BC Geological Survey
Assessment Report
41190

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: 2022 Magnetic Surveying and Prospecting on the Serb Creek Property, Smithers Area, Central British Columbia

TOTAL COST: $72,681

AUTHOR(S): Tom Setterfield

SIGNATURE(S): Tom Setterfield

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5975319/March 2, 2023

YEAR OF WORK: 2022

PROPERTY NAME: Serb Creek

CLAIM NAME(S) (on which work was done): 1080692, 1095235, 1097139,1097140

COMMODITIES SOUGHT: Molybdenum, copper, zinc, silver, gold, lead

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: 093L.083

MINING DIVISION: Omineca
NTS / BCGS: 093L/12/ 093L.062
LATITUDE: _____54° _38' _58"
LONGITUDE: ___127° 44' 41" (at centre of work)
UTM Zone: 09 EASTING: 581000 NORTHING: 6056500

OWNER(S): RICHARD BILLINGSLEY

MAILING ADDRESS: 11114 147A St, Surrey, BC, V3R 3W2

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

MAILING ADDRESS: 11114 147A St, Surrey, BC, V3R 3W2

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**) Stikine Terrane, Hazelton Group, Telkwa Formation, Nanika Plutonic Suite, Porphyry Molybdenum, Serb Creek Minfile

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
05762, 31701, 32475, 37634, 39415

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne		All claims	$39,582
GEOCHEMICAL (number of samples analysed for …)			
Soil			
Silt			
Rock	18 Samples		$1,136
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)		1095235	$31,963
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
		TOTAL COST	$72,681

2022 MAGNETIC SURVEY AND PROSPECTING

ON THE SERB CREEK PROPERTY,

SMITHERS AREA, CENTRAL BRITISH COLUMBIA

Property Tenures: 1080692, 1095235, 1097139, 1097140

NTS Map 093L/12
BCGS Map 093L.062
Latitude 54º 38' 58"N Longitude 127º 44' 41"W
UTM Zone 09 (NAD 83): 581000E/6056500N
Omineca Mining Division

British Columbia Minfile: 093L.083

Property Owner
139085-Richard Billingsley
11114 147A St
Surrey, BC
V3R 3W2

Date: May 18, 2023

Author
"Signed & Sealed"
Dr. Tom Setterfield, P.Geo

TABLE OF CONTENTS

		Page
Table of Contents ……..		i
List of Figures ……...		i
List of Tables ……		ii
List of Plates ……..		ii
List of Maps ……...		ii
Summary …….....		1
1.0	Introduction ……..	4
	1.1 General ……	4
	1.2 Abbreviations Used in the Report ……..	4
2.0	Property Description and Location ……..	6
3.0	Access and Physiography …….	7
4.0	Geologic Setting and Mineralization ……..	7
	4.1 Geology ……	7
	4.2 Mineralization …….	8
5.0	Previous Exploration …….……	11
6.0	2022 Exploration ……..	14
	6.1 Geology/Prospecting ..……..……..	14
	6.2 Airborne Geophysical Survey ……	18
7.0	Conclusions and Recommendations …….…….	20
8.0	References …….	23
9.0	Certificate of Qualifications ……..……	25
10.0	Statement of Costs ……..	26

APPENDIX A: Grab Sample Descriptions and Certificates of Assay
APPENDIX B: Field Report from Tripoint Geological Services
APPENDIX C: Precision Geosurveys Operations Report
APPENDIX D: Maps

LIST OF FIGURES

		Page
1.	Location of the Serb Creek Property in British Columbia …….……..……..	5
2.	Location of the Serb Creek Property Southwest of Smithers …….……	5
3.	Tenures Comprising the Serb Creek Property ……..…..…….	6
4.	BC Geological Belts, Stikine Terrane, Property Location .……..……	8
5.	Geology of the Serb Creek Property ……..……	9
6.	Geology of the Serb Creek Intrusive Complex ……..……	10
7.	Drill Plan with >0.05% Mo Intersections ..……..….	11
8.	Amax Mo-in-Soil Results, Mineralized Veins …….……	13
9.	Billingsley 2017 Total Magnetic Intensity Image ..……..	14
10.	Areas Suggested for 2022 Field Checking ……	15
11.	Molybdenum Results from 2022 Grab Samples ……	17
12.	Flight Lines Superimposed on a 3D Google Earth Image ……	18
13.	Total Magnetic Intensity Image of the Serb Creek Property …….	19
14.	Total Magnetic Intensity Image with Interpreted Geological Contacts ……..	20
15.	Potassium Image of the Serb Creek Property with Geological Contacts ……	21
16.	Potassium:Thorium Ratio Image of the Serb Creek Property …….	21

LIST OF TABLES

		Page
1.	Mineral Tenures Comprising the Serb Creek Property ……..	6
2.	Significant Mo Intersections from the Serb Creek Property ……..	12
3.	Key Results from 2022 Grab Samples ...……	16

LIST OF PLATES

		Page
1.	Quartz-molybdenite Vein ……..	17

LIST OF MAPS

1. Tenures Comprising the Serb Creek Property
2. 2022 Samples on the Serb Creek Property

SUMMARY

The Serb Creek property is located approximately 40 km west-southwest of Smithers in central British Columbia. The Property has had very little recent exploration but contains known mineralization over a significant area. The Property consists of four mineral tenures covering a total of 3,854.68 hectares (38.55 km^2), and is 100% owned by Richard Billingsley. Three geologists and an assistant spent two days on the Property in August 2022, examining previously discovered mineralization and field checking targets. Eighteen grab samples were collected. The Property was accessed via helicopter from Smithers. An airborne magnetic/radiometric survey was flown over the Property by Precision Geosurveys Inc. in September, 2022. The purpose of this report is to document the two programs for assessment purposes.

The Serb Creek property occurs within the Stikine Terrane in the Intermontane morphogeolocial belt. The Property is underlain mainly by volcanics of the Jurassic Hazelton Group intruded by felsic intrusives of the Eocene Nanika Plutonic Suite. Serb Creek, a developed prospect with an indicated resource (not NI43-101 compliant) of 41.15 Mt @ 0.048% Mo, is the only minfile occurrence on the Property. This historical resource was defined by 19 holes drilled by Amax and three drilled by Craigmont Mines. Mineralization occurs in veins up to 2 cm wide, in quartz stockworks and along fractures in biotite granite/granodiorite. Veins contain varying amounts of quartz, pyrite, molybdenite and epidote, with rare chalcopyrite, galena and sphalerite, and typically trend 320 to 330°, parallel to the numerous dikes in the area. Alteration types are sericite-Kspar-carbonate and epidote-chlorite-Kspr. The best mineralization occurs in the 1300 x 600 m Main Zone north of the central plug and in the East Zone to the east of the Main Zone.

Mineralization has created a significant gossan, which was discovered by Amax in 1964. In 1965 Amax undertook mapping, soil sampling, magnetometer + induced polarization surveys, and 5,018 m of diamond drilling in 14 holes. This was followed by five holes (1,542 m) in 1966 to test the northern extensions of northwest trending zones discovered in 1965. Craigmont Mines optioned the property in 1975 and drilled three holes (878 m) near the valley bottom north of the main showings.

No work was recorded in the area between the 1975 program and 2009, when Billingsley acquired a smaller version of the present property and optioned it to Rich Rock Resources. Rich Rock compiled Amax data, conducted minor soil and rock sampling, and undertook geological mapping in 2010. One rock sample assayed >2,000 ppm Mo. According to Fox's compilation, Amax soil sampling shows a western and eastern anomaly roughly coincident with known mineralization, and a "Moraine Creek Anomaly" well to the east. An additional 43 soil samples were collected by Rich Rock in 2011 along the base of the gossan exposures. Billingsley commissioned an airborne magnetic survey in 2017. The survey revealed a major magnetic low roughly coincident with the known distribution of Mo-bearing veins, as well as several smaller magnetic lows which could also be due to alteration. One of these lows corresponds to the Moraine Creek geochemical anomaly identified by Rich Rock.

Geochemical sampling and prospecting were completed for Billingsley in 2019. Sampling and analysis consisted of conventional soil sampling and analysis, partial leach metal extraction from soils, collection of bark from fir trees, and local moss mat sampling at Moraine Creek. Seven rock samples were collected, producing a high of 1,020 ppm Mo. 23 soil samples were collected from two restricted parts of the Property. Mo values ranged from 6.68 to 341 ppm, indicating that the technique was effective, but results need to be integrated with historical work for the best interpretation. Twelve of the soil samples

were subjected to ionic leach; Mo values ranged from 43.7 to 646 ppm. This technique is clearly capable of extracting greater quantities of metals, but may not produce as great a range of resulting values. Thirteen bark samples were collected and analyzed; results were disappointing. Of ten moss mat samples collected, eight had less than 1.5 ppm Mo, and the two highest had 12.8 and 21.1 ppm Mo respectively. Both anomalous samples came from a secondary creek, suggesting that i) this is an effective exploration technique at Serb Creek; and ii) that additional exploration up this creek is warranted.

Following a brief compilation, four targets were chosen for field checking/sampling in 2022. The highest priority was the coincident magnetic low and geochemical anomaly in the Moraine Creek area, and the next two were soil anomalies and magnetic lows closer to the area of focus of historical work. Priority 4, which the crew did not have a chance to visit, was the ring of pyrite encircling mineralization. The exploration team spent two days on the Property in August 2022, field checking the defined targets and collecting 18 grab samples. Gold results were low, varying from below detection to a high of 26 ppb. Silver was also relatively low, with values ranging from 0.18 to 26.4 g/t. Copper was surprisingly low, with a high value of 1,085 ppm (0.11%), but with 12 of the samples containing less than 200 ppm Cu. Molybdenum averages 511 ppm for the 18 samples, with a low of 8.16 ppm and a high of 2,060; all three field areas had samples with more than 500 ppm. Lead was very low (high value of 65.1 ppm). Two samples from Area 3 ran 4,310 and 6,010 ppm Zn, but most other samples were below 150 ppm Zn.

Massive granodiorites to quartz monzonites with strong red orange oxidation and disseminated and fracture coated pyrite were found in the Moraine Creek area. Veinlets throughout these rocks were generally associated with pyrite-epidote-chlorite alteration; the best sample returned 888 ppm Mo. Area 2 rocks were pink-grey aplitic monzonites with strong red orange oxidation and associated banded molybdenite-pyrite veinlets. The two highest Mo values from the campaign, 2,060 and 1,900 ppm, came from Area 2. Area 3 rocks were white-grey granodiorites with strong red orange oxidation with pyrite veinlets and pyrite disseminations throughout. Molybdenite was locally abundant on fracture surfaces. Mo values up to 1,445 ppm were obtained from this area.

The high-resolution helicopter-borne magnetic gradient and radiometric survey of the Property was completed in September, 2022. The survey totaled 432 line km at 100 m spacing. The Hazelton Group volcanics tend to be magnetic lows, and the Nanika Plutonic Suite tends to form magnetic highs. The known distribution of molybdenite-bearing veins is within a pronounced magnetic low, presumably caused by hydrothermal alteration. The magnetic low is more extensive than the known mineralization, and is thus a target for additional prospecting. There is also a northwest-trending linear magnetic low coincident with an inferred fault at Moraine Creek. One high Mo sample was discovered in this area in 2022; more prospecting is clearly warranted. Radiometric data shows that potassium anomalies correspond to the core of the Nanika suite plutons. A potassium:thorium ratio map shows a coherent ratio high in the area of known molybdenum mineralization; this anomaly also extends beyond known mineralization in a similar fashion to the magnetic low.

The 2022 exploration program verified results from the intermittent historical exploration on the Property. Samples with significant grades of molybdenum were collected; the mineralization style appears to be porphyry-related as previously suggested. Recommendations for further work include:

i) Compile all historical soil geochemical data into one dataset;

ii) Extend historical soil surveys to cover the major magnetic low within the westernmost Nanika Suite pluton;
iii) Consider additional moss mat sampling to verify the efficacy of the technique and to expand present coverage;
iv) Conduct property-wide geological reconnaissance to verify the distribution of rock types;
v) Collect samples for Terraspec analysis to search for a mineralogical vector towards ore;
vi) Map and sample the pyrite ring around mineralization;
vii) Prospect the main magnetic low west and south of the historically known mineralization;
viii) Prospect the Moraine Creek area; and
ix) Prospect the easternmost Nanika Suite pluton at a reconnaissance scale.

These tasks should be completed prior to conducting more expensive exploration such as IP surveying or additional drilling.

1.0 INTRODUCTION

1.1 General

The Serb Creek property (the "Property") is located approximately 40 km west-southwest of Smithers in central British Columbia (Figs. 1 and 2). The Property has had very little recent exploration but contains known mineralization over a significant area. The Property is 100% owned by Richard Billingsley (“Billingsley"). Three geologists and an assistant spent two days on the Property in August 2022, examining previously discovered mineralization and field checking targets. Eighteen grab samples were collected. The Property was accessed via helicopter from Smithers. An airborne magnetic/radiometric survey was flown over the Property by Precision Geosurveys Inc. in September, 2022. The purpose of this report is to document the two programs for assessment purposes.

The 1983 North American Datum (NAD83) co-ordinate system is used in this report. The Property is in Universal Transverse Mercator (UTM) Zone 09N.

1.2 Abbreviations Used in the Report

Ag – silver
Au – gold
Cu – copper
Mo – molybdenum
Pb – lead
Sb - antimony
Zn – zinc
g/t – grams per tonne
cm – centimeter
m – meter
km – kilometer
cpy – chalcopyrite
py – pyrite
qtz – quartz
sphal - sphalerite
ARIS – asessment reports, BCGS
BCGS – British Columbia Geological Survey
Ma (mega-annum) - a million years
PROP – property files, BCGS
QFP - quartz feldspar porphyry
Oz - ounce



Figure 1: Location of the Serb Creek Property in British Columbia

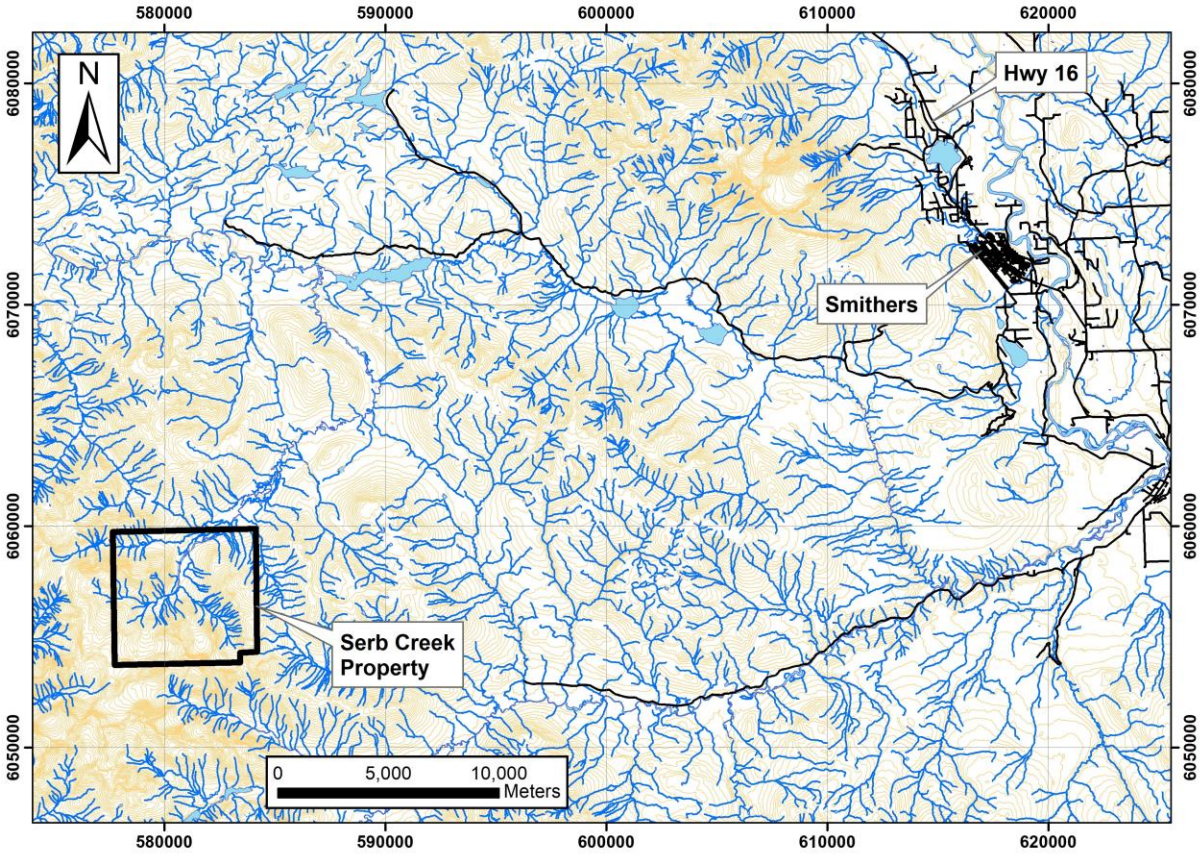


Figure 2: Location of the Serb Creek Property Southwest of Smithers

2.0 PROPERTY DESCRIPTION AND LOCATION

The Property is located 40 km west-southwest of Smithers (population 5,500) in the Omineca Mining Division (Figs. 1 and 2). The Property consists of four mineral tenures covering a total of 3,854.68 hectares (38.55 km^2), centered at approximately 581000E/6056500N (UTM Co-ordinates) or 54º38'58''N/127º44'41''W (longitude /latitude), in National Topographic System (NTS) 1:50,000 map sheet 093L/12 (Table 1; Fig. 3; Map 1). The tenures comprising the Property are 100% owned by Richard Billingsley (Client #139085) of Surrey, British Columbia. After acceptance of this report, the Property is in good standing until September 15, 2026 (Table 1).

Table 1. Mineral Tenures Comprising the Serb Creek Property

Title No	Claim Name	Issue Date	Good To Date	Area (ha)
1080692	SERB CREEK 5	2021/JAN/22	2026/SEP/15	598.82
1095235	SERB CREEK MAIN	2022/APR/20	2026/SEP/15	1047.93
1097139	SERB CREEK EAST 1	2022/AUG/18	2026/SEP/15	1010.39
1097140	SERB CREEK WEST 1	2022/AUG/18	2026/SEP/15	1197.54

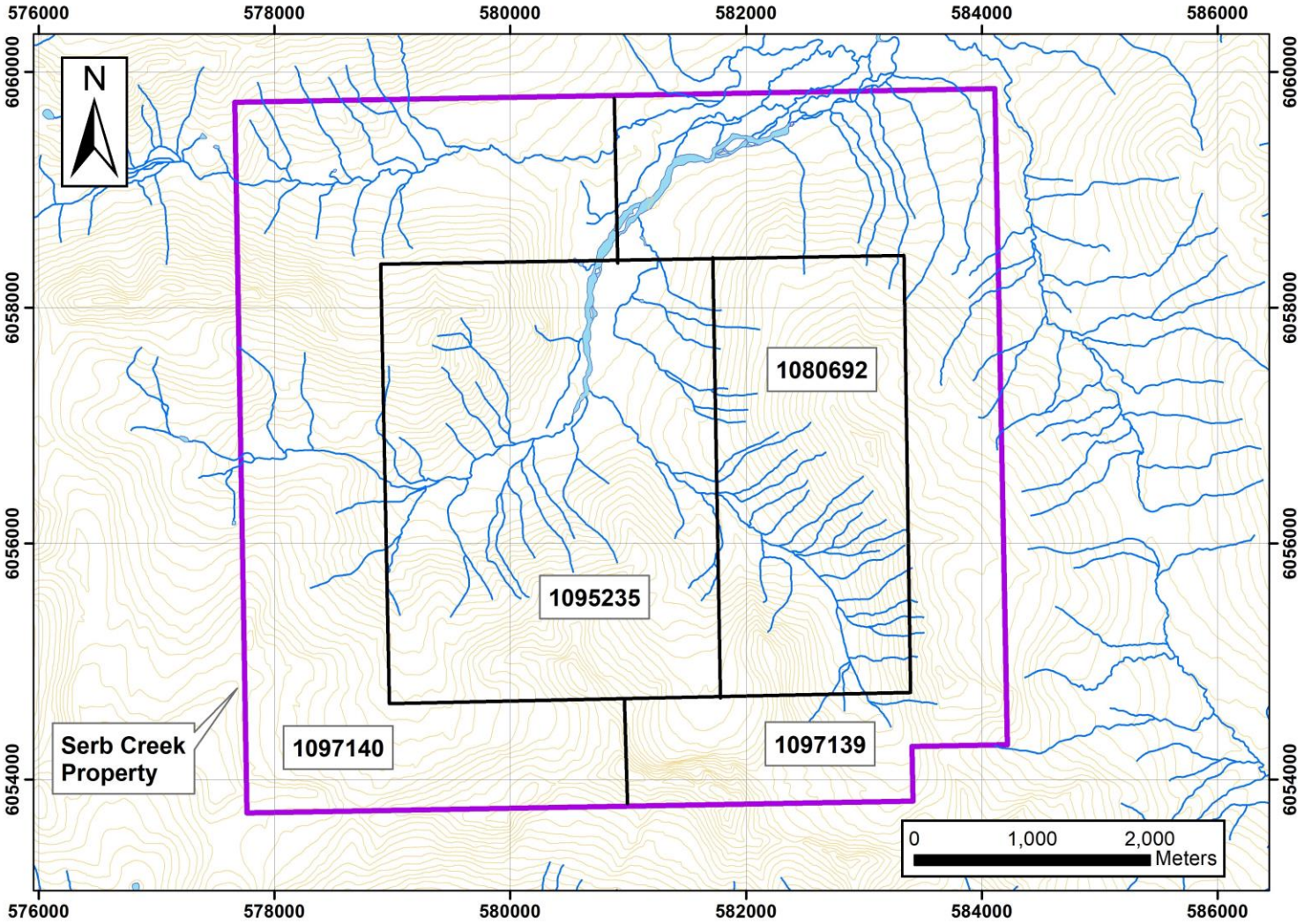


Figure 3: Tenures Comprising the Serb Creek Property

3.0 ACCESS AND PHYSIOGRAPHY

The Property can only be accessed by helicopter from Smithers or Terrace. There is no road, although one could be constructed in the Serb Creek valley.

The Property contains moderate to high relief, with alpine balsam and thick undergrowth on north-facing slopes. Elevation ranges from 960 m ASL in the north part of the Property adjacent to Serb Creek, up to 2,280 m in the southern part of the Property (Fig. 3). The Property is bisected by the Serb Creek valley. The climate consists of long cold winters and cool/moderate summers; snow can fall in September and last until June. Glacial till and talus are widespread and locally thick.

4.0 GEOLOGIC SETTING AND MINERALIZATION

4.1 Geology

There are five morphogeological belts in British Columbia, from east to west the Foreland, Omineca, Intermontane, Coast and Insular belts as defined by Wheeler and McFeely (1991). The Serb Creek property occurs within the Intermontane Belt (Fig. 4). More particularly, the Property is within the central part of the Stikine Terrane, one of three major terranes comprising the Intermontane Belt. This terrane formed as an intraoceanic volcanic arc during the Paleozoic to Mesozoic, and is very prospective for copper-gold deposits (Logan, 2011).

The digital geology files of the BCGS show the Property to be underlain by the Jurassic Hazelton Group, intruded by two intrusive bodies of the Eocene Nanika Plutonic Suite (Fig. 5). Similar Nanika Eocene intrusions are found at the Berg deposit 95 km south of Serb Creek. Berg has a NI43-101 compliant Measured and Indicated resource of 610 Mt @ 0.38% Cu equivalent, which includes a grade of 0.03% Mo (Norton et al, 2021). The Hazelton Group is represented by volcanic rocks of the Telkwa Formation, mostly red basalt/andesite (MacIntyre et al., 1989). Volcaniclastic rocks of the Eagle Peak Formation of the Hazelton Group and Early Jurassic intrusions of the Topley Plutonic Suite are proximal to the Property, but do not occur within it (Fig. 5).

Molybdenum mineralization was discovered in 1964 (see below), as it formed an extensive gossan visible from the air. Sutherland-Brown (1966) described the stock which hosts mineralization as being dominantly medium-grained granodiorite, but with a plug of fine-grained monzonite in its core. Sutherland-Brown noted at least six types of dikes, mostly porphyries, but including a fine-grained mafic dike. A halo of pyrite mineralization surrounds the molybdenum mineralization. Sellmer (1966) investigated the so-called Serb Creek Intrusive Complex in more detail; he documented a similar range of rock types and noted widespread alteration consisting of variable amounts of sericite, K-feldspar, chlorite, carbonate, epidote, clay minerals and quartz. Early maps of the mineralized area have been compiled by Fox (2010) and Lindinger (2021) and, after modification by the author, are presented as Figure 6.

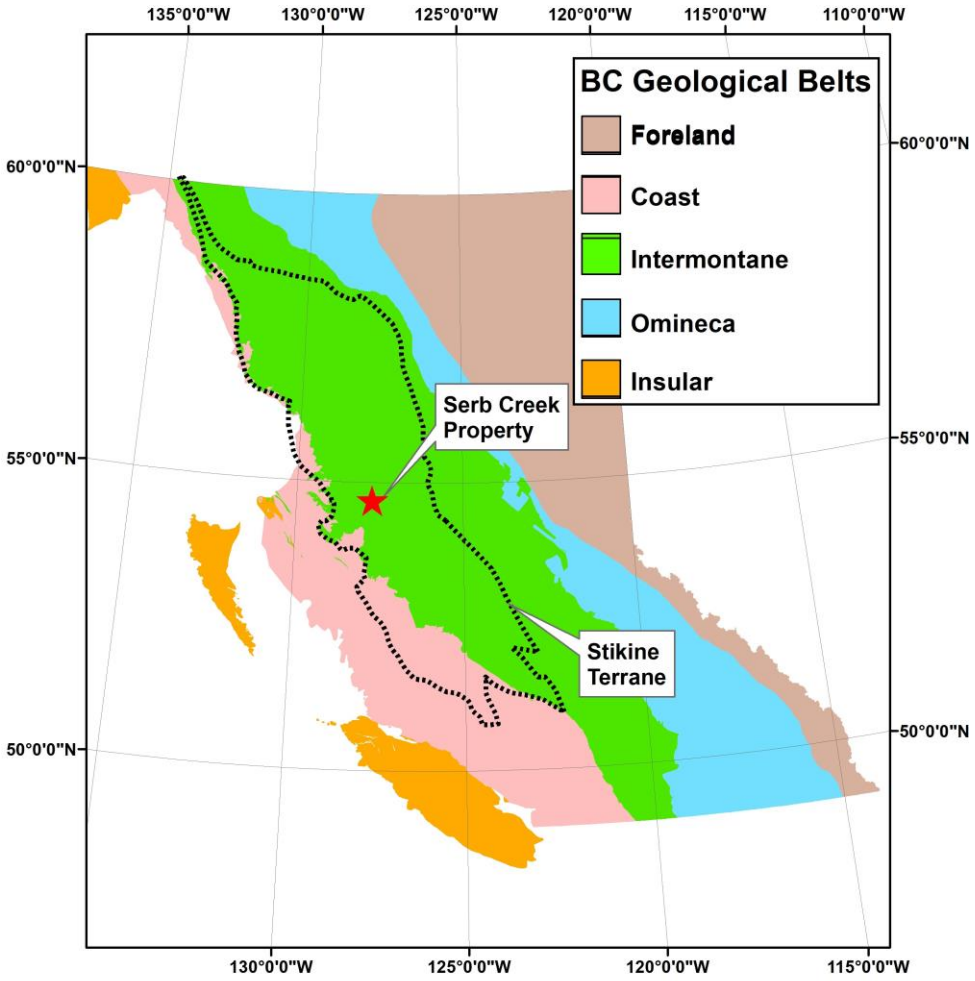


Figure 4: BC Geological Belts, Stikine Terrane, Property Location. Modified After Wheeler and McFeely (1991)

4.2 Mineralization (from Minfile)

The minfile report shows Serb Creek as a developed prospect with an indicated resource (not NI43-101 compliant) of 41.15 Mt @ 0.048% Mo. Mineralization occurs in veins up to 2 cm wide, in quartz stockworks and along fractures in biotite granite (also called granodiorite elsewhere). Veins contain varying amounts of quartz, pyrite, molybdenite and epidote, with rare chalcopyrite, galena and sphalerite. Veins and mineralized fractures typically trend 320 to 330°, parallel to the numerous dikes in the area. Alteration types are sericite-Kspar-carbonate and epidote-chlorite-orthoclase. The best mineralization occurs in the 1300 x 600 m Main Zone north of the central plug and in the East Zone to the east of the Main Zone (Fig. 6).

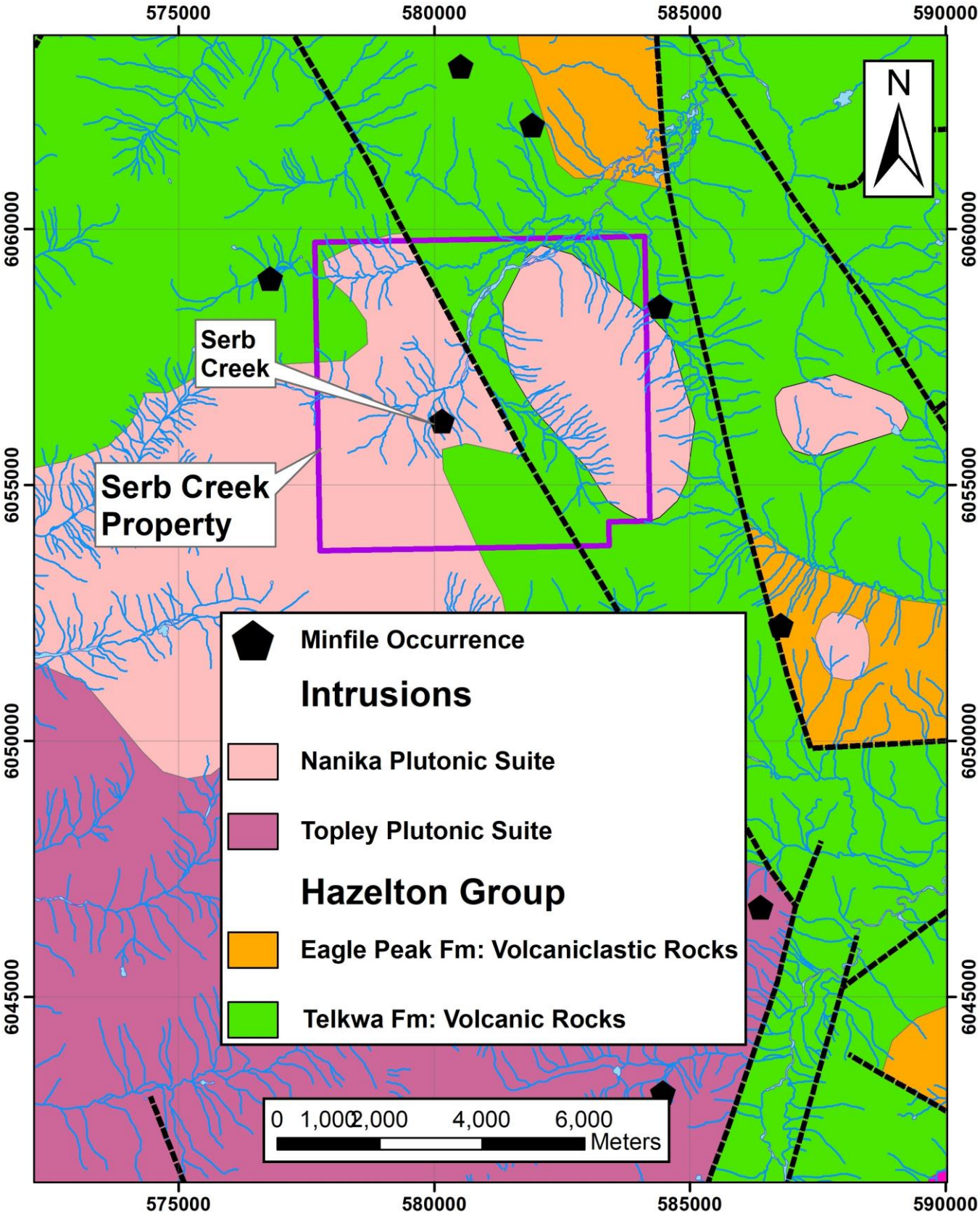


Figure 5: Geology of the Serb Creek Property. Modified after BCGS Digital Geology Files

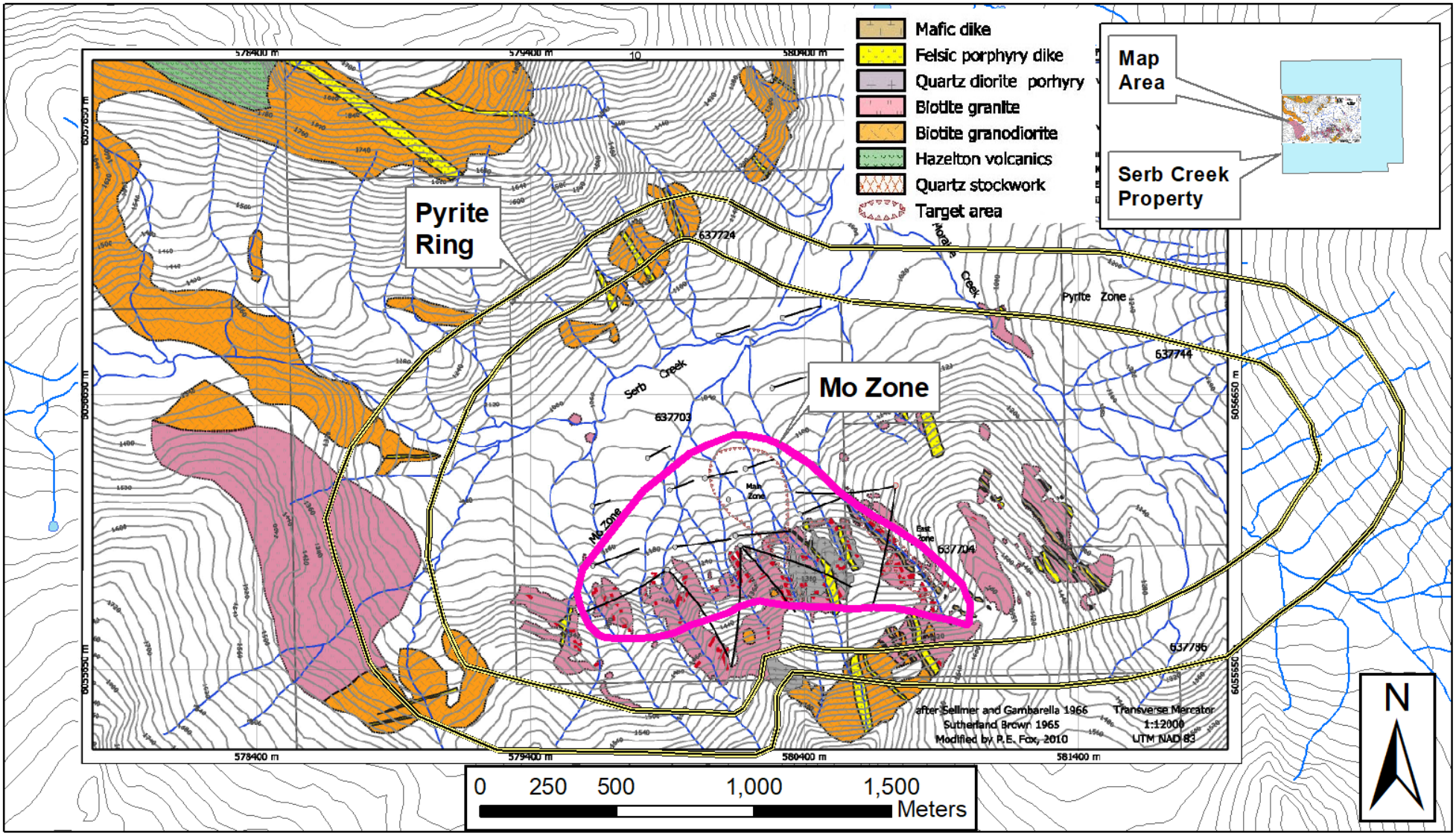


Figure 6: Geology of the Serb Creek Intrusive Complex. Modified after Sellmer (1966), Sutherland-Brown (1966), Fox (2010) and Lindinger (2021)

5.0 PREVIOUS EXPLORATION

According to Fox (2010), molybdenite mineralization was discovered at Serb Creek in 1964 by Southwest Potash Corporation, the predecessor of Amax Exploration Inc. (Amax). In 1965 Amax undertook mapping, soil sampling, magnetometer + induced polarization surveys, and 5,018 m of diamond drilling in 14 holes. This was followed by five holes (1,542 m) in 1966 to test the northern extensions of northwest trending zones discovered in 1965. Craigmont Mines optioned the property in 1975 and drilled three holes (878 m) near the valley bottom north of the main showings. No Amax reports are available to the author, but Lindinger (2021) provides both a plan (Fig. 7) and a table (Table 2) of significant intersections.

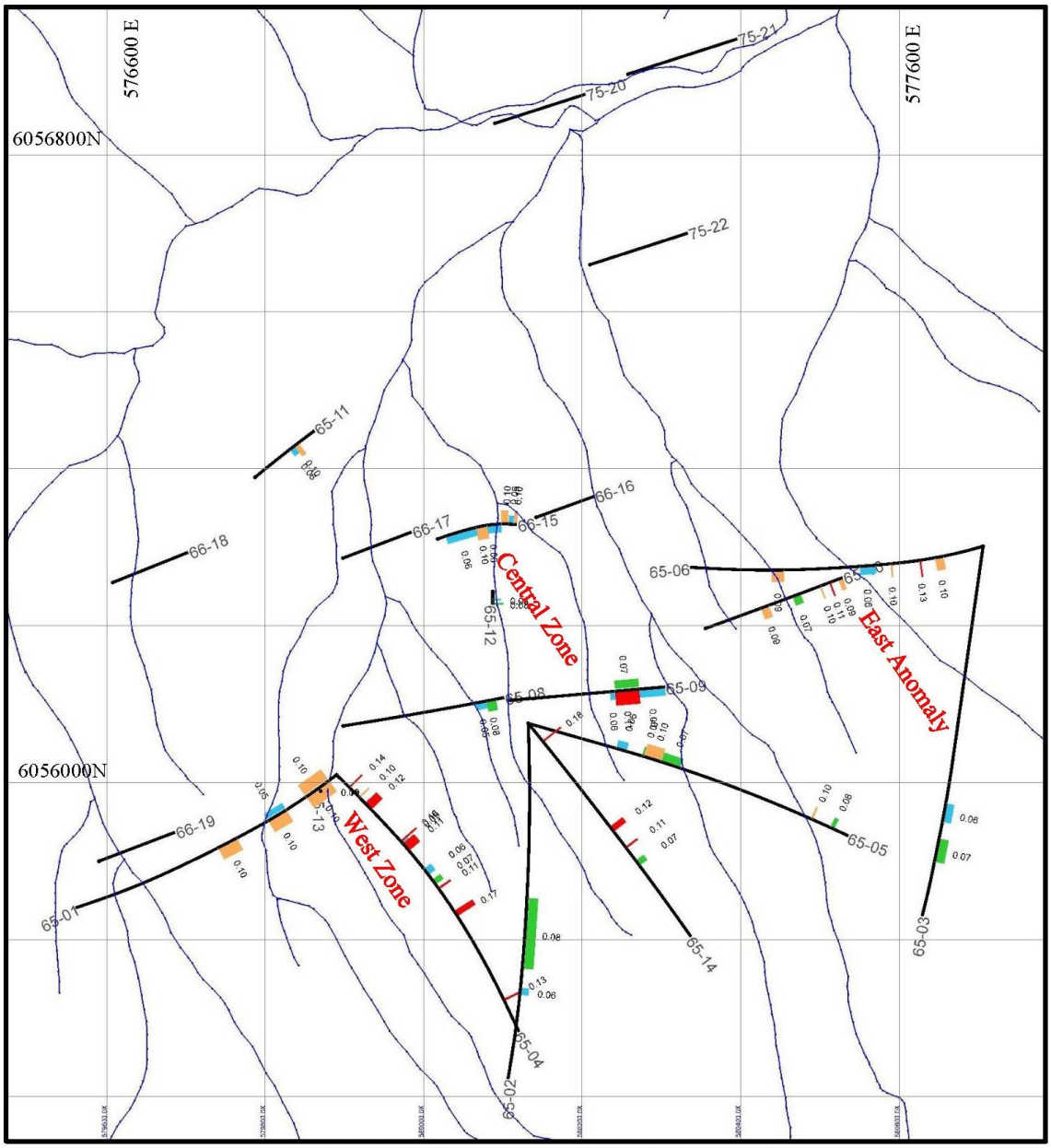


Fig. 7: Drill Plan with >0.05% Mo Intersections. From Lindinger (2021)

Table 2: Significant Mo Intersections from the Serb Creek Property. From Lindinger (2021)

HOLE-ID	FROM	TO	CU	MOS2	MO	HOLE-ID	FROM	TO	CU	MOS2	MO	HOLE-ID	FROM	TO	CU	MOS2	MO
			%	%	%				%	%	%				%	%	%
65-01	12.20	48.80	0.10	0.10	0.066	65-05	204.20	234.70		0.10	0.066	65-11	182.90	201.20		0.10	0.066
65-01	79.20	106.70	0.05	0.10	0.066	65-05	234.70	268.20		0.07	0.043	65-12	274.30	304.80		0.06	0.040
65-01	152.40	179.80		0.10	0.066	65-05	484.60	487.70		0.10	0.066	65-12	350.50	381.00		0.08	0.053
65-02	225.60	317.00		0.08	0.053	65-05	515.10	521.20		0.08	0.053	65-13	30.50	39.60		0.06	0.040
65-02	341.40	350.50		0.06	0.040	65-06	73.20	88.40		0.10	0.066	65-13	207.30	228.60		0.05	0.033
65-03	335.30	359.70		0.06	0.040	65-06	112.80	115.80		0.13	0.086	65-13	228.60	246.90		0.10	0.066
65-03	381.00	411.50		0.07	0.046	65-06	161.50	164.60		0.10	0.066	65-13	274.30	304.80		0.06	0.040
65-04	30.50	33.50		0.14	0.092	65-06	189.00	213.40		0.06	0.040	65-13	332.20	341.40		0.06	0.040
65-04	54.90	57.90		0.10	0.066	65-06	329.20	347.50		0.09	0.059	65-13	347.50	378.00		0.08	0.053
65-04	70.10	85.30		0.12	0.079	65-08	213.40	231.70		0.05	0.033	65-14	36.60	39.60		0.18	0.119
65-04	155.40	158.50		0.16	0.106	65-08	231.70	246.90		0.08	0.053	65-14	204.20	213.40		0.12	0.079
65-04	158.50	161.50		0.05	0.033	65-09	176.80	185.90		0.06	0.036	65-14	240.80	243.80		0.11	0.073
65-04	161.50	176.80		0.11	0.073	65-09	185.90	228.60	0.07	0.11	0.073	65-14	265.20	274.30		0.07	0.046
65-04	213.40	225.60		0.06	0.040	65-09	228.60	274.30		0.06	0.036	66-15	26.50	121.90		0.06	0.036
65-04	234.70	243.80		0.07	0.046	65-10	106.70	121.90		0.09	0.059	66-15	121.90	155.40		0.10	0.066
65-04	249.90	253.00		0.11	0.073	65-10	167.60	182.90		0.07	0.046	66-15	155.40	198.10		0.06	0.036
65-04	292.60	301.80		0.17	0.112	65-10	219.50	222.50		0.10	0.066	66-15	198.10	219.50		0.10	0.066
65-04	435.90	438.90		0.13	0.086	65-10	237.70	240.80		0.11	0.073	66-15	219.50	234.70		0.06	0.036
65-05	155.40	173.70		0.06	0.040	65-10	255.10	263.40		0.09	0.059	66-15	234.70	243.80		0.10	0.066
65-05	201.20	204.20		0.07	0.043	65-11	161.50	182.90		0.06	0.040						

Vollo (1976) provides logs for the three holes drilled by Craigmont in 1975 (SC75-20 to 22). The logs show that drilling was entirely in intrusive rocks: granodiorite, quartz diorite, feldspar porphyry, quartz porphyry and quartz-feldspar porphyry. Sporadic assaying was completed for molybdenum, with a best result of 9' @ 0.032% Mo. The report also contains a map that shows the location of the 19 holes drilled in 1965 and 1966.

No work was recorded in the area between the 1975 Craigmont program and 2009, when Billingsley acquired the property (a smaller version of the present property) and optioned it to Rich Rock Resources. Rich Rock compiled Amax data, conducted minor soil (eleven samples) and rock (nine samples) sampling, and undertook geological mapping in 2010 (Fox, 2010). One rock sample assayed >2,000 ppm Mo. According to Fox's compilation, Amax soil sampling shows a western and eastern anomaly roughly coincident with known mineralization, and a "Moraine Creek Anomaly" well to the east (Fig. 8). An additional 43 soil samples were collected by Rich Rock in 2011 along the base of the gossan exposures (Fox, 2011). Not surprisingly, many of these samples were anomalous, with values up to 124 ppm Mo.

Billingsley commissioned an airborne magnetic survey by Peter E. Walcott and Associates in 2017 (Walcott and Walcott, 2018). East-west flight lines were spaced 200 m apart, with north-south tie lines every 1,000 m. The survey revealed a major magnetic low roughly coincident with the known distribution of Mo-bearing veins, as well as several smaller magnetic lows which could also be due to alteration (Fig. 9). One of these lows corresponds to the Moraine Creek geochemical anomaly identified by Rich Rock (Fig. 8).

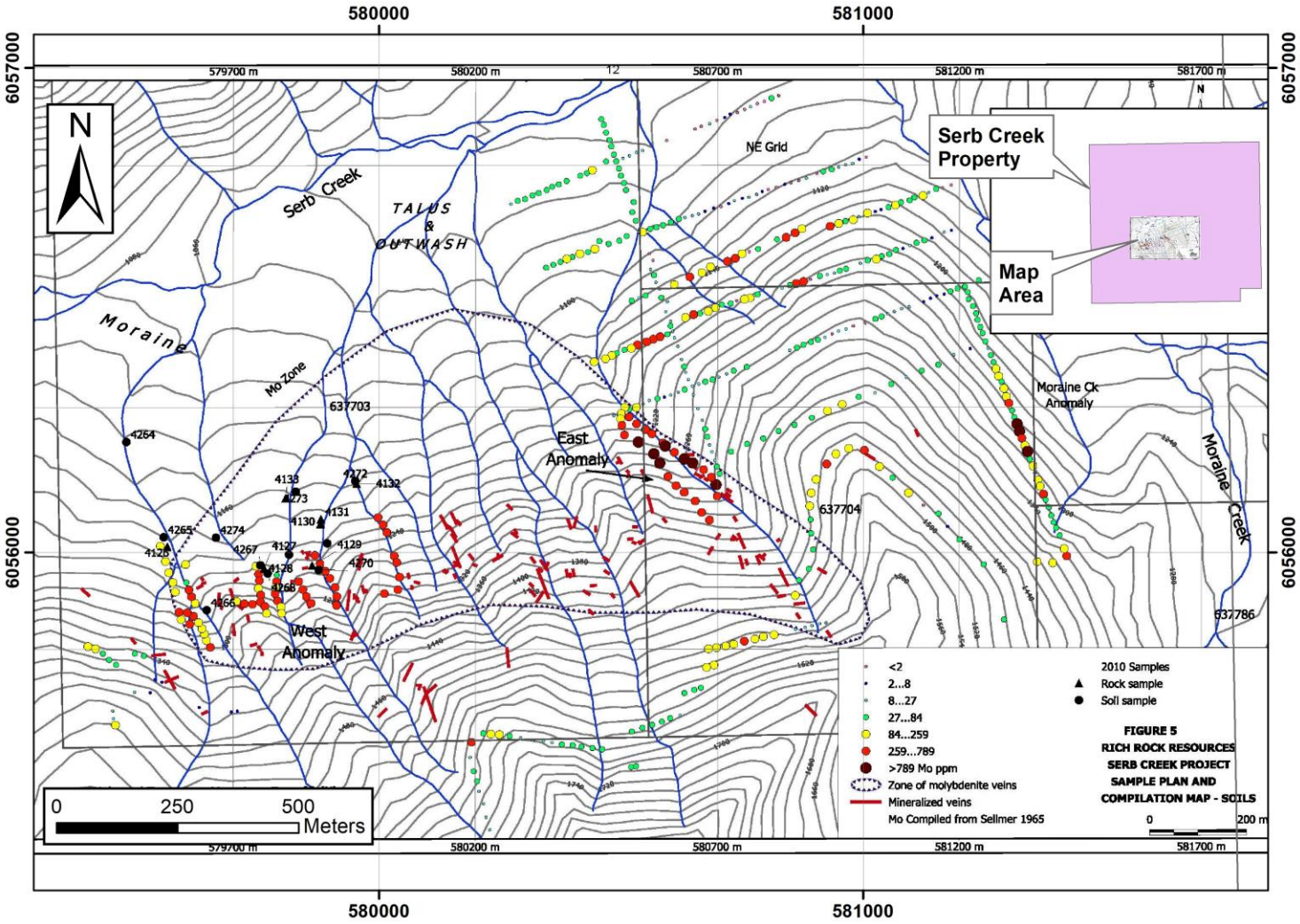


Figure 8: Amax Mo-in-Soil Results, Mineralized Veins. Modified after Fox (2010)

Geochemical sampling and prospecting were completed for Billingsley in 2019 (Lindinger, 2021). Sampling and analysis consisted of conventional soil sampling and analysis, partial leach metal extraction from soils, collection of bark from fir trees, and local moss mat sampling at Moraine Creek. Seven rock samples were collected, producing a high of 1,020 ppm Mo.

23 soil samples were collected from two restricted parts of the Property. Mo values ranged from 6.68 to 341 ppm, indicating that the technique was effective, but results need to be integrated with historical work for the best interpretation. Twelve of the soil samples were subjected to ionic leach; Mo values ranged from 43.7 to 646 ppm. This technique is clearly capable of extracting greater quantities of metals, but may not produce as great a range of resulting values. Thirteen bark samples were collected and analyzed; results were disappointing. Mo ranged from 0.4 to 1.3 ppm. This is not a sufficient range to be encouraging, although the limited number of samples must be taken into account. Of ten moss mat samples collected, eight had less than 1.5 ppm Mo, and the two highest had 12.8 and 21.1 ppm Mo respectively. Both anomalous samples came from a secondary creek, suggesting that i) this is an effective exploration technique at Serb Creek; and ii) that additional exploration up this creek is warranted.

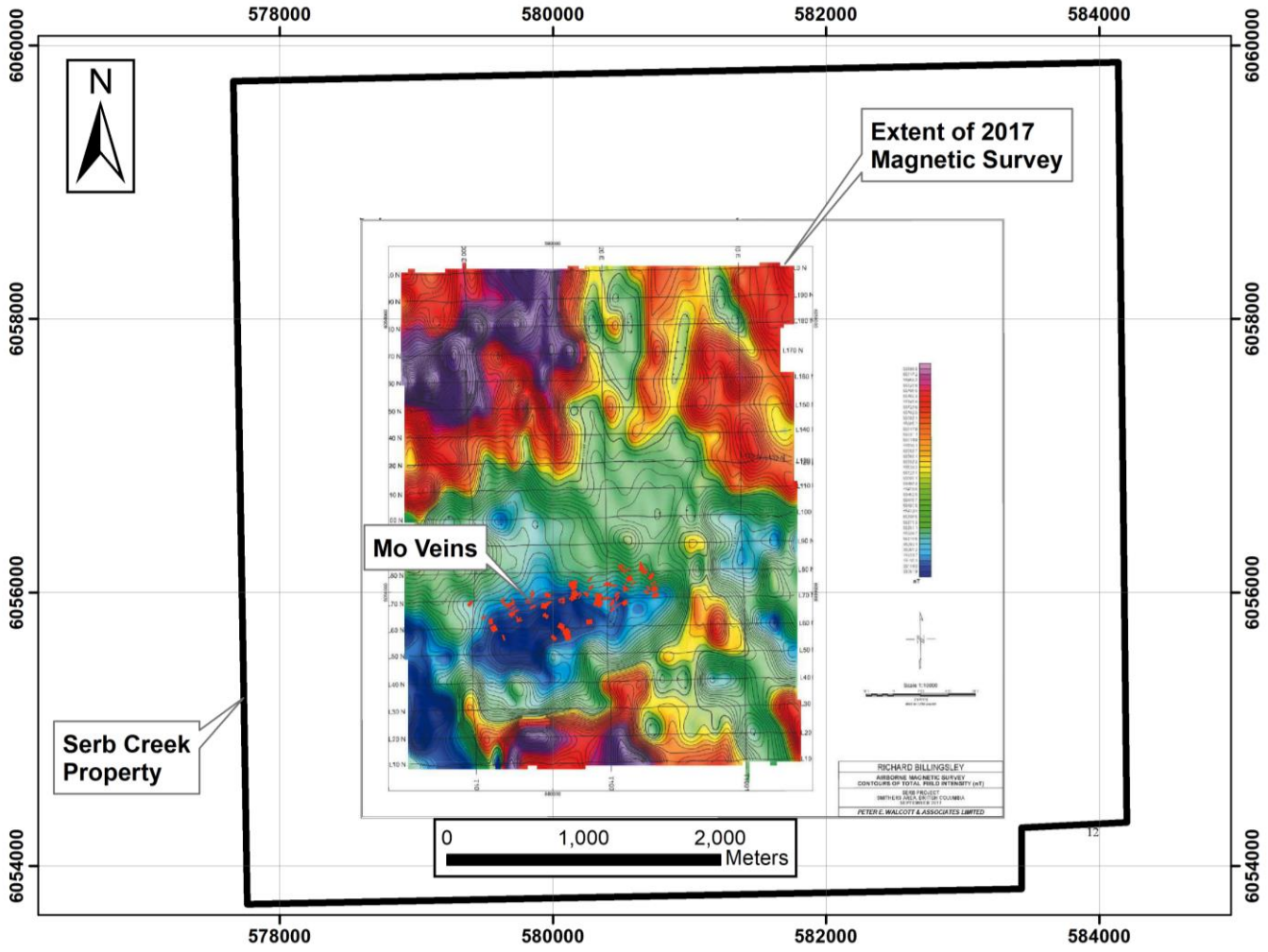


Figure 9: Billingsley 2017 Airborne Magnetic Survey-Total Magnetic Intensity (Modified after Walcott and Walcott, 2018)

6.0 2022 EXPLORATION

6.1 Geology/Prospecting

Following a brief compilation by the author, four targets were chosen for field checking/sampling in 2022 (Fig. 10). The highest priority was the coincident magnetic low and geochemical anomaly in the Moraine Creek area, and the next two were soil anomalies and magnetic lows closer to the area of focus of historical work. Priority 4, which the crew did not have a chance to visit, was the pyrite ring encircling mineralization. Three geologists and an assistant from Tripoint Geological Services Ltd. spent two days on the Property in August 2022, field checking the defined targets (Nussbaumer, 2022). Eighteen grab samples were collected. The Property was accessed via helicopter from Smithers. Samples were placed in sample bags and secured with zip ties for transport back to Smithers. Key results are presented below; rock descriptions and Certificates of Assay are provided in Appendix A. Tripoint's field report comprises Appendix B. Sample locations, as well as molybdenum values, are shown on Map 2.

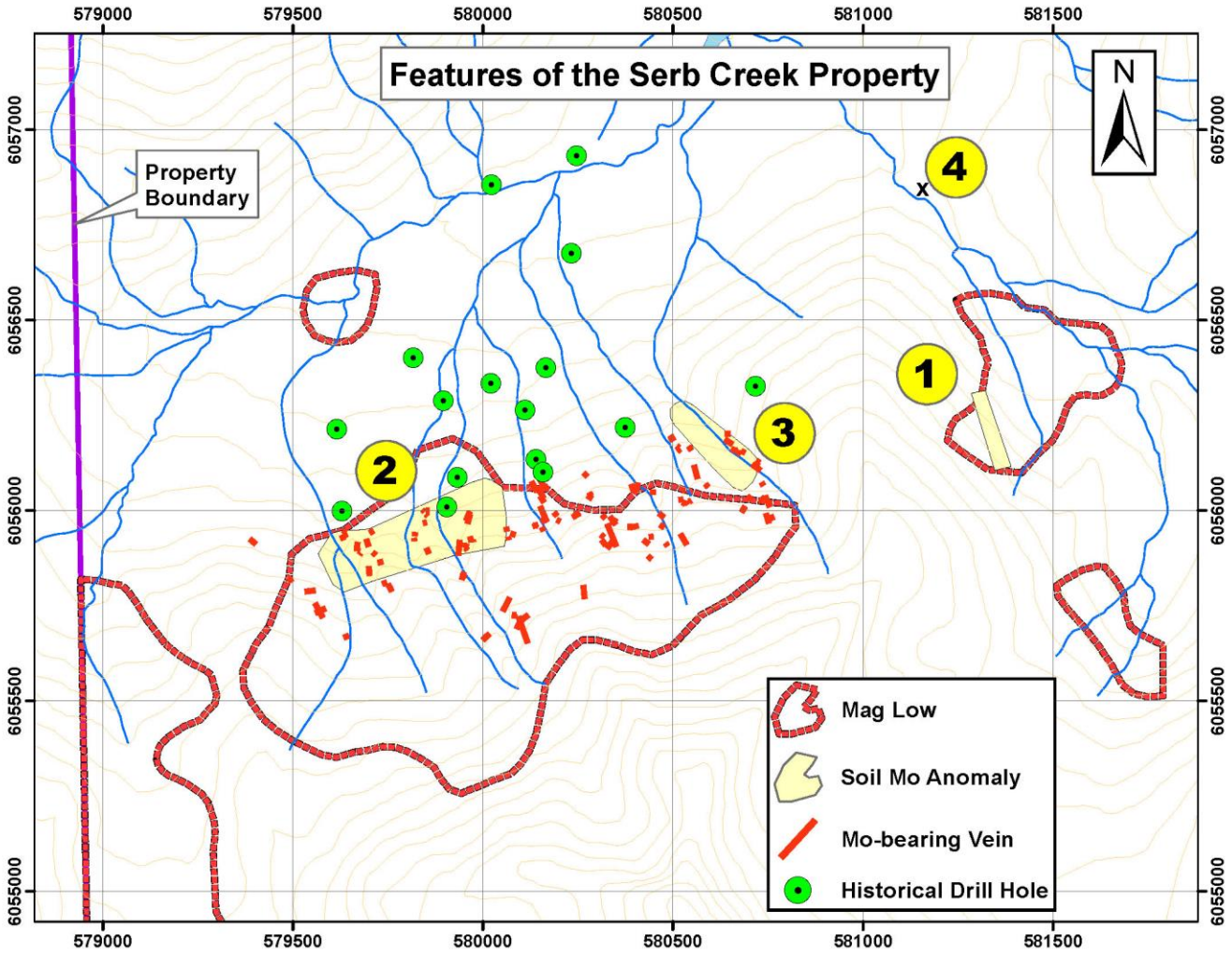


Figure 10: Areas Suggested for 2022 Field Checking

Sample preparation was completed at the ALS Global facility located at 2953 Shushwap Road, Kamloops, British Columbia. ALS Global ("ALS") is ISO/IEC 17025:2017 and ISO 9001:2015 certified and has been in business since 1999. ALS is independent of Billingsley. Samples were subjected to ALS's "PREP-31" sample preparation protocol. They were oven-dried at 110-120ºC, and then crushed to 70% passing a 10 mesh (2 mm) stainless steel screen. A 250 g split was taken, then pulverized to better than 85% passing 75 microns. The pulp was sent to ALS's analytical facility at 2103 Dollarton Highway, North Vancouver, British Columbia for analysis. The "ME-MS61" and "Au-AA23" analytical protocols were used on the samples. ME-MS61 involves a four-acid digestion followed by the analysis of 48 elements by the ICP-MS technique. Elements of interest obtained by this method include silver, copper, molybdenum, lead and zinc, amongst others. The ME-MS61 protocol has an upper detection limit of 100 g/t for silver and 1% for copper, molybdenum, lead and zinc; samples with values above these limits were reanalyzed with ALS's "OG62" protocol (for ore grade samples). The Au-AA23 protocol involves analyzing a 30 g sample of pulp for gold via fire assay, with an atomic absorption finish.

The 2022 exploration team collected five samples from the Moraine Creek area (Area 1), seven from Area 2, and six from Area 3 (Nussbaumer, 2022; Fig. 11; Map 2). Key results are provided in Table 3 and molybdenum values are plotted in Figure 11. Gold results were low, varying from below detection

to a high of 26 ppb. Silver was also relatively low, with values ranging from 0.18 to 26.4 g/t (Table 3). Copper was surprisingly low, with a high value of 1,085 ppm (0.11%), but with 12 of the samples containing less than 200 ppm Cu. Molybdenum averages 511 ppm for the 18 samples, with a low of 8.16 ppm and a high of 2,060; all three areas had samples with more than 500 ppm (Fig. 11). Lead was very low (high value of 65.1 ppm). Two samples from Area 3 ran 4,310 and 6,010 ppm Zn, but most other samples were below 150 ppm Zn (Table 3).

Table 3: Key Results from 2022 Grab Samples

Sample	Area	Easting	Northing	Au ppb	Ag g/t	Cu ppm	Mo ppm	Pb ppm	Zn ppm
D991751	3	580807	6056016	8	0.37	47.3	522	22.6	21
D991752	3	580715	6056092	<5	3.59	874	199	19.4	6010
D991753	3	580711	6056086	6	7.89	439	246	123	4310
D991755	3	580670	6056132	7	2.92	124	1445	15.4	44
D991756	3	580501	6056284	<5	0.43	188	585	12.4	27
D991801	1	581299	6056161	<5	0.76	89.1	28.6	47.5	55
D991802	1	581292	6056190	<5	0.18	43.7	24.1	17.4	45
D991803	1	581294	6056192	21	26.4	1085	888	23.1	53
D991804	1	581290	6056255	<5	0.48	79.1	8.16	14.3	19
D991805	1	581276	6056294	<5	0.28	20.5	69.9	16.8	9
D991806	3	580829	6055892	<5	0.49	74	33.1	16.6	33
D991807	2	580357	6055933	<5	0.56	105.5	14.8	8.3	148
D991808	2	580236	6055948	<5	1.84	408	41.2	23.2	324
D991809	2	580135	6056062	<5	0.69	35.9	246	20.2	25
D991810	2	579998	6055971	5	1.44	73	308	19.8	37
D991811	2	579958	6055977	<5	5.97	302	577	19.2	23
D991812	2	579930	6055905	6	3.29	210	2060	23.9	27
D991813	2	579865	6055977	26	3.76	107	1900	65.1	17

Massive granodiorites to quartz monzonites with strong red orange oxidation and disseminated and fracture coated pyrite were found in the Moraine Creek area. Veinlets throughout these rocks were generally associated with pyrite-epidote-chlorite alteration; the best sample returned 888 ppm Mo. Area 2 rocks were pink-grey aplitic monzonites with strong red orange oxidation and associated banded molybdenite-pyrite veinlets. Two historic drill sites were noted within this area. The two highest Mo values from the campaign, 2,060 (Plate 1) and 1,900 ppm, came from Area 2. Area 3 rocks were white-grey granodiorites with strong red orange oxidation with pyrite veinlets and pyrite disseminations throughout. Molybdenite was locally abundant on fracture surfaces. Mo values up to 1,445 ppm were obtained from this area.

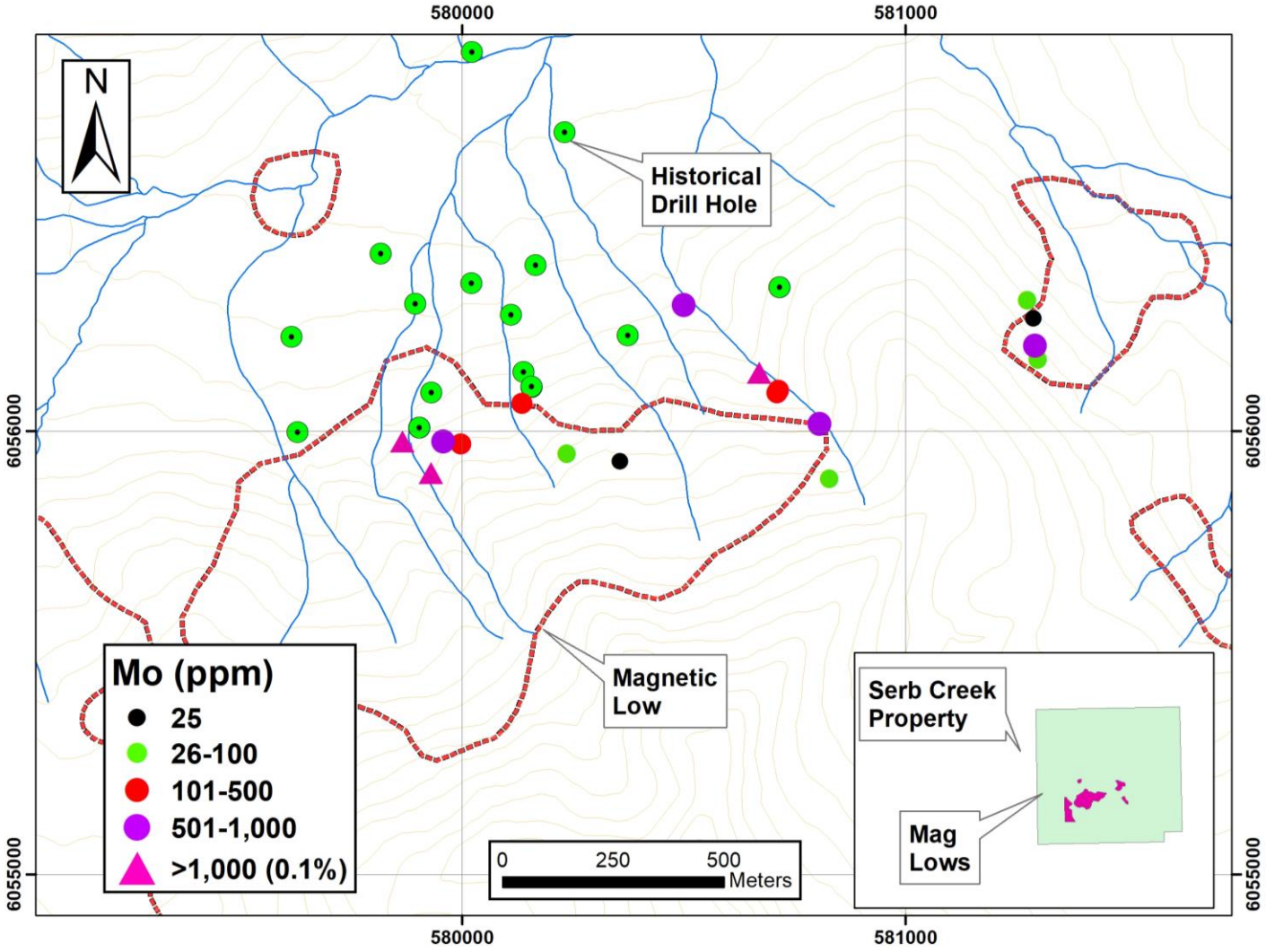


Figure 11: Molybdenum Results from 2022 Grab Samples



Plate 1: Quartz-molybdenite Vein, Area 2 (Sample D991812; 2,060 ppm Mo)

6.2 Airborne Geophysical Survey

Billingsley contracted Precision GeoSurveys Inc. of Langley, British Columbia to conduct a high-resolution helicopter-borne magnetic gradient and radiometric survey of the entire Property in September, 2022 (Hanlon, 2022). The Property is larger now than when flown in 2017, and it was felt that tighter line spacing plus the addition of radiometrics would make this second survey worthwhile. Two properties were flown during this program; Serb Creek is referred to as "Serb Creek West" in the Precision reporting. The survey consisted of 65 flight lines and six tie lines, flown at 179°/359° and 089°/269° respectively, for a total of 432 line km. Flight lines were spaced at 100 m intervals and tie lines at 1,000 m spacing (Fig. 12); nominal terrain clearance was 50 m. The survey used an Airbus AS350 helicopter, equipped with a data acquisition system, GPS navigation system, pilot guidance unit, laser altimeter, triple magnetic gradient boom system, fluxgate magnetometer, gamma ray spectrometer, barometer, and temperature/humidity probe. Two magnetic base stations were used to record temporal magnetic variations. Maps of magnetic data produced by Precision include Total Magnetic Intensity, Residual Magnetic Intensity, Reduced to Pole, Analytic Signal and various gradient-related maps. Radiometric maps produced include Potassium Percentage, Thorium Equivalent Concentration, Uranium Equivalent Concentration, Total Count and several ratio maps. Precision also produced a map of flight lines and a Digital Terrain Model. Precision's operations report and deliverable maps are provided in Appendix C.

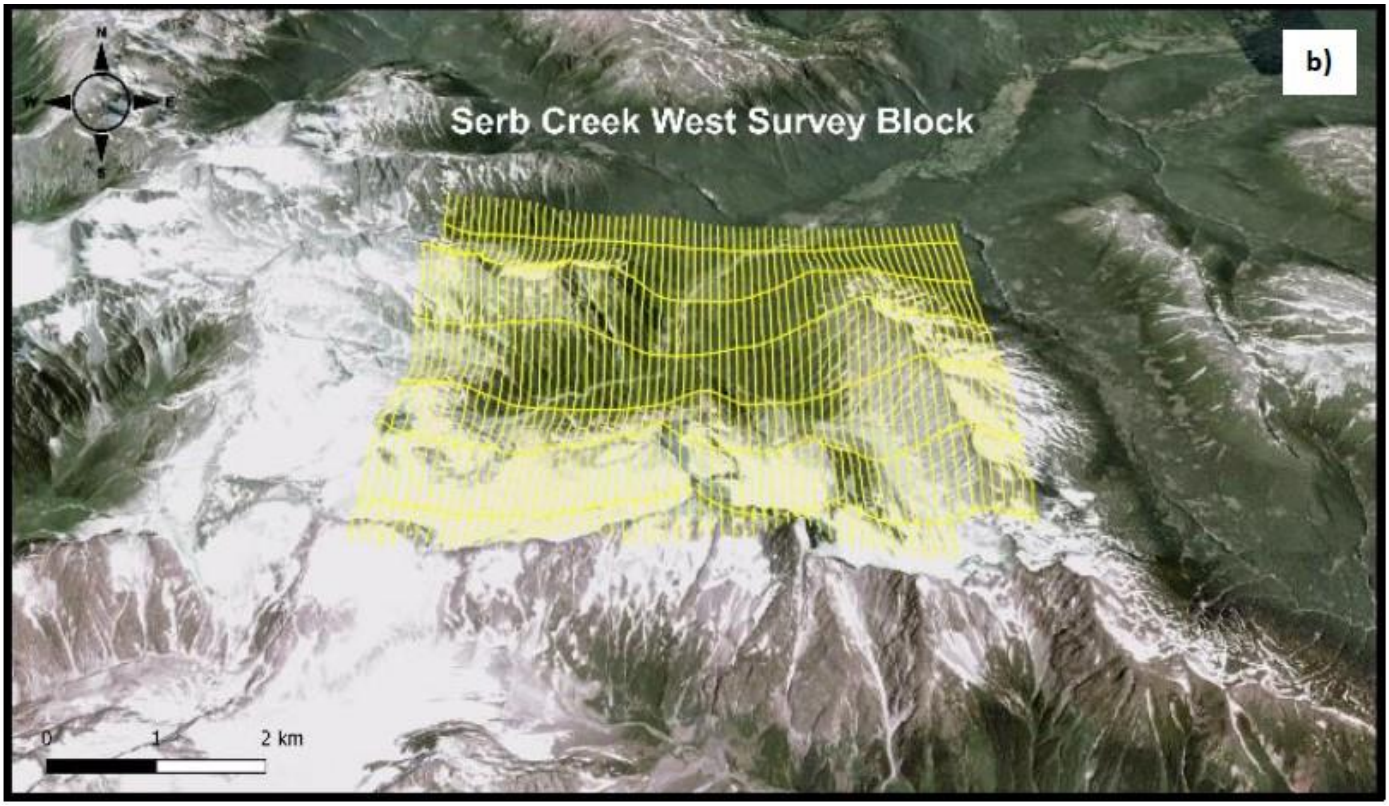


Figure 12: Flight Lines Superimposed on a 3D Google Earth Image. From Hanlon (2022).

The Total Magnetic Intensity (TMI) image is shown in Figure 13; the same image with geological contacts given by the BCGS forms Figure 14. Assuming that the geology provided is more or less accurate, it seems that the Hazelton Group volcanics tend to be magnetic lows, and the Nanika Plutonic Suite tends to form magnetic highs. As was found in the 2017 magnetic survey, the known distribution

of molybdenite-bearing veins is within a pronounced magnetic low. This low carries on to the west and then south from the known mineralization, forming a prime target for additional prospecting. There is also a northwest-trending linear magnetic low coincident with an inferred fault at Moraine Creek (Fig. 14). One high Mo sample was discovered in this area in 2022; more prospecting is clearly warranted.

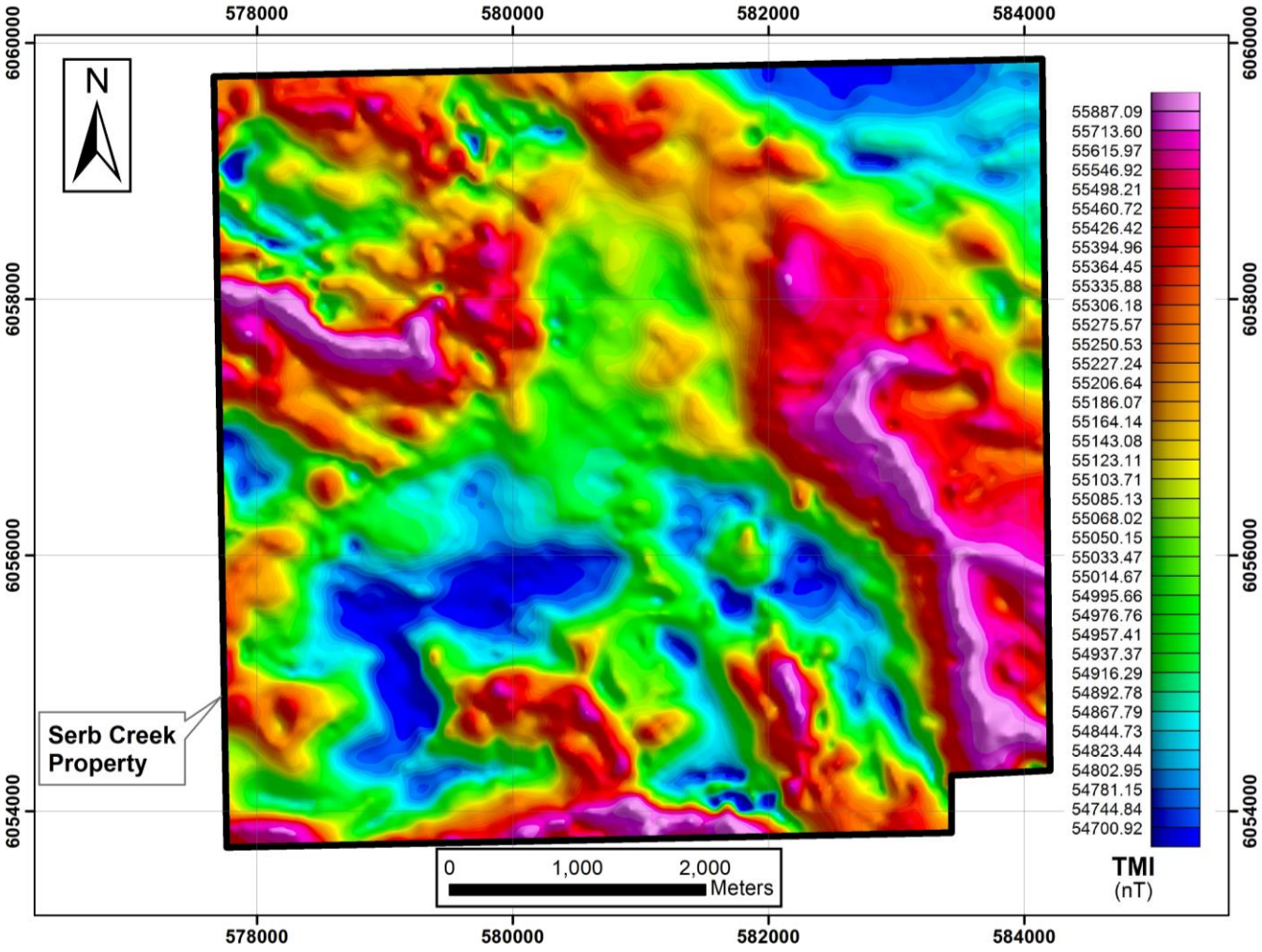


Figure 13: Total Magnetic Intensity Image of the Serb Creek Property. Modified after Hanlon (2022)

Figure 15 is an image of potassium concentration from the radiometric data, along with geological contacts from the BCGS (cf. Figs. 5 and 14). Not surprisingly, this image shows major potassium anomalies corresponding to the core of the Nanika suite plutons. A potassium:thorium ratio map is a better tool to assess potential porphyry-related alteration, as potassium is typically added and thorium remains immobile during alteration. Figure 16 is such a diagram; it shows a coherent ratio high in the area of known molybdenum mineralization which also carries on to the west and then the south, approximately mimicking the extent of the major magnetic low (Figs. 13 and 14). This is taken as corroboration of the prospectivity of this area.

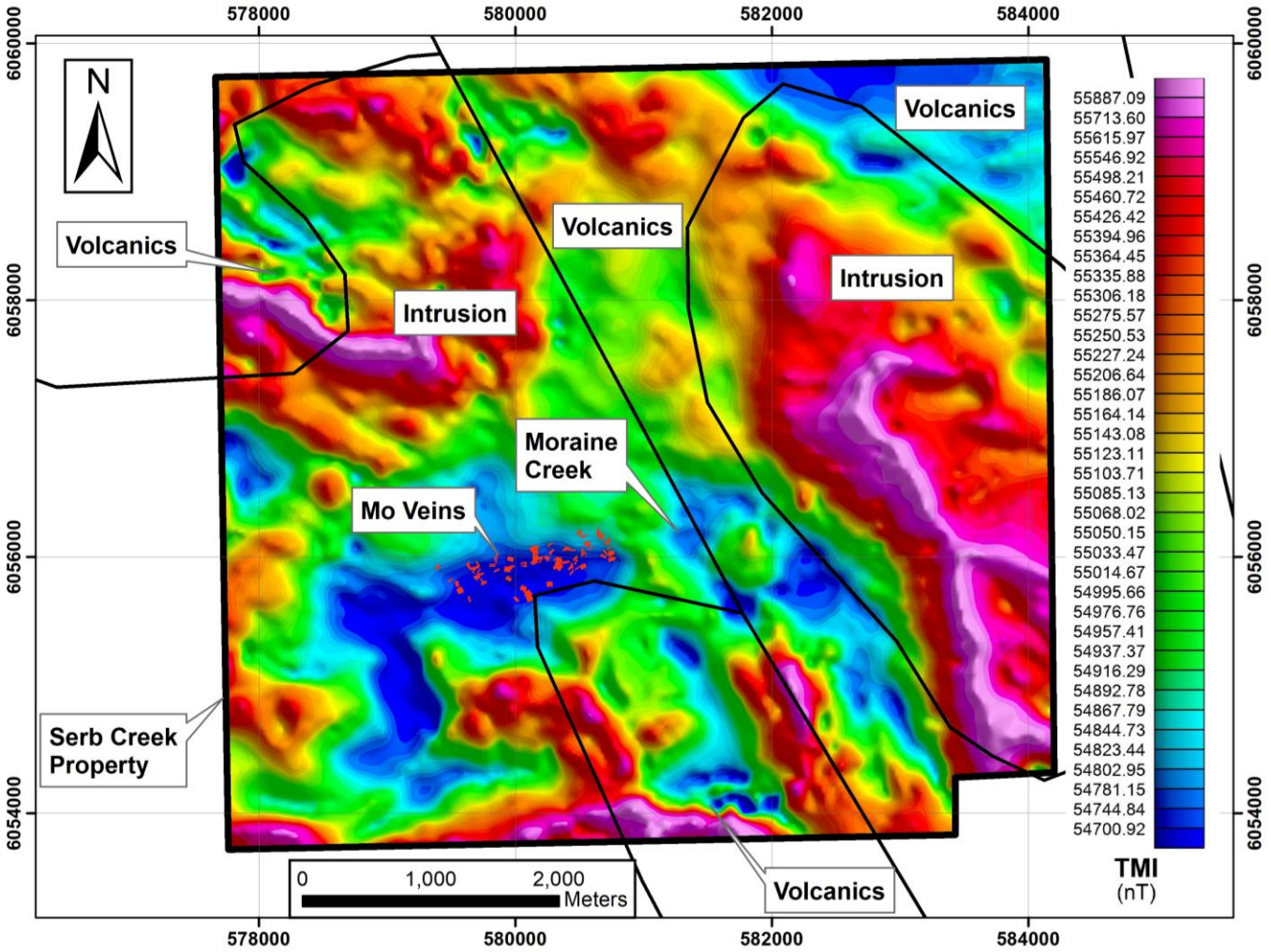


Figure 14: Total Magnetic Intensity Image with Interpreted Geological Contacts

7.0 CONCLUSIONS AND RECOMMENDATIONS

The Serb Creek property occurs within the Stikine Terrane in the Intermontane morphogeolocial belt. The Property is underlain mainly by volcanics of the Jurassic Hazelton Group intruded by felsic intrusives of the Eocene Nanika Plutonic Suite. Serb Creek, a developed prospect with an indicated resource (not NI43-101 compliant) of 41.15 Mt @ 0.048% Mo, is the only minfile occurrence on the Property. This historical resource was defined by 19 holes drilled by Amax and three drilled by Craigmont Mines. Mineralization occurs in veins up to 2 cm wide, in quartz stockworks and along fractures in biotite granite/granodiorite. Veins contain varying amounts of quartz, pyrite, molybdenite and epidote, with rare chalcopyrite, galena and sphalerite, and typically trend 320 to 330°, parallel to the numerous dikes in the area. Alteration types are sericite-Kspar-carbonate and epidote-chlorite-Kspr. The best mineralization occurs in the 1300 x 600 m Main Zone north of the central plug and in the East Zone to the east of the Main Zone.

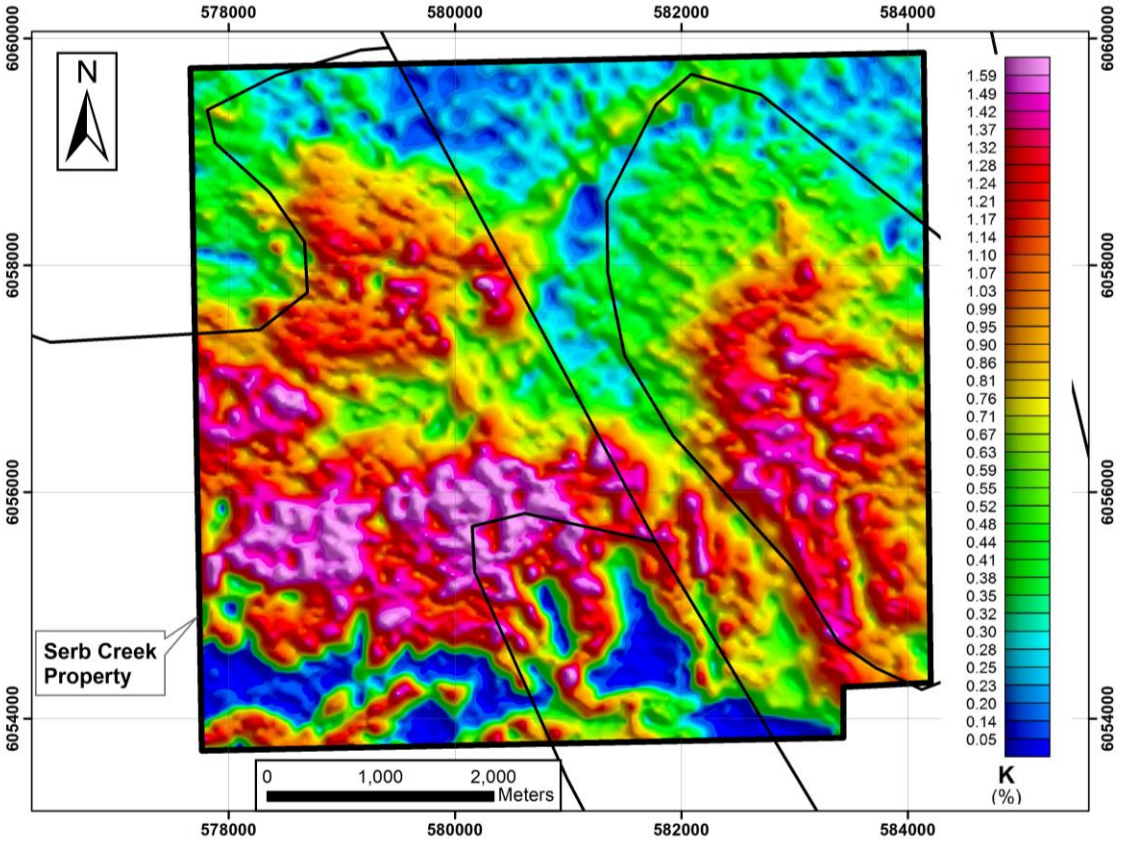


Figure 15: Potassium Image of the Serb Creek Property with Geological Contacts.

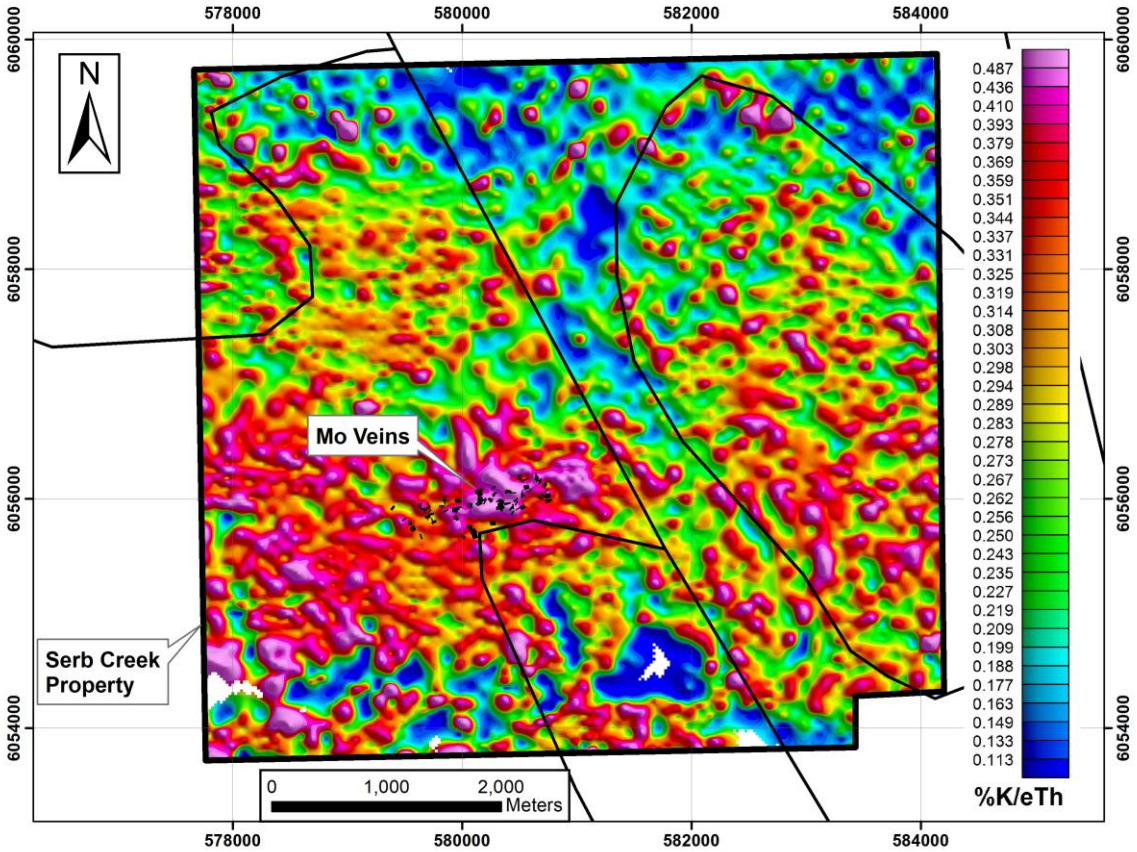


Figure 16: Potassium: Thorium Ratio Image of the Serb Creek Property with Geological Contacts

Following a brief compilation, four targets were chosen for field checking/sampling in 2022. The highest priority was the coincident magnetic low and geochemical anomaly in the Moraine Creek area, and the next two were soil anomalies and magnetic lows closer to the area of focus of historical work. Priority 4, which the crew did not have a chance to visit, was the pyrite ring encircling mineralization. Three geologists and an assistant spent two days on the Property in August 2022, field checking the defined targets and collecting 18 grab samples. Gold results were low, varying from below detection to a high of 26 ppb. Silver was also relatively low, with values ranging from 0.18 to 26.4 g/t. Copper was surprisingly low, with a high value of 1,085 ppm (0.11%), but with 12 of the samples containing less than 200 ppm Cu. Molybdenum averages 511 ppm for the 18 samples, with a low of 8.16 ppm and a high of 2,060; all three field areas had samples with more than 500 ppm. Lead was very low (high value of 65.1 ppm). Two samples from Area 3 ran 4,310 and 6,010 ppm Zn, but most other samples were below 150 ppm Zn.

Massive granodiorites to quartz monzonites with strong red orange oxidation and disseminated and fracture coated pyrite were found in the Moraine Creek area. Veinlets throughout these rocks were generally associated with pyrite-epidote-chlorite alteration; the best sample returned 888 ppm Mo. Area 2 rocks were pink-grey aplitic monzonites with strong red orange oxidation and associated banded molybdenite-pyrite veinlets. Two historic drill sites were noted within this area. The two highest Mo values from the campaign, 2,060 and 1,900 ppm, came from Area 2. Area 3 rocks were white-grey granodiorites with strong red orange oxidation with pyrite veinlets and pyrite disseminations throughout. Molybdenite was locally abundant on fracture surfaces. Mo values up to 1,445 were obtained from this area.

Billingsley commissioned a high-resolution helicopter-borne magnetic gradient and radiometric survey of the Property in September, 2022. The survey totaled 432 line km at 100 m spacing. The Hazelton Group volcanics tend to be magnetic lows, and the Nanika Plutonic Suite tends to form magnetic highs. The known distribution of molybdenite-bearing veins is within a pronounced magnetic low, presumably caused by hydrothermal alteration. The magnetic low is more extensive than the known mineralization, and is thus a target for additional prospecting. There is also a northwest-trending linear magnetic low coincident with an inferred fault at Moraine Creek. One high Mo sample was discovered in this area in 2022; more prospecting is clearly warranted. Radiometric data shows that potassium anomalies correspond to the core of the Nanika suite plutons. A potassium:thorium ratio map shows a coherent ratio high in the area of known molybdenum mineralization; this anomaly also extends beyond known mineralization in a similar fashion to the magnetic low.

The 2022 exploration program verified results from the intermittent historical exploration on the Property. Samples with significant grades of molybdenum were collected; the mineralization style appears to be porphyry-related as previously suggested. Recommendations for further work include:

i) Compile all historical soil geochemical data into one dataset;
ii) Extend historical soil surveys to cover the major magnetic low within the westernmost Nanika Suite pluton;
iii) Consider additional moss mat sampling to verify the efficacy of the technique and to expand present coverage;
iv) Conduct property-wide geological reconnaissance to verify the distribution of rock types;
v) Collect samples for Terraspec analysis to search for a mineralogical vector towards ore;
vi) Map and sample the pyrite ring around mineralization;
vii) Prospect the main magnetic low west and south of the historically known mineralization;

viii) Prospect the Moraine Creek area; and
ix) Prospect the easternmost Nanika Suite pluton at a reconnaissance scale.

These tasks should be completed prior to conducting more expensive exploration such as IP surveying or additional drilling.

8.0 REFERENCES

Fox, P.E. 2010. Assessment Report, Geological and Geochemical Report on the Serb Creek Property. Rich Rock Resources Inc. Assessment Report 31701, 20 p.

Fox, P.E. 2011. Assessment Report, Geochemical Report on the Serb Creek Property. Rich Rock Resources Inc. Assessment Report 32475, 16 p.

Hanlon, J. 2022. Airborne Geophysical Survey Report, Serb Creek East and West, Smithers, British Columbia. Richard Billingsley Internal Report, 32 p.

Lindinger, L.J. 2021. Prospecting and Geochemical Assessment Report on the Serb Creek Property, Omenica Mining Division. Richard Billingsley Assessment Report 39415, 41 p.

Logan, J. 2011. Stikine Terrane Cu, Cu-Au & Mo Porphyry Deposits. British Columbia Geological Survey Exploration Undercover Workshop; Available at https://cdn.geosciencebc.com/pdf/Presentations/UnderCoverWS2011/Talk_4_Logan.pdf. 21 p.

MacIntyre, D., Desjardins, P., Tercier, P. and Koo, J. 1989. Geology of the Telkwa River Area. Ministry of Energy, Mines and Petroleum Resources, Open File Map 1989-16, Scale 1:50,000.

Norton, C., Huang, J. and Lui, D. 2021. Updated Technical Report and Mineral Resource Estimate on the Berg Project, British Columbia. Surge Copper Corp. National Instrument 43-101 Technical Report, 130 p. Available at www.sedar.com

Nussbaumer, G. 2022. Post-field Report on the Serb Creek Property 2022 Sampling Program. Richard Billingsley Internal Report, 18 p.

Sellmer, H.W. 1966. Geology and Petrogenesis of the Serb Creek Intrusive Complex near Smithers, British Columbia. MSc Thesis, University of British Columbia, 89 p., PF802506

Sutherland-Brown, A. 1966. Serb Creek. Annual Report, Minister of Mines and Petroleum Resources, Province of British Columbia, p.76-80

Vollo, N.B. 1976. Drill Logs, Holes SC75-20 to 22. Craigmont Mines Ltd. Assessment Report 05762, 23 p.

Walcott, P.E. and Walcott, A. 2018. An Assessment Report on a Heliborne Magnetic Survey, Serb Property, Smithers Area, British Columbia. Richard Billingsley Assessment Report 37634, 20 p.

Wheeler, J.O. and McFeely, P. 1991. Tectonic Assemblage Map of the Canadian Cordillera and Adjacent Parts of the United States of America. Geological Survey of Canada Map 1712A, scale 1: 2,000,000.

9.0 CERTIFICATE OF QUALIFICATION

I, Tom Setterfield, PhD, P.Geo. do hereby certify that:

1. I am a Principal of Geo Exploration Scouts
5-570 Crescent Road West
Qualicum Beach, British Columbia, V9K 1H9

2. I graduated with a BSc degree in Geology and Chemistry from Carleton University in 1980. In addition, I have obtained an MSc in Geology from the University of Western Ontario in 1984, and a PhD in Earth Sciences from the University of Cambridge in 1991.

3. I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (membership #209990).

4. I have worked as a geologist for a total of 43 years since my graduation from university.

5. I planned and co-supervised the fieldwork and geophysical survey on the Serb Creek property described in this report.

Dated this 18th Day of May, 2023.

Tom Setterfield

Tom Setterfield

10.0 STATEMENT OF COSTS

Exploration Work type	Comment	Days			Totals
Personnel (Name)* / Position	**Field Days (list actual days)**	**Days**	**Rate**	**Subtotal***	
Georg Nussbaumer	August 27, 28, 29, 2022	35	$90.00	$3,150.00	
Julia Walker		30	$65.00	$1,950.00	
Victor Pospelov		31.5	$75.00	$2,362.50	
Gareth King		30	$55.00	$1,650.00	
				$9,112.50	**$9,112.50**
Office Studies	**List Personnel (note - Office only, do not include field days**				
Project Planning	Tom Setterfield	1.1	$750.00	$843.75	
Data Interpretation	Georg Nussbaumer	9.5	$90.00	$855.00	
Report preparation	Tom Setterfield	3.0	$800.00	$2,400.00	
Logistical Planning	Tripoint Geological		$0.00	$490.42	
Data Management	Samantha Dyck	1.0	$85.00	$85.00	
Other (specify)				$4,674.17	
				$9,348.34	**$9,348.34**
Airborne Exploration Surveys	**Line Kilometres / Enter total invoiced amount**				
Aeromagnetics			$0.00	$39,581.80	
				$39,581.80	**$39,581.80**
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Rock	*18 samples*		$0.00	$1,136.12	
				$1,136.12	**$1,136.12**
Transportation		**No.**	**Rate**	**Subtotal**	
Airfare			$0.00	$2,873.22	
truck rental			$0.00	$660.00	
kilometers			$0.00	$151.89	
Helicopter (hours)			$0.00	$5,908.00	
				$9,593.11	**$9,593.11**
Accommodation & Food	**Rates per day**				
Hotel			$0.00	$1,782.15	
Meals	day rate or actual costs-specify		$0.00	$1,067.45	
				$2,849.60	**$2,849.60**
Miscellaneous					
Consumables			$0.00	$39.45	
Tripoint Markup				$818.01	
				$857.46	**$857.46**
Equipment Rentals					
In-Reach			$0.00	$64.00	
				$64.00	**$64.00**
Freight, rock samples					
Rock Shipment			$0.00	$138.16	
				$138.16	**$138.16**

TOTAL Expenditures **$72,681.09**

APPENDIX A-GRAB SAMPLE DESCRIPTIONS AND CERTIFICATES OF ASSAY

Sample	Easting	Northing	Lith	Texture	Altn	Altn Int	Min	Min2	Rock_Description	Au ppb	Ag ppm	Cu ppm	Mo ppm	Pb ppm	Zn ppm
D991751	580807	6056016	GDI	MAS	FEOX	3	PY	MO	Grandodiorite. Red-orange weathering/oxidation white-grey fresh. Pyrite veinlets + disseminated throughout. Flecks of soft dark metallic mineral - probably molybdenite. Epidote + quartz veinlets (+-10mm).	8	0.37	47.3	522	22.6	21
D991752	580715	6056092	GDI							-5	3.59	874	199	19.4	6010
D991753	580711	6056086	GDI	MAS	FEOX	3	PY	MO	Grandodiorite. Red-orange weathering/oxidation white-grey fresh. Pyrite fracture coating + disseminated throughout. Molybdenite abundent on fracture surfaces + veinlets.	6	7.89	439	246	123	4310
D991755	580670	6056132	MZGN	MAS	EPI	3	PY	MO	Back into a medium crystalline intrusive. Notable rusty vein ~5mm. Monzo-Granite with 1-2% pyrite disseminated in fractures. Sampled vein has epidote 15% soft gray mineralization smeared on surface (likely molybdenite) ~50% and no chalcopyrite noted.	7	2.92	124	1445	15.4	44
D991756	580501	6056284	GDI	MAS	FEOX	3	PY	MO	Grandodiorite. Red-orange weathering/oxidation white-grey fresh. Pyrite veinlets + slightly disseminated throughout. Veinlets of dark soft mineral likey molybdenite.	-5	0.43	188	585	12.4	27
D991801	581299	6056161	QMZ	MAS	FEOX	4	PY	MO	Pink-grey phaneritic massive quartz monzonite. Py+/- mo as disseminations in fractures. Strong Fe-ox on fract orange-red.	-5	0.76	89.1	28.6	47.5	55
D991802	581292	6056190	GDI	MAS	CHL	3	PY		Pink-grey phan ms granodiorite. 3-4% diss py euh. Chl alt around py. Mod fract Fe-ox.	-5	0.18	43.7	24.1	17.4	45
D991803	581294	6056192	GDI	MAS	FEOX	5	PY		Semi-ms to ms py in same granodiorite host rock intense Fe-ox. Sx limited to 5-10cm in width.	21	26.4	1085	888	23.1	53
D991804	581290	6056255	QMZ	MAS	CHL	3	PY		Pink-grey phan ms granodiorite. 2-3% diss and fract coated py min +/- chl. Fe-ox.	-5	0.48	79.1	8.16	14.3	19
D991805	581276	6056294	QMZ	MAS	CHL	2	PY		Pink-gy qtz monz. 1-2% py diss fg sub w/ magnetite. Minor chl-ep among sx.	-5	0.28	20.5	69.9	16.8	9
D991806	580829	6055892	QMZ	MAS			PY		Salt and pepper qtz monz w/ mm stringers/fractures coated in py. Coarse biot. crystals fresh various fracture orientations	-5	0.49	74	33.1	16.6	33
D991807	580357	6055933	DIO	MAS	EPI	2	PY		Green diorite with coarse plag. Fracture coated pyrite with epidote-chlorite on fracture surface. Weakly oxidized	-5	0.56	105.5	14.8	8.3	148
D991808	580236	6055948	MNZ	MAS	CHL	2	PY	MAL	Pink-grey phaneritic massive monzonite. Mm pyrite stringer +/- chlorite-epidote +/- fracture coated malachite	-5	1.84	408	41.2	23.2	324
D991809	580135	6056062	MNZ	MAS			MO		Monzonite with pyrite. Molybdenite mineralized quartz veinlet molybdenite very fine grained. Sample from outcrop above historic drill pad (check #). Malachite adjacent to drill pad.	-5	0.69	35.9	246	20.2	25
D991810	579998	6055971	MNZ	MAS	CHL	2	PY		East end of anomaly steep gullies. Monzonite quartz stringers with pyrite occuring with chlorite	5	1.44	73	308	19.8	37
D991811	579958	6055977	MNZ	MAS			MO	PY	Pink-grey aplitic monzonite. Disseminated pyrite on fracture surfaces dark grey stringers-- could be molybdenite	-5	5.97	302	577	19.2	23
D991812	579930	6055905	QV	BND	FEOX	3	MO	PY	molybdenite-quartz-pyrite vein ~2cm	6	3.29	210	2060	23.9	27
D991813	579865	6055977	QV	BND	FEOX	3	MO	PY	molybdenite-quartz-pyrite vein ~1cm adjacent to historic drill. Dip+dip direction 245/85	26	3.76	107	1900	65.1	17

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
This copy reported on
18-MAY-2023
Account: TRIPGEO

KL22254698

Project: Serb Creek

P.O. No.: SC-2022-01

This report is for 46 samples of Rock submitted to our lab in Kamloops, BC, Canada on 7-SEP-2022.

The following have access to data associated with this certificate:

TRIPOINT ASSAYS TOM SETTERFIELD	WADE BARNES	SAMANTHA DYCK

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
DISP-01	Disposal of all sample fractions
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250g 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Aq-OG62	Ore Grade Ag - Four Acid	
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
Cu-OG62	Ore Grade Cu - Four Acid	
Pb-OG62	Ore Grade Pb - Four Acid	
Zn-OG62	Ore Grade Zn - Four Acid	
Au-AA23	Au 30g FA-AA finish	AAS
Au-GRA21	Au 30g FA-GRAV finish	WST-SIM
ME-MS61	48 element four acid ICP-MS	

This is the Final Report and supersedes any preliminary report with this certificate number.Results apply to samples as submitted.All pages of this report have been checked and approved for release.

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

Signature:

Saa Traxler, Director, North Vancouver Operations

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-GRA21 Au ppm 0.05	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05
D991801		1.62	<0.005		0.76	7.33	0.2	1210	1.94	0.89	0.76	0.21	21.5	1.2	6	1.20
D991802		1.60	<0.005		0.18	7.35	0.2	1180	2.23	1.20	0.71	0.16	25.9	2.9	7	1.22
D991803		0.81	0.021		26.4	6.23	0.8	130	1.29	43.4	0.25	0.47	17.80	4.0	6	1.56
D991804		1.09	<0.005		0.48	7.22	0.5	1370	1.97	1.14	0.58	0.05	25.6	1.6	7	1.18
D991805		1.04	<0.005		0.28	7.57	0.6	1650	1.36	0.46	0.29	0.02	39.5	0.8	6	1.06
D991806		1.46	<0.005		0.49	7.83	0.2	2610	1.70	1.00	1.32	0.06	54.6	2.2	6	0.83
D991807		1.22	<0.005		0.56	8.59	0.2	1550	1.54	0.63	2.96	0.59	40.2	7.1	8	1.77
D991808		0.89	<0.005		1.84	8.46	1.7	1290	2.37	3.01	1.55	2.74	46.7	6.4	4	1.32
D991809		0.92	<0.005		0.69	7.08	0.3	1560	1.36	0.68	0.19	0.11	25.9	0.7	7	0.83
D991810		1.26	0.005		1.44	7.97	0.6	1620	1.78	2.66	0.53	0.02	23.4	1.5	5	1.32
D991811		1.06	<0.005		5.97	6.55	0.8	1070	1.36	10.40	0.13	0.17	18.90	2.7	5	1.36
D991812		1.16	0.006		3.29	5.23	0.5	540	1.28	13.65	0.25	0.05	26.0	3.0	9	1.14
D991813		1.50	0.026		3.76	3.89	0.8	540	0.51	4.63	0.03	<0.02	21.2	2.9	9	1.00
D991814		1.51	0.009		2.96	7.26	38.3	1140	0.81	0.12	0.11	0.06	26.2	1.5	9	0.90
D991815		0.81	0.039		79.3	5.18	1180	1010	0.59	5.29	1.94	0.93	10.45	7.0	6	0.85
D991816		0.90	0.029		9.47	6.41	4.8	1300	0.51	0.11	0.06	0.06	27.7	2.6	6	0.92
D991817		1.49	0.132		>100	2.40	3060	60	0.18	15.30	0.05	2.97	19.20	5.1	2	0.47
D991818		1.25	<0.005		4.65	7.72	12.9	460	0.63	0.34	0.73	0.15	25.2	5.6	15	0.81
D991819		1.15	<0.005		2.36	6.85	13.4	1690	0.80	0.04	0.15	0.07	35.4	1.8	8	1.20
D991820		1.03	<0.005		29.3	6.99	81.6	1010	0.67	0.11	0.08	0.04	36.0	1.6	6	0.98
D991821		1.25	0.013		31.8	3.17	1565	120	0.57	1.34	0.67	1.41	15.40	8.0	14	1.10
D991822		0.75	0.025		1.28	3.89	13.8	840	0.65	0.08	3.27	0.27	12.65	2.4	4	1.10
D991823		1.49	0.011		38.9	8.68	165.5	570	0.83	3.28	0.15	0.97	45.4	21.8	8	0.57
D991824		1.06	<0.005		0.08	8.04	10.0	450	0.94	0.05	0.16	0.06	24.7	16.4	12	1.89
D991825		1.35	0.053		1.80	8.32	15.0	1850	1.16	5.37	0.45	0.06	25.2	9.3	4	9.14
D991826		1.26	1.710		22.9	6.05	56.3	320	0.96	30.6	0.73	0.33	14.00	20.1	25	13.20
D991827		2.18	0.062		1.56	1.88	232	4200	0.52	12.60	3.64	0.10	34.8	5.5	3	3.78
D991828		1.69	9.79		53.4	0.17	119.5	70	0.26	48.1	0.14	0.54	4.47	13.1	57	0.55
D991829		1.64	0.010		5.01	7.91	16.6	2010	0.96	18.40	0.76	0.65	29.7	10.6	36	13.30
D991830		0.10	0.110		9.66	6.09	36.4	230	0.86	13.60	2.97	61.3	50.4	80.0	58	1.06
D991831		0.11	<0.005		0.03	7.38	2.6	790	1.01	0.05	1.70	0.04	27.8	3.9	18	0.37
D991832		1.41	0.023		5.98	7.92	14.0	2180	0.60	113.0	0.37	0.57	17.75	3.9	13	4.59
D991833		1.26	>10.0	10.85	37.3	2.25	1195	340	0.39	0.17	0.13	504	11.65	14.0	5	2.23
D991834		2.13	<0.005		0.09	8.26	9.2	980	1.37	0.09	2.51	9.10	42.8	18.0	6	14.90
D991835		1.76	0.176		4.25	4.85	45.1	8020	0.61	0.04	7.72	1.46	27.8	20.5	1	3.52
D991836		2.21	0.005		8.88	6.86	4.2	6560	0.51	0.03	6.88	0.87	15.15	18.6	35	22.9
D991751		1.71	0.008		0.37	6.62	0.6	1300	1.07	0.55	0.16	0.05	30.0	1.0	5	1.52
D991752		3.18	<0.005		3.59	6.94	0.7	950	1.42	12.60	1.29	64.8	36.9	3.8	9	1.52
D991753		2.22	0.006		7.89	6.95	2.4	110	1.09	42.4	0.55	50.6	14.45	5.7	5	1.68
D991755		2.21	0.007		2.92	6.33	1.8	660	1.43	2.96	0.67	0.10	41.2	6.1	8	0.69

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOD	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
D991801		89.1	1.66	20.5	0.06	1.0	0.287	3.78	11.2	5.1	0.22	131	28.6	2.99	7.2	1.8
D991802		43.7	1.61	20.3	0.08	1.1	0.079	3.62	14.2	6.6	0.28	176	24.1	3.13	9.0	1.9
D991803		1085	6.39	25.4	0.08	0.8	0.999	4.63	8.8	4.6	0.14	87	888	1.46	4.8	1.7
D991804		79.1	2.03	19.50	0.08	0.8	0.045	4.16	13.4	7.9	0.28	91	8.16	2.82	3.9	1.8
D991805		20.5	1.26	16.70	0.10	0.7	0.020	5.92	21.8	3.7	0.11	63	69.9	2.27	4.1	1.5
D991806		74.0	1.90	22.6	0.13	0.6	0.030	3.66	27.7	9.4	0.35	157	33.1	3.33	3.8	1.9
D991807		105.5	3.34	21.6	0.13	1.6	0.044	2.50	20.2	15.1	1.05	467	14.80	3.24	6.6	2.1
D991808		408	2.96	23.0	0.15	1.2	0.102	3.27	23.9	15.1	0.79	637	41.2	3.61	5.0	2.4
D991809		35.9	1.11	19.65	0.09	0.5	0.018	5.09	13.7	3.4	0.13	72	246	2.33	5.1	1.4
D991810		73.0	2.30	23.5	0.10	0.4	0.050	3.20	12.0	11.6	0.41	111	308	3.47	4.4	1.6
D991811		302	2.53	24.1	0.06	0.6	0.080	4.62	9.9	5.4	0.15	47	577	1.31	5.3	1.6
D991812		210	2.68	13.70	0.08	0.5	0.044	3.31	13.7	6.6	0.12	85	2060	1.24	2.8	1.7
D991813		107.0	3.42	9.32	0.06	0.3	0.065	3.86	11.2	4.7	0.09	60	1900	0.32	1.9	1.7
D991814		1935	1.71	11.20	0.07	4.2	0.047	3.58	9.9	9.3	0.03	252	7.02	3.56	5.0	2.2
D991815		>10000	1.71	9.31	0.14	2.9	0.083	3.30	3.7	11.9	0.04	696	3.85	1.87	3.4	1.9
D991816		2040	1.59	9.73	0.16	3.4	0.047	3.77	13.4	10.1	0.04	374	0.85	2.13	3.8	2.1
D991817		>10000	8.93	5.42	0.08	1.1	0.399	0.13	9.2	7.1	0.03	403	2.22	1.35	1.4	3.5
D991818		4370	4.38	9.34	0.08	2.1	0.048	1.49	12.5	67.3	0.23	837	0.74	4.10	2.8	6.8
D991819		1595	1.91	10.45	0.10	3.5	0.037	3.70	17.2	8.5	0.04	450	1.02	2.67	4.3	2.3
D991820		3900	1.56	11.75	0.09	3.4	0.025	3.25	17.9	5.4	0.04	194	0.77	3.27	4.5	2.1
D991821		>10000	2.66	12.40	0.07	1.5	0.056	0.73	7.5	24.0	0.12	918	1.46	0.97	2.9	3.7
D991822		1095	1.71	6.62	0.08	2.8	0.026	2.60	5.1	16.8	0.09	883	0.56	1.34	3.4	1.7
D991823		>10000	6.52	21.7	0.11	4.6	0.196	1.64	20.5	31.4	0.06	1735	0.39	3.70	5.8	11.4
D991824		31.2	3.37	16.45	0.08	3.2	0.056	1.52	13.2	171.0	0.44	342	0.19	2.42	4.0	15.4
D991825		640	2.74	20.2	0.11	1.1	0.031	2.94	11.0	6.3	0.19	244	2.55	3.40	2.8	3.9
D991826		>10000	16.85	11.10	0.16	0.4	0.092	2.99	6.9	27.9	0.59	332	12.70	0.35	1.1	7.3
D991827		5150	39.2	4.87	0.20	0.1	0.074	0.64	12.5	9.6	0.07	222	50.7	0.02	1.3	2.4
D991828		>10000	13.95	1.19	0.20	0.1	0.049	0.03	1.8	10.5	0.01	101	96.2	0.01	0.2	3.7
D991829		4180	7.90	15.55	0.11	1.4	0.039	2.71	12.1	7.9	0.23	222	16.95	2.35	9.6	4.4
D991830		3860	11.70	20.5	0.12	3.1	3.94	1.31	23.4	24.6	2.35	1270	10.50	1.15	8.1	59.3
D991831		34.9	2.70	12.25	0.08	1.7	0.032	1.62	14.9	2.7	0.48	650	4.09	3.40	5.4	10.6
D991832		2410	6.68	15.10	0.09	1.9	0.035	2.34	7.8	8.6	0.11	181	6.02	2.42	1.4	2.8
D991833		5560	2.41	6.18	0.06	0.8	0.115	1.05	3.7	40.9	0.07	176	18.95	0.02	1.7	4.3
D991834		28.6	6.97	20.2	0.12	3.0	0.050	4.15	17.7	11.1	0.52	1755	0.65	0.18	3.8	5.2
D991835		1490	6.02	10.15	0.08	1.5	0.046	1.67	12.8	11.9	2.65	2410	0.35	0.93	3.8	1.2
D991836		9080	4.56	13.05	0.06	1.5	0.039	2.31	6.9	120.5	2.29	944	0.36	0.89	4.4	18.8
D991751		47.3	1.54	18.00	0.11	1.0	0.011	4.91	16.6	9.4	0.21	70	522	1.68	3.9	1.7
D991752		874	2.75	21.6	0.11	0.6	2.19	4.64	18.3	10.2	0.30	382	199.0	1.92	3.1	2.0
D991753		439	8.28	21.9	0.10	0.6	3.05	4.84	6.2	8.5	0.17	99	246	1.76	3.2	1.5
D991755		124.0	3.05	15.35	0.10	0.4	0.118	3.52	21.5	6.0	0.29	235	1445	2.58	2.5	1.9

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

Sample Description / Method / Analyte / Units / LOD	ME-MS61 P ppm 10	ME-MS61 Pb ppm 0.5	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S % 0.01	ME-MS61 Sb ppm 0.05	ME-MS61 Sc ppm 0.1	ME-MS61 Se ppm 1	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.01	ME-MS61 Ti % 0.005	ME-MS61 Tl ppm 0.02
D991801	290	47.5	107.5	<0.002	0.34	0.15	2.3	<1	0.9	341	0.80	0.14	5.88	0.121	0.45
D991802	310	17.4	108.5	<0.002	0.69	0.13	2.3	<1	0.9	372	0.94	0.18	8.01	0.131	0.48
D991803	200	23.1	126.0	0.038	5.88	0.27	1.9	4	5.2	285	0.51	2.87	3.36	0.088	0.80
D991804	340	14.3	122.0	<0.002	1.03	0.11	2.3	<1	0.7	393	0.41	0.20	7.23	0.088	0.47
D991805	200	16.8	119.5	0.003	0.43	0.11	1.3	1	0.5	364	0.44	0.08	8.65	0.068	0.65
D991806	670	16.6	88.1	<0.002	0.52	0.08	1.9	<1	1.1	797	0.22	0.29	4.67	0.272	0.41
D991807	1010	8.3	82.8	<0.002	0.56	0.13	6.4	1	0.9	825	0.37	0.19	2.83	0.389	0.50
D991808	930	23.2	121.0	0.002	1.89	0.33	4.7	1	1.3	624	0.32	0.47	3.53	0.303	0.68
D991809	190	20.2	122.0	0.010	0.14	0.31	1.6	<1	0.5	252	0.41	0.10	10.30	0.085	0.64
D991810	760	19.8	101.0	0.007	0.46	0.41	2.8	<1	1.8	467	0.29	0.51	4.40	0.262	0.58
D991811	220	19.2	113.5	0.027	1.90	0.37	2.1	1	4.9	217	0.53	0.31	3.81	0.096	0.90
D991812	140	23.9	92.1	0.093	2.42	0.77	1.3	2	1.0	92.2	0.31	0.23	8.47	0.042	0.47
D991813	240	65.1	106.0	0.069	2.10	0.61	0.9	2	0.9	155.5	0.13	0.76	2.38	0.079	0.63
D991814	240	6.4	67.7	<0.002	0.02	1.73	7.2	<1	1.0	55.6	0.32	<0.05	3.62	0.179	0.34
D991815	190	2.9	54.1	0.005	0.43	2.95	4.7	3	0.8	33.1	0.23	<0.05	1.62	0.114	0.42
D991816	200	2.0	68.0	0.002	0.01	0.20	6.2	2	0.6	33.8	0.26	<0.05	3.27	0.145	0.38
D991817	200	86.2	3.3	<0.002	8.34	5.58	11.8	7	1.3	28.6	0.09	10.55	0.80	0.111	0.08
D991818	560	6.5	22.0	<0.002	0.04	0.66	16.3	<1	0.8	44.6	0.19	0.12	1.95	0.311	0.11
D991819	220	3.7	73.8	<0.002	0.01	0.30	7.0	<1	0.8	106.0	0.28	<0.05	3.46	0.160	0.38
D991820	220	5.4	59.7	<0.002	0.04	0.20	6.5	<1	0.5	51.0	0.29	<0.05	3.38	0.164	0.30
D991821	280	7.0	14.6	0.005	0.40	0.62	10.2	5	0.6	19.0	0.09	<0.05	0.92	0.189	0.16
D991822	140	5.9	42.6	<0.002	0.03	0.39	4.5	1	0.6	49.2	0.22	<0.05	1.87	0.115	0.27
D991823	620	16.3	24.2	<0.002	0.42	2.21	19.4	4	1.3	44.8	0.40	1.02	4.50	0.376	0.14
D991824	290	3.9	27.9	<0.002	<0.01	0.73	11.2	<1	1.0	41.6	0.32	<0.05	4.34	0.198	0.13
D991825	1040	6.6	74.0	<0.002	0.03	8.04	5.3	<1	0.6	221	0.17	0.73	1.54	0.267	0.55
D991826	410	78.8	104.0	<0.002	2.20	12.35	14.2	27	0.6	61.8	0.08	2.52	0.18	0.367	0.81
D991827	730	138.5	20.5	<0.002	0.13	28.8	5.8	16	0.4	333	0.08	2.55	0.14	0.143	0.18
D991828	220	74.3	1.1	0.064	4.55	31.1	1.2	63	<0.2	108.5	<0.05	7.64	0.03	0.020	0.19
D991829	1590	57.0	67.7	<0.002	0.12	8.09	18.3	7	1.5	114.0	0.56	0.23	1.28	0.866	0.49
D991830	410	1485	38.3	0.003	6.85	5.18	13.4	8	10.4	102.5	0.57	0.17	5.43	0.282	2.04
D991831	380	4.0	34.7	<0.002	0.03	0.32	6.3	<1	2.1	203	0.39	<0.05	2.68	0.185	0.14
D991832	530	35.8	51.9	<0.002	0.06	19.25	5.2	3	0.5	88.6	0.10	0.67	1.23	0.173	0.44
D991833	650	>10000	33.3	0.006	4.92	81.8	7.9	5	0.5	106.0	0.12	<0.05	1.12	0.209	0.22
D991834	2350	100.5	122.0	<0.002	0.02	4.29	24.9	<1	0.8	141.5	0.28	<0.05	5.05	0.601	0.66
D991835	660	63.8	52.8	<0.002	0.23	6.64	15.6	2	0.9	809	0.27	<0.05	3.13	0.423	0.38
D991836	1350	17.6	83.8	<0.002	0.22	7.86	16.4	<1	0.5	168.5	0.27	<0.05	0.92	0.505	0.50
D991751	360	22.6	123.5	0.019	0.52	0.27	2.3	1	0.7	255	0.39	0.09	8.47	0.090	0.68
D991752	660	19.4	107.5	0.012	1.93	0.50	2.1	1	2.0	341	0.21	1.04	3.43	0.203	0.75
D991753	690	123.0	121.5	0.016	7.84	0.53	2.0	5	2.1	262	0.17	4.84	1.63	0.204	0.93
D991755	700	15.4	86.5	0.130	2.10	0.25	1.7	2	1.0	630	0.12	0.51	1.83	0.187	0.57

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Ag-OG62	Cu-OG62	Pb-OG62	Zn-OG62
	Analyte	U	V	W	Y	Zn	Zr	Ag	Cu	Pb	Zn
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
	LOD	0.1	1	0.1	0.1	2	0.5	1	0.001	0.001	0.001
D991801		3.0	25	2.9	6.8	55	24.9				
D991802		4.2	24	1.0	8.7	45	23.8				
D991803		3.1	34	7.1	3.8	53	17.9				
D991804		2.7	25	4.8	4.7	19	20.0				
D991805		2.1	16	5.1	3.9	9	17.4				
D991806		1.4	40	4.3	4.4	33	8.1				
D991807		1.5	89	3.6	10.0	148	52.0				
D991808		1.9	68	7.3	9.3	324	29.7				
D991809		1.1	14	4.8	3.3	25	14.4				
D991810		1.7	48	5.8	3.1	37	8.1				
D991811		2.3	39	10.4	3.3	23	13.2				
D991812		2.4	41	4.4	3.9	27	12.0				
D991813		0.7	19	14.3	1.2	17	4.0				
D991814		1.7	35	0.3	25.5	27	162.0				
D991815		1.7	23	0.2	14.4	93	118.0		3.67		
D991816		1.7	46	0.2	20.7	28	136.5				
D991817		1.0	280	0.2	19.2	182	43.7	360	37.1		
D991818		1.0	287	0.5	21.7	42	83.1				
D991819		1.4	23	0.5	20.5	44	141.0				
D991820		1.7	29	0.3	19.8	26	139.0				
D991821		1.3	43	0.3	15.0	63	54.8		1.400		
D991822		0.7	24	0.2	17.2	30	113.5				
D991823		2.6	589	0.8	53.1	154	167.5		3.28		
D991824		1.2	99	0.3	19.2	57	114.0				
D991825		0.9	118	3.6	7.5	42	29.6				
D991826		1.2	1025	23.1	12.0	77	8.3		9.27		
D991827		3.5	592	52.3	11.4	15	3.3				
D991828		0.7	253	16.0	1.7	4	1.7		6.40		
D991829		2.4	276	12.8	20.0	57	38.6				
D991830		1.5	93	6.5	18.4	>10000	120.5				1.915
D991831		1.2	33	0.5	15.9	48	54.8				
D991832		1.7	211	8.7	8.3	76	61.8				
D991833		0.9	61	3.6	7.4	>10000	32.0			7.21	5.01
D991834		2.0	145	1.3	27.3	835	117.0				
D991835		1.2	158	8.2	13.6	347	61.5				
D991836		0.7	357	3.6	12.1	127	58.1				
D991751		2.1	31	7.9	3.7	21	27.2				
D991752		3.7	46	10.8	4.7	6010	15.0				
D991753		1.8	50	10.8	3.7	4310	16.6				
D991755		1.4	40	4.1	3.8	44	8.7				

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

Sample Description	Method	WEI-21	Au-AA23	Au-GRA21	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Recvd Wt.	Au	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs
	Units	kg	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOD	0.02	0.005	0.05	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05
D991756		1.38	<0.005		0.43	7.89	0.4	2810	1.71	0.37	1.25	0.06	55.6	3.3	4	0.69
D991757		1.41	0.008		6.81	7.82	3.4	810	0.88	0.28	0.11	0.31	29.3	3.9	3	1.22
D991758		0.07	0.968		57.1	2.22	1450	60	0.35	26.0	1.99	82.1	14.10	46.8	58	0.93
D991759		0.11	<0.005		0.04	7.42	2.8	790	1.01	0.05	1.70	0.04	27.2	4.1	18	0.35
D330451		0.98	<0.005		0.03	7.32	11.8	830	0.83	0.02	1.06	0.03	27.8	9.4	15	1.52
D330452		0.87	<0.005		0.02	6.68	7.2	90	0.41	0.02	5.49	0.04	13.25	16.4	6	0.50

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Cu	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOD	0.2	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
D991756		188.0	2.00	20.8	0.12	0.3	0.012	4.15	28.6	14.4	0.36	136	585	3.07	2.3	1.9
D991757		8380	1.63	14.55	0.12	4.4	0.025	3.09	13.5	10.9	0.08	449	1.92	3.59	5.0	1.9
D991758		4570	21.3	7.10	0.37	0.6	4.18	0.48	7.7	14.7	0.97	799	8.03	0.05	1.8	28.1
D991759		31.6	2.72	12.05	0.08	1.7	0.025	1.63	14.0	2.7	0.48	648	4.11	3.41	5.4	10.5
D330451		19.6	3.84	11.45	0.10	3.0	0.050	2.26	13.2	13.0	0.38	827	0.81	3.62	4.0	7.7
D330452		45.4	7.12	10.65	0.07	1.3	0.062	0.31	6.3	13.4	0.28	1365	0.82	4.85	1.6	9.1

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOD	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.02
D991756		700	12.4	97.3	0.040	0.96	0.07	1.7	1	0.7	876	0.13	0.07	3.62	0.184	0.44
D991757		260	25.9	56.9	<0.002	0.07	0.22	7.4	6	1.1	58.0	0.34	<0.05	3.74	0.176	0.29
D991758		320	4120	18.8	0.019	>10.0	178.0	4.5	130	16.7	80.8	0.13	0.23	1.30	0.078	12.00
D991759		390	4.3	35.2	<0.002	0.03	0.37	6.4	<1	2.0	203	0.39	<0.05	2.64	0.185	0.14
D330451		650	5.1	41.3	<0.002	0.01	0.76	15.8	<1	0.9	138.5	0.27	<0.05	2.83	0.306	0.17
D330452		770	2.6	3.6	<0.002	<0.01	0.25	30.8	<1	0.5	72.4	0.09	<0.05	0.66	0.557	0.03

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Ag-OG62	Cu-OG62	Pb-OG62	Zn-OG62
	Analyte	U	V	W	Y	Zn	Zr	Ag	Cu	Pb	Zn
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
	LOD	0.1	1	0.1	0.1	2	0.5	1	0.001	0.001	0.001
D991756		1.5	36	9.8	3.9	27	5.1				
D991757		1.8	50	0.3	33.3	45	177.5				
D991758		1.7	67	2.6	8.2	>10000	26.3				1.385
D991759		1.2	33	0.5	16.2	41	54.5				
D330451		1.3	78	0.3	25.4	71	117.5				
D330452		0.5	404	0.5	17.1	65	52.1				

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: TRIPOINT GEOLOGICAL SERVICES
2770 LEIGH RD #148
VICTORIA BC V9B 4G1

Finalized Date: 25-OCT-2022
Account: TRIPGEO

Project: Serb Creek

CERTIFICATE OF ANALYSIS KL22254698

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: REEs may not be totally soluble in this method.
ME-MS61

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Kamloops located at 2953 Shuswap Drive, Kamloops, BC, Canada.

CRU-31	CRU-QC	DISP-01	LOG-21
LOG-23	PUL-31	PUL-QC	SPL-21
WEI-21			

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Ag-OG62	Au-AA23	Au-GRA21	Cu-OG62
ME-MS61	ME-OG62	Pb-OG62	Zn-OG62

APPENDIX B-FIELD REPORT FROM TRIPOINT GEOLOGICAL SERVICES

Post-Field Report

on the

SERB CREEK PROPERTY

2022 SAMPLING PROGRAM

August 28th – September 1st, 2022

for

Richard Billingsley

11114 147A St.

Surrey, BC

V3R 3W2

prepared by

Georg Nussbaumer, M.Sc., P.Geo.

Tripoint Geological Services Ltd.

148-2770 Leigh Rd

Victoria, BC, Canada

on

September 15th, 2022

1. SUMMARY OF WORK COMPLETED

Between the dates of August 28th and September 1st, 2022, a crew from Tripoint Geological Services Ltd. conducted a field program of rock sampling on the Serb Creek, Stock and Forks Properties ("the Properties") for Mr. Richard Billingsley. The Serb Creek, Stock and Forks Properties are located within the Stikine Terrain, approximately 58 km west-southwest, 20 km west-southwest and 160 km northeast of Smithers, BC respectively. The crew mobilised to site on August 27th, spent 2 days prospecting at Serb Creek (August 28th & 29th), 2 days at Stock (August 30th & 31st) and 1 day at Forks (September 1st). Properties were accessed via helicopter from Smithers, BC (Serb Creek & Stock properties with Canadian Helicopters) and Houston, BC (Forks property with Westland Helicopters).

The 2022 Field Program consisted of rock sampling. In total, 42 rock samples were collected. Samples were sent to the ALS Prep Lab in Kamloops, BC.

The main target areas of the 2022 field program included 4 priority areas at Serb Creek which contained some or all of the following: magnetic low anomalies, molybdenum soil anomalies, molybdenum veins and/or historical drillholes. At the Stock property, the 3 priority areas included the Stock and Table showings and an area of anomalous Copper mineralization located south of the Stock showing. The Forks property included 5 priority targets which were the Forks showing, Falls showing, a magnetic low in the northwest of the claim, the East Creek showing and Third showing.

SUMMARY OF ON-SITE PERSONNEL

A total of five Tripoint personnel were on site throughout the program. See table 1 for a breakdown of roles and dates.

NAME	ROLE	DATES
Georg Nussbaumer	Project Geologist (lead)	August 26 – September 1, 2022
Victor Pospelov	Exploration Geologist	August 27 – August 31, 2022
Julia Walker	Junior Geologist	August 27 – August 31, 2022
Gareth King	Field Assistant	August 27 – August 31, 2022
Michael Brinton	Project Geologist	September 1, 2022

Table 1. Tripoint personnel on site for Serb Creek field program

2. SUMMARY OF TENURES

Claims worked on included the following:

Serb Creek

1097149, 1095235, 1080692, 1097139

Stock

1097141, 1097142, 1085154, 1085153, 1061014

Forks

1059890, 1084857

3. SUMMARY OF FIELD WORK

Between the dates of August 27th and September 1st, a total of five days were spent in the field on the Serb Creek, Stock and Forks properties. Detailed descriptions of findings, and priority areas can be found below. See figures 1, 2 and 3 for a property wide overview of field work conducted at the three properties.

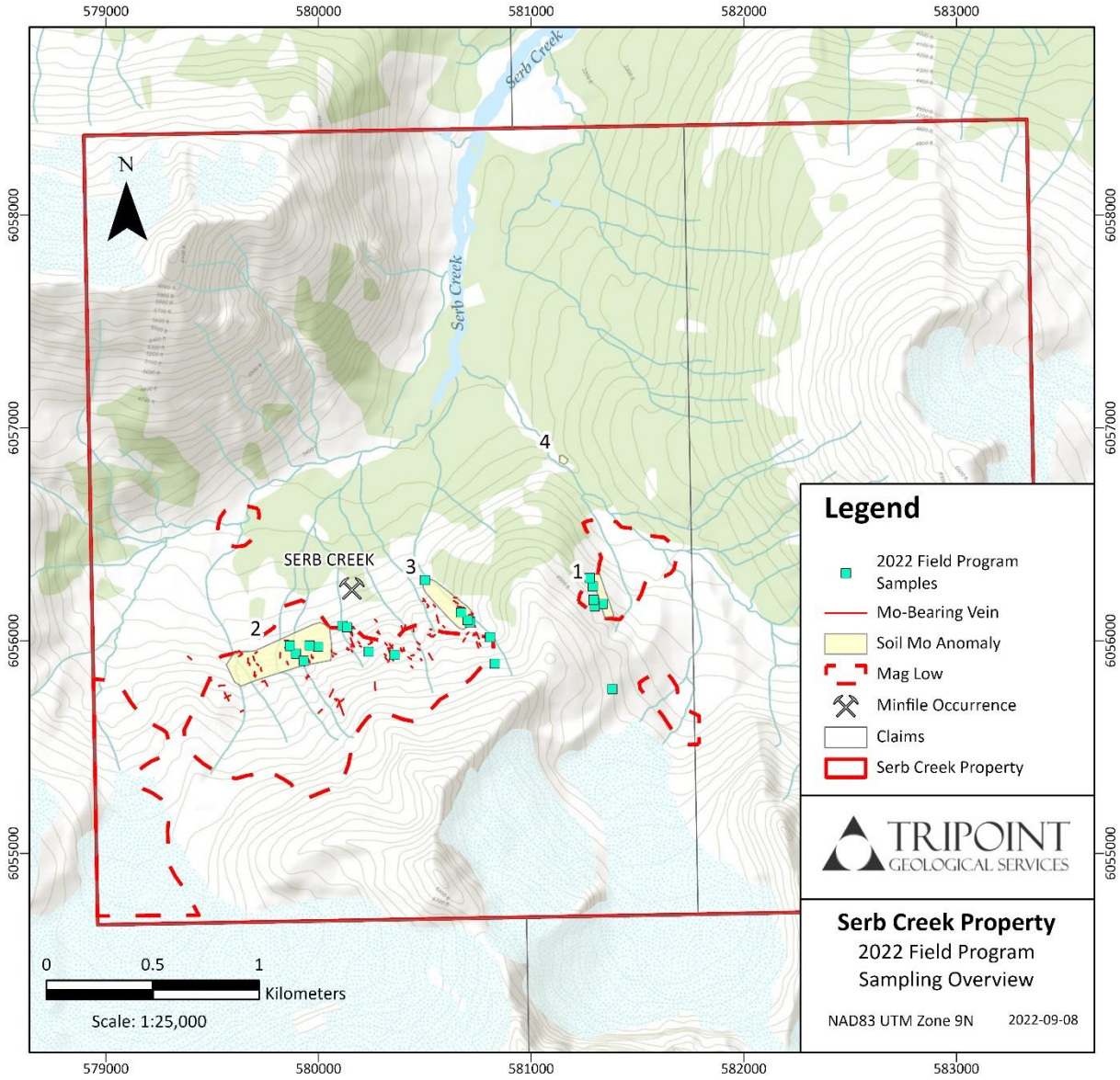


Figure 1. Serb Creek Property overview with 2022 sample locations and priority targets

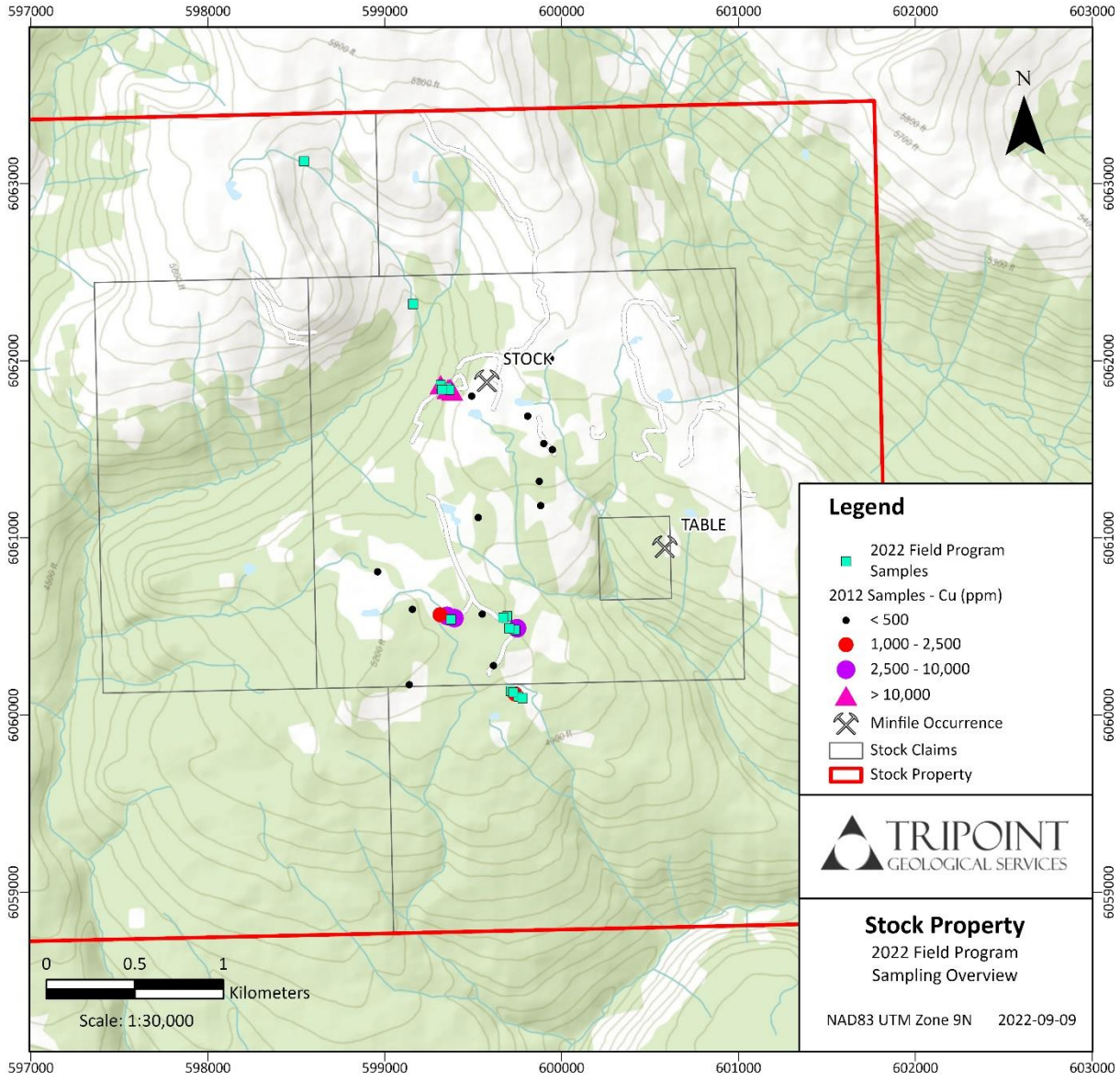


Figure 2. Stock Property overview with 2022 & 2012 sample locations and priority targets

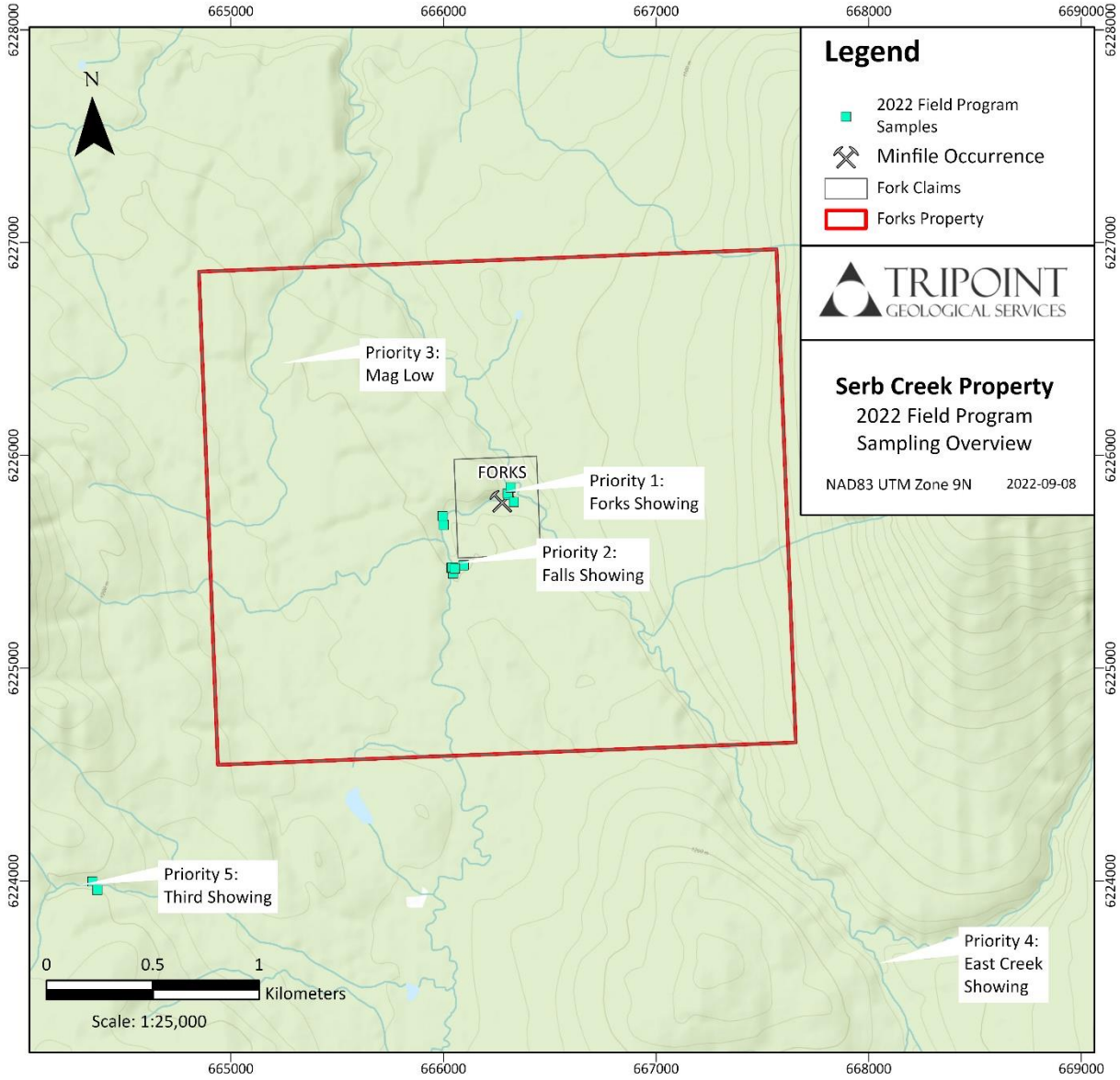


Figure 3. Forks Property overview with 2022 sample locations and priority targets

3.1 ROCK SAMPLING

A total of 42 rock samples were collected during the 2022 field program. Rocks were placed in poly ore bags and secured with a zip tie for transport back to camp.

Descriptions of lithology, alteration, mineralization, and structures of rock samples are detailed under each zone in section 3.2.

3.2 Serb Creek Targets

Work during the 2022 field program focused on four soil Mo anomalies which mostly correspond to magnetic lows. Many of these zones also contained historic drill holes and previously mapped molybdenite veins.

3.2.1 Serb Creek

The Serb Creek area, consisting of four soil Molybdenum anomalies, was the focus of the 2022 field program. In total, 18 rock samples, 4 mapping notes and 2 historic drill collars were collected over 2 field days (Figure 4).

Rock sampling focused on soil Mo anomalous targets 1 through 3. Soil Mo Anomaly 1 is located on steep northeast facing slopes above Morraine Creek. Area 1 rocks were pink-grey phaneritic massive granodiorites to quartz monzonites with strong red orange oxidation and disseminated and fracture coated pyrite. Veinlets throughout these rocks were generally associated with pyrite-epidote-chlorite alteration.

Soil Mo Anomaly 2 is located on steep north facing slopes cut by several drainages. Area 2 rocks were pink-grey aplitic monzonites with strong red orange oxidation and associated banded molybdenite-pyrite veinlets. 2 historic drill sites were documented in two separate drainages within this area. Only the eastern half of this anomaly was covered.

Soil Mo Anomaly 3 is located within a northwest flowing drainage on moderate slopes. Area 3 rocks were white-grey granodiorites with strong red orange oxidation with pyrite veinlets and pyrite disseminations throughout. Molybdenite was locally abundant on fracture surfaces. No nearby diamond drill sites were located in the area.

Area 4 was not visited during the 2022 program due to weather and time constraints.

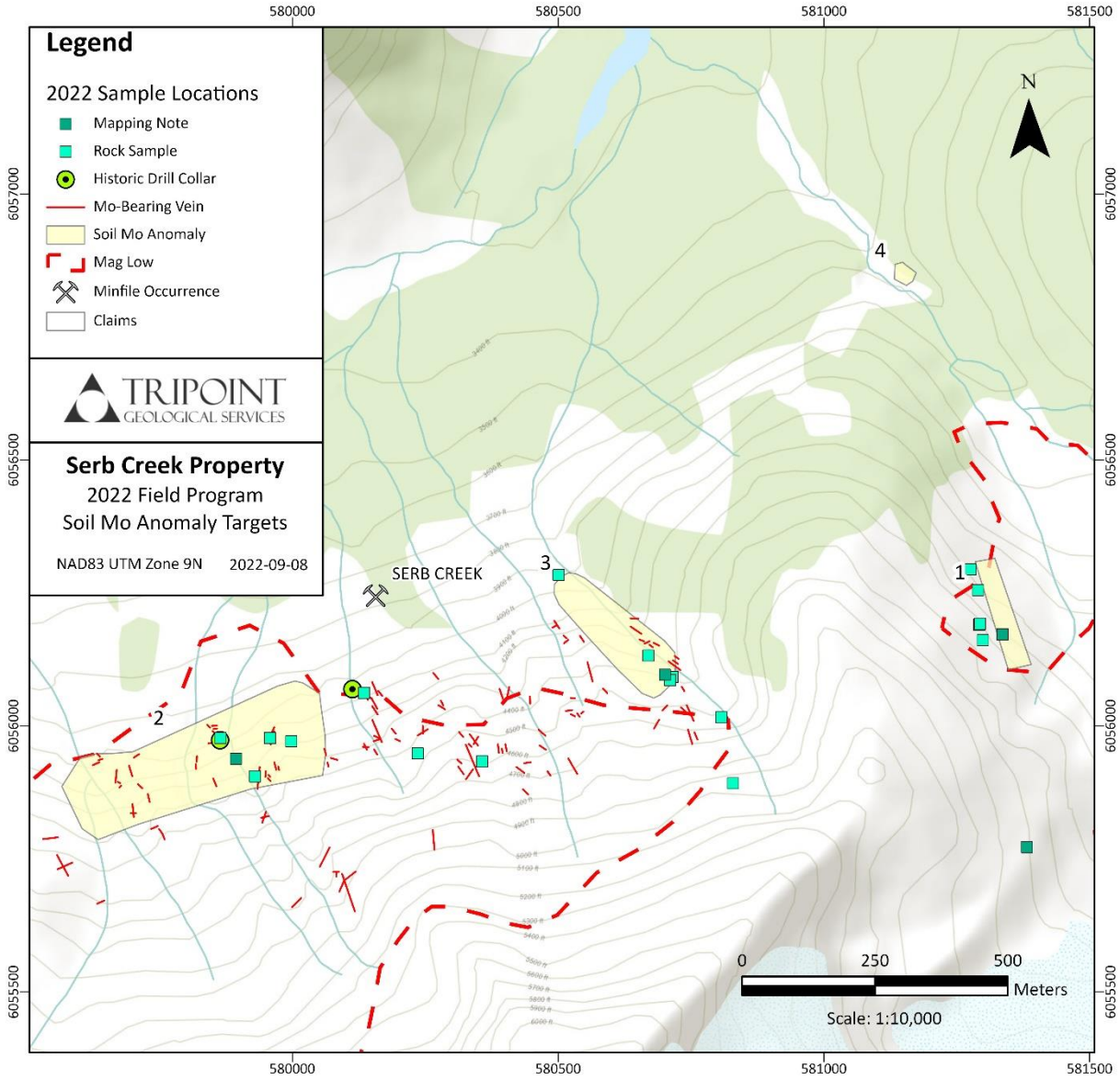


Figure 4. Overview of work conducted in the Serb Creek soil Mo anomalous zones



Figure 5. Soil Mo Anomaly 1 Left: Soil Mo Anomaly 1 from the helicopter. Right: 22-GN-003 (D991803); Semi-massive to massive py in pink-grey phaneritic massive granodiorite, very strong Fe-ox.



Figure 6. Soil Mo Anomaly 2 Left: 22-GN-012d; Historic diamond drill hole (azimuth 240°, inclination 10°). Right: 22-GN-013 (D991812); 2cm banded qtuartz-molybdenite-pyrite vein (dip/dip direction 80°/340°).



Figure 7. Soil Mo Anomaly 3 Left: Approaching Soil Mo Anomaly 2 from above. Right: 22-VP-002 (D991752); Granodiorite. Red-orange weathering/oxidation, white-grey fresh. Pyrite vlts + fracture coating throughout, mo on fracture surfaces. Ca. 10mm qtz vlts throughout.

3.3 Stock Property Targets

Working during the 2022 program focused on the Stock and Table mineral occurrences. 13 rock samples were collected, and 1 drill hole location recorded. The nominal position of the Table Showing on Minfile is incorrect as it was groundtruthed during this program and further confirmed by Beck & Ledwon (2012) in Assessment Report 34037. Sampling was conducted over 2 field days and covered the Stock and Table Showings as well as Leach Mountain and another showing south of Table.

3.3.1 Stock Showing

A total of 4 samples were collected at the Stock Showing mostly along the NE-SW oriented trench. Mineralization consisted of quartz-carbonate-chalcocite veinlets with strong malachite-azurite fracture coating hosted in a tuffaceous andesite. The host rock proximal to the mineralization has a bleached appearance and rock is intensely oxidized red orange. The mineralized zone is bound to the southwest by the start of the trench and extends down slope approximately 60m before the outcrop terminates. The showing is approximately 10m wide as appears in Figure 9. A sample was taken outside the mineralized zone to the south to get an idea of grade outside the main zone.

2 samples were collected down a drainage off Leach Mountain to the north of the Stock Showing. Intense oxidation as seen from the helicopter looked promising. The rocks were lapilli to bomb tuffs with no visible mineralization with a chloritized matrix.

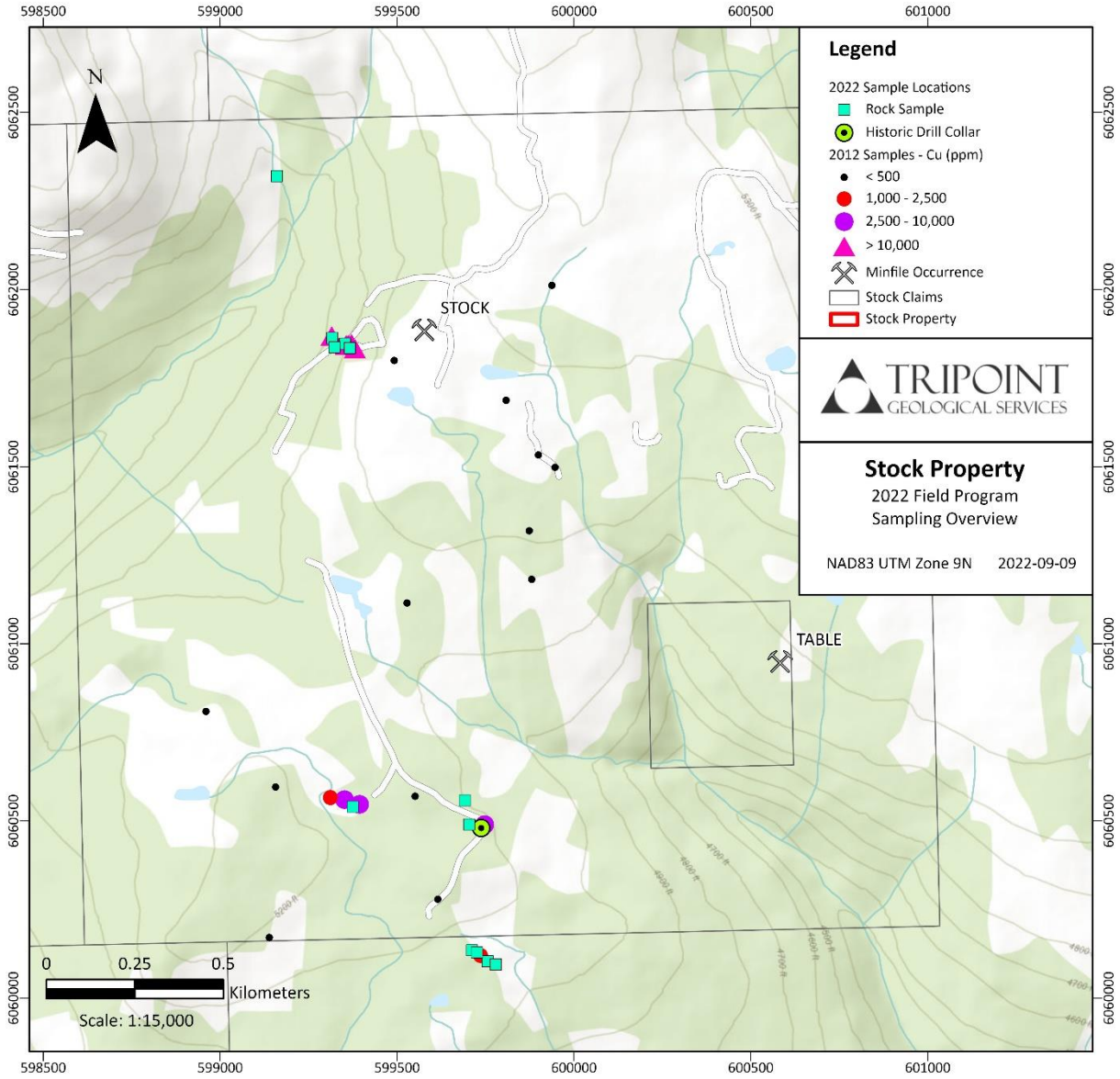


Figure 8. Overview of work conducted in the Stock, Table and Table South Showings



Figure 9. Left: Stock Showing with trench on the left. Right: 22-GN-018 (D991817); Duplicated sample from 2012. Malachite-azurite fracture coating in 1-2m wide min zone hosted in red-orange Fe-ox volcaniclastic. 1-2cm quartz-calcite veinlets throughout.

3.3.2 Table Showing

3 samples were collected, and 1 historic drill hole location was recorded at the Table showing. Mineralization consisted of a mm-scale quartz vein array between silicious “cherty” volcanics which contain moderate malachite staining on fractures. The veins dip 45° towards 120°. The historic drill hole was inclined 40° with an azimuth of 030°. The area is heavily disturbed and there appears to be a trench running WNW-ESE to the East of the historic drill site.



Figure 10. Left: 22-GN-017d; Historic drill hole at Table Showing (azimuth 030°/inclination -40°), view towards Leach Mountain. Right: 22-GN-017 (D991816); mm-scale parallel quartz vein array with minor malachite staining on fractures (dip/dip dir. 45°/120°) hosted in silicious volcanics.

3.3.3 Table South Showing

4 rock samples were collected at the Table South Showing which returned a noteworthy sample in 2012 (Sample 24, 0.24% Cu). Mineralization was extended approximately 80 m oriented NW-SE, the outcrop is bound to the NE by a NW-SE fault. The mineralization is distinctly different from that of the Table Showing. Mineralization is hosted in a brecciated lapilli tuff with moderate oxidation which contains azurite-malachite staining on fracture surfaces. Proximal to the secondary copper mineralization the rock appears bleached and is peach pink in colour. Quartz-carbonate veinlets run throughout this zone.



Figure 11. Left: Table South Showing. Right: 22-GN-022 (D991821); Extension of mineralization along outcrop to the Southeast. Strong azurite-malachite staining. Quartz-breccia hosted in crystal tuff. Different mineralization-style from Table Showing.

3.4 Forks Property Targets

A single day was spent on 5 priority targets for the 2022 program: Forks, Falls, a magnetic low, East Creek and Third Showings. Due to the limited time and large distance from Houston, BC we were only able to visit the Forks, Falls and Third Showings. A total of 10 samples were collected across the showings and 3 historic drill hole locations recorded. A more extensive drilling and prospecting program was completed by Imperial Metals on the property in 2007.

3.4.1 Forks Showing

3 rock samples were collected, and 1 historic drill hole recorded at the Forks Showing. Mineralization consisted of a 1 m wide quartz breccia with galena-chalcopyrite-pyrite and local malachite staining hosted in a tuffaceous volcanic. The breccia is dipping 50° towards 043° and is cut off to the south by a fold axis trending 128° and plunging 03° which in turn is cut off by a 1.5 m fault zone dipping 75° towards 065°. Alteration appears limited to intense hematization in the vicinity of the breccia. The breccia was not observed farther down stream or on the other side of the stream.

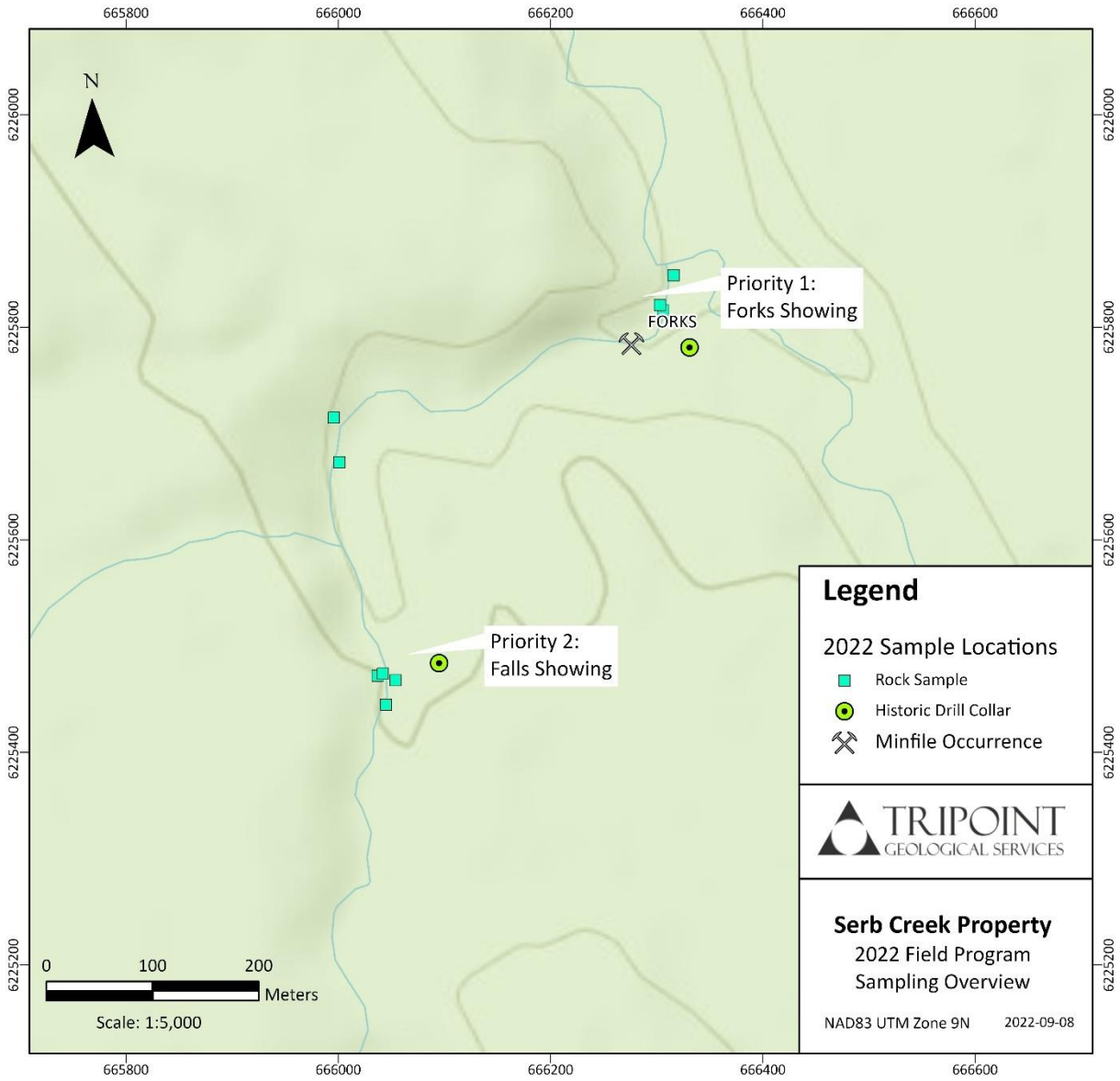


Figure 12. Overview of work conducted at the Falls and Forks Showings



Figure 13. Left: 22-GN-033 (D991834); Fault (right, 75/065 dip/dip dir.) cuts fold axis (trending 128, plunging 03). Qtz-breccia (far left) cut off by fold axis. Right: 22-GN-032 (D991833); Qtz-breccia with gn-cpy-py min., local mal staining.

3.4.2 Falls Showing

At the Falls Showing 6 samples were collected and 1 historic drill hole was recorded. The mineralization consists of a 30 cm wide quartz breccia in an indistinguishable intensely hematized volcanic with local semi-massive chalcopyrite-pyrite and malachite fracture coating. Outwards up to 1 m a hematite-carbonate-malachite alteration zone exists. The breccia is dipping 50 towards 063. The breccia was followed for approximately 20m near the top of the falls and down stream along the creek until there was no more outcrop. There was no evidence of the breccia continuing further down stream or across the creek.



Figure 14. Left: 22-GN-029; 30 cm wide vuggy quartz breccia in hematite replaced rock, elongate-rounded mm-scale cpy min, hem-cpy-mal fracture coating. Hem-carb-mal alteration 1 m outwards of breccia. Dipping -50, dip direction 063. Right: Falls at Falls Showing.

3.4.3 Third Showing

A single rock sample was collected from the Third Showing and one historic drill hole recorded. Roste (2007) describes the Third showing as a 10 by 10 m outcrop of malachite-stained andesite porphyry (ARIS 29982). The sample collected (D991836) consisted of mm-scale quartz-carbonate veinlets at multiple orientations with moderate malachite staining on fractures. The drillhole likely corresponds to FC-07-03 which was drilled at -60 towards 320 down to a depth of 264.26m. Drill results did not reflect the kind of copper mineralization seen at surface.



Figure 15. Left: 22-GN-035 (D991836); Mm-scale quartz-carbonate veinlets at multiple orientations. Moderate malachite staining on fractures. Tectonic breccia. Right: Third Showing.

4. CONCLUSIONS

Rock sampling during the 2022 field season focused on four soil Mo anomalies/magnetic lows at Serb Creek. The field crew was able to cover three of the four areas. Future work should involve alteration mapping of the anomalous zones as well as more time spent prospecting the west of anomaly 2 and looking for continuity of the “pyrite ring” at anomaly 4. Historic diamond drill sites should be documented.

Rock sampling at the Stock Property focused on the Table and Stock showings. Pending positive geochemical results, the Table South zone should be revisited and if possible extended to the northwest and southeast. The Leach Mountain area should be looked at in greater detail. The Stock and Table Showings have been extensively covered and appear narrow. Further research into past exploration should reveal whether they warrant further exploration.

The Forks, Falls and Third Showing were prospected during this exploration program. It is the opinion of this author that no further exploration in these areas take place as they were extensively covered by Imperial Metals in 2007 and mineralization appears to be limited to narrow shears with only local alteration footprints. Furthermore, outcrop is limited to areas along creeks as the property is below treeline and has only moderate relief.

Of the properties visited Serb Creek has the highest potential and warrants exploration in the future.

5. RECOMMENDATIONS

The following recommendations are based on preliminary geological observations and will be revised once quantitative results are received from rock samples.

Serb Creek

The four Soil Mo Anomalous areas should be prospected in greater detail. At least one day should be spent on the western side of anomaly 2 and another day at anomaly 4 to test the continuity of the "pyrite ring." Alteration mapping should be completed covering all four soil Mo anomalous zones in the alpine. Pending positive results from this exploration program, drilling should be completed above historic drill sites.

Stock Property

The Stock and Table Showings have been extensively sampled. Pending positive results from this year's exploration program the Table South Showing should be revisited and extended if possible. Furthermore, the extent of the alteration footprint of this showing should be focused on. The Leach Mountain area is underexplored and at least 1 or 2 days should be spent prospecting the area.

Falls Property

No further exploration is recommended.

APPENDIX C- PRECISION GEOSURVEYS OPERATIONS REPORT

Precision GeoSurveys

AIRBORNE GEOPHYSICAL SURVEY REPORT



Serb Creek East and West

Smithers, British Columbia

Richard Billingsley

Precision GeoSurveys Inc.

BC Permit to Practice 1002615

www.precisiongeosurveys.com

Hangar 42 Langley Airport

21330 - 56th Ave., Langley, BC

Canada V2Y 0E5

604-484-9402

Jen Hanlon, M.Sc., P.Geo.

October 2022

Job# 22191

Table of Contents

Table of Contents i

1.0 Introduction 1

1.1 Survey Area 1
1.2 Survey Specifications 5

2.0 Geophysical Data 5

2.1 Magnetic Data 5
2.2 Radiometric Data 6

3.0 Aircraft and Equipment 7

3.1 Aircraft 8
3.2 Geophysical Equipment 8
3.2.1 IMPAC 8
3.2.2 GPS Navigation System 10
3.2.3 Pilot Guidance Unit 10
3.2.4 Laser Altimeter 11
3.2.5 Magnetometer 12
3.2.6 Fluxgate Magnetometer 12
3.2.7 Magnetic Base Station 13
3.2.8 Spectrometer 13

4.0 Survey Operations 14

4.1 Operations Base and Crew 14
4.2 Magnetic Base Station Specifications 14
4.3 Field Processing and Quality Control 15

5.0 Data Acquisition Equipment Checks 17

5.1 Laser Altimeter Calibration 17
5.2 Lag Test 17
5.3 Magnetometer Tests 18
5.3.1 Compensation Flight Test 18
5.3.2 Heading Correction Test 18
5.4 Gamma-ray Spectrometer Tests and Calibrations 19
5.4.1 Calibration Pad Test 19
5.4.2 Cosmic Flight Test 19
5.4.3 Altitude Correction and Sensitivity Test 20

6.0 Data Processing 20

6.1 Position Corrections 20
6.1.1 Lag Correction 20
6.2 Flight Height and Digital Terrain Model 22
6.3 Magnetic Processing 22
6.3.1 Flight Compensation 22
6.3.2 Temporal Variation Correction 22
6.3.3 Heading Correction 23
6.3.4 IGRF Removal 23

6.3.5 Leveling and Micro-leveling 23
6.3.6 Reduction to Magnetic Pole 24
6.3.7 Horizontal Gradient 24
6.3.8 Calculation of Vertical Gradient 25
6.3.9 Analytic Signal 25
6.4 Radiometric Processing 25
6.4.1 Calculation of Effective Height 26
6.4.2 Aircraft and Cosmic Background Corrections 26
6.4.3 Radon Background Correction 26
6.4.4 Compton Stripping 27
6.4.5 Attenuation Corrections 28
6.4.6 Conversion to Apparent Radioelement Concentrations 28
6.4.7 Radiometric Ratios 29
6.4.8 Ternary Radioelement Image Map 29
7.0 Deliverables 29
7.1 Digital Data 29
7.1.1 Grids 30
7.2 KMZ 31
7.3 Maps 31
7.4 Report 31
8.0 Conclusions and Recommendations 32

List of Figures

Figure 1: Serb Creek survey area located in west-central British Columbia.....1
Figure 2: Serb Creek survey blocks 65 km northeast of Terrace, British Columbia. 2
Figure 3: Plan View – survey blocks with actual flight lines.....3
Figure 4: Terrain View – survey blocks with actual flight lines 4
Figure 5: Typical natural gamma spectrum showing the three spectral windows.....7
Figure 6: Survey helicopter equipped with a magnetic sensor for magnetic data acquisition.....8
Figure 7: IMPAC data acquisition system.....9
Figure 8: AGIS operator display.....9
Figure 9: Hemisphere R330 GPS receiver.....10
Figure 10: PGU screen displaying navigation information.....11
Figure 11: Opti-Logic RS800 Rangefinder laser altimeter. 11
Figure 12: Scintrex CS-3 cesium vapor magnetometer. 12
Figure 13: Billingsley TFM100G2 triaxial fluxgate magnetometer. 12
Figure 14: GEM GSM-19T proton precession magnetometer. 13
Figure 15: AGRS-2 gamma spectrometer system 14
Figure 16: Location of GEM 6 magnetic base station 15
Figure 17: Histogram showing survey elevation vertically above ground. 16
Figure 18: Histogram showing magnetic sample density.....16
Figure 19: Histogram showing cross track error of survey helicopter. 17
Figure 20: Magnetic and radiometric data processing flow. 21

List of Tables

Table 1: Survey flight line specifications. 5
Table 2: List of survey crew members.....14
Table 3: Magnetic base station locations.....15
Table 4: Contract survey specifications.....16
Table 5: Survey lag correction values.....17
Table 6: Results of compensation flight.....18
Table 7: Magnetic sensor heading corrections. 19

List of Appendices

Appendix A: Polygon Coordinates
Appendix B: Equipment Specifications
Appendix C: Radiometric Correction Coefficients
Appendix D: Digital File Descriptions

List of Serb Creek East Survey Block Plates

Plate 1: Serb Creek East – Actual Flight Lines (FL)
Plate 2: Serb Creek East – Digital Terrain Model (DTM)
Plate 3: Serb Creek East – Total Magnetic Intensity with Actual Flight Lines (TMI_wFL)
Plate 4: Serb Creek East – Total Magnetic Intensity (TMI)
Plate 5: Serb Creek East – Residual Magnetic Intensity (RMI)
Plate 6: Serb Creek East – Reduced to Magnetic Pole (RTP) of RMI
Plate 7: Serb Creek East – Calculated Horizontal Gradient (CHG) of RMI
Plate 8: Serb Creek East – Calculated Vertical Gradient (CVG) of RMI
Plate 9: Serb Creek East – Analytic Signal (AS) of RMI
Plate 10: Serb Creek East – Potassium - Percentage (%K)
Plate 11: Serb Creek East – Thorium - Equivalent Concentration (eTh)
Plate 12: Serb Creek East – Uranium - Equivalent Concentration (eU)
Plate 13: Serb Creek East – Total Count (TC)
Plate 14: Serb Creek East – Total Count - Exposure Rate (TCexp)
Plate 15: Serb Creek East – Potassium over Thorium Ratio (%K/eTh)
Plate 16: Serb Creek East – Potassium over Uranium Ratio (%K/eU)
Plate 17: Serb Creek East – Thorium over Uranium Ratio (eTh/eU)
Plate 18: Serb Creek East – Ternary Image (TI)

List of Serb Creek West Survey Block Plates

Plate 1: Serb Creek West – Actual Flight Lines (FL)
Plate 2: Serb Creek West – Digital Terrain Model (DTM)
Plate 3: Serb Creek West – Total Magnetic Intensity with Actual Flight Lines (TMI_wFL)
Plate 4: Serb Creek West – Total Magnetic Intensity (TMI)
Plate 5: Serb Creek West – Residual Magnetic Intensity (RMI)
Plate 6: Serb Creek West – Reduced to Magnetic Pole (RTP) of RMI
Plate 7: Serb Creek West – Calculated Horizontal Gradient (CHG) of RMI
Plate 8: Serb Creek West – Calculated Vertical Gradient (CVG) of RMI
Plate 9: Serb Creek West – Analytic Signal (AS) of RMI
Plate 10: Serb Creek West – Potassium - Percentage (%K)
Plate 11: Serb Creek West – Thorium - Equivalent Concentration (eTh)
Plate 12: Serb Creek West – Uranium - Equivalent Concentration (eU)
Plate 13: Serb Creek West – Total Count (TC)
Plate 14: Serb Creek West – Total Count - Exposure Rate (TCexp)
Plate 15: Serb Creek West – Potassium over Thorium Ratio (%K/eTh)
Plate 16: Serb Creek West – Potassium over Uranium Ratio (%K/eU)
Plate 17: Serb Creek West – Thorium over Uranium Ratio (eTh/eU)
Plate 18: Serb Creek West – Ternary Image (TI)

1.0 Introduction

This report describes the high-resolution helicopter-borne magnetic and radiometric surveys completed at the Serb Creek East and West survey blocks for Mr. Richard Billingsley. The Serb Creek survey area is in west-central British Columbia (Figure 1). The surveys were flown from September 2 to September 9, 2022.



Figure 1: Serb Creek survey area located in west-central British Columbia.

1.1 Survey Area

The Serb Creek East and West survey blocks are centered approximately 65 km northeast of Terrace and 30 km southwest of Smithers, British Columbia (Figure 2).

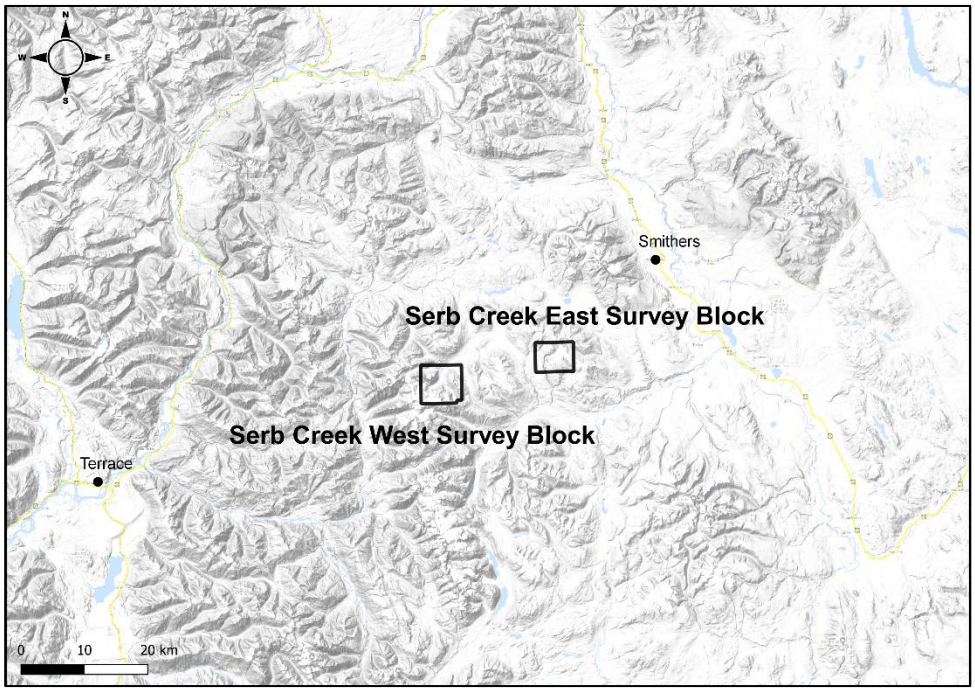


Figure 2: Serb Creek East and West survey blocks are 65 km northeast of Terrace and 30 km southwest of Smithers, British Columbia.

The Serb Creek East and West survey blocks were flown at 100 m line spacing at a heading of 179°/359°; tie lines were flown at 1000 m spacing at a heading of 089°/269° (Figures 3 and 4).

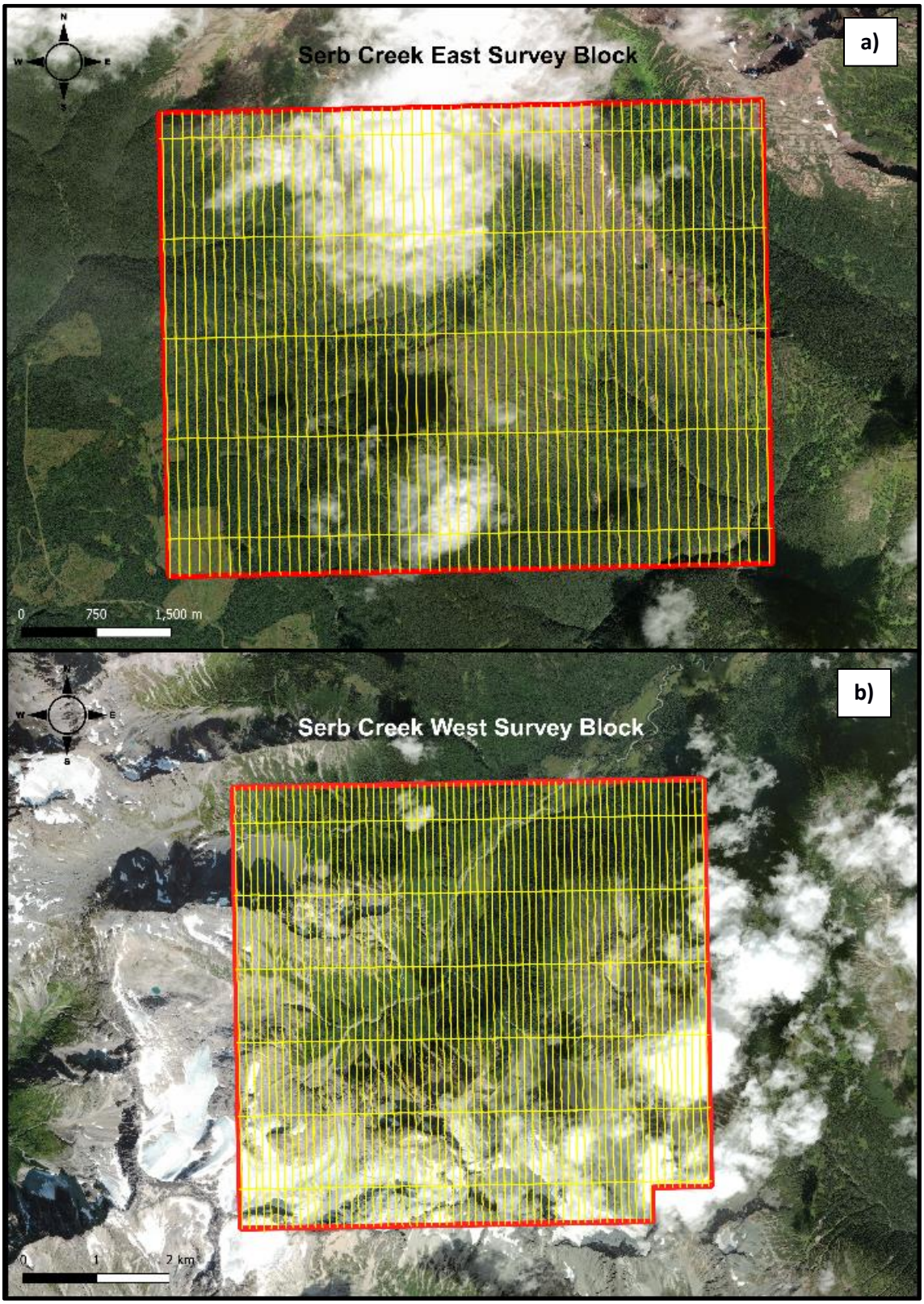


Figure 3: Plan View – Serb Creek survey blocks with actual flight lines in yellow and survey block boundary in red. a) East and b) West.

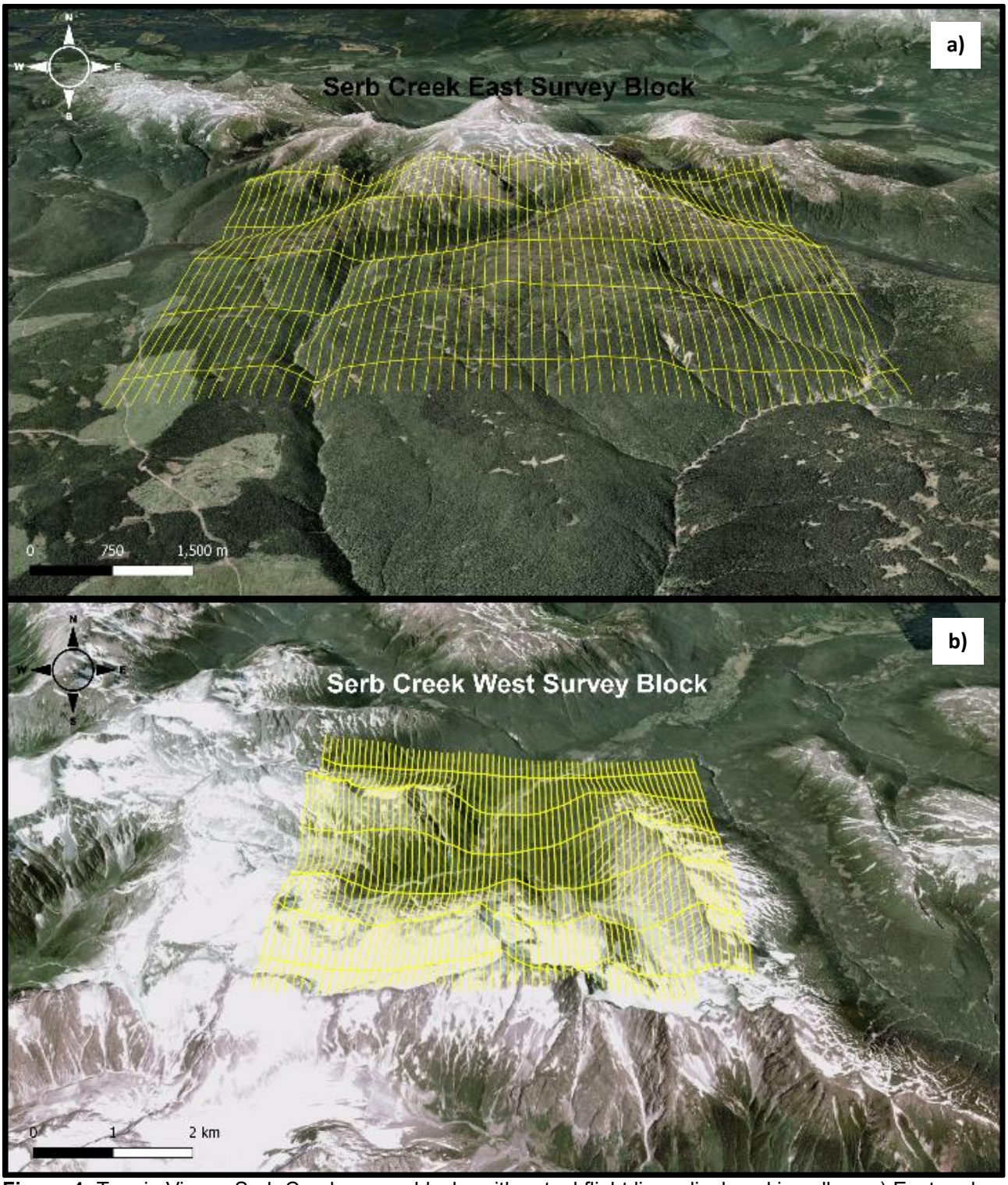


Figure 4: Terrain View – Serb Creek survey blocks with actual flight lines displayed in yellow. a) East and b) West.

1.2 Survey Specifications

The geodetic system used for the Serb Creek geophysical surveys was WGS 84 in UTM Zone 9N. A total of 745 line km was flown over two separate blocks with a combined area of 66.5 km^2 (Table 1). This total includes 4 km of data retained from partial flight lines flown outside the Serb Creek West survey block margins for survey efficiency. Polygon coordinates for the Serb Creek East and West survey blocks are specified in Appendix A.

Serb Creek Survey Block	Area (km^2)	Line Type	Line Orientation (UTM grid)	Line Spacing (m)	No. of Lines Planned	No. of Lines Completed	Total Planned Line km	Total Actual km Flown
East	28.0	Survey	179°/359°	100	61	61	283	283
		Tie	089°/269°	1000	5	5	30	30
		Total:			**66**	**66**	**313**	**313**
West	38.5	Survey	179°/359°	100	65	65	389	393
		Tie	089°/269°	1000	6	6	39	39
		Total:			**71**	**71**	**428**	**432**
TOTAL:	**66.5**				**137**	**137**	**741**	**745**

Table 1: Survey flight line specifications.

2.0 Geophysical Data

Geophysical data are collected in a variety of ways and are used for many purposes including aiding in geological mapping, mineral exploration, oil and gas exploration, geotechnical investigations, contaminated land site studies, and UXO (unexploded ordnance) detection.

For the purposes of this survey, airborne magnetic and radiometric data were collected to serve in geological mapping and exploration for mineral deposits.

2.1 Magnetic Data

Magnetic surveying is the most common airborne geophysical technology used for both mineral and hydrocarbon exploration. Aeromagnetic surveys record the intensity of the total magnetic field, measured at a magnetometer sensor that is fixed to the aircraft. The total magnetic field is comprised of the desired geomagnetic field in combination with undesired influences from varying solar wind and the aircraft's inherent magnetic field. Subtracting the undesired magnetic effects from the total field results in aeromagnetic maps that show the spatial distribution and relative abundance of magnetic minerals - most commonly the iron oxide mineral magnetite - in the upper levels of Earth's crust. These results, in turn, can then be related to geological attributes such as lithology, structure, and alteration of bedrock. Survey specifications, instrumentation, and interpretation procedures depend on the individual objectives of each survey. Magnetic surveys are typically performed for:

- Geological Mapping – to aid in mapping lithology, structure, and alteration.
- Identification of variations in ferromagnetic response directly or indirectly related to mineral deposits.
- Depth to Basement Mapping – for exploration in sedimentary basins or mineralization associated with the basement surface.

2.2 Radiometric Data

Radiometric surveys measure radioactive emanations called gamma rays to determine concentrations of the naturally occurring radioelements uranium (U), thorium (Th), and potassium (K) in surface rocks and soils. Mapping the distribution and concentration of radioelements is useful for:

- Determining different lithologies based on characteristic radioelement geochemistry, either absolute or relative. For example, natural radioactivity of igneous rocks generally increases with SiO_2 content.
- Identification of hydrothermal alteration. For example, individual radioelements follow very different pathways of evolution during alteration of rocks, particularly potassic enrichments.
- Exploration for valuable radioelements, in particular uranium, and exploration for mineral deposits associated with radioelements, such as rare earth elements.
- Providing insights into weathering. For example, clay minerals tend to fix the natural radioelements in near-surface environments.

Gamma rays are electromagnetic waves with frequencies between 10^{19} and 10^{21} Hz emitted spontaneously from an atomic nucleus during radioactive decay, in packets referred to as photons. The energy E transported by a photon is related to the wavelength λ or frequency ν by the formula:

$$E = h\nu = hc/\lambda$$

where: c is the velocity of light
h is Planck's constant (6.626×10^{-34} joule)

All detectable gamma radiation from Earth materials comes from the natural decay products of three primary radioelements: U, Th, and K. Each individual nuclear species (element) emits gamma rays at one or more specific energies, as shown in Figure 5. Of these elements, only potassium (^{40}K) emits gamma energy directly, at 1.46 MeV. Uranium (^{238}U) and thorium (^{232}Th) emit gamma rays through their respective decay series; ^{214}Bi at 1.76 MeV for uranium and ^{208}Tl at 2.61 MeV for thorium. Accordingly, the ^{214}Bi and ^{208}Tl measurements are considered

equivalents for uranium (eU) and thorium (eTh), as the daughter products will be in equilibrium under most natural conditions.

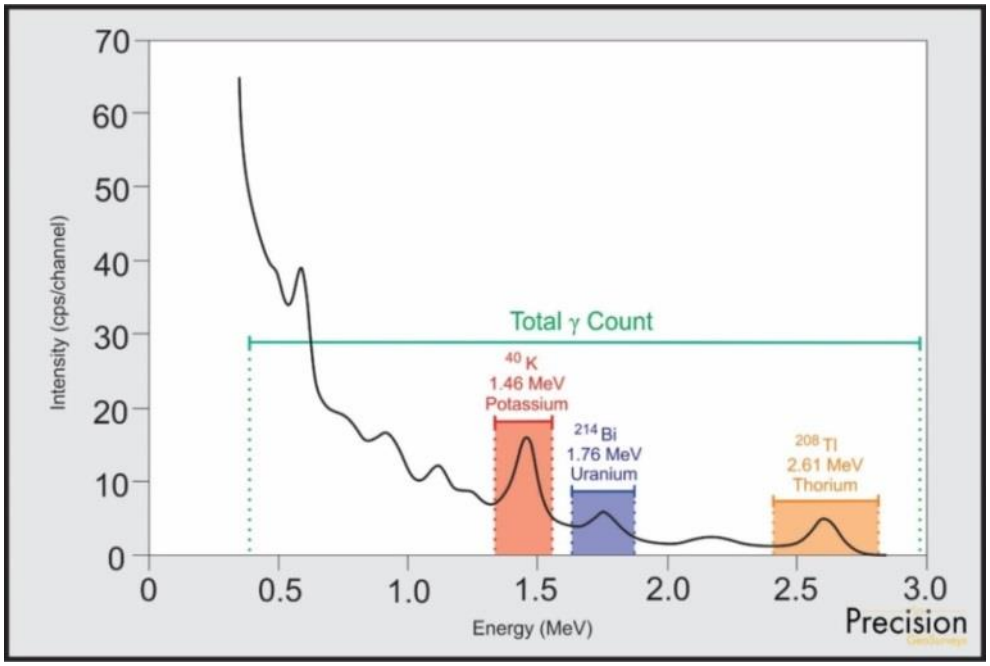


Figure 5: Typical natural gamma spectrum showing the three spectral windows (^{40}K 1.37-1.57 MeV, ^{214}Bi 1.66-1.86 MeV, ^{208}Tl 2.41-2.81 MeV) and total count (0.40-2.81 MeV) window.

Surficial debris, vegetation, standing water (lakes, marshes, swamps), ice, and snow can attenuate gamma rays originating from the underlying rocks. Therefore, surficial conditions must be evaluated before attributing variations in gamma counts to changes in the underlying geology. An increase in soil moisture can also significantly affect gamma radiation concentrations. For example, a 10% increase in soil moisture can decrease the measured gamma radiation by about the same amount. Radon isotopes are long-lived members of both the U and Th decay series and Ra mobility can influence radiometric surveys. In addition to being directly radioactive, ^{226}Ra and ^{222}Rn can attach to dust particles in the atmosphere. Precipitation of these radioactive dust particles by rain can lead to apparent increases of more than 2000% in uranium ground concentration (IAEA, 2003). Therefore, gamma data are typically not collected during a rainfall, or shortly after a rainfall.

3.0 Aircraft and Equipment

All geophysical and subsidiary equipment were carefully installed on an aircraft by Precision GeoSurveys to collect magnetic and radiometric data.

3.1 Aircraft

Precision GeoSurveys flew the survey using an Airbus AS350 helicopter, registration C-GOHK.

3.2 Geophysical Equipment

The survey aircraft (Figure 6) was equipped with a data acquisition system, GPS navigation system, pilot guidance unit (PGU), laser altimeter, cesium vapor magnetometer, fluxgate magnetometer, gamma ray spectrometer, barometer, and temperature/humidity probe. In addition, a magnetic base station was used to record temporal magnetic variations. Technical specifications for the geophysical equipment are provided in Appendix B.

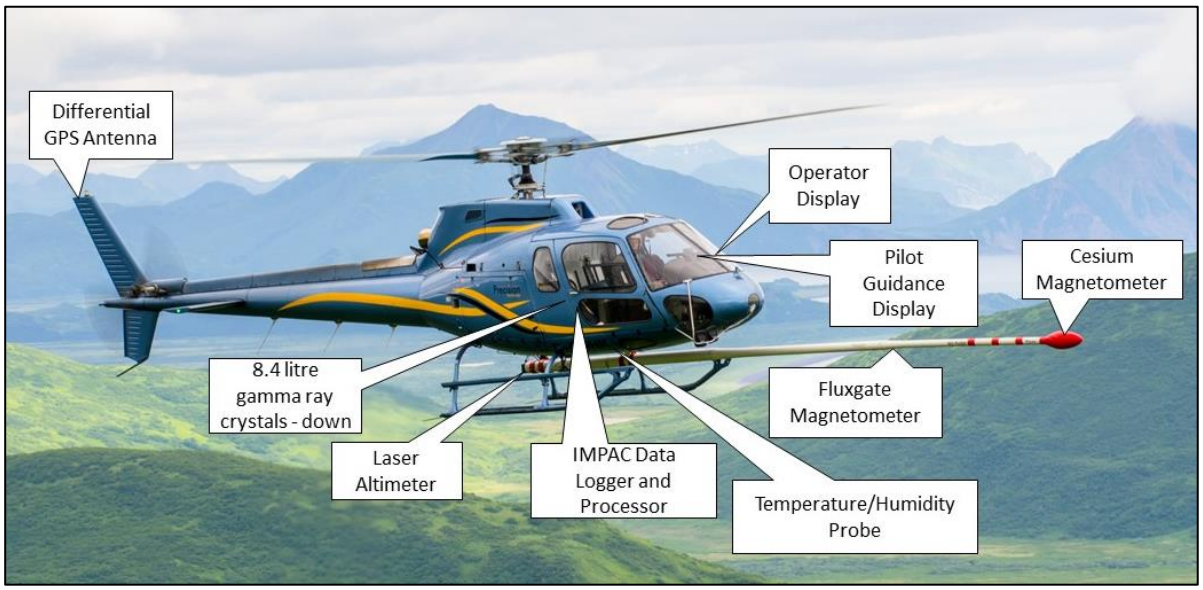


Figure 6: Survey helicopter equipped with a magnetic sensor for magnetic data acquisition and gamma ray spectrometer for radiometric measurements.

3.2.1 IMPAC

The Integrated Multi-Parameter Acquisition Console (IMPAC) (Figure 7), manufactured by Nuvia Dynamics Inc. (previously Pico Envirotec Inc.), is the main computer used in integrated data recording, data synchronizing, providing real-time quality control data for the geophysical operator display, and the generation of navigation information for the pilot and operator display systems.



Figure 7: IMPAC data acquisition system.

IMPAC uses the Microsoft Windows operating system and geophysical parameters are based on Nuvia's Airborne Geophysical Information System (AGIS) software. Depending on survey specifications, information such as magnetic field, electromagnetic response, total gamma count, differentiation of natural radioelements (K, U, Th, etc.), cosmic radiation, barometric pressure, atmospheric humidity, temperature, aircraft attitude, navigation parameters, and GPS status can all be monitored on the AGIS on-board display (Figure 8).

While in flight, raw magnetic response, magnetic fourth difference, compensated and uncompensated data, radiometric spectra, EM response, aircraft position, survey altitude, cross track error, and other parameters are recorded and can be viewed by the geophysical operator for immediate QC (quality control). Additional software allows for post or real time magnetic compensation and radiometric calibration.

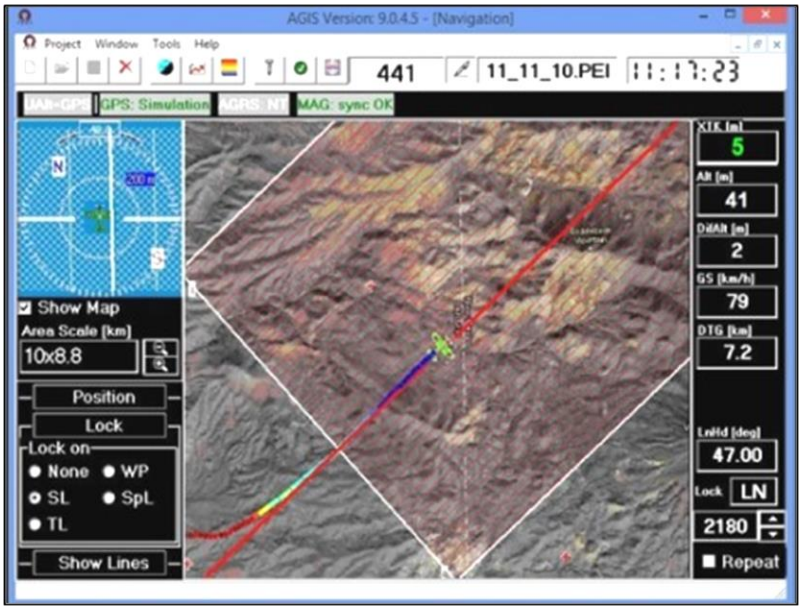


Figure 8: AGIS operator display showing real time flight line recording and navigation parameters. Additional windows display real-time geophysical data to operator.

3.2.2 GPS Navigation System

A Hemisphere R330 GPS receiver (Figure 9) and a Novatel GPS antenna on the tail of the aircraft integrated with the AGIS navigation system and pilot display (PGU) provide accurate navigational information and position control. The R330 GPS receiver supports fast updates at a rate of up to 10 Hz (10 times per second), delivering sub-meter positioning accuracy in three dimensions. It receives GNSS (GPS/GLONASS) L1 and L2 signals.

Differential correction methods including WAAS, L-Band, RTK, SBAS, and Beacon are supported by the R330. Innovative Hemisphere GPS Eclipse SureTrack technology allows the receiver to model the phase on satellites that the airborne unit is currently tracking. With SureTrack technology, dropouts are reduced and speed of the signal reacquisitions is increased, which enhances accurate positioning when base corrections are temporarily not available.



Figure 9: Hemisphere R330 GPS receiver.

3.2.3 Pilot Guidance Unit

Steering and elevation (ground clearance) information is continuously provided to the pilot via the Pilot Guidance Unit (PGU). The graphical display is mounted on top of the aircraft's instrument panel, remotely from the data acquisition system. The PGU is the primary navigation aid (Figure 10) to assist the pilot in maintaining the aircraft on the planned flight path, heading, speed, and at the desired ground clearance.

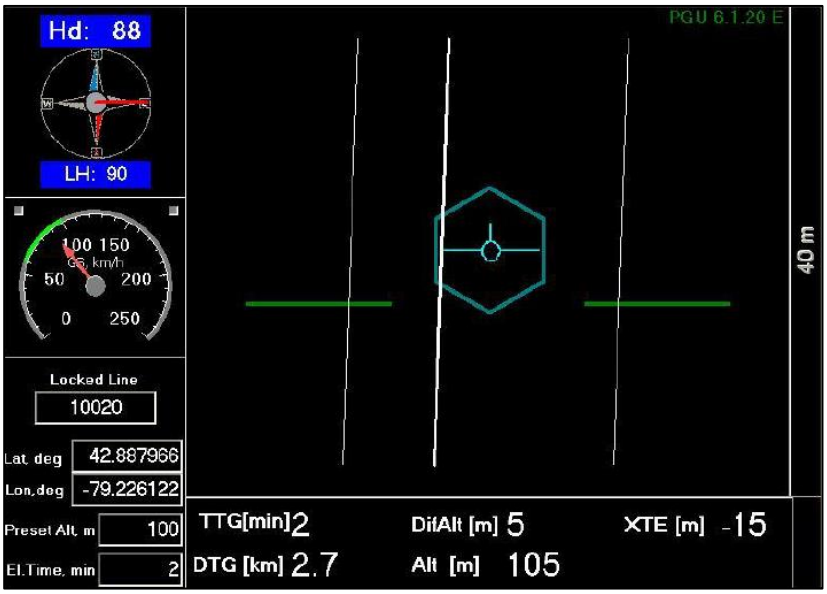


Figure 10: PGU screen displaying navigation information.

PGU information is displayed on a full VGA 600 x 800-pixel 7-inch (17.8 cm) LCD display. The CPU for the PGU is contained in a PC-104 console and uses Microsoft Windows operating system control, with input from the GPS antenna on the aircraft, laser altimeter, and AGIS.

3.2.4 Laser Altimeter

Terrain clearance is measured by an Opti-Logic RS800 Rangefinder laser altimeter (Figure 11) attached to the belly of the forward magnetometer boom. The RS800 laser is a time-of-flight sensor that measures distance by a rapidly modulated and collimated laser beam that creates a dot on the target surface. The maximum range of the laser altimeter is 700 m off natural surfaces with accuracy of ±1 m on 1 x 1 m diffuse target with 50% (±20%) reflectivity. Within the sensor unit, reflected signal light is collected by the lens and focused onto a photodiode. Through serial communications and digital outputs, ground clearance data are transmitted to an RS-232 compatible port and recorded and displayed by the AGIS and PGU at 10 Hz in meters.

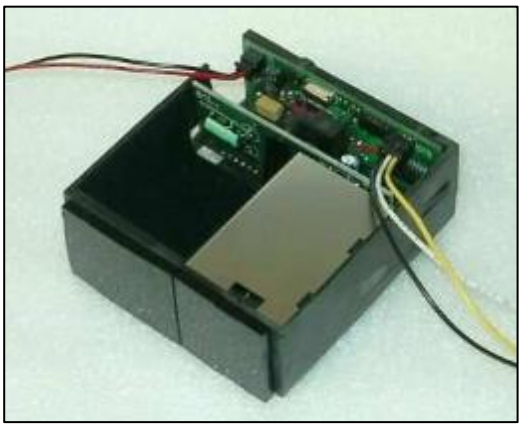


Figure 11: Opti-Logic RS800 Rangefinder laser altimeter.

3.2.5 Magnetometer

The survey was flown with a Scintrex CS-3 split-beam cesium vapor magnetometer (Figure 12) mounted on the front of the helicopter in a non-magnetic and non-conductive "stinger" configuration to measure total magnetic intensity. The magnetometer sensor was oriented at 45° to couple with local magnetic field at the Serb Creek survey areas.



Figure 12: Scintrex CS-3 cesium vapor magnetometer.

3.2.6 Fluxgate Magnetometer

As the survey helicopter flies along a survey line, small attitude changes (pitch, roll, and yaw) are recorded by a triaxial fluxgate magnetometer (Figure 13). The fluxgate consists of three magnetic sensors, X, Y, and Z, operating independently and simultaneously. Each sensor has an analog output corresponding to the component of the ambient magnetic field along its axis. Response of the sensors is proportional to the cosine of the angle between the applied field and the sensor's sensitive axis.

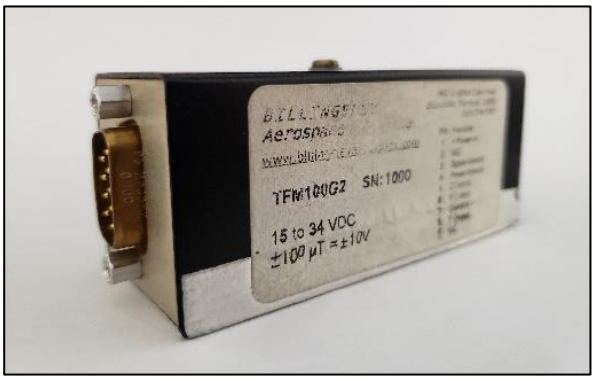


Figure 13: Billingsley TFM100G2 triaxial fluxgate magnetometer.

3.2.7 Magnetic Base Station

Temporal variations of Earth's magnetic field, particularly diurnal, were monitored and recorded by a GEM GSM-19T base station magnetometer during surveying. The base station was in an area with low magnetic gradient (i.e., away from electric power transmission lines and moving ferrous objects, such as motor vehicles), for optimum survey data integrity.

The GEM GSM-19T magnetometer (Figure 14), with integrated GPS time synchronization, uses proton precession technology with absolute accuracy of ±0.20 nT and sensitivity of 0.15 nT at 1 Hz. Base station magnetic data were recorded on internal solid-state memory and downloaded onto a field laptop using a serial cable and GEMLink 5.4 software. Profile plots of the base station readings were generated, updated, and reviewed at the end of each survey day.



Figure 14: GEM GSM-19T proton precession magnetometer.

3.2.8 Spectrometer

Gamma radiation data were collected by an Advanced Gamma Ray Spectrometer (AGRS-2) manufactured by Nuvia Dynamics. The AGRS-2 is an intelligent, self-calibrating, fully integrated gamma detection system (Figure 15) containing two thallium-activated synthetic sodium iodide crystals: 8.4 litres (two crystals of 4.2 litres each) downward-looking, with user-selectable 256, 512, or 1024 channel output at 1 Hz sampling rate. The downward-looking crystals are designed to measure gamma rays from below the aircraft. The AGRS-2 system is installed in the rear passenger cabin of the helicopter away from the fuel tank to minimize variable gamma attenuation from fluctuating fuel levels.



Figure 15: AGRS-2 gamma spectrometer system with two downward detectors; 8.4 litres in total.

4.0 Survey Operations

The Serb Creek East and West geophysical surveys were flown from September 2 to September 9, 2022 in variable weather conditions. Some delays were experienced due to poor weather: rain, wet snow, high winds, and low clouds. The experience of the pilot ensured that data quality objectives were met, and that safety of the flight crew was never compromised given the potential risks involved in airborne geophysical surveying. Field processing and quality control checks were performed daily.

4.1 Operations Base and Crew

The base of operation for the Serb Creek survey was in Smithers, British Columbia, approximately 30 km northeast of the survey blocks.

Precision's geophysical crew consisted of five members (Table 2):

Crew Member	Position
Ryan Snow	Helicopter pilot
Puraz Shirzad, B.A.	GIS technician – mapping (off-site)
Jenny Poon, B.Sc., P.Geo.	Geophysicist – data processor (off-site)
Shawn Walker, M.Sc., P.Geo.	Geophysicist – data processor (off-site)
Jen Hanlon, M.Sc., P.Geo.	Geophysicist – Reporting (off-site)

Table 2: List of survey crew members.

4.2 Magnetic Base Station Specifications

Changes in Earth's magnetic field over time, such as diurnal variations, magnetic pulsations, and geomagnetic storms, were measured and recorded by a GEM GSM-19T proton precession magnetometer. The magnetic base station was installed south of Serb Creek West survey block in

an area of low magnetic noise, away from metallic items such as ferromagnetic objects, vehicles, and power lines that could affect the base station data and ultimately the survey data (Table 3; Figure 16).

Station Name	Easting/Northing	Latitude/Longitude	Datum/Projection
GEM 6 S/N 5087249	584053 m E 6050883 m N	54° 35' 54.30" N 127° 41' 56.22" W	WGS 84, Zone 9N

Table 3: Magnetic base station locations.

Magnetic readings were reviewed at regular intervals to ensure that no airborne data were collected during periods of high magnetic activity (in excess of 10 nT from a linear chord of five minutes).

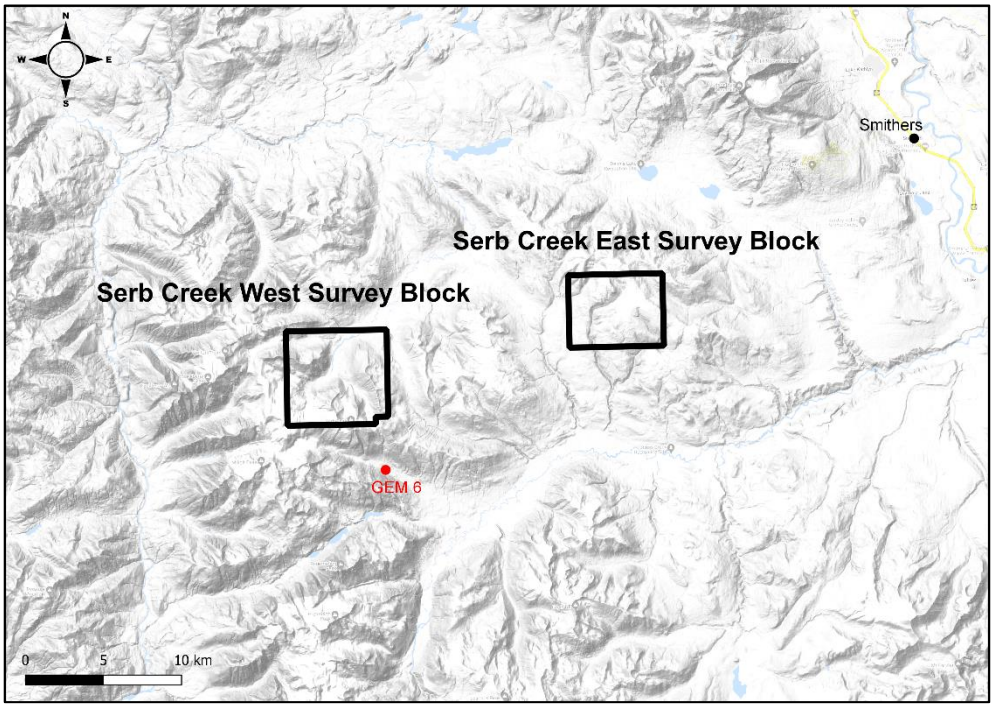


Figure 16: Location of GEM 6 magnetic base station, south of Serb Creek West survey block.

4.3 Field Processing and Quality Control

Survey data were transferred from the aircraft's data acquisition system onto a USB memory stick and copied onto a field data processing laptop on a flight-by-flight basis. The raw data files in PEI binary data format were converted into Geosoft GDB database format. Using Geosoft Oasis Montaj 2021.2.1.11, the data were inspected to ensure compliance with contract specifications (Table 4; Figures 17 to 19).

Parameter	Specification	Tolerance
Position	Sampling	10 Hz
	Line Spacing	Flight line deviation within 8 m left/right (L/R) from ideal flight path. No exceedance for more than 1 km.
	Height	Nominal flight height of 50 m above ground level (AGL) with tolerance of ±10 m. No exceedance for more than 1 km, provided deviation is not due to tall trees, topography, mitigation of wildlife/livestock harassment, cultural features, or other obstacles beyond the pilot's control.
	GPS	GPS signals from four or more satellites must be received at all times, except where signal loss is due to topography. No exceedance for more than 1 km.
Magnetics	Sampling	20 Hz
	Temporal/Diurnal Variations	Non-linear temporal magnetic variations within 10 nT of a linear chord of length 5 minutes.
	Normalized 4th Difference	Magnetic data within 0.02 nT peak to peak. No exceedance for distances greater than 1 km or more, provided noise is not due to geological or cultural features.
Radiometrics	Sampling	1 Hz, 256 channels.
	Moisture Conditions	No delays shall be incurred due to unfavourable radiometric survey conditions.

Table 4: Contract survey specifications.

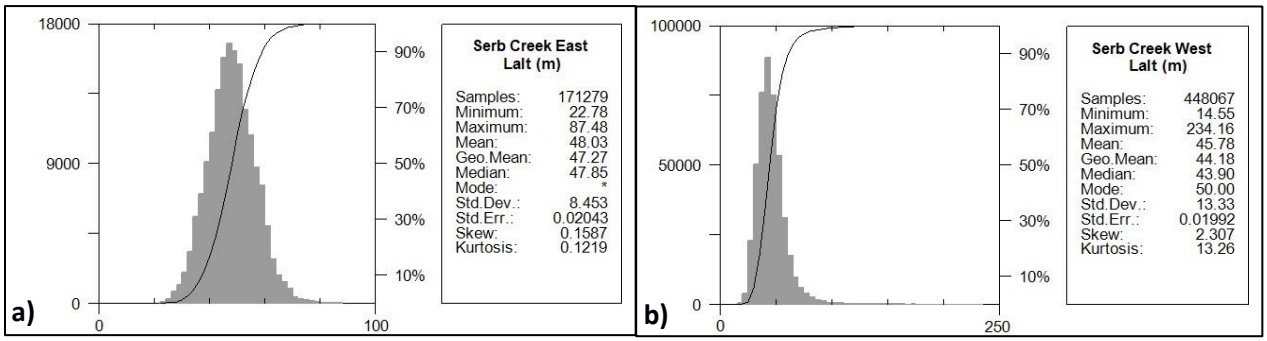


Figure 17: Histogram showing survey elevation vertically above ground. a) Serb Creek East and b) Serb Creek West.

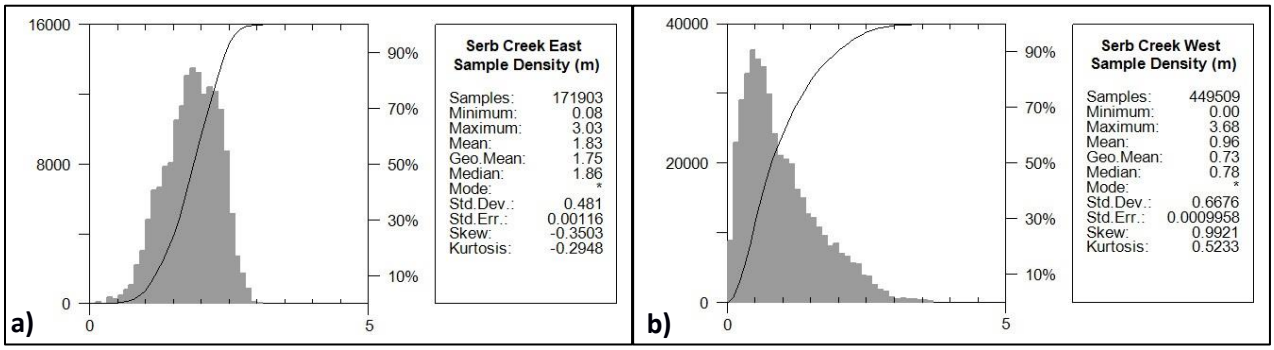


Figure 18: Histogram showing magnetic sample density. Note: Horizontal distance is given in meters between adjacent measurement locations. Magnetic sample frequency is 20 Hz. a) Serb Creek East and b) Serb Creek West.

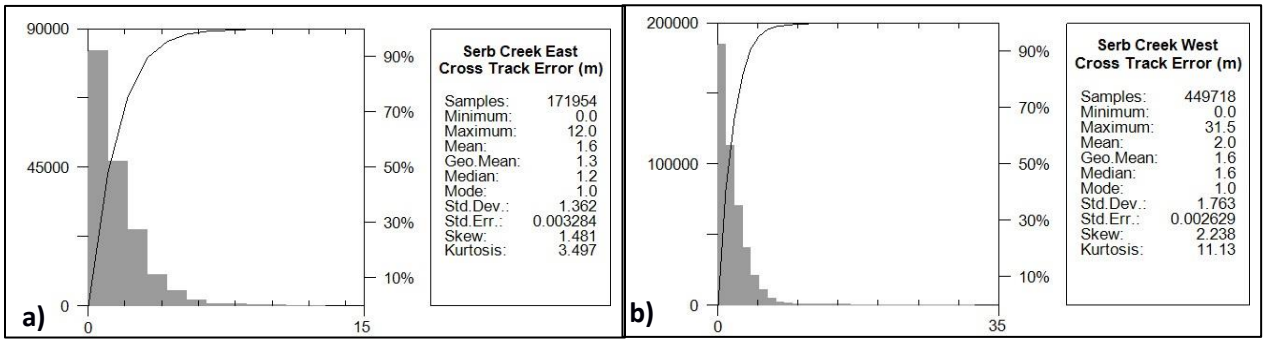


Figure 19: Histogram showing cross track error of survey helicopter. a) Serb Creek East and b) Serb Creek West.

5.0 Data Acquisition Equipment Checks

Equipment tests and calibrations were conducted for the laser altimeter, magnetometer, and spectrometer, at the start of the survey to ensure compliance with contract specifications and to deliver high quality airborne geophysical data. A lag test was conducted for all sensors. For the airborne magnetometer, compensation and heading error tests were completed. There were three tests conducted for the gamma spectrometer: calibration pad test, cosmic flight test, and altitude correction and sensitivity test.

5.1 Laser Altimeter Calibration

The Opti-Logic RS800 laser altimeter used on the survey helicopter was tested and calibrated in accordance with manufacturer's instructions prior to starting the survey. This ensured that heights reported by the laser were accurate within the normal survey operating range.

5.2 Lag Test

A lag test was performed to determine the time difference between recording the digital readings from the magnetometer, laser altimeter, and spectrometer, and the fiducially marked position fix time of the readings obtained by the GPS system. Lag can result from a combination of system lag and varying distances of the sensors with respect to the GPS antenna. The test was flown in reciprocal headings over identifiable features at survey speed and height to isolate position changes. The resulting data (Table 5) were used to correct for time and position.

Instrument	Source	Lag Fiducial	Correction (sec)
Magnetometer	Logging machinery	12	0.60
Laser	Sharp gully	16	0.80
Spectrometer	Lake edge	19	0.95

Table 5: Survey lag correction values. Magnetic data at 20 Hz; laser altimeter and spectrometer were resampled to 20 Hz.

5.3 Magnetometer Tests

The magnetometer was tested and calibrated with a series of dedicated flights specifically for removing instrument offset errors and undesired effects of aircraft movement, speed, and heading direction.

5.3.1 Compensation Flight Test

During aeromagnetic surveying, the magnetometer is located within the aircraft's magnetic field and are therefore influenced by changes in the aircraft attitude and permanent magnetization of ferrous aircraft components. To remove this noise, the aircraft was degaussed using proprietary technology prior to the survey and the remaining magnetic noise was removed by a process called magnetic compensation.

Magnetic compensation is achieved by completing a series of prescribed maneuvers in flight (±10° roll, ±10° pitch, and ±10° yaw) over each of the four orthogonal headings utilized within the survey area. The maneuvers must be completed at a sufficient altitude (typically > 2,500 m AGL) in an area of low magnetic gradient, so that Earth's magnetic field becomes nearly uniform at the altitude of the compensation flights. In each heading direction, three instances of the roll, pitch, and yaw maneuvers (total 36) are performed at constant elevation with the maneuvers recorded by the fluxgate magnetometer relative to the ambient magnetic field. In this manner, the magnetic response at the airborne magnetometer can be attributed to aircraft movement, and the necessary parameters can be calculated to remove aircraft movement noise from the survey data. Compensation flight test results are summarized in Table 6.

Pre-Compensation (nT)					Post-Compensation (nT)				
Heading	**Roll**	**Pitch**	**Yaw**	**Total**	**Heading**	**Roll**	**Pitch**	**Yaw**	**Total**
089°	2.4791	0.4442	0.7922	3.7155	089°	0.0493	0.0827	0.0519	0.1839
179°	2.7307	0.8662	0.8691	4.4660	179°	0.0530	0.0525	0.0552	0.1607
269°	2.7172	0.5866	0.5482	3.8520	269°	0.0723	0.0757	0.0611	0.2091
359°	1.8864	0.6428	0.5423	3.0715	359°	0.0563	0.0502	0.0593	0.1658
Figure of Merit = 15.1050					**Figure of Merit = 0.7195**				

Table 6: Results of compensation flight.

5.3.2 Heading Correction Test

To determine offsets resulting from instrument orientation and asymmetric aircraft response, the average magnetic value was calculated from the entire survey. The average for each of the four survey headings was then compared to the overall average to determine the heading correction and offset errors in each flight direction. Heading correction values derived from the data analysis are summarized in Table 7.

Heading	East Heading Correction (nT)	West Heading Correction (nT)
089°	-9.17	1.64
179°	-0.90	1.83
269°	9.13	-1.20
359°	0.94	-2.27
Total:	**0.00**	**0.00**

Table 7: Magnetic sensor heading corrections.

5.4 Gamma-ray Spectrometer Tests and Calibrations

Calibration and testing of the AGRS-2 airborne gamma-ray spectrometry system was carried out prior to starting the survey. Spectrometer calibration involved three tests which enabled the conversion of airborne data to ground concentration of natural radioactive elements. These tests were the calibration pad test, cosmic flight test, and the altitude correction and sensitivity test. Procedures were generally in accordance with IAEA technical report series No. 323, *Airborne Gamma Ray Spectrometer Surveying*, and AGSO Record 1995/60, *A Guide to the Technical Specifications for Airborne Gamma-Ray Surveys*.

5.4.1 Calibration Pad Test

The calibration pad test was conducted using Geological Survey of Canada (GSC) portable calibration pads. The pads are slabs of concrete containing known concentrations of the natural radioelements K, Th, and U and are used to simulate ideal geological sources of radiation. The measurements collected from the calibration pad test were used to determine Compton scattering and Grasty backscatter (spectral overlap between element windows) coefficients.

5.4.2 Cosmic Flight Test

While the background source of gamma radiation from the aircraft itself is essentially constant, the amount of signal detected from ground sources varies with ground clearance. As the height of the aircraft increases, the distance between the ground and the spectrometer crystals increases, and the proportion of cosmic radiation in each spectral window increases exponentially. The cosmic flight test is conducted to determine the aircraft's background attenuation coefficients for the detector crystal packs and the cosmic coefficients. The pilot is required to fly over the same low gamma source location (such as a large lake) repeatedly at 4000, 5000, 6000, 7000, and 8000 feet (1220, 1520, 1830, 2130, and 2440 m) above ground, for approximately two minutes each, to collect gamma data used to determine the non-terrestrial component present in the total gamma signal.

5.4.3 Altitude Correction and Sensitivity Test

The altitude and sensitivity test is similar to the cosmic flight test but is conducted at lower elevations. The aircraft is required to fly over the same location at 30, 40, 50, 60, 70, 100, and 120 m above ground, for two minutes each. As the distance between the gamma detectors on the aircraft and the radioactive ground source increases, the source signature exponentially degrades. As a result, this test is used to determine the altitude attenuation coefficients and the radio-element sensitivity of the airborne spectrometer system.

6.0 Data Processing

After all data were collected, several procedures were undertaken to ensure that the data met a high standard of quality. Magnetic and radiometric data recorded by the IMPAC were converted into Geosoft or ASCII file formats using Nuvia Dynamics software. Further processing (Figure 20) was carried out using Geosoft Oasis Montaj 2021.2.1.11 geophysical processing software along with proprietary processing algorithms.

6.1 Position Corrections

In order to collect high-resolution geophysical data, the location at which the data were collected and recorded must be accurate.

6.1.1 Lag Correction

A correction for lag error was applied to the geophysical data recorded at each individual sensor to compensate for lag caused by the physical distance between GPS antenna, the recording system, and the sensing instrument. Validity of the lag corrections was confirmed by the absence of grid corrugations in adjacent reciprocal lines.

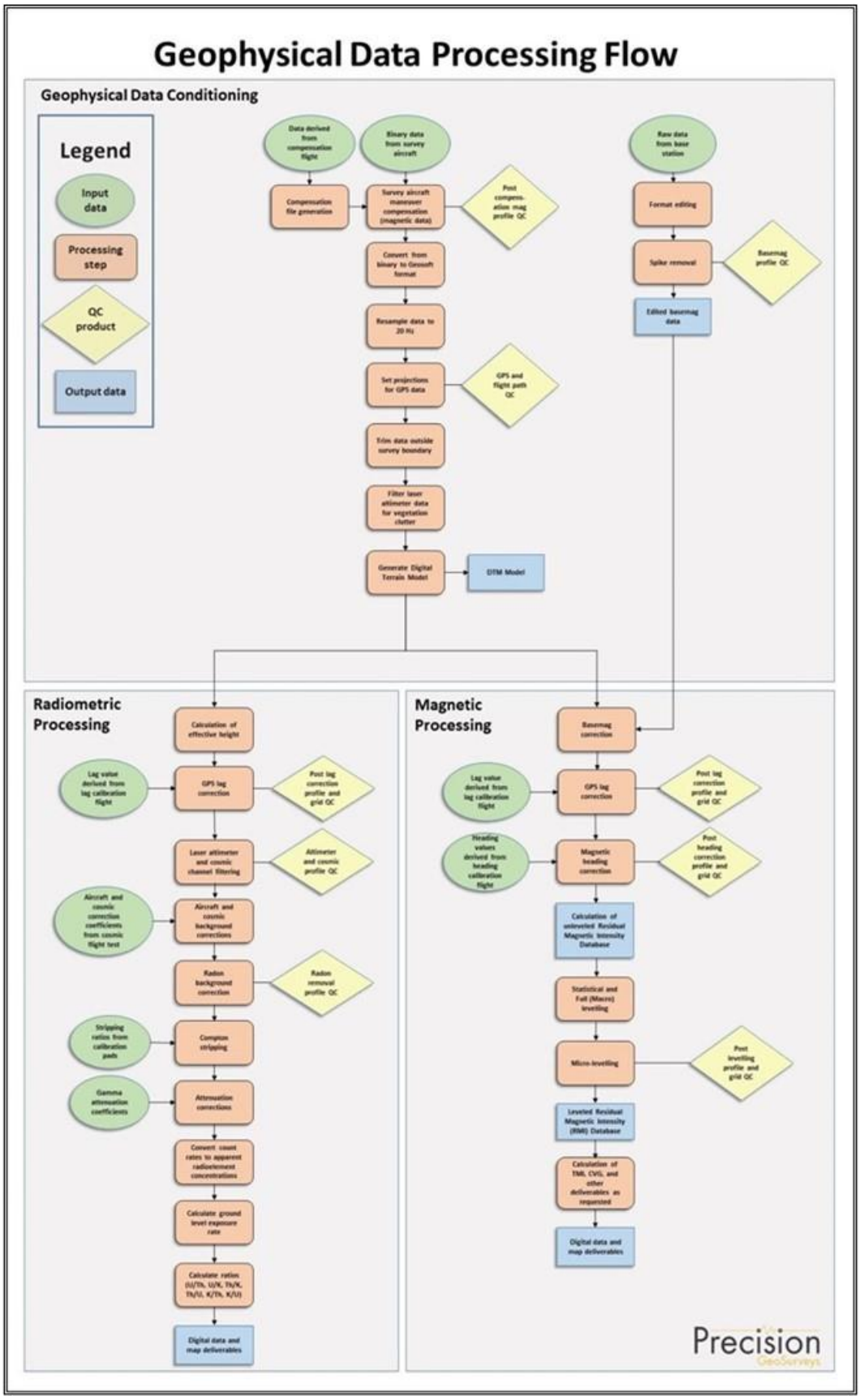


Figure 20: Magnetic and radiometric data processing flow.

6.2 Flight Height and Digital Terrain Model

Laser altimeters are unable to provide valid data over glassy water or fog, as the water molecules scatter the laser so that a "zero" reading is obtained. In these cases, estimates of correct height were inserted manually. Additionally, dense vegetation generates high frequency variations from leaf and branch reflections. A Rolling Statistics filter was applied to the lag corrected laser altimeter data to remove vegetation clutter, and then a Low Pass filter was used to smooth out the laser altimeter profile. These filters eliminate the isolated high-frequency noise and generate a surface that closely corresponds to the actual ground profile.

As the GPS antenna is on the tail of the helicopter, altitude data were corrected by subtracting 3.1 m to place it in the same plane as the laser altimeter and on-board geophysical sensors. A Digital Terrain Model (DTM) was determined by subtracting the laser altimeter data from the filtered GPS altimeter data defined by the WGS 84 ellipsoidal height. DTM accuracy is affected by the attitude of the aircraft, slope of the ground, sample density, and satellite geometry. Small inconsistencies in recorded flight height at the intersection points of survey lines and tie lines result in small spatial variabilities in the digital terrain model. Conventional leveling and micro-leveling were applied to correct for these variations and a fully leveled digital terrain model was generated.

6.3 Magnetic Processing

Magnetic data were compensated and then corrected for temporal variations (including diurnal), lag, and heading. The data were examined for magnetic noise and spikes, which were removed as required. The background magnetic field, International Geomagnetic Reference Field (IGRF) of the Earth, was removed and survey and tie line data of the resulting residual magnetic field were then leveled.

6.3.1 Flight Compensation

Data obtained from the compensation flight test were applied to the raw magnetic data as the first step of data processing. MAGComp software was used to create a model from the compensation flight test for each survey to remove the noise induced by the aircraft and its movement. This model was applied to data from each survey flight.

6.3.2 Temporal Variation Correction

The intensity of Earth's magnetic field varies with position and time. The time variable, known as temporal variation, is removed from the recorded airborne data to provide the desired magnetic field at a specified location. Magnetic data from base station GEM 6 were used to correct the temporal variation in the airborne magnetic survey data. The data were edited, plotted, and merged into a Geosoft database (.GDB) on a daily basis.

Base station measurements were averaged to establish a magnetic reference datum of 55008.57 nT. Magnetic deviations relative to the reference datum were used to calculate the observed variations of the Earth's magnetic field during the time it took to complete the survey. The airborne magnetic data were then corrected for temporal variations by subtracting the base station deviations from the data collected on the aircraft.

6.3.3 Heading Correction

For each survey heading, changes in instrument magnetic fields along a survey flight line are detected and these systematic shifts are recorded. These values are used to construct a heading table (.TBL) file. An intersection table was created, containing all magnetic field values where tie lines intersected the survey lines, and the overall average magnetic field value was calculated. For each of the four headings, the averages were calculated and then compared to the overall average to determine four values which were used to correct heading and offset errors in each flight direction.

6.3.4 IGRF Removal

The International Geomagnetic Reference Field (IGRF) model is the empirical representation of Earth's dynamic magnetic field (main core field without external sources) collected and disseminated from satellite data and from magnetic observatories around the world. The IGRF has historically been revised and updated every five years by a group of modellers associated with the International Association of Geomagnetism and Aeronomy (IAGA).

The initial unleveled Residual Magnetic Intensity (RMI) was calculated by taking the difference between the 13th generation IGRF (IGRF-13, released in December 2019) and the non-leveled Total Magnetic Intensity (TMI) to create a more valid model of individual near-surface magnetic anomalies. This model is independent of time to allow for other magnetic data (previous or future) to be more easily incorporated into each survey database.

6.3.5 Leveling and Micro-leveling

Small inconsistencies in flight height and line orientation result in small spatial variabilities in magnetic intensity measured at the intersection points of survey lines and tie lines. Using the initial Total Magnetic Intensity (TMI) data, data from survey and tie lines were leveled to each other. Two types of leveling were applied to the corrected data: conventional leveling and micro-leveling. There are two components to conventional leveling: statistical leveling to level tie lines and full leveling to level survey lines. The statistical leveling method corrected the SL/TL intersection errors that follow a specific pattern or trend. Through the error channel, an algorithm calculated a least-squares trend line and derived a trend error curve, which was then added to the channel to be

leveled. The second component was full leveling. This adjusted the magnetic value of the survey lines so that all lines matched the trended tie lines at each intersection point.

Following statistical and full leveling, micro-leveling was applied to the corrected conventional leveled data. This iterative grid-based process removes low amplitude components of flight line noise that remain in the data after tie line and survey line leveling and results in fully leveled TMI data.

6.3.6 Reduction to Magnetic Pole

Reduced to Magnetic Pole (RTP) data were determined from the leveled Residual Magnetic Intensity (RMI) data. The RTP filter was applied in the Fourier domain and rotates the observed magnetic inclination and declination field to what the field would look like at the north magnetic pole, to allow observation of magnetic trends and patterns independent of magnetic inclination and declination. Reducing the dipolar nature of magnetic anomalies is useful for interpretation because peak RTP magnetic values can be related to the centre of magnetic rock bodies and asymmetries in the RTP imagery closely reflect true dips and plunges.

Inclination and declination were calculated by using September 3, 2022. The derived values were used in the following formula:

$$RTP\ (\theta) = \frac{[\sin(I) - I\ \cdot \cos(I) \cdot \cos(D-\theta)]^2}{[\sin^2(I_a) + \cos^2(I_a) \cdot \cos^2(D-\theta)] \cdot [\sin^2(I) + \cos^2(I) \cdot \cos^2(D-\theta)]}$$

where: I is geomagnetic inclination in ° from horizontal
D is geomagnetic declination in ° azimuth from magnetic north
I_a is the inclination for amplitude correction (never less than I). Default is ± 20°. If $|I_a|$ is specified to be less than $|I|$, it is set to I

6.3.7 Horizontal Gradient

Calculated Horizontal Gradient (CHG) is the magnitude of the total horizontal gradient. It is used to estimate contact locations of magnetic bodies at shallow depths, reveal anomaly texture, and highlight anomaly-pattern discontinuities.

If M is the magnetic field, then the CHG is calculated as:

$$\mathrm{CHG}(x,y) = \sqrt{\left(\frac{\partial M}{\partial x}\right)^2 + \left(\frac{\partial M}{\partial y}\right)^2}$$

where: $\frac{\partial M}{\partial x}$ is the E-W gradient
$\frac{\partial M}{\partial y}$ is the N-S gradient

6.3.8 Calculation of Vertical Gradient

Calculated Vertical Gradient (CVG) is the first order vertical derivative of the leveled Residual Magnetic Intensity (RMI) data. It is the vertical rate of change in the magnetic field per unit distance. The vertical gradient is used to enhance shorter wavelength signals; therefore, edges of magnetic anomalies are highlighted, and deep geologic sources in the data are suppressed.

The filter, L, used to produce the nth vertical derivative is described by:

$$L(r) = r^n$$

where: r is the radial component in the wavenumber domain

6.3.9 Analytic Signal

Analytic Signal (AS) is the magnitude of the total magnetic gradient in three axes, determined as the square root of the sum of the squares of the vertical gradient and the combined horizontal gradients. Analytic signal is useful in locating the edges of magnetic source bodies.

If M is the magnetic field, then Analytic Signal (AS) is calculated as:

$$\mathrm{AS}(x, y, z) = \sqrt{\left(\frac{\partial M}{\partial x}\right)^2 + \left(\frac{\partial M}{\partial y}\right)^2 + \left(\frac{\partial M}{\partial z}\right)^2}$$

where: $\frac{\partial M}{\partial x}$ is the E-W gradient
$\frac{\partial M}{\partial y}$ is the N-S gradient
$\frac{\partial M}{\partial z}$ is the vertical gradient

6.4 Radiometric Processing

Radiometric surveys map gamma rays from the concentration of radioelements present at or near the Earth surface; typically within 1 m of the surface. Before airborne radiometric data are processed, the spectrometer system is calibrated with the calibration pad test, cosmic flight test, and altitude correction and sensitivity test. Once calibration of the system was completed,

radiometric data were processed by windowing the full 256 channel spectrum to create individual channels for U, Th, K, and total count (TC).
Potassium (^{40}K) is measured directly at 1.461 MeV and is reported as %K. Secular equilibrium in the decay chains of uranium (^{238}U determined from the radon daughter ^{214}Bi) and thorium (^{232}Th determined from ^{208}Tl) is assumed and the ground concentration results are reported as equivalent uranium (eU, ppm) and equivalent thorium (eTh, ppm). Total gamma count (TC) data (energy range from 0.40 to 2.81 MeV) is reported in dose rate (nGy/hr).

Radiometric processing generally followed the procedures provided by the International Atomic Energy Agency (IAEA) report 1363, *Guidelines for Radioelement Mapping using Gamma Ray Spectrometry Data*.

6.4.1 Calculation of Effective Height

Effective height (h_{ef}) in meters was determined using laser/radar altimeter, temperature, and pressure data, according to the formula below:

$$h_{ef} = h * \frac{273.15}{T + 273.15} * \frac{P}{1013.25}$$

where: h is measured laser/radar altitude in meters
T is measured air temperature in degrees Celsius
P is barometric pressure in millibars

6.4.2 Aircraft and Cosmic Background Corrections

Aircraft background and cosmic stripping corrections are applied to total gamma count and all three individual radioelements using the following formula:

$$C_{ac} = \mathrm{a}_c + b_c * Cos_f$$

where: C_{ac} is the background and cosmic corrected channel
a_c is the aircraft background for this channel
b_c is the cosmic stripping coefficient for this channel
Cos_f is the filtered cosmic channel

6.4.3 Radon Background Correction

Atmospheric radon can influence the gamma response of airborne radiometric data. The upward-looking detector provides directional sensitivity and the ability to discriminate between radiation from the atmosphere and radiation from the ground, to allow the removal of atmospheric radon effects from the downward-looking detectors.

Radon contribution to the uranium window of the "downward" uranium window is given by:

$$U_r = \frac{u - a_1 U - a_2 T + a_2 b_t - b_u}{a_u - a_1 - a_2 a_t}$$

where: U_r is radon background in the "downward" U window
u is count rate in the "upward" U window
U is count rate in the "downward" U window
T is count rate in the "downward" Th window
a_1, a_2, a_u, a_t, b_u, and b_t are constants derived by calibration

6.4.4 Compton Stripping

Spectral overlap corrections are applied to potassium, uranium, and thorium as part of the Compton stripping process. This is done by using the stripping ratios that have been calculated for the spectrometer by prior calibration.

For each of the stripping ratios α, β, and γ, height corrections at STP are made by using the following formulas:

$$\alpha_h = \alpha + h_{ef} * 0.00049$$

$$\beta_h = \beta + h_{ef} * 0.00065$$

$$\gamma_h = \gamma + h_{ef} * 0.00069$$

where: α, β, and γ are the Compton stripping coefficients
α_h, β_h, and γ_h are the height-corrected Compton stripping coefficients
h_{ef} is the effective height above ground in metres at STP

Stripping corrections are then carried out using the following formulas:

$$Th_c = Th_{bc}(1 - g\beta_h) + U_{bc}(b\gamma_h - a) + K_{bc}(ag - b)/A$$

$$U_c = Th_{bc}(g\beta_h - \alpha_h) + U_{bc}(1 - b\beta_h) + K_{bc}(b\alpha_h - g)/A$$

$$K_c = [Th_{bc}(\alpha_h\gamma_h - \beta_h) + U_{bc}(a\beta_h - \gamma_h) + K_{bc}(1 - a\alpha_h)]/A$$

where: U_c, Th_c, and K_c are stripping-corrected uranium, thorium, and potassium
α_h, β_h, and γ_h are height-corrected Compton stripping coefficients
U_{bc}, Th_{bc}, and K_{bc} are background corrected uranium, thorium, and potassium
a is the spectral ratio Th/U
b is the spectral ratio Th/K

g is the spectral ratio U/K
$A = 1 - g\gamma_h - (\alpha_h - g\beta_h) - b(\beta_h - \alpha_h\gamma_h)$ is the backscatter correction

6.4.5 Attenuation Corrections

Total count, potassium, uranium, and thorium data are then corrected to a nominal survey altitude (corrected to remove vegetation clutter from radar/laser altimeter data); in this case the nominal survey height was 50 m AGL. This is done according to the equation:

$$C_a = C * e^{\mu(h_{ef} - h_0)}$$

where: C_a is the output altitude-corrected channel
C is the input channel
μ is the attenuation correction for that channel
h_{ef} is the effective altitude
h_0 is the nominal survey altitude used as datum

6.4.6 Conversion to Apparent Radioelement Concentrations

With all corrections applied to the radiometric data, the final step is to convert the corrected potassium (^{40}K), uranium (from ^{214}Bi), and thorium (from ^{212}Tl) to apparent radioelement concentrations using the following formula:

$$eE = C_{cor}/S$$

where: eE is the element concentration of K (%) and equivalent element concentrations of U (ppm) & Th (ppm)
S is the experimentally determined sensitivity
C_{cor} is the fully corrected channel

Conversion of total count to natural exposure rate (Grasty et al, 1984) is determined by using the following formula:

$$\text{Natural Exposure} = [(1.505 * K) + (0.625 * eU) + (0.31 * eTh)]$$

where: Natural Exposure is in µR/hr
K is the concentration of potassium (%)
eU is the equivalent concentration of uranium (ppm)
eTh is the equivalent concentration of thorium (ppm)

6.4.7 Radiometric Ratios

Common radiometric ratios (U/Th, Th/K, U/K, and their inverses) were calculated using the guidelines of the IAEA. Due to statistical uncertainties in the individual radioelement measurements, care was taken during ratio calculation in order to obtain statistically significant values. The following guidelines were used to determine the ratios:

1. For each concentration, the lowest corrected count rate is determined.
2. Element concentrations of adjacent points on either side of each data point are summed until they exceed a pre-determined threshold value.
3. The ratios are calculated using the accumulated sums.

With these guidelines, errors associated with the calculated ratios are minimized and comparable for all data points.

6.4.8 Ternary Radioelement Image Map

Ternary images are a graphic representation of the relative proportion of the radioelement concentrations of %K, eTh, and eU components in proportion to the respective colours blue (cyan), red (magenta), and yellow. Since each distinct colour is used to represent each ternary ratio on the map, zones with similar ratios will be represented by a unique colour. This distinct relationship between colour and ternary ratio allows the map to show surficial radioelement concentration and distribution. Dark and light colours indicate high and low values for all three radionuclides, respectively. Areas of low radioactivity, and consequently low signal to noise ratios, can be masked and are shaded in white. Because the ternary image is a three-way ratio, topographic and physiographic effects are suppressed and a visualization of the relative concentrations of the individual radioelements are presented to help discriminate between different zones of lithology and alteration.

7.0 Deliverables

Serb Creek East and West survey data are presented as digital databases, grids, maps, and a logistics report.

7.1 Digital Data

Digital files have been provided in three formats:

- GDB file for use in Geosoft Oasis Montaj
- XYZ file

- CSV Excel comma separated file.

Full descriptions of the digital data and contents are included in Appendix D.

7.1.1 Grids

The digital data were represented as grids as listed below:

- Digital Terrain Model (DTM)
- Total Magnetic Intensity (TMI)
- Residual Magnetic Intensity (RMI) – removal of IGRF from TMI
- Reduced to Magnetic Pole (RTP) – reduced to magnetic pole of RMI
- Calculated Horizontal Gradient (CHG) – total magnitude of the horizontal gradients of RMI
- Calculated Vertical Gradient (CVG) – first order vertical derivative of RMI
- Analytic Signal (AS) – total magnitude of the horizontal and vertical gradients of RMI
- Potassium – Percentage (%K)
- Thorium – Equivalent Concentration (eTh)
- Uranium – Equivalent Concentration (eU)
- Total Count (TC)
- Total Count – Exposure Rate (TCexp)
- Potassium over Thorium Ratio (%K/eTh)
- Potassium over Uranium Ratio (%K/eU)
- Uranium over Thorium Ratio (eU/eTh)
- Uranium over Potassium Ratio (eU/%K)
- Thorium over Potassium Ratio (eTh/%K)
- Thorium over Uranium Ratio (eTh/eU)
- Ternary Image (TI)

Digital magnetic and radiometric data were gridded and displayed using the following Geosoft parameters:

- Gridding method: minimum curvature
- Grid cell size: 25 m
- Low-pass desampling factor: 2
- Tolerance: 0.001
- % pass tolerance: 99.99
- Maximum iterations: 100
- Shading effect: sun inclination at 45° and declination at 045°

Descriptions of colour scales used to display the grids are presented in Appendix D.

7.2 KMZ

Gridded digital data were exported into .KMZ files which can be displayed using Google Earth. The grids can be draped onto topography and rendered to give a 3D view.

7.3 Maps

The following digital map products were prepared for Serb Creek East and West:

Overview Maps (colour images with elevation contour lines):

- Actual flight lines, with topographic features
- DTM

Magnetic Maps (colour images with elevation contour lines):

- TMI, with actual flight lines and topographic features
- TMI
- RMI
- RTP
- CHG
- CVG
- AS

Radiometric Maps (colour images with elevation contour lines):

- %K – Percentage
- eTh – Equivalent Concentration
- eU – Equivalent Concentration
- TC
- TCexp – Exposure Rate
- %K/eTh Ratio
- %K/eU Ratio
- eTh/eU Ratio
- Ternary Image

All survey maps were prepared in WGS 84 in UTM Zone 9N.

7.4 Report

A .PDF copy of the logistics report is included along with digital data and maps. The report provides information on acquisition, processing, and presentation of the Serb Creek East and West survey data.

8.0 Conclusions and Recommendations

The Serb Creek East and West survey collected 745 line km of high-resolution magnetic and radiometric data over two survey blocks. The data have been processed and plotted on maps as a representation of the magnetic and radiometric features of the survey areas.

When magnetic and radiometric data are integrated into a single-pass airborne survey, they provide complementary information that serves as a robust geophysical/geochemical framework. Therefore, the geophysical data will be useful in mapping lithology, structure, and alteration, which will benefit mineral exploration initiatives and geological studies.

Geophysical data processing, particularly leveling and data interpolation routines, tend to smooth the original data so that resolution is reduced. In addition, gridding algorithms are not always able to properly calculate grids where flight height between adjacent flight lines varied due to cultural obstacles or steep terrain, where geological structures are acute to flight lines, where line spacing exceeds the size of the causative anomaly, or near grid margins as in "edge effects." Therefore, subtle geophysical features observed near survey margins or in gridded and derivative-enhanced products must be evaluated with discretion.

The airborne geophysical data were acquired to map the geophysical characteristics of the survey area, which are in turn related to the distribution of magnetic minerals, radioactive elements, and shallow conductors in the Earth. Magnetic patterns correspond to the concentration and distribution of magnetite and other magnetic minerals in Earth's subsurface. Radiometric data are influenced by topographic features and surficial effects, and ratios can be used to evaluate the near-surface radioelement geochemistry of the survey area.

Geophysical data are rarely a direct indication of mineral deposits and therefore interpretation and careful integration with existing and new geological, geochemical, and other geophysical data are recommended to maximize value from the survey investment.

Respectfully submitted,
Precision GeoSurveys Inc.



Jen Hanlon, M.Sc., P.Geo.
October 2022

Appendix A

Polygon Coordinates

- Serb Creek East
- Serb Creek West

Serb Creek East Survey Block – WGS 84 Zone 9N

Latitude (deg N)	Longitude (deg W)	Easting (m)	Northing (m)
54.70820	127.51424	595727	6063334
54.70820	127.42048	601767	6063466
54.66654	127.42049	601871	6058831
54.66653	127.51422	595826	6058698

Serb Creek West Survey Block – WGS 84 Zone 9N

Latitude (deg N)	Longitude (deg W)	Easting (m)	Northing (m)
54.67903	127.69547	584111	6059856
54.62903	127.69548	584214	6054293
54.62903	127.70798	583407	6054278
54.62486	127.70797	583416	6053814
54.62486	127.79548	577767	6053714
54.67902	127.79549	577663	6059740

Appendix B

Equipment Specifications

- GEM GSM-19T Proton Precession Magnetometer (Magnetic Base Station)
- Hemisphere R330 GPS Receiver
- Opti-Logic RS800 Rangefinder Laser Altimeter
- Scintrex CS-3 Magnetometer
- Billingsley TFM100G2 Ultra Miniature Triaxial Fluxgate Magnetometer
- Setra Model 276 Barometer
- Rotronic HygroClip HC-S3 Relative Humidity and Temperature Probe
- Nuvia Dynamics Advanced Gamma-Ray Spectrometer (AGRS-2)
- Nuvia Dynamics IMPAC data recorder system (for navigation and geophysical data acquisition)

GEM GSM-19T Proton Precession Magnetometer (Magnetic Base Station)

Sensitivity	0.15 nT @ 1 Hz
Resolution	0.01 nT (gamma), magnetic field and gradient
Absolute Accuracy	±0.2 nT @ 1 Hz
Operating Range	20,000 nT to 120,000 nT
Gradient Tolerance	Over 7,000 nT/m
Operating Ranges	Temperature: -40°C to +50°C Battery Voltage: 10.0 V minimum to 15 V maximum Humidity: up to 90% relative, non-condensing
Storage Temperature	-50°C to +50°C
Dimensions	Console: 223 x 69 x 40 mm Sensor Staff: 4 x 450 mm sections Sensor: 170 x 71 mm dia. Weight: console 2.1 kg, sensor and staff assembly 2.2 kg
Integrated GPS	Yes

Hemisphere R330 GPS Receiver

GPS Sensor	Receiver Type	L1 and L2 RTK with carrier phase	
	Channels	12 L1CA GPS 12 L1P GPS 12 L2P GPS 12 L2C GPS 12 L1 GLONASS (with subscription code) 12 L2 GLONASS (with subscription code) 3 SBAS or 3 additional L1CA GPS	
	Update Rate	10 Hz standard, 20 Hz available	
	Cold Start Time	<60 s	
	Warm Start Time 1	30 s (valid ephemeris)	
	Warm Start Time 2	30 s (almanac and RTC)	
	Hot Start Time	10 s typical (valid ephemeris and RTC)	
	Reacquisition	<1 s	
	Differential Options	SBAS, Autonomous, External RTCM, RTK, OmniSTAR (HP/XP)	
Horizontal Accuracy		RMS (67%)	2DRMS (95%)
	RTK [1, 2]	10 mm + 1 ppm	20 mm + 2 ppm
	OmniSTAR HP [1, 3]	0.1 m	0.2 m
	SBAS (WAAS) [1]	0.3 m	0.6 m
	Autonomous, no SA [1]	1.2 m	2.5 m
L-Band Sensor	Channel	Single channel	
	Frequency Range	1530 MHz to 1560 MHz	
	Satellite Selection	Manual or Automatic (based on location)	
	Startup and Satellite Reacquisition Time	15 seconds typical	
Communications	Serial Ports	2 full duplex RS232	
	Baud Rates	4800 – 115200	
	USB Ports	1 Communications, 1 Flash Drive data storage	
	Correction I/O Protocol	Hemisphere GPS proprietary, RTCM v2.3 (DGPS), RTCM v3 (RTK), CMR, CMR+NMEA 0183, Hemisphere GPS binary	
	Timing Output	1 PPS (HCMOS, active high, rising edge sync, 10 kΩ, 10 pF load)	
	Event Marker Input	HCMOS, active low, falling edge sync, 10 kΩ	
Environmental	Operating Temperature	-40°C to +70°C	
	Storage Temperature	-40°C to +85°C	
	Humidity	95% non-condensing	
Power GPS Sensor	Input Voltage Range	8 to 36 VDC	
	Consumption, RTK	<3.5 W (0.30 A @ 12 VDC typical)	
	Consumption, OmniSTAR	<4.3 W (0.36 A @ 12 VDC typical)	

[1]Depends on multipath environment, number of satellites in view, satellite geometry and ionospheric activity.
[2] Depends also on baseline length.
[3] Requires a subscription from OmniSTAR.

Opti-Logic RS800 Rangefinder Laser Altimeter

Accuracy	±1 m on 1x1 m^2 diffuse target with 50% reflectivity, up to 700 m
Resolution	0.2 m
Communication Protocol	RS232-8, N, 1 ASCII characters
Baud Rate	19200
Data Raw Counts	~200 Hz
Data Calibrated Range	~10 Hz
Data Rate	~200 Hz raw counts for un-calibrated operation; ~10 Hz for calibrated operation (averaging algorithm seeks 8 good readings)
Calibrated Range Units	Feet, Meters, Yards
Laser	Class I (eye-safe), 905 nm ± 10 nm
Power	7 - 9 VDC conditioned required, current draw at full power (~ 1.8 W)
Laser Wavelength	RS100 905 nm ± 10 nm
Laser Divergence	Vertical axis – 3.5 mrad half-angle divergence; Horizontal axis – 1 mrad half-angle divergence; (approximate beam “footprint” at 100 m is 35 cm x 5 cm)
Dimensions	32 x 78 x 84 mm (lens face cross section is 32 x 78 mm)
Weight	<227 g (8 oz)

Scintrex CS-3 Magnetometer

Operating Principal	Self-oscillating split-beam Cesium Vapor (non-radioactive ^{133}Cs)
Operating Range	15,000 nT to 105,000 nT
Gradient Tolerance	40,000 nT/m
Operating Zones	15° to 75° and 105° to 165°
Hemisphere Switching	a) Automatic b) Electronic control actuated by the control voltage levels (TTL/CMOS) c) Manual
Sensitivity	0.0006 nT / √Hz rms
Noise Envelope	Typically 0.002 nT peak to peak, 0.1 to 1 Hz bandwidth
Heading Error	±0.20 nT (inside the optical axis to the field direction angle range 15° to 75° and 105° to 165°)
Absolute Accuracy	<2.5 nT throughout range
Output	a) Continuous signal at the Larmor frequency which is proportional to the magnetic field (proportionality constant 3.49857 Hz/nT) sine wave signal amplitude modulated on the power supply voltage b) Square wave signal at the I/O connector, TTL/CMOS compatible
Information Bandwidth	Only limited by the magnetometer processor used
Sensor Head	Diameter: 63 mm (2.5”) Length: 160 mm (6.3”) Weight: 1.15 kg (2.6 lb)
Sensor Electronics	Diameter: 63 mm (2.5”) Length: 350 mm (13.8”) Weight: 1.5 kg (3.3 lb)
Cable, Sensor to Sensor Electronics	3 m (9’ 8”), lengths up to 5 m (16’ 4”) available
Operating Temperature	-40°C to +50°C
Humidity	Up to 100%, splash proof
Supply Power	24 to 35 VDC
Supply Current	Approx. 1.5 A at start up, decreasing to 0.5 A at 20°C
Power Up Time	Less than 15 minutes at -30°C

Billingsley TFM100G2 Ultra Miniature Triaxial Fluxgate Magnetometer

Axial Alignment	Orthogonality better than ±1°
Input Voltage Options	15 to 34 VDC @ 30 mA
Field Measurement Range Options	±100 µT = ±10 V
Accuracy	±0.75% of full scale (0.5% typical)
Linearity	±0.015% of full scale
Sensitivity	100 µV/nT
Scale Factor Temperature Shift	0.007% full scale/°C
Noise	≤12 pT rms/√Hz @ 1 Hz
Output Ripple	3 mV peak to peak @ 2nd harmonic
Analog Output at Zero Field	±0.025 V
Zero Shift with Temperature	±0.6 nT/°C
Susceptibility to Perming	±8 nT shift with ± 5 Gs applied
Output Impedance	332 Ω ± 5%
Frequency Response	3 dB @ >500 Hz (to >4 kHz wide band)
Over Load Recovery	±5 Gs slew <2 ms
Random Vibration	>20 G rms 20 Hz to 2 kHz
Temperature Range	-55°C to +85°C
Acceleration	>60 G
Weight	100 g
Size	3.51 cm x 3.23 cm x 8.26 cm
Connector	Chassis mounted 9 pin male "D" type

Setra Model 276 Barometer

Performance	Accuracy RSS[1] (at constant temp)	±0.25% FS[2]
	Non-Linearity (BSFL)	±0.22% FS
	Hysteresis	0.05% FS
	Non-Repeatability	0.05% FS
	Thermal Effects[3]	Compensated range: 0°C to +55°C (+30°F to +130°F) Zero shift (over compensated range): 1% FS Span shift (over compensated range): 1% FS
	Resolution	Infinite, limited only by output noise level (0.0005% FS)
	Time Constant	10 msecs to reach 90% final output with step function pressure input
	Long Term Stability	0.25% FS / 6 months
Environmental	Temperature	Operating[4]: -18°C to +79°C (0°F to +175°F) Storage: -55°C to +121°C (-65°F to +250°F)
	Vibration	2 g from 5 Hz to 500 Hz
	Shock	50 g (Operating, 1/2 sine 10 ms)
	Acceleration	10 g
Electrical	Circuit	3-Wire[5] (Exc, Out, Com)
	Power Consumption	0.20 W (24 VDC)
	Output Impedance	5 Ω
	Output Noise	<200 µV RMS (0 to 100 Hz)

[1] RSS of non-linearity, hysteresis, and non-repeatability.
[2] FS = 300 mb for 800 – 1100 mb range; 500 for 600 – 1100 mb range; and 20 PSI for 0 to 20 PSIA.
[3] Units calibrated at nominal 70°F. Maximum thermal error computed from this datum.
[4] Operating temperature limits of the electronics only. Pressure media temperatures may be considerable higher or lower.
[5] The separate leads for +EXC, -EXC, +Out, -Out are commoned internally. The shield is connected to the case. For best performance, either the -Exc or -Out should be connected to the case. Unit is calibrated at the factory with -Exc connected to the case. The insulation resistance between all signal leads are tied together and case ground is 100 Ω minimum at 25 VDC.

Rotronic HygroClip HC-S3 Relative Humidity and Temperature Probe

Relative Humidity	Operating Range	0 to 100% RH
	Accuracy at 23°C	±1.5% RH
	Output	0 – 1 VDC
	Typical Long-Term Stability	Better than ±1% RH per year
Temperature	Measurement Range	-40°C to +60°C
	Temperature Accuracy	-30°C to +60°C ±0.2°C -50°C to +60°C ±0.6°C (worst case)
	Output	0 – 1 VDC
Power	Supply Voltage	3.5 to 50 VDC (typically powered by data logger's 12 VDC supply)
	Current Consumption	<4 mA
Dimensions	Diameter	1.53 cm (0.60")
	Length	16.8 cm (6.6")
	Housing Material	Polycarbonate

Nuvia Dynamics Advanced Gamma-Ray Spectrometer (AGRS-2)

Crystal Volume	Two 4.2 L NaI(Tl) synthetic downward-looking crystals. Total volume of 8.4 L
Resolution	256/512/1024 channels
Data Handling	Individual detector processing and calibration
Energy Resolution	< 9% (@ 662 keV)
Differential Non-linearity	< 0.1%
Integral Non-linearity	< 0.01%
Gain Stabilization	Automatic multi-peak on natural radioisotopes
Calibration	Automatic using natural background radiation
Dynamic Input Range	250,000 cps (counts/sec) per detector
Baseline Restoration	Digital Individual Pulse Baseline Restoration (IPBR). The baseline is established for each individual pulse for maximum pulse height accuracy
Sampling Rate	0.1 – 10 secs user defined
Pulse Shaping	Digital Pulse Shaping
Power	9 to 40 VDC, 15 W
Detector Power	3 W per detector
Operating Temperature	-20°C up to +50°C
Upward Shielding	RayShield® non-radioactive shielding on downward-looking crystals
Spectra	20 keV to 3 MeV (plus cosmic)
System Stabilization	Cold start-up: less than 40 secs on the ground
GPS Connectivity	Time and position synchronization; additional add-on
Weight	~115 kg

Nuvia Dynamics IMPAC data recorder system

(for navigation and geophysical data acquisition)

Functions	Integrated Multi-Parameter Airborne Console (IMPAC) with integrated dual Global Positioning System Receiver (GPS) and all necessary navigation guidance software. Inputs for geophysical sensors - portable gamma ray spectrometer GRS-10/AGRS, MMS4/MMS8 Magnetometer, Herz Totem-2A EM, A/D converter, temperature/humidity probe, barometric pressure probe, and laser/radar altimeter. Output for the multi-parameter PGU (Pilot Guidance Unit)
Display	Monitor display 600 x 800 pixels; customized keypad and operator keyboard. Multi-screen options for real-time viewing of all data inputs, fiducial points, flight line tracking, and GPS channels by operator
Navigation	Pilot/operator navigation guidance. Software supports preplanned survey flight plan, along survey lines, way-points, preplanned drape profile surfaces
Data Sampling	Sensor dependent
Data Synchronization	Synchronized to GPS position. Supports dual GPS
Data File	PEI Binary data format
Storage	80 GB
Software	DataView: Allows fast data verification and conversion of PEI binary data to Geosoft GBN or ASCII formats MAGConv: For survey preparation, calibration and conversion of maps, and survey plot after data acquisition MAGComp: For calculation of magnetic compensation coefficients AGRS/GRS10 Calibration: High voltage adjustment, linearity correction coefficients calculation, and communication test support AGIS: Real time data acquisition and navigation system. Displays chart/spectrum view in real-time for fast data Quality Control (QC)
Electrical	Multiple ethernet connections, RS232 serial ports, USB ports, and 16-bit differential analog input channels. It can support up to 4 magnetometer sensors
Power Requirement	24 VDC

Appendix C

Radiometric Correction Coefficients

Radiometric Correction Coefficients:

Cosmic Correction Coefficients		
	Cosmic Stripping	**Aircraft Background**
TC	0.4777	37.951
K	0.0300	8.685
U	0.0386	3.166
Th	0.0683	0.65

Altitude Attenuation Coefficients	
TC	-0.005
K	-0.007
U	-0.004
Th	-0.004

Compton Stripping	
Alpha	0.3191
Beta	0.4465
Gamma	0.8521
GrastyBackscatter_a	0.0518
GrastyBackscatter_b	0.0058
GrastyBackscatter_g	0.0024

Sensitivities	
TC	23.00
K	76.39
U	6.435
Th	3.454

Appendix D

Digital File Descriptions

- Magnetic Database
- Radiometric Database
- Geosoft Grids
- Maps

Magnetic Database:

Abbreviations used in the GDB/XYZ/CSV files listed below:

CHANNEL	UNITS	DESCRIPTION
X_WGS84	m	UTM Easting – WGS84 Zone 9N
Y_WGS84	m	UTM Northing – WGS84 Zone 9N
Lat_deg	Decimal degree	Latitude – WGS84
Lon_deg	Decimal degree	Longitude – WGS84
Date	yyyy/mm/dd	Dates of the survey flight(s) – Local
FLT		Flight number(s)
LineNo		Line numbers
STL		Number of satellite(s)
GPSfix		1 = non-differential 2 = WAAS/SBAS differential
Heading	degree	Heading of the aircraft
GPStime	HH:MM:SS	GPS time (UTC)
Geos_m	m	Geoidal separation
XTE_m	m	Cross track error
Galt	m	GPS height – WGS84 Zone 9N (ASL)
Lalt	m	Laser altimeter readings (AGL)
DTM	m	Digital Terrain Model
Sample_Density	m	Horizontal distance in meters between adjacent measurement locations; sample frequency is 20 Hz
Speed_km_hr	km/hr	Ground speed of aircraft in km/hr
basemag	nT	Base station temporal variation data
IGRF	nT	International Geomagnetic Reference Field, IGRF-13
Declin	Decimal degree	Calculated declination of magnetic field
Inclin	Decimal degree	Calculated inclination of magnetic field
XFg_Step	step	X - fluxgate
YFg_Step	step	Y - fluxgate
ZFg_Step	step	Z - fluxgate
Mag_Head	nT	Diurnal, lag, and heading corrected
TMI	nT	Total Magnetic Intensity
RMI	nT	Residual Magnetic Intensity

Radiometric Database:

Abbreviations used in the GDB/XYZ/CSV files listed below:

CHANNEL	UNITS	DESCRIPTION
X_WGS84	m	UTM Easting – WGS84 Zone 9N
Y_WGS84	m	UTM Northing – WGS84 Zone 9N
Lat_deg	Decimal degree	Latitude – WGS84
Lon_deg	Decimal degree	Longitude – WGS84
Date	yyyy/mm/dd	Date of the survey flight(s) – Local
FLT		Flight Line numbers
LineNo		Line numbers
STL		Number of satellite(s)
GPStime	HH:MM:SS	GPS time (UTC)
Geos_m	m	Geoidal separation
GPSFix		1 = non-differential 2 = WAAS/SBAS differential
Heading	degree	Heading of the aircraft
XTE_m	m	Cross track error
Galt	m	GPS height – WGS84 Zone 9N (ASL)
Lalt	m	Laser altimeter height (AGL)
DTM	m	Digital Terrain Model
Sample_Density	m	Horizontal distance in metres between adjacent measurement locations; sample frequency is 20 Hz
Speed_km_hr	km/hr	Ground speed of aircraft in km/hr
BaroSTP_kPa	kPa	Barometric altitude (pressure and temperature corrected)
Temp_degC	°C	Air temperature
COSFILT	counts/sec	Spectrometer – Filtered Cosmic
Kcor	%	Concentration in Percentage - Potassium
Thcor	ppm	Equivalent Concentration - Thorium
Ucor	ppm	Equivalent Concentration - Uranium
TCcor	nGy/hour	Total Count
TCexp	µR/hour	Exposure Rate
KThratio		Spectrometer –%K/eTh ratio
KUratio		Spectrometer –%K/eU ratio
UKratio		Spectrometer – eU/%K ratio
UThratio		Spectrometer – eU/eTh ratio
ThKratio		Spectrometer – eTh/%K ratio
ThUratio		Spectrometer – eTh/eU ratio

Grids:

Serb Creek East, WGS 84 Zone 9N, sun inclination at 45° and declination at 045°.
All grids generated using minimum curvature gridding method.

File Name	Description	Cell Size (m)
22191_SerbCreekEast_DTM_25m.grd	Digital Terrain Model	25
22191_SerbCreekEast_TMI_25m.grd	Total Magnetic Intensity	25
22191_SerbCreekEast_RMI_25m.grd	Residual Magnetic Intensity	25
22191_SerbCreekEast_RTP_25m.grd	Reduced to Magnetic Pole of RMI	25
22191_SerbCreekEast_CHG_25m.grd	Calculated Horizontal Gradient of RMI	25
22191_SerbCreekEast_CVG_25m.grd	Calculated Vertical Gradient of RMI	25
22191_SerbCreekEast_AS_25m.grd	Analytic Signal of RMI	25
22191_SerbCreekEast_K_25m.grd	Potassium (%K) – in percentage	25
22191_SerbCreekEast_eTh_25m.grd	Thorium (eTh) – equivalent concentration	25
22191_SerbCreekEast_eU_25m.grd	Uranium (eU) – equivalent concentration	25
22191_SerbCreekEast_TC_25m.grd	Total Count (TC)	25
22191_SerbCreekEast_TCexp_25m.grd	Total Count (TCexp) – exposure rate	25
22191_SerbCreekEast_KThRatio_25m.grd	Potassium over Thorium ratio (%K/eTh)	25
22191_SerbCreekEast_KURatio_25m.grd	Potassium over Uranium ratio (%K/eU)	25
22191_SerbCreekEast_UThRatio_25m.grd	Uranium over Thorium ratio (eU/eTh)	25
22191_SerbCreekEast_UKRatio_25m.grd	Uranium over Potassium ratio (eU/%K)	25
22191_SerbCreekEast_ThKRatio_25m.grd	Thorium over Potassium ratio (eTh/%K)	25
22191_SerbCreekEast_ThURatio_25m.grd	Thorium over Uranium ratio (eTh/eU)	25

Grids:

Serb Creek West, WGS 84 Zone 9N, sun inclination at 45° and declination at 045°.
All grids generated using minimum curvature gridding method.

File Name	Description	Cell Size (m)
22191_SerbCreekWest_DTM_25m.grd	Digital Terrain Model	25
22191_SerbCreekWest_TMI_25m.grd	Total Magnetic Intensity	25
22191_SerbCreekWest_RMI_25m.grd	Residual Magnetic Intensity	25
22191_SerbCreekWest_RTP_25m.grd	Reduced to Magnetic Pole of RMI	25
22191_SerbCreekWest_CHG_25m.grd	Calculated Horizontal Gradient of RMI	25
22191_SerbCreekWest_CVG_25m.grd	Calculated Vertical Gradient of RMI	25
22191_SerbCreekWest_AS_25m.grd	Analytic Signal of RMI	25
22191_SerbCreekWest_K_25m.grd	Potassium (%K) – in percentage	25
22191_SerbCreekWest_eTh_25m.grd	Thorium (eTh) – equivalent concentration	25
22191_SerbCreekWest_eU_25m.grd	Uranium (eU) – equivalent concentration	25
22191_SerbCreekWest_TC_25m.grd	Total Count (TC)	25
22191_SerbCreekWest_TCexp_25m.grd	Total Count (TCexp) – exposure rate	25
22191_SerbCreekWest_KThRatio_25m.grd	Potassium over Thorium ratio (%K/eTh)	25
22191_SerbCreekWest_KURatio_25m.grd	Potassium over Uranium ratio (%K/eU)	25
22191_SerbCreekWest_UThRatio_25m.grd	Uranium over Thorium ratio (eU/eTh)	25
22191_SerbCreekWest_UKRatio_25m.grd	Uranium over Potassium ratio (eU/%K)	25
22191_SerbCreekWest_ThKRatio_25m.grd	Thorium over Potassium ratio (eTh/%K)	25
22191_SerbCreekWest_ThURatio_25m.grd	Thorium over Uranium ratio (eTh/eU)	25

Maps:

Serb Creek East, WGS 84 Zone 9N, sun inclination at 45° and declination at 045° (JPEG, PDF, and georeferenced PDF).

Plate Num	Plate Name	File Name	Description	Cell Size (m)	Colour Scale	Colour Shade
1	FL	22191_SerbCreekEast_ActualFlightLines	Plotted actual flown flight lines	NA	NA	NA
2	DTM	22191_SerbCreekEast_DTM_25m	Digital Terrain Model	25	Linear	NA
3	TMI_wFL	22191_SerbCreekEast_TMI_wFL_25m	Total Magnetic Intensity with actual flown flight lines	25	Histogram-equalized	RGB
4	TMI	22191_SerbCreekEast_TMI_25m	Total Magnetic Intensity	25	Histogram-equalized	RGB
5	RMI	22191_SerbCreekEast_RMI_25m	Residual Magnetic Intensity	25	Histogram-equalized	RGB
6	RTP	22191_SerbCreekEast_RTP_25m	Reduced to Magnetic Pole of RMI	25	Histogram-equalized	RGB
7	CHG	22191_SerbCreekEast_CHG_25m	Calculated Horizontal Gradient of RMI	25	Histogram-equalized	Wet-look
8	CVG	22191_SerbCreekEast_CVG_25m	Calculated Vertical Gradient of RMI	25	Histogram-equalized	Wet-look
9	AS	22191_SerbCreekEast_AS_25m	Analytic Signal of RMI	25	Histogram-equalized	Wet-look
10	%K	22191_SerbCreekEast_K_25m	Potassium (%K) – in percentage	25	Histogram-equalized	RGB
11	eTh	22191_SerbCreekEast_eTh_25m	Thorium (eTh) – equivalent concentration	25	Histogram-equalized	RGB
12	eU	22191_SerbCreekEast_eU_25m	Uranium (eU) – equivalent concentration	25	Histogram-equalized	RGB
13	TC	22191_SerbCreekEast_TC_25m	Total Count (TC)	25	Histogram-equalized	RGB
14	TCexp	22191_SerbCreekEast_TCexp_25m	Total Count (TCexp) – exposure rate	25	Histogram-equalized	RGB
15	%K/eTh	22191_SerbCreekEast_KThRatio_25m	Potassium over Thorium ratio (%K/eTh)	25	Histogram-equalized	RGB
16	%K/eU	22191_SerbCreekEast_KURatio_25m	Potassium over Uranium ratio (%K/eU)	25	Histogram-equalized	RGB
17	eTh/eU	22191_SerbCreekEast_ThURatio_25m	Thorium over Uranium ratio (eTh/eU)	25	Histogram-equalized	RGB
18	TI	22191_SerbCreekEast_TernaryImage_25m	Ternary ratio of all three elements (%K, eTh, eU)	25	Histogram-equalized	RGB inverted

*Grids displayed on the maps are exported as GeoTIFFs (.tiff) and KMZs.

Maps:

Serb Creek West, WGS 84 Zone 9N, sun inclination at 45° and declination at 045° (JPEG, PDF, and georeferenced PDF).

Plate Num	Plate Name	File Name	Description	Cell Size (m)	Colour Scale	Colour Shade
1	FL	22191_SerbCreekWest_ActualFlightLines	Plotted actual flown flight lines	NA	NA	NA
2	DTM	22191_SerbCreekWest_DTM_25m	Digital Terrain Model	25	Linear	NA
3	TMI_wFL	22191_SerbCreekWest_TMI_wFL_25m	Total Magnetic Intensity with actual flown flight lines	25	Histogram-equalized	RGB
4	TMI	22191_SerbCreekWest_TMI_25m	Total Magnetic Intensity	25	Histogram-equalized	RGB
5	RMI	22191_SerbCreekWest_RMI_25m	Residual Magnetic Intensity	25	Histogram-equalized	RGB
6	RTP	22191_SerbCreekWest_RTP_25m	Reduced to Magnetic Pole of RMI	25	Histogram-equalized	RGB
7	CHG	22191_SerbCreekWest_CHG_25m	Calculated Horizontal Gradient of RMI	25	Histogram-equalized	Wet-look
8	CVG	22191_SerbCreekWest_CVG_25m	Calculated Vertical Gradient of RMI	25	Histogram-equalized	Wet-look
9	AS	22191_SerbCreekWest_AS_25m	Analytic Signal of RMI	25	Histogram-equalized	Wet-look
10	%K	22191_SerbCreekWest_K_25m	Potassium (%K) – in percentage	25	Histogram-equalized	RGB
11	eTh	22191_SerbCreekWest_eTh_25m	Thorium (eTh) – equivalent concentration	25	Histogram-equalized	RGB
12	eU	22191_SerbCreekWest_eU_25m	Uranium (eU) – equivalent concentration	25	Histogram-equalized	RGB
13	TC	22191_SerbCreekWest_TC_25m	Total Count (TC)	25	Histogram-equalized	RGB
14	TCexp	22191_SerbCreekWest_TCexp_25m	Total Count (TCexp) – exposure rate	25	Histogram-equalized	RGB
15	%K/eTh	22191_SerbCreekWest_KThRatio_25m	Potassium over Thorium ratio (%K/eTh)	25	Histogram-equalized	RGB
16	%K/eU	22191_SerbCreekWest_KURatio_25m	Potassium over Uranium ratio (%K/eU)	25	Histogram-equalized	RGB
17	eTh/eU	22191_SerbCreekWest_ThURatio_25m	Thorium over Uranium ratio (eTh/eU)	25	Histogram-equalized	RGB
18	TI	22191_SerbCreekWest_TernaryImage_25m	Ternary ratio of all three elements (%K, eTh, eU)	25	Histogram-equalized	RGB inverted

*Grids displayed on the maps are exported as GeoTIFFs (.tiff) and KMZs.

Plates

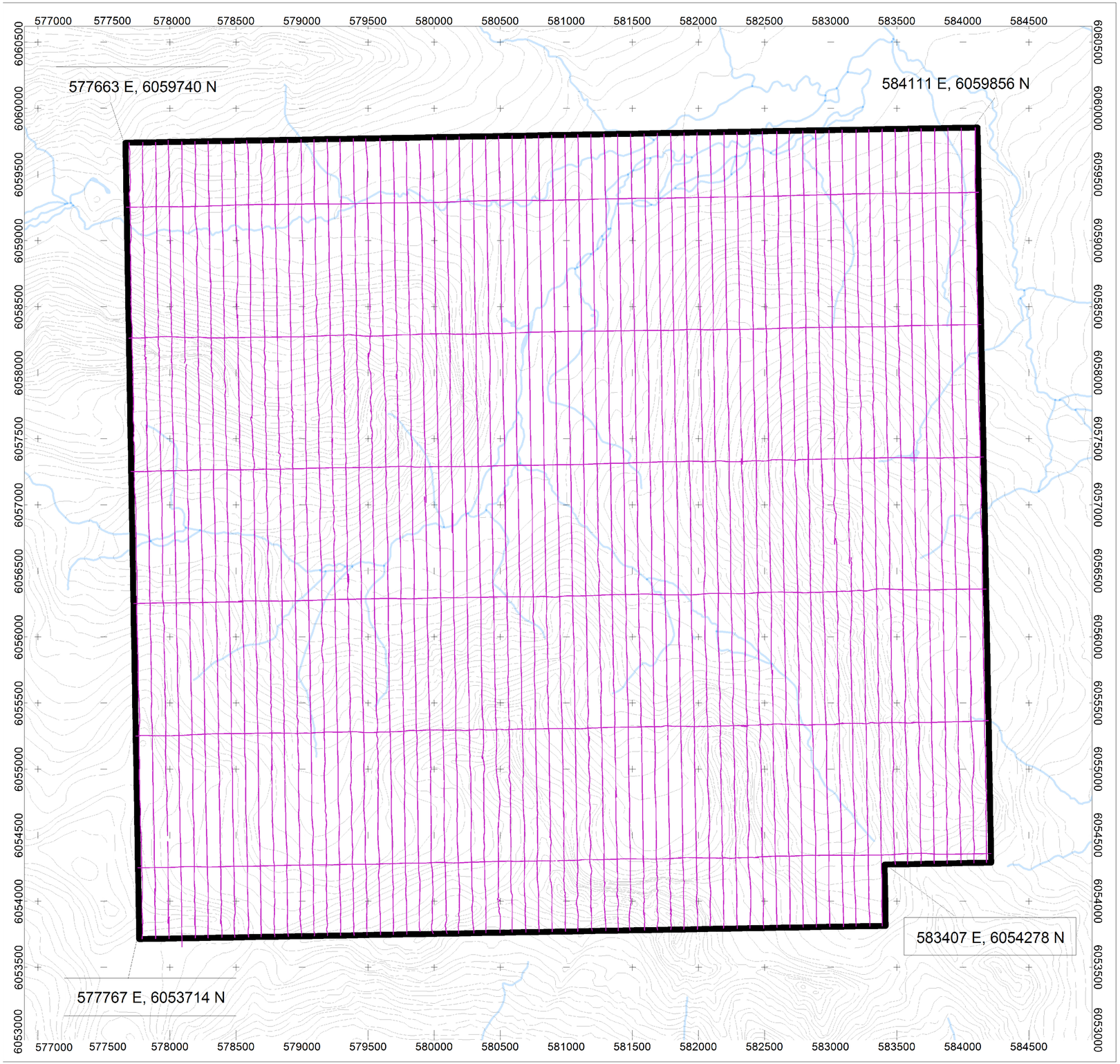
Serb Creek East Survey Block

- Plate 1: Serb Creek East – Actual Flight Lines (FL)
- Plate 2: Serb Creek East – Digital Terrain Model (DTM)
- Plate 3: Serb Creek East – Total Magnetic Intensity with Actual Flight Lines (TMI_wFL)
- Plate 4: Serb Creek East – Total Magnetic Intensity (TMI)
- Plate 5: Serb Creek East – Residual Magnetic Intensity (RMI)
- Plate 6: Serb Creek East – Reduced to Magnetic Pole (RTP) of RMI
- Plate 7: Serb Creek East – Calculated Horizontal Gradient (CHG) of RMI
- Plate 8: Serb Creek East – Calculated Vertical Gradient (CVG) of RMI
- Plate 9: Serb Creek East – Analytic Signal (AS) of RMI
- Plate 10: Serb Creek East – Potassium - Percentage (%K)
- Plate 11: Serb Creek East – Thorium - Equivalent Concentration (eTh)
- Plate 12: Serb Creek East – Uranium - Equivalent Concentration (eU)
- Plate 13: Serb Creek East – Total Count (TC)
- Plate 14: Serb Creek East – Total Count - Exposure Rate (TCexp)
- Plate 15: Serb Creek East – Potassium over Thorium Ratio (%K/eTh)
- Plate 16: Serb Creek East – Potassium over Uranium Ratio (%K/eU)
- Plate 17: Serb Creek East – Thorium over Uranium Ratio (eTh/eU)
- Plate 18: Serb Creek East – Ternary Image (TI)

Plates

Serb Creek West Survey Block

- Plate 1: Serb Creek West – Actual Flight Lines (FL)
- Plate 2: Serb Creek West – Digital Terrain Model (DTM)
- Plate 3: Serb Creek West – Total Magnetic Intensity with Actual Flight Lines (TMI_wFL)
- Plate 4: Serb Creek West – Total Magnetic Intensity (TMI)
- Plate 5: Serb Creek West – Residual Magnetic Intensity (RMI)
- Plate 6: Serb Creek West – Reduced to Magnetic Pole (RTP) of RMI
- Plate 7: Serb Creek West – Calculated Horizontal Gradient (CHG) of RMI
- Plate 8: Serb Creek West – Calculated Vertical Gradient (CVG) of RMI
- Plate 9: Serb Creek West – Analytic Signal (AS) of RMI
- Plate 10: Serb Creek West – Potassium - Percentage (%K)
- Plate 11: Serb Creek West – Thorium - Equivalent Concentration (eTh)
- Plate 12: Serb Creek West – Uranium - Equivalent Concentration (eU)
- Plate 13: Serb Creek West – Total Count (TC)
- Plate 14: Serb Creek West – Total Count - Exposure Rate (TCexp)
- Plate 15: Serb Creek West – Potassium over Thorium Ratio (%K/eTh)
- Plate 16: Serb Creek West – Potassium over Uranium Ratio (%K/eU)
- Plate 17: Serb Creek West – Thorium over Uranium Ratio (eTh/eU)
- Plate 18: Serb Creek West – Ternary Image (TI)

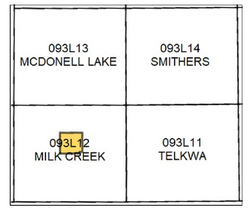


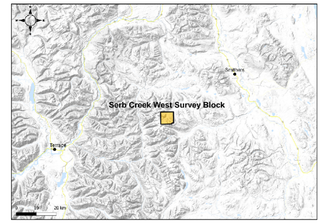
Scale 1:15000

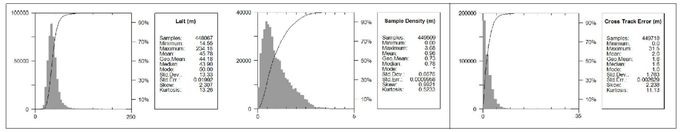
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

Job #22191_W
October 17, 2022

National Topographic System







MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Water Bodies.....
Elevation Contours, 100 ft Interval.....
Serb Creek West Survey Block Boundary.....
Actual Flight Lines.....

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

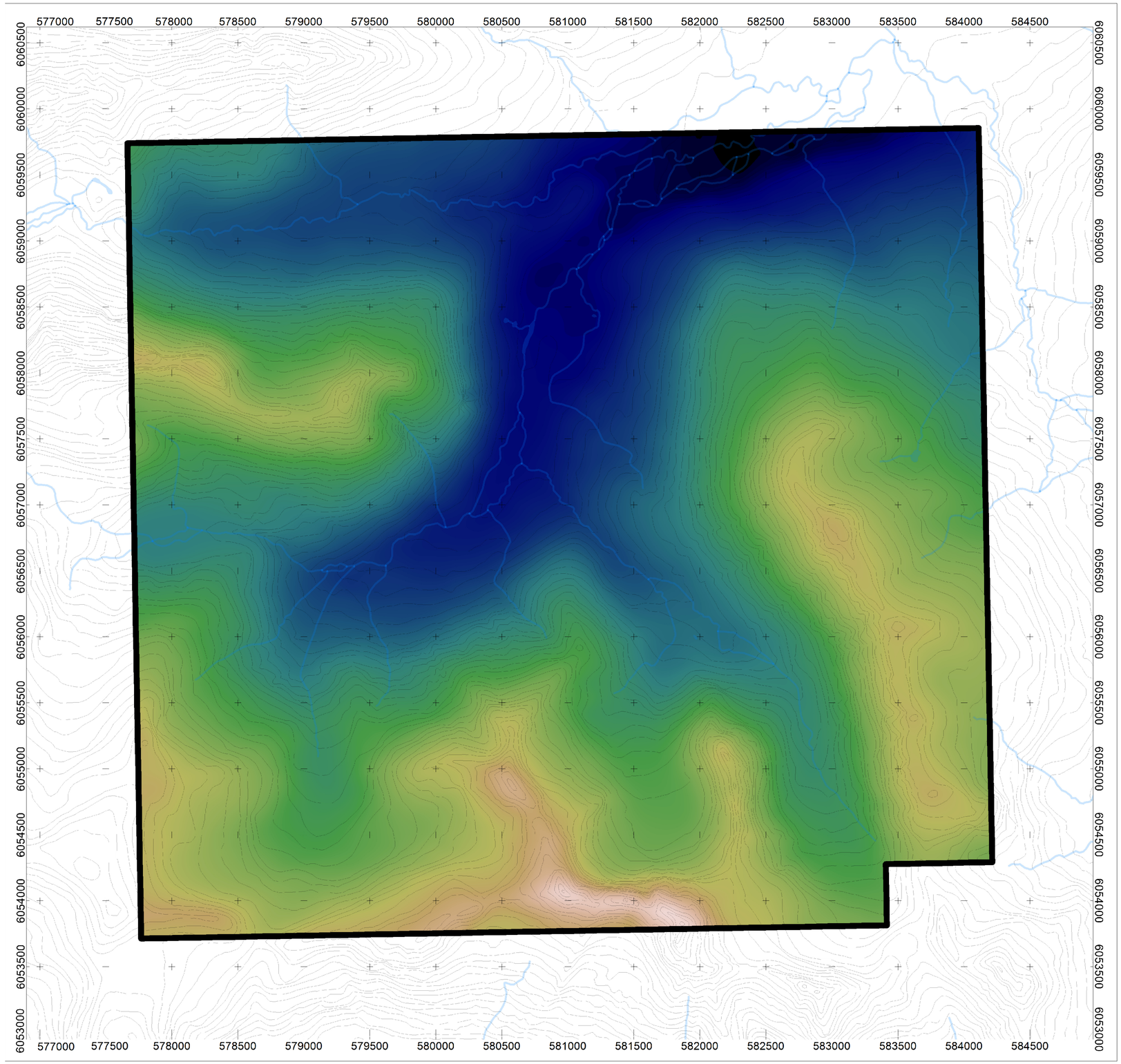
Richard Billingsley

Serb Creek West

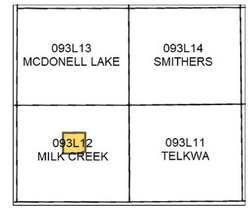
Overview Map
Actual Flight Lines

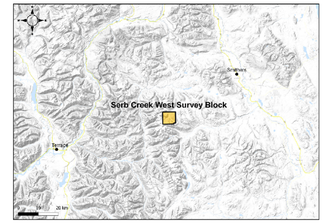
Precision GeoSurveys

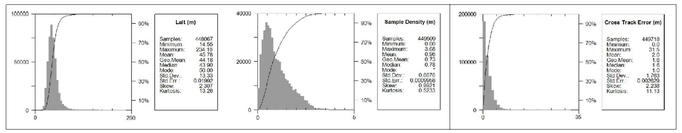
Plate 1
FL

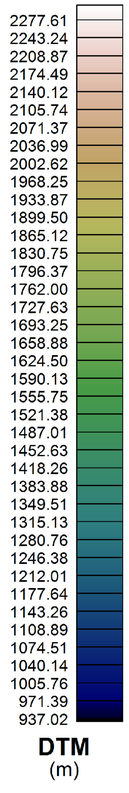


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Water Bodies
Elevation Contours, 100 ft Interval
Serb Creek West Survey Block Boundary

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information. URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

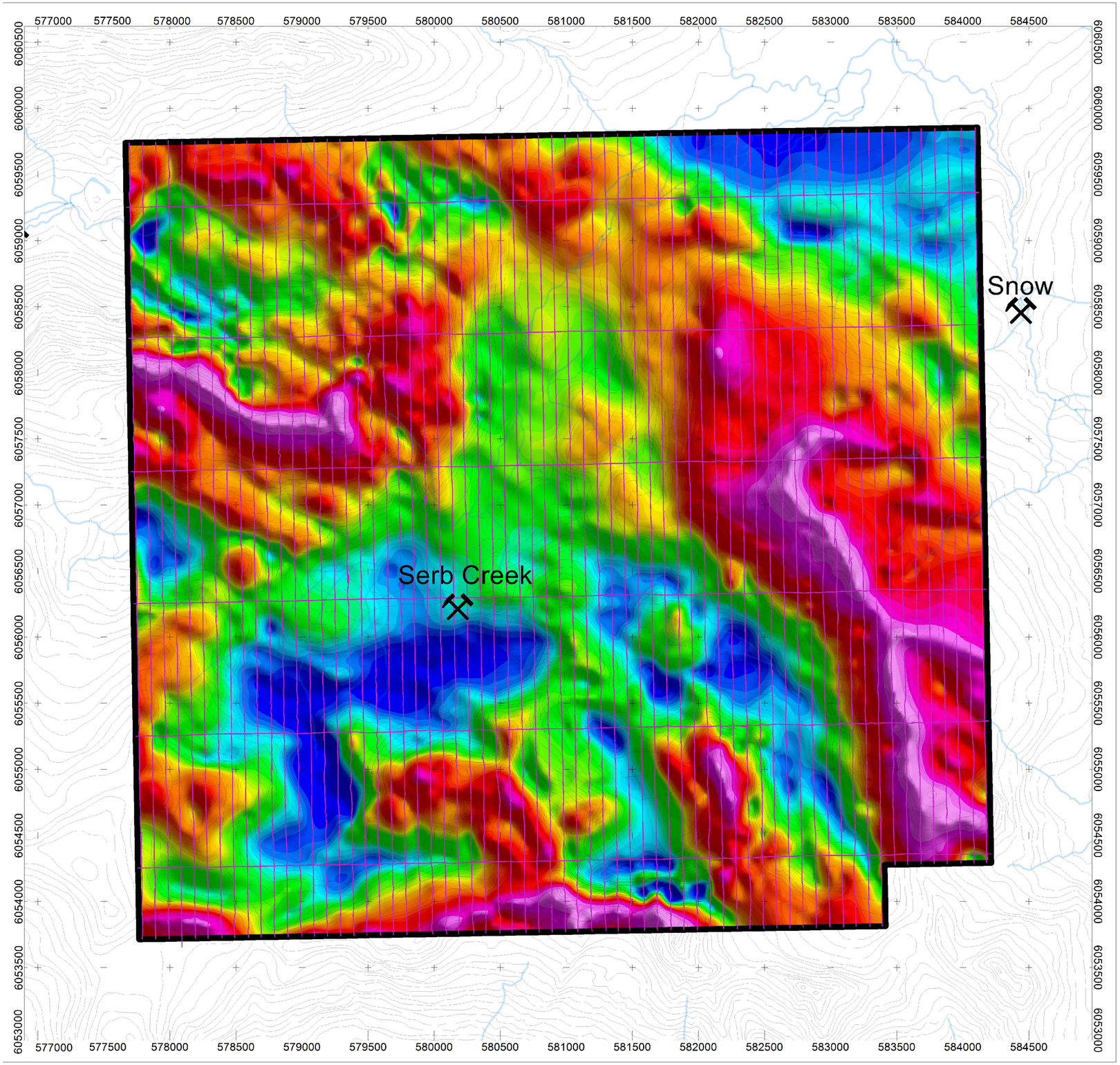
Overview Map
Digital Terrain Model

Precision GeoSurveys

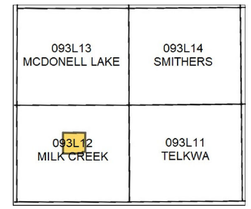
Job #22191_W
October 17, 2022

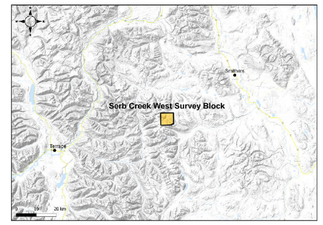
Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

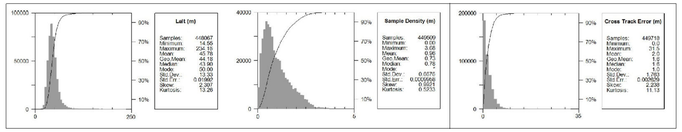
Plate 2
DTM

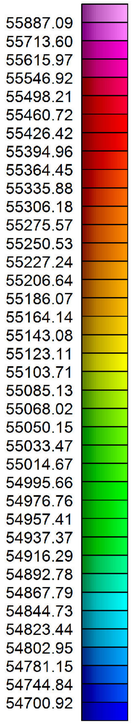


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

- BC Minifile Mineral Occurrence
- Water Bodies
- Elevation Contours, 100 ft Interval
- Serb Creek West Survey Block Boundary
- Actual Flight Lines

DATA REFERENCE

Magnetic data have been compensated and corrected for temporal variations, lag, and heading; then leveled to generate the Total Magnetic Intensity (TMI) grid. Refer to report for details. TMI is represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

Job #22191_W
October 17, 2022

Richard Billingsley

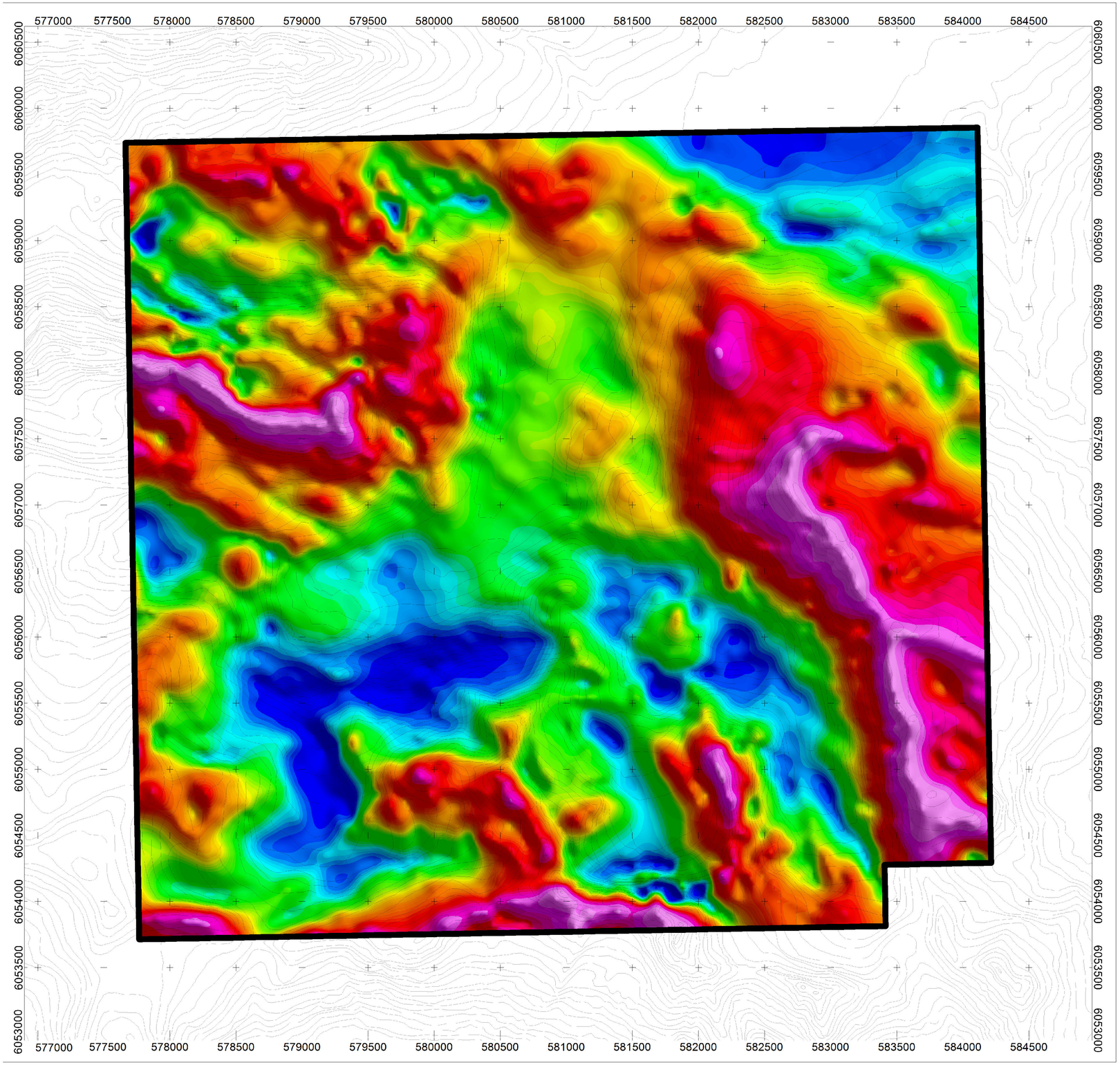
Serb Creek West

Magnetic Map

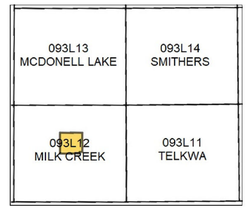
Total Magnetic Intensity with Actual Flight Lines

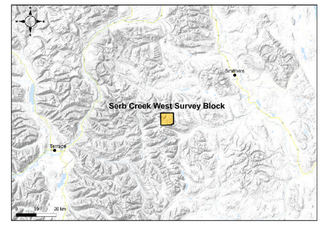
Precision GeoSurveys

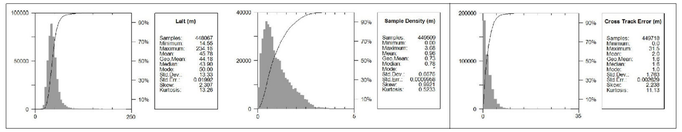
Plate 3
TMI_wFL

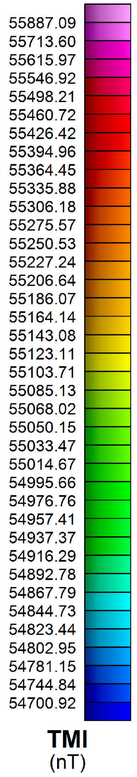


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Magnetic data have been compensated and corrected for temporal variations, lag, and heading; then leveled to generate the Total Magnetic Intensity (TMI) grid. Refer to report for details. TMI is represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

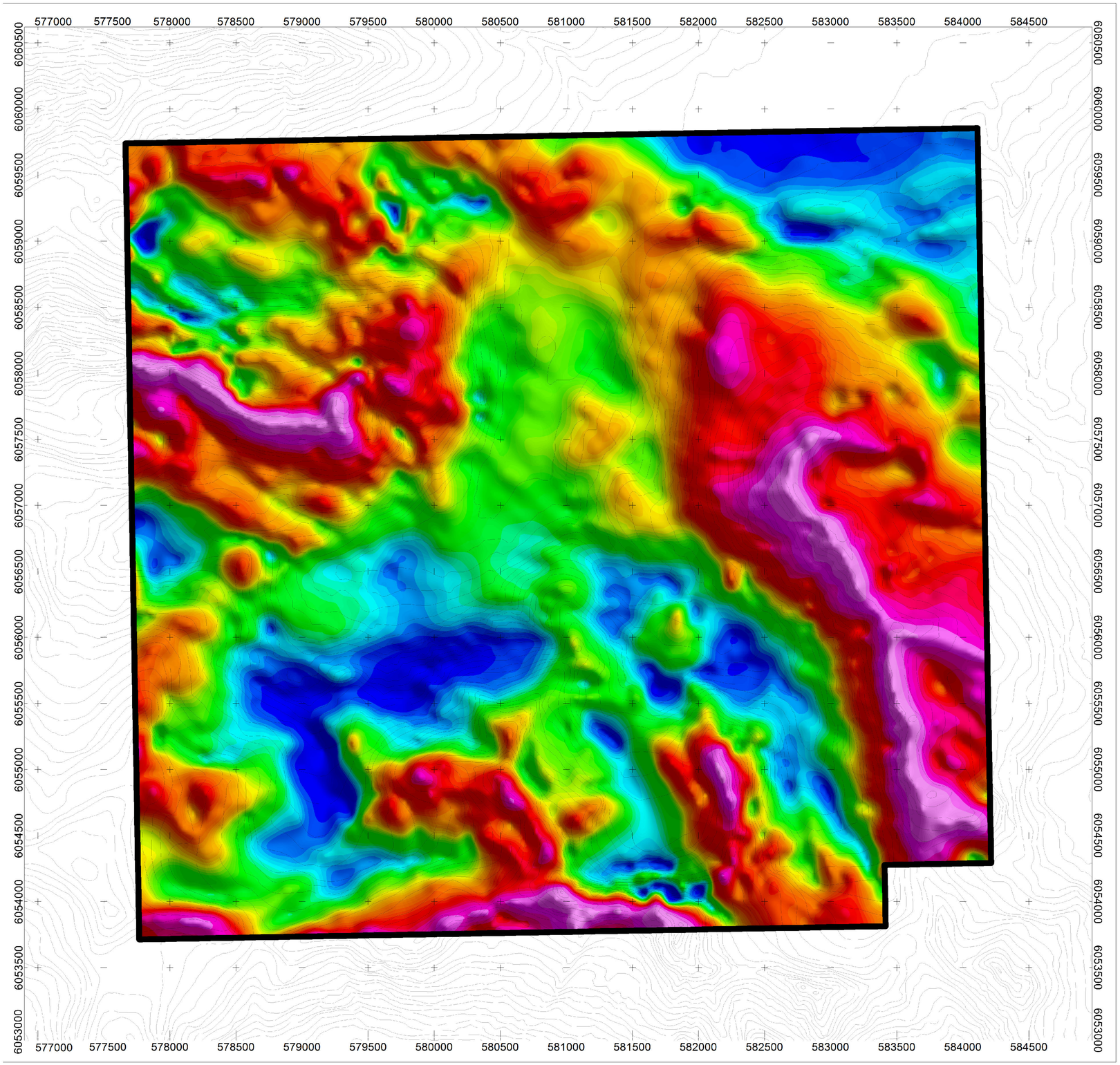
Magnetic Map
Total Magnetic Intensity

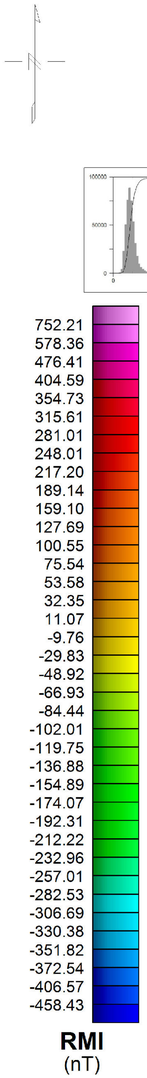
Precision GeoSurveys

Job #22191_W
October 17, 2022

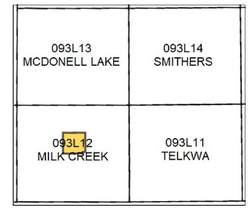
Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

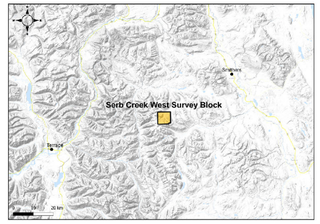
Plate 4
TMI

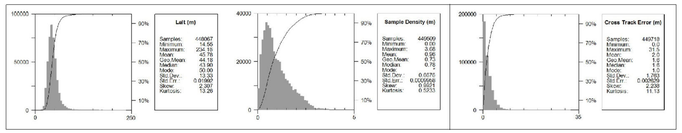




National Topographic System







MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Residual Magnetic Intensity (RMI) is derived by taking the difference between Total Magnetic Intensity (TMI) and IGRF. Refer to report for details. RMI is represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

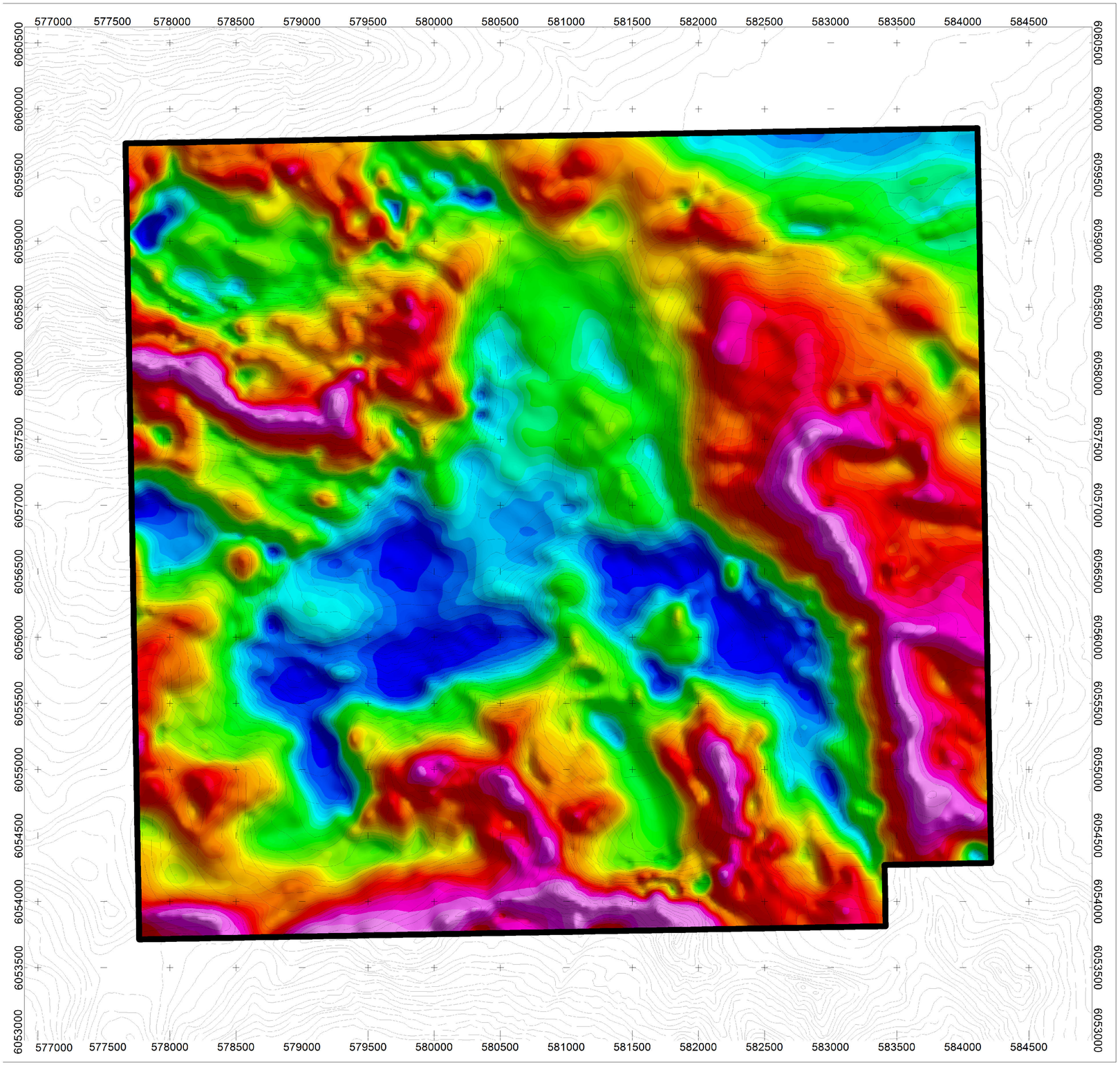
Magnetic Map
Residual Magnetic Intensity

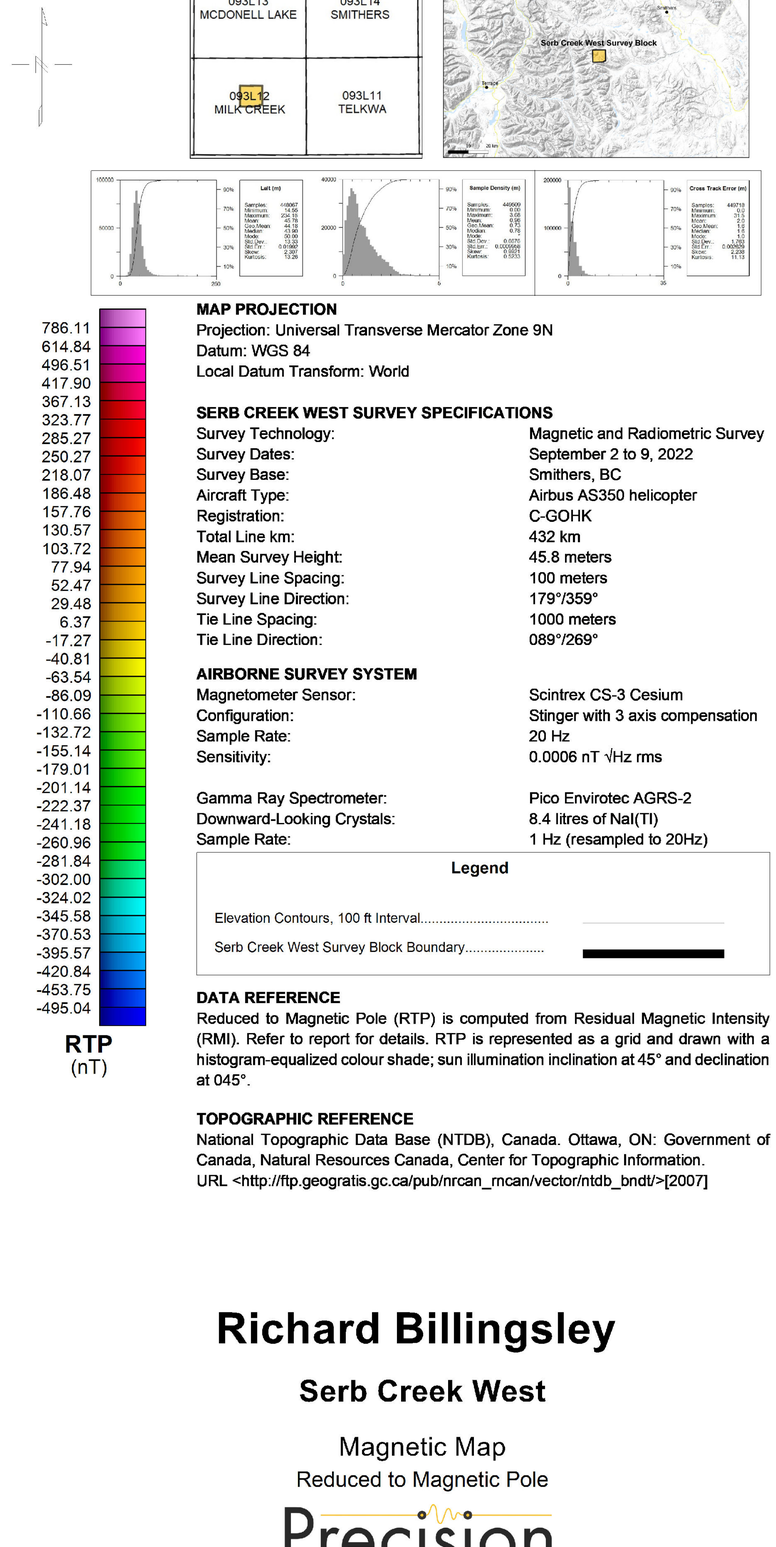
Precision GeoSurveys

Job #22191_W
October 17, 2022

Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

Plate 5
RMI





National Topographic System

MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Reduced to Magnetic Pole (RTP) is computed from Residual Magnetic Intensity (RMI). Refer to report for details. RTP is represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

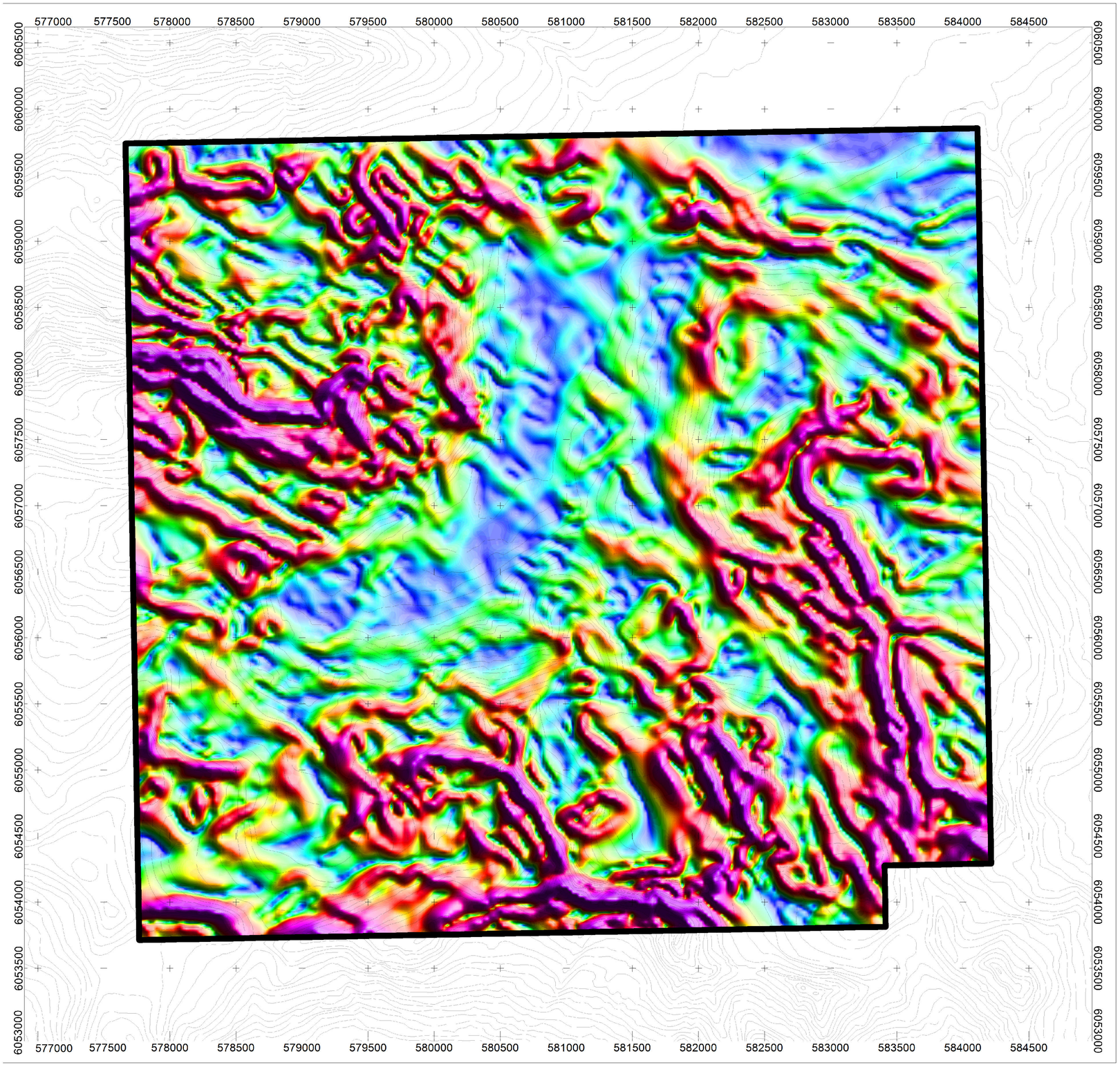
Magnetic Map
Reduced to Magnetic Pole

Precision GeoSurveys

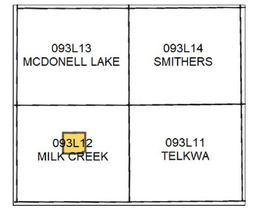
Job #22191_W
October 17, 2022

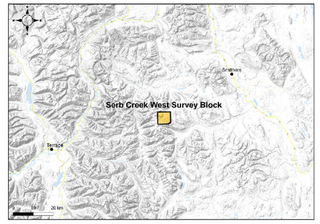
Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

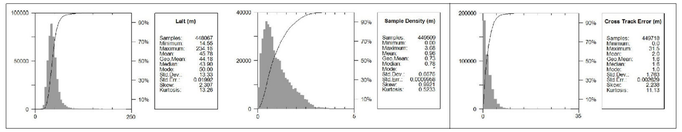
Plate 6
RTP

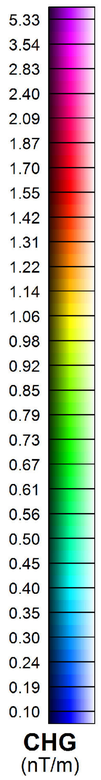


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Calculated Horizontal Gradient (CHG) is the magnitude of the horizontal components of Residual Magnetic Intensity (RMI). Refer to report for details. CHG is represented as a grid and drawn with a histogram-equalized wet-look colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

Richard Billingsley

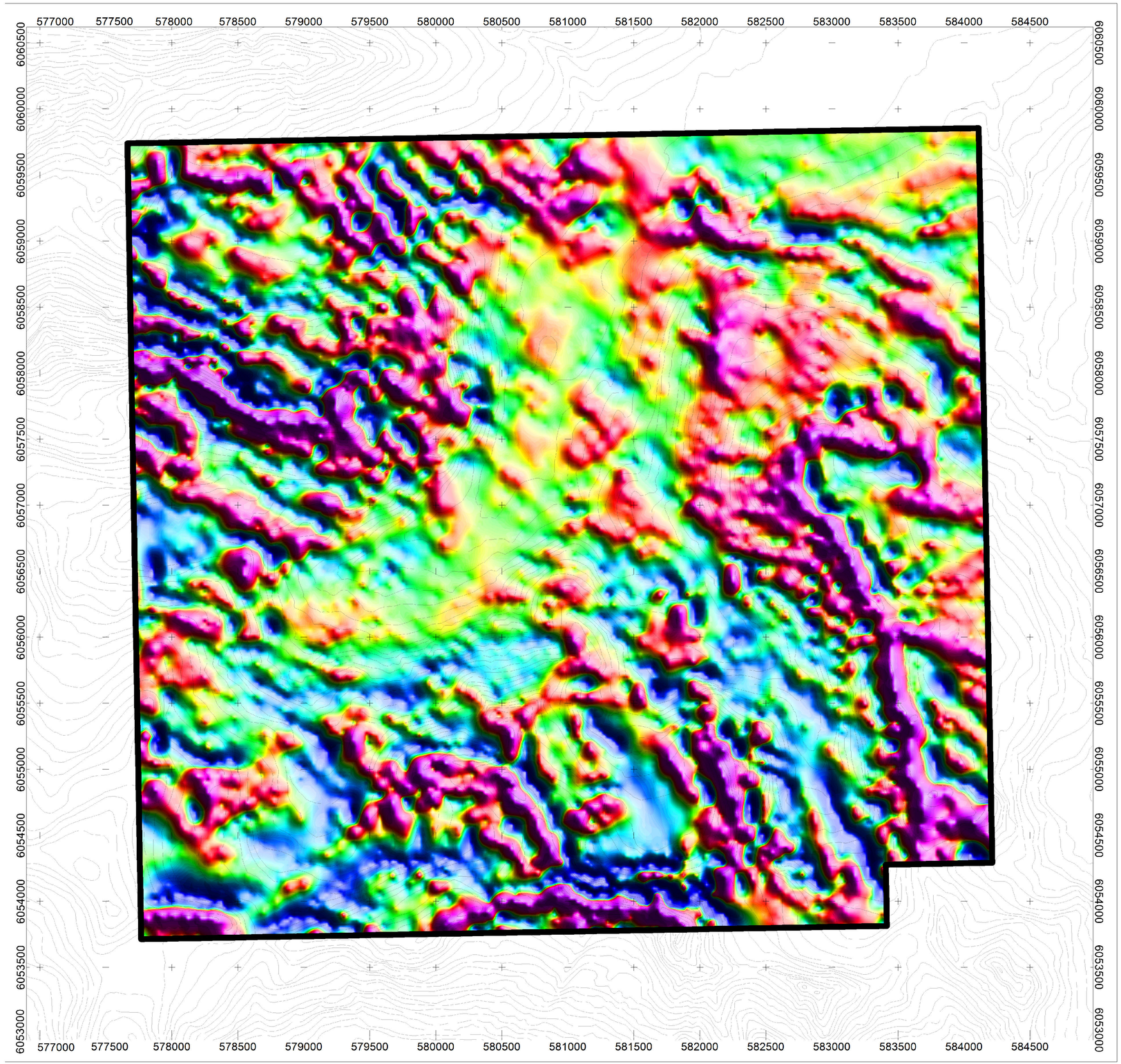
Serb Creek West

Magnetic Map
Calculated Horizontal Gradient

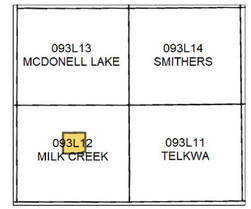
Precision GeoSurveys

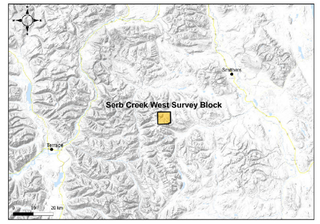
Job #22191_W
October 17, 2022

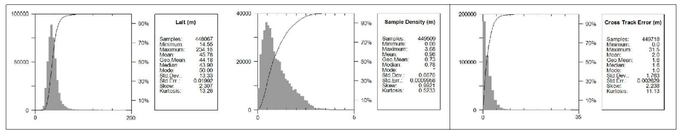
Plate 7
CHG

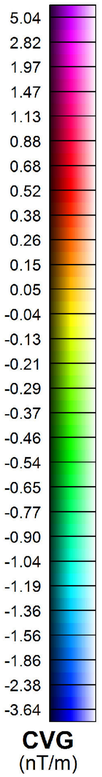


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....
Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Calculated Vertical Gradient (CVG) is the first order vertical component of Residual Magnetic Intensity (RMI). Refer to report for details. CVG is represented as a grid and drawn with a histogram-equalized wet-look colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

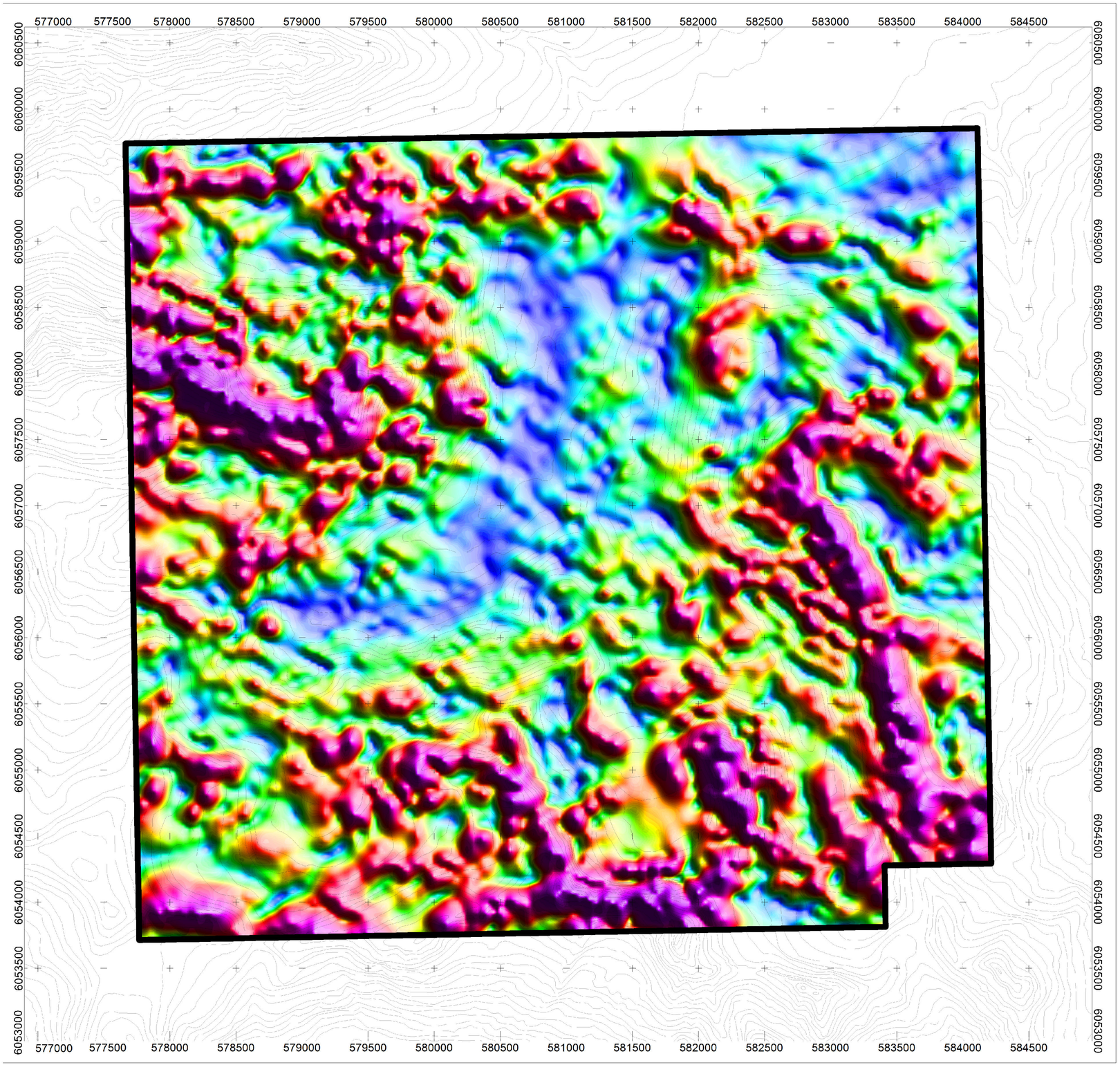
Magnetic Map
Calculated Vertical Gradient

Precision GeoSurveys

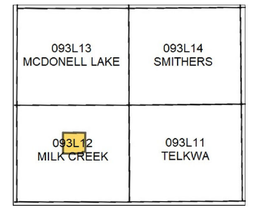
Job #22191_W
October 17, 2022

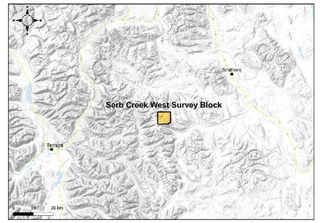
Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

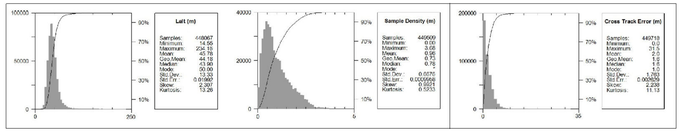
Plate 8
CVG

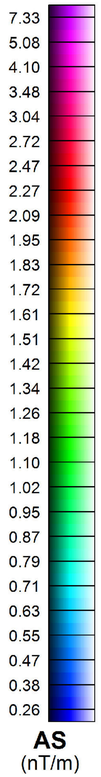


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Analytic signal (AS) is the square root of the sum of the squares of the vertical and horizontal gradients. Refer to report for details. AS is represented as a grid and drawn with a histogram-equalized wet-look colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

Magnetic Map
Analytic Signal

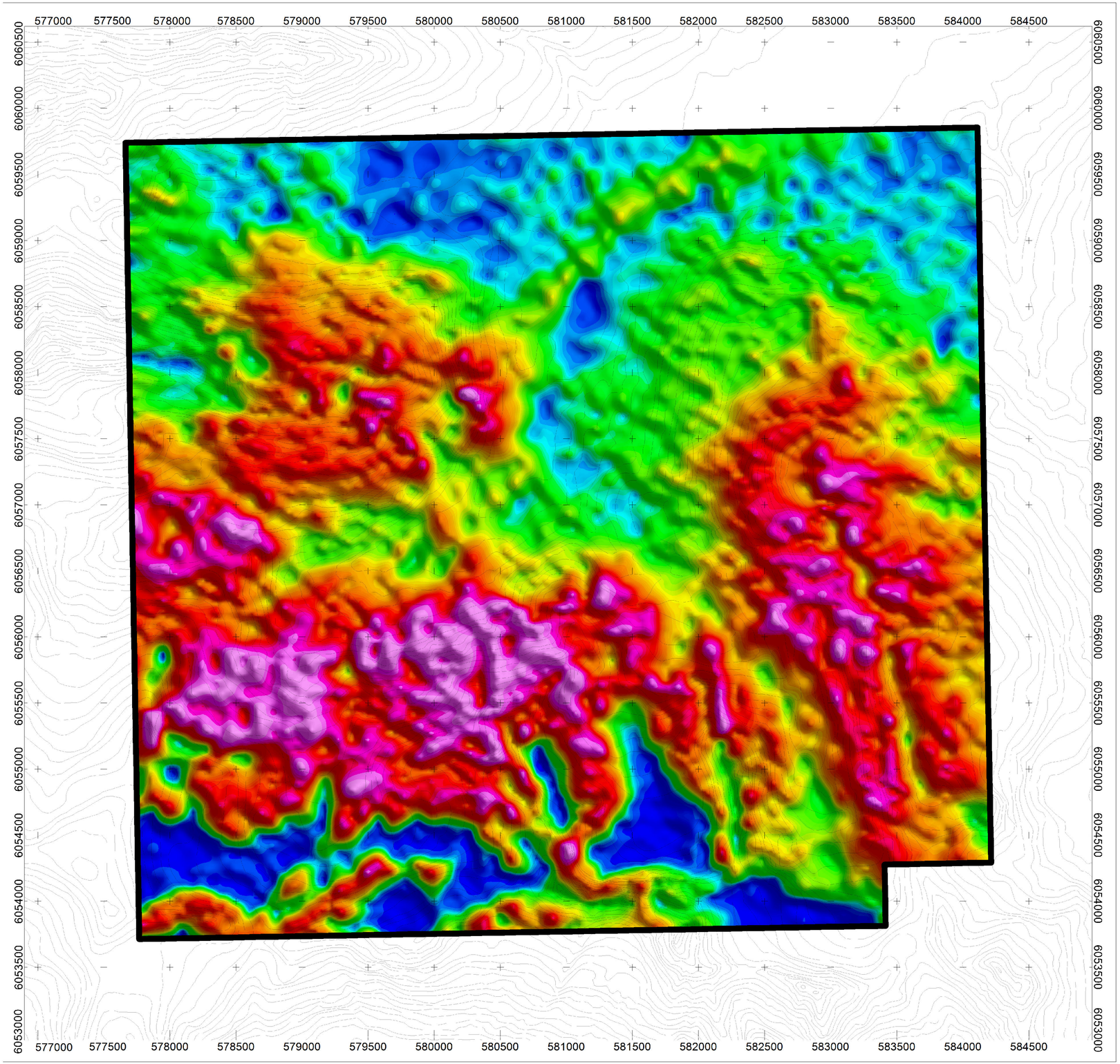
Precision GeoSurveys

Scale 1:15000

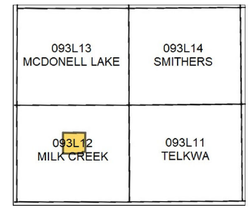
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

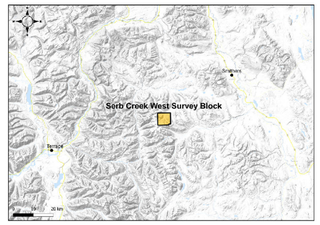
Job #22191_W
October 17, 2022

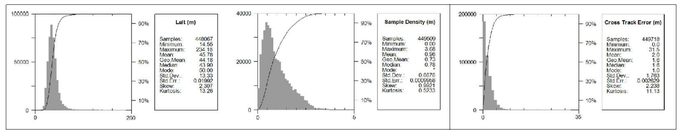
Plate 9
AS

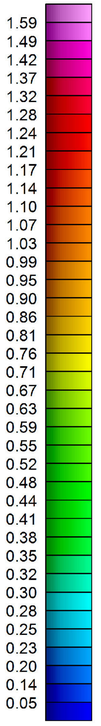


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

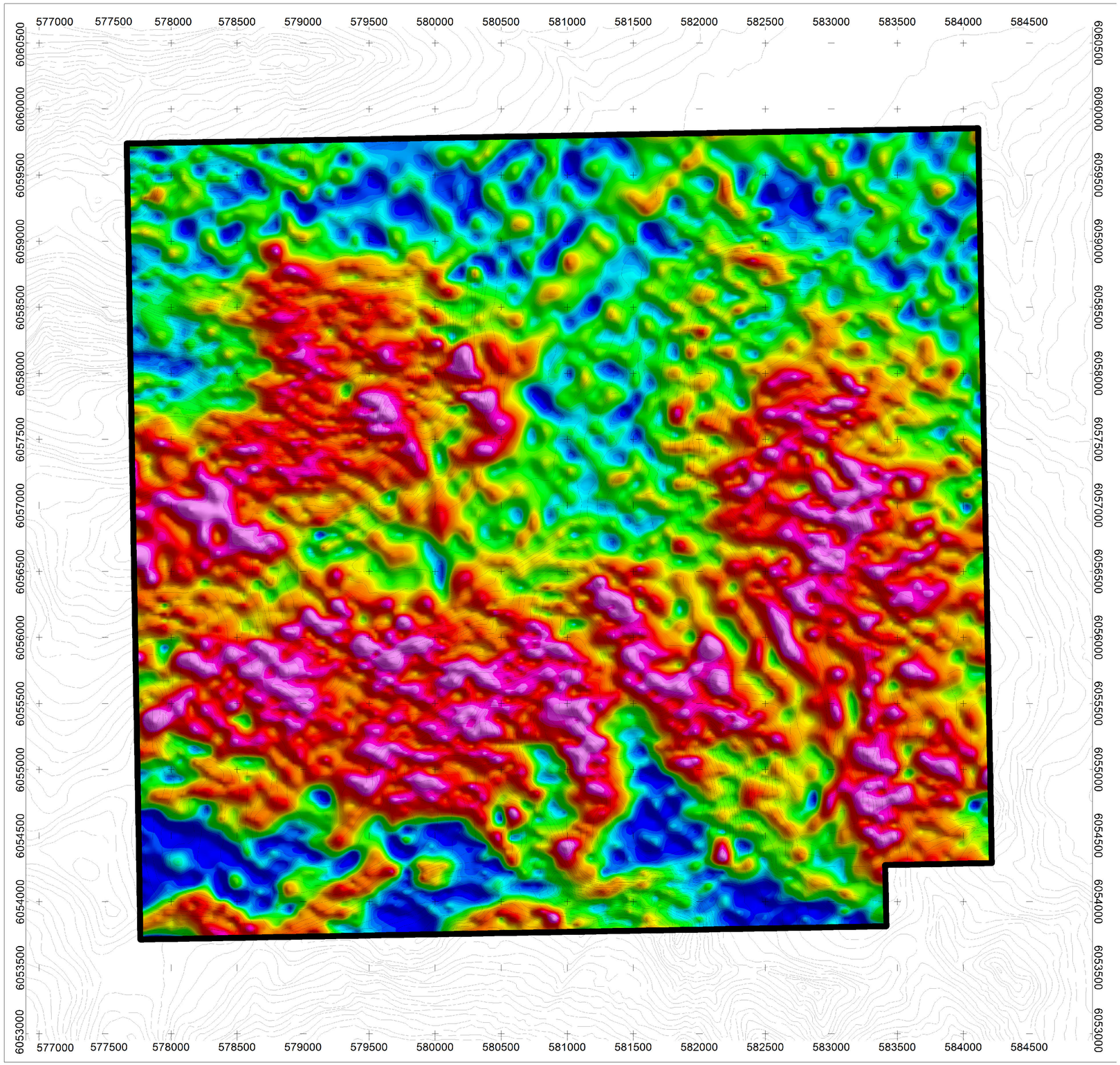
Radiometric Map
Potassium - Percentage

Precision GeoSurveys

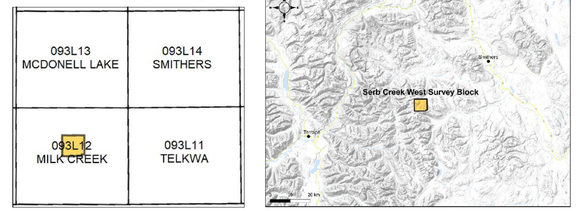
Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

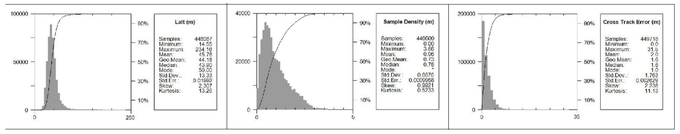
Job #22191_W
October 17, 2022

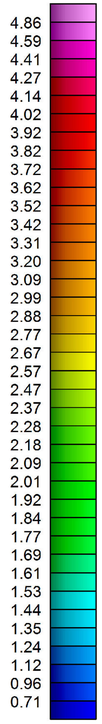
Plate 10
%K



National Topographic System







MAP PROJECTION
Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE
Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE
National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

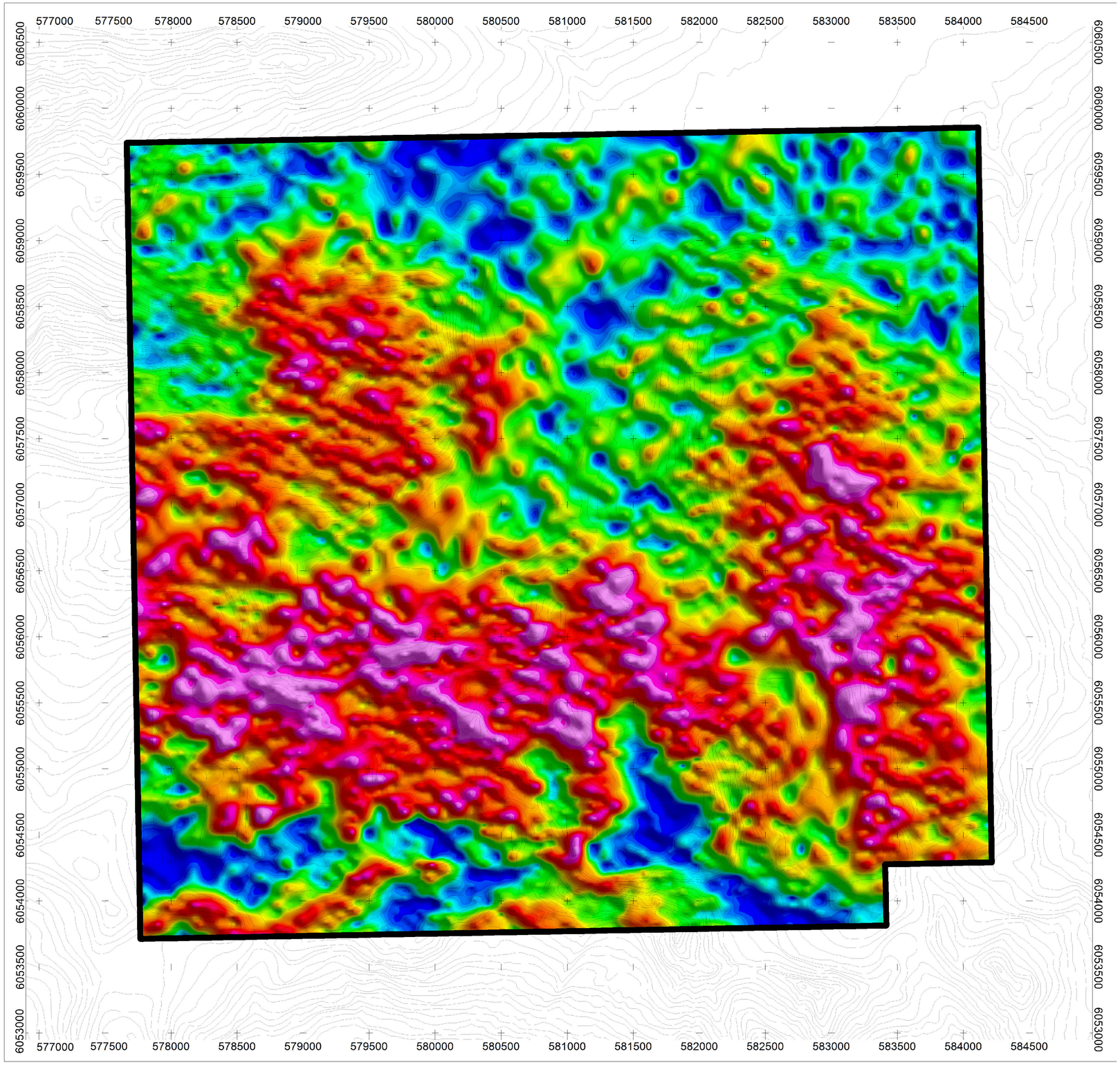
Radiometric Map
Thorium - Equivalent Concentration

Precision GeoSurveys

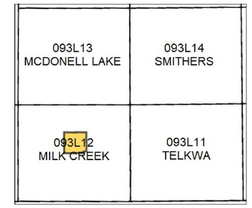
Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

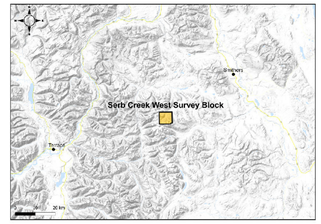
Job #22191_W
October 17, 2022

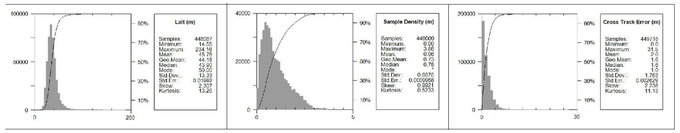
Plate 11
eTh

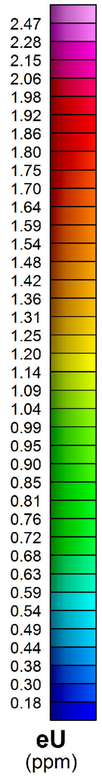


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

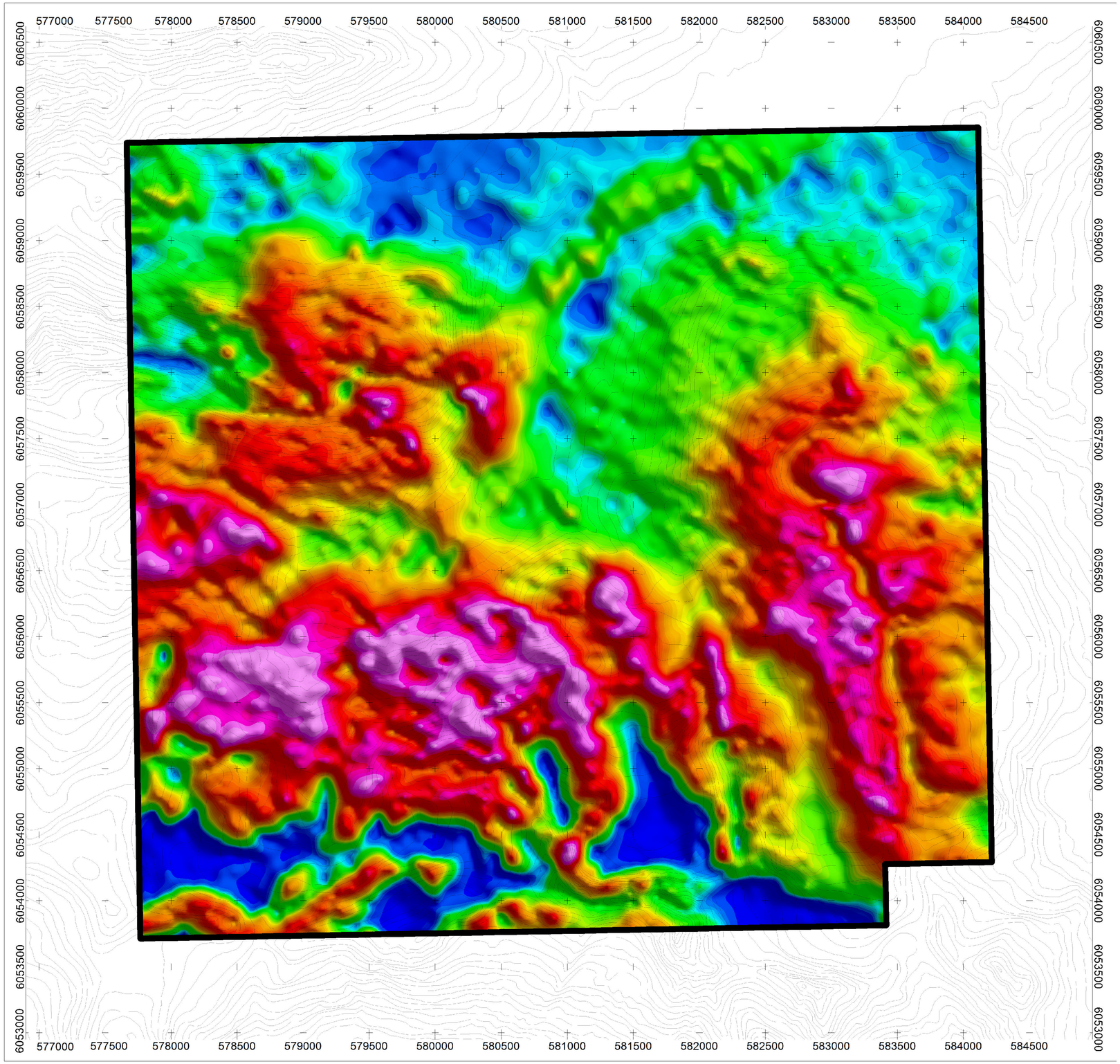
Radiometric Map
Uranium - Equivalent Concentration

Precision GeoSurveys

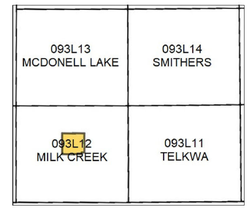
Job #22191_W
October 17, 2022

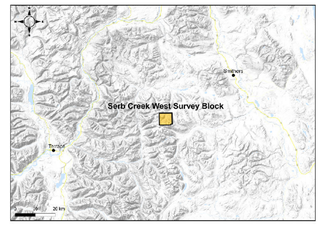
Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

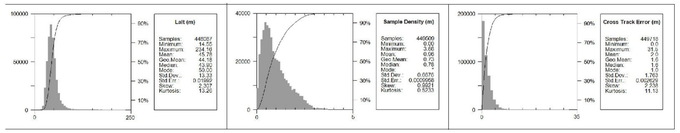
Plate 12
eU

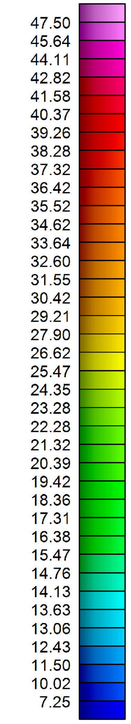


National Topographic System









TC
(nGy/hr)

MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

Richard Billingsley

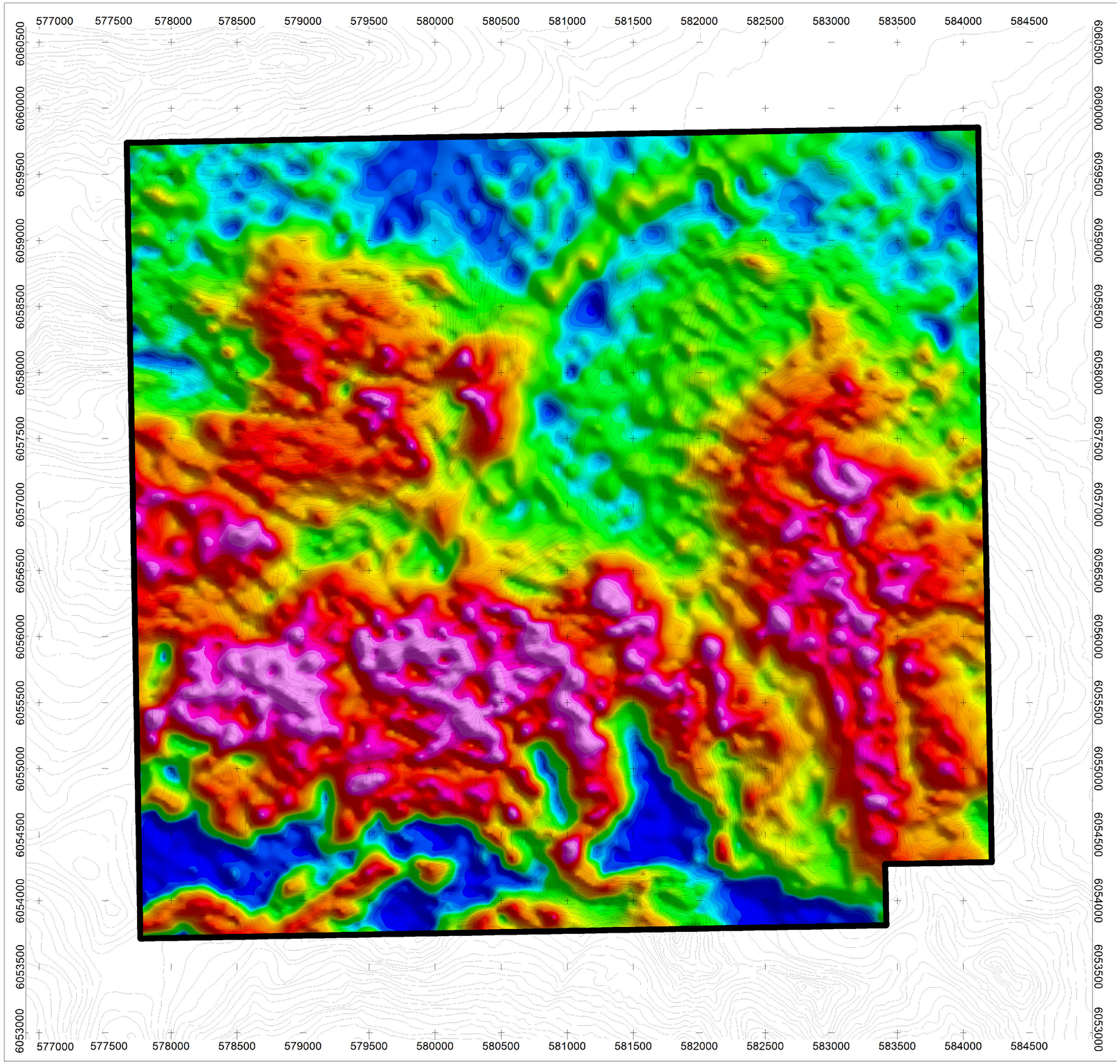
Serb Creek West

Radiometric Map
Total Count

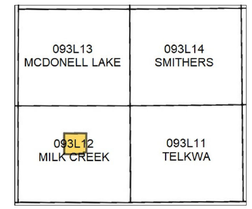
Precision GeoSurveys

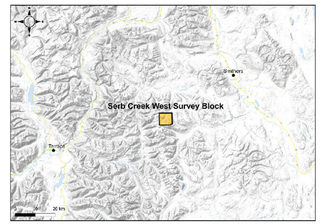
Job #22191_W
October 17, 2022

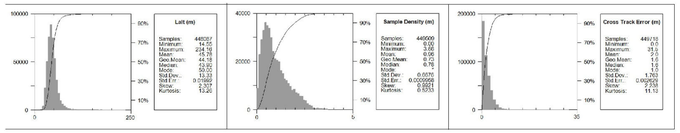
Plate 13
TC

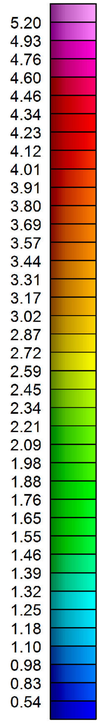


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Scale 1:15000

250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

Richard Billingsley

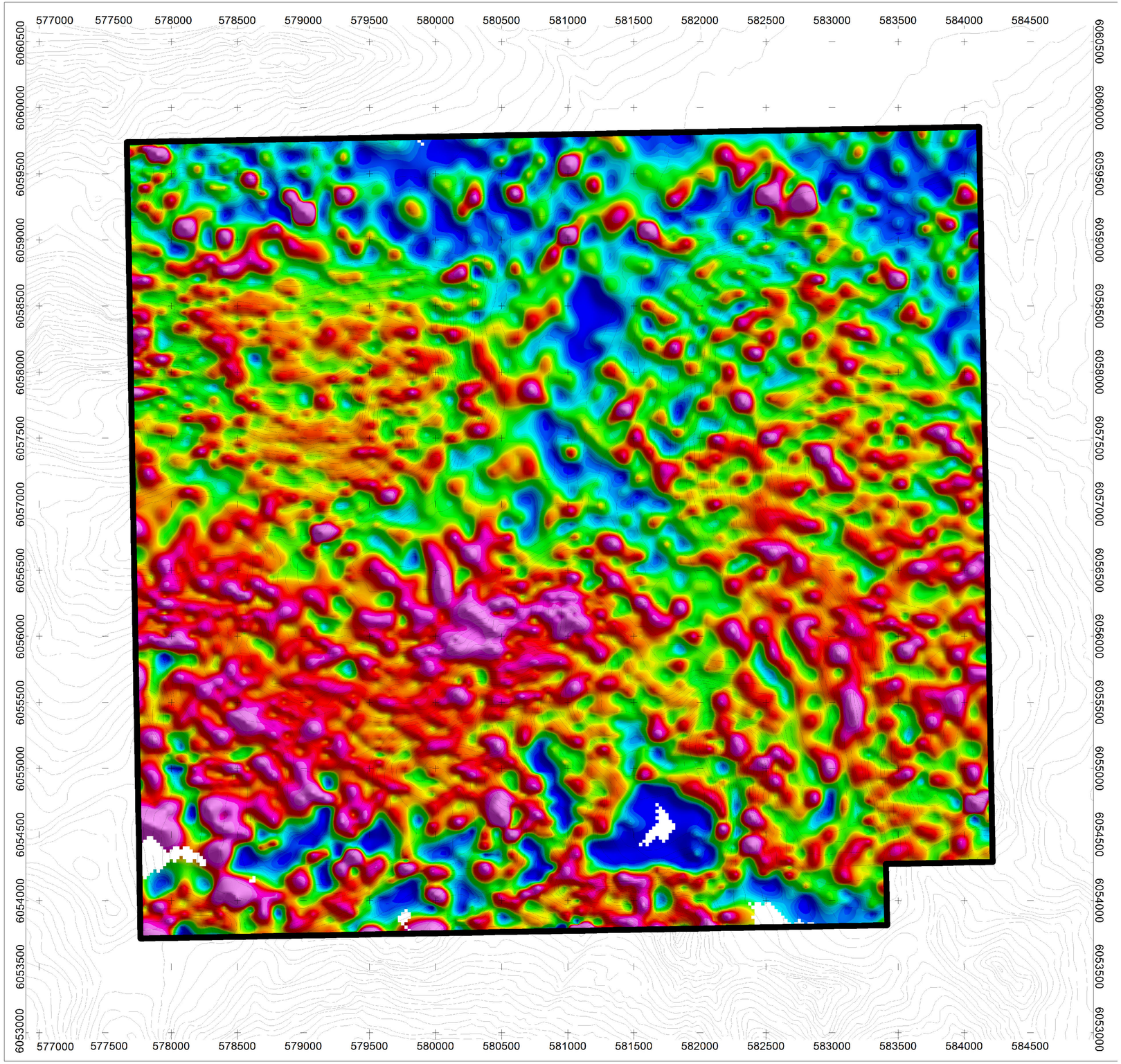
Serb Creek West

Radiometric Map
Total Count - Exposure Rate

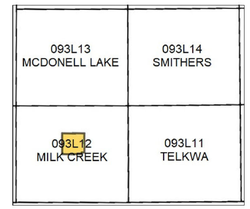
Precision GeoSurveys

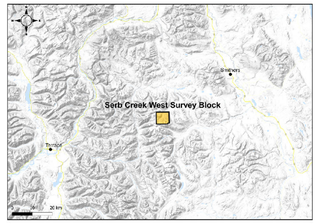
Job #22191_W
October 17, 2022

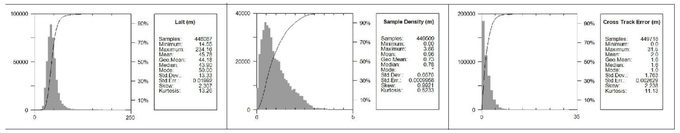
Plate 14
TCexp

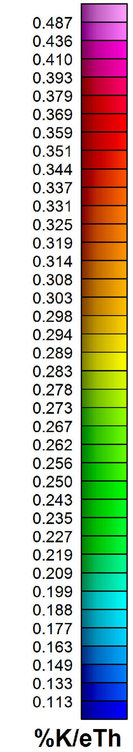


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

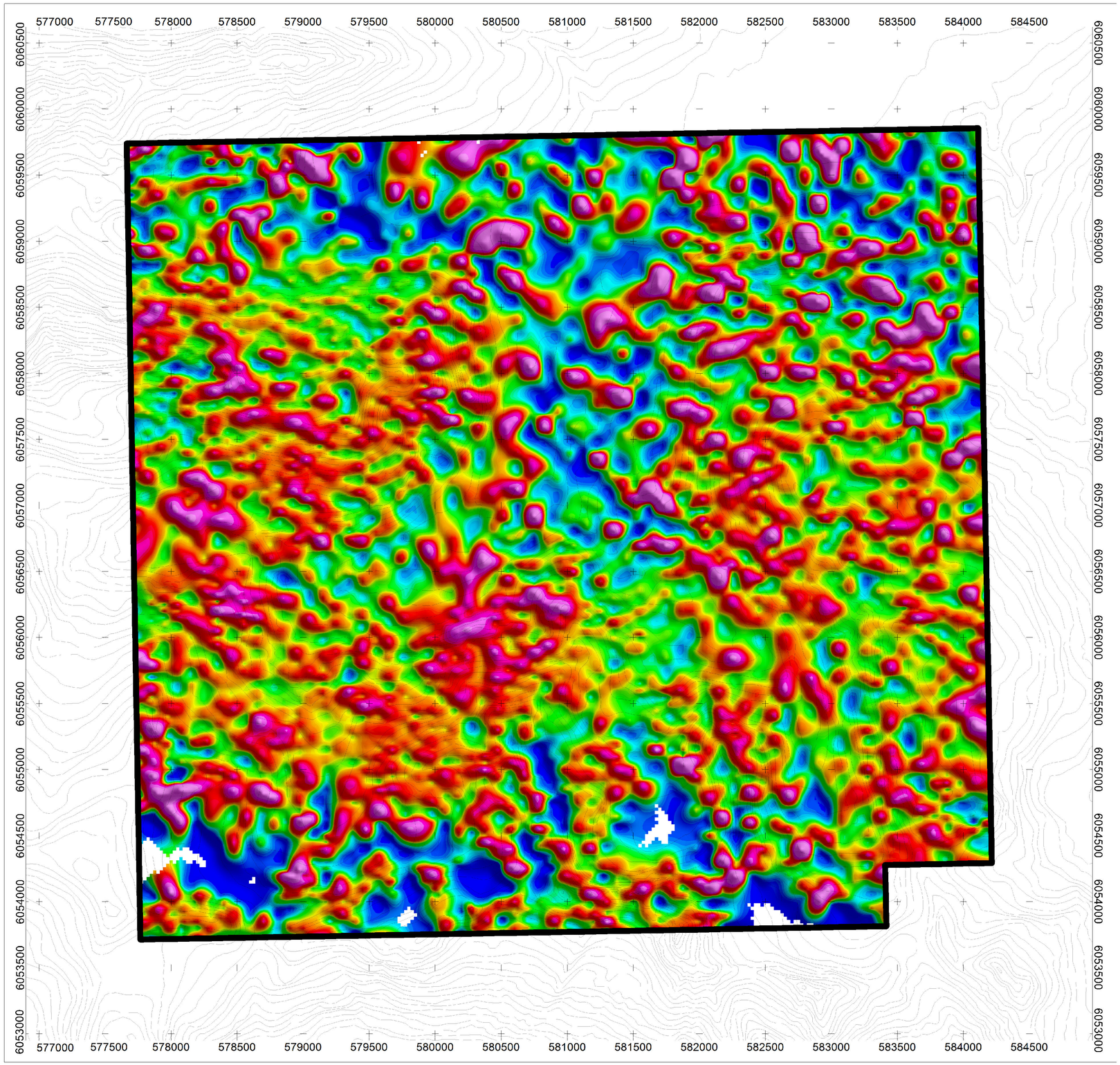
Radiometric Map
Potassium over Thorium Ratio

Precision GeoSurveys

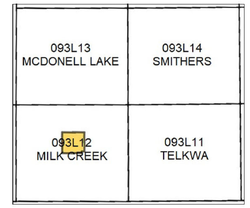
Job #22191_W
October 17, 2022

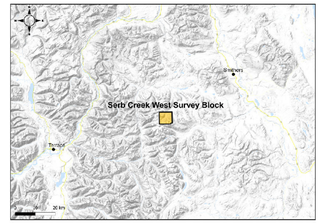
Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

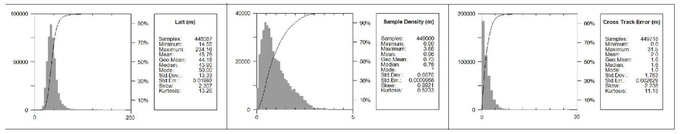
Plate 15
%K/eTh

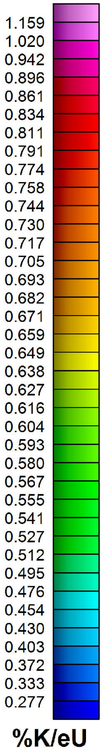


National Topographic System









MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Scale 1:15000
250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

Richard Billingsley

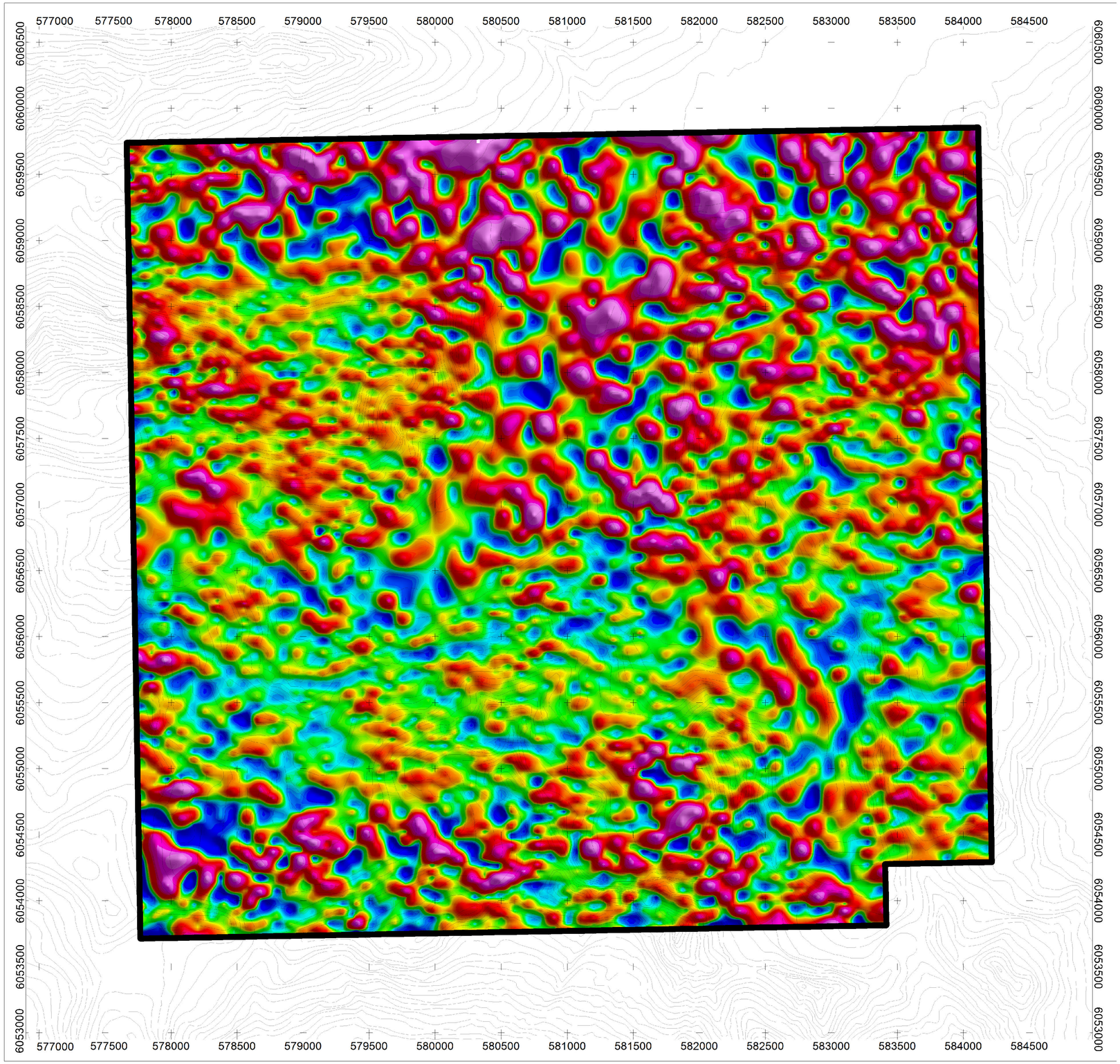
Serb Creek West

Radiometric Map
Potassium over Uranium Ratio

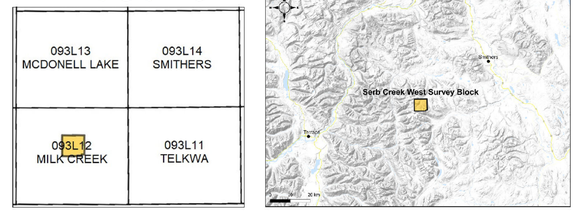
Precision GeoSurveys

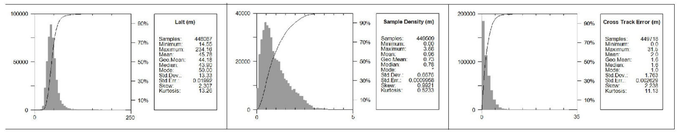
Job #22191_W
October 17, 2022

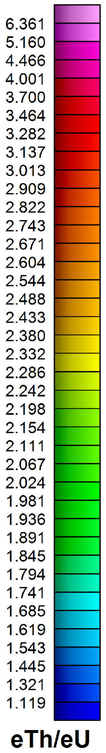
Plate 16
%K/eU



National Topographic System







MAP PROJECTION

Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)

Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Scale 1:15000

250 0 250 500 750 1000
(meters)
WGS 84 / UTM zone 9N

Richard Billingsley

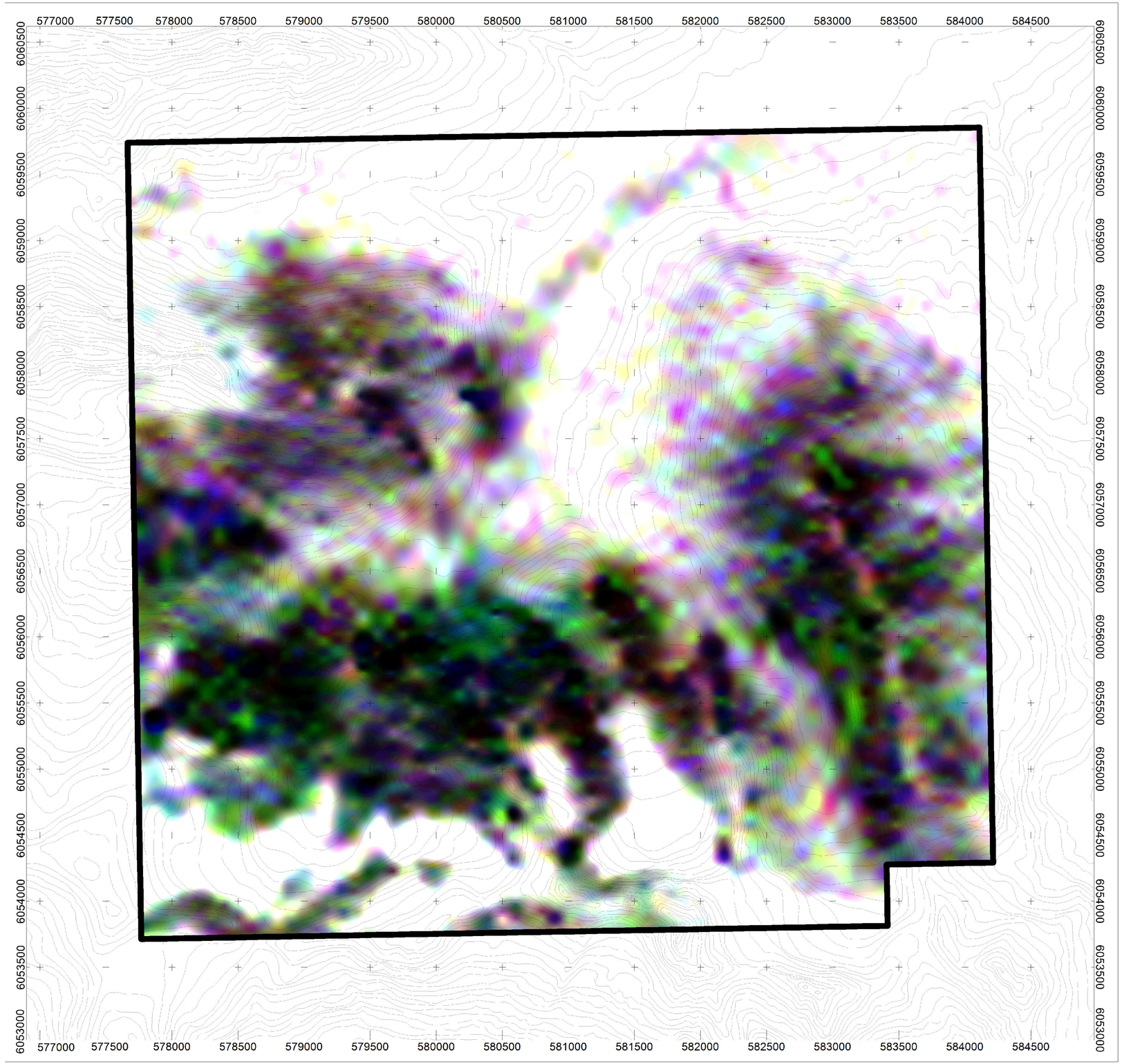
Serb Creek West

Radiometric Map
Thorium over Uranium Ratio

Precision GeoSurveys

Job #22191_W
October 17, 2022

Plate 17
eTh/eU



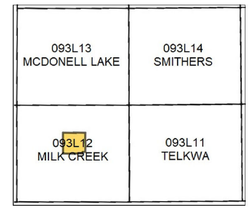
Scale 1:15000

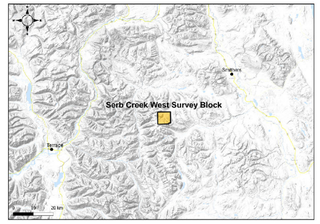
250 0 250 500 750 1000

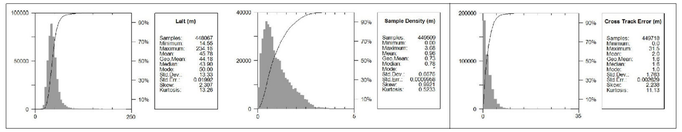
(meters)

WGS 84 / UTM zone 9N

National Topographic System







MAP PROJECTION

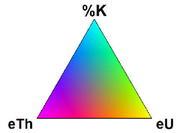
Projection: Universal Transverse Mercator Zone 9N
Datum: WGS 84
Local Datum Transform: World

SERB CREEK WEST SURVEY SPECIFICATIONS

Survey Technology:	Magnetic and Radiometric Survey
Survey Dates:	September 2 to 9, 2022
Survey Base:	Smithers, BC
Aircraft Type:	Airbus AS350 helicopter
Registration:	C-GOHK
Total Line km:	432 km
Mean Survey Height:	45.8 meters
Survey Line Spacing:	100 meters
Survey Line Direction:	179°/359°
Tie Line Spacing:	1000 meters
Tie Line Direction:	089°/269°

AIRBORNE SURVEY SYSTEM

Magnetometer Sensor:	Scintrex CS-3 Cesium
Configuration:	Stinger with 3 axis compensation
Sample Rate:	20 Hz
Sensitivity:	0.0006 nT √Hz rms
Gamma Ray Spectrometer:	Pico Envirotec AGRS-2
Downward-Looking Crystals:	8.4 litres of NaI(Tl)
Sample Rate:	1 Hz (resampled to 20Hz)



Legend

Elevation Contours, 100 ft Interval.....

Serb Creek West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, aircraft, cosmic, lag, radon, stripped ratios, and attenuations, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information. URL <http://ftp.geogratis.gc.ca/pub/nrcan_rncan/vector/ntdb_bndt/>[2007]

Richard Billingsley

Serb Creek West

Radiometric Map
Ternary Image

Precision GeoSurveys

Job #22191_W
October 17, 2022

APPENDIX D-MAPS

578000
580000
582000
584000
586000
6060000
6058000
6056000
6054000
N
1080692
1095235
1097140
1097139
Serb Creek Property
0 500 1,000 2,000 Meters
Map 1: Tenures Comprising the Serb Creek Property
NAD83, Zone 9
Scale 1:20,000
Contour Interval 40 m

578000
580000
582000
6058000
6056000
N
Serb Creek
Claim 1095235
1097140
1097139
D991756, 585
D991805, 69.9
D991804, 8.16
D991755, 1,445
D991801, 28.6
D991811, 577
D991809, 246
D991802, 24.1;
D991803, 888
D991813, 1,900
D991752, 199;
D991753, 246
D991808, 41.2
D991807, 522
D991810, 308
D991807, 14.8
D991806, 33.1
D991812, 2,060
0 250 500 1,000 1,500
Meters
Map 2: 2022 Samples on the Serb Creek Property
Sample Location, Number, Molybdenum (ppm)
NAD83, Zone 9
Scale 1:10,000
Contour Interval 40 m