ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Petrography, Lithochemistry and Magnetic Studies on Kringle Consolidated Group

TOTAL COST:$6,000.00

AUTHOR(S): Mikkel Schau, P.Geo.
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): not applicable
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): SOW-M(5178647) 2012/FEB/1

YEAR OF WORK: 2011-2012

PROPERTY NAME: Kringle-Consolidated

CLAIM NAME(S) (on which work was done): Tenures 509556, 515027, 515028. 515029, 515030, 515032, 515033, 515034, 515386, 515924, 515925, 515926, 515930, 516017, 521073, 529780, 797082, 797102, 845313, 845314, 845315

COMMODITIES SOUGHT: copper, minor silver and gold

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: 092L163, 092L165, 092L166, 092L166, 092L167, 092L168, 092L169, 092L170, 092L222, 092L249

MINING DIVISION: Nanaimo Mining Division
NTS / BCGS: NTS 092L/08
LATITUDE: ______50____° _____19_____’ __________"
LONGITUDE: ____126______° ____06______’ __________" (at centre of work)
UTM Zone: EASTING: NORTHING:

OWNER(S): Mikkel Schau

MAILING ADDRESS:
3919 Woodhaven Terrace, Victoria BC V8N1S7

OPERATOR(S) [who paid for the work]:
Mikkel Schau
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3919 Woodhaven Terrace, Victoria BC V8N1S7

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)
upper Triassic Karmutsen basalts, middle Jurassic feldspar porphyry, amygdale rich zones, veins in shear zones, intrusive and tectonic breccia, bornite, chalcopyrite, chalcocite and alteration products, size unknown, FeO analyses, magnetic susceptibility, potash staining, Terraspec analyses, petrography
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
1859, 1993, 2379, 3235, 3306, 3403, 3795, 14284, 18255, 22409, 23906, 26930, 27070, 27463, 27736, 27745, 28327, 28328, 28747, 28927, 30121, 31039, 31516, 31856, 32553

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			
Magnetic Susceptibility		515027, 515029, 515033, 515930, 521073, 529780, 797102, 845314, 845315	1,500
Other			
GEOCHEMICAL (number of samples analysed for …)			
Soil			
Silt			
Rock			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying	24 FeO assay	515027, 515028, 515029, 515033, 521073, 529780, 797102	1,000
Petrographic	4 Thin sections	515027 521073 515029 529780	750
Mineralographic			
Metallurgic	34 K stain 18 SWIR	515027, 515028, 515029, 515930, 521073, 529780, 797102, 845314	750 2,000
PROSPECTING (scale/area)			
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	6,000

Assessment Report

BC Geological Survey
Assessment Report
33012

including

Petrography, Lithochemistry, and Magnetic studies

on

The Kringle-Consolidated Claim Group

(Tenures 509556, 515027, 515028. 515029, 515030, 515032, 515033, 515034, 515386, 515924, 515925, 515926, 515930, 516017, 521073, 529780, 797082, 797102, 845313, 845314, 845315)

About 250 km north of Nanaimo straddling Highway 19,

Nanaimo Mining District,

Vancouver Island, BC

for

Mikkel Schau, owner

by

Mikkel Schau, P.Geo.

for February 1, 2012

filed April 30, 2012

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Introduction and Terms of Reference

Mikkel Schau, the current owner, has prepared this report for submission as an assessment report for tenures 845813, 845814 and 845815.

The main source of information was raw magnetic susceptibility data collected in the last year and not previously reported in AR 32553, along with follow up laboratory work on alteration in basalts, dykes and around veins.

Other sources of information and data contained in this assessment report or used in its preparation are cited and given in the list of references at the back. Some information is derived from private data banks held by Mikkel Schau. Other data used in this report is mainly from government assessment reports including many authored by the owner himself. Many parts of this report are upgrades of previous text produced by the author for previous Assessment Reports on this claim group, and are to be considered the currently best version.

This assessment report includes values of median magnetic susceptibility readings collected in the past year and located on a regional aeromagnetic map, a report of newly acquired FeO determinations for previously partially analyzed whole rock samples and their relationship to rock types positioned on a regional geological map, and infrared absorption and potash feldspar staining on selected alteration suites are also reported and located on relevant maps. Four new thin sections are described.

This work is applied to Tenures 845313, 845314 and 845315.

Location and ownership

The Kringle-Consolidated claim group is located at 50 deg 19 min N and 126 deg 6 min W on northern Vancouver Island, adjacent to the Island Highway, about 250 km north of Nanaimo. The claim group is elongate in a northwesterly direction and is about 14.5 km by 3 to 4 km wide. (Figure 1, 2). The claims start west of Keta Lake and stretch north to Rooney Lake, and south toward the Tlowils Lake junction along Adam River south main logging road. Various parts of the claims are largely accessible from logging road mains and spurs that result from recent logging operations.

The Kringle Consolidated Group is easily reached via Highway 19 and is about 30-40 km west along the highway from the communities of Sayward/Kelsey Bay, a deep water port.

The property consists of 21 claims totaling 4641.76 ha (or 10,549 acres). Some of these claims were staked by location and later converted, other were claimed using MTO. The claims are called the Kringle-Consolidated Claims. They include the claim tenures listed below with their new “good to date” based on this work. The three claims whose “good to date” is affected by this work are noted with an *.

Name	Recorded tenure number	Area in ha.	Good to date
Klejne	509556	165.19	Feb 19, 2013
	515027	247.37	Sept 1, 2013
	515028	226.82	Sept 1, 2013

Name	Recorded tenure number	Area in ha.	Good to date
	515029	82.50	Sept 1, 2013
	515030	123.67	Sept 1, 2013
	515032	20.62	Sept 1, 2013
	515033	61.86	Sept 1, 2013
	515034	103.08	Sept 1, 2013
kringle-last	515386	20.61	Sept 1, 2013
	515924	41.23	Sept 1, 2013
	515925	20.61	Sept 1, 2013
	515926	20.62	Sept 1, 2013
	515930	206.21	Sept 1, 2013
	516017	20.62	Sept 1, 2013
kringle-2	521073	495.08	Sept 1, 2013
kringle-mi.	529780	206.30	Sept 1, 2013
klejne-north	797082	516.05	Sept 1, 2013
	797102	515.85	Sept 1, 2013
keta1	845313	516.03	May 2, 2013*
	845314	516.07	May 2, 2013*
	845315	515.37	May 2, 2013*

The mineral rights are 100% held by Mikkel Schau (Free Miner 142134) There are no royalties, back in rights, payments or other agreements and encumbrances to which the property is subject. The mineral rights expire as shown in the above table.

All claims are on crown lands and are focused on copper and precious metal mineralization, but include an ancillary interest in other base and industrial metals. The area covered by the Kringle-Consolidated claims is mentioned in a number of discussions between the Province and local First Nations with regards to land-claims although there is no current treaty involving these lands. Letters have gone to relevant First Nation treaty groups indicating my intent to prospect in region, following guidelines laid down by AME. To the best of my knowledge the land claim treaty process has not directly discussed these lands. It was, however, listed on MapPlace as part of the Kwakiutl_Laich_Kuul_Tach and now the area is indicated to be part of the SOI of Hamatla Treaty process and/or the Tlowitsis First Nation. I have introduced myself to the chief(s) at conference meetings and via the recommended notifications of field work, but no further action has been taken. There has been no impediment to my claiming or working the land to time of writing; In fact, people of nearby communities would like there to be more exploration, and possibly mining, to shore up the local economy.

No environmental liabilities are currently known, but notice is given that the Adam River, which traverses the claim area, is a “fish river”, and any development must be cognizant of this fact. It is considered that the Kim Creek drainage area (which is not classified as a fish creek) can be used, to prevent disturbance of the Adam River. Much of the area is in Timber Management zones and has been logged (sometimes several times), but small sections of old forest away from areas of current interest still remain as “OGBA” lots.

No permits are required for the hand based work or aerial surveys suggested in this report. *Any machine based excavation would require work permits.*

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The claim area lies within the Vancouver Island Mountains and shows a moderately rugged topography with a lower elevation of 180 m,.found in the Adam River Valley at the north of the claims, and highest points on unnamed tops at about 1000 m at the south of the claims. The northwest flowing Adam River is joined by north flowing creeks such as Kim Creek and Rooney Creek cutting through earlier glacial fluvial deposits. Rainfall is considerable and local windstorms affect area causing back country roads to be blocked.

The hemlock forests have been logged, sometimes twice, and a wide network of old alder covered roads mark the earlier logging efforts. Old overgrown road metal quarries are located along some of these roads. Much of the area has been replanted.

Highway 19 traverses the area and several logging main roads (including Upper Adam, Lower Adam, Kim Creek Mains) provide general access to the area. Many logging road spurs traverse the area, so that most of the claims are accessible. Off road, the landscape is rugged and the forest litter deep and difficult to traverse.

The nearest population center is Sayward and Kelsey Bay about 30 to 40 km to the east. These resource extraction based communities are served by the Island Highway (19). Kelsey Bay, on Johnston Strait, has a well protected deep water port once widely used by coastal steam ships. To the east, Campbell River is about an hour away by the highway. Port McNeil and Port Hardy lie to the west.

The current main industry in these villages is fish farming and lesser amounts of logging related work. Once this was a major logging center and mining expertise was locally acquired in the nearby, now defunct, magnetite mines. There are large staging areas (once used for logs) available for industrial use in Sayward. Plans for a gravel extraction project in the area are currently in discussion.

Previous Work and History

Prior ownership of property and ownership changes of the claims are tracked using Assessment Reports as a guide.

Logging opened up the area in the 1960's and regional prospecting campaigns located scattered copper rich showings. A large block was staked in 1965 by W.R. Boyes, and was taken over shortly thereafter by Western Standard Silver Mines. The area has been the locus of subsequent exploration as shown in table below:

Company	Year	Type of work	Assessment Report	Assessment Value	Results
Newconex Canadian Exploration	1969	16 chip samples for copper, 503 soil/silt samples for copper	1859	2,601.41	Located copper showings near Rooney Lake, best .23% Cu/20', grid values low. (092L 170)

Company	Year	Type of work	Assessment Report	Assessment Value	Results
Bethlehem Copper	1969	Prospecting, geology, minor magnetics, minor soil sampling, minor stream sediment sampling	1993	2,400.00	Located Minfile 092L-0165, Boyes Creek now classified as a prospect and Minfiles 092L-166-169 inclusive classified as showings
Armeda Copper	1970	Magnetometer work/geochemical-soil sampling	2379	63,720.00	Possible conjoint anomaly NW of Rooney Lake
Conoco Silver Mines	1971	Geochemical study 1300 soil samples	3235	none reported	Three geochemical anomalies located near (092L-222)
Western Standard Silver Mines	1971	Prospecting, geological, geochemical survey	3306	5,574.46	No commercial mineralization
Conoco Silver Mines	1971	IP Survey, gradient SP survey, depth probe	3403	5,115.62	Geophysical anomalies found near 092L165, 222
Sayward Explorations Ltd	1972	Prospecting, verified previous results, reported on 6 diamond drill holes (1748') in area south of Rooney Lake	3795	8,919.00	Minfiles 092L-0163, 092L-249 now classified as showings.
Craven resources	1985	Geology, drilling 6BQ holes (2747'), 300' of X-ray drilling	14284	4,963.81	More work on 092L-222, copper of interest, low precious metals
Germa Minerals	1989	Geology, soil sampling, VLF,	18255	18,409.30	Work south east of Rooney Lake, minor geochemical anomalies
West Pride Industries	1991	Geological, geochemical and compilation	22409	10,768.00	More work on 092L-222, summarized work and drill core from 7 BQ holes, Reported on another 7 holes from 1973 totaling another 3000' of drilling. Main zone better delineated - 1500' strike length x 1000' down dip x 15' thick. Other also targets located.
Lucky Break Gold	1995	Geophysical studies	23906	Unknown	Surveyed one of above favorable targets.
Schau	2002	Geology, Geochemistry, and petrophysics	26930	12,194.00	Local high grade skarn at contact and mineralized dykes (Kringle)
Schau	2002	Geology, Geochemistry, and petrophysics	27070	6,300.00	Dyke breccia and shear zone in Puff quarry
Schau	2004	Geology, Geochemistry, and petrophysics	27463	4,800.18	Three new showings: Pastry, Macaroon, and Oreo
Schau	2005	Prospector's report	27736	3,288.00	Krisp copper showing along highway
Schau	2005	Prospectors report/ Klejne	27745	2,262.00	Work near Boyes Creek prospect (Minfile 165)
Schau	2006	Prospectors report/ Kringle south	28327	13,500.00	Verification of Minfiles 222 , 166, 167, 168.
Schau	2006	Prospectors report/ Kringle north	28328	3,500.00	New showings

Company	Year	Type of work	Assessment Report	Assessment Value	Results
Schau	2007	Prospectors report/ Kringle center	28747	2,499.00	New high grade showings
Schau	2007	Petrography, magnetic susceptibility and density studies (Kringle south)	28927	17,000.00	Petrological studies, and new showings. Details of Veins and alkalic alterations
Schau	2008	Alteration studies (Kringle north)	30121	6,550.99	Petrological studies and new showings
Schau	2009	Geology (Dykes) in northern Kringle	31039	1,450.00	Petrological studies and new showings
Schau	2010	Geochemical and biogeochemical studies at Klejne	31516	2,650.00	Assessed viability of biogeochemical methods in this environment
Schau	2010	Assays and lithochemistry, Kim Creek, Kringle-consolidated	31856	11,000.00	New copper showings; as veins and disseminations in basalt
Schau	2011	Petrography, Lithochemistry, Assays, and Geochemistry	32553	45,000.00	New copper showing, gold bearing vein better understanding of alteration and mineralization.
Schau	2012	Petrography, Lithochemistry, and Magnetic studies	This report	7,990.00	Magnetic susceptibility and Alteration and their relation to mineralization

The total value of assessment work in *original* dollars is $ 262,455.77 + (not all reports were costed) spread over 42 years and 26 assessment reports as well as the value of unreported work. Of the reported amount, $139,984.17 has been spent by myself on assessment work since 2001. (Since 2009 this amount is $68,090).

In 1974 the GSC published a map of the area (Muller et al, 1974) that generally follows the geology determined by previous consultants cited above. Quatsino limestone was shown as less widely spread than indicated by Sheppard’s mapping (AR3795).

The most comprehensive work has been on Minfile 092L222 (Adam West). In the early seventies and as late as the nineties, work on the Adam west prospect found stratabound copper mineralization below thin limestone beds within the Karmutsen basalts south of the Billy Claims and north of Boyes Creek. The details of exploration on this prospect are discussed in AR 14284, 22409, and 23906. A soil geochemical anomaly was trenched and several drill holes returned favorable results at or near the lower contact of a limestone lens in the Karmutsen: A drill core sample was seen to contain 1.4 gm per tonne gold and 0.57% copper (AR 14284) and drill hole assays that included 0.84% copper over 23.5 m (see Minfile 092L 222 discussion). .Cross trenches across this interface were, on average, 5 m long and extended over a 450 m strike length and graded a weighted average of 0.89% Cu. 11 drill holes, probing the lower contact (both 150 m along strike and 200 m down dip) indicated mineralization was concentrated about 13 m below a limestone horizon and all holes crossed copper mineralization with drill hole A6 returning 2.1% Cu over 5 m. (AR22409, and 23906). No historical mineral resources have been recorded, although at Minfile 092L222, a volume of mineralized material of unspecified grade was estimated to be at least 1000' X 1500' X 15' and open in all directions (AR22409). This volume estimate does not meet requirements of a NI 43-101 report and is only reported to give a rough and historical indication of a possible volume of mineralization at one of the many prospects. Some of the unlabeled old drill sites have been located by this author under the duff and undergrowth but the locations of the drill positions that yielded a cache of rotten and decrepit core boxes located on site is not known. Thus we are heavily dependent on the summary of the drilling provided by Leriche in the nineties (AR 22409 and 23930).

A geological compilation of area in digital form (Massey, 1994, 2005) contains contacts assembled in part from previous assessment reports. The Quatsino limestone in this compilation occupies a larger area in the vicinity of the claims than on Muller's map (ibid).

Thus, work to date, has shown sporadic and widespread mineralization of copper and silver with occasional gold values that occurs in veins, amygdales and shears in basaltic country rock adjacent to a large granodiorite batholith and associated(?) felsic dykes as well as proximal and distal skarn showings. The country rock is part of the Karmutsen Formation comprising mainly feldspar-phyric basalt, as amygdaloidal or massive flows, or as thin sills (+/- dykes) intercalated with minor beds of limestone and associated clastics, overlain by thicker beds of Quatsino limestone and locally by Parsons Bay formation.

Figure 1: Location of Claims

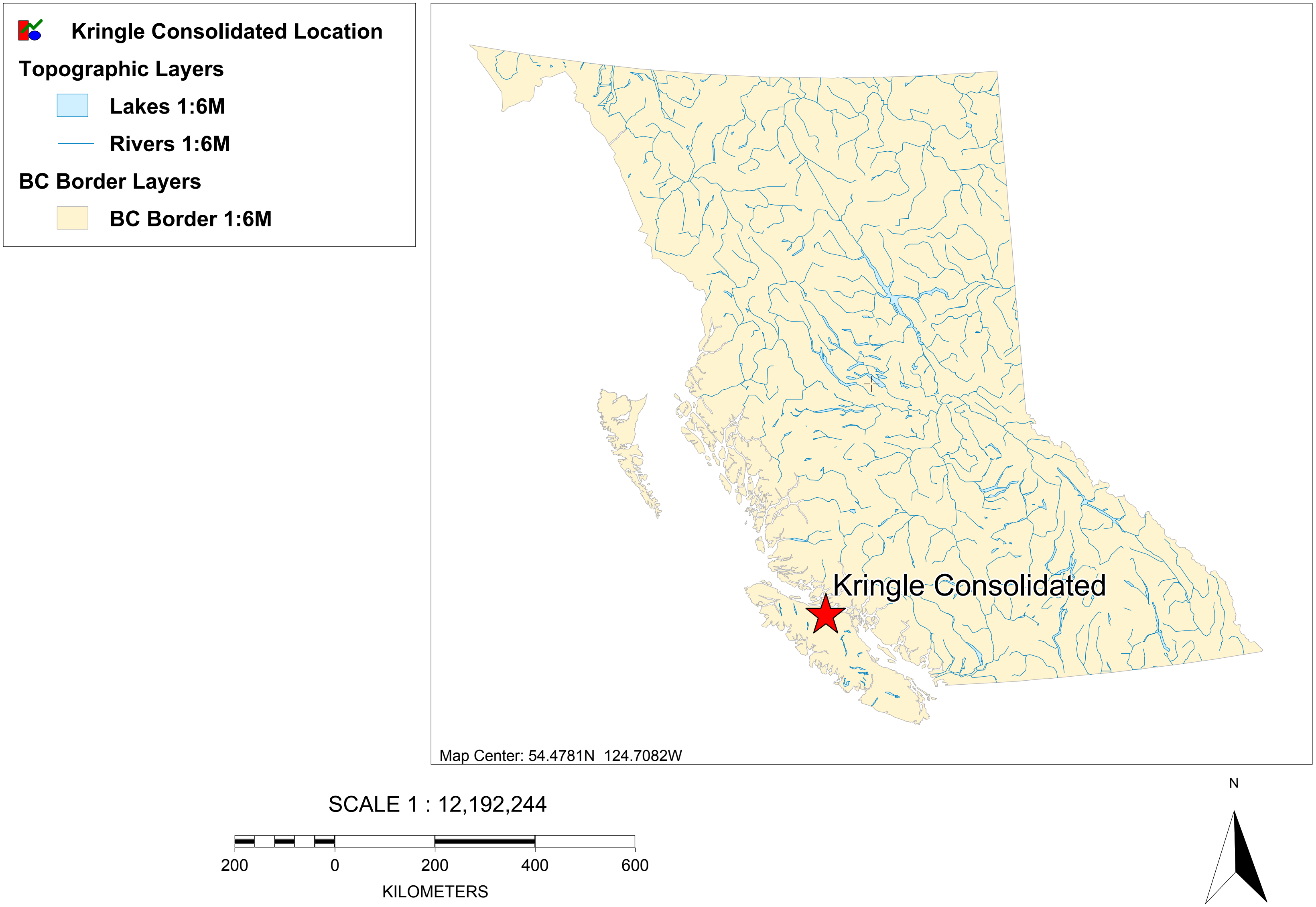


Figure 2: Claim boundaries for Kringle-Consolidated Claim Group

Mineral Titles Layers

Kringle Consolidated Tenure

All Mineral Tenures

Topographic Layers

Railways 1:20K

Roads 1:20K

Gravel Road

Paved Road

Rough Road

Lakes 1:20K

Rivers 1:20K

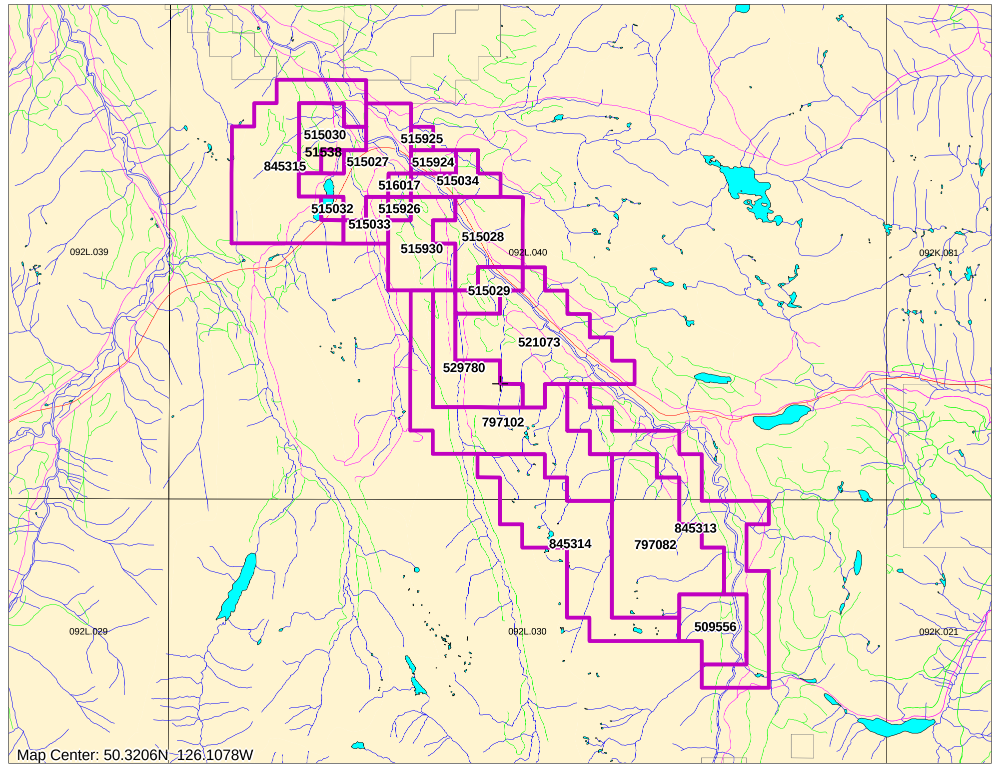
Grid Layers

Grid 1:20K - labels

Grid 1:20K - outline

BC Border Layers

BC Border 1:50K



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Summary of work done

This assessment report includes

24 newly acquired FeO determinations for previously partially analyzed whole rock samples and their relationship to rock types positioned on a regional geological map (Appendix 1, and Figure 3), The values were determined by ACME labs on previously powdered samples stored at the laboratory.

519 measurement/143 median values at a site/ 43 localities of median magnetic susceptibility readings collected recently and not previously recorded are tabulated and median values are shown a regional aeromagnetic map (Appendix 2, and figure 4) . These reading were obtained using a KT9 Magnetic Susceptibility meter, which records the measured value in SI units of approximately a half sphere volume encompassed in a meter diameter.

29 results of potash feldspar staining tests on thin section cutoffs on selected samples of basalt, dykes and veins (Appendix 3 and Figure 5). This work was done using cutoffs for previously reported thin sections and 6 new and larger surfaces.

65 individual mineral determinations on 20 distinct specimens of SWIR analysis of selected alteration minerals (appendix 4 and figure 6). This work was performed by K. Heberlein using PIMA and TerraSpec equipment to determine the infrared absorption patterns of selected minerals. The purpose of this work was to provide a better indication of what mineralogy was present in the alteration and vein assemblages and focusing in particular on potash bearing clay minerals.

4 new thin section descriptions (appendix 5 and figure 6) New thin sections to further enlarge the petrography data base being developed for this region.

Original assay sheet for FeO determinations provided by ACME labs (VAN12000602.1) is found in Appendix 6.

This work is applied to Tenures 845313, 845314 and 845315.

Detailed Data and Interpretation

Purpose

The purpose of the work to continue vectoring toward significant mineral accumulations using lithogeochemical, mineralogical and petrographic methods.

General Surficial Geology

This section is largely copied from AR32553

The Kringle-Consolidated Claim group straddles the north-north west flowing Adam River south of its confluence with Eve River. The river largely follows the outcrop trend of the Quatsino Limestone in this area and runs in a typical U shaped valley, between tall hills trending roughly the same north-northwesterly direction. Local areas of till have been noted in lower areas where road construction has laid it bare and as a thin veneer in higher locations where it overlies bedrock. At least three different terraces along the shores of the river indicate that the river has had a complex geomorphic history. The river is currently incising its course through thick, earlier river and till deposits. Bedrock occurs sporadically in the river bottom.

Kim Creek is a large tributary that runs northerly, mainly along a faulted zone, before it turns northeast and joins the Adam River. Other adjacent creeks seem to occupy north or northwest trending zones probably also the locus of high strain zones. The creeks are largely incised in their own deposits or into soft bedrock. Small tributary creeks are locally very steep and incised sharply into the hillsides, and are thought to occupy fault traces and other zones of weakness eroded after the glaciers left. Linzer area, for example, is bounded by such steep and deeply incised creeks. During the last Ice age, the Adam River and the larger creeks were probably occupied by alpine glaciers that flowed northward through most of their history so that most debris tracing would proceed up ice, ie southward..

The hills are variably covered with colluvium which overlie thin till deposits. For example, tills are locally about 1 m thick at elevations of 700 m. Only where logging roads expose subcrops, or in outcrops on cliff faces and/or steep sided valleys is bedrock visible. Road metal quarries used by logging companies are mainly located in strained and fractured rock, providing most of the road building material in region.

Where the old forest cover is still present, deep organic debris shield sub/outcrop from the surface. Bush can be thick. Logged areas contain abundant slash and locally subcrops are exposed through logging activities.

Regional Geology and Mineralization

The geology of the region features early, orogen-parallel faults cutting Triassic Vancouver Group rocks along which later (mid)Jurassic granodiorite plutons were emplaced, followed by a subsequent long history of transverse faulting and dyking (Fig 3). The general tectonic regime is that of an intra-oceanic island arc, which nearby, in the west, has hosted the past producer, world class, *Island Copper* porphyry deposit

A mineralized hydrothermal system, associated with a contact between the Triassic Vancouver Group (Karmutsen basalts, Quatsino limestone and Parsons Bay siltstones) and the mid-Jurassic Adam River granodiorite pluton, is manifested as copper mineral occurrences in breccias, shears, veins, amygdales and dispersed disseminations in Karmutsen basalts as well as near contacts of andesite and dacite dykes found within in a several km wide, highly magnetic, bounding, contact zone along the west edge of the pluton. Local veins or disseminations of bornite and chalcopyrite give rise to local high assay values at abundant showings.

Alteration in the claims is widespread and propylitic attended by a local influx of mineralizing fluids marked by chlorite and salmon colored, hematite stained albite, quartz, “clinozoisite” and variable, but minor, amounts of white potash feldspars in veins and amygdales. This alteration is locally superposed on contact metamorphism (locally up to amphibolite grade) near the pluton, as well as lower grade (greenschist, and prehnite-pumpellyite and zeolite) regional metamorphism in the adjacent basaltic country rock. The variably and metasomatically altered rocks occur within the parallel positive aeromagnetic anomaly, caused, in part, by breakdown of titaniferous ores in basalt in altered rocks, and, in part, due to introduction of magnetite as veins and stringers.

Property Geology

Vancouver Group

Karmutsen Group consists of a tripartite collection of mainly tholeiitic basalts. The lower part is mainly pillows and median portion mainly hyaloclastite. The upper portion which largely underlies the property is mainly a series of shallow north-north east dipping massive flows. Near the top small limestone lenses are noted. Many repeats by faulting, both longitudinal and transverse, and lack of continuous markers make hinder detailed mapping, but the upper section is generally about 3000 m thick. The massive flows vary in thickness from a few meters to many tens of meters thick. Collectively they display many of the characteristic of modern inflated pahoehoe flows. Modern Inflated pahoehoe flows are known to be thick, with a tripartite textural division with a thin lower amygdaloidal section, a thick massive non amygdaloidal central section and an upper very amygdaloidal section (Self 2003). This type of flow may well be represented by local flows that are zoned with amygdular tops and massive cores. Some local flows locally show bent vertical vesicles near base of flows. Others show interior zones rich in flattened amygdular layers. Very little interflow material has been located, indicating a lack of deep weathering between the eruption of the flows.

Partitioning of primary textures has affected the permeability/porosity of the basalts differentially and hence the capacity to trap mineralization varies as is shown by the table (from AR 32553) below:

Type	Number	Cu, low	Cu, mean	Cu, high
Amygdaloidal basalt	9	5 ppm	800 ppm	3.43%
Amygdaloidal feldspar phyric basalt	30	65 ppm	1445 ppm	6.09%
feldspar phyric basalt	9	32 ppm	120 ppm	6425 ppm
Diabase	9	18 ppm	190 ppm	2037 ppm
Basalt, aphanitic	4	92 ppm	Approx 300 ppm	1.30%

The structure of the unit is marked by gently folded and locally severely faulted areas. The folding is part of a regional shallowly north plunging antiform. The distribution of units also suggest east trending folds of small amplitudes. Well developed linear valleys trend north and north westerly directions as well as in easterly directions and separate large panels of gently dipping lavas. Slickenlines indicate that the preserved (latest?) directions of slip are largely dextral? and transverse. Scarce early slickenlines indicate vertical movement, but even where present have been almost erased by later movement. The apparent offsets are in part normal (east side down) and in part reverse (north west side up). The region from the south end of the claims to the ocean shore in the north some 27 km. away is underlain by shallow dipping Karmutsen and without structural repetition the shallow dipping sequence of basalt should be at least 9 km thick . The stratigraphic estimate elsewhere is about 6 km. Structural repetition is the most likely cause for this disjoint result .

The Karmutsen basalts have been affected by very low grade regional metamorphism. Albitized feldspars, amygdules and veins of pumpellyite, prehnite, epidote, calcite, and chlorite are widely noted. Local areas of zeolite are found in basalts far from the plutons. This alteration or regional metamorphism would have started as new lava piled on top and gained in import as the pile of lava was buried, and so would be of upper Triassic-lower Jurassic age. Adjacent to contacts with (mid Jurassic) Island intrusives, higher grade green schist and amphibolite bearing assemblages would be imposed on already metamorphosed rocks. Hydrothermal systems would have utilized existing faults and weakness to affect the Karmutsen basalt host rock.

The *Quatsino Formation (uTrVQ)* is a thin ribbon traversing the claims in a north-northwest direction, to the northeast of the Karmutsen Formation. Regionally, it is seen to stratigraphically overlie the Karmutsen, but in the property it is deformed and adjacent to the Karmutsen forming part of the host rock to the pluton. In the Adam River area it is a distinct, easily recognizable unit, but the thickness is in doubt, because, where best exposed, it is in a ductilely deformed contact with the granodiorite. The Adam River follows part of its outcrop pattern. Where deformed near plutons (easily seen along the Island Highway near marker 150 km) it becomes a light grey, finely recrystallized limestone locally carrying tremolite. In fresher rocks. fossils indicate that the Quatsino Formation is upper Triassic in age (mainly Karnian, perhaps partly lower Norian) (Muller et al, 1974, Nixon, 2007). It is likely that some of the silty reaction skarns intercalated with black limestone noted on the property, north of the 250 km marker, represent some thin relict lenses of Parsons Bay Formation. Although on the property, neither Quatsino nor Parsons Bay formations were encountered in this year's work.

Jurassic Intrusives (EMJIgd)

Jurassic granodiorite to diorite underlies the area to the east-northeast of the Adam River. It has been called the Adam River Batholith (Carson, 1973, Muller, et al, 1974). It is about 4 km wide and trends northwesterly in excess of 10 km.

It consists mainly of mesozonal granodiorite. Rocks studied are mainly medium to fine grained biotite hornblende granodiorite and quartz diorite with a locally elevated content of mafic minerals including magnetite. In thin section, pyroxene cores to amphibole grains are noted. Local veining of darker phases by lighter more feldspathic phases are common. At contacts the volcanic rock inclusions are transformed into dioritic inclusions and limestones become skarn and marble rafts.

The intrusive contact is vertical and crosscuts units, cross cutting the highly deformed Parsons Bay Formation in the vicinity of Keta and Tlowils Lakes and intruding the underlying metamorphosed Quatsino further to the northwest. The Karmutsen Formation across the Adam River to the west, has north-north-east dips and is cut obliquely by the granodiorite. An apophyses of granodiorite crosses the Adam River (and the Quatsino limestone), and is emplaced in the Karmutsen near Keta Lake. It is likely that the Batholith was intruded along a **pre-existing** north westerly directed steep fault between the Karmutsen Formation to the west and the younger Quatsino limestone and Parsons Bay to the east.

Contacts are known to be hornfelsed for short distances, with local skarnification near, and in, limestone beds. Locally, as near 250 km marker on Highway 19, ore skarns are well exposed, as they are a km to the north. Orientations are steep and complex at or near the contact. There is much evidence that the Karmutsen flow layers is in fault contact with the overlying Quatsino Limestone rather than in a simple stratigraphic relationship.

K-Ar dates of 160 Ma. on hornblende and 155 Ma. on biotite from a quartz diorite of this batholith (Carson ibid) confirm the mid Jurassic age and suggest it to be intruded contemporaneously with the deposition of the andesitic volcanic Bonanza Group (which is well displayed to the west, near Bonanza and Nimpkish Lake) and of about the same age as the plutonism responsible for the Island Copper deposit to the west..

Dykes

Based on preliminary field evidence, supported in part by prior observations made by Carlisle (1972) in adjacent areas, there appears to be at least three sets of granitoid dykes in the area. The dykes observed so far are in the magnetic aureole in the host rock adjacent to the intrusive contact of the main pluton. From oldest to youngest the dyke units are:

1/ Thin highly altered Quartz eye + Feldspar Porphyry dykes “folded into tight folds” predate the main intrusive body (example at Kringle Showing).

2/ Deformed, and argillically altered and mineralized porphyries (locally brecciated) mainly sub-parallel to intrusive contact of batholith (examples at Cruller and Puff showings).

3/ Later “fresh” feldspar and hornblende porphyries with planar or irregular contacts mainly normal to the intrusive body (an example among many, can be seen at 250 km highway marker).

Discussion of Data

FeO determinations

The determination of FeO data allows more complete norm calculation to be produced. In particular the amount of magnetite is better calculated. The proper name for rocks previously partially analyzed have been upgraded. Appendix 1.1 provides the detailed data. The dykes associated with the Jurassic event are classified as dacites and andesites.

Norms calculated for these upgraded analyses are shown in Appendix 1.2

The amount of normative magnetite has been calculated. Some rocks show a calculated amount of magnetite to exceed 10%. This finding is consistent with the view that locally magnetite has been added to the rocks.

Majority of the basalts were classified as tholeiitic basalts but several returned suggestions that they were trachybasalts. The basalts that returned this name are basalts with substantial amount of amygdale fill (which previous work has shown to be monzonitic in composition). Again the compositions have been locally altered; studies to estimate where the largest amount of alteration has occurred is recommended.

Magnetic susceptibility measurements

Magnetic susceptibility measurements were performed using a KT09 meter which records up to 999 x 10^{-3} SI units. 519 recent and new measurements from 143 sites from 47 distinct locations are listed in the appendix and the distribution of the median values of each site shown on Figure 4 against a background of (residual) regional aeromagnetic anomaly.

Basalt from the area shows very large distribution of values, 88 sites showing a range from 0.35 to 119 and a median of 27.6 SI units. This median is higher than values encountered away from plutons (mode , Schau 2000) which is what would be expected in an area of positive magnetic anomaly such as these claims currently occupy. Appendix 2 table 2.1.

What is unexpected is the large range of values (3 orders of magnitude) clearly indicating a heterogeneous distribution of magnetite. Perusal of Figure 4 shows no easily discernible trend. A later compilation of this new data set with previously recorded data will explore more subtle regional variations.

The largest variability of a single set of 5 measurements is found in basalt near a massive pyrite vein. This massive pyrite vein itself ranges from 2.36 to 25.2 and a median (N=5) of 6.37 and the basalt host to the vein varies from 1.92 to 132 SI units with a median (N=10) of 23.7 SI units (see AJTD-055 at UTME 706060, UTMN 5578375 and elev 585.8 m.). This large local variation over a few square metres shows a range similar to the total range over the entire 4641 ha. Processes that favour local variation in magnetite have probably been operating rather than those that change under regional influences. Such local processes could include magnetite veining or infiltration rather than systematic and regional changing of igneous titanium iron “ore” minerals to magnetite and “leucoxene products” in response to contact metamorphism such as has been suggested by previously. Local examples of magnetite veining have previously been reported from Kringle-Consolidated claims.

The amount of normative magnetite has been calculated and the expected Magnetic Susceptibility has been calculated from provisional curves. The results are in Appendix 2 Table 2.2. These calculations suggest that the expected magnetic susceptibility readings should be similar to high readings obtained in the area, and that low values indicate that ferric iron has been captured in other minerals (such as epidote or hematite) or reduced to ferrous silicates or transformed to pyrite and the like. Considering that the property lies athwart a positive magnetic anomaly, it implies a magnetic mass at depth.

K-spar Staining

The presence of potash feldspar is easily determined by staining the surface previously prepared by Hf in a solution of sodium cobaltinitrite and washing the surface with water, a yellow residue stays behind marking the location of the potash mineral. The work was performed by qualified technicians at Van Petro. The data is in Appendix 3 and located on Figure 5.

Basalts were stained to see if there were any potash minerals in the tested surfaces, and none were detected from the basalt. This confirms the assignments of the basalt samples to the tholeiite basalt clan and argues against the basalts being “shoshonites or trachybasalts”.

Andesites were similarly stained. The results indicate that potash feldspars are found mainly in the groundmass along with quartz and albite and that the feldspar and mafic (mainly pyroxene) phenocrysts that define the rock are mainly plagioclase or altered versions thereof.

Dacites likewise were stained. The results from these rocks also show the potash feldspar occur in the ground mass, as well as thin rims around plagioclase phenocrysts and as tiny veins cutting the phenocrysts.

Veins were also stained. Some returned indications that in the “pink” veins that small white domains within the quartz, albite, and epidote/prehnite domains were in fact potash feldspars. These are the veins earlier called “monzonitic”.

The significance of potash feldspars in veins suggests that the origin of the veins is in part magmatic. These veins are also associated with copper mineralization and suggest that at least some of the base metal minerals derive from a magmatic source. The coexistence of potash feldspars and chlorite suggest the temperatures are cool: at higher temperatures biotite would be an expected phase.

The significance of the potash feldspar in the matrix or groundmass of the more salic dykes points to potash rich fluids entraining plagioclase (and mafic) phenocrysts as these fluids rose to the surface.

SWIR-by TerraSpec

Results and methodology are discussed in Appendix 4. The location of samples is shown on Figure 6

Clay minerals were analyzed to see if any were potash bearing (sericite etc) Few were identified:

Eclair Vein is mineralogically complex: pink material (albite and hematite) contains paragonite, minor prehnite and silica, white crystals in pink are prehnite with smectite/illite and silica, greenish material in vein is illite, prehnite, smectite/zeolites?? and silica, whereas the selvage is epidote, amphibole and chlorite with possible trace prehnite and silica occur in host.

Montmorillonite-Beidellite-Nontronite are di-octohedral clays and Nontronite is Fe rich, Beidellite is Al rich. This group of minerals generally indicate local alkaline conditions and local presence Mg.

Montmorillonite generally form from the weathering of Basic igneous rocks, whereas illites form in weathering of acid rocks. They have exchangable cations and are low T versions of Pyrophyllite (which has no cation exchange capability).

Zeolites are indicative of very low grade metamorphic grades, and are found near the western edges of the claim group, they presumably represent the regional alteration that affected the Karmutsen Group prior to the intrusion of the mid Jurassic Adam pluton.

Type A zeolite, is not definitively identified as yet, it is a radiating acicular mineral. More work is needed to identify it accurately. It is the most common zeolite analyzed:

KP469, radiating crystals are zeolite with calcite, another specimen showed fragile crystals with and darker green parts were chlorite and zeolites and orange zeolites patches contain Nontronite

16517 contains a vein mainly zeolite with trace prehnite, selvage has minor zeolite and prehnite and epidote and darker green is epidote and chlorite-actinolite

6727 white veinlet smectite (montmorillonite) and dark green is smectite and zeolite with possible iron carbonate and epidote

11mk001a, smaller grey veinlet zeolite; white coarse veinlet carbonate! And silica, green groundmass is chlorite and carbonate (Fe<Mg chlorite!)

Type B zeolite

Pillow 216 (pillow rim) contains a different zeolite on a Fracture surface which may also carry a bit of anhydrite!

Prehnite is a also regional alteration product indicating very low grade metamorphic grade. As seen on the map, the prehnite bearing units are also largely in the west of the Claim Group, some distance from the major alteration.

TS 6723 Vein with white layers of calcite and prehnite and green with carbonate, chlorite, epidote and a parallel surface of the vein returned carbonate, epidote and prehnite, and the hosting grey unit itself returned strong prehnite and silica signal

16517 in vein Vein contains zeolite and minor prehnite, selvage contains less prehnite and zeolite and abundant epidote, groundmass contains epidote and (darker green) trace chlorite

6738 minor amount in in pinkish grey speckled alteration as epidote-illite-prehnite-silica alteration

6732 minor component in pink alteration (carbonate-epidote-minor prehnite and silica)

Epidote calcite and chlorite are very common in samples analyzed These minerals are part of the expected mineralogy in low grade metamorphic rocks and they are also common minerals of propylitic alteration.

Amphibole is largely found in country rock as possibly part of propylitic alteration or due to degradation of pyroxenes, both have been noted in previous thin section analysis.

A country rock sample in the Eclair vein area has Actinolite, epidote, and chlorite cut by later white vein w/ zeolite and calcite

A pillow has actinolite in matrix and zeolite amygdales indication lack of equilibration.

A vein in TS 6730 shows an actinolite selvage with Fe chlorite

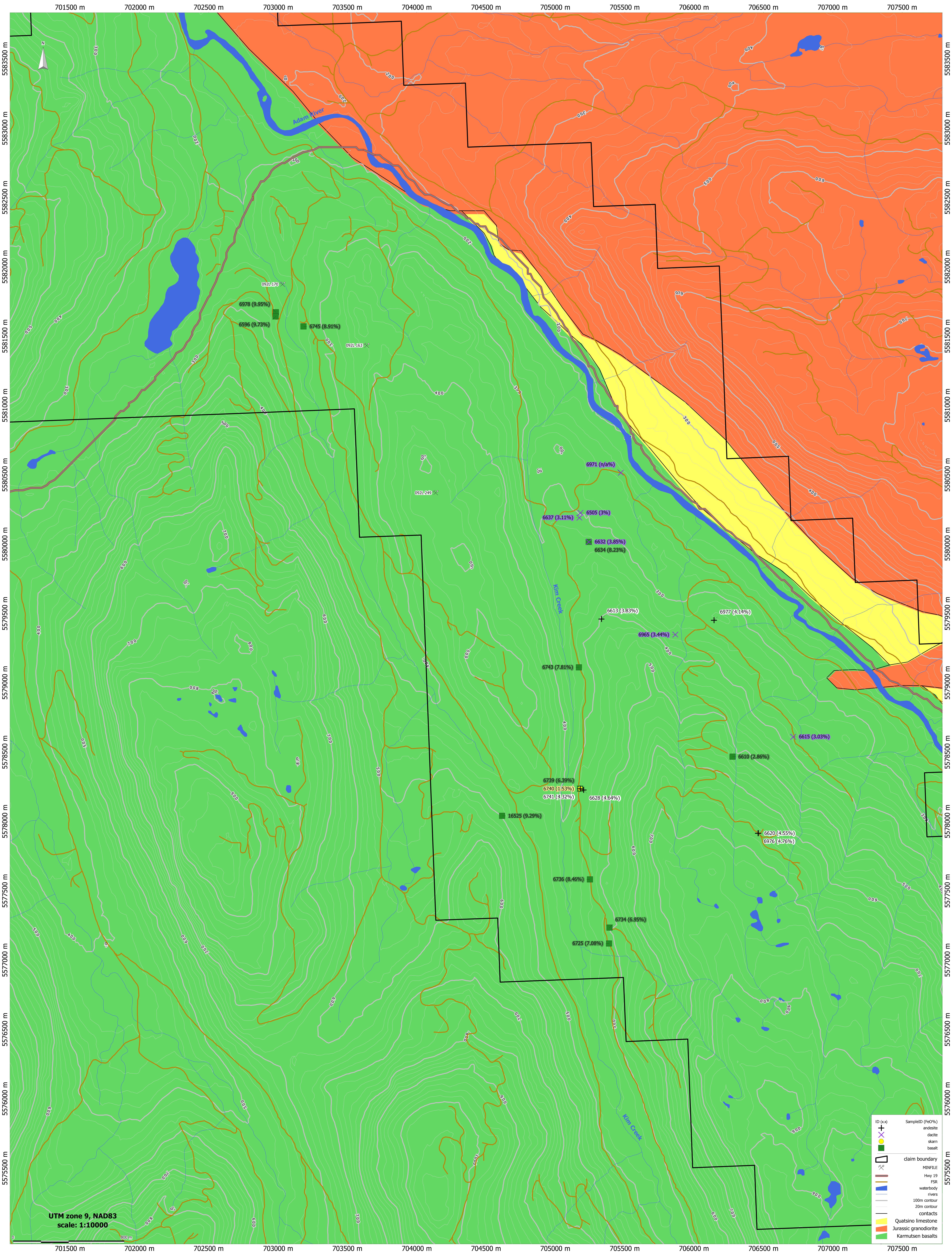
Petrography

Four new thin sections have been studied. The detailed results are in Appendix 5 and located on Figure 6.

One sample from the Oreo quarry displayed a black spotty texture, a result of breakdown of “magmatic ore minerals” into small skeletal remnant mainly of ilmenite hosted in fine to medium grained ophitic basalt dyke.

Another from the Eclair region shows a thin “pink” vein cutting relatively fresh basalt with very low grade alteration minerals.

Two samples from the upper Linzer region, one of an andesite porphyry (with two types of mafic phenocrysts one of which is altered to chlorite and relic? amphibole, the other a pleochroic augite) and a second section that crosses the contact between a mineralized vein and its host.



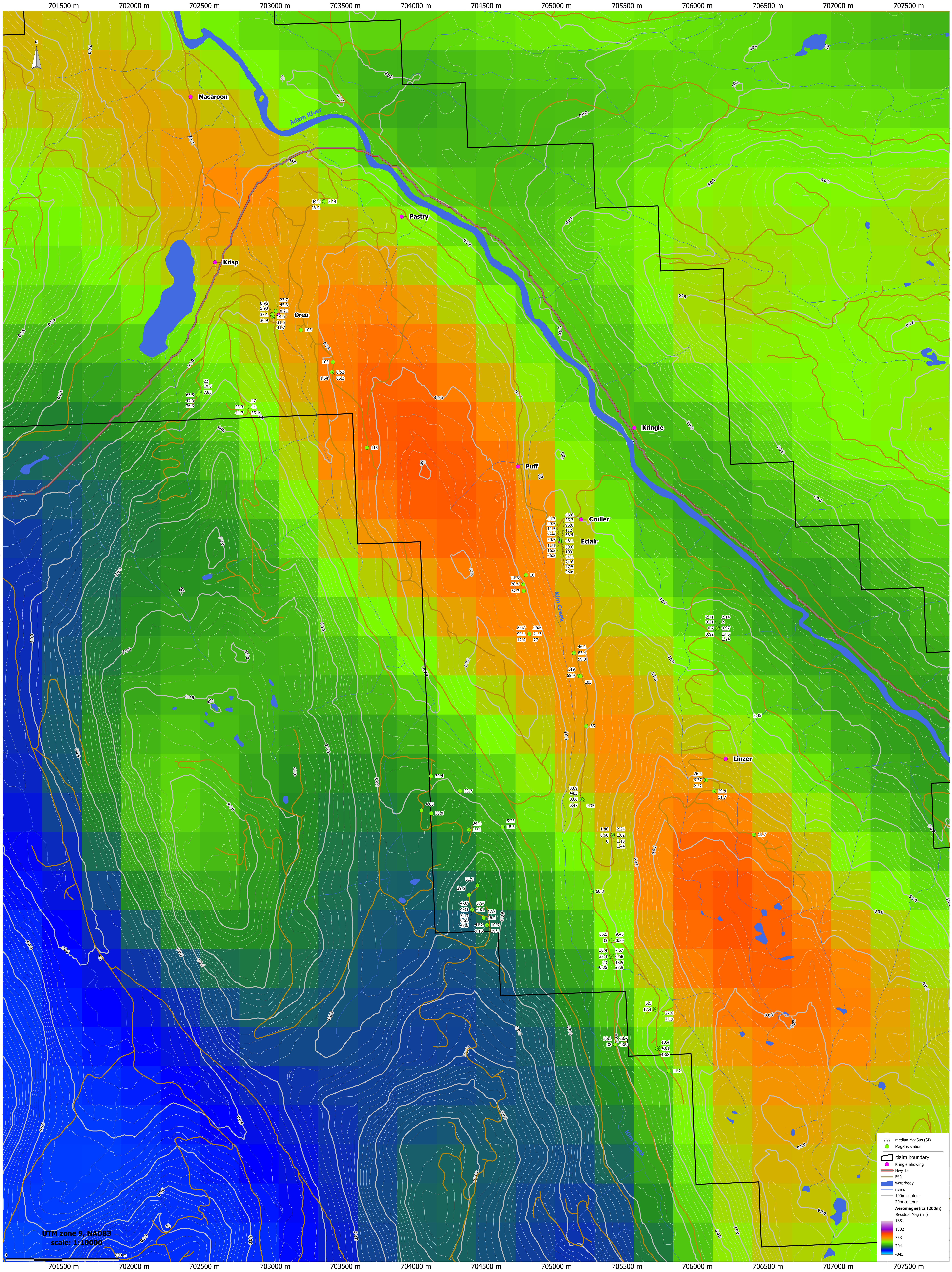
Projection/Datum: UTM 9(N) NAD83
scale: 1:10000

0 ——— 800 m

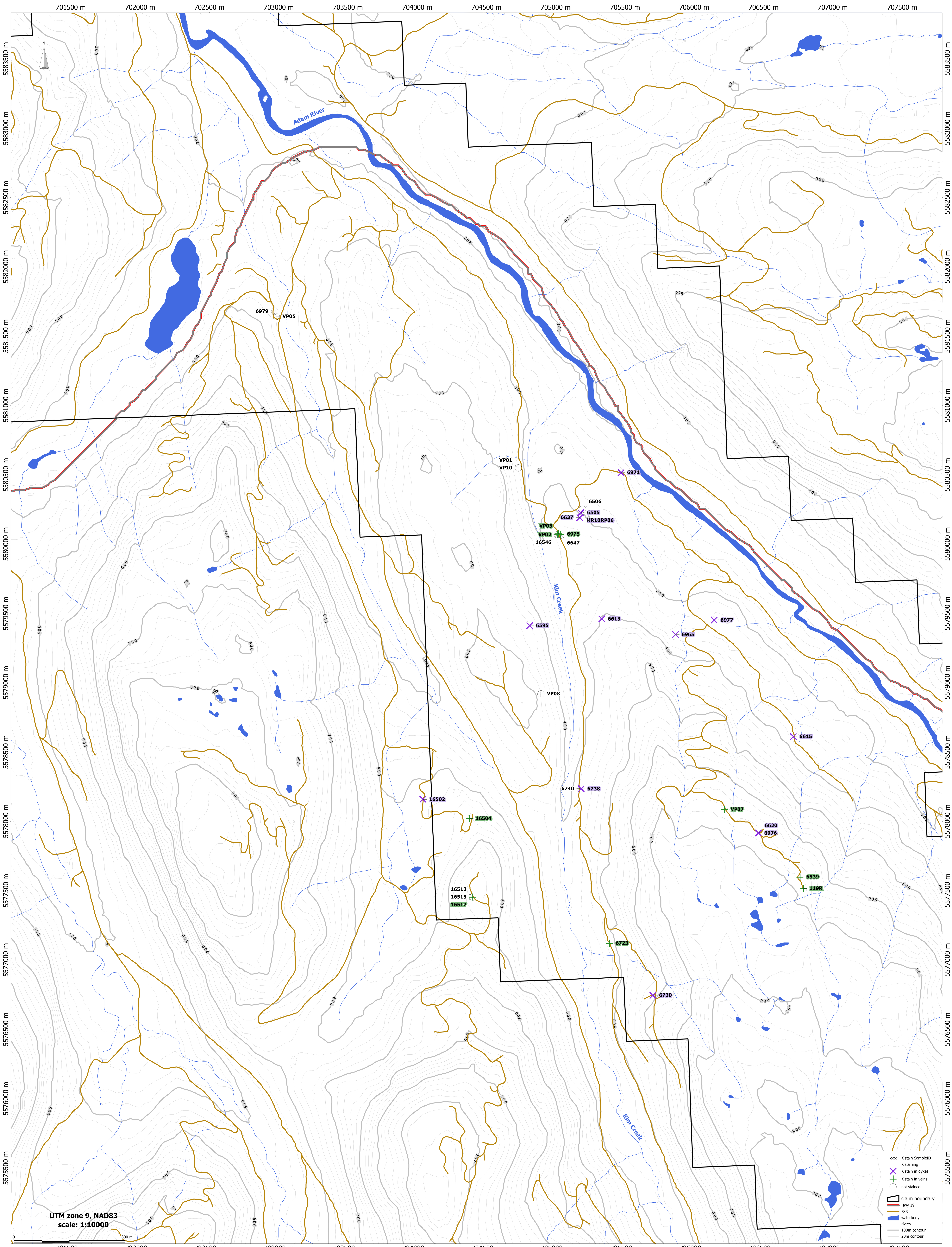
KRINGLE CONSOLIDATED

April 2012

Figure 3:
Location of FeO samples
(with Generalized Geology
courtesy of MapPlace)



Projection/Datum: UTM 9(N) NAD83 scale: 1:10000 0 — 800 m	**KRINGLE CONSOLIDATED** **April 2012**	**Figure 4:** **Location of median values of magnetic susceptibility measurements**



Projection/Datum: UTM 9(N) NAD83
scale: 1:10000

0 800 m

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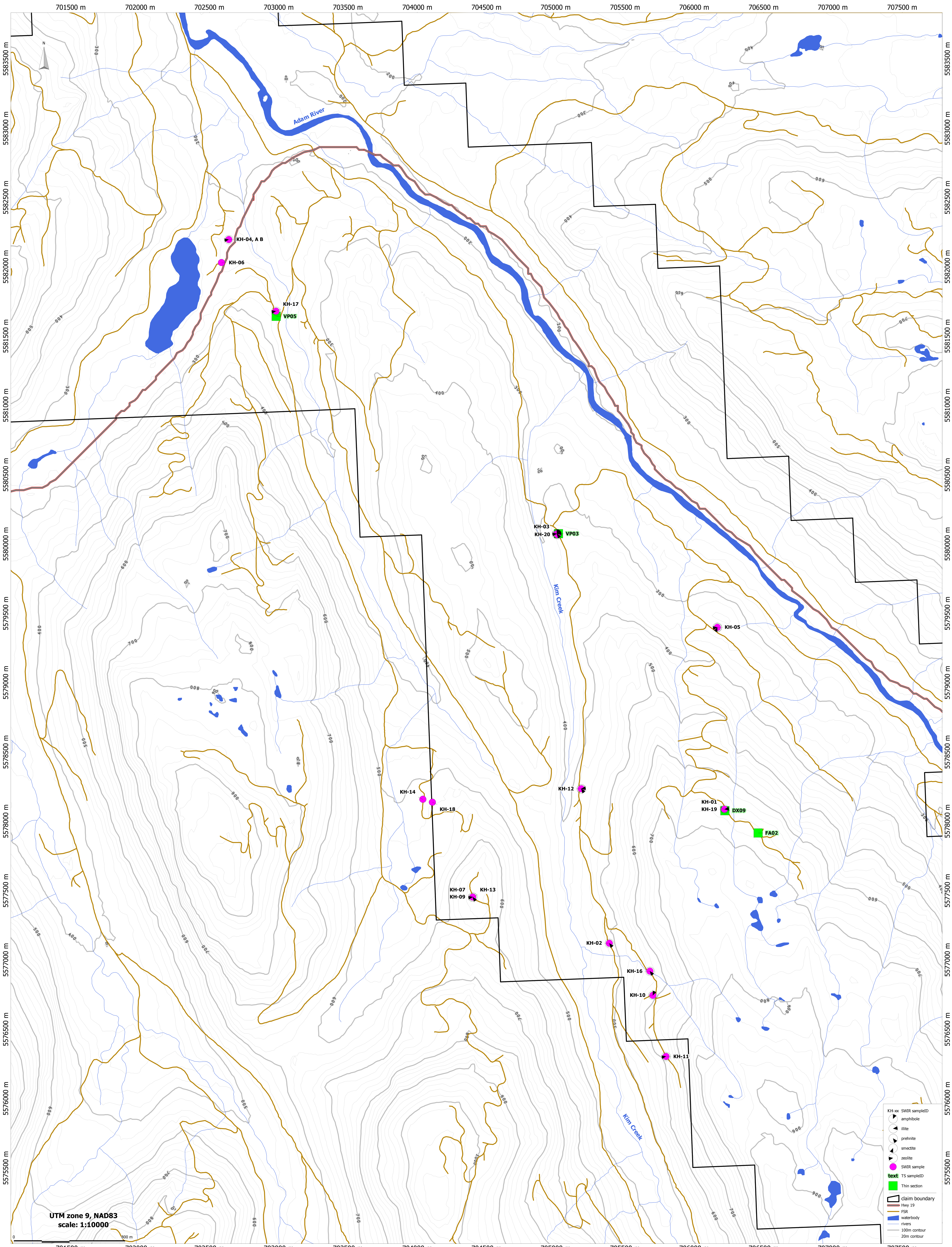
April 2012

**Figure 5:
Location of
Potash Stained Samples**



Projection/Datum: UTM 9(N) NAD83 scale: 1:10000 0 — 800 m	**KRINGLE CONSOLIDATED** **April 2012**	**Figure 6** **Location of Samples analysed with infrared absorption detectors & Location Thin Sections**

Interpretation

Exploration concept and deposit types

The target is a large bulk copper deposit with local high grade pockets with minor credits in precious metals and possibly molybdenum.

In the Kringle Consolidated claims copper bearing showings are located near the periphery of a plutonic system. Based on a small data-set, there is a possible zoning from a bornite-chalcopyrite rich region (including Linzer Showing) through a chalcopyrite/pyrite region (near Puff showing) to pyrite rich portions further to the north. To the south of Linzer, the Adam West prospect (Minfile 092L-222) is a “manto” like deposit of copper (bornite-chalcopyrite) mineralization formed at the contact of basalt and within a Karmutsen limestone lens. Dykes of several compositions (andesite to dacite) and ages, within a bounding positive magnetic response are locally associated with mineralization. Local magnetite veining, combined with mineralized (dyke) breccias and local exoskarns showing grandite garnets and epidote, and a paucity of widespread sericitization or argillic alteration suggests that any exploration strategy might consider utilizing one of the following mineral deposit models: *alkalic copper porphyry, IOCG,* or *copper red bed deposit models* rather than a traditional porphyry copper model.

Thus four types of metallogenic deposit models are concurrently being considered. The four possible deposit models (or working hypotheses) are:

Model 1 Quartz saturated Alkalic Porphyry type (Chamberlain, 2011, Richards, 2011)

Model 2 (Chilean/Mesozoic) IOCG type (Sillitoe, 2003)

Model 3 Redbed copper type. Schau (1965), Carson et al (1972), Muller et al (1974,) Lincoln (1986)

Model 4 Not known, or recognized, type

The first three models share the common occurrence of copper minerals in basic rocks altered to what is loosely called propylite. Also common to the three models: they are in a positive magnetic anomaly. They share a paucity of sericite alteration and quartz stock works and all three show less of a sulphur anomaly than a calc-alkaline copper porphyry would manifest (cf Dilles, 2011).

The first named model requires a nearby heat source such as the adjacent mid-Jurassic Adam River batholith, and is currently the most favoured. Lang (2001) notes the main attributes of alkaline porphyry copper deposits include well developed Na-Ca-K alteration, a marked lack of quartz, sericite, and argillic alteration, variable concentrations of hypogene magnetite and/or hematite, a low sulfur ore assemblage and formation at shallow to moderate paleodepths, all of which are manifest at the property. Further, the characteristic tectonic setting in a relatively primitive island arc (Jurassic Bonanza Arc) with a complex accretion history, and the spatial temporal and genetic association with intrusions (mid Jurassic Adam Intrusion) also fits well with the Kringle showings.

In this report Model 1 is favoured although basalts are tholeiitic and not “shoshonitic”. In the IOCG model (2) the host to the mineralization is in rocks overlying the basalt sequence and not within the basaltic section as at Kringle. Model 3 has effectively been removed from discussion by the recognition of the link between mineralization and potassic fluids similar to those in the salic dykes of the intrusion.

Mineralization in Area

The region is noted for copper bearing veins . Muller et al. (1974) and assigns the showings in the vicinity of the claims to his category C: “veins in basalts”.

The claim area includes Minfile numbers 092L-163, 170, 249, 222, 165, 166, 167, 168 and 169. Adam west prospect (092L-222) is described as a several metre thick concordant layers as chalcopyrite and bornite bearing basalt beneath a thin limestone layer. Boyes Creek prospect (092L-165) is a anastomosing fault zone with bornite and chalcopyrite in epidote gangue.

Examples from some of the showings located by the author, are noted below. For complete details the original AR should be consulted as there is much more information, assays, and descriptions in these reports. The location of these newer showings are given on Figure 4. From north to south the mineralogy is as indicated:

1/ Macaroon, (AR27463) a shear zone with chalcopyrite associated with small grandite and epidote gangue

2/ Krisp, (AR27736) a shear zone with chalcopyrite in zeolite and quartz gangue.

3/ Oreo, (AR27463 ,updated 32553) as chalcopyrite bearing cross veins with microcrystalline quartz gangue, also a gold bearing actinolite-pyrite +/- magnetite vein in a complex fault zone

4/ Pastry (AR27463), joints and thin calcite quartz and chalcopyrite veins in basalt

5a/ Kringle (AR26930), an oreskarn with magnetite, pyrrhotite, chalcopyrite, local molybdenite, and pyrite, in garnet and pyroxene skarn, with local development wollastonite.

5b/ Kringle (AR26930), an early heavily altered felsic dyke with chalcopyrite.

6/ Puff (AR27070 and updated 32553), a brecciated albitized dyke cutting a skarn and cut by a shear zone all containing chalcopyrite as main ore mineral .

7/ Cruller quarry (AR31856), chalcopyrite in contact related veins and pods adjacent to a dacite porphyry dyke

8/ Eclair quarry, (AR32553) which straddles KC main, shows basalt with disseminated copper, meter wide chalcopyrite +/- bornite and pink alkalic vein material cut by later? mineralized quartz veins.

9/ Linzer area, (AR31856, updated 32553t) a lower occurrence of disseminated bornite is in basalts as well as several high grade veins carrying bornite in albite-k-spar quartz and epidote gangue with chlorite selvedge.

The claim group is primarily a copper play with minor silver credits. Although gold is not a primary focus of this investigation a few locations do show local enrichment of gold. The best sample is located in a vein in Oreo showing where values up to 6582 ppb have been retrieved.

Interpretation and Conclusions

Interpretations

The abundance of showings and various mineralization styles within the bounding magnetic anomaly are thought to indicate various aspects of a large hydrothermal system at work in this region associated with the intrusion of the Adam River pluton during mid Jurassic time.

Source of Mineralization: In the general region, the large Island Copper porphyry deposit was associated with middle Jurassic plutonism. The Adam Pluton, is also an iron rich middle Jurassic granodiorite pluton, known to be mineralized. Trace element ratios of Sr/Y of dykes in claim region are similar to Taiwan and Philippine copper porphyries. Locally Hornblende feldspar porphyries are mineralized.

In this report a relationship between locally mineralized and potash rich fluids and the potash rich groundmass of the andesites and dacites associated with the Adam pluton is proposed.

Pathway of fluids: Regionally, mineralized fluids followed along faults and breccias in basalts, and in detail; also along vesicle sheets in inflated pahoehoe flows of basalt or at limey contacts.

Trapping agent: Several kilometres of ferrous silicates in basalts have provided reductants, and local limey units have provided CO2.

Actual Traps occur in porous and permeable venues in basalt, or adjacent to thin limey units, or breccias, of either intrusive origin or tectonically created breccia.

The host rock is largely the tholeiitic basalt of the Triassic Karmutsen Formation which was subjected to very low grade metamorphism prior to the intrusion of the mid Jurassic pluton.

The current exposure level is probably one of shallow depth and fairly low temperature, based on co-existence of potash feldspar with chlorite in the veins. Investigations should focus on the magnetic anomaly and probe deeper near the pluton.

The big question is: what is the volume of mineralized material and is it sufficiently connected to allow for exploitation?

Conclusions

The geology of the claim group has been verified from previous sources and new field work. It reveals that a sequence of the Vancouver group comprising the Triassic Karmutsen Formation, consisting largely of feldspar-phyric basalt but with intraformational limestone lenses intercalated near the top; the overlying Quatsino limestone; and siliciclastic and limy sediments of the largely upper Triassic Parsons Bay formation that was deformed and faulted along orogen parallel transverse faults, along which, felsic dykes and later mid Jurassic plutons were emplaced. The presence of early deformation, mainly of the brittle type, allowed circulation of fluids supplied and energized by the pluton yielding local alteration and mineralized volumes. The alteration is largely propylitic, but zones of pink albite and potash feldspar-epidote-quartz-chlorite are locally dispersed and contain the areas of copper mineralization.

Within the Kringle-Consolidated Claims sulphide accumulations studied over the years, have included local iron sulphide rich veins and replacement masses, more common chalcopyrite veins, molybdenite bearing garnet veins, copper rich skarns, pyritic veins and disseminations in granodiorites and dykes, and pyrrhotite layers in reaction skarns. Pyrite and chalcopyrite are found in mineralized shear zones. Another mode of mineralization is found in sheared, feldspar porphyry bearing, sulphide cemented breccias within the Karmutsen Formation. Recently bornite enrichment of flow parallel zones and in veins in basalt were added to the mineralization roster. Prospects and showings lie along a three km wide magnetic anomaly developed along the edge of Adam River pluton.

Later geologic history is known to be complex and includes post intrusion (transverse?) faulting and low temperature veining but is not yet understood in detail in this area.

The current exposure level is probably one of shallow depth and fairly low temperature, based on co-existence of potash feldspar with chlorite. Investigations should focus on the magnetic anomaly which is apparently due to magnetic materials at depth and probe deeper near the pluton.

Samples are prospecting samples and are collected to show the presence of mineralization at a locality. They are thus specially selected and do not indicate grade or mineralized volumes. They do point to mineralized areas where more work can be focused.

Recommendations for future work

It is recommended that the copper mineralization be better characterized, by providing some dimensions and grade estimates to the local high grade grab sample locations.

A company financed exploration program should include a ***detailed airborne survey*** covering all claims locating magnetic and electromagnetic anomalies to provide geophysical dimensions to known showings and to locate further showings and extensions. An extensive magnetic susceptibility and density database already collected in several assessment reports would help in interpreting the results and provide local control data.

Formal company work would include appropriate geological mapping, geochemical and geophysical ground work on selected grids derived from airborne data and also focus on formal re-sampling of anomalous locations. Drill targets could follow assimilation of new data.

Chip assays of Ag, Au and Pd from showings known to be locally anomalous should be collected.

More showings should be tested for their alteration suites and sulphide contents Follow up work should also include prospector based work such as silt sampling of all creeks (above or away from roads with suspect road metal), chip sampling at localities returning high assay values from grab samples, and basal till and soil sampling along subsoil "extensions" of mineralized trends

A ground magnetic survey is clearly indicated to define the extent of magnetic phases of the ore skarn, local breccias and magnetite veins showing positive anomalies as well as to locate shears and veins showing negative anomalies,. To locate conductive portions (sulphide concentrations) of mineralized zones one of several types of electromagnetic survey can be contemplated; the size of the exploration commitment would seem to dictate the method. Large EM surveys positioned after the airborne can enlarge the prospective sites, both in size and number. Hand-held geophysical methods which penetrate only to shallow depths such as BeepMat, self-potential or magnetometer surveys can be conducted adjacent to known showings to locate magnetic and conductive subcrop locations along strike of previously located showings. Hand-held Scintillometers can help show the distribution of potash in "pink" veins, dykes and country rocks. Alteration can be analyzed by SWIR methods and distribution patterns can be outlined.

The current exposure level of the mineralization is probably a shallow one with fairly low temperature of emplacement, based on co-existence of potash feldspar with chlorite. Investigations should focus within the magnetic anomaly and probe deeper near the pluton.

A suitable exploration project can be crafted to suit the amount invested.

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Author's qualifications

I, Mikkel Schau

have been a rock hound, prospector and geologist for over 55 years. My mineral exploration experience has been with Shell, Texas Gulf Sulfur, Kennco, Geophoto, Cogema and several small public and private mining juniors. I have worked 10 years in southern BC and spent 23 years with the GSC as a field officer focused on mapping in northeastern Arctic Canada. For the last 17 years I have prospected and mapped in Nunavut, Nunavik, Yukon, Quebec, Ontario and BC.

reside at 3919 Woodhaven Terrace, Victoria, BC, V8N 1S7.

am formally educated as a geologist, I graduated with an honours B.Sc. in 1964 and Ph.D. in Geology in 1969, both, from UBC.

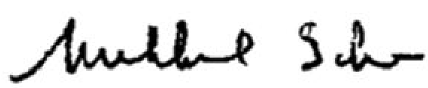
am a P.Geo. (25977) in BC . I am currently a BC Free Miner, # 142134.

have 100% interest in the claims in question.

have worked on various parts of this property since 2000.

am the author of the report entitled *Assessment Report including* Petrography, Lithochemistry, and Magnetic studies *on The Kringle-Consolidated Claim Group (Tenures 509556, 515027, 515028. 515029, 515030, 515032, 515033, 515034, 515386, 515924, 515925, 515926, 515930, 516017, 521073, 529780, 797082, 797102, 845313, 845314, 845315), About 250 km north of Nanaimo straddling Highway 19, Nanaimo Mining District,*

Signed



Mikkel Schau, P. Geo.
(APEGBC-25977)

Itemized Cost Statement

(Does not include HST)

Analytical Work	
Van Petro	
35 slabs K-staining and four thin sections	***233.00***
Schau	
Four petrographic descriptions	***600.00***
Heberlein	
30 TerraSpec analysis (67 determinations)	***712.51***
Acme Labs Report VAN12000602	
24 FeO determinations	***544.23***
Magnetic Susceptibility measurements	
143 sites @$5.00/site	***715.00***
Assessment and report writing	
40 hrs @$60/hr	***2400.00***
Map drafting	
Invoice	***924.00***
TOTAL	***6000.64***

(PAC = 1959.88)

Appendix 1: FeO determination, data, and analyses

This appendix shows FeO data of samples whose locations are shown on Figure 3.

Table 1-1: Rock Specimens with new FeO determinations

Rock Assay #	UTM_E	UTM_N	Rock Description	FeO%
6505	705181	5580227	Feldspar Plag and black phens, dacite porphyry from Cruller.	3
6596	702983	5581643	basalt	9.73
6610	706277	5578462	Beige coloured pervasively epidotized and silicified amygdaloidal basalt	2.86
6613 F07	705332	5579461	Grey crowded Feldspar porphyry with Hornblende	3.83
6615 F09	706714	5578611	Greyish blue Feldspar porphyry with quartz eyes?	3.03
6620 F12	706463	5577915	Grey Feldspar porphyry with qz eyes?	4.55
6628	705203	5578228	Malachite stained Light colored Fine grained andesite/granodiorite with hornblende	4.64
6632	705241	5580017	Feldspar porphyry (Cruller dyke) at contact	3.85
6634	705248	5580027	Amygdular basalt with malachite stain and chalcopyrite	8.23
6637	705173	5580192	Seriate feldspar porphyry (dacite)	3.11
6725	705387	5577121	diabase	7.08
6734	705390	5577234	feldspar basalt no amyg	6.95
6736	705249	5577583	diabase	8.46
6739	705178	5578237	amygdular feldspar-phyric basalt	6.39
6740 T13	705178	5578237	amygdular basalt	1.53
6741	705178	5578237	andesite dyke with hornblende? and copper stained	4.32
6743	705170	5579112	feldspar-phyric basalt	7.81
6745	703184	5581570	diabase with Pink vein	8.91
6965	705864	5579348	andesite porphyry	3.44
6971 FA06	705471	5580516	feldspar porphyry dyke (cutting black basalt)	N/A, due to carbonaceous material?
6976 FA02	706461	5577916	feldspar porphyry dyke (cutting black basalt)	4.76
6977 FA01	706144	5579452	andesite porphyry	4.14
6978	702972	5581680	feldspar-phyric basalt/diabase contact	9.95
16525	704616	5578041	amygdular feldspar-phyric basalt	9.29

The original iron was reported as Fe_2O_3. Previously, assumed FeO values, based on common Fe2/Fe3 ratios, were used in naming rocks. With the actual values of FeO, normative calculations can be performed more realistically and these results are given in table 1-2 below. The calculations were performed using K-Magma, a software program available from the USGS. It also provides a "name" to specimen.

Table 1-2: List of Specimens with new FeO determinations and corrected Fe_2O_3 incorporated with previous Whole Rock analytical data

Rock Assay #	UTM East	UTM North	Rock Name	SiO_2 %	TiO_2 %	Al_2O_3 %	Fe_2O_3 %	FeO %	MnO %	MgO %	CaO %	Na_2O %	K_2O %	P_2O_5 %	LOI %	Sum %*
6971	705471	5580516	feldspar porphyry (dacite)	62.75	0.56	15.91	6.05*	na	0.12	2.33	4.14	3.54	2.05	0.14	2.2	99.75
6965	705864	5579348	feldspar Porphyry dacite	62.05	0.57	15.46	1.76	3.44	0.11	2.17	4.82	3.51	2.16	0.12	3.2	99.81
6977	706144	5579452	Andesite porphyry	58.81	0.71	16.35	2.58	4.14	0.14	2.84	5.45	3.36	1.91	0.17	2.7	99.79
6976	706461	5577916	Andesite porphyry	55.9	0.87	16.18	3.3	4.76	0.16	3.34	7.12	3.15	0.93	0.19	3.2	99.74
6745	703184	5581570	Basalt, with pink vein	49.3	2.26	13.12	5.16	8.91	0.21	5.89	7.16	4.14	0.81	0.21	1.3	99.74
6736	705249	5577583	diabase	48.94	1.75	14.23	3.06	8.46	0.2	7.05	11.85	2.07	0.26	0.17	0.5	99.76
6739	705178	5578237	Amygdular feldspar phyric basalt	48.1	1.3	14.15	4.79	6.39	0.15	7.52	12.31	2.24	0.22	0.12	1.6	99.8
6978	702985	5581672	feldspar phyric basalt	48.1	1.66	14.35	7.05	9.95	0.2	6.64	10.5	2.38	0.26	0.17	2	99.49
6743	705170	5579112	feldspar phyric basalt	47.69	2.39	13.13	7.05	7.81	0.21	5.66	8.74	3.07	1.29	0.25	1.3	99.72
6734	705390	5577234	feldspar phyric basalt	47.48	1.31	14.36	3.29	6.95	0.14	6.95	12.03	3.4	0.13	0.12	2.6	99.81
6725	705387	5577121	diabase	47.4	1.32	14.3	3.29	7.08	0.15	7.59	10.47	3.56	0.14	0.13	3.3	99.8
6596	702983	5581643	basalt	47.02	2.86	12.47	6.55	9.73	0.25	5.35	8.59	3.15	0.09	0.28	2	99.7
16525	704616	5578041	amygdular feldspar phyric basalt	45.15	2.26	13.06	4.68	9.29	0.21	6.74	10.51	2.56	0.02	0.2	3.7	99.6
6740	705178	5578237	skarn	42.38	0.99	14.27	9.69	1.53	0.21	4.56	22.37	0.14	<0.01	0.06	3.3	99.81
6505	705181	5580227	feldspar and black phenocryst in porphyry (dacite)	62.47	0.58	15.36	5.9	3	0.11	2.18	4.99	3.32	2.23	0.12	2.5	99.76
6620	706463	5577915	Grey feldspar porphyry with rare pyroxene phenocryst	55.88	0.89	16.36	2.48	4.55	0.16	3.27	7.04	3.39	0.87	0.18	3.4	99.82
6628	705203	5578228	feldspar and pyroxene phenocryst in quartz andesite	57.28	1.07	15.58	3.22	4.64	0.16	2.58	6.82	2.68	1.68	0.26	2.7	99.43
6632	705241	5580017	At contact of Seriate feldspar porphyry (dacite)	62.42	0.6	15.65	1.76	3.85	0.1	2.41	4.46	2.97	2.93	0.12	2.3	99.76
6637	705173	5580192	Seriate feldspar porphyry (dacite)	63.15	0.61	15.5	1.53	3.11	0.11	2.32	4.25	3.43	2.31	0.12	2	99.79
6613	705332	5579461	Crowded feldspar porphyry (quartz andesite)	58.69	0.72	16.3	2.92	3.83	0.14	2.91	5.77	3.23	1.78	0.19	2.5	99.74
6615	706714	5578611	Greyish blue crowded feldspar and quartz eyes porphyry (dacite)	62.19	0.63	16.32	2.16	3.03	0.13	1.83	5.14	3.88	1.72	0.18	2.2	99.8

* Calculated with total iron as Fe_2O_3

*The iron which was previously reported as Fe_2O_3 has been adjusted to FeO, from which the measured FeO has been subtracted, and then the remaining FeO has been reconverted to Fe_2O_3.

Appendix 2: Magnetic Susceptibility Measurements

Magnetic susceptibility measurements were acquired by a KT09 magnetic susceptibility meter using a pin setting contact to minimize contact irregularities in the rock surface. The KT-9 has a sensitivity of 1 X 10^{-5} SI units (8 x 10^{-7} cgs). And the operating range is 1 x 10^{-5} to 999 x 10^{-3} SI units. Although the volume the device measures may reach 1 m diameter 90% of the signal is collected from a 2 cm diameter from the pin.

The measurements were made by Alec Tebbutt who has operated this unit for a decade.

Table 2-1: Magnetic susceptibility readings

StationID	MS Set	NAD83E	NAD83N	Elev_m	Description	Rock Type	Median MS	MS1	MS2	MS3	MS4	MS5
AJT31_286	1	706144	5579452	344.4	host; at NW end of qry, see drawing		2	2	1.91	4.13		
AJT31_286	2	706144	5579452	344.4	dike		9.21	9.06	9.21	1.64	10.4	15.3
AJT31_286	3	706144	5579452	344.4	host		3.92	7.11	2.38	2.9	3.92	7.29
AJT31_286	4	706144	5579452	344.4	dike, K10218B from here		17.5	21.6	14.6	23.4	5.52	17.5
AJT31_286	5	706144	5579452	344.4	host, 0.5m L of vein		2.71	2.71	2.85	2.64		
AJT31_286	6	706144	5579452	344.4	host, 0.5m R of vein		2.14	4.15	1.24	2.14		
AJT31_286	7	706144	5579452	344.4	on vein between 5 & 6		0.7	0.93	0.66	0.7		
AJT31_286	8	706144	5579452	344.4	host		1.24	0.77	1.47	1.24		
AJT31_286	9	706144	5579452	344.4	K10218A sample site		0.97	0.7	0.97	0.99		
AJT31_302	1	705021	5580081	322.5	long wall, not mineralized; N end of qry, see drawing		29.7	29.7	27.4	35.9		
AJT31_302	2	705021	5580081	322.5	1m R (N) of vein		50.7	55.3	50.7	45.2		
AJT31_302	3	705021	5580081	322.5	on vein/ore		1.71	1.92	1.71	1.04		
AJT31_302	4	705021	5580081	322.5	1m L (S) of vein		36.3	8.59	32.9	36.4	38.6	36.3
AJT31_302	5	705021	5580081	322.5	mineralized (sample UL)		31.3	25.1	75	31.3	8.39	36.8
AJT31_302	6	705021	5580081	322.5	2m below MS reading 2; some "little black things"		44.3	44.3	40.8	60.9	48	36.6
AJT31_302	7	705021	5580081	322.5	at ground level, 1m L of pink vein		11.5	12.2	11.5	8.67		
AJT31_302	8	705021	5580081	322.5	3 m above reading 7		16.3	9.95	24	26.1	4.88	16.3
AJT31_303	1	705033	5580071	331.3	host, at N end of qry		35.3	31.3	41.6	35.3		
AJT31_303	2	705033	5580071	331.3	0.5m L of qtz vein in slickenside		44.1	40	44.1	85.7	23.7	58.3
AJT31_303	3	705033	5580071	331.3	between qtz veins		96.8	83.9	108	96.8		

StationID	MS Set	NAD83E	NAD83N	Elev_m	Description	Rock Type	Median MS	MS1	MS2	MS3	MS4	MS5
AJT31_303	4	705033	5580071	331.3	on slickenside by R qtz vein		112	96.1	123	112	19.1	127
AJT31_303	5	705033	5580071	331.3	1m R of qtz vein 2; still more qtz		68.4	108	68.4	48.8		
AJT31_303	6	705033	5580071	331.3	1m R of fault/slicken; low, at about waist level		103	104	102	103	80.3	131
AJT31_303	7	705033	5580071	331.3	at malachite, chalco area on bluey-black		71.6	66.5	89.2	71.6		
AJT31_303	8	705033	5580071	331.3	still in fault zone, some slickensides		77.5	77.5	77.8	64.3		
AJT31_303	9	705033	5580071	331.3	more malachite, small amt on surfaces		59.6	59.6	30.7	65.3		
AJT31_303	10	705033	5580071	331.3	chlorite vein (sample site - one of K10229)		48.6	56.3	48.6	4.22	14.9	59.9
AJT31_303	11	705033	5580071	331.3	1m R of reading 10, chlorite vein		46.8	31.6	55.5	46.8		
AJT31_303	12	705033	5580071	331.3	still small amt of malachite on surface		48.1	48.1	34.5	49.8		
AJT31_308	1	706367	5578831	438.9	near to crk, too steep to get down safely, no sample; otc where stopped, fg basalt black, MS reading	fg black basalt	3.45	0.62	3.45	8.1	2.29	7.95
AJT31_315	1	705417	5576495	500.8	N end near sample	basalt	36.1	36.1	38.1	34.3		
AJT31_315	2	705417	5576495	500.8	middle of wall	basalt	38	45.7	38	37.1		
AJT31_315	3	705417	5576495	500.8	S end of wall	basalt	28.7	28.7	28.2	29.1		
AJT31_315	4	705417	5576495	500.8	between N & middle, area w several amygdules	basalt	43.9	43.9	38.3	46.9		
AJT31_317	1	705387	5577121	532.8	about middle of quarry	basalt	32.4	32.4	31	39.7		
AJT31_317	2	705387	5577121	532.8	at Mik sample site w some Cu; 6m S (right) of AT sample	basalt	30.4	29	30.4	30.6		
AJT31_317	3	705387	5577121	532.8	veins, 10m R of first MS; reading just L of vein	basalt	23	23	24.3	20.1		
AJT31_317	4	705387	5577121	532.8	veins, 10m R of first MS; between veins	vein	7.67	1.23	8.79	7.67		
AJT31_317	5	705387	5577121	532.8	veins, 10m R of first MS; just R of veins	basalt	18.5	21.6	18.5	17.4		
AJT31_317	6	705387	5577121	532.8	solid wall S end of quarry	basalt	27.9	29.9	23.4	27.9		
AJT31_317	7	705387	5577121	532.8	big vein N end of quarry; L of vein	basalt	0.86	0.86	0.71	1.09		
AJT31_317	8	705387	5577121	532.8	big vein N end of quarry; R of vein on fault surface	basalt	0.58	0.61	0.58	0.54		
AJT31_319	1	705796	5576308	637.6	massive basalt; unaltered	basalt	11.2	15	23.1	8.54	11.2	7.36
AJT31_320	1	705715	5576468	609.9	L of slicken, fault 160°	basalt	10.4	8.73	10.4	11.5		
AJT31_320	2	705715	5576468	609.9	R of slicken, fault 160°	basalt	13.8	8.39	13.8	30.5	17.6	5.35
AJT31_320	3	705715	5576468	609.9	5m R (S) of slicken	basalt	43.1	40.5	45.2	43.1		
AJT31_321	1	705741	5576719	620	propylite, altered	propylite, altered	7.19	7.19	3.79	8.42		

StationID	MS Set	NAD83E	NAD83N	Elev_m	Description	Rock Type	Median MS	MS1	MS2	MS3	MS4	MS5
AJT31_321	2	705741	5576719	620	above altered propylite	basalt	27.6	21.7	27.6	28.3		
AJT31_322	1	705701	5576745	601.7	main basalt	basalt	5.5	3.61	8.64	5.5		
AJT31_322	2	705701	5576745	601.7	more reddish, burned?	basalt	17.4	17	19.1	17.4		
AJT31_325	1	705390	5577234	506.6	centre of qry, no slicked	basalt	33	33.1	33	32.3		
AJT31_325	2	705390	5577234	506.6	centre of qry, no slicked	basalt	35.5	35.5	38.1	29.7		
AJT31_325	3	705390	5577234	506.6	to R of slicken	basalt	9.45	6.12	6.75	17.7	9.45	11.8
AJT31_325	4	705390	5577234	506.6	L end of qry; has been slicken, mostly broken away; Mik checked, this is altered basalt, not a dike	basalt	0.59	0.51	0.59	0.7		
AJT31_326	1	705249	5577583	474	at sample site	basalt	60.8	60.8	63.4	60.8		
AJT31_327	1	705397	5577982	491.3	1 in drawing in notes; epidote stained surface; L end		1.46	1.2	2.48	1.46		
AJT31_327	2	705397	5577982	491.3	2 in drawing in notes; slicken		2.24	2.47	2.24	1.96		
AJT31_327	3	705397	5577982	491.3	3 in drawing in notes; weathered, not flat fault surface		8	10.2	6.93	3.83	15.2	8
AJT31_327	4	705397	5577982	491.3	4 in drawing in notes; weathered		1.18	1.02	1.18	1.84		
AJT31_327	5	705397	5577982	491.3	5 in drawing in notes; flat fault surface		0.66	0.97	0.57	0.66		
AJT31_327	6	705397	5577982	491.3	6 in drawing in notes; on flat fault		1.44	6.6	1.02	1.44	1.18	6.97
AJT31_327	7	705397	5577982	491.3	7 in drawing in notes; on flat fault		1.02	0.97	1.02	2.62		
AJT31_328	1	705183	5578235	440.7	dike w pink at very S end of quarry	dike	0.35	0.39	0.35	0.31		
AJTD_028	1	705178	5578237	428	1 in drawing in notes: basalt	basalt	44.3	44.9	34.8	44.3		
AJTD_028	2	705178	5578237	428	2 in drawing in notes: basalt w Cu, sample	basalt	0.66	0.68	0.66	0.57		
AJTD_028	3	705178	5578237	428	3 in drawing in notes: dike where Mik took sample previous day	dike	6.47	6.94	6.47	5.16		
AJTD_028	4	705178	5578237	428	4 in drawing in notes; basalt at N end of quarry	basalt	33.9	46.3	28.7	33.9		
AJTD_029	1	705210	5578757	406.6	see drawing; Mik sample site	basalt	65	68	58	65		
AJTD_030	1	705159	5579116	388.5	outcrop on KC Main; probably float	basalt	119	99.7	119	127		
AJTD_030	2	705159	5579116	388.5	probable in place 15m S of one above	basalt	65.9	64	65.9	68.5		
AJTD_031	1	705170	5579112	388.9	outcrop at culvert on KC Main, in place; samples	basalt	105	113	86.1	113	91.7	105
AJTD_032	1	705122	5579276	381.4	quarry on KC Main	basalt	46.1	30.6	11.6	46.1	52.6	69.8
AJTD_032	2	705122	5579276	381.4	quarry on KC Main	basalt	59.3	70.3	59.3	59.1		
AJTD_032	3	705122	5579276	381.4	slightly brown tinged	basalt	83.4	115	70.9	83.4		

StationID	MS Set	NAD83E	NAD83N	Elev_m	Description	Rock Type	Median MS	MS1	MS2	MS3	MS4	MS5
AJTD_034	1	703184	5581570	279.2	outcrop off KC110	basalt	105	105	113	84	123	87.7
AJTD_036	1	702984	5581665	244.3	near veins, see drawing in notes; Oreo quarry	basalt	41.7	41.7	47.3	39.8		
AJTD_036	2	702984	5581665	244.3	black in ladder vein area; Oreo quarry	??	31.5	34.9	30.5	31.5		
AJTD_036	3	702984	5581665	244.3	white in ladder vein area; Oreo quarry	??	14.5	12.1	14.5	14.8		
AJTD_038	1	704109	5578403	499.6	sample site; outcrop on KC130	basalt	30.4	30.4	29.9	31.5		
AJTD_040	1	704041	5578159	511.2	dike on KC130	dike	4.08	4.4	4.08	1.12		
AJTD_041	1	704109	5578138	531.6	basalt w amydules on KC130; sample	basalt	30.8	32.4	22.2	30.8		
AJTD_042	1	704377	5578021	555.3	unaltered basalt	basalt	24.4	28.8	23.8	24.4		
AJTD_042	2	704377	5578021	555.3	altered basalt; sample site	basalt	1.31	0.7	1.51	1.31		
AJTD_046	1	704438	5577626	657.2		basalt	31.9	34	29.9	31.9		
AJTD_047	1	704378	5577560	659.6	vesicules	basalt	39.5	39.5	41.8	38.4		
AJTD_048	1	704401	5577454	659.7	1 one ft below layered vesicules	basalt	4.33	6.28	4.33	1.64		
AJTD_048	2	704401	5577454	659.7	2 in vesicules	basalt	4.37	2.57	4.37	8.63	9.27	3.34
AJTD_048	3	704401	5577454	659.7	3 one ft above layered vesicules	basalt	32.3	32.6	32.1	32.3		
AJTD_048	4	704401	5577454	659.7	4 below epidote	basalt	67.7	67.7	69.3	67.1	28.6	71.7
AJTD_048	5	704401	5577454	659.7	5 on epidote	basalt	0.61	0.52	0.82	0.61		
AJTD_048	6	704401	5577454	659.7	6 above epidote; fine grained	basalt	47.6	49.5	36.9	36.8	62.4	47.6
AJTD_048	7	704401	5577454	659.7	7 above fine grained basalt	basalt	30.1	40.1	29.8	30.1		
AJTD_049	1	704481	5577396	652.9	on greenish host	basalt	17.8	17.8	20.1	1.56	6.06	19.1
AJTD_049	2	704481	5577396	652.9	left of vein	basalt	16.4	16.5	16.4	14.3		
AJTD_050	1	704506	5577345	644.5	middle layers, non amyg	basalt	29.1	23.7	29.4	29.1		
AJTD_050	2	704506	5577345	644.5	lower layer with amyg	basalt	9.16	6.3	10.1	9.16		
AJTD_050	3	704506	5577345	644.5	upper layer w amyg (above middle layer), some pink	basalt	41.2	43.7	41.2	31		
AJTD_050	4	704506	5577345	644.5	veined; between middle & upper	basalt	10.6	10.6	17.2	5.65	43.1	9.66
AJTD_051	1	704314	5578295	494.3		basalt	33.7	29.5	33.7	34.5		
AJTD_053	1	704616	5578041	495.5	rock surface w malachite	basalt	5.23	3.63	5.47	5.23		
AJTD_053	2	704616	5578041	495.5	4m R (N) of malachite surface	basalt	18.3	29.2	17.4	18.3	31.7	11.9
AJTD_055	1	706060	5578375	585.8	plain surface R of waterfall; 30cm below sulphides	basalt	26.6	11.9	1.97	128	132	26.6

StationID	MS Set	NAD83E	NAD83N	Elev_m	Description	Rock Type	Median MS	MS1	MS2	MS3	MS4	MS5
AJTD_055	2	706060	5578375	585.8	20cm above sulphides	basalt	21.2	11.8	26.5	13.9	38.9	21.2
AJTD_055	3	706060	5578375	585.8	on sulphides	basalt	6.37	6.37	25.2	2.36	2.47	20.3
AJTD_059	1	706118	5578295	620.2	on host basalt	basalt	51.7	53.5	49	51.7		
AJTD_059	2	706118	5578295	620.2	on pyrite surface	basalt	29.4	29.4	26.5	36.8		
AJTD_060	1	706400	5577987	657.3	on slickenside (?) surface	basalt	11.7	11.7	8.08	12.2		
AJT31_330	1	702980	5581679	241.1	on first found (main) sample site	vein	5.93	1.62	8.92	88.7	1.66	5.93
AJT31_330	2	702980	5581679	241.1	1m W in host, 1m above vein	dike?	0.96	1.01	0.96	2.91	0.95	0.84
AJT31_330	3	702980	5581679	241.1	1m E in host, 1m below vein	basalt	30.9	26.5	30.9	32.2		
AJT31_330	4	702980	5581679	241.1	2m W, 2m above	basalt	37.1	39.6	37.1	33.8		
AJT31_331	1	703006	5581704	247.8	1m N of vein on host	basalt	45.3	45.1	45.3	36	51.3	51
AJT31_331	2	703006	5581704	247.8	1m S of vein on host	basalt	23.7	23.7	22.6	28.3		
AJT31_331	3	703006	5581704	247.8	on vein	vein	8.21	8.21	2.13	9.1	8.77	1.51
AJT31_332	1	703349	5582482	244.8	black rk W of slickenside	basalt	34.4	42.4	34.4	14.4	39.2	15.5
AJT31_332	2	703349	5582482	244.8	breccia in slickenside	breccia	19.1	24.2	12.4	19.1		
AJT31_332	3	703349	5582482	244.8	on slickenside w epidote	fault	3.14	12.5	1.29	1.46	3.14	7.29
AJT31_334	1	704806	5579412	444.1	N end of outcrop	basalt	29.7	48	27.6	29.7	48.7	28.1
AJT31_334	2	704806	5579412	444.1	middle of outcrop (4m S of N end)	basalt	25.2	26.3	24.8	25.2		
AJT31_334	3	704806	5579412	444.1	S end of outcrop, 15m from N end)	basalt/porphyry?	12.6	10.8	12.6	13.4	41.4	10
AJT31_334	4	704806	5579412	444.1	E side (4m off midline)	basalt	27	25.5	27	28		
AJT31_334	5	704806	5579412	444.1	W side at N end	basalt?	90.1	92.7	127	68.6	66.3	90.1
AJT31_334	6	704806	5579412	444.1	porphyry at N end (Mik sample)	porphyry	21.3	21.3	17.4	22.7		
AJT31_335	1	704765	5579717	418.2	outcrop on KC400	feldspar porphyry	82.3	117	86.5	70.9	82.3	76.1
AJT31_336	1	704762	5579765	412.1	outcrop on KC400	basalt	28.4	23.3	28.4	32.8		
AJT31_336	2	704762	5579765	412.1	variable MS readings	Porphyry?	11.6	29.4	10.4	38.4	11.1	11.6
AJT31_337	1	704781	5579829	409.7	variable MS readings	Porphyry?	18	30.4	18	17	43.1	3.62
AJT31_341	1	703653	5580734	370.6	small qry; tried other places in qry, all high	basalt	115	99	120	115		
AJT31_343	1	703406	5581270	313.9	o/c W side of FSR; sulphides	sulphide sample boulder	1.54	1.53	4.88	1.54	5.98	0.74
AJT31_343	2	703406	5581270	313.9	larger boulder than first, less mineralized	basalt	86.2	86.2	80.5	103		

StationID	MS Set	NAD83E	NAD83N	Elev_m	Description	Rock Type	Median MS	MS1	MS2	MS3	MS4	MS5
AJT31_343	3	703406	5581270	313.9	area with veining on top	basalt	0.52	0.54	0.52	0.51		
AJT31_344	1	703411	5581342	308.8	no sulphides	basalt	105	97.4	110	105		
AJT31_347	1	702454	5581109	367.9	above odd layering	basalt	47.3	47.3	44.5	53.6		
AJT31_347	2	702454	5581109	367.9	odd layering; on central light layer	light layer	63.5	63.9	63.5	54.5		
AJT31_347	3	702454	5581109	367.9	basalt below odd layer	basalt	36.3	30.4	38.5	36.3		
AJT31_348	1	702465	5581127	362.1	fault surface; 0.5m S of white veining	fault surface	22	10.7	22	22.9		
AJT31_348	2	702465	5581127	362.1	white vein w pink center	vein	7.83	9.2	6.57	7.83		
AJT31_348	3	702465	5581127	362.1	2m N from veining, on basalt w amygdules	basalt	18.6	27.1	18.6	13.6	38.6	14.8
AJT31_349	1	702803	5581023	399.9	1m S of white veining; basalt w vesicules	basalt	55.1	54.5	56.2	55.1		
AJT31_349	2	702803	5581023	399.9	1m N of veining; basalt w vesicules	basalt	44.7	37.5	44.7	51.4		
AJT31_349	3	702803	5581023	399.9	on white vein fault surface	fault	27	9.72	32.4	27		
AJT31_349	4	702803	5581023	399.9	N of fault surface; top of lower flow of basalt w rounded vesicules	basalt	55.3	49.6	55.3	63.3		
AJT31_349	5	702803	5581023	399.9	N of fault surface; upper layer of basalt w vertical vesicules	basalt	44	40.9	46.7	44		

The magnetic susceptibility readings imply certain contents of magnetite (Lowe 1999, table 5) as shown below. A log log scale relating Magnetic susceptibility readings to % magnetite has been suggested with approximate values as shown.

A value of 1000 SI x 10^{-3} is approximately 33.0 % magnetite by volume

333 SI x 10^{-3} is approximately 15.0 % magnetite by volume

100 SI x 10^{-3} is approximately 3.3 % magnetite by volume

60 SI x 10^{-3} is approximately 2.0 % magnetite by volume

33 SI x 10^{-3} is approximately 1.5 % magnetite by volume

10 SI x 10^{-3} is approximately 0.3 % magnetite by volume

Other workers (Drinkwater et al, 1992) indicate that 40 SI X 10^{-3} units is approximately equal to 1% magnetite. The variations in readings are commonly due to grain size and fabric of magnetite, higher values being found in coarser units and lower values in altered and hydrothermally altered rocks. Below is a table that predicts the magsus values using the normative magnetite content as calculated in Appendix 1.

Table 2-2: Predicted magnetic susceptibility values using normative magnetite content

Sample ID	name	calculated magnetite	calculated ilmenite	predicted SI 10^{-3} units
6965	dacite	2.56	1.08	80
6505	dacite	3.6	1.1	105
6632	dacite	2.56	1.14	70
6637	dacite	2.22	1.16	50
6615	dacite	3.14	1.2	95
6977	andesite	3.75	1.35	105
6976	andesite	4.79	1.66	150
6620	andesite	3.6	1.69	105
6628	andesite	4.68	2.04	110
6613	andesite	4.24	1.37	110
6745	basalt	7.5	4.3	180
6739	basalt	6.96	2.47	180
6978	basalt	2.83	3.16	90
16525	basalt	6.8	4.3	170
6736	diabase	4.45	3.33	110
6725	ol basalt	4.92	2.51	115
6734	Ol-basalt	4.78	2.49	110
6743	trachybasalt	10.24	4.55	200
6596	trachybasalt	10.28	5.44	200
fresh Karmutsen	basalt	7.99	3.37	190
Gunns Glass	basalt	6.45	2.97	170

The predicted normative values are at the higher end of reported range for the measured values for basalt as noted in Table 2-1. One mineral that is common and contains Ferric iron is epidote. Hence the calculated or normative magnetite is larger than would be expected for the sampled basalts in which epidote is a common alteration mineral. Other samples contain hematite which also would decrease actual magnetite content..

Appendix 3: Table with Results of Staining for Presence of Potash Minerals

The samples were stained using industry standard techniques of etching the surface of a cutoff with a solution of HF and a subsequent wash with a solution of sodium cobaltinitrite, letting it set and flushing the unreacted solution away. Potash minerals remain fixed and indicate location of potash minerals. Van Petro performed the staining on thin section cutoffs they had previously made.

Table 3-1: Potash staining

Rock Assay #	UTM_E	UTM_N	Rock Description	Potash staining	
6505 Kr10rp05 A2	705181	5580227	Feldspar plagioclase and black phenocrysts, dacite porphyry from Cruller.	Feldspar phenocrysts are rimmed (veined?) by K stain also in intergrown groundmass	Yes dyke
6539 DX05	706763	5577599	Pink vein with chalcopyrite and bornite	K spar intergrown in small patches within pink feldspar.	Yes, vein
6595 BD01	704812	5579412	dacite porphyry with feldspar and pyroxene phenocrysts	Intergrown in groundmass	Yes dyke
6610	706277	5578462	Beige coloured pervasively epidotized and silicified amygdaloidal basalt		
6613 F07	705332	5579461	Grey crowded Feldspar porphyry with Hornblende	K-spar rims phenocrysts and in groundmass	Yes dyke
6615 F09	706714	5578611	Greyish blue Feldspar porphyry with quartz eyes?	feldspar phenocrysts and double quartz pyramids in intergrown complex K stained groundmass	Yes Dyke
6620 F12	706463	5577915	Grey Feldspar porphyry with quartz eyes?	Groundmass, and small patches of yellow K-spar intergrowth	Yes Dyke
6628	705203	5578228	Malachite stained Light colored Fine grained andesite/granodiorite with hornblende		
6632	705241	5580017	Feldspar porphyry (Cruller dyke) at contact		
6634	705248	5580027	Amygdalar basalt with malachite stain and chalcopyrite		
6637 F37	705173	5580192	Feldspar porphyry with seriate phenocrysts and clay alteration	Groundmass and possibly rimming plagioclase phenocrysts	Yes Dyke
6647 FD08	705037	5580065	quartz vein in complex vein	No K-spar stain at all	No
6723 T48	705387	5577121	quartz vein w/ quartz-epidote-chl fragments	Very thin selvage of clay is yellow	Yes Vein
6725	705387	5577121	diabase		
6730 T10	705701	5576745	Feldspar porphyry, plagioclase phenocrysts, also quartz??	Smaller intergrown K spar domains in groundmass	Yes Dyke
6734	705390	5577234	feldspar basalt no amyg		
6736	705249	5577583	diabase		
6738 T11	705183	5578235	crowded feldspar porphyry	Minor K stain in groundmass	Yes Dyke

Rock Assay #	UTM_E	UTM_N	Rock Description	Potash staining	
6740 T13	705178	5578237	amygdular basalt	No K stain in amy or matrix	No
6965	705864	5579348	andesite porphyry	plagioclase and black phenocryst , K stain in intergrowths in groundmass	Yes Dyke
6971 FA6	705471	5580516	feldspar porphyry dyke (cutting black basalt)	plagioclase and black phenocrysts in K stained groundmass	Yes Dyke
6975 FA10	705036	5580072	quartz vein with basalt fragments	Groundmass yellow, also smaller clusters of yellow, some patches look basaltic.	Yes Vein
6976 FA2	706461	5577916	feldspar porphyry dyke (cutting black basalt)	Groundmass with K staining, later quartz vein no selvage,	Yes Dyke
6977 FA01	706144	5579452	andesite porphyry	In Interstitial groundmass	Yes Dyke
6979 BD06	702972	5581680	diabase	No K staining	no
16502 T22	704041	5578159	crowded andesite porphyry	Groundmass with K stain intergrowths	Yes Dyke
16504 T24	704377	5578021	"pink" Vein with epidoted-chl selvage, maybe some clay	Selvage of K stain and rare patches in side quartz vein	Yes Vein
16513 T29	704401	5577454	mylonite? interflow debris?	No K stain	no
16515 T31	704401	5577454	amygdular feldspar-phyric basalt	No K stain	no
16517 T33	704401	5577454	Quartz vein (minor pink) in basalt host	A small K-spar grain in core of quartz vein center	Yes vein
16546 T46 VP09	705013	5580068	amygdular feldspar-phyric basalt	No K stain, much malachite	no
119R F26	706787	5577516	Thin Pink vein in Basalt	K-spar intergrown with pink feldspar in center of vein	Yes Vein
Kr10rp06 A3	705181	5580227	Feldspar porphyry (dacite) from Culler, local dark inclusions,	Dark finer grained crystalline patches are rimmed (veined?) by K stain also in intergrown groundmass, also basalt frags not veined at all	Yes dyke
6506 Kr10rp07 A4	705193	5580251	Skarn? With cz/epidote and garnet? In black spotted limestone?	No k stain	no
VP01 large	704731	5580550	Large block of Dyke breccia from Puff	No K stain	no
VP02 large	705013	5580068	Gangue1 from Eclair	Abundant K stain on white feldspar, distinct from unaffected pink feldspar. Was this done?	Yes Vein
VP03 gangue east	705020	5580075	Gangue east side of road at Eclair	Very faint K spar in interstices in vein, with chalcopyrite and local bornite	Yes vein
VP04 6092	NA		Test for biotite, none expected: Vein, diss py in etched surface	No K-stain	no
VP05 11mk003	702983	5581643	Ophitic basalt with abundant and local patches of skeletal ore	No K staining	no
VP06	N/A		Standard "non K staining clay"	No K stain	no

Rock Assay #	UTM_E	UTM_N	Rock Description	Potash staining	
VP07	706217	5578087	Gangue with malachite stained epidote and with abundant Bornite	Clays in selvage show yellow stain	Yes vein
VP08	704892	557892	Gangue2 (propylitic) with epidote and quartz and sulphide (mainly pyrite) in porphyritic basalt	No obvious K staining	no
VP10	704731	5580550	Dyke breccia from Puff	No K-spar stain	no

Appendix 4: Data from Analysis of Selected Samples with Infrared Technology

TerraSpec™ is a compact and field portable precision instrument with a full spectral range (350-2500 nm), a 5nm spectral resolution, and rapid data collection (1/10th of a second per spectrum). Including ASD's fiber optic mineral probe, the TerraSpec™ system is lightweight, ultra-rugged, and affordable. It is an ideal tool for analysis of a wide variety of deposit types from epithermal to porphyries, kimberlites, IOCG, carbonate hosted base metals, greenschist belts, shear veins, skarns, and disseminated gold systems.

The device was run by Kim Heberlein, a local entrepreneur, who has a decade of experience using the device for mineral exploration

Attached are her reports on the project KH184.

Table 4-1: Location of Infrared Technology Samples

Sample ID	NAD83 E	NAD83 N
KH-01	706217	5578087
KH-02	705387	5577121
KH-03	705008	5580074
KH-04, A B	702641	5582197
KH-05	706167	5579400
KH-06	702588	5582030
KH-07	704401	5577454
KH-08	N/A	
KH-09	704401	5577454
KH-10	705701	5576745
KH-11	705796	5576303
KH-12	705183	5578235
KH-13	704401	5577454
KH-14	704041	5578159
KH-15	N/A	
KH-16	705679	5576919
KH-17	702980	5581679
KH-18	704109	5578138
KH-19	706217	5578087
KH-20	705013	5580068

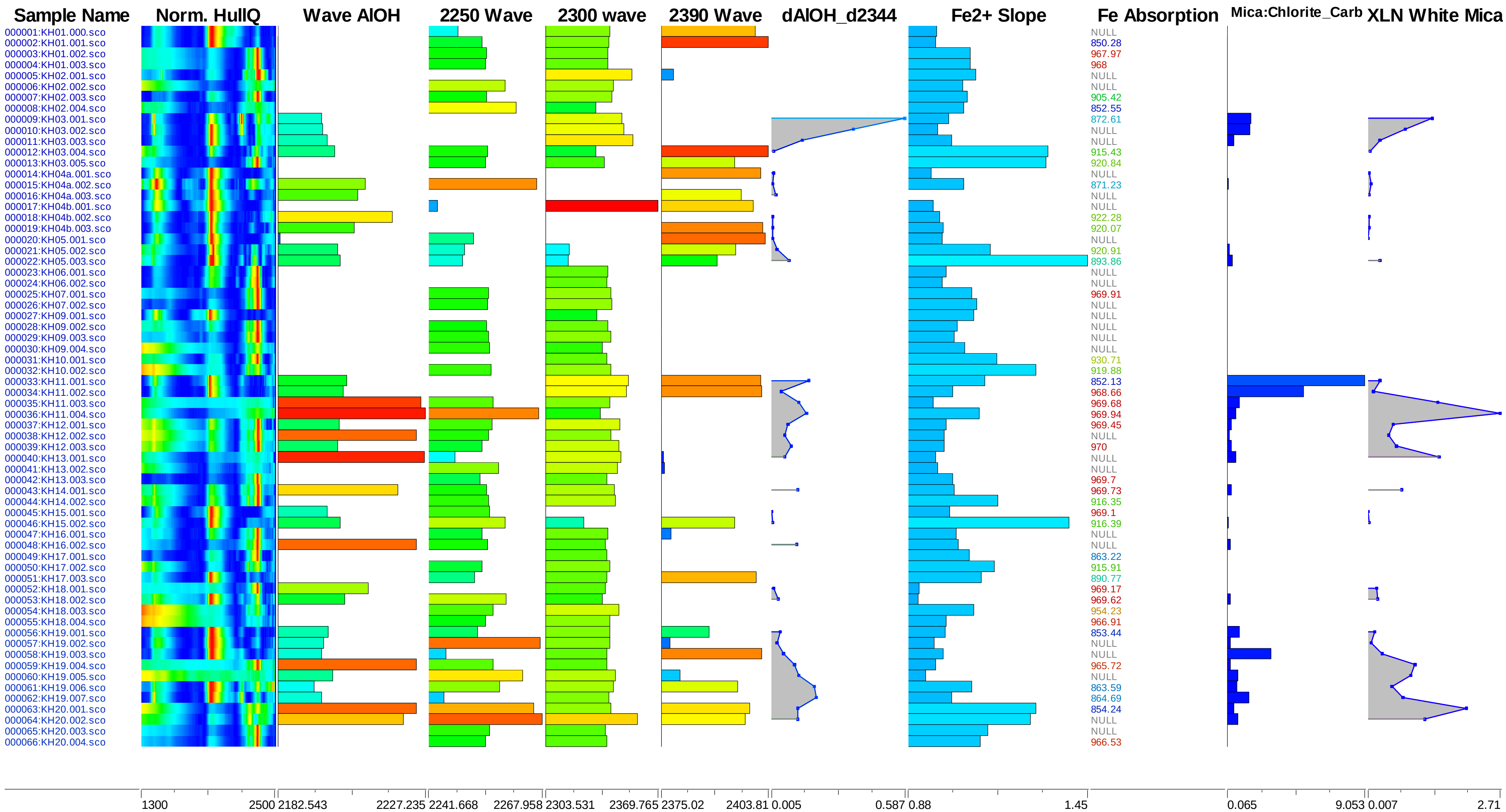


Table 4-2: Graphical Representation of Selected Data for Infrared Spectral Analysis Samples. Graphic was created by Alec Tebbutt using TSG 7 software (The Spectral Geologist) on data files provided by K Heberlein.

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13th February 2012

Mikkel Schau
3919 Woodhaven Terrace,
Victoria, BC
Canada V8N 1S7

Attn: Mikkel Schau
Re: TerraSpec spectral analysis (KH184)

TerraSpec spectral analyses of 20 samples gave moderately good to excellent results. The results are shown on the attached excel spreadsheet. The raw spectra are attached as .sco files.

Minerals found include illite/smectite, zeolite, chlorite, epidote, prehnite, carbonates, amphibole, gypsum/anhydrite, and probable silica. Clays are relatively minor overall. Most alteration involves epidote-carbonate +/- zeolite/prehnite.

Two samples (KH11 and 19) showed weak to no identifiable spectral features, either because there were no infrared active minerals present in the area analysed, or because of interference from sulphides/magnetite.

Illite composition ranges from low Al (phengitic?; wavelengths above 2208nm; see "2200 wave" column) through normal to slightly high Al (paragonitic?; wavelengths below 2200nm). Crystallinity was not easily discernible due to interference from other minerals, but generally seems to be closer to illite/smectite than illite/sericite.

Smectites include montmorillonite, possible high Al smectite (beidellite) and probable nontronite.

Chlorite compositions range from Fe-Mg to Fe-rich.

There appears to be more than one type of zeolite. Most samples show a zeolite signature similar to that of sample KH4A. Sample KH5 zeolite has a slightly different shape and absorption feature positions.

Carbonate was probably more present than was apparent from the spectra as it does not show up well in mixes and overlaps with both chlorite and epidote. Calcite is the main species, but one sample shows a strong Fe slope which could indicate the presence of Fe carbonate (KH11). One sample showed a strong malachite signature.

Silica has only water features in the SWIR and is only identified positively with visual confirmation.

If you have any questions regarding the interpretation please don't hesitate to contact me.

Best Regards

Kim Heberlein, P.Geo.
kheberlein@shaw.ca

TSP SPECTRAL ANALYSIS
KH184

SAMPLE ID	ext	2200 WAVE	2250 Wave	2300 wave	2390 Wave	ILL	SMEC	CHL	CAR	EPI	PREH	ZEO	AMPH	MAL	GYP/ ANH	SIL	COLOUR
KH01	001			2341					X							x?	Linzer upper vn. Pink massive. Calcite
	002		2255	2340					x	X						x?	Bright green
	003		2255	2340					x	X							Dk greengrey
KH02	001		2238	2354							X						White/green banded vn. Calcite
	002		2259	2344				?	X	x?						?	Dk green fmg. Weak, few spectral features. Calcite
	003		2255	2342					x	X	x						Greenish white surface. Calcite
	004		2262	2333	2360						X					?	Grey vnlt
KH03	001	2196		2348		X					x					x?	Éclair Vein gangue. Pink massive. High Al illite (paragonite?)
	002	2196		2350		x	x				X					x?	White xls in pink. High Al illite (paragonite?)
	003	2197	2236	2355		x					X	x?				x?	White/bright green. High Al illite (paragonite?). 1925 nm water feature is high for smectite - probable zeolite?
	004	2200	2255	2333	2404					x	?		X			?	Dk green border
	005	2209	2255	2334	2406			x		x			x				Dk green border
KH04A	001											X					White cse radiating xls. Calc.
	002	2136		2304					tr			X					Dk green fg. Poor noisy spectrum. Calcite
	003	2138		2305								X					White weathd sfce? Numerous small unid features may be organics
KH04B	001											X					White chunky fragile xls
	002							tr				X					Dk green
	003			2299			x?					X					Dk green/orangish. Probable nontronite at 2299nm
KH05	001											X					White amygdales
	002	2206	2250	2318	2402							X	x		?		White dusting on fract surface. Looks different than previous zeolite spectra - different species?
	003	2203	2254	2317	2393		x					?	X		tr		Dk green fibrous. Small suggestion of possible anhydrite at 1938nm?
KH06	001	2158		2340					X							x?	Greenish white vn/weathd?. Calcite
	002	2156		2339					X							x?	Greenish white vn/weathd?
KH07	001		2255	2342					?	X							Greenishgrey fg (cut sfce)
	002		2255	2342					?	X							Greenishgrey fg
KH09	001		2238								tr	X					White xln vein
	002		2257	2342						X	x	tr					Selvage

X = strong signature; x = minor; tr = trace; x? = inconclusive

K. Heberlein
2012-04-24

TSP SPECTRAL ANALYSIS
KH184

SAMPLE ID	ext	2200 WAVE	2250 Wave	2300 wave	2390 Wave	ILL	SMEC	CHL	CAR	EPI	PREH	ZEO	AMPH	MAL	GYP/ ANH	SIL	COLOUR
	003		2256	2342						X							Dk/bright green border
	004		2259	2342				tr		X							Darker green
KH10	001			2340				tr	X							x?	White cse xln vn. Calcite
	002		2256	2342				X	tr				tr				Dk green xln selvage. Fe chlorite
KH11	001	2203					X					x					White vnlt. Montmorillonite
	002	2207					x					X					Dk green gm
	003			2339					?	?							Dk green gm. Few features. Possible Fe carbonate??
	004			2339					?	?							Dk green gm. Few features. Possible Fe carbonate??
KH12	001	2203	2256	2351		x				X	tr					x?	Pinkish grey/green speckled altn. illite
	002	2203	2256	2342		tr				X	tr					x?	Pinkish grey/green speckled altn
	003	2201	2254	2346		x				X	tr					x?	Pinkish grey/green speckled altn
KH13	001		2251	2351				?		x							Dk/lt grey/green. Weak, few features
	002		2258	2346				?		x							Dk/lt grey/green. Weak, few features
	003		2255	2339						X							Green fracture
KH14	001	2221	2257	2347		x			tr	X						x?	Pinkish/green speckled altn. Calcite. Low Al illite (phengitic?)
	002	2213	2257	2347		tr		x	tr	X						x?	Pinkish/green speckled altn
KH15	001											X					white vnlt
	002											X				?	Brown/Green gm/lim. Weak calc
KH16	001		2256	2341					?	X	x					x?	Pink vnlt
	002		2255	2339					?	X						x?	Green/grey gm altn
KH17	001	2157		2339					X							x?	White cse xln vn. Calcite
	002		2255	2347				X	x								Green gm. Fe>Mg chlorite
	003		2257	2353				x				X				x?	Smaller grey vnlt/mal
KH18	001			2339					X							x?	Linzer upper vn/white vn/sus. Calcite
	002	2205		2341			tr		X							x?	Grey/gn gm. Weak clay feature
	003		2257	2347				X	x?								Grey/gn gm. Fe chlorite, calcite
	004		2259	2347				X	x?								Grey/gn gm. Fe chlorite, calcite
KH19	001	2199		2347			x		x							X?	White vn material. Calcite. Could be high Al illite or montmorillonite/beidellite?
	002	2199		2343			x		x							X?	Greywhite vn. Calcite
	003	2199		2351		x			tr							X?	Pink. Weak spectrum with cyclical noise: probably high Al illite, calcite

X = strong signature; x = minor; tr = trace; x? = inconclusive

K. Heberlein
2012-04-24

TSP SPECTRAL ANALYSIS
KH184

SAMPLE ID	ext	2200 WAVE	2250 Wave	2300 wave	2390 Wave	ILL	SMEC	CHL	CAR	EPI	PREH	ZEO	AMPH	MAL	GYP/ ANH	SIL	COLOUR
	004		2255	2343						X							Green selvage
	005																Greengrey gm altn. Weak, some cyclical noise. Nothing identifiable.
	006	2196	2259	2343		?	x		X							X?	White bladed xls. Calcite. Could be high Al illite or beidellite
	007	2196		2343		x?	X		x							x?	Mixed white/grey/pink. Calcite. Could be high Al illite or beidellite
KH20	001		2266	2342					x					X			Grey/green (mal?) black speckled. Yellowish leached area. Calcite
	002		2268	2357										X			Bluegreen fracture
	003		2257	2339					x	X			tr				Grey/green black speckled. Calcite. Weak indication of amphibole.
	004		2257	2339					x	X			?				Leached area. Calcite

X = strong signature; x = minor; tr = trace; x? = inconclusive

K. Heberlein
2012-04-24

Appendix 5: Petrography report of 4 new thin sections

Thin sections were generated by Van Petro, a long time local firm specializing in thin section making and description. The petrography was done by the author, drawing on half a century's experience. Figure 6 shows the locations of these thin sections.

Waypoint K10220 Assay number 6976 Thin section number FA02

Location UTME 706461, UTMN 5577916, elev 671.4

Location notes

Rock type Andesite Porphyry Dyke with feldspar and mafic phenocrysts (andesite) cutting black basalt

Fizzes Magnetic Conductive Density

Thin section analyses

Minerals

Feldspar phenocrysts 30 % seriate to 2 mm laths, twinning locally preserved, crystals are variably altered, to prehnite, clay and albite, old zoning patterns are locally replaced by and dotted with dusty brown clay

Mafic phenocryst A 10 % .7 mm laths mainly replaced by iron rich chlorite with minor “shreds of actinolite (precursor unknown)” and oxide cores

Mafic phenocryst B 10 % up to 4 mm prismatic grains of mainly preserved pleochroic pyroxene, some twinned, and only locally replaced by chlorite

Opaque grains 2% .5 mm dotted many near mafic minerals. Local wedges of sphene,

Ground mass 50% a brown very finely crystalline combination of low relief, low birefringent quartzofeldspathic intergrowths and fine brown dust obscuring most of their optical properties. Staining with cobaltinitrite reveals this to be made up largely of potash rich minerals, and K-spar in particular, intergrown with quartz

Textures

Porphyritic

Structures

Massive

Waypoint K10225B Assay number 6645 Thin section number DX09

Location
UTME 706221 UTMN 5578077 elev 664.8

Location Notes Upper Linzer Vein

Rock type Mineralized “Pink vein” cutting basalt; thin section is centered on junction of vein and basalt

Fizzes: no carbonate Magnetic: Selvage is magnetic, vein material is not

Thin section analysis

Minerals

Selvage/host basalt

Albite microlites and small well formed laths (50%) , with

Chlorite in amygdales and groundmass is essentially isotropic (i.e. Fe-Mg chlorite) under crossed nicols

Quartz patches, anhedral, ,5 mm across, mainly near vein edge,

Epidote as small grains in mesostasis

Magnetite 5 to 15% is particularly abundant neat the vein edge where it replaces the groundmass

Prehnite in trace amounts along in or near amygdale edges.

Vein

Quartz 25%

Epidote grains hosting pumpellyite (locally radiating prism) 35%

Chlorite 15% associated with above minerals

Albite 15% locally twinned small grains

Prehnite, at few grains are definitely prehnite, but more may be intergrown with above minerals

Bornite irregular grains and interstitial fills between silicates up 2 mm across

Chalcopyrite irregular grains, rarely with bornite in silicates and near chlorite grains 1 mm across

(a portion of this sample assayed 7.647% Cu)

Textures

Selvage/host basalt fine grained and intersertal with small albite laths and pyroxene granules set in altered groundmass

Vein fill is complex intergrown mosaic of silicate minerals punctuated by small grains of copper sulphides

Structures

Selvage Massive, local chlorite amygdales

Veins and or selvages

Vein is at least 2 cm across

Waypoint Assay number nil Thin section number VP03 (Thick)

Location
UTME 705020 UTMN 5580075 elev

Location notes the east side of road at Eclair showing

Rock type Basalt with a thin mineralized vein

Fizzes Magnetic Conductive Density

Thin section analyses

Minerals

Feldspar phenocrysts 40% seriate to 2mm laths and clusters, twinning locally preserved, crystals are variably altered, to clay and albite, old zoning patterns are locally replaced by and dotted with dusty brown clay

Albite 30% microlites and thin prisms .3 mm long and of locally twinned,

Pyroxene 5% granules to .1 mm scattered in mesostasis,

Opaque grains 2% .5 mm dotted many near mafic minerals,

Ground mass 50% intergranular to intersertal with dark clay altered glass, chlorite (Fe Chlorite (birefringent, grey Birefringence and cleavage is fast).

Textures

Intergranular to intersertal basalt

Structures

mainly massive

Amygdules contain Fe-Mg (isotropic, non pleochroic) chlorite with spears of pumpellyite inwardly directed.

Vein 1 cm wide crushed quartz and clay clouded feldspar with opaque grains (chalcopyrite) with rusty rims. Feldspars are mainly albite showing local albite cleavage and staining has indicated some of the grains are potash feldspar

Waypoint 11mk003 Assay number nil Thin section number VP05

Location
UTME 702983 UTMN 5581643 elev

Location notes Oreo Quarry

Rock type Amygdular ophitic basalt (dyke) cutting host basalt

Fizzes no Magnetic yes Conductive Density

Thin section analyses

Minerals
- Feldspar, 50% 2-4 mm well developed laths with relic zoning
- Pyroxene, 35% 2-4 mm grains containing feldspar laths,
- Chlorite 5% pseudomorphing a prismatic mafic mineral,
- Pumpellyite 1% possible scattered needles in chlorite,
- Opaques 10% 1 mm skeletal crystals of magnetite and ilmenite,

Textures
- Fine to medium grained, Ophitic

Structures
- Mainly massive,
- Amygdales elongate, over 4 mm long, consisting of mainly Fe-Mg chlorite but with local development of Mg-Fe chlorite

Notes

This is either a fine grained gabbro with long amygdales or a coarser than usual basalt flow center, The field occurrence favours the gabbro provenance since it occurs as a dyke, maybe a dolerite would be the correct name. Whatever the name it is an amygdular cross cutting dyke and presumably emplaced at a very shallow level of the crust. The opaque skeletal crystals give the rock a obvious black speckled look.

Appendix 6: Original Assay Sheet

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada

www.acmelab.com

Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Submitted By:	Mikkel Schau
Receiving Lab:	Canada-Vancouver
Received:	February 07, 2012
Report Date:	February 21, 2012
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN12000602.1

CLIENT JOB INFORMATION

Project:	None Given
Shipment ID:	
P.O. Number	
Number of Samples:	24

SAMPLE DISPOSAL

RTRN-PLP Return

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
No Prep	24	Sorting of samples on arrival and labeling			VAN
G806	24	FeO by titration	0.5	Completed	VAN

ADDITIONAL COMMENTS

please note: on sample #6971 the end point could not be achived for the FeO analysis due to interference of sulphide minerals and carbonaceous material in the sample.

Invoice To: Schau, Mikkel
3919 Woodhaven Terrace
Victoria BC V8N 1S7
Canada

CC:

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: February 21, 2012

CERTIFICATE OF ANALYSIS VAN12000602.1

Method		G806
Analyte		FeO
Unit		%
MDL		0.01
006505	Rock Pulp	3.00
6734	Rock Pulp	6.95
6736	Rock Pulp	8.46
6739	Rock Pulp	6.39
6740	Rock Pulp	1.53
6741	Rock Pulp	4.32
6743	Rock Pulp	7.81
6745	Rock Pulp	8.91
16525	Rock Pulp	9.29
6725	Rock Pulp	7.08
006620	Rock Pulp	4.55
006628	Rock Pulp	4.64
006632	Rock Pulp	3.85
006637	Rock Pulp	3.11
006610	Rock Pulp	2.86
006613	Rock Pulp	3.83
006615	Rock Pulp	3.03
006634	Rock Pulp	8.23
006977	Rock Pulp	4.14
006976	Rock Pulp	4.76
006971	Rock Pulp	N.A.
006965	Rock Pulp	3.44
006596	Rock Pulp	9.73
006978	Rock Pulp	9.95

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: February 21, 2012

QUALITY CONTROL REPORT VAN12000602.1

	Method	G806
	Analyte	FeO
	Unit	%
	MDL	0.01
Pulp Duplicates		
6741	Rock Pulp	4.32
REP 6741	QC	4.13
006977	Rock Pulp	4.14
REP 006977	QC	4.15
Reference Materials		
STD FER3	Standard	13.59
STD FER3	Standard	13.86
STD FER3 Expected		13.63