above and following. The first vertical derivative or 1VD (shown above) is a common high-pass filter; both north-northwest and northwest linear features are accordingly mapped. The total horizontal derivative or THD (shown below) yields further information, with a maxima on both flanks of a feature as opposed to the 1VD single maxima.

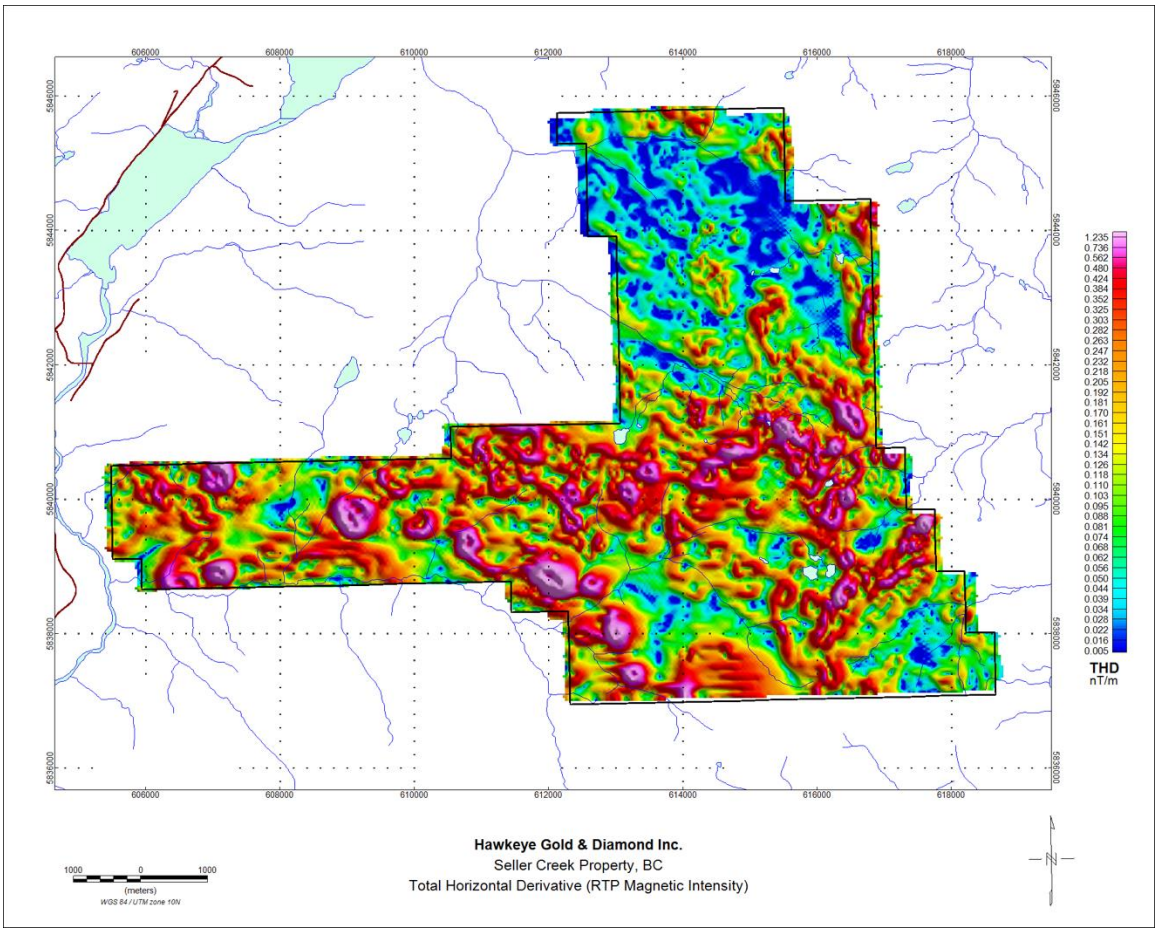

Figure 7. Total Horizontal Derivative (RTP Magnetic Intensity)

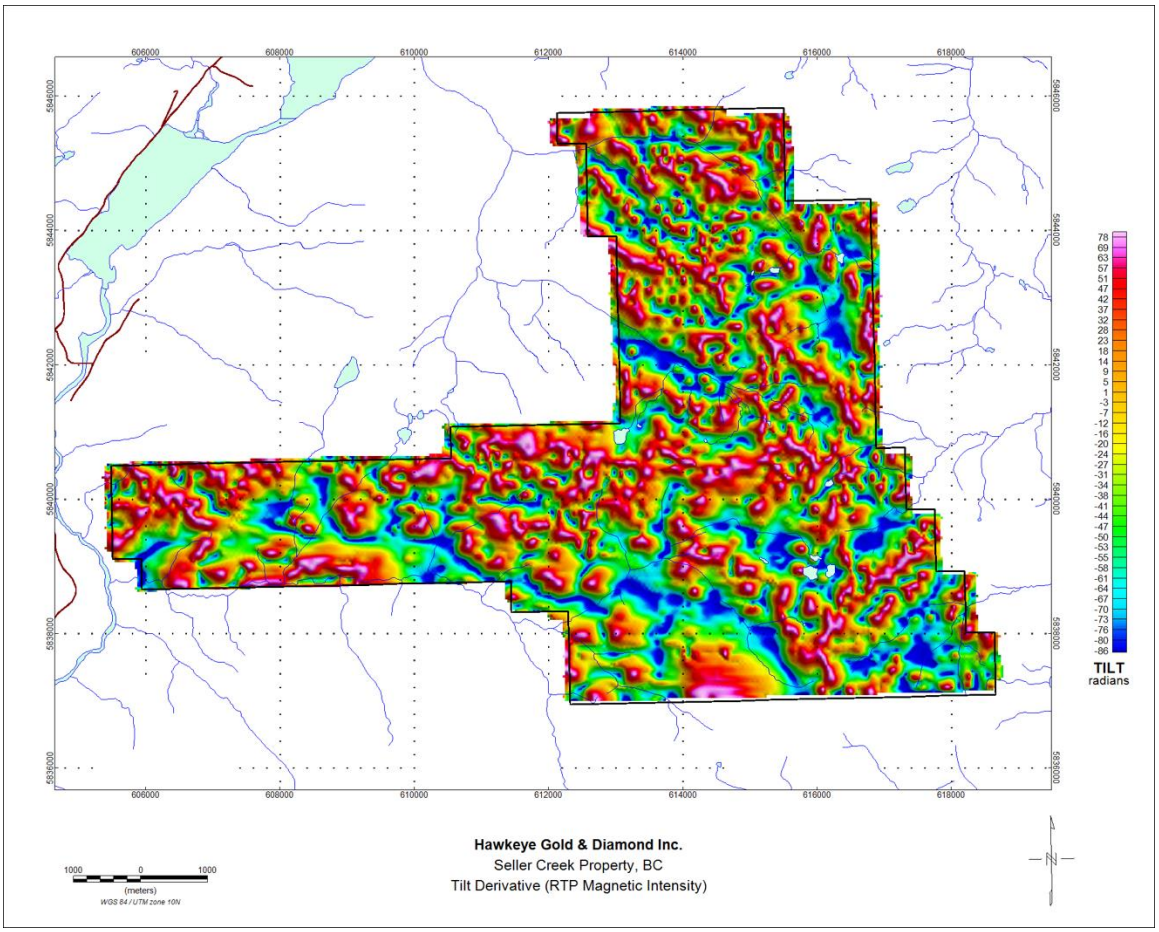

Figure 8. Tilt Derivative

Another common derivative or filter is the 'tilt derivative' or TDR (Miller and Singh, 1994) this is the arctan of the 1VD/THD. Because it is derived from a ratio, it has a normalized data intensity range. The TDR produces patterns similar to the 1VD and THD grid images, but portrays responses from deeper and shallower sources with similar amplitudes and may therefore be confusing. The positive phase only of the TDR is also shown below, helping to emphasize positive magnetization.

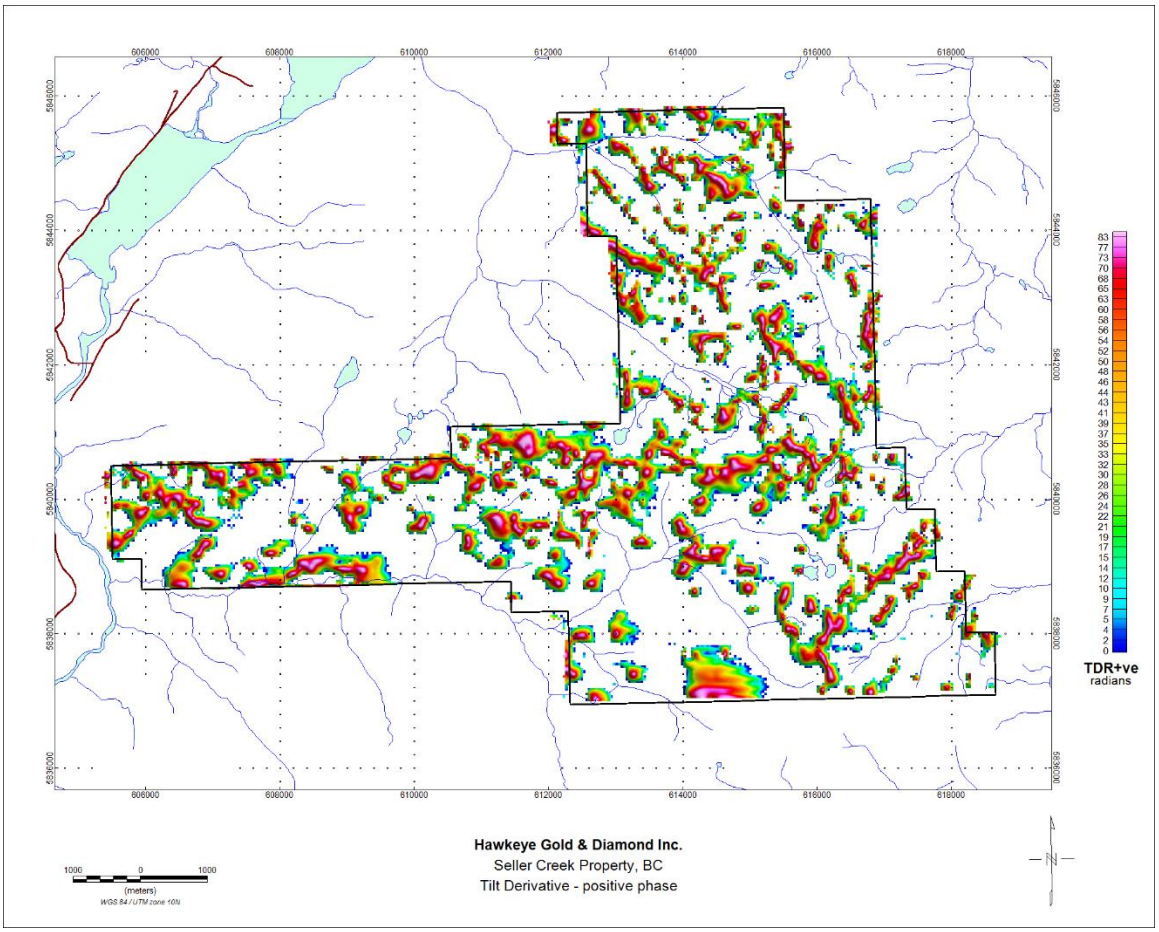

Figure 9. Tilt Derivative – positive phase only

New Enhancement Filters (Shi and Butt, 2004)

Besides the standard 1VD, THD, TDR and AS, etc., new enhancement filters for geological mapping have been developed for the purpose of enhancing weak magnetic anomalies from near-surface sources while simultaneously enhancing low-amplitude, long-wavelength magnetic anomalies from deep-seated or regional sources.

The Edge filter group highlights edges surrounding both shallow and deeper magnetic sources. The results are used to infer the location of the boundaries of magnetized lithologies.

The Block filter group has the effect of transforming the data into “zones” which, similar to image classification systems, segregate anomalous zones into apparent lithological categories. Both filter groups change the textural character of a dataset and thereby facilitate interpretation of geological structures. Representative images of the Edge and Block group are shown following:

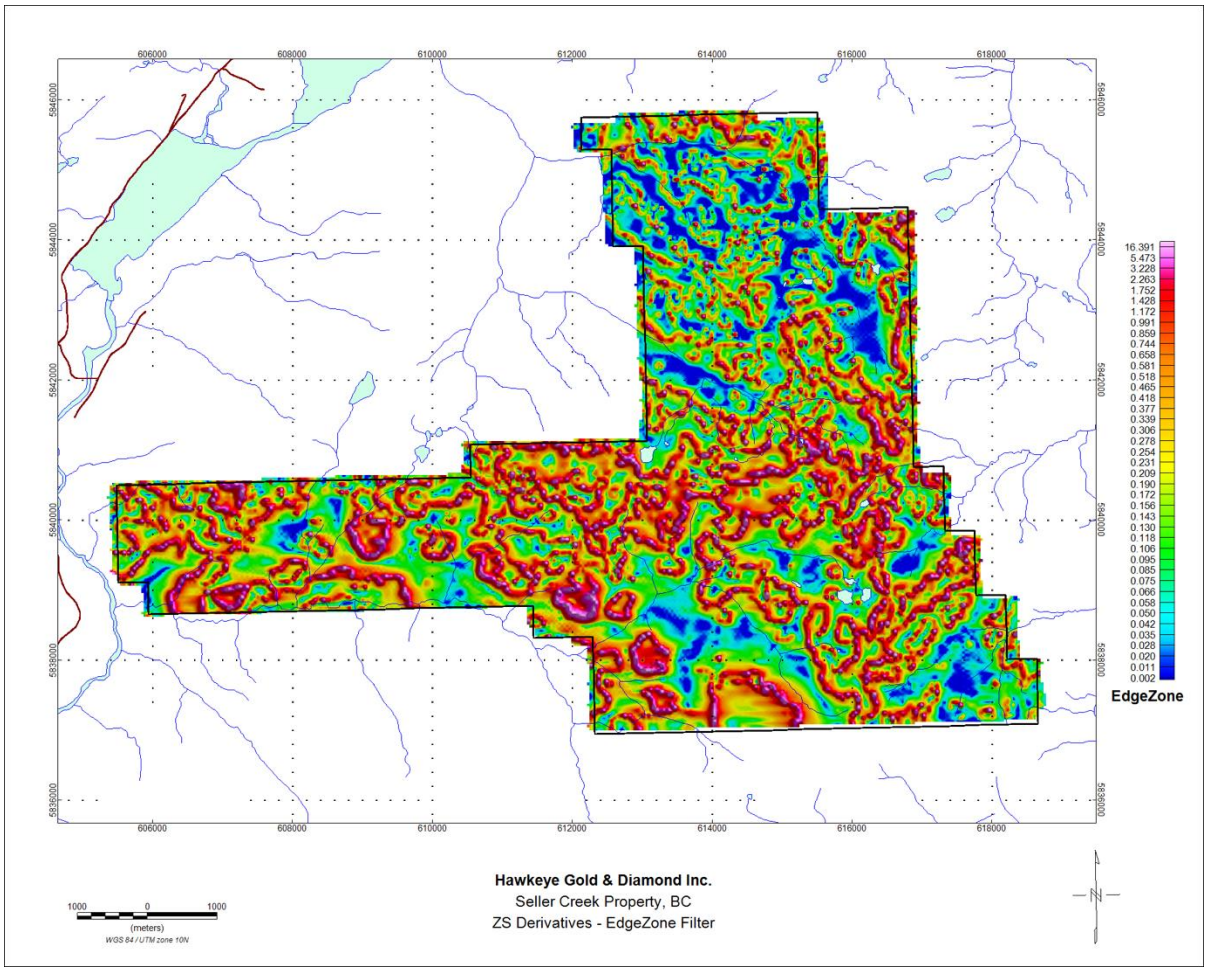

Figure 10. ZS EdgeZone Filter (Edge/EdgeZone group)

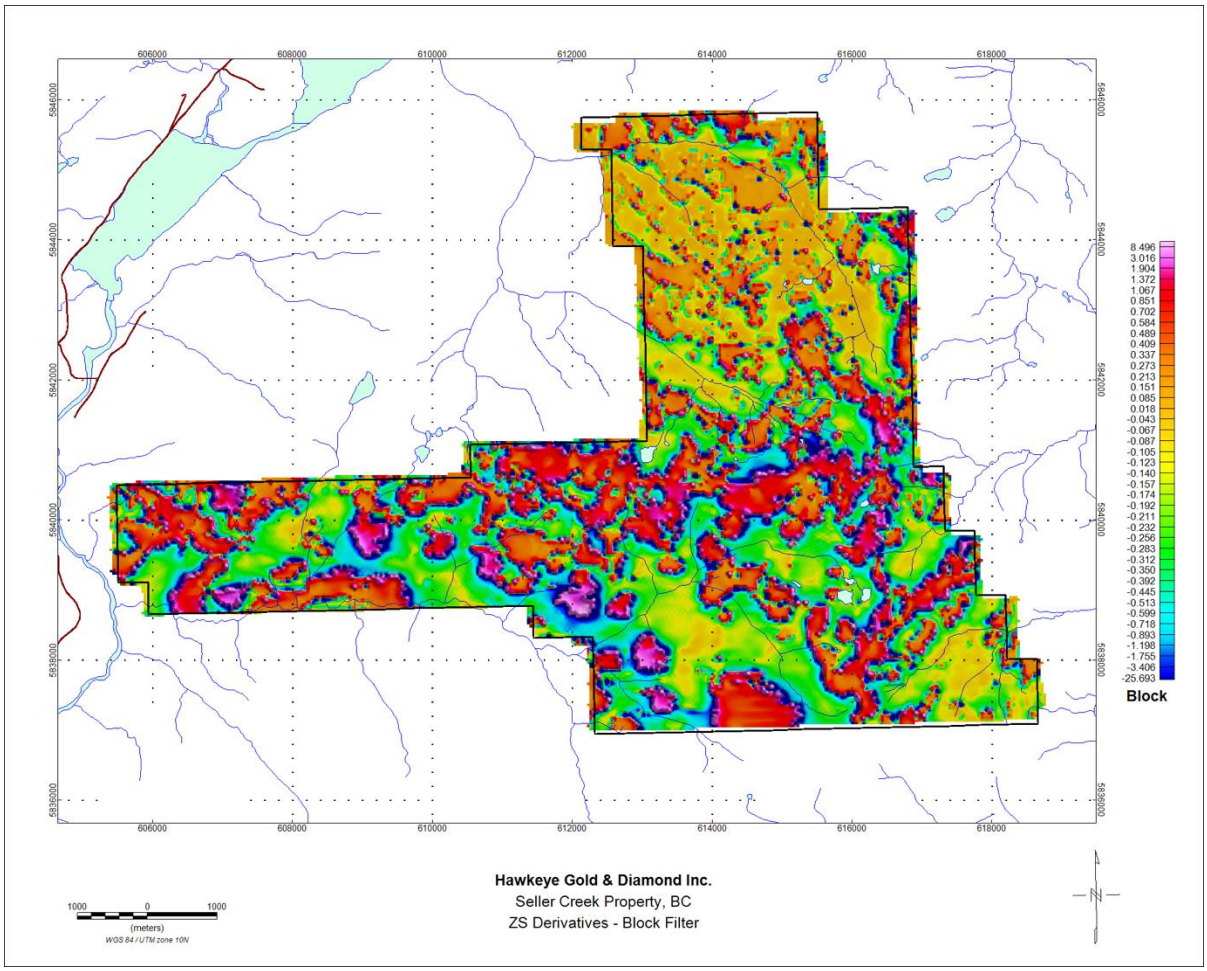

Figure 11. ZS Block Filter (Area/Block/Plateau group)

Structural Analysis: Multiscale Edge Detection ('worms')

A two-pronged approach was taken to identify and map magnetic 'fabric' … multiscale edge detection (also known as 'worms') as described by Milligan et al, 2004 as well as a fractal analysis as described by Holden et al, 2008. Current implementation (Intrepid software) of multiscale edge analysis includes the use of Eüler 'worms' which provide a view of structural geology obtained directly from potential field geophysical data. The method is based on Fourier techniques for continuation, reduction-to-pole and total horizontal derivatives coupled with automatic edge detection.

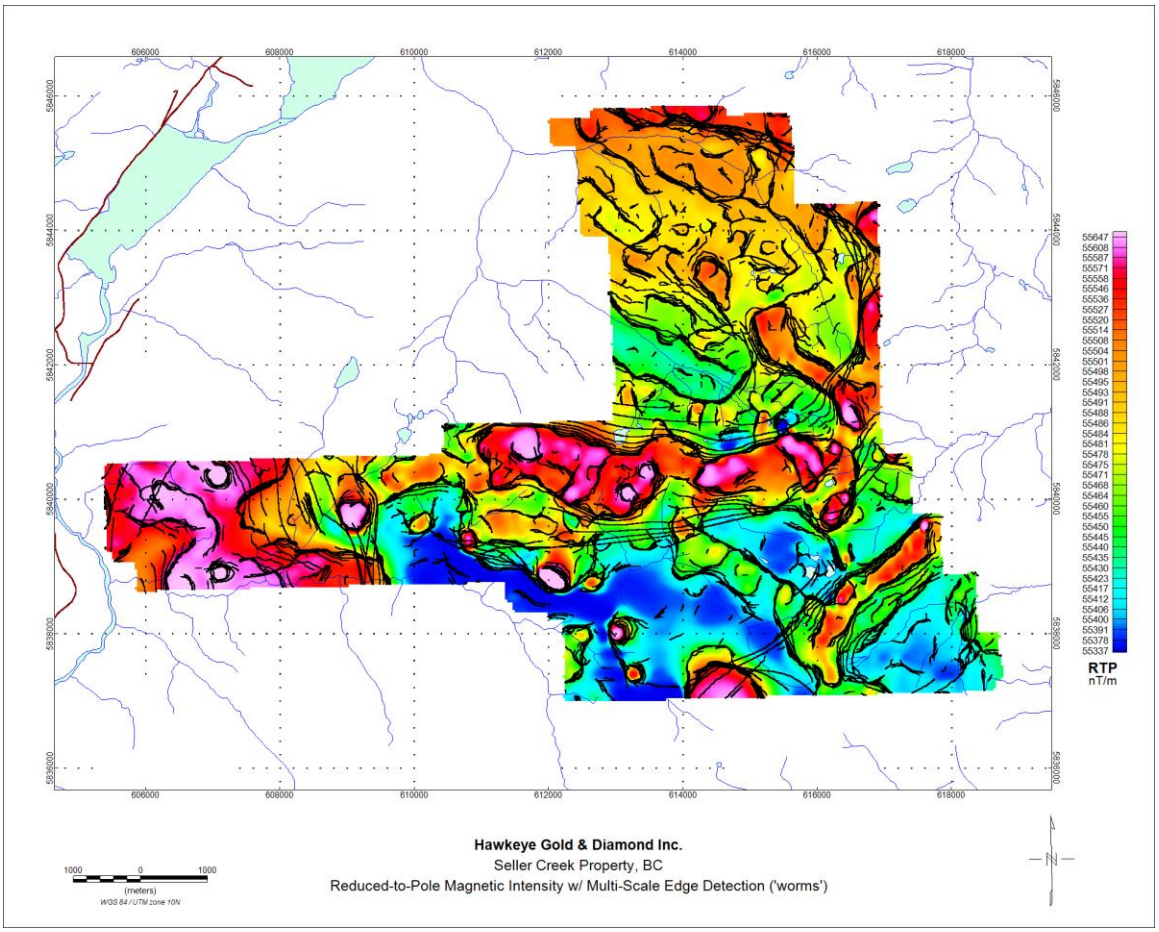

Figure 12. Multiscale Edge Detection 'worms' overlain on RTP Magnetic Intensity

The analysis of lineaments is of fundamental importance to understanding geological structures and the stress regimes in which they are produced. Automatic analysis of lineaments has previously been done with information mapped from remotely sensed data, using either satellite-based imagery or aerial photographs. Potential field data may also be analyzed in terms of their lineament content. Edge detection and automatic trend analysis using gradients in such data are methods for producing unbiased estimates of sharp lateral changes in physical properties of rocks. The assumption is made that the position of the maxima in the horizontal gradient of gravity or magnetic data represents the edges of the source bodies, although this should be used with caution. Such maxima can be detected and mapped as points, providing the interpreter with an unbiased estimate of their positions. The process of mapping maxima as points can be extended to many different levels of upward continuation, thus providing sets of points that can be displayed in three dimensions, using the height of upward continuation as the z-dimension.

Multi-scale edge detection was substantially developed by CSIRO in Perth in the late 1990s (Archibald *et al,* 1999). It combines wavelet analysis, potential field edge detection and upward continuation to attempt to recover the horizontal location of property contrast interfaces, and to characterize their extension in depth. The *Intrepid* software implementation of this technique is shown above on the interpretation map, Figure 12. The combination of 'worms' and pseudocolour magnetic intensity, above) and derived derivatives of the magnetic intensity, highlight structural fabric of the Seller Creek property.

Structural Analysis: CET Grid Analysis

The Centre for Exploration Targeting (CET) grid analysis (via a Geosoft plugin) provides tools for texture analysis, lineation detection and vectorization, leading to both structural complexity and orientation entropy 'heatmaps' shown on following images. Au mineralization is known to occur near major crustal breaks manifesting as large-scale shear zones, which act as conduits for mineralizing fluids; mineralization occurs in regions of structural complexity adjacent to the shear zones. Progressing towards the automatic detection of such regions, the CET grid analysis system:

- Delineates zones of magnetic discontinuity that correspond to both lithological boundaries and shear zones using a combination of texture analysis and symmetry feature detection techniques
- Examines the data using fractal analysis to find areas nearby with a complex magnetic expression (zones of structural complexity).
- The most prospective areas are those where inferred structural complexity occurs adjacent to the regions of magnetic discontinuity.
- This approach may have merit in this instance, with the applicability at Silver Ivan to be based upon correlation of known and/or inferred geology to the derived structural complexity and orientation entropy 'heat maps.'

The contact occurrence density (COD) process generates a heat map that highlights high density of structural contacts, which include junctions and intersections of different structures and locations where structures have significant orientation changes.

Given an input of vectorized structures/trends (in this case, the multiscale edge detection 'worms', pairs of line segments are analyzed to determine if they meet or intersect at an angle that is greater than a specified threshold. Each of these contact locations are then marked and used to cast a 2D Gaussian vote towards the overall Contact Occurrence Density in the resulting heatmap.

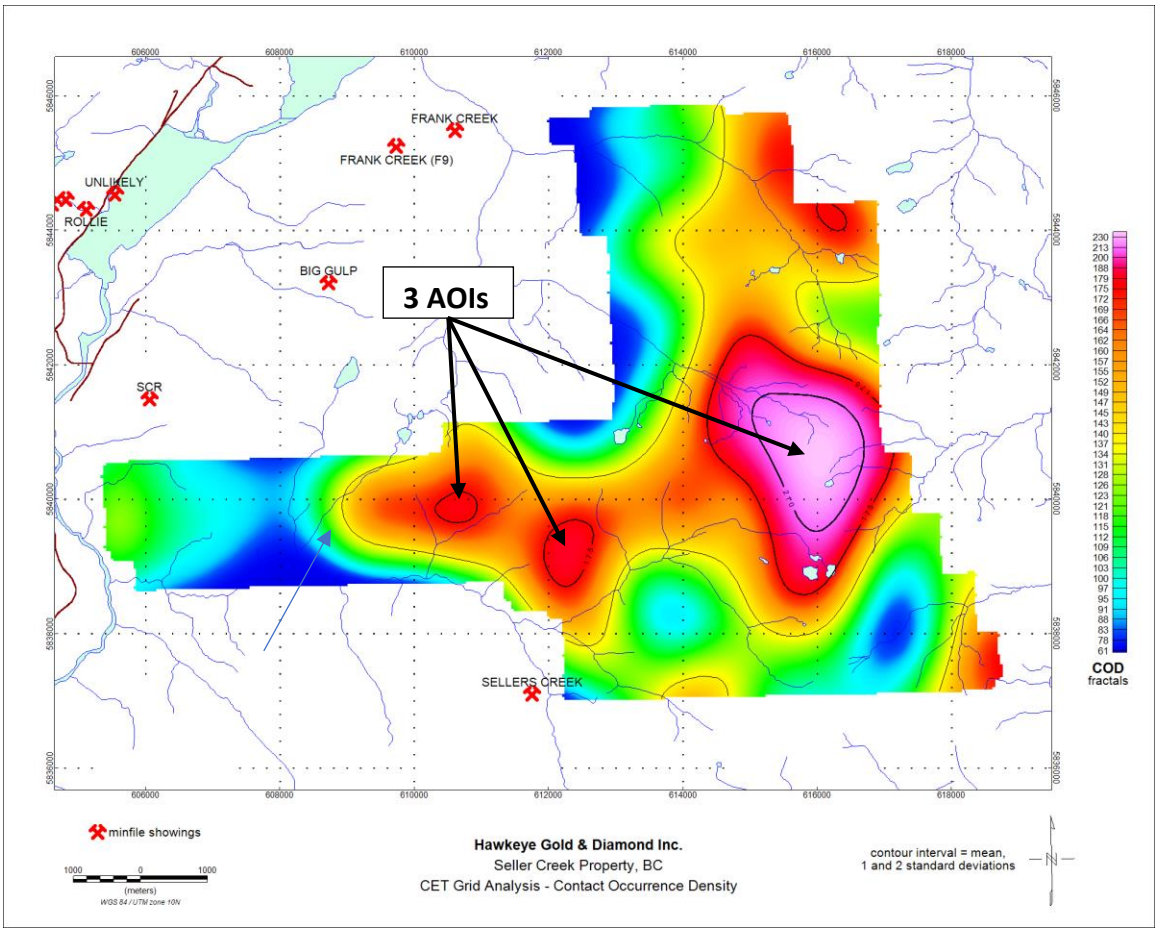

Figure 13. CET Grid Analysis: Contact Occurrence Density w/ 1 & 2 STD above means

Anomalous contact occurrences arbitrarily delineated by the 1 and 2 standard deviation contours on Figure 13 above; 3 areas of interest ('AOIs') become apparent. The largest and perhaps strongest of these lays on the east-centre of the claim block. A second 'doublet' feature lays westward, as indicated above. Both suggest complex zones having notable fractal intensity and in turn, significant structural breakage. Unfortunately, there are no recorded mineralized showings occurring on the claim block from which some information/correlations might be extracted.

Orientation Entropy (OE) highlights regions where structures occur over a wide range of orientations, thus indicating areas of potential structural complexity. OE is based on the same fractal analysis / phase symmetry as the COD. The output grid comprises real values indicating the entropy of nearby structure orientations, centred about each cell. Regions of high entropy are considered to exhibit high statistical randomness, and thus areas of potential structural complexity.

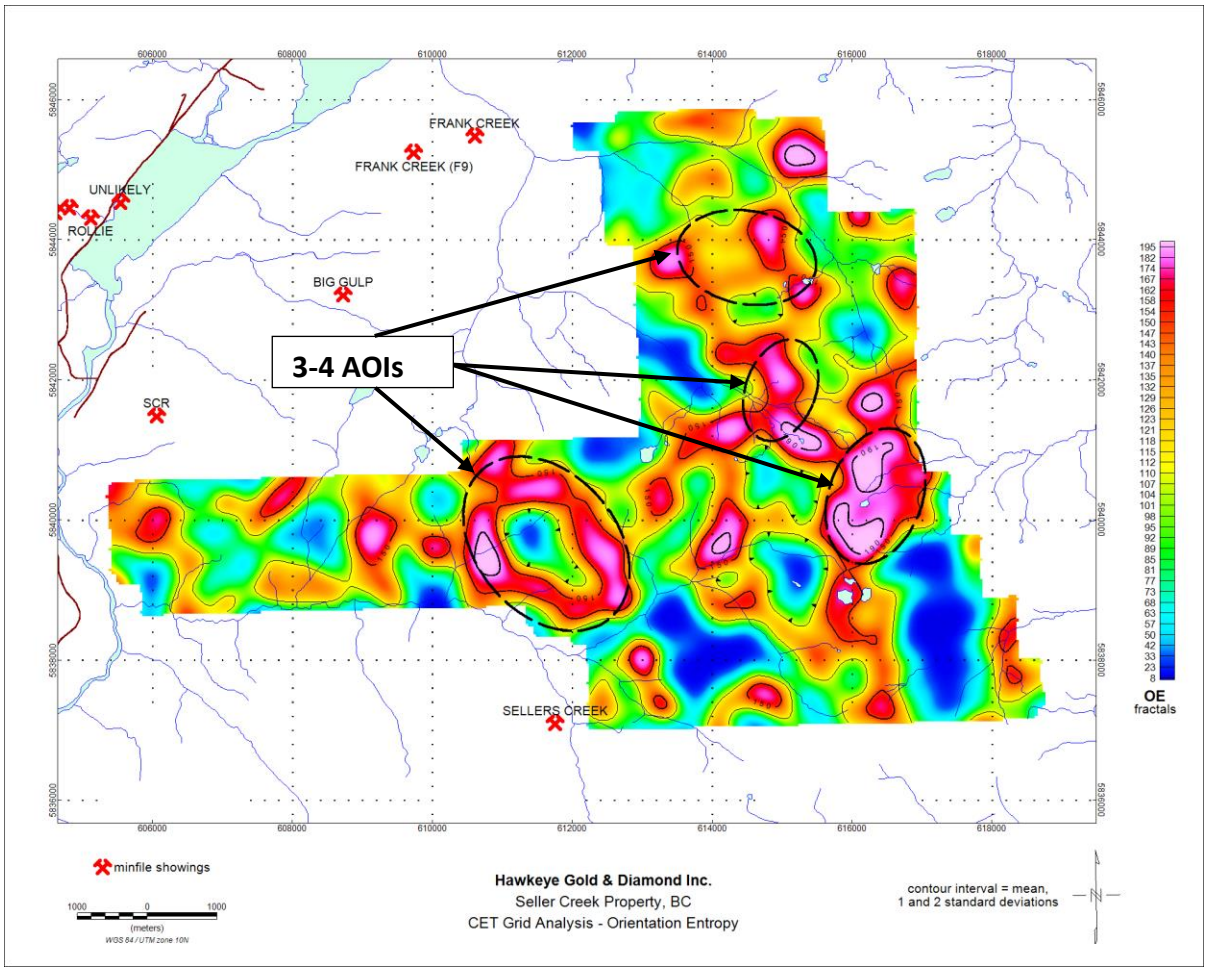

Figure 14. CET Grid Analysis: Orientation Entropy w/ 1 and 2 STDs above mean

Anomalous 'entropy' (e.g., 1 & 2 standard deviations above the mean, shown as heavy black contours) delineates regions of significant magnetic (i.e., geologic, including shear zones and lithological boundaries) discontinuity. If we accept that fault/shear zones play a role in the potential mineralization in the Cariboo gold camp, then the elliptical polygons mapped on the orientation entropy heat map should similarly reflect regions of significant structural complexity with high prospectivity for gold mineralization.

Two main areas of interest as well as 2 more subsidiary zones are mapped approximately on the orientation entropy image above; The two principle zones coincide with the anomalous COD zones previously noted; a third and to a lesser degree, fourth AOI zone are also indicated approximately with dashed outlines. All these are presented as significant zones of structural complexity.

3 CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne magnetic and gamma-ray spectrometry survey over the Seller Creek property of Hawkeye Gold & Diamond Inc. acquired approximately 409 line-km of helicopter-borne geophysical data in November–December 2018. The survey covers 7 active and good-standing claims amounting to approximately 5,365 ha located in the Cariboo Mining District, British Columbia. All claims are assigned 100% to Hawkeye Gold & Diamond Inc.

The magnetic survey has provided valuable structural and geological information. A suite of filters and derivatives have been applied to the aeromagnetic gridded data, followed by a multiscale edge detection and automated grid 'fractal' analysis to identify regions prospective for gold mineralization based upon structural complexity as inferred from magnetics being indicative of significant faults, shears.

Specific areas of interest are identified by Centre for Exploration Targeting grid analysis: three by the contact occurrence density 'heatmap' with an additional two more general areas identified by the occurrence entropy; note that some degree of overlap exists between these two outputs. Particular attention is focused on a structurally complex zone in the centre-east of the claim block.

Future work to verify the potential of these areas of interest should include prospecting, surface mapping, geochemical sampling and ground geophysics (e.g., induced polarization/resistivity).

The property remains a challenge in terms of inclement weather patterns, rugged terrain, and heavy undergrowth. Considerations for future work include both ground geophysics as well as extensive soils geochemistry and geological prospecting.

Due to the relatively high costs and slow progress, ground geophysics should be constrained in terms of follow-up to the investigation of discrete target zones themselves representing anomalous soil geochemistry and/or airborne geophysical anomalies.

4 STATEMENT OF QUALIFICATIONS

I, Christopher J. Campbell, B.Sc., M.B.A., P.Geo., with business address of 4505 Cove Cliff Road, North Vancouver British Columbia V7G 1H7, hereby certify that:

- I am a graduate (1972) of the University of British Columbia, with a Bachelor of Science degree in Geophysics.
- I am a graduate (1986) of the University of Denver, with a Masters of Business Administration.
- I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
- I have practised my profession for approximately 49 years in Canada (British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Newfoundland and Labrador, Yukon, Northwest Territories, and Nunavut), United States of America, Australia, Russia, and Africa.
- I have no interest, direct or indirect, in the properties or securities of Hawkeye Gold & Diamond Inc., or in any of their related companies or joint venture partners anywhere in Canada.
- Dated at North Vancouver, British Columbia, this 5th day of October 2021.

Christopher Campbell, B.Sc., M.B.A., P.Geo.

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APPENDIX A:

GEOTECH LTD., JANUARY 2019, REPORT ON A HELICOPTER-BORNE AEROMAGNETIC GEOPHYSICAL SURVEY, PROJECT GL180345

HELISTINGER

REPORT ON A HELICOPTER-BORNE AEROMAGNETIC GEOPHYSICAL SURVEY

PROJECT:	SELLER CREEK
LOCATION:	LIKELY, BRITISH COLUMBIA
FOR:	HAWKEYE GOLD & DIAMONDS INC.
SURVEY FLOWN:	NOVEMBER – DECEMBER 2018
PROJECT:	GL180345

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GEOTECH
AIRBORNE GEOPHYSICAL SURVEYS

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EXECUTIVE SUMMARY

SELLER CREEK BLOCK
LIKELY, BRITISH COLUMBIA

From November 16th to December 7th, 2018 Geotech Ltd. carried out a helicopter-borne geophysical survey over the Seller Creek Block situated near Likely, British Columbia.

The principal geophysical sensor was a caesium magnetometer. Ancillary equipment included a GPS navigation system, radar altimeter and laser altimeter. A total of 409 line-kilometres of geophysical data were acquired during the survey.

In-field data quality assurance and preliminary processing were carried out on a daily basis during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results are presented as the following maps:

- Total Magnetic Intensity (TMI),
- Calculated Vertical Gradient (CVG)
- Digital Terrain Model (DEM)

The survey report describes the procedures for data acquisition, description o equipment processing, final image presentation and the specifications for the digital data set.

1. INTRODUCTION

1.1 GENERAL CONSIDERATIONS

Geotech Ltd. performed a helicopter-borne geophysical survey over the Seller Creek Block situated near Likely, British Columbia (
Figure 1 & Figure 2).

Greg Neeld represented Hawkeye Gold & Diamonds Inc. during the data acquisition and data processing phases of this project.

The geophysical survey consisted of helicopter-borne aeromagnetics using a caesium magnetometer system. A total of 409 line-km of geophysical data were acquired during the survey.

The crew was based out of Likely, within the project area, for the acquisition phase of the survey. Survey flying started on November 16th, 2018 and was completed on December 7th, 2018.

Data quality control and quality assurance, and preliminary data processing were carried out on a daily basis during the acquisition phase of the project. Final data processing followed immediately after the end of the survey. Final reporting, data presentation and archiving were completed from the Aurora office of Geotech Ltd. in January, 2017.

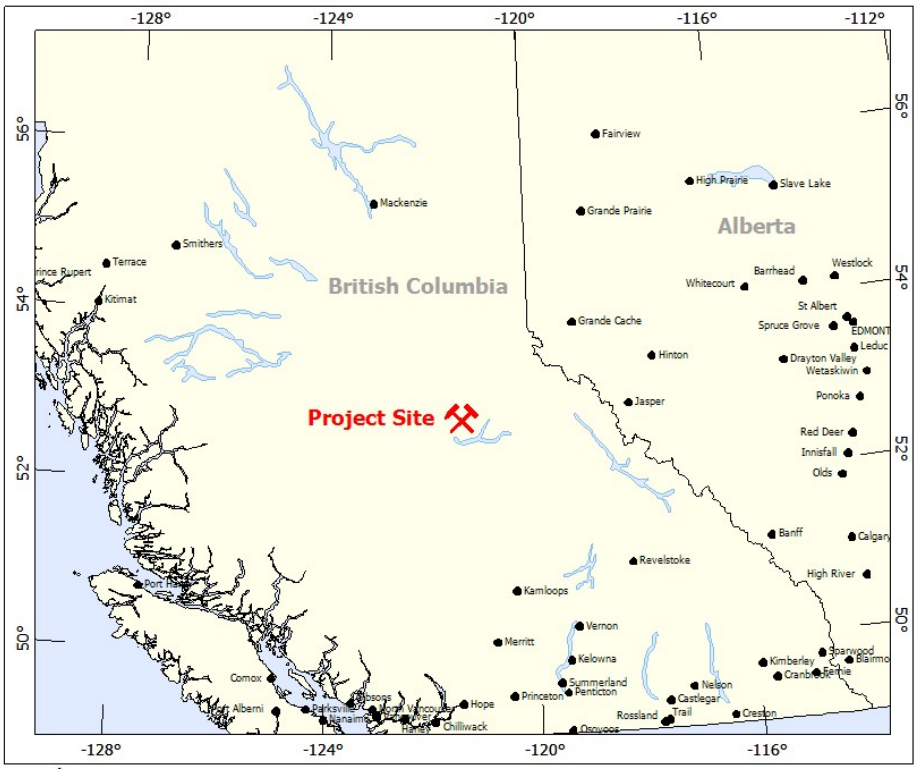

Figure 1: Survey location.

1.2 SURVEY AND SYSTEM SPECIFICATIONS

The survey area was located approximately 11 kilometres northeast of Likely, British Columbia (Figure 2).

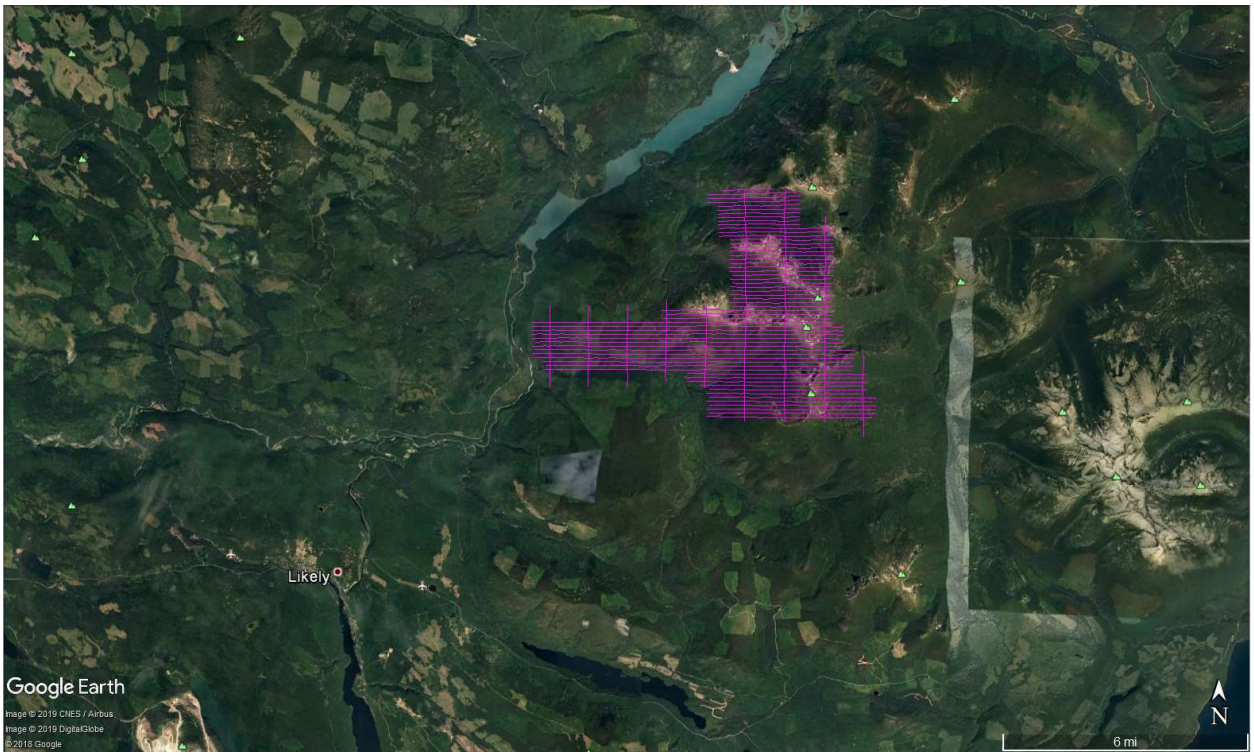

Figure 2: Survey area locations on Google Earth.

The survey was flown in an east to west (N 90° E azimuth) direction, with traverse line spacing of 150 as depicted in Figure 3. Tie lines were flown perpendicular to the traverse lines. For more detailed information on the flight spacing and direction see Table 1.

1.3 TOPOGRAPHIC RELIEF AND CULTURAL FEATURES

Topographically, the survey area exhibits a moderate relief with an elevation ranging from 820 to 2034 metres above mean sea level over an area of 45 square kilometres.

There are various rivers and streams running through the survey area which connect various lakes and wetlands. There are no visible signs of culture such as roads and buildings located in the survey area. (Figure 3)

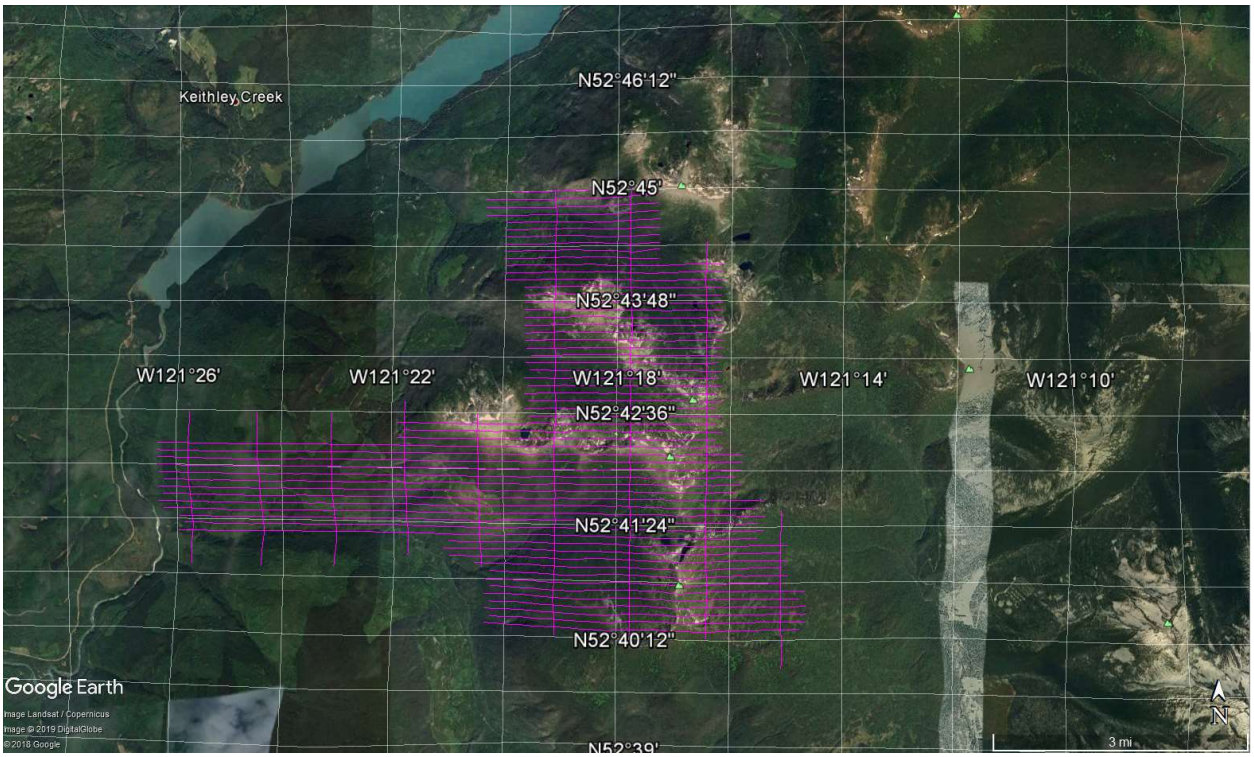

Figure 3: Flight path over a Google Earth Image.

2. DATA ACQUISITION

2.1 SURVEY AREA

The survey area (see Figure 3 and Appendix A) and general flight specifications are as follows:

Table 1: Survey Specifications

Survey block	Line spacing (m)	Area (Km^2)	Planned[1] Line-km	Actual Line-km	Flight direction	Line numbers
Seller Creek	Traverse: 150	45	406	409	N 90° E / N 270° E	L3940 – L4520
	Tie: 1500				N 0° E / N 180° E	T5032 – T5110
TOTAL		45	406	409		

Survey area boundaries co-ordinates are provided in Appendix B.

2.2 SURVEY OPERATIONS

Survey operations were based out of Likely, British Columbia from November 16th until December 7th 2018. The following table shows the timing of the flying.

Table 2: Survey schedule

Date	Comments
2018-11-16	Crew arrived in Okotoks, AB. Completed local logistics.
2018-11-17	Commenced system assembly.
2018-11-18	Completed system assembly.
2018-11-19	Commenced system testing, mag issue observed during testing. Commenced troubleshooting and located source, requested part from the office.
2018-11-20	Crew received shipment from the office.
2018-11-21	Replaced part, completed test line. Unable to complete high altitude test flights due to extreme high winds at altitude, will complete once onsite. Ground crew commenced mobilization towards Likely, BC.
2018-11-22	Ground crew arrived onsite, Heli arrival delayed due to weather.
2018-11-23	Heli arrival delayed due to weather, tested base stations.
2018-11-24	Heli arrived on site in the afternoon, completed recon flight, will re-adjust flying height due to 120-130ft trees in the survey area. Unable to complete test flights due to low ceilings.
2018-11-25	No test flights completed due to weather, low ceilings.
2018-11-26	No test flights completed due to weather, rain throughout the day.
2018-11-27	No test flights completed due to weather, rain and low ceilings throughout the day.
2018-11-28	Late start due to weather, crew was able to complete high altitude test flights, system cleared for production.
2018-11-29	1 short production flight completed in the morning, aborted due to low ceilings, once weather improved 2nd production flight completed in the afternoon, 267km flown.
2018-11-30	Late start due to weather, 2 production flights completed, 249km flown.
2018-12-01	Late start due to weather, 2 production flights completed, 222km flown.
2018-12-02	Late start due to weather, 1 production flight completed, 138km flown.
2018-12-03	2 short production flights completed, 53km flown. Some troubleshooting required.
2018-12-04	Completed troubleshooting, test flight completed, 9km flown.

[1] Note: Actual Line kilometres represent the total line kilometres in the final database. These line-km normally exceed the Planned Line-km, as indicated in the survey NAV files.

2018-12-05	Attempted production flight but aborted due to weather, low ceilings throughout the day.
2018-12-06	3 production flights completed, 355km flown.
2018-12-07	3 production flights completed, 169km flown. Flight Path Completed.

2.3 FLIGHT SPECIFICATIONS

During the survey the helicopter was maintained at a mean altitude of 73 metres above the ground with a nominal survey speed of 140 km/hour.

The on-board operator was responsible for monitoring the system integrity. The operator also maintained detailed flight logs during the survey, tracking the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer. The data were then uploaded via ftp to the Geotech office in Aurora for daily quality assurance and quality control by qualified personnel.

2.4 AIRCRAFT AND EQUIPMENT

2.4.1 SURVEY AIRCRAFT

The survey was flown using an Aerospatiale A-Star 350 B2, registration C-GXAH. The helicopter is owned and operated by Yellowhead Helicopters. Installation of the geophysical and ancillary equipment was carried out by a Geotech Ltd crew.

2.4.2 AIRBORNE MAGNETOMETER

The magnetic sensor utilized for the survey was Geometrics optically pumped cesium vapour magnetic field sensor was installed inside the stinger. The sensitivity of the magnetic sensor is 0.01 nanoTesla (nT) at a sampling interval of 0.025 seconds or at sampling frequency of 40Hz.

2.4.3 MAGNETIC COMPENSATION SYSTEM

The magnetic data were compensated in real-time using an RMS Instruments AARC510 Compensator, utilizing a three-axis (XYZ) Fluxgate magnetometer to measure roll, pitch and yaw movements of the survey aircraft. A 26-term model of the aircraft magnetic noise was determined during a pre-survey test flight, removing permanent, induced, and eddy current fields from the airborne magnetic measurements. The efficacy of this compensation was tested with a Figure of Merit (FOM) test; the total FOM was determined to be 1.071 nT (Appendix D).

2.4.4 ALTIMETER

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance.

2.4.5 VIDEO CAMERA

A colour 550 High-Resolution camera with auto gain control, 550 line resolution was used with a standard 3.6mm lens. Digital files provided with resolution of 768 by 494 at selectable 1-30 frames per second.

2.4.1 LASER ALTIMETER

A Schmitt Industries AR300 laser altimeter was used. Altitude range 0.5 to 300m and accuracy ± 5cm.

Figure 4: System Configuration.

2.4.2 GPS NAVIGATION SYSTEM

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's WAAS (Wide Area Augmentation System) enabled GPS receiver, Geotech navigation software, a full screen display with controls in front of the pilot to direct the flight and a NovAtel GPS antenna mounted on the helicopter tail (Figure 4). As many as 11 GPS and two WAAS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m; with WAAS active, it is 1.0 m. The co-ordinates of the block were set-up prior to the survey and the information was fed into the airborne navigation system.

2.4.3 DIGITAL ACQUISITION SYSTEM

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. The data type and sampling interval as provided in Table 3.

Table 3: Acquisition Sampling Rates

Data Type	Sampling
Magnetometer	0.025 sec
GPS Position	0.2 sec
Pressure and Temperature	1 sec
Radar Altimeter	0.2 sec

2.5 BASE STATION MAGNETOMETER

A dedicated computer including a high sensitivity base station cesium magnetometer and a GPS system to record the GPS time together with the magnetic data was employed to record diurnal magnetic activity. A Geometrics G822B high-sensitivity caesium vapour magnetometer and integrated GPS unit for accurate time synchronization was used with 10Hz data output. Digital recordings of the ground magnetometer were recorded at all times during the survey. The digital data include the date, an absolute value of the magnetic field, and GPS time with accurate synchronization to the aircraft data acquisition system.

The base station magnetometer sensor was installed near the landing site, away from electric transmission lines and moving ferrous objects such as motor vehicles. The base station data were backed-up to the data processing computer at the end of each survey day.

2.6 GPS GROUND BASE STATION

A dedicated Novatel PROPAK-V3_TR20 GPS receiver and a dedicated ground based GPS antenna was used with a 10Hz Raw GPS data recording. Post-flight differential GPS data processing utilizing Novatel GrafNav 8.3 software was used to produce sub-meter accuracy of the airborne system location at 10Hz sampling interval.

3. PERSONNEL

The following Geotech Ltd. personnel were involved in the project.

FIELD:

Project Manager:	Shauna-Lee Hewitt (Office)
Data QC:	Dmitriy Danchenko (Office)
Crew chief:	Juan Carlos Florez Osorio
Operator:	n/a

The survey pilot and the mechanical engineer were employed directly by the helicopter operator – Yellowhead Helicopters.

Pilot:	Jason Cyr
Mechanical Engineer:	n/a

OFFICE:

Preliminary Data Processing:	Dmitriy Danchenko
Final Data Processing:	TaiChyi Shei
Data QA/QC:	Zihao Han
	Kanita Khaled
Reporting/Mapping:	Joseli Soares

Processing and Interpretation phases were carried out under the supervision of Alexander Prikhodko, P.Geo, PhD, and Director of Geophysics. The customer relations were looked after by Jean M. Legault.

4. DATA PROCESSING AND PRESENTATION

Data compilation and processing were carried out by the application of Geosoft Oasis Montaj and programs proprietary to Geotech Ltd.

4.1 FLIGHT PATH

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the WGS84 Datum, UTM Zone 10 North coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x, y positions from the navigation system. Positions are updated every second and expressed as UTM easting's (x) and UTM northing's (y).

4.2 MAGNETIC DATA

The processing of the magnetic data involved a correction for diurnal variations by using the digitally recorded ground base station magnetic values. The base station magnetometer data was edited and merged into the Geosoft GDB database on a daily basis. The aeromagnetic data was corrected for diurnal variations by subtracting the observed magnetic base station deviations.

Tie line levelling was carried out by adjusting intersection points along traverse lines. A micro-levelling procedure was applied to remove persistent low-amplitude components of flight-line noise remaining in the data.

The corrected magnetic data was interpolated between survey lines using a random point gridding method to yield x-y grid values for a standard grid cell size of 37.5 metres at the mapping scale. The Minimum Curvature algorithm was used to interpolate values onto a rectangular regular spaced grid.

5. DELIVERABLES

5.1 SURVEY REPORT

The survey report describes the data acquisition, processing, and final presentation of the survey results. The survey report is provided in two paper copies and digitally in PDF format.

5.2 MAPS

Final maps were produced at scale of 1:15,000 for best representation of the survey size and line spacing. The coordinate/projection system used was WGS84 Datum, UTM Zone 10 North. All maps show the flight path trace and topographic data; latitude and longitude are also noted on maps.

The preliminary and final results of the survey are presented as a colour TMI contour map and vertical derivative colour maps.

- Maps at 1:15,000 in Geosoft MAP format, as follows:

GL180345_15K_TMI_SellerCreek:	Total Magnetic Intensity (TMI)
GL180345_15k_CVG_SellerCreek:	Calculated Vertical Gradient (CVG)
GL180345_15k_DEM_SellerCreek:	Digital Elevation Model (DEM)

- Maps are also presented in PDF format.
- The topographic data base was derived from 1:50,000 Natural Resources Canada NTDB data www.geogratis.ca
- A Google Earth file *GL180345_Hawkeye_SellerCreek.kml* showing the flight path of the block is included. Free versions of Google Earth software from: http://earth.google.com/download-earth.html

5.3 DIGITAL DATA

Two copies of the data on DVD were prepared to accompany the report. Each DVD contains a digital file of the line data in GDB Geosoft Montaj format as well as the maps in Geosoft Montaj Map and PDF format.

- DVD structure.

  Data contains databases, grids and maps, as described below.
  Report contains a copy of the report and appendices in PDF format.

Databases in Geosoft GDB format, containing the channels listed in Table 4.

Table 4: Geosoft GDB Data Format

Channel Name	Description
X	X Easting Positional data (meters) – WGS84 UTM 10N
Y	Y Northing Positional data (meters) – WGS84 UTM 10N
Z	GPS antenna elevation (meters – ASL)
Longitude	WGS84 GPS longitude (decimal degrees) from x
Latitude	WGS84 GPS latitude (decimal degrees) from y
Date	Flight Date (YYYY/MM/DD)
gtime	UTC time, second of the day
Fiducial	Sample Number
Flight	Survey Flight Number
Radar	Aircraft Terrain Clearance from Radar altimeter (metres)
DEM	Digital elevation model derived from Radar altimeter (metres)
Flux_X	Vector Magnetometer X Component (nT)
Flux_Y	Vector Magnetometer Y Component (nT)
Flux_Z	Vector Magnetometer Z Component (nT)
TFCMP1	Raw Total Compensated Magnetic field (nT)
Mag1	De-spiked and compensated Total Magnetic field (nT)
Basemag	Magnetic diurnal variation (nT)
Mag2	Diurnal corrected Total Magnetic field (nT)
Mag3	Final Levelled Total Magnetic field (nT)
CVG	First Vertical Derivative of Total Magnetic field (nT/m)

- Grids in Geosoft GRD and GeoTIFF format, as follows:

  GL180345_TMI_SellerCreek: Total magnetic intensity (nT)
  GL180345_CVG_SellerCreek: Calculated Vertical Derivative of TMI (nT/m)
  GL180345_DEM_SellerCreek: Digital Elevation Model (metres)

  A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information. A grid cell size of 37.5 metres was used.

6. CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne geophysical survey has been completed over the Seller Creek Block situated near Likely, British Columbia.

The total area coverage is 45 km^2. Total survey line coverage 409 line kilometres. The principal sensor was a high-sensitivity caesium magnetometer. Results have been presented as contour colour images at a scale of 1:15,000. A formal Interpretation has not been included or requested.

Based on the geophysical results obtained a formal magnetic interpretation is recommended and can be completed by Geotech. This includes the structural interpretation and 3D magnetic inversion and geological integration.

Respectfully submitted[2],

Dmitriy Danchenko
Geotech Ltd.

Tai-chyi Shei
Geotech Ltd.

Kanita Khaled, P.Geo
Geotech Ltd.

Joseli Soares
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Geotech Ltd.

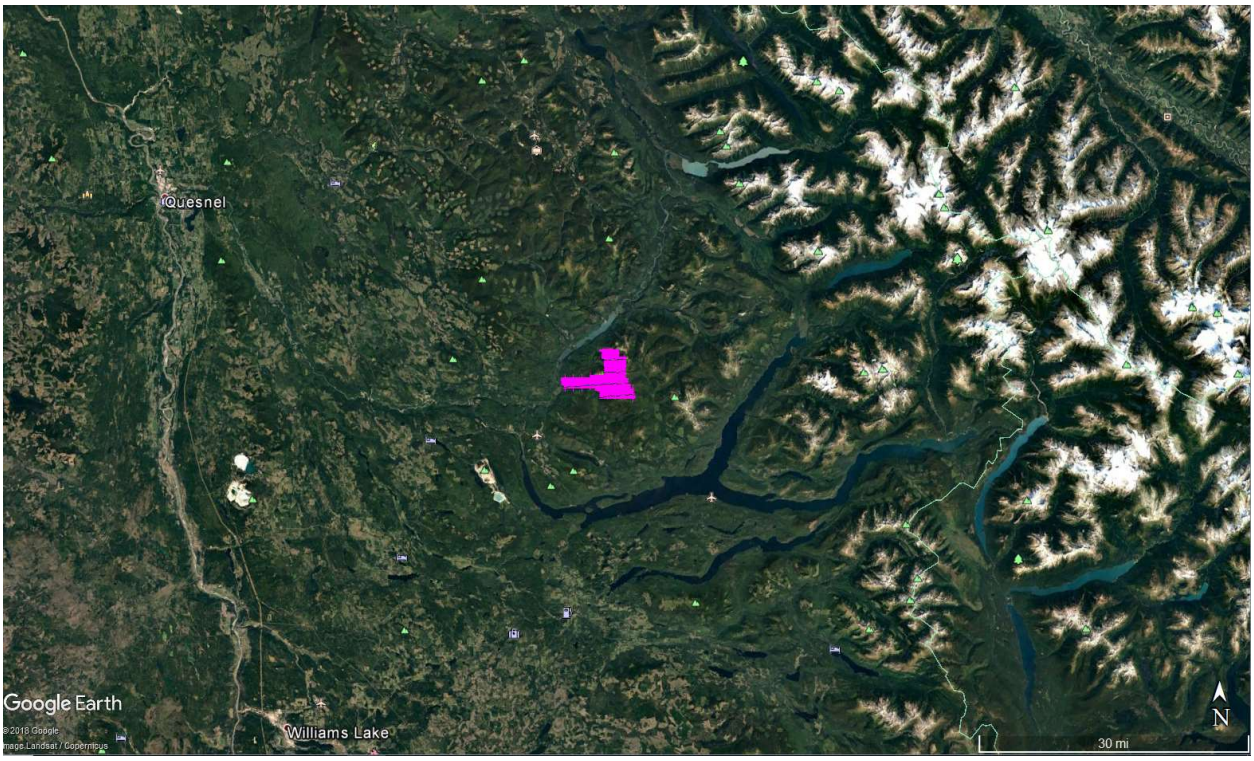
Zihao Han
Geotech Ltd.

January, 2019.

[2] Final data processing of the EM and magnetic data were carried out by Tai-chyi Shei, from the office of Geotech Ltd. in Aurora, Ontario, under the supervision of Alexander Prikhodko, P.Geo.

APPENDIX A

SURVEY AREA LOCATION MAP



Overview of the Survey Area

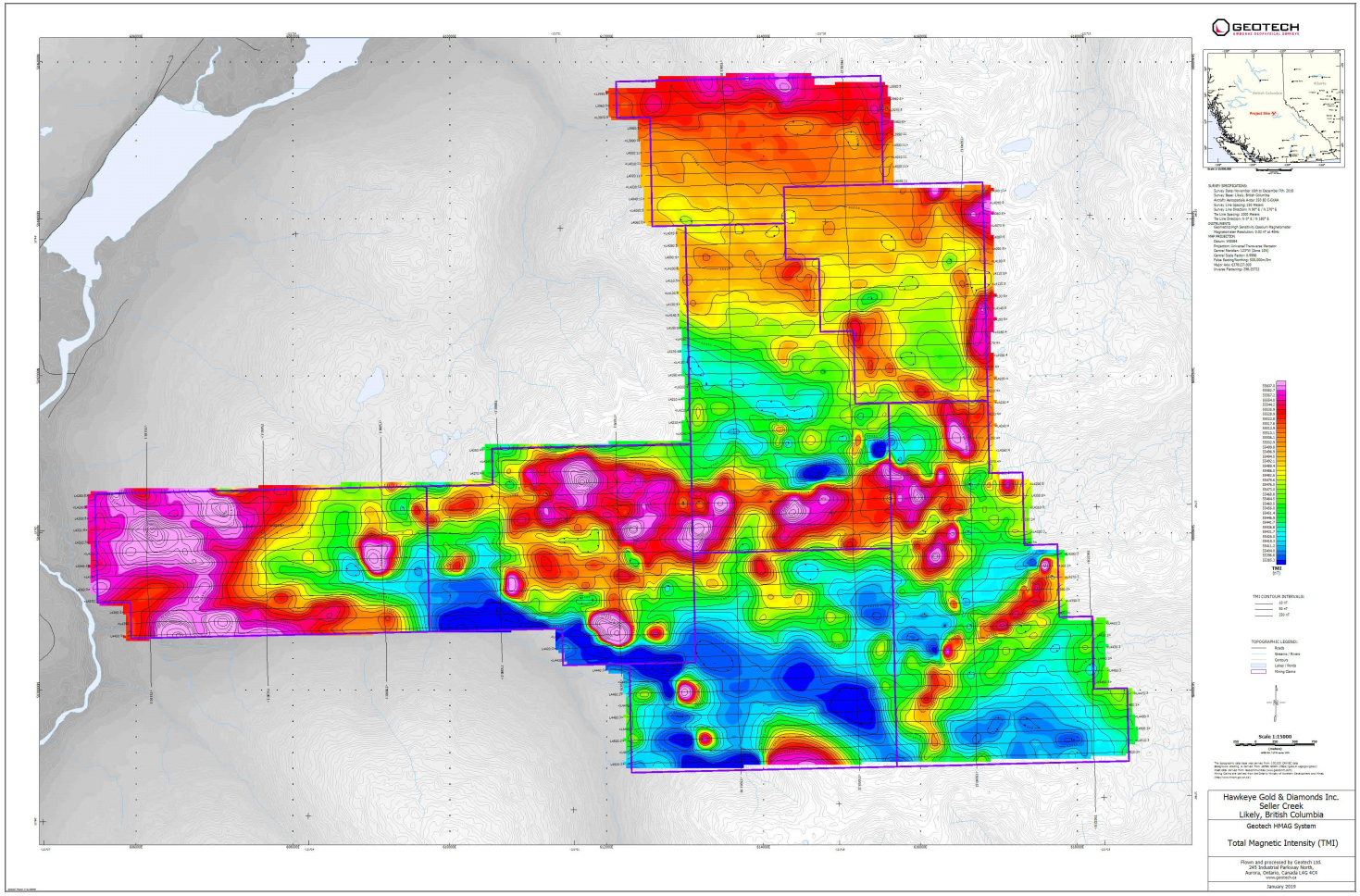
APPENDIX B

SURVEY AREA COORDINATES

(WGS 84, UTM Zone 10 North)

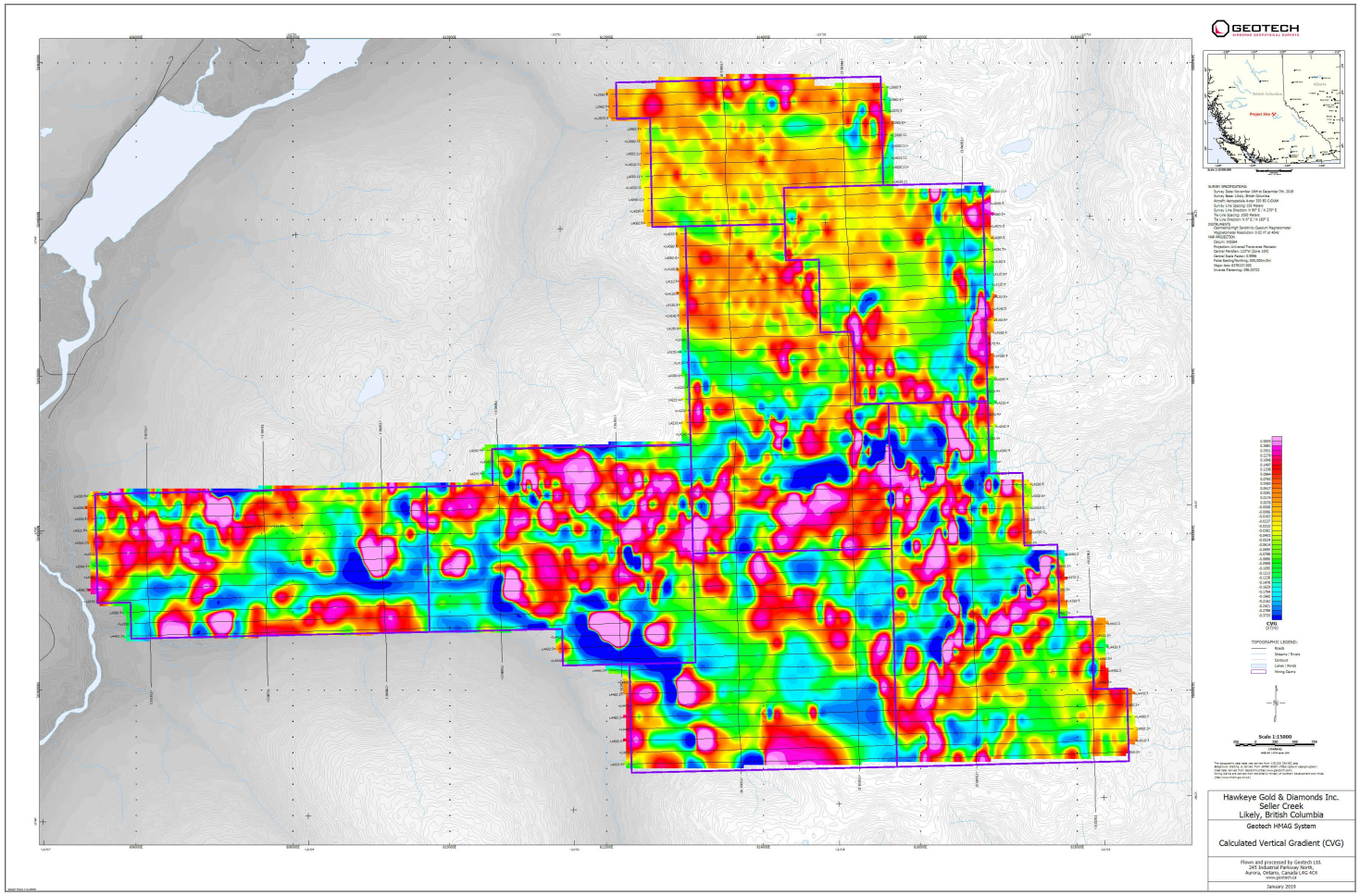
X	Y
612719	5845761
614600	5845807
615514	5845686
615597	5844483
616869	5844510
616950	5840763
617355	5840622
617768	5839733
618150	5839559
618328	5838848
618687	5837954
618584	5837209
616719	5836998
613720	5836927
612268	5837055
612189	5838253
611513	5838379
611389	5838527
610445	5838312
609199	5838105
606195	5838037
605551	5839134
605430	5840479
606133	5841158
609121	5841224
610597	5841468
613012	5841413
612928	5843970
612531	5843961
612436	5845303
612058	5845296
612051	5845598

APPENDIX C - GEOPHYSICAL MAPS[1]

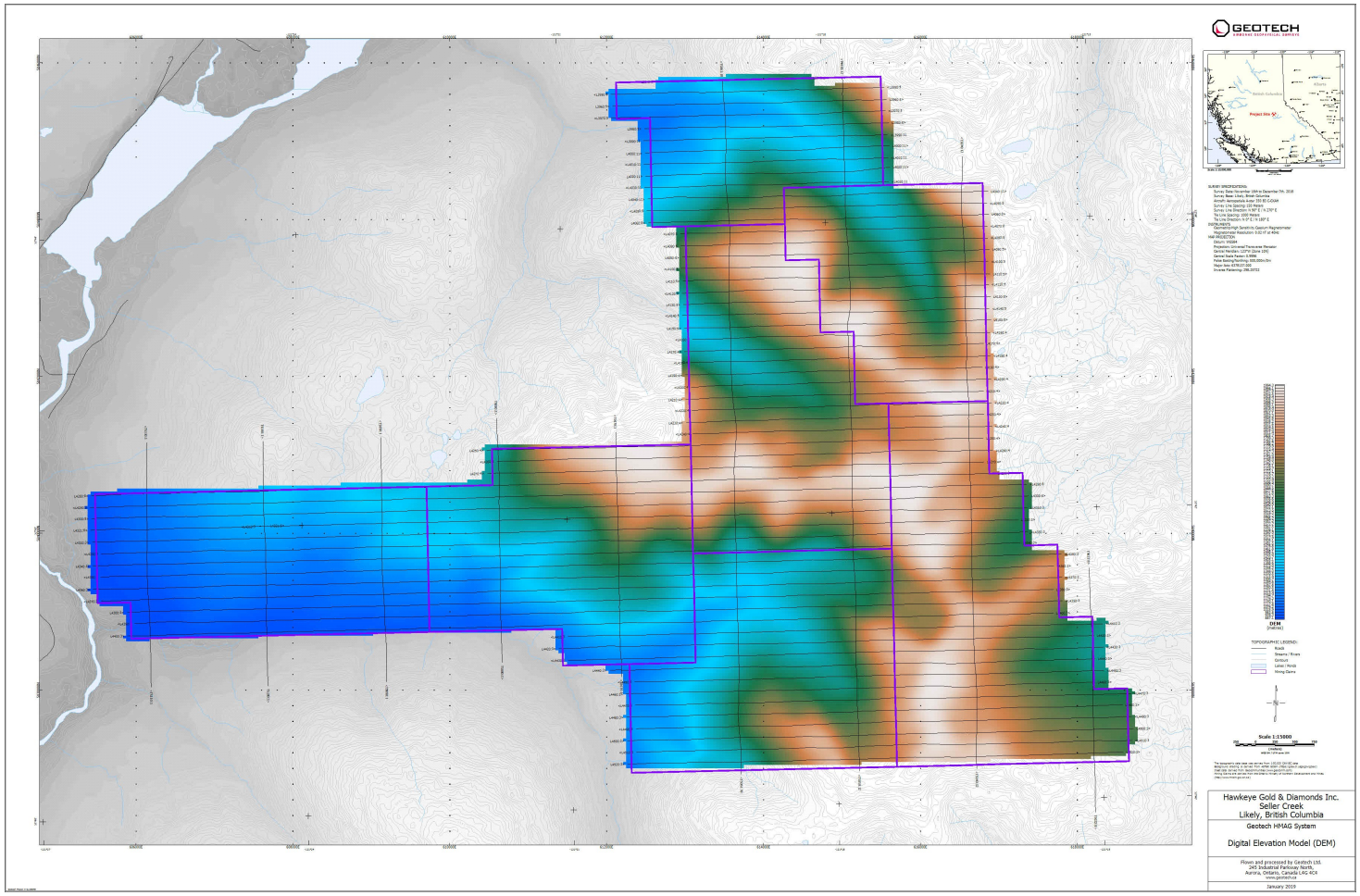


Total Magnetic Intensity (TMI)

[1] Full size geophysical maps are also available in PDF format on the final DVD



Calculated Vertical Gradient (CVG)



Digital Elevation Model (DEM)

APPENDIX D

FIGURE OF MERIT TEST

The Figure of Merit test was performed immediately after the compensation solution was acquired during a high-altitude test near Dragon, BC, on November 28, 2018.

During the test, the aircraft duplicates the roll, pitch and yaw maneuverers performed during the compensation test in all four survey directions. The absolute errors from each of the 12 manoeuvers are summed, and should be less than 2.0nT to confirm adequate compensation.

Figure of Merit result:

Total Field 1 (Stinger Sensor)

Direction	Roll	Pitch	Yaw	Total
0	0.118	0.125	0.088	**0.331**
90	0.088	0.079	0.098	**0.265**
180	0.109	0.068	0.086	**0.263**
270	0.063	0.075	0.074	**0.212**
Total	**0.378**	**0.347**	**0.346**	**1.071**

FOM = 1.071 nT