

ASSESSMENT REPORT

describing

2023 SOIL SAMPLING, LINE CUTTING and PROSPECTING

at the

**FAB PROJECT
YMEP TARGET DEFINITION 23-031**

**FA 1 – 48, YF30417 – YF30464
BH 1 – 30, YD61333 – YD61362**

located at
NTS 116C/10

Latitude 64°34'N; Longitude 140°54'W
Dawson Mining District
Yukon, CANADA

prepared by claim owner
William D. Mann, M.Sc.
January, 2024

Field Work Performed July 25 - 29, 2023



Contents

INTRODUCTION	4
PROPERTY LOCATION, CLAIM DATA AND ACCESS	5
PREVIOUS WORK.....	8
GEOMORPHOLOGY AND VEGETATION	10
GEOLOGY	11
The FAN, FAB and Border Zones	14
DEPOSIT TYPES	15
2023 EXPLORATION PROGRAM.....	17
2023 Soil Geochemistry	17
2023 Line Cutting	25
2023 Test Pits and Prospecting.....	26
2023 Portable XRF Utilization	34
SAMPLE PREPARATION, ANALYSES AND SECURITY	35
INTERPRETATION AND CONCLUSIONS	36
RECOMMENDATIONS	36
REFERENCES	38

FIGURES

<u>No.</u>	<u>Description</u>	<u>Page</u>
1	Project Location and Geological Terranes	6
2	FA & BH Claim Location Map and Property Geology	7
3	2023 FAB area work compilation	20
4	Cu in soil, FAB area compilation	21
5	Zn in soil, FAB area compilation	22
6	Ag in soil, FAB area compilation	23
7	W in soil, FAB area compilation	24
8	Test Pits, Cutline and Camp location	34

PLATES

<u>No.</u>	<u>Description</u>	<u>Page</u>
1.	FAB camp with bear fence.	1
2.	Geomorphology of the FAB target area.	11
3.	Soil sample 39810 site.	18
4.	Soil sample #39810. High Cu, Zn, Ag, As, Ca.	19
5.	FAB cutline 500900E.	25
6.	Pit 4 Sample 26151. Massive goethite with 1011ppm Cu, 3289ppm As, 38% Fe.	28
7.	Pit 10 Rocks. 1968ppm Cu, 4078ppm Pb, 2233ppm Zn, 20% Fe, 2160ppm As	28
8.	Pit 11. Iron rich subcrop beneath buried organic layer.	29
9.	Pit 6. Rusty rock beneath thick organic soils.	29
10.	Digging Pit 10.	30
11.	Pit 10 backfilled.	30

TABLES

<u>No.</u>	<u>Description</u>	<u>Page</u>
1.	Rock Assay Sample Locations & Descriptions	24
2.	Test Pit Locations & Descriptions	27

APPENDICES

I	STATEMENT OF QUALIFICATIONS
II	STATEMENT OF EXPENDITURES
III	CERTIFICATES OF ANALYSIS – SOILS
IV	CERTIFICATES OF ANALYSIS – ROCKS
V	SOIL LOCATIONS AND DESCRIPTIONS

INTRODUCTION

The FAB YMEP project #23-031 was designed to evaluate the FAB zone, a local area on the FA & BH property known to host a strong and extensive polymetallic soil anomaly that is coincident with skarn mineralization and limestone host rocks, and proximal to a regional northeast trending fault. The FA and BH claims were staked in 2017 and 2018 to cover a favourable silver- lead- zinc- copper- molybdenum- arsenic anomaly that extends along an east-west trending ridge south of Fanning creek from the Alaska border. An 8-kilometre polymetallic soil anomaly on the combined property is concentrated in three clusters named the FAN, FAB and Border zones. Most of the property is overburden covered, so the bedrock geology is only partially understood.

Work in 2023 was successful in confirming the FAB zone target. Mineralized skarn was confirmed at the FAB zone with 21 rock samples from float in nine test pits and one subcrop, with seven complete or extension soil lines totalling 83 samples.

Highlights of 2023 work include rock assays up to 0.398 g/t Au, 99.1 g/t Ag, >10000 ppm Cu, and 5180 ppm Zn from test pit samples. A 1km cutline was completed to facilitate access through the thick bush at the FAB target. Soils returned values up to 365ppm Cu, 125ppm Pb, 2863ppm Zn, 43ppm Mo, 23ppm Ag, 661ppm As, 134ppm Cd, and 33ppm Se. This infill and extension soil sampling confirmed the FAB target and may connect the FAB and FAN geochemical anomalies.

2018 petrographic work identified the skarn rocks as diopside- garnet skarn, actinolite skarn and related chlorite-epidote altered carbonate rocks. The diopside- garnet skarn was formed at high temperature, and is likely proximal to an intrusive source.

The project area is located in Yukon Tanana Terrane adjacent to the mid Cretaceous Fanning pluton, within the Tintina Gold Belt, just south of the Tintina Fault and Yukon River in westernmost Yukon Territory, adjacent to the Alaska border. The property comprises 78 FA and BH claims staked in 2017 and 2018.

This report describes a program of soil sampling, line cutting, test pitting and prospecting designed and performed by the author, his partner Max Mikhailytchev and two assistants on July 25th to 29th, 2023.

PROPERTY LOCATION, CLAIM DATA AND ACCESS

The property consists of 48 FA claims and 30 BH claims which are contiguous and located in western Yukon at latitude 64°34' north and longitude 140°51' west on NTS map sheet 116C/10 (Figure 2). The claims are registered in the name of the claim owner William Mann at the Dawson Mining Recorder. Claim data are listed below while the locations of individual claims are shown in Figure 2.

Claim Name	Grant Number	Expiry Dates	Number
FA 1 – 48	YF30417 – YF30464	2025–06–05 or 2027–06-05	48
BH 1 – 30	YD61333 – YD61362	2025–06-05 or 2027–06-05	30

* Expiry dates excludes 2023 work which will be filed for assessment credit.

The property lies about 87km northwest of Dawson City, south of the Yukon river and adjacent to the border with Alaska. The claims cover a north facing slope which drains into Fanning creek, which flows northeast into the Yukon River. Some of the BH claims drain southerly into the Liberty Fork of O'Brien creek, a tributary of the Fortymile river which drains westward into Alaska, south and eastward into the Yukon, then into the Yukon River.

Access is by helicopter either from Dawson City or from the road to the past producing Clinton Creek asbestos mine located 15km south of the FA BH property. The Clinton Creek mine can be accessed in two-wheel drive from the Fortymile road, which forks to the north from the Top of the World Highway from Dawson City to Alaska.

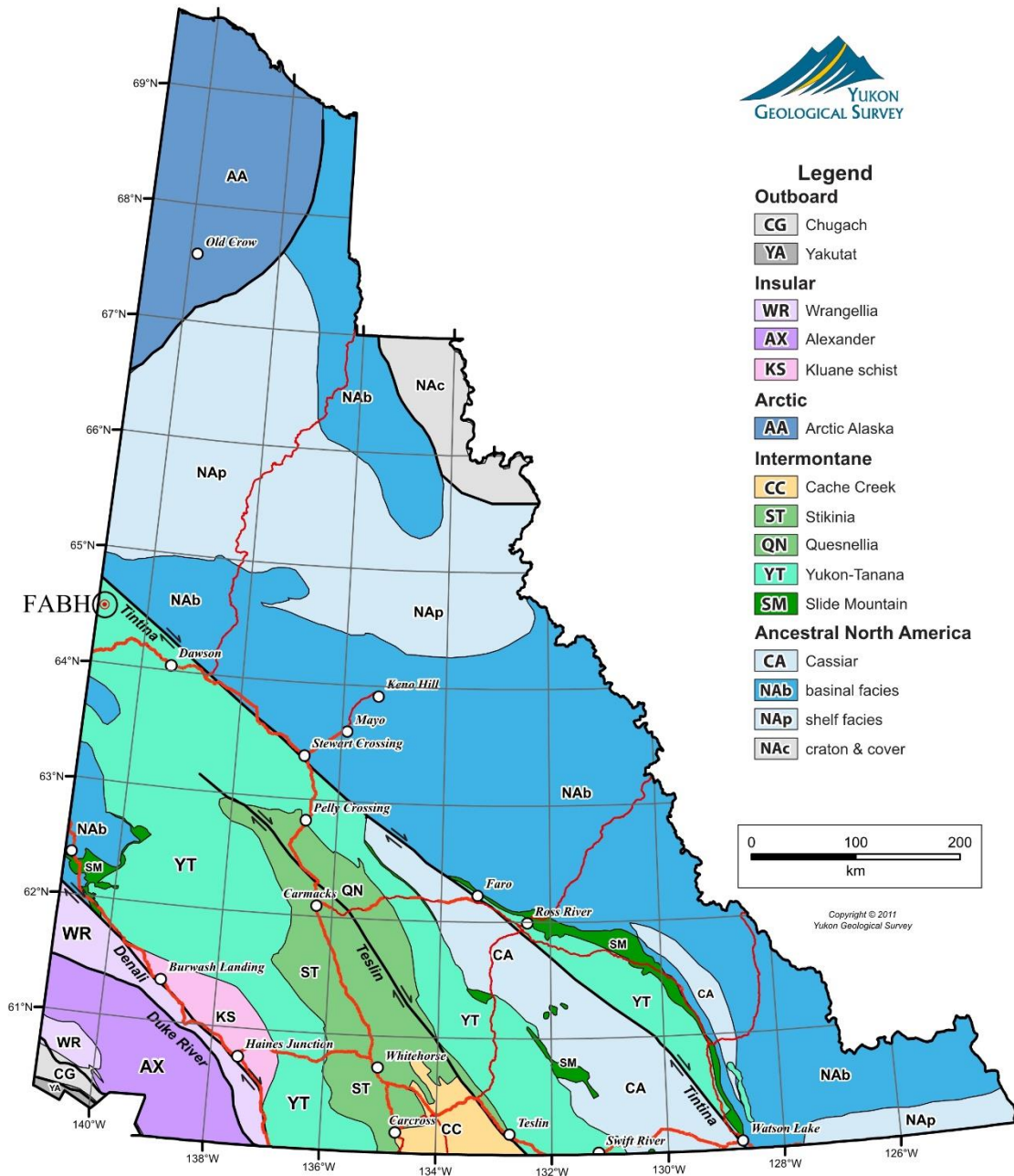


Figure 1. Yukon Terranes and Project Location - FA & BH Claims 116C/10

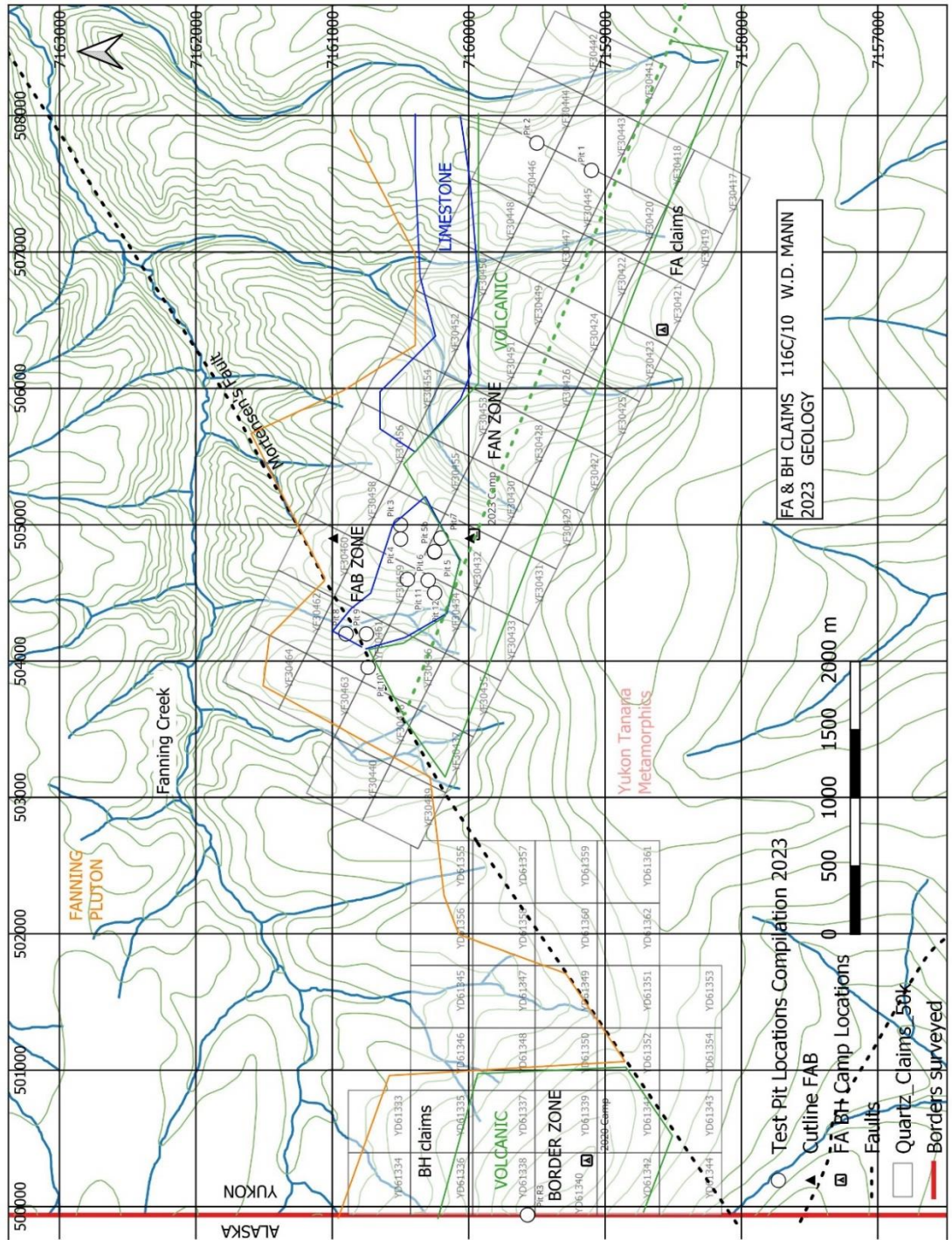


Figure 2. FA & BH Claim Map and Property Geology

PREVIOUS WORK

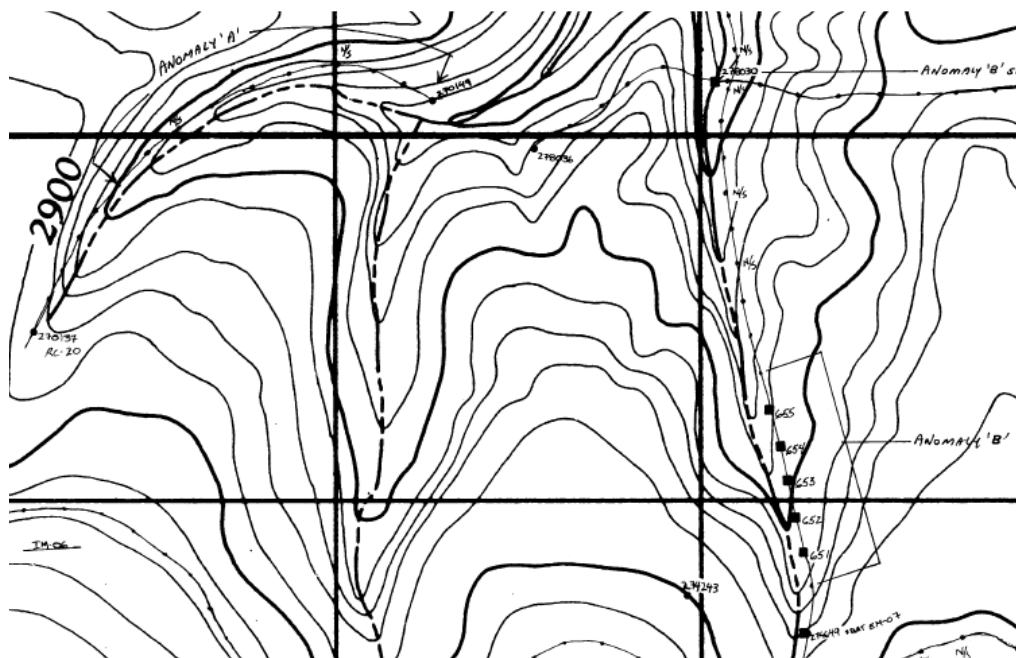
1961 Regional geological mapping conducted at 1:250,000 scale by the Geological Survey of Canada (Green, 1972).

1966 Airborne magnetic survey flown by the Geological Survey of Canada.

1977 Regional stream sediment survey was conducted by the Geological Survey of Canada in the project area (RGS Open File 2365). This work did not identify significant anomalies in streams draining the property, however only a few samples were collected from the Fanning creek drainage, several kilometres downstream.

1979 Cominco performed confidential regional stream sediment geochemical surveys in the area. This program identified anomalies on Fanning creek that led to staking of the FAN claims in 1995.

1995 195 "FAN" claims were staked by Cominco. 192 contour and stream bank soil and silt samples were collected, and analyzed for Zn, Pb, Ag & Cu. Two significant geochemical anomalies were detected by Cominco during work on this occurrence. Anomaly 'A' is 900 metres long and comprises stream bank soil samples with maximum values up to 373 ppm Zn, 146 ppm Pb, 114 ppm Cu and 1.0 ppm Ag. Anomaly 'B' is 600 metres long and comprises stream silt and bank samples with maximum values up to 906 ppm Zn, 500 ppm Pb, 80 ppm Cu and 3.2 ppm Ag (Pride, 1996). It is reported by Ross that Cominco flew an airborne geophysical survey at this time but did not file the work for assessment.



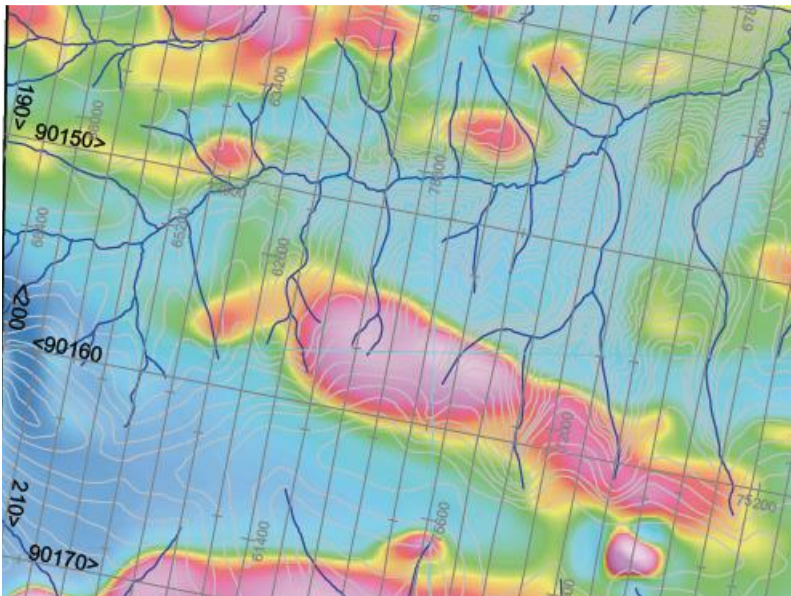
1996 Surficial geological mapping at 1:250,000 scale by Geological Survey of Canada (Duk-Rodkin, 1996).

2004 16 Rhea claims staked by J.P. Ross. 7 float rock samples collected (Ross, 2004).

2007 32 additional Rhea claims staked by Ross. 76 soil samples and 4 float rock samples collected (Ross, 2007). Two soil lines were sampled to the west of anomaly B, and analyzed by multi-element ICP. Soil samples were collected by shovel.

2011 The Rhea claims were optioned by Zincorp Resources Inc., and an additional 95 RH claims were staked. 259 soils, 2 silts and 7 rocks were collected for analysis (Mann, 2011). Soil samples were collected as deep as possible by handheld auger. Work focused between and proximal to Cominco anomalies A & B.

2014 Airborne magnetic survey flown at 400m line spacing, 125m above terrain by Goldak Airborne Surveys for the Geological Survey of Canada (Kiss & Coyle, 2014). Much higher precision, accuracy and resolution was achieved compared to the 1966 survey. A prominent linear FVD magnetic high was shown to occur proximal to the polymetallic soil anomaly.



2016 Enhanced interpretation of existing RGS stream sediment geochemical data for NTS map sheet 116C. Yukon Geological Survey, Open File 2016-32, scale 1:250,000. Still no anomalies in project area due to distant sampling.

2017 48 FA claims staked by W.D. Mann and partner M. Mikhailytchev to cover the FAN minifile occurrence (Assessment Report #097168). 171 soil samples and 11 rock samples were submitted for assay. 3 test pits were dug. Petrographic examination of thin sections was performed, indicating the presence of weakly deformed felsic volcanic rocks. The polymetallic soil anomaly was extended to the Alaska border.

2018 30 BH claims were staked by W.D. Mann and partner M. Mikhailytchev to cover an area of highly anomalous soils and skarn showings adjacent to the Alaska border. A program of soil geochemistry, prospecting, test pitting and petrographic examination was conducted which led to the definition of the FAN, FAB and Border zones along an 8-kilometre anomalous trend.

2020 Mann and Mikhailytchev conducted a short program of prospecting and soil geochemistry at the Border Hill target on the claims. Three test pits were dug, 10 rock samples and 46 soil samples were collected for analysis. Skarns enriched in Au, Ag, Cu etc were confirmed, and a Mo anomaly about 1000m diameter identified.

GEOMORPHOLOGY AND VEGETATION

The FA & BH claims are situated in the Yukon Plateau ecoregion, part of the Boreal Cordillera ecozone (Smith et al, 2004). The property lies about 7 km southwest of the Tintina Trench. The area features rounded ridges and low peaks which represent the top of an ancient peneplane that has been incised by dendritic drainages. Glaciation has not affected the property. The property is drained by Fanning creek that flows north- eastward into the Yukon River and by Liberty Fork, which drains westward into Alaska and then into the Yukon River.

Local elevations range from about 2000 feet along Fanning creek on the FA claims to over 3400 feet at Border Hill on the BH claims. Rock is rare in outcrop, and is mostly confined to steep slopes near creeks and in float at Border Hill above treeline. Soil development is poor, and consists of a colluvium veneer of silt, sand and mixed fragments (Duk-Rodkin, 1996). The project lies within the zone of extensive discontinuous permafrost, with north and east facing slopes that are often moss covered and permanently frozen. This presents an obstacle to soil sampling, trenching and road construction. Soil sampling is most effective if conducted in late summer. A thin blanket of loess is present on the north-facing slope near treeline. Solifluction is apparent on slopes above treeline, and loess mixed with local soil extends downslope from high on the ridge. Loess is noted to dilute metal anomalies in some shallow soils.

Vegetation varies from mature spruce, poplar and birch forests on the lower slopes, thick stunted spruce and buckbrush near tree line, and open mossy grassland on the ridge top. Precipitation totals less than 400mm per year. Temperatures are extreme, with long very cold winters (-30C) and summers that can be hot (+30C).



Plate 2. Geomorphology of the FAB area.

GEOLOGY

Geology in the vicinity of the project has not been recently mapped, and is based mostly on field work from 1961 at 1:250,000 scale (Green, 1972). Some unpublished mapping of 116C/10 was conducted in the late 1980s (Mortensen, pers comm). The geological setting has been put into broader context by Dusel-Bacon et. al. (1998), Gordey and Makepeace (1999) and Colpron (2006).

The property lies in the Yukon Tanana Terrane, southwest of the Tintina Fault. The area lies within the Tintina Gold Belt. The Yukon-Tanana Terrane (YTT) is a terrane of pericratonic affinity which occupies an intermediate position between continental margin rocks of Ancestral North America (Cassiar Terrane, Selwyn Basin) to the east and arc and oceanic terranes accreted in Mesozoic time to the west (Quesnellia, Stikinia and Cache Creek). It consists of polydeformed and metamorphosed Paleozoic metasedimentary and meta-igneous rocks (Colpron, 2006). The Yukon-Tanana comprises thrust sheets that are overlain by klippen of weakly metamorphosed oceanic rocks of the Slide Mountain terrane (which hosts asbestos at Clinton Creek).

At the FA & BH claims these rocks are intruded by the Fanning Creek Pluton, a post-kinematic mid Cretaceous granitic unit of the Whitehorse suite. U-Pb zircon age of 98.4 +/- 0.5 Ma for the Fanning Creek pluton, location: Zone 7, 7161891N, 503410E. This pluton is described by Green as fine to coarse grained, uneven textured biotite granodiorite and biotite quartz monzonite.

A northeast trending fault along lower Fanning creek ("Mortensen's Fault") cuts the pluton and is interpreted to extend southwest across the west end of the claims, and probably extends into Alaska. This fault appears to offset the soil geochemical anomaly and terminate a linear magnetic high anomaly. The fault extension to the southwest passes adjacent to the Border Hill

area, and an outcrop of granitic rock. At Border Hill narrow felsic dykes are present (less than 20 meters wide, mostly less than 1m wide), and therefore not shown on more recent maps. Northeast trending faults are spatially related to mineralization at the Fortymile Pb-Zn-Ag district in nearby Alaska, and to the southeast proximal to the Pika- Sixtymile fault.

The YTT is host to significant base metal occurrences, including the Wolverine and Kudz Ze Kayah VMS deposits in the Finlayson Lake district, in the part of the terrane which lies northeast of Tintina Fault. Restoration of the offset of the Tintina Fault would place the FA & BH property in proximity to the Finlayson district. Several minor VMS occurrences are found to the southeast of FA & BH (e.g. Mickey, Mort, Clip). This model was the basis for exploration by Cominco (Pride, 1996) and subsequent explorers of the FAN occurrence.

Preliminary geological mapping by Cominco determined that the claims are underlain by the Nasina Assemblage, consisting of Devonian-Mississippian black meta-pelites, quartzites and thin felsic meta-tuffs. These lithologies have been hornfelsed by the Cretaceous Fanning Creek Pluton located to the north. Contour soil sampling detected two areas anomalous in Cu/Zn/Pb/Ag (anomalies A & B) underlain by black phyllite and carbonaceous siltstone (Pride, 1996).

Work by the author in 2011, 2017, 2018 and 2020, thin section work by Dr. Tim Liverton and discussion with Professor Jim Mortensen has led to a change in interpretation of the property geology, presented in the 2018 assessment report. A significant amount of younger (non-foliated) felsic volcanic flow and pyroclastic rocks are present in the anomalous areas, along with limestone layers and rhyolitic dykes. Grey, rusty weathering massive rhyolitic flows look very similar to a biotite-pyrrhotite hornfels. Work on the Alaska side of the border has identified similar rocks which have been dated as Permian despite lack of cleavage, and are interpreted to be a stiff basal layer at the base of Slide Mountain terrane (Mortensen, personal communication). The Fanning pluton was found to extend further to the south than shown on government maps.

The rocky area of the FAN zone on the north side of the western creek fork east of Cominco's anomaly "A" is the largest area of outcrop on the property. The pale rocks present include marble, felsic metatuff and rhyolite flows and dykes. Subcrops of microgranite were found on the northeast end of this trend. Lower in this area a cliff outcrop of massive rhyolitic tuff contained a 2m thick band of limestone replaced by skarn (Mann, 2018). The dark grey rhyolites at the western end of these cliffs contain secondary pyrrhotite and pyrite, and occur at the location of the first vertical derivative magnetic high. The grey pyrrhotite bearing rhyolites have a field appearance similar to a pyrrhotite hornfels: very hard, weakly magnetic, massive and rusty stained. The bedded rocks near anomaly "A" have an orientation of about 110° azimuth (similar to the FVD magnetic anomaly), with a 45° dip to the south.

The creek bed west of the FAB zone contains numerous outcrops. The southern area, south of Mortensen's fault encountered outcrops of grey- green- brown phyllite of the Yukon Tanana formation (Mann, 2018) . Across the fault the only rocks seen were grus weathered biotite-

quartz- K-feldspar granites, generally very coarse-grained with feldspars up to 1.5cm and quartz to 1cm. Some impressive hoodoos are formed in these granite cliffs.

The area of the claims is mapped as metamorphic rocks of the Yukon Tanana Terrane on Yukon government maps, however on the Alaskan side of the border there is a different unit, with a “border fault” between. In Alaska, the rocks nearest the claims are mapped as a slightly metamorphosed sedimentary rock with a component of limestone (Foster & Keith, 1968). This is likely to be the same unit found on the key areas of the BH and FA claims with undeformed felsic volcanics and limestone that hosts skarn. Recent unpublished work by Professor Mortensen and Alaskan colleagues suggest that this unit is of Permian age:

“There is a slightly odd package of unfoliated to at most very weakly foliated felsic volcanic rocks that is exposed along the Taylor Highway in E Alaska along King Solomon Creek, a bit north of Liberty. These rocks have always been problematical; however, we now interpret them as part of a thrust slice that sits under large slabs of Slide Mountain greenstones and ultramafic rocks, and on top of typical Yukon-Tanana metamorphic rocks. I dated zircons from a sample of this stuff and got a crystallization age of 259.0 +/- 1.1 Ma, so Late Permian. Similar age as most of the Klondike Schist, but this is clearly a completely unrelated package. It isn't clear whether this is part of the Slide Mountain terrane or something completely unrelated at this point. In any case, this package (which only locally includes the felsic rocks) appears in several areas in the eastern part of the Eagle quadrangle, including an area just south of where the Fanning Cr pluton crosses the border. I interpret this as another thrust sheet of the same package of rocks that should extend across the border and along the southern side of the pluton.” (Mortensen, pers. comm. 2018)

The bulk of the Fanning pluton north of the claims is indicated to be a biotite granodiorite or quartz monzonite, however the 1961 mapping noted strong weathering and sparse outcrop of the unit. Intrusive rocks seen in the project area extend south of the pluton boundary shown on the government map, and are biotite granite and microgranite. Dating by Mortensen of the Fanning pluton indicates a mid-Cretaceous age (98.4 ma) and assigned to the Whitehorse Suite despite being younger (105 to 112ma). A recessive weathering zone of biotite granite gneiss is present on the southeast flank of Border Hill proximal to the extension of Mortensen’s Fault. Rhyolite dykes are seen at the central FA claim area as well as being abundant at Border Hill. Some dykes are anomalous in ore metals, as indicated by XRF. The Lead Creek Pb-Zn-Ag occurrence in nearby Alaska has been dated by Pb isotopes as mid-Cretaceous, and a proximal thin felsic sill returned a zircon age of 96.1 Ma, the same as the Fanning Creek pluton (Dusel-Bacon et. al., 2003).

A government regional airborne magnetic survey was conducted in 2014 over the project area (Kiss & Coyle, 2014). Much higher precision, accuracy and resolution was achieved compared to the 1966 survey. A prominent linear FVD magnetic high is coincident with the polymetallic soil anomalies at the FAN and FAB zones at the FA claims, however the Border zone lies within a magnetic low. The FVD linear is likely a fault splay off Mortensen’s fault that drops the felsic volcanic package down into the YTT, and forms a conduit for hydrothermal fluids that deposited mineralization.

The FAN, FAB and Border Zones

The eight kilometre long polymetallic soil anomaly present at the property has been subdivided into three main zones that reflect distinct areas based on geology and anomalous geochemistry. The locations of the FAN, FAB and Border zones are shown in figure 2.

The **FAN zone** encompasses the original Cominco A and B anomalies (Yukon Minfile 116C 172) and the infill and extension work between these anomalies was conducted in successive programs by Ross, ZincCorp and Mann. This zone covers much of the FVD magnetic high anomaly that coincides with the original polymetallic soil high values. This zone has some coincident limestone, particularly at its northwest end. The limestone unit follows along the northern edge of the magnetic zone, and diverges to the north of the main anomaly near the eastern end of the zone. Some of the soils have not been tested above this limestone, especially in the central part of the zone where it coincides with a steep north-facing mossy slope with thick bush and permafrost. This should be a priority for follow-up. This zone includes the best outcrop on the property near the creeks, and not all outcrops have been examined yet due to thick bush and steep loose rock terrain. And a bear.

The **FAB zone** appears to be geologically separate from the FAN zone a kilometre to the east, as the host limestone unit thins or pinches out as determined from the distribution of Ca in soils (Mann, 2018). The FAB zone has the greatest concentration of metals in soils on the property, with a ~500m diameter zone with very high Cu- Zn- Ag and other pathfinder elements returned from a cluster of over 80 soil samples. There is a strong As- Bi- W anomaly that occurs in the centre of the zone. The FAB zone is lower in Pb than the other zones, except on the peripheries. The area contains significant limestone (Ca in soil and limestone in test pits) that overlies the FVD magnetic high and lies adjacent to Mortensen's Fault. This target has little outcrop, with one rusty grey rhyolitic cliff near the creek. Test pits at FAB returned strong malachite staining (2008ppm Cu) in pit 7, and 276 ppm Pb, 539 ppm Zn, 50 ppm Ag, 1001 ppm Cu, 298 ppb Au, 3895 ppm As, >100 ppm W, 486 ppm Bi from rocks in pit 4.

The **Border zone** lies east across Mortensen's Fault from the FAB and FAN zones to the west, and is underlain by a magnetic low rather than a high. It is possible that the anomalous geochemical trend at FAB- FAN is offset southeast by the major fault to the Border zone. The geochemical signature of Border is somewhat different from FAB- FAN, with a large very high Mo anomaly and extensive elevated As. The highest Cu values (to 5374 ppm Cu) are found on the west side of the zone near the border, with Pb elevated at the east and Zn broadly distributed. Ag is elevated at the west (to 27.7 ppm Ag) and central part of the Border zone. Limestone is rare in float and interpreted from Ca in soil, but the best mineralization near the Border marker is a skarn. It is certain that mineralization continues across the border into Alaska. The skarn appears to have formed from a thin impure limestone or calcareous volcanoclastic host rock. The highest gold found on the property (476 ppb Au) is from a skarn outcrop in this area, adjacent to the bronze border marker. The main rock type at Border Hill is unfoliated felsic bomb tuff.

DEPOSIT TYPES

This area was explored by Cominco in the search for VMS mineralization after their discovery of the Kudz Ze Kayah VMS deposit. If the Tintina fault offset is restored, the project area lies proximal to the Finlayson VMS camp where the KZK, Fyre Lake and Wolverine deposits are located. Several minor VMS occurrences are found to the southeast of FA & BH claims (e.g. Mickey, Mort, Clip) and in nearby Alaska (Dusel-Bacon, 1998). VMS remains a possible target for the area, though Finlayson group metavolcanics are no longer thought to be present in the anomalous areas.

Two significant geochemical anomalies were detected by Cominco during work in the project area in 1995. Anomaly 'A' is 900 metres long and comprises contour soil samples with maximum values up to 373 ppm Zn, 146 ppm Pb, 114 ppm Cu and 1.0 ppm Ag (Fig. 2). Anomaly 'B' is 600 metres long and comprises stream silt and bank samples with maximum values up to 906 ppm Zn, 500 ppm Pb, 80 ppm Cu and 3.2 ppm Ag. These anomalies form the FAN zone (Yukon Minfile 116C 172), and were considered worthy of follow-up, however Cominco let the FAN claims expire.

The possibility that the anomalies are related to high temperature carbonate replacement deposits (CRD) was considered by prospector J.P. Ross who staked the RHEA claims to cover the Cominco anomalies (Ross, 2007). The presence of this deposit type is known in the nearby 40 Mile district of Alaska (Dusel-Bacon et. al. 2015). This district has had a series of CRD discoveries, with elevated values for Zn, Ag, Pb, Cu and In. Some of the occurrences are noted to be skarns, while most are mantos. The occurrences are hosted in carbonates, and are spatially associated with intrusive rocks (often immediately adjacent to felsic dykes) and northeast trending faults. The nearest of these occurrences is Lead Creek, located approximately 25km to the west of FA & BH in Alaska, which has returned drill intersections of 15.4m of 370 g/t Ag and 5.5% Pb, and 9.6m of 725 g/t Ag and 6.4% Pb.

Work at the FAN zone in 2011 and 2017 revealed small patches of subcrop and float containing coarse epidote replacing limestone, with weak sulphide mineralization. In 2018 a skarn band in this area was determined to contain diopside-hedenbergite / garnet. Carbonate replacement is now considered to be a key deposit type at the FAN target. Following the limestone beds using outcrops, subcrop and Ca in soils is thought to be an important exploration criterion.

The best soil anomaly cluster at the FAB zone occurs where the limestone unit overlies the magnetic high anomaly in proximity to the Mortensen Fault. 2018 prospecting at Border Hill and test pits at the FAB zone resulted in the discovery of diopside- garnet and actinolite skarn with highly anomalous values in Pb, Zn, Cu, Ag and Au (Mann, 2018). Skarn and carbonate replacement type deposits are now thought to be the prime exploration target on the claims.

Prospecting at the Border Zone in 2017, 2018 and 2020 revealed Cu- Au skarns and narrow vuggy quartz veins bearing arsenopyrite and trace galena. These veins are highly anomalous in Ag, As, Pb, Zn, Mo, Cu and potential Au pathfinder elements. They cut felsic bomb tuff in proximity to rhyolite dykes, and are considered to be epithermal veins. These epithermal veins may be peripheral to a porphyry target, and combined with extensive Mo- Cu soil anomalies further work targeting porphyries is recommended.

2023 EXPLORATION PROGRAM

The 2023 field program was conducted by the author and partner senior field technician Max Mikhailytchev, and assisted by F. Mikhailytchev and B. da Silva. The field program was conducted July 25th to 29th, focused on the FAB target on the FA claims. The property was accessed by helicopter and by truck to the Clinton Creek mine gate, then by helicopter to the property. A tent camp was established at a previous site at the FAB target, with sampling and prospecting traverses on foot. 83 soil samples were collected. 21 rocks samples were sent for assay. A 1km cutline was established from camp along north-south UTM grid line 500900E to facilitate access through very thick bush. Weather was hot and dry, and generally favourable to the program.

A hand-held XRF device was used to evaluate soil samples before analysis, however the device shut down after a few samples each day. The program was successful in locating additional mineralized rock in several test pits, in infilling and extending known polymetallic soil geochemical anomalies and in improving access along the cutline. The presence of significant copper, zinc, gold and silver values was confirmed at the FAB zone.

2023 Soil Geochemistry

Soil sampling has been established as the best method for testing the ground which is unglaciated and has little outcrop. A total of 83 soil samples were collected in 2023 on 3 north-south lines, 2 east-west lines with a few other short line extensions based on UTM NAD83 zone 7 grid lines. Samples were spaced 50m apart. The lines were located to provide infill and extension to previous soil lines at the Border Hill area with 50 by 100 meter sample spacing.

The 2023 soil samples were located using handheld GPS units, with supplemental navigation by compass. The sites are marked by flagging tape marked with the sample number. Soil samples were collected using Dutch soil augers. They were placed into Kraft paper bags along with an analytical sample tag. Soil descriptions were recorded in a notebook. Samples were collected as deep as possible, typically between 40cm and 60cm deep, occasionally to 90cm, but sometimes much shallower where very rocky soil and permafrost limited sampling depth. Sample material and sample sites were documented with photographs.

Soil sample locations from 2023 are shown in Figure 3, and values from 2023, 2018, 2017 and 2011 are compiled in Figures 4 - Cu, Zn (Fig. 5), Ag (Fig. 6) and W (Fig 7) with values in ppm. Certificates of Analysis for soil samples are in Appendix III. Soil sample locations and descriptions are in Appendix V. This work confirmed the robust nature of the overall FAB polymetallic anomaly, with modest extensions to the north.

The 2023 geochemical sampling program was successful, as strong multi-element anomalies were confirmed and expanded upon in the FAB area. The core of the FAB zone has strong Zn,

Cu, W, Ag and Ca, with elevated Mo, Sb and Se around the periphery. Pb values are lower than at the FAN and Border zones, while Au and As are elevated in an erratic distribution.

Lines 7160400N and 7160600N were sampled to the east of FAB, covering the area between the FAB and FAN zones. These samples indicate that the two zones maybe more or less connected to each other. One of the samples with highest anomalies in multiple metals (Cu, Zn, Ag, As, Ca etc) was collected in this area, sample #39810 (plates 3 & 4). Infill samples were collected along lines 504100E and 504400E, with minor extensions on nearby lines.

Permafrost was encountered close to the creek and in the southern headwaters, which prevented the collection of some samples and reduced the quality of other samples.

Potassium and thorium in soils is thought to indicate the presence of granitic rocks. Values of K above approximately 0.3% (and locally over 0.6%) coincide with known granitic rocks, while most soils underlain by other lithologies contain less than 0.1% K. Thorium shows a very similar distribution to K, with elevated Th (above about 10 or 20 ppm Th) associated with granitic intrusives. Soils in the FAB area that are high in Ca (above 0.5% and locally up to 12%) suggest the presence of limestone or calcareous sediments, potentially a host rock for skarn and CRD deposits. The northern edge of the FAB zone borders granitic rocks. The core of the zone coincides with elevated Ca indicating marble/ limestone.



Plate 3. Soil sample site #39810.



Plate 4. Soil sample #39810. High Cu, Zn, Ag, As, Ca

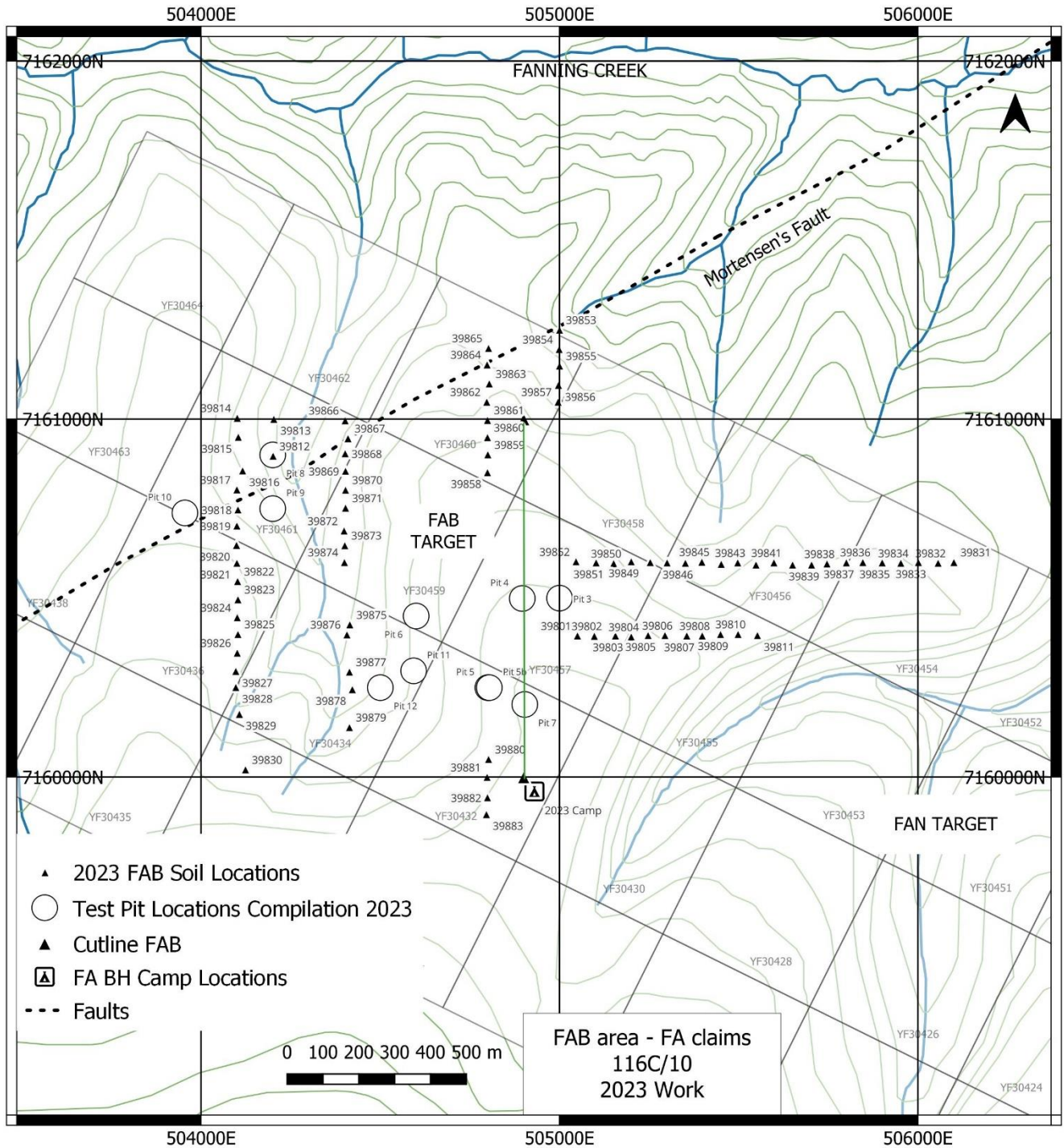


Figure 3. 2023 FAB area work compilation

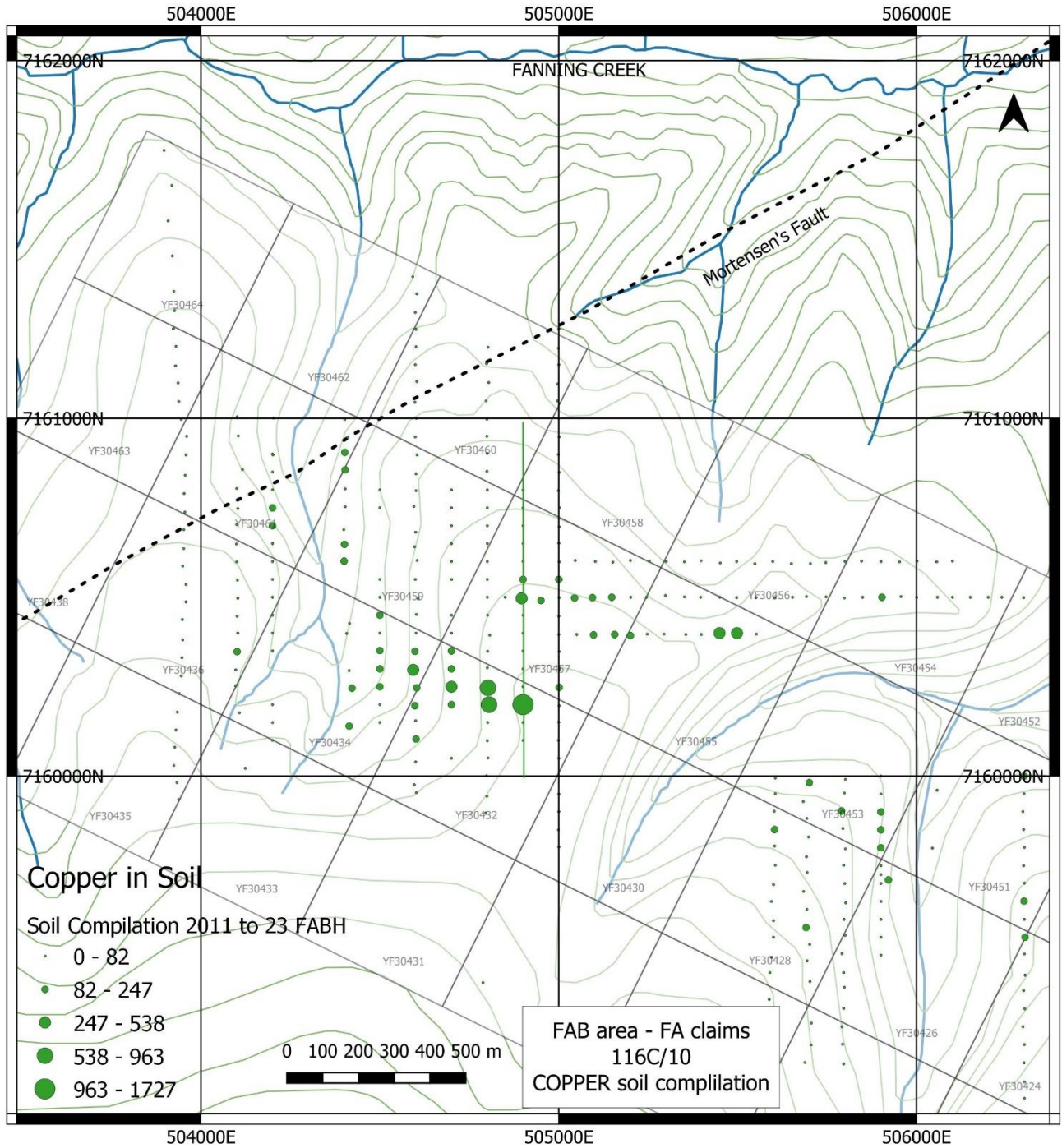


Figure 4. Cu in soil, FAB area compilation

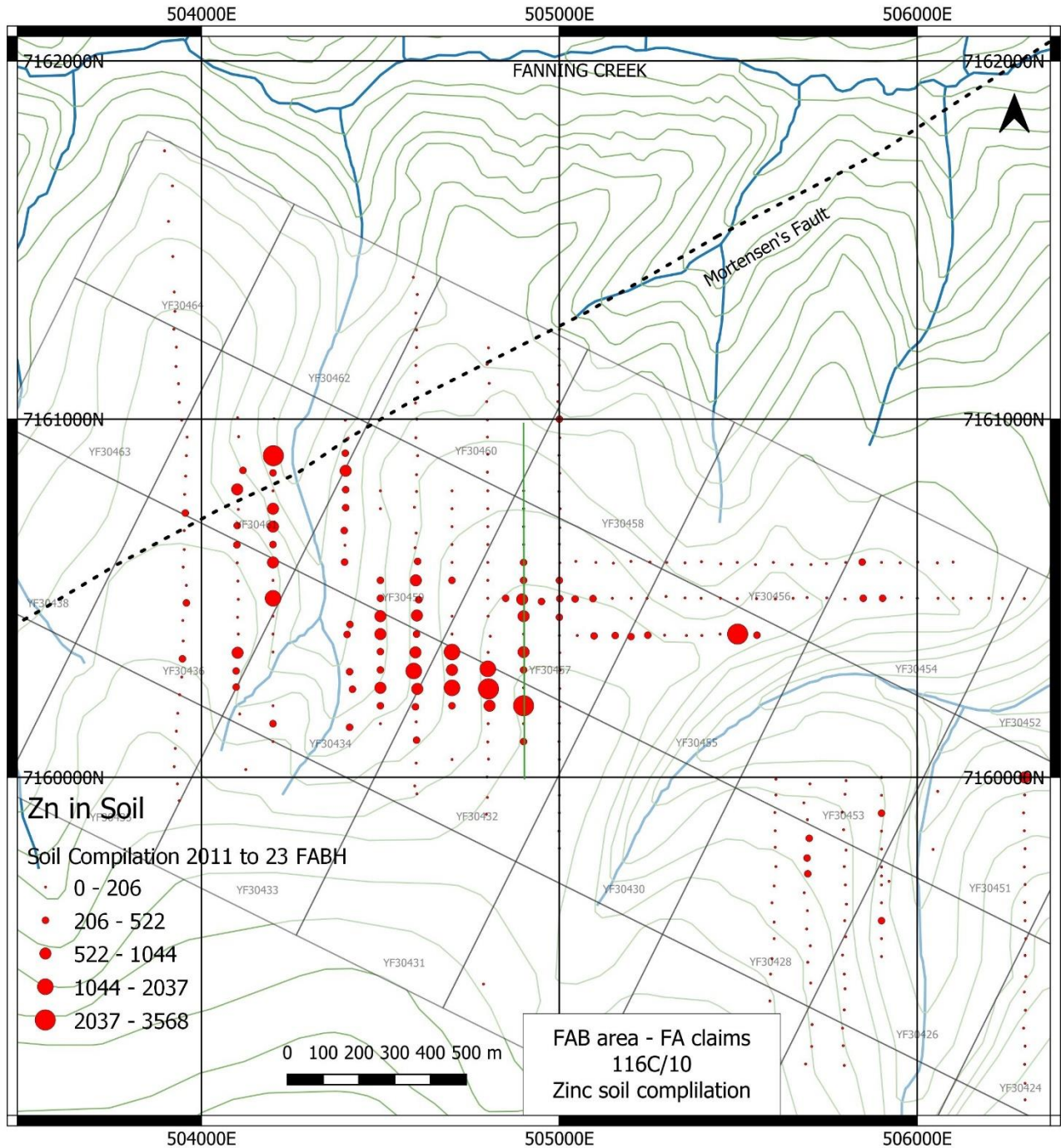


Figure 5. Zn in soil, FAB area compilation

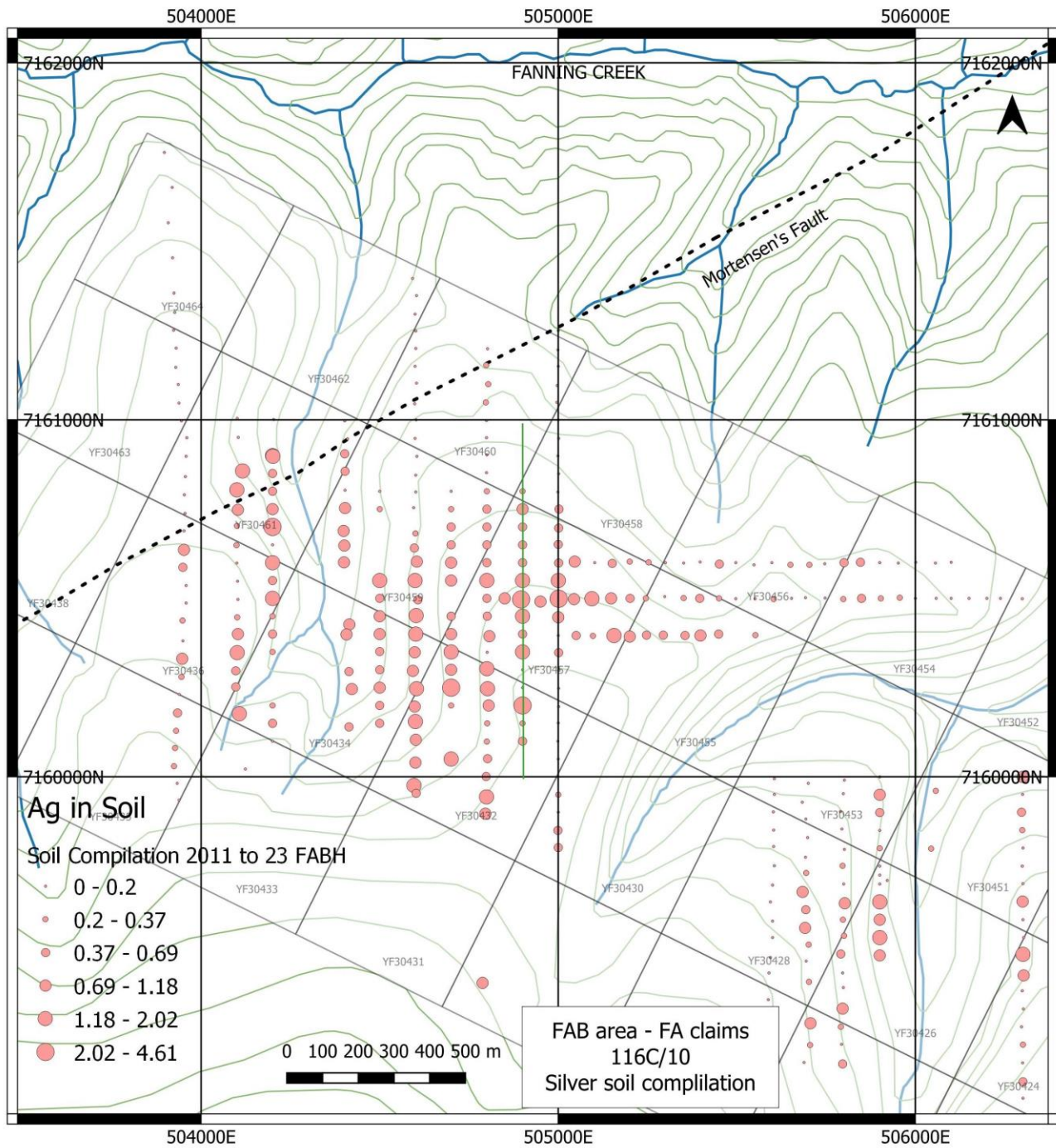


Figure 6. Ag in soil, FAB area compilation

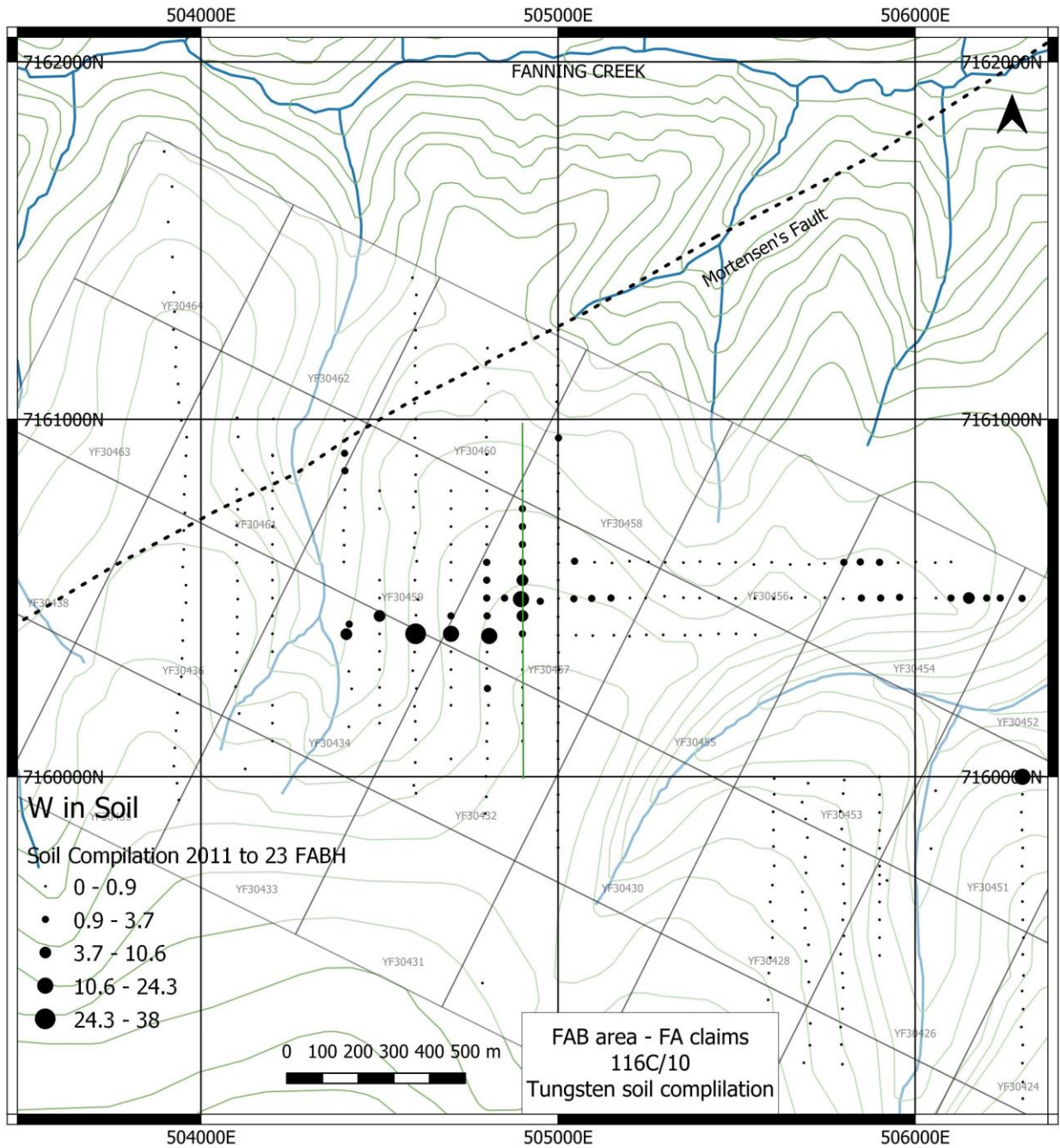


Figure 7. W in soil, FAB area compilation

2023 Line Cutting

A one kilometer line was cut from the camp site grid south along UTM line 500900E to provide easier access to the FAB zone. The area has thick bush cover. Cutting was by machete and axe, with minor chainsaw use. Cut material was placed flat on the ground beside the line. The line is less than 1.5m wide, just wide enough for a worker to walk through. The cutting was completed in two half days of work by three workers. The line might require additional cutting before an IP survey could be conducted.



Plate 5. FAB cutline 500900E. Thick bush.

2023 Test Pits and Prospecting

The main activity of the 2023 exploration program was test pitting at sites of highly anomalous soils samples at the FAB target. Pits were dug with pick and shovel, with sampling, measuring, photography and description. Pits were backfilled after sampling (plate 11). Twenty one rock samples were collected for assay, with twenty from test pits and one from a subcrop located near the camp (sample 26171). The rock assays are summarized in Table 1, and the test pits are described in Table 2. Rock assay certificates with complete analyses are presented in Appendix IV. Test pit locations are shown in Figure 8.

The author worked with two assistants to dig 5 new pits and re-dig 3 previous pits. Four test pit sites from 2018 were revisited to conduct additional sampling on deepened pits. The team approach allowed for more pits to be dug, and to greater depths. At pit 7 a sample of siliceous pebbles with trace malachite was collected at surface, without new digging. This sample (#26155) returned the highest values on the property for both Cu (>10,000 ppm) and Ag (99 ppm) from quartz vein material.

Pit 4 was originally dug in 2018 to about 80cm, with no boulders unearthed. This pit was deepened to 1.0m in 2023, with several large boulders sampled (plate 6). Massive goethite (to 38% Fe) was discovered, likely replacing massive sulphide. Metal values up to 1508ppm Cu, 230ppm Pb, 981ppm Zn, 3814ppm As, 17.7ppm Ag, 398.6ppb Au and 75ppm W were returned.

Pit 10, dug at the northwest side of the FAB zone, proximal to Mortensen's Fault returned highly anomalous values: 15 ppm Mo, 1968 ppm Cu, 4078 ppm Pb, 2233 ppm Zn, 1.4 ppm Ag, 20% Fe, 2160 ppm As, 31 ppm Cd, 27 ppm Sb, 73 ppm Bi, 40 ppm Se. The soils here are rusty orange, sandy with few large pebbles above about 75cm depth (Plates 7, 10, 11).

Some areas of the FAB zone are covered by thick organic soils, locally thickened by solifluction (Plates 8 & 9). Permafrost is locally present, making test pits difficult or impossible. Ice rich permafrost at Pit 12, adjacent to a creek prevented any meaningful sampling. Pit 5b was dug about 5m uphill from the original pit 5, where tree roots inhibited digging.

Table 1. FAB 2023 Rock Sample Summary
BV WHI23000281 AQ201

Sample	Cu	Pb	Zn	Ag	Fe	As	Au	Bi	Ca	W	UTM NAD83 7W	
	PPM	PPM	PPM	PPM	%	PPM	PPB	PPM	%	PPM	E	N
26151	1012	6	981	4.8	38.3	3290	9.1	0.9	0.2	28.9	504896	7160499
26152	912	13	786	5	34.0	1616	11.5	6.4	0.1	2.5	504896	7160499
26153	708	230	277	3.5	9.5	666	60.9	88.4	0.1	1.8	504896	7160499
26154	1508	79	843	17.7	26.6	3814	398.6	62.6	0.2	74.5	504896	7160499
26155	>10000	90	5180	99.1	3.0	98	59.8	36.7	1.0	2	504903	7160203
26156	35	10	865	0.8	0.7	5	0.9	1.1	6.4	0.4	504200	7160900
26157	62	8	534	1.3	0.5	4	0.7	0.9	9.2	0.2	504200	7160900
26158	71	10	421	2.1	1.7	19	0.9	1	0.7	0.3	504200	7160750
26159	34	8	403	0.7	1.5	9	0.6	1	1.0	0.4	504200	7160750
26160	41	55	141	0.6	2.2	70	1.9	0.9	0.0	0.6	503955	7160738
26161	1968	4079	2233	1.4	20.8	2160	4.1	73.4	0.1	1.8	503955	7160738
26162	94	260	152	0.4	1.4	81	0.6	2.2	0.0	0.5	503955	7160738
26163	35	21	205	0.7	0.9	25	1	2.7	10.6	1	504600	7160450
26164	33	13	309	0.8	0.7	73	1.1	0.5	7.2	0.5	504600	7160450
26165	159	11	1483	1.5	0.9	8	2	0.6	0.2	<0.1	504600	7160450
26166	59	9	478	1.9	0.6	2	2	4.4	0.2	0.2	504593	7160297
26167	200	12	1135	2	1.0	12	2.9	2.9	0.4	0.4	504593	7160297
26168	160	8	931	1.3	1.4	11	3.8	1.9	0.2	0.2	504593	7160297
26169	1208	20	894	1.3	1.5	14	14.3	2.9	1.6	0.2	504804	7160250
26170	571	39	696	1.5	1.1	8	11.7	13.3	1.3	0.3	504804	7160250
26171	24	56	14	<0.1	1.0	16	<0.5	<0.1	<0.01	<0.1	504905	7159980



Plate 6. Pit 4 (2023) Sample 26151. Massive goethite with 1012ppm Cu, 981ppm Zn, 4.8ppm Ag, 3289ppm As, 38% Fe.



Plate 7. Pit 10 Rocks. Up to 1968ppm Cu, 4078ppm Pb, 2233ppm Zn, 20% Fe, 2160ppm As.



Plate 8. Pit 11. Iron rich subcrop beneath buried organic layer.



Plate 9. Pit 6. Rusty rock beneath thick organic soils.



Plate 10. Digging Pit 10



Plate 11. Pit 10 backfilled.

Table 2. FAB 2023 Test Pits

UTM NAD83 7W

Pit 4	Location	504896E	7160499N	2023 - expand and deepen old pit
	Pit Size	120 x 100cm	100 deep	
	Strata:	A horizon	0 to 20 cm	Moss, grass, roots, black humus
		Loess?	20 to 40 cm	clay, silt, sand, minor angular pebbles, dark grey-brown
		Buried Organics	40 to 50cm	orange peaty organic layer - indicates solifluction?
		C horizon	50 cm +	rocky colluvium, angular pebbles, cobbles, boulders
	Rock			felsic volcanics minor skarny limestone, massive goethite (after massive sulphide?), hematite breccia
	Samples	Rock - 2018	72780	276 ppm Pb, 539 ppm Zn, 50 ppm Ag, 1001 ppm Cu, 298 ppb Au, 3895 ppm As, >100 ppm W, 486 ppm Bi, 19% Fe
		Rocks - 2023	26151	1011 ppm Cu, 981 ppm Zn, 38% Fe, 3289 ppm As, 28 ppm W
		Rock	26152	912 ppm Cu, 981 ppm Zn, 33% Fe, 1615 ppm As,
		Rock	26153	708 ppm Cu, 230ppm Pb, 9.5% Fe, 666 ppm As, 60 ppb Au, 88 ppm Bi, 24 ppm Se
		Rock	26154	1508 ppm Cu, 843 ppm Zn, 17 ppm Ag, 26.5% Fe, 3813 ppm As, 398 ppb Au, 62 ppm Bi, 74 ppm W, 13 ppm Ga, 11 ppm Te
		Soil	17569	71 ppm Pb, 927 ppm Zn, 4.6 ppm Ag, 537 ppm Cu, 37 ppb Au, 418 ppm As, 24 ppm W, 14 ppm Bi, 4.2 % Fe (2017)

Pit 5b	Location	504804	7160250	2023 - redig 5m uphill from Pit 5
	Pit Size	110 x 100cm	100 deep	
	Strata:	A horizon	0 to 10 cm	Thin moss and humus, abundant roots
		C horizon	10 cm +	grey-yellow-brown sandy soil, w/ angular pebbles & cobbles, dry
	Rock			felsic volcanics, grey & white limestone
	Samples	Rock - 2018	72781	1948 ppm Zn, 9.4 ppm Ag, 907 ppm Cu, 23 ppb Au,
		Rock - 2023	26169	1207 ppm Cu, 894 ppm Zn, 1.3 ppm Ag 14 ppb Au
		Rock - 2023	26170	570 ppm Cu, 696 ppm Zn, 1.5 ppm Ag, 11 ppb Au
		Soil	17576	2571 ppm Zn, 1.5 ppm Ag, 963 ppm Cu, 6 ppb Au (2017)

Pit 6	Location	504600	7160450	2023 - expand and deepen old pit
	Pit Size	110 x 100cm	100 deep	
	Strata:	A horizon	0 to 30 cm	Moss, roots, dark brown humus
		Loess?	30 to 50 cm	grey clay-rich soil w/ angular pebbles - mixed loess?
		Buried Organics	50 to 55 cm	orange to dark brown organic layer - indicates solifluction?
		C horizon	55 to 80cm	light grey-brown colluvium, angular pebbles & cobbles
		C horizon	80cm +	yellow and orange colluvium, angular pebbles and cobbles
	Rock			variable coloured felsic volcanics and skarny limestone
	Samples	Rock - 2023	26163	205 ppm Zn, 10% Ca (shallow sampled pebbles)
		Rock - 2023	26164	309 ppm Zn, 72 ppm As, 7% Ca (60cm depth)
		Rock - 2023	26165	159 ppm Cu, 1483 ppm Zn, 1.5 ppm Ag (70 cm deep)
		Soil	17520	49 ppm Pb, 1044 ppm Zn, 1.5 ppm Ag, 42 ppm Cu (2017)

Pit 7	Location	504900	7160200	Sample pebbles at surface of old backfilled pit.
	Samples	2023 rock	26155	>10,000 Cu, 5,180 Zn, 99.1 Ag, 59.8 ppb Au

Pit 8	Location	504200	7160900	On steep slope
	Pit Size	100 x 100cm	75 deep	
	Strata:	A horizon	0 to 15 cm	Moss, roots, dark brown humus
		C horizon	15 cm +	Rocky
	Rock			felsic volcanics, limestone, locally rusty, dendritic MnOx
	Samples	Rock - 2023	26156	865 Zn, .8 ppm Ag
		Rock - 2023	26157	534 ppm Zn 1.3 ppm Ag, 27 ppm Cd
		Soil	5272759	2037 ppm Zn, 1.3 ppm Ag, 69 ppm Cd

Pit 9	Location	504200	7160750	On steep slope
	Pit Size	110 x 110cm	90 deep	
	Strata:	A horizon	0 to 20 cm	Moss, grass, roots, dark brown humus
		C horizon	20 cm +	Grey rocky colluvium with yellow bands
	Rock			Dominantly felsic volcanics, variable colour
	Samples	Rock - 2023	26158	70 ppm Cu, 421 ppm Zn, 2.1 ppm Ag, 18 ppm As, 22 ppm Cd
		Rock - 2023	26159	403 ppm Zn
		Soil	5272762	131 ppm Cu, 215 ppm Pb, 713 ppm Zn, 1.1 ppm Ag, 38 ppm As, 25 ppm Cd

Pit 10	Location	503955	7160738	
	Pit Size	110 x 100cm	90 deep	
	Strata:	A horizon	0 to 5 cm	Grassy, above 1cm white ash
		C horizon	5 cm +	Orange weathered bedrock, sandy, angular pebbles
	Rock			felsic volcanics +/- quartzite, sub-cobble size
	Samples	Rock - 2023	26160	2.2 ppm Mo, 40 ppm Cu, 55 ppm Pb, 141 ppm Zn (shallow)
		Rock - 2023	26161	15 ppm Mo, 1968 ppm Cu, 4078 ppm Pb, 2233 ppm Zn, 1.4 ppm Ag, 20% Fe, 2160 ppm As, 31 ppm Cd, 27 ppm Sb, 73 ppm Bi, 40 ppm Se
		Rock - 2023	26162	94 ppm Cu, 260 ppm Pb, 152 ppm Zn, 80 ppm As
		Soil	65817	1.6 ppm Mo, 81 ppm Cu, 268 ppm Pb, 412 ppm Zn, 108 ppm As

Pit 11	Location	504593	7160297	
	Pit Size	110 x 100cm	100 deep	
	Strata:	A horizon	0 to 40 cm	Dark brown organic soil
		C horizon	40 to 75cm	grey- brown colluvium
		C horizon	75cm +	orange - yellow colluvium
	Rock			dominantly felsic volcanics w/ white quartz veins

Pit 11	Samples	Rock - 2023	26166	58 ppm Cu, 478 ppm Zn, 1.9 ppm Ag, 4.4 ppm Bi
		Rock - 2023	26167	200 ppm Cu, 1135 ppm Zn, 2.0 ppm Ag
		Rock - 2023	26168	160 ppm Cu, 931 ppm Zn, 1.3 ppm Ag
		Soil	17523	290 ppm Cu, 1140 ppm Zn, 0.9 ppm Ag, 7 ppb Au

Pit 12	Location	504500	7160250	At creek. Ice-rich permafrost prevents sampling.
	Pit Size	150 x 100cm	30 deep	
	Strata:	A horizon	0 - 30	Ice rich permafrost.
	Rock			Multiple lithologies in creek appear unmineralized. No rock samples.
	Samples	Soil	5272756	159 ppm Cu, 595 ppm Zn, 0.7 ppm Ag, 7 ppb Au

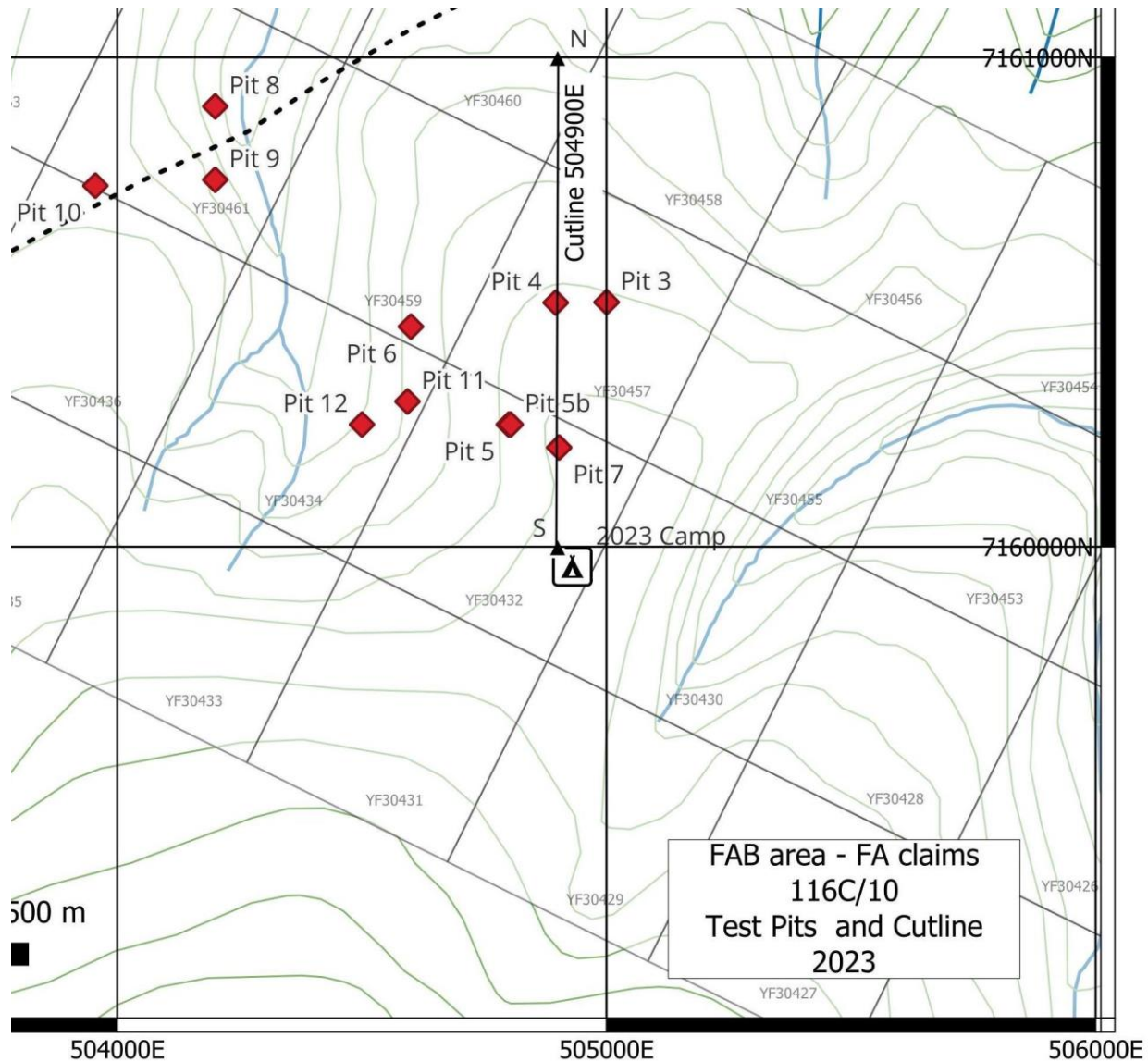


Figure 8. Test Pits, Cutline and Camp location.

2023 Portable XRF Utilization

A Niton XL3t portable hand-held XRF was used in the field to provide rapid qualitative evaluation of soils and rocks. The information provided by the XRF is potentially useful in confirming anomalous areas, and could be used to adjust soil line locations and lengths.

XRF readings were taken for 30 seconds through the soil sample bags or directly on rocks, and high values of Pb, Zn, Cu (and sometimes As, Mo & W) used as indicators of mineralization. There was a problem with the XRF unit during this program, as it shut itself down after a few readings each day it was used. The XRF needs to be serviced. The results obtained in the field are not considered to be valid, and this data is not presented in this report.

SAMPLE PREPARATION, ANALYSES AND SECURITY

The 2023 samples were placed into rice bags in the field by the author, sealed with zip ties and secured. The samples were transported and delivered directly by the author to the Whitehorse preparation facility of Bureau Veritas Minerals (Acmelab). The prepared samples were shipped by BVM to their Vancouver laboratory for analysis. Bureau Veritas Mineral Laboratories is accredited and certified to the International Organization for Standardization for Quality ISO9001:2008, Environmental Management: ISO14001 and Safety Management OH SAS 18001 and AS4801.

At the laboratory samples were dried at 60°C. Soil samples were sieved to -80 mesh. Rocks were crushed, then a 250g split was pulverized to 200 mesh. The samples were analyzed by BVM method AQ201 for 36 elements by ICP-MS after digestion of 15g by 1:1:1 aqua regia.

Quality control procedures were implemented at the laboratory, involving the regular insertion of blanks and standards and repeat analyses on the samples. Quality Assurance data is provided for each batch of samples and included with each analytical certificate (Appendices III & IV).

There was no evidence of any tampering with the samples during collection or shipping. All sample preparation was conducted by the laboratory.

INTERPRETATION AND CONCLUSIONS

The geology of the FA BH property is only partly understood due to scarce outcrop and limited mapping. The regional northeast trending fault appears to be an important control of mineralization, similar to structures at the Fortymile CRD district in nearby Alaska. The southeast trending FVD magnetic high anomaly near the FAB and FAN zones may reflect a splay structure off this fault.

A regionally unusual package of felsic volcanic rocks with abundant bomb tuff and local limestone is present in cliff outcrop at the FAN zone, in boulders present at the FAB zone, underlying the hill at the Border zone and across the border in Alaska. The limestone within these rocks hosts skarn that is likely associated with the mid Cretaceous Fanning pluton immediately to the north of the property. Polymetallic carbonate replacement deposits are the most obvious target at the property, however related epithermal veins and a mineralizing source porphyry deposit are valid targets that should be explored for.

Work in 2023 at the FAB zone has confirmed that this is one of the strongest targets on the property. The discovery of massive goethite boulders after massive sulphide in pit 4 is a strong indicator of the potential to host high grade mineralization at this zone.

RECOMMENDATIONS

The FA & BH property covers a large Pb- Zn- Ag- Cu- Mo anomaly in soils that is open to further expansion. Skarn has been discovered in outcrop, float and test pits that contains elevated Au. The target at the property is skarn/ CRD deposits along with epithermal As- Au- Ag- Cu veins, with additional potential for Mo- Cu- Au- Ag porphyry. The length, width, strength and continuity of the soil anomalies are encouraging, and may lead to a significant discovery. The FAB zone contains a concentrated Cu- Zn- Ag anomaly that appears to be carbonate hosted, and lies proximal to a regional fault and a subsidiary splay fault indicated by a magnetic signature. The Border zone is a large, strong Mo anomaly with locally enriched Cu, Zn, Ag, Pb and pathfinder elements. There is potential at Border for an adjacent or underlying porphyry intrusive deposit, and this potential extends into adjoining Alaska. The FAN zone is the largest target, and has not been fully investigated along the northern edge where some limestone outcrop is present on steep slopes with very thick vegetation proximal to creeks.

Soil geochemistry is a very effective exploration method for this property. Additional soil lines should be sampled to infill gaps in the existing sample pattern at the Border zone, and extend coverage to the north and south. There is a strong magnetic low to the northwest of Border Hill shown by an airborne survey conducted in Alaska, and this area may have elevated porphyry potential.

Additional test pits are recommended, as this technique is effective for discovery of mineralized rock. Soil sample #39810 from 2023 is highly anomalous in multiple elements, and would be a good test pit target.

Additionally line cutting in preparation for ground geophysics at the FAB zone (IP, Mag, EM?) is warranted at this stage. A detailed aerial drone magnetic survey would be beneficial. A geo-rectified satellite image would be useful as a base map.

Additional soils would be beneficial at the FAN zone along line 7160100N near the north-central area, and at the far east extension of the zone at line 508500E. This area contains a limestone bed suitable as a skarn host rock. Considerable outcrop is present along the FAN creek canyons, and this area should be prospected further.

Geological mapping and prospecting should be continued across the entire area. Particular attention should be focused north of Border Hill area seeking altered and mineralized intrusive rocks that might indicate porphyry mineralization. A geology map of the entire property should be produced at 1:10,000 scale compiling known outcrops and subcrop, and deduced from airborne magnetic patterns and Ca, K & Th in soils.

The area adjacent to the Border zone on the Alaska side of the border is almost certainly mineralized. This area is owned surface and subsurface by Doyon Ltd., within land block R. 33 E. Doyon Ltd has been contacted to inform them of the discoveries immediately adjacent to their lands, with hope for possible mutually beneficial exploration.

The property has reasonable logistics, with roads within 10 or 15km to the southeast at Clinton Creek or across the border to the west in Alaska. The terrain is moderate, so construction of trails would be reasonably easy if exploration is successful, with no stream crossings necessary.

Respectfully submitted,

William D. Mann, M.Sc.

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APPENDIX I**STATEMENT OF QUALIFICATIONS****WILLIAM D. MANN, M.Sc.****19 HAYES CRESCENT, WHITEHORSE, YUKON Y1A 0E1**

1. I am a Graduate of Queen's University, 1986, with a Master of Science Degree in Mineral Exploration Geology.
2. I am a Graduate of the University of British Columbia, 1983, with a Bachelor of Science Degree in Geology.
3. I have worked in mineral exploration and mining continuously since 1979.
4. I designed and participated in the work program on the FA claims in 2023.
5. I am the owner of the FA and BH claims.

January 08, 2023

William D. Mann, M.Sc.

APPENDIX II

FAB Project YMEP 2023 Actual Expenditures			23-031		
W.D. Mann			Hardrock Target Evaluation		
		Activity	Units	Rate	Total
Labour	W.D. Mann	Prospecting/ Mapping/ Sampling	5	500	\$2,500.00
	M. Mikhailytchev	Soil Sampling/ Test Pitting	5	350	\$1,750.00
	F. Mikhailytchev	Line Cutting/ Test Pitting	5	175	\$875.00
	B. Dela Cruz	Line Cutting/ Test Pitting	5	175	\$875.00
Field Costs	\$100 per worker-day		20	100	\$2,000.00
Helicopter	A-Star - Great Slave	July 25 Mob	1.8		\$4,173.12
		July 29 Demob	1.4		\$3,245.76
Truck	\$.60 per km	Whitehorse to Clinton Creek return	1176 km	0.6	\$705.60
Assays	Bureau Veritas	VANI476174 soils	83		\$3,408.67
		VANI474903 rocks	21		\$1,052.92
XRF	Niton XL3t	\$110 per day of use	5	110	\$550.00
Chainsaw		linecutting	2	10	\$20.00
Maps	W.D. Mann	GIS	2	500	\$1,000.00
Travel	W.D. Mann	Whitehorse - Dawson return	2	500	\$1,000.00
Report	W.D. Mann	Report writing	4	500	\$2,000.00
TOTAL					\$25,156.07
YMEP request (60%):					\$15,093.64