

**FIELD SEASON 2009**  
**GEOLOGY AND GEOCHEMISTRY,**  
**DECAR PROPERTY, BC**  
**(NTS 093/K14)**

54° 92' N, 125° 37' W  
349,000 E; 6,087,000 N; Zone 10 (NAD 27)

Omineca Mining Division

**BC Geological Survey**  
**Assessment Report**  
**31334**

**First Point Minerals Corp.**

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By

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Feb 03, 2010

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## **EXECUTIVE SUMMARY**

The Decar claims cover a portion of Cache Creek Complex that consists of obducted and sheared ophiolite ultramafic rocks which have been episodically deformed and serpentinized to produce naturally occurring nickel-iron alloy (awaruite).

At the Decar property disseminated, fine to coarse grained awaruite has been found within a large area. The coarser variety of awaruite (100-400 microns) is found at the Sidney and Baptiste targets. Around and between these two target areas, a fine grained variety of awaruite is present that ranges in grain size from 50 to 100 microns. Overburden masks several portions or margins of the target areas where additional exploration potential is anticipated.

The Van target also contains coarse grained awaruite but continuity of the mineralized is erratic.

Petrography and scanning electron microprobe work has confirmed the visual presence of the nickel-iron alloy over wide areas on the property and the awaruite averages 77% nickel with a range of 68 to 85% based on microprobe data.

Field work in 2009 included reconnaissance-level mapping and sampling in previously uncharted parts of the property and later detailed mapping and sampling in the target areas. The size of the Baptiste Target was doubled as a result of the 2009 field work versus 2008 and now measures 1,750 meters long by 800 to 1,300 meters wide. About 50% of this area is covered by overburden which masks the southern boundary of the Target. The northwest end of the Baptiste Target is open and requires additional mapping and sampling which will be undertaken in 2010 to define additional extensions of the mineralization.

Overburden masks the east margin of the target and minor outcrops contain coarse grained awaruite indicating good exploration potential to the east.

Future near-term work at Decar includes detailed metallurgical testing using recently collected large samples to determine the recovery of the alloy and the most cost effective extraction method. Detailed petrography of the rock samples and processed fractions from crushed, magnetic and gravity fractions are planned.

In 2010, a helicopter supported airborne magnetic survey is anticipated to cover most of the Decar Property in the next few months. Grid controlled induced polarization, ground magnetic and detailed mapping and sampling on the Baptiste and Sidney Targets will be completed following spring breakup. The results of this work will help to design a drill program in the best areas of the Targets by testing the continuity, grain size and grade of the nickel-iron alloy mineralization and to provide samples for more extensive metallurgical tests.

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# 1.0 INTRODUCTION

## 1.1 Background

Prior to November 13, 2009 the Decar property mineral title was 100% wholly owned by First Point Minerals Corporation (FPM), a publicly traded company on the TSX Venture Exchange (symbol FPX). An option-joint venture agreement was signed on November 13, 2009 between FPM and Cliffs Natural Resources (CNR), where CNR can earn an initial 51% by spending by spending US\$5million on the property in four years, of which US\$1million is a firm commitment in year one. First Point will manage the initial exploration activities.

## 1.2 Location and Access

The Decar Property is situated approximately 85 km northwest of Fort St. James in Central British Columbia (Figure 1). The property is approximately 15 kilometers northwest of Trembleur Lake, which is to the west of Middle River and south of Takla Lake. The Decar Property covers a large part of the Mount Sidney Williams ultramafic complex. Access to the property is by primary forestry roads and helicopter. A BC rail line is located approximately 2 km east of the Decar claim boundary and runs along the east bank of Middle River.



Figure 1 Location map of the Decar property in Central British Columbia.

### 1.3 Claim Data

This assessment report will cover 33 claims listed in Table 1 and total approximately 132 square kilometers. Claims are located in Figure 2 and are centered on coordinates 54° 54' N, 125° 22' W or 349,000 E, 6,086,000 N (Zone 10, NAD 27) on NTS map 93 K/12.

Table 1 Mineral Title Claims for Decar Property

| <u>Tenure Number</u> | <u>Type</u> | <u>Claim Name</u> | <u>Good Until</u> | <u>Area (ha)</u> |
|----------------------|-------------|-------------------|-------------------|------------------|
| 559615               | Mineral     | WILL 1            | 2010/11/14        | 464.762          |
| 559616               | Mineral     | WILL 2            | 2010/11/14        | 464.764          |
| 559617               | Mineral     | WILL 3            | 2010/11/14        | 464.764          |
| 559618               | Mineral     | WILL 4            | 2011/05/31        | 446.354          |
| 575674               | Mineral     | WILL 5            | 2010/11/14        | 446.491          |
| 575675               | Mineral     | WILL 6            | 2011/02/08        | 446.628          |
| 575677               | Mineral     | WILL 7            | 2011/02/08        | 465.191          |
| 575678               | Mineral     | WILL 8            | 2010/11/14        | 464.954          |
| 575679               | Mineral     | WILL 9            | 2010/11/14        | 464.719          |
| 575680               | Mineral     | WILL 10           | 2010/11/14        | 465.194          |
| 575681               | Mineral     | WILL 11           | 2010/11/14        | 446.383          |
| 575682               | Mineral     | WILL 12           | 2010/11/14        | 297.647          |
| 575683               | Mineral     | WILL 13           | 2010/11/14        | 390.396          |
| 575684               | Mineral     | WILL 14           | 2010/11/14        | 223.371          |
| 575686               | Mineral     | WILL 15           | 2010/11/14        | 316.242          |
| 594247               | Mineral     | BAP 1             | 2010/11/14        | 446.78           |
| 594248               | Mineral     | BAP 2             | 2010/11/14        | 335.142          |
| 594249               | Mineral     | BAP 3             | 2010/11/14        | 465.431          |
| 594250               | Mineral     | BAP 4             | 2010/11/14        | 446.701          |
| 594251               | Mineral     | BAP 5             | 2010/11/14        | 390.879          |
| 594252               | Mineral     | KAR 1             | 2010/11/14        | 464.528          |
| 594254               | Mineral     | KAR 2             | 2010/11/14        | 464.291          |
| 594255               | Mineral     | KAR 3             | 2010/11/14        | 464.293          |
| 594256               | Mineral     | KAR 4             | 2010/11/14        | 427.273          |
| 594257               | Mineral     | KAR 5             | 2010/11/14        | 371.629          |
| 594258               | Mineral     |                   | 2010/11/14        | 464.525          |
| 594259               | Mineral     | KAR 7             | 2010/11/14        | 445.967          |
| 594260               | Mineral     | KAR 8             | 2010/11/14        | 297.189          |
| 594262               | Mineral     | KAR 9             | 2010/11/14        | 408.717          |
| 594263               | Mineral     | KAR 10            | 2010/11/14        | 389.917          |
| 602564               | Mineral     |                   | 2010/11/14        | 18.583           |
| 602566               | Mineral     |                   | 2010/11/14        | 148.665          |
| 603803               | Mineral     | VAN 1             | 2010/11/14        | 464.51           |

Total Area: 13182.88 ha

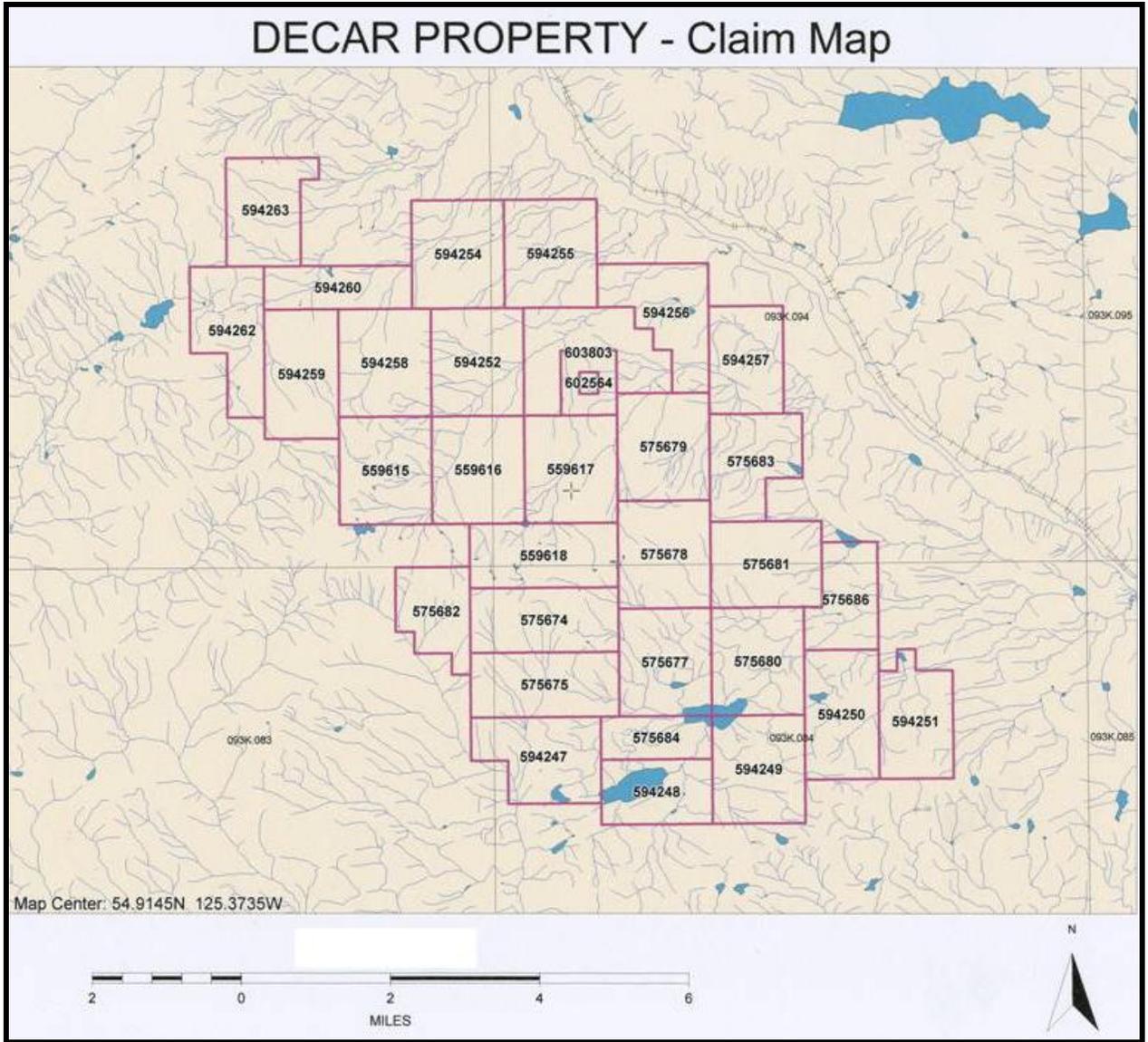


Figure 2 Location of Decar Claims with tenure numbers that correlate to Table 1.

#### 1.4 History

Since 1949, various individuals (Armstrong, 1949) or groups have examined the area of the Decar Property area for chrome, platinum and gold potential (Mowat, 1988a). Chrome and chrome spinels were investigated in the Cache Creek Group, which includes the Decar Property area (Whittaker, 1983), and awaruite was identified for the first time.

Early exploration work located west of the Decar Property, close to Mount Sidney Williams, consisted of prospecting and mapping as well as soil, silt and rock geochemical surveys (Mowat, 1988b). Subsequent work included trenching, geophysical surveys and diamond drilling (Mowat, 1990, 1991, 1994). First Point Minerals investigated the nickel-

iron alloy potential of the area (Mowat, 1997), however, in the following year the option agreement terminated due to low nickel prices and the difficulty of identifying awaruite.

First Point Minerals renewed their interest in the area and began evaluating the exploration potential for disseminated Ni-Fe alloys within the Decar Property during the summers of 2007, 2008 and 2009.

## 1.5 Current Work

During the field season of 2009 two campaigns were completed between June 10 and June 17 and October 5 to October 13 for bedrock mapping and collection of rock and sediment samples. The field work involved geologists Ron Britten and Peter Bradshaw and field assistants Paul Williams and Kathryn Britten. Rock samples that were all taken from outcrop on the Decar Property were analyzed and cut and polished using a diamond saw. In addition to outcrop samples, this preparation was conducted on cobbles from sediment sample sites. Standard and magnetic fractions of 51 sediment samples (See Sediment Sample Data in Appendix III) were collected from the area of the Decar claims and samples sieved to minus 60 mesh fractions and analyzed.

A portable XRF Niton NLP 502 Analyser (Niton) was instrumental for guiding rock sampling in the field. The analyser provided analyses of Ni, Co, Cu, Cr of rock samples (Appendix I), cobbles and stream samples (Appendix III). Sample 07KNB007 (analyzed by ACME, returned 2561 ppm nickel) was the standard used to check the Niton with a reading taken about every 20 sample analyses. Selected rock samples taken in 2008 were re-analyzed at ACME using analytical package 1D (Appendix IIA) to compare total nickel wet chemical analyses versus the Niton results (Appendix IIB). Appendix IV details a variety of accuracy and precision tests on the Niton NLP 502 analyser.

Polished thin sections of interesting rock samples were petrographically examined (Appendix V) and selective samples were sent for scanning electron microscopic work to confirm petrographic examinations.

Garmin 60 GPS units, using projection NAD 27, Zone 10, were directly downloaded into a computer using Garmin Map Source application, and copied into excel spreadsheets. The sample ID and location were later matched with corresponding rock and silt sample technical data that had been entered into the excel spreadsheet (Appendices I and III). The data was then imported into MapInfo for spatial plotting. Additional forestry roads were surveyed by GPS and imported into MapInfo. All other technical outcrop, structural and interpretation was compiled with excel and graphically displayed using MapInfo.

## 2.0 REGIONAL GEOLOGY

The Decar Property covers a portion of the Cache Creek Complex that likely represents a portion of an obducted or imbricated sequence of upper Paleozoic and lower Mesozoic oceanic rocks that have been significantly deformed and sheared. Four litho-tectonic units have been defined by Schiarizza and MacIntyre (1998) in the Cache Creek Complex (Figure 3b). Two of these units occur within or adjacent to the Decar claims, namely the Trembleur Ultramafics and North Arm Succession. The older Trembleur ultramafic units represent mantle and lower-crustal portions of an ophiolite sequence

(Figs 3a and b). Lithologies of the Trembleur Ultramafic Unit are dominated by pyroxene phyric peridotites, with lesser fine grained ultramafics, and dunites. These rock types show various overprinting styles of alteration dominated by serpentinization and carbonate-silicification with lesser talc-listwanite alteration. The lithologies of the North Arm Succession include cherts, limestones, phyllites and greenstones comprised of basalts, mafic dikes and gabbros. The two units juxtapose one another with the younger the North Arm Succession is overthrust by the older Trembleur Ultramafic Unit.

Upper Triassic to lower Jurassic lithologies comprised of dominantly phyllites and limestones form part of the Sitlika Assemblage (shown as the orange colored unit in the southwest corner of Figure 3a). This assemblage is younger than the Trembleur ultramafic unit. The sediments are generally steeply dipping, probably folded and are in fault contact with the ultramafics.

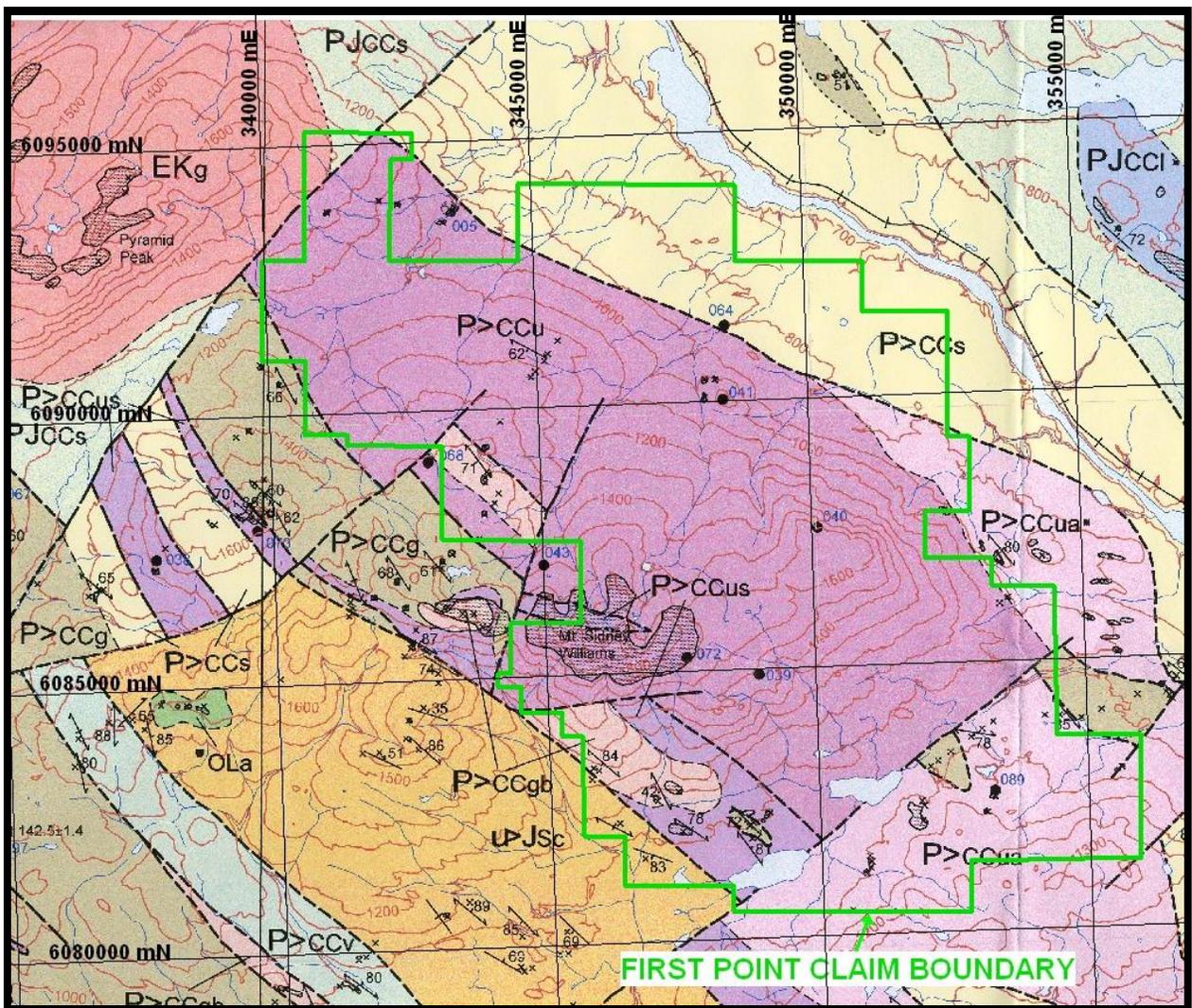


Figure 3a Regional geology map (MacIntyre and Schiarizza, 1999 - Open File 1999-11) and First Point Mineral's claim boundary in green. See Figure 3b for legend. Orange unit=phyllite (u>JSc)

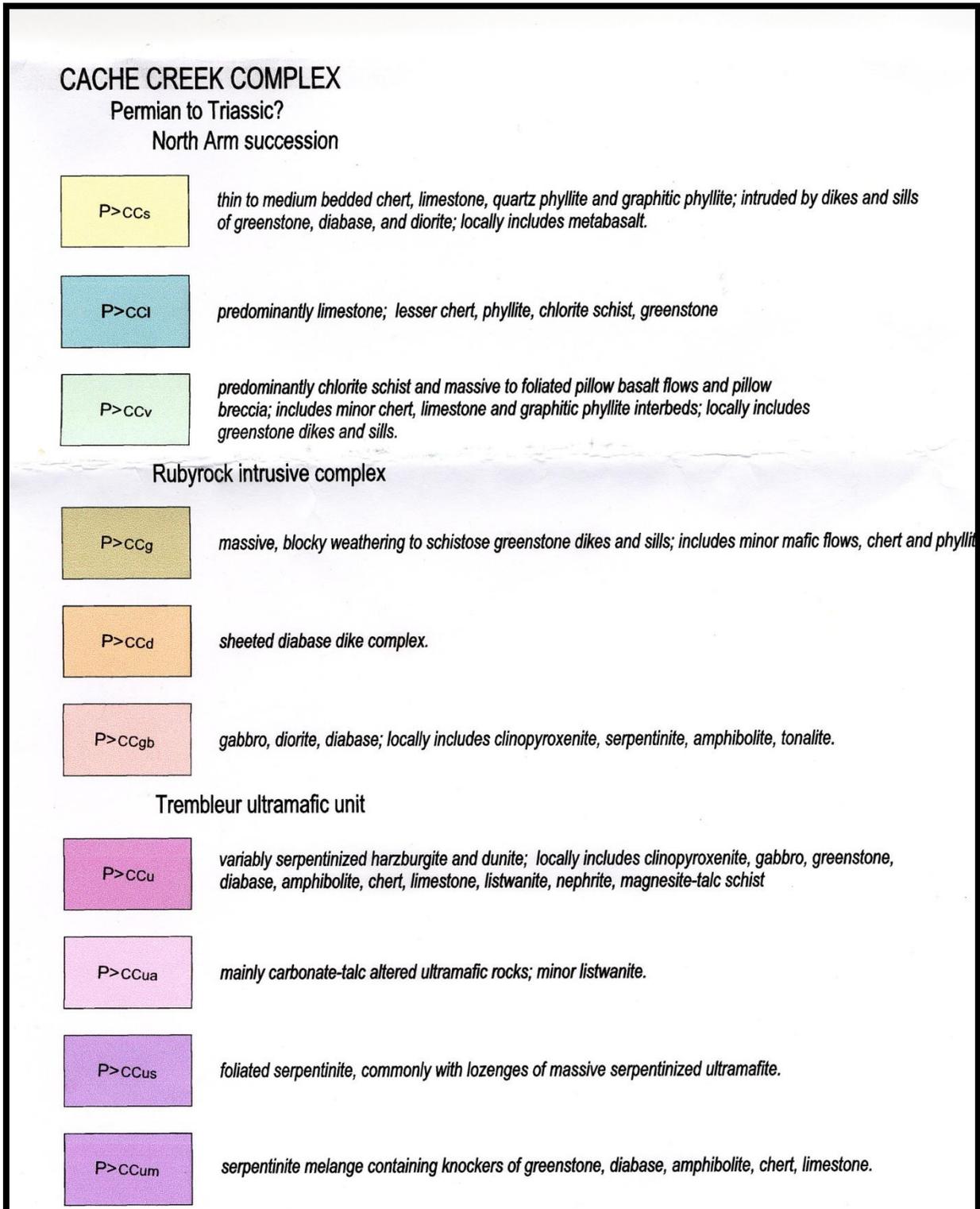


Figure 3b

Regional Geology Map Legend (MacIntyre and Schiarizza, 1999 - Open File 1999-11).

Most geological contacts are faulted or sheared (dashed lines on Fig 3a) forming a combination of thrust faults formed during obduction and cross cut by later right-lateral strike slip shear along northwest regional trending faults (aka Pinchi Lake Fault). These fault networks generate structurally complex geological contacts. North of the Decar Property, Schiarizza and MacIntyre (1998) recognized a regional west-verging open antiform in addition to minor warps and buckling that were formed during imbrication of the Cache Creek terrane.

## **3.0 PROPERTY GEOLOGY**

### **3.1 Units**

Geology from 2008 and 2009 field work and from MacIntyre and Schiarizza (1999) was compiled in Figures 4 and 5,

The Decar ultramafic body measures more than 15 km northwest and averages 5.5 km wide. They are the oldest units on the Decar property and consist of peridotite, lesser fine grained ultramafic and relatively minor dunite. Dark green-black peridotite contains 10 to 30% medium grained pyroxenes set in a fine to medium grained, mostly relict olivine rich matrix that is strongly serpentized. This rock type is typically microfractured, crackled to intensely foliated (schistose) and mark shear zones. These microstructures probably control the moderate to strong serpentization or Fe-Mg carbonate-silicification alteration as noted in section 3.3.

Pods, possible layers and breccia fragments of dunite have been found along the western margin of the Baptiste Target area. Fine grained grey dunite is featureless except where brecciated (Fig 5). Dunite fragments form resistant ductile deformed clasts that are enclosed by peridotite and form sheared, subrounded elongate fragments. These fragments have a long axis that dips 30° northwest and is parallel to lineation. These rocks also occur in a major northwest trending shear zone.

Gabbro combines medium to fine grained stocks and 5 to 10 meter wide and up to 50 meter long dikes that trend northeast and east in the southern end of the Decar claims. Stocks measure from 100 m long and are elongate to the west and northwest. Differentiating fine grained gabbros versus metavolcanics can be difficult. The gabbro or microdiorite contains fine to medium grained subeuhedral feldspar and ferromagnesian minerals, mainly amphibole. Unusual serrated stockwork textures or vein borders of light feldspar have also been noted in the gabbro. Some of these gabbros and microdiorites could be coeval with the metavolcanics shown in Figure 5.

Where observed contacts of two major panels of green metavolcanics (volcanics), black phyllite and minor limestone occur in the ultramafics and are bounded on their margins by subvertical faults (Fig 5). These panels appear to be about 800 meters wide based on the limited exposures. In general, bedding is subvertical in the northern panel whereas the southern panel dips about 65° southwest and could be overturned. The northern panel coincides with a northwest trending aeromagnetic low. Both panels probably represent upper oceanic crust and are in fault contact with upper mantle rocks (peridotite). The upper units of a classic ophiolite sequence have a dike complex and layered gabbro sequences. The fault contacts between the metavolcanics and peridotites

suggest that significant sections of the ophiolite could be missing due to thrusting or shearing tectonic events **or they simply didn't exist**.

Across a major northwest trending fault to the southwest of the two metavolcanic panels are a massive package of north trending, thinly bedded phyllite, slate and mudstone (Sitlika Assemblage from MacIntyre and Schiarizza, 1999, shown as grey in Figs 4 and 5). Bedding dips about 75 degrees to the southwest and tight folding is suggested but not proven whereas the metavolcanic panels have probably not been tightly folded due to massive nature of the panels.

A medium grained feldspar porphyry stock in the southwest end of the Decar ultramafic unit reaches 600 m long, east trending and is altered to sericite-chlorite-Fe/Mg carbonate-calcite assemblages with iron oxide staining or disseminated sulphides in both the intrusion and peridotites. Other smaller dikes or irregular intrusions trend mainly northwest and west and are spatially associated with pervasive intense Fe/Mg carbonate-silicification and either magnetite or lesser sulphides in the ultramafics.

Overburden covers large sections of the Decar property, and includes talus, scree (avalanche deposits), glacial till, alluvial and general cover. These units mask the exploration potential of the larger targets that are described further in section 3.4.

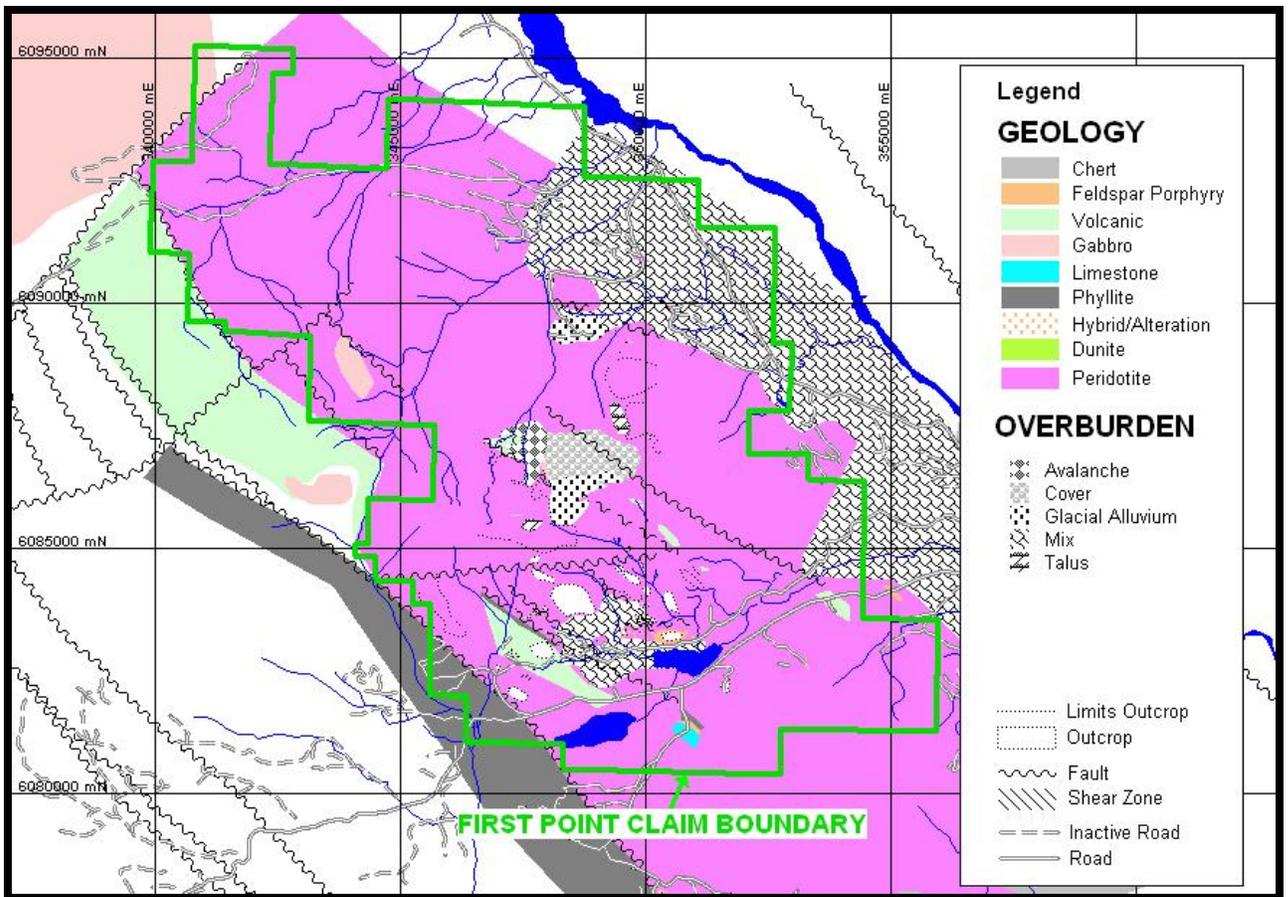


Figure 4 Property geology map

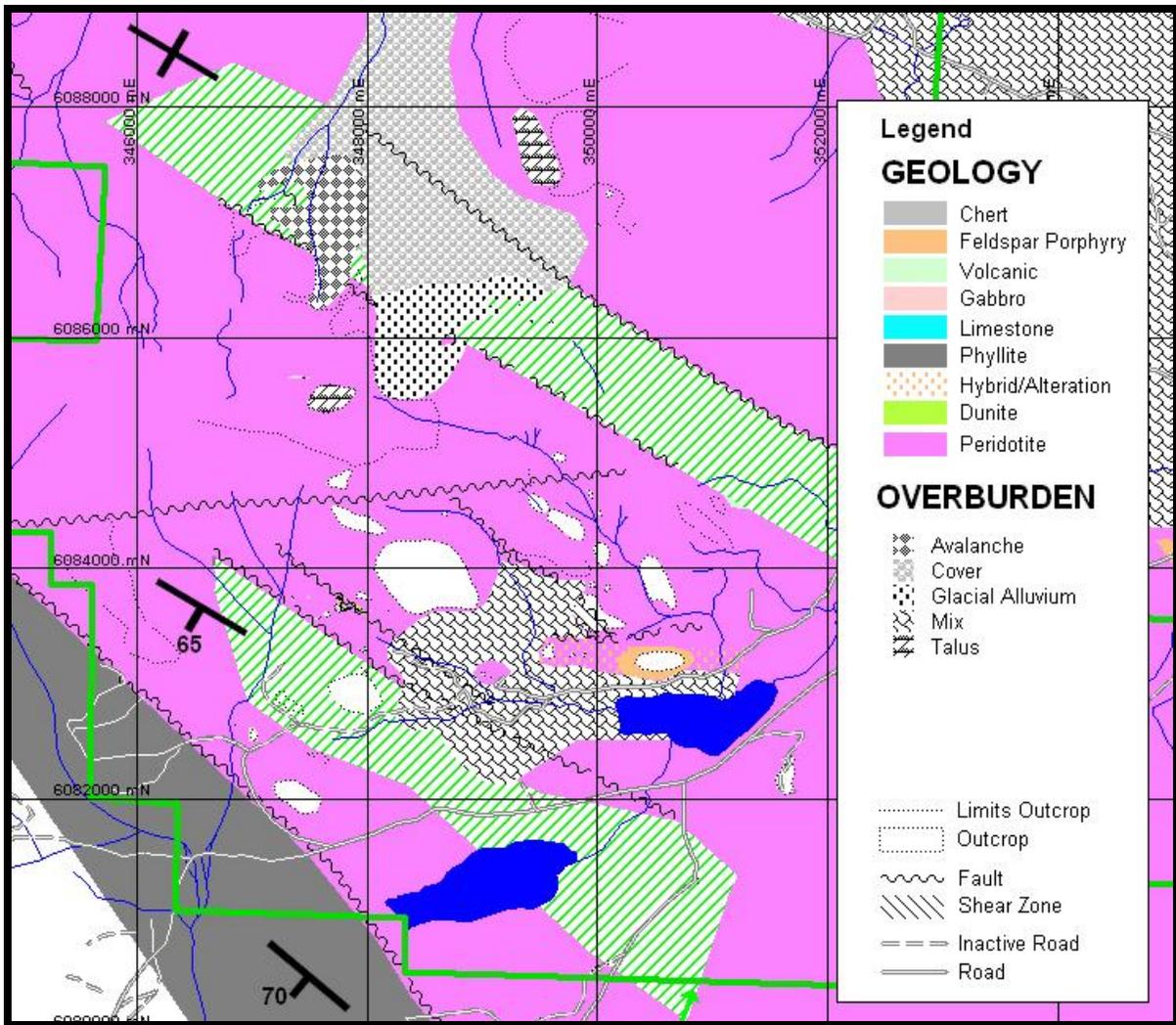


Figure 5 Geology of the southern half of Decar Claim Group; metavolcanics and minor phyllite/limestone panels are outlined by the green diagonal pattern.

### 3.2 Structure

Microfractures in hand samples and polished thin sections indicate that the ultramafics underwent multiple breakage and brecciation events prior to and during serpentinization. These relationships are hard to discern in outcrops. Post alteration fault and shear zones are marked by slickensides, gouge, fault breccia and shear fabrics. Two major northwest trending, subvertical structures are interpreted to be fault zones. The southern-most fault bounds the east and west Baptiste target. Previous mapping by the GSC (MacIntyre and Schiarizza, 1999) defined a northeast trending, right lateral (dextral) fault (south end of Figure 3a). This structure was believed to be misinterpreted as an alteration contact, and not the juxtaposition of two units (P>CCu and P>CCua).

The most common foliations in the ultramafics dip subvertical and trend northwest. These foliations are thought to mirror diffuse faults or shear zones. On the southwest side of the property, northwest trending faults that juxtapose different rock units are not well exposed, although strong foliations or shear fabrics present in both phyllites and ultramafics suggest a fault contact including those in the Baptiste Target area.

Small cumulate layers in the ultramafic units have variable dips, with numerous subvertical attitudes and a variety of azimuths that range from north to northeast. If these layers represent beds then serious structural deformation has occurred in the ultramafics. This deformation could be related to a northerly trending fold axes, however, there is no indication of the similar style of folding in the overlying metavolcanic panels which seem dip moderately to the southwest with no observed closures.

### 3.3 Alteration

Serpentinization and Fe carbonate-silicification are the two major types of alteration that occur within or southeast of the property respectively (Figure 6). Rock samples taken within the peridotite are variably altered and unaltered peridotite has not been found, although, large areas of the ultramafic have not been explored within the northwest quadrant of the property.

Serpentinization, consisting mainly of chrysotile and antigorite (?), is commonly found in the ultramafics that are common within the property. These outcrops range from massive, strong peridotite to weaker, foliated and penetratively strained, exposures that are structurally complex. Most olivine has been altered to serpentine and secondary magnetite with minor brucite, awaruite, ferrichromite and ferrimagnesia with trace amounts of pentlandite and heazlwoodite. Many hand and petrographic samples indicate several structural-hydrothermal episodes. These episodes include; an initial moderate pervasive-selective serpentinization recognized by light green serpentine, later stage hydrothermal brecciation is inferred from textures of crackle breccias, rectilinear microfracturing and locally offset generations of micro-veinlets that contain a mineral assemblage of serpentine-magnetite-awaruite±talc. Rare late stage, discontinuous micro-veinlets containing carbonate perhaps related to local intrusions. Pyroxenes are partially to completely altered to serpentine or tremolite and magnetite with minor brucite.

An alteration assemblage of Fe/Mg-carbonate-silicification occurs off the southeast end the property where it is spatially associated with small feldspar-porphry intrusions that

have been altered to sericite+chlorite+Fe/Mg-carbonate(s)+magnetite±sulphides (mainly pyrite). Fe-Mg carbonate alteration dominates this area where a strong iron oxide stain is caused by weathering of carbonate alteration. Later en echelon quartz veins cut alteration zones in the west end of the feldspar porphyry stock trends north-northeast and dips moderately east. Listwanite locally dominates and pyrite and rare chalcopyrite are associated with this alteration assemblage.

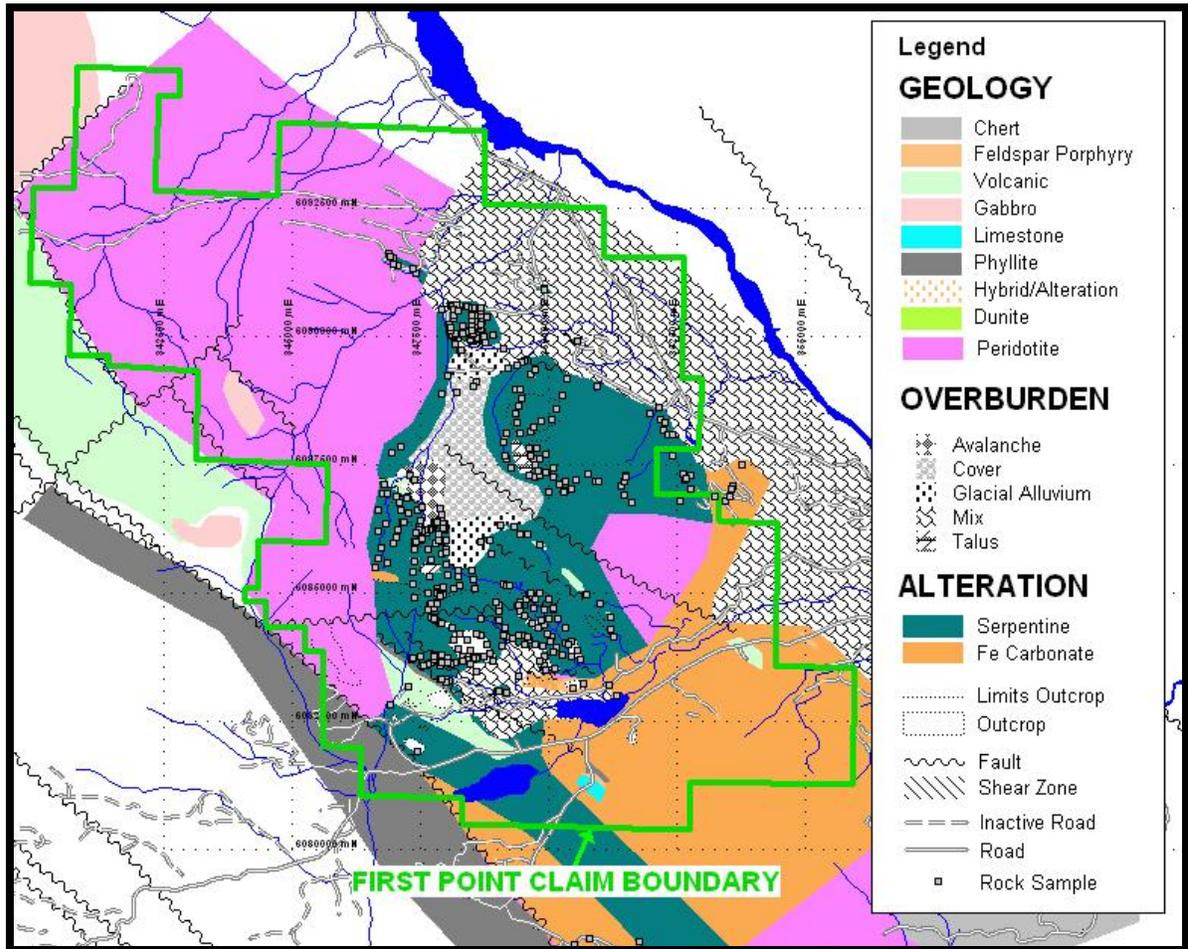


Figure 6 Property alteration map and rock sample locations (grey boxes).

### 3.4 Mineralization

Three major zones of relatively coarse-grained (50 to 400 microns size) disseminated awaruite (Ni-Fe alloy) occur in the Sydney, Baptiste and Van areas east, southwest and north-northeast of Mt Sidney Williams, respectively, as shown in red patches in Figure 7. A broader zone of fine-grained (<5 to 50 microns) disseminated awaruite, shown as yellow in Figure 6, encompasses the three main targets based on visual inspection in both hand samples and confirmed by analysis from polished thin section and electron microprobe (Britten 2008). Two northwest trending zones of fine to coarse grained awaruite are separated by the panel of metavolcanics (Figure 5).

The fine grained zone (yellow) in the northeast side of Figure 7 hosts the Van Target measures about 5 km long and a maximum 1.3 km wide. The second more regular fine grained mineralized zone to the southwest measures about 5 km and reaches 2.9 km wide. The Sidney and Baptiste, the largest target on the Decar Property, are located on the north and south margin of this zone.

Characteristics of awaruite and overburden have been described previously (Britten 2008).

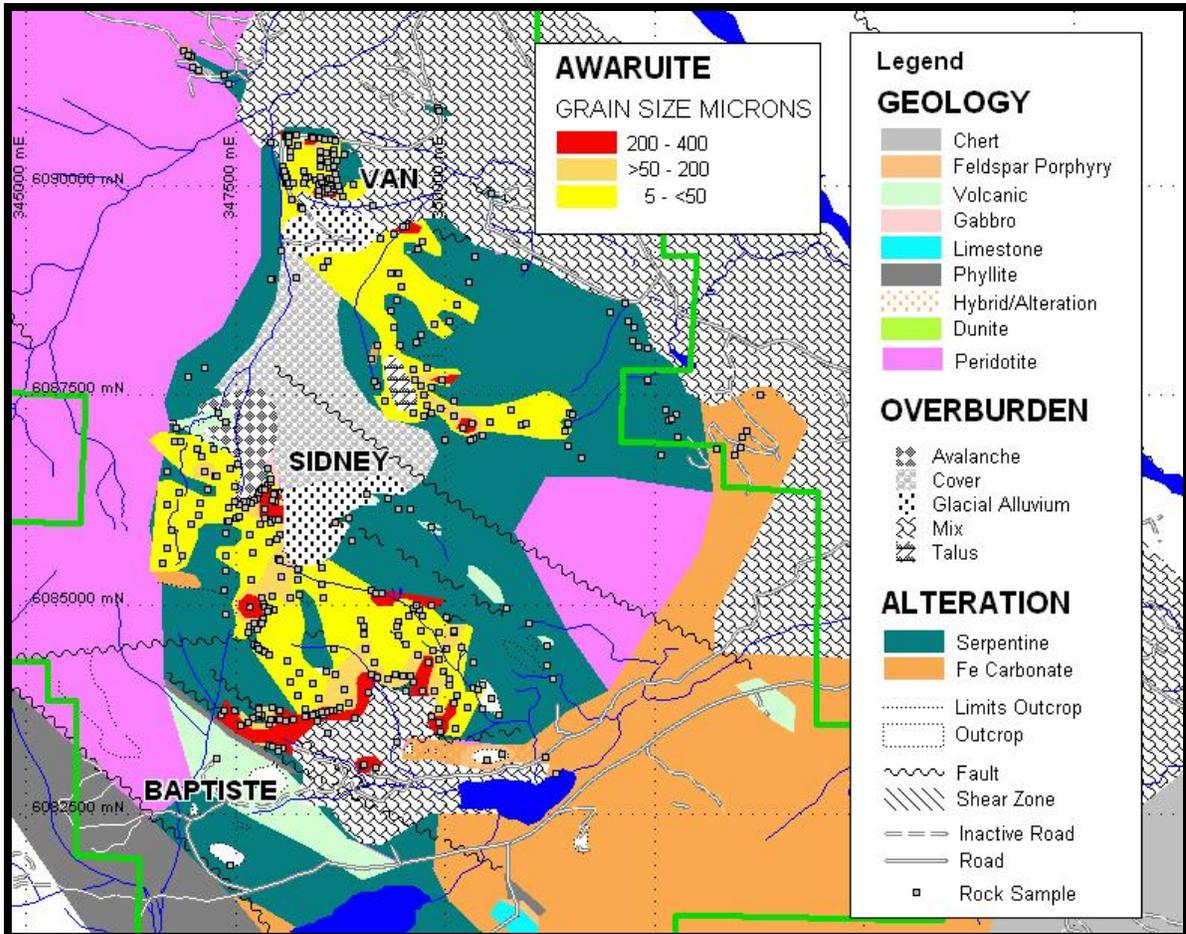


Figure 7 Awaruite grain size and targets; all rocks samples were taken in 2007, 2008 and 2009.

## 4.0 GEOCHEMISTRY

### 4.1 Rocks

During the field seasons from 2007 to 2009 a total of 394 rock samples were collected. In 2007, 34 samples were collected (Voormeij and Bradshaw, 2008). In 2008 192 samples were collected (Britten 2008). In 2009 (this volume) 130 samples were

collected. These samples were collected as hand samples or as 1 to 2 kilogram samples that were used for mineralogical or microprobe analyses. The distribution of rock samples were taken from outcrop, or less commonly, sub outcrop that ranged from 50 to 300 meter intervals depending on the permissive bedrock exposures. Many outcrops and all rock samples were analyzed using the portable Niton XRF Analyzer and provided analytical data for Ni, Co, Cu and other elements. These results are tabulated in Appendices I and III. All rock samples are shown in Figure 7. Rock samples taken in 2009 and total nickel values are shown in Figures 8, 9 and 10.

#### 4.1.1 Baptiste Target Area

The coarse grained awaruite characteristic of the Baptiste Target trends west-southwest and measures approximately 1750 meters long (Fig 8, shown in red). The northern limit of the central and east portions at the Baptiste Target is reasonably well defined based on outcrop. The target features an irregular northern limit whereas the southern limits are masked by overburden. The estimate of the west northwest trending width of the Baptiste Target ranges from 800 to 1300 meters with overburden covering about 60% of the target area. Future ground controlled magnetic and induced polarization could help further define the Baptiste Target prior to drill testing.

Total Nickel values from the Niton analyser range from 1142 to 2753 ppm and average 1941 ppm.

Two sizeable syn- and post-mineralization northwest trending shear/fault zones bound the east and western limits of the Baptiste Targets. The eastern shear is at least 75 meters wide and consists of a well defined sub vertical northwest trending schistosity representing **a shear "s" fabric**. Along the western boundary of Baptiste, the fault contact that juxtaposes a volcanics and peridotite is not well exposed. To the northeast of this contact are two sub-vertical faults at least 15 meters wide and mark a contact between peridotite and dunite.

#### 4.1.2 Sidney Target Area

**The east margin of the Sidney target was largely covered by overburden based on field work. The relation of a zone of coarse grained awaruite located about 2000 meters southeast of Sidney (Figure 8) is unknown. Total nickel values range from 1447 to 1971 ppm.**

#### 4.1.3 Van Target Area

Currently three coarse grained awaruite patches (red units on Figure 9) at the Van Target have been mapped. The two patches of coarse grained awaruite, that occur about 700 m apart, are linked by an inferred boundary beneath alluvium (Figure 9). A west-northwest fault in northern margin of this target area has significantly brecciated and sheared the south face of the Van Hill. The third patch of coarse grained awaruite located on the north margin of the Van area is covered by alluvial material.

Rock samples range from 1335 to 2680 ppm Nickel and average 2055 ppm based on the Niton Analyzer results (Appendix I).

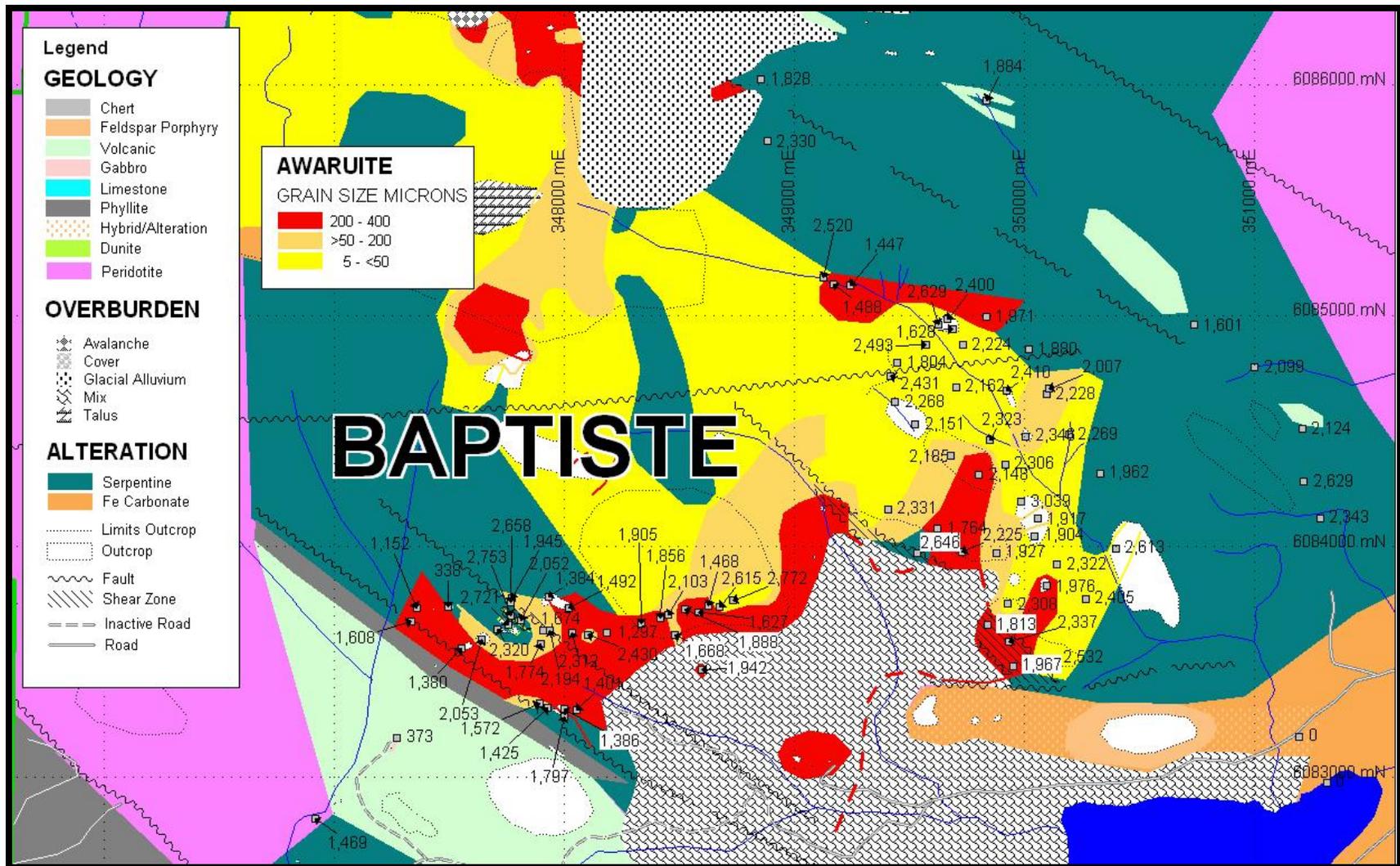


Figure 8 Baptiste Target area rock sample nickel values (ppm) and awaruite grain size.

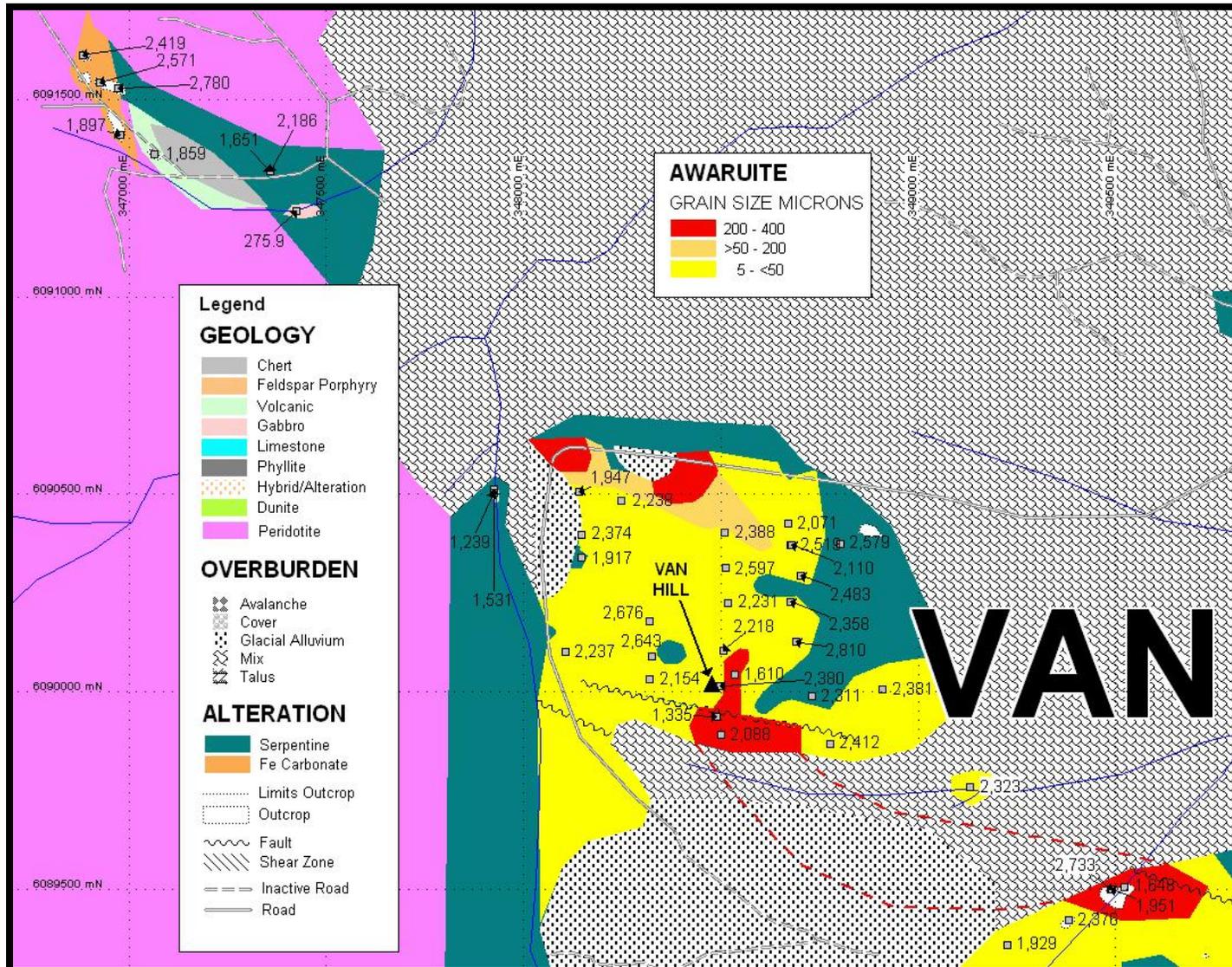


Figure 9 Van Target area rock sample nickel values (ppm) and awaruite grain size.

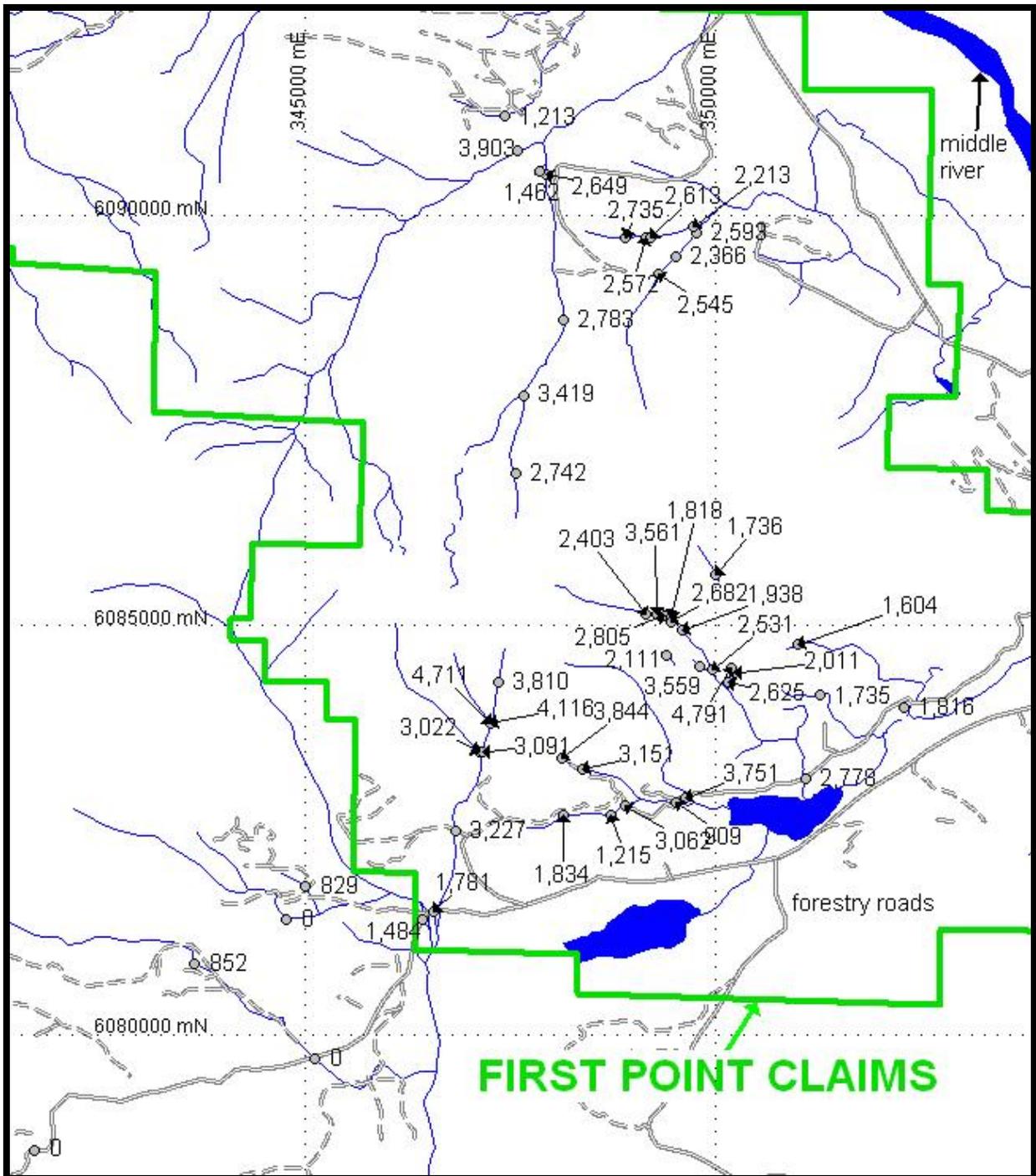


Figure 10 Stream sediment magnetic fraction locations and nickel values (ppm).

## 4.2 Stream Sediments

Fifty stream sediment samples have been collected (Figure 10), described and dominant rock types recorded at each site. Standard preparation for each sample involved air drying, sieving to -60 mesh (125 micron) fractions, collecting the magnetic fraction using a pencil magnet and analyzed using a portable XRF Spectrometer (Niton). The description and analytical results of the sediment samples are tabulated in Appendix III and nickel values are plotted in Figure 10.

A large portion of the claim group is dominated by ultramafics that have high background Ni values. The magnetic fraction of silts associated with Ni range from 1,215 to 4,791 ppm. In the area of the Baptiste target, silt sample magnetic fractions range from 3000 to almost 4800 ppm Ni. The Van target area has anomalous values from 2000 to 3000 ppm Ni. Samples taken off the southwest corner of the claim group covering the Sitlika Group sediments carried less than 1000 ppb Ni including three samples that did not provide any magnetic fractions indicating there are no ultramafics above those sites.

## 5.0 CONCLUSIONS

The Decar claims cover a portion of Cache Creek Complex that consists of obducted ophiolite ultramafic rocks which have been episodically deformed and serpentinized to produce naturally occurring nickel-iron alloys (awaruite). Deformation has caused fold events, fault-shear activity and generated wide zones of micro-fractures.

The disseminated nickel-iron alloy (awaruite) has been found in wide areas on the Decar Property, particularly in Baptiste target that encompass coarser-grained awaruite ranging from 100 to 400 microns within a broad halo of fine grained alloy that is less than 50 microns. The Baptiste target measures 1750 m long and 800 to 1350 m wide whereas both Sidney and Van are smaller. Overburden masks several portions and margins of target areas where additional exploration potential is anticipated.

Total nickel values in rock samples range from 1142 to 2753 ppm.

## 6.0 RECOMMENDATIONS FOR FUTURE WORK

Future near-term work at Decar includes detailed metallurgical testing using recently collected large samples to determine the recovery of the alloy and the most cost effective extraction method. Detailed petrography of the rock samples and processed fractions from crushed, magnetic and gravity fractions are planned.

In 2010, a helicopter supported airborne magnetic survey is anticipated to cover most of the Decar Property in the next few months. Grid controlled induced polarization, ground magnetic and detailed mapping and sampling on the Baptiste and Sidney Targets will be completed following spring breakup. The results of this work will help to design a drill program in the best areas of the Targets by testing the continuity, grain size and grade of the nickel-iron alloy mineralization and to provide samples for more extensive metallurgical tests.

## 7.0 EXPENDITURES

Expenditures for the 2009 summer field program at the Decar Property (Table 2) consisted of mapping, rock and sediment sampling, and petrography and total \$45,416.11.

Table 2 Expenditures for 2009 Fieldwork

| <b>Exploration Work type</b>      | <b>Comment</b>                         | <b>Days</b> |             |                  | <b>Totals</b>      |
|-----------------------------------|--|-------------|-------------|------------------|--------------------|
| <b>Personnel</b>                  |  |             |             |                  |                    |
| <b>(Name)* / Position</b>         | <b>Field Days (list actual days)</b>   | <b>Days</b> | <b>Rate</b> | <b>Subtotal*</b> |                    |
| Ron Britten/Geologist             | June 10-17, Sept 15, Oct 5-13          | 18          | \$628.00    | \$11,304.00      |                    |
| Peter Bradshaw/Geologist          | June 10-17                             | 8           | \$628.00    | \$5,024.00       |                    |
| Paul Williams/Field Assistant     | June 10-17, Sept 15, Oct 5-13          | 18          | \$175.00    | \$3,150.00       |                    |
| Kat Britten/Field Assistant       | June 10-17, Oct 5-13                   | 17          | \$175.00    | \$2,975.00       |                    |
|                                   |  |             |             | \$22,453.00      | <b>\$22,453.00</b> |
| <b>Office Studies</b>             |  |             |             |                  |                    |
|                                   | <b>List Personnel</b>                  |             |             |                  |                    |
| Rock/PTS exam, data input, interp | Ron Britten                            | 6           | \$628.00    | \$3,768.00       |                    |
| Rock sawing, data input           | Kat Britten                            | 4           | \$175.00    | \$700.00         |                    |
| Report preparation                | Ron Britten                            | 2           | \$628.00    | \$1,256.00       |                    |
|                                   |  |             |             | \$5,724.00       | <b>\$5,724.00</b>  |
| <b>Ground Exploration Surveys</b> |  |             |             |                  |                    |
|                                   | <b>Area in Hectares/List Personnel</b> |             |             |                  |                    |
| Geological mapping                | 1500 hectares/Ron Britten              |             |             |                  |                    |
| <b>Geochemical Surveying</b>      |  |             |             |                  |                    |
|                                   | <b>Number of Samples</b>               | <b>No.</b>  | <b>Rate</b> | <b>Subtotal</b>  |                    |
| Stream sediment                   | 51, analysed by Niton see below        |             | \$0.00      | \$0.00           |                    |
| Rock                              | 132, analysed by Niton                 |             | \$0.00      | \$0.00           |                    |
|                                   |  |             | \$0.00      | \$0.00           |                    |
|                                   |  |             |             | \$0.00           | <b>\$0.00</b>      |
| <b>Other Operations</b>           |  |             |             |                  |                    |
|                                   | <b>Clarify</b>                         | <b>No.</b>  | <b>Rate</b> | <b>Subtotal</b>  |                    |
| Polished Thin Sections (PTS)      | 6 samples, prepared                    | 6.0         | \$40.00     | \$240.00         |                    |
| Other (specify)                   |  |             | \$0.00      | \$0.00           |                    |
|                                   |  |             |             | \$240.00         | <b>\$240.00</b>    |
| <b>Transportation</b>             |  |             |             |                  |                    |
|                                   |  | <b>No.</b>  | <b>Rate</b> | <b>Subtotal</b>  |                    |
| Airfare                           | Vanc to Prince George                  | 3           | \$450.00    | \$1,350.00       |                    |
| Truck rental                      | 4037 km at 0.54, includes gas          | 4037        | \$0.54      | \$2,179.98       |                    |
| Freight                           |  |             |             | \$453.27         |                    |
| Helicopter (hours)                |  | 3.6         | \$1,022.68  | \$3,681.65       |                    |
| Helicopter fuel                   |  |             |             | \$676.50         |                    |
|                                   |  |             |             | \$8,341.40       | <b>\$8,341.40</b>  |
| <b>Accommodation &amp; Food</b>   |  |             |             |                  |                    |
|                                   | <b>Rates per day</b>                   | <b>No.</b>  | <b>Rate</b> | <b>Subtotal</b>  |                    |
| Hotel                             |  | 4           | \$80.00     | \$320.00         |                    |
| Camp                              | Cabin rate                             | 16          | \$80.00     | \$1,280.00       |                    |
| Camp Breakfast, Dinner            | 8 days, 3 people, \$25/person          | 24          | \$25.00     | \$600.00         |                    |

|                           |   |            |             |                 |                    |
|---------------------------|---|------------|-------------|-----------------|--------------------|
| Groceries/Consumables     |   |            | \$0.00      | \$1,183.87      |                    |
|                           |   |            |             | \$3,383.87      | <b>\$3,383.87</b>  |
| <b>Miscellaneous</b>      |   | <b>No.</b> | <b>Rate</b> | <b>Subtotal</b> |                    |
| Field Gear/Supplies       |   |            |             | \$1,132.84      |                    |
| Telephone                 | Satphone - 3 weeks                            | 3          | \$75.00     | \$225.00        |                    |
| Radios                    | 4 hand held radios                            | 4          | \$100.00    | \$400.00        |                    |
|                           |   |            |             | \$1,757.84      | <b>\$1,757.84</b>  |
| <b>Equipment Rentals</b>  |   | <b>No.</b> | <b>Rate</b> | <b>Subtotal</b> |                    |
| Niton XRF Analyser        | 18 days field, 4 days office                  | 22         | \$150.00    | \$3,300.00      |                    |
| KT-Kappameter meter       | hand-held field magnetic susceptibility meter | 18         | \$12.00     | \$216.00        |                    |
|                           |   |            |             | \$3,516.00      | <b>\$3,516.00</b>  |
| <b>TOTAL Expenditures</b> |   |            |             |                 | <b>\$45,416.11</b> |

## 8.0 REFERENCES

Armstrong, J.E. (1949): Fort St James map-area, Cassiar and Coast districts, British Columbia; *Geological Survey of Canada*, Memoir 252, 210 pages.

Britten, R.M. (2008): Geological and Geochemical Report on the Decar Property, Omineca Mining Division; *BC Ministry of Energy, Mines and Petroleum Resources*, Assessment Report

MacIntyre, D. and Schiarizza, P. (1999): Open File 1999-11 Bedrock Geology 1999-11 (1:100,000 scale)

Mowat, U. (1988a): Geochemical sampling on the Van Group, Klone Group, Mid Claim, Omineca Mining Division; *BC Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 17 173.

Mowat, U. (1988b): Geochemical sampling, prospecting and mapping on the Van Group, Klone Group, Mid Claim, Omineca Mining Division; *BC Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 19 089.

Mowat, U. (1990): Mapping and drilling program on the Mount Sidney Williams property, Omineca Mining Division; *BC Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 20 541.

Mowat, U. (1991): Drilling program on the Mount Sidney Williams property, Omineca Mining Division; *BC Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 21 870.

Mowat, U. (1994): Drilling program on the Mount Sidney Williams gold property, Omineca Mining Division; *BC Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 23 569.

Mowat, U. (1996): Drilling and sampling program on the Bornite property, Omineca Mining Division; ***BC Ministry of Energy, Mines and Petroleum Resources***, Assessment Report 24 277.

Mowat, U. (1997): A geochemical/petrographic report on the Mount Sidney Williams property, Omineca Mining Division; ***BC Ministry of Energy, Mines and Petroleum Resources***, Assessment Report 24 906.

Schiarizza, P. and MacIntyre, D. (1998): Geology of the Babine Lake – Takla Lake Area, central British Columbia (93K/11, 12, 13, 14; 93N/3, 4, 5, 6), BC Geological Survey Branch contribution to the Nechako NATMAP Project, ***Geological Fieldwork 1998, Paper 1999-1***: 33-68.

Voormeij D, and Bradshaw, P.M.D. (2008) Summer 2007, Geology and Rock Samples, Decar Property, BC; ***BC Ministry of Energy, Mines and Petroleum Resources, Assessment Report, 16 p.***

Whittaker, P.J., 1983: Geology and petrogenesis of chromite and chrome spinel in alpine-type peridotites of the Cache Creek Group, BC; PhD thesis, Carleton Uni., 339 pp.

## **AUTHOR STATEMENT AND QUALIFICATIONS**

I, Ronald M Britten, Ph.D., P.Eng. certifies that:

1. I reside at 3525 West 26<sup>th</sup> Street, Vancouver, British Columbia, Canada.
2. I have degrees from the University of British Columbia B.Ap.Sc. 1974 and a Ph.D. 1982 from the Australian National University, Canberra, Australia.
3. I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (license #109865).
4. I have worked as an exploration geologist for more than 30 years since 1974, only in the mining and mineral exploration industry and I have worked in numerous countries.
5. I have spent 23 field days at the Decar Property and have supervised all aspects of the field work.
6. I am an officer (VP Exploration) of First Point Minerals Corp. since 1996 and I hold stock and stock options in First Point Minerals Corp.
7. **I have read the definition of "qualified person" set out in National Instrument 43-101** and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a Qualified Person.
8. I consent to the filing and any publication of this Assessment Report.

This report dated 3<sup>th</sup> of Feb, 2010

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Ron M Britten, Ph.D., P.Eng.  
"signed and sealed"

## APPENDIX I ROCK SAMPLE DATA

|               |   |  |
|---------------|---|--|
| Awaruite Size | 1 | < .005 - .02   |
| millimeters   | 2 | 0.02 - 0.05  |
|               | 3 | .05 - 0.10   |
|               | 4 | .1 - .2  |
|               | 5 | .2 - .4  |
|               | 0 | none   |
| Minerals      |   | awar-awaruite<br>cpy-chalcopyrite<br>heaz-heazlewoodite<br>mag-magnetite<br>mill-millerite<br>py-pyrite<br>serp-serpentine<br>sul-sulphide   |
| Other         |   | HS-hand sample<br>LOD-lower of detection<br>LS-large size sample<br>MS-moderate size sample<br>n-no<br>NS-no sample<br>oc-outcrop<br>PTS-polish thin sections<br>tr-trace<br>vlets-veinlets<br>y-yes |
| Serp          |   | w-weak<br>m-moderate<br>s-strong<br>vs-very strong   |

| Sample #  | Target   | Eastng | Northing | Rock Type  | Serp | Magnetite | Awar_size | Awar_range | Awar_% | Sulphide  | Comment                            | Ni    | Zn  | Cu   |
|-----------|----------|--------|----------|------------|------|-----------|-----------|------------|--------|-----------|------------------------------------|-------|-----|------|
| 09KNB001  |          | 350330 | 6084316  | cb-sil/int |      |           |           |            |        |           | rest                               | 1962  |     |      |
| 09KNB002  |          | 350196 | 6084485  | peridotite | 2.5  | 2.5       | 2         | 2          | a-c    |           | psbx                               | 2269  |     |      |
| 09KNB003  |          | 350097 | 6084662  | peridotite | 2.5  | 2.5       |           |            |        | tr-py/po  | mfr, sub II                        | 2228  |     |      |
| 09KNB004  |          | 350107 | 6084686  | peridotite | 2.5  | 2.5       | 2         | 2          | c      | comp, sul | patchy grn; interesting text       | 2007  |     |      |
| 09KNB005  |          | 350020 | 6084854  | peridotite | 2.5  | 3         | 1         |            | w      | comp, sul | cb vlet                            | 1880  |     |      |
| 09KNB006  | Sid?     | 349834 | 6084994  | peridotite | 2.5  | 2         | 5         | 4-5        | a      |           | grn patchy; good example           | 1971  |     |      |
| 09KNB007  |          | 349574 | 6084871  | peridotite | 2.5  | 2         | 2         | 2          | c      |           | mfr                                | 2493  |     |      |
| 09KNB008  |          | 349704 | 6084690  | peridotite | 2    | 0.5       | 2         | 2          | c      |           | mfr                                | 2162  |     |      |
| 09KNB009  |          | 349850 | 6084463  | peridotite | 2.5  | 2         | 1         | 1          | c      |           | patchy                             | 2323  |     |      |
| 09KNB010  |          | 349917 | 6084355  | peridotite | 2.5  | 2.5       | 2         | 2          | c-w    |           | patchy                             | 2306  |     |      |
| 09KNB011  |          | 350057 | 6084119  | peridotite | 2.5  | 2.5       | 3         | 3          | c      |           | crackle                            | 1917  |     |      |
| 09KNB012  |          | 350397 | 6083991  | peridotite | 2.5  | 3.5       | 1         | 1          | w      |           | patchy                             | 2613  | 935 | 2307 |
| 09PXB002  |          | 348105 | 6090101  | peridotite | 2.5  | 3         | 2         | 1-2        | w      |           |                                    | 2237  | 882 | 2220 |
| 09PXB003  |          | 348146 | 6090339  | peridotite | 2    | 2         | 2         | 1-2        | c-w    |           |                                    | 1917  |     |      |
| 09PXB004  |          | 348147 | 6090398  | peridotite | 2.5  | 2.5       | 2         | 2          | a      |           | mfr, patchy                        | 2374  |     |      |
| 09PXB005  |          | 348139 | 6090506  | peridotite | 2.5  | 3         | 2         | 2-1        | a-c    |           | mfr                                | 1947  |     |      |
| 09PXB006  |          | 348248 | 6090484  | peridotite | 2.5  | 3         | 2         | 2-1        | a      |           |                                    | 2238  |     |      |
| 09PXB007  |          | 348319 | 6090179  | peridotite | 2.5  | 3         | 2         | 1-2        | c      |           | patchy                             | 2676  |     |      |
| 09PXB008  |          | 348324 | 6090089  | peridotite | 2.5  | 3         | 1         | 1          | w      |           | patchy                             | 2643  |     |      |
| 09PXB009  |          | 348319 | 6090032  | peridotite | 2.5  | 3         | 2         | 2-1        | c      |           | patchy                             | 2154  |     |      |
| 09PXB010  | Van      | 348500 | 6089890  | peridotite | 2.5  | 2         | 4         | 3-4        | a      |           | stwk, crackle                      | 2088  |     |      |
| 09PXB011  | Van      | 348489 | 6089936  | peridotite | 2.5  | 3         | 4         | 4          | a      |           | stwk, crackle                      | 1335  |     |      |
| 09PXB012  |          | 348498 | 6090014  | peridotite | 2.5  | 2         | 2         | 2          | c-a    |           |                                    | 2380  |     |      |
| 09PXB013  | Van      | 348535 | 6090044  | peridotite | 2.5  | 3.5       | 4         | 3-4        | a      |           | stwk, crackle                      | 1610  |     |      |
| 09PXB014  |          | 348507 | 6090103  | peridotite | 2.5  | 3         | 2         | 2          | a      | tr-py     |                                    | 2218  |     |      |
| 09PXB015  |          | 348517 | 6090226  | peridotite | 2.5  | 2         | 1         | 1          | tr     |           |                                    | 2231  |     |      |
| 09PXB016  |          | 348511 | 6090313  | peridotite | 2.5  | 3         | 1         | 1          | tr     |           |                                    | 2597  |     |      |
| 09PXB017  |          | 348510 | 6090403  | peridotite | 2.5  | 3         | 2         | 2          | c-a    |           | mfr                                | 2388  |     |      |
| 09PXB018  |          | 348669 | 6090426  | peridotite | 2.5  | 2         | 2         | 2-1        | c-a    |           | mfr                                | 2071  |     |      |
| 09PXB019  |          | 348675 | 6090371  | peridotite | 2.5  | 2         | 2         | 1-2        | c-a    |           | mfr                                | 2519  |     |      |
| 09PXB020  |          | 348679 | 6090372  | peridotite | 2.5  | 1.5       | 2         | 2          | c-a    |           | mfr                                | 2110  |     |      |
| 09PXB021  |          | 348703 | 6090294  | peridotite | 2.5  | 2.5       | 1         | 1          | w      |           |                                    | 2483  |     |      |
| 09PXB022  |          | 348675 | 6090229  | peridotite | 2.5  | 1         | 0         | 0          |        |           |                                    | 2358  |     |      |
| 09PXB023  |          | 348689 | 6090128  | peridotite | 2.5  | 1         | 1         | 1          | w      |           | mfr, blk serp                      | 2810  |     |      |
| 09PXB024  |          | 348729 | 6089988  | peridotite | 2.5  | 2.5       | 0         | 0          |        |           | mfr                                | 2311  |     |      |
| 09PXB025  |          | 348775 | 6089869  | peridotite | 2.5  | 2.5       | 2         | 2          | c      |           | psbx                               | 2412  |     |      |
| 09PXB026  |          | 348908 | 6090006  | peridotite | 2.5  | 2.5       | 1         | 1          | w      |           | patchy                             | 2381  |     |      |
| 09PXB027  |          | 348803 | 6090376  | peridotite | 2.5  | 2         |           |            |        |           | mfr                                | 2579  |     |      |
| 09PXB037  |          | 348734 | 6083765  | peridotite | 2    | 2         | 2         | 2          | w      |           | lattice mfr                        | 2772  |     |      |
| 09PXB038  |          | 348673 | 6083737  | peridotite | 2    | 1         | 1         | 1          | w      |           | lattice mfr                        | 2615  |     |      |
| 09PXB039  | Baptiste | 348628 | 6083741  | peridotite | 2    | 2.5       | 4         | 4          | a      |           | viets                              | 1468  |     |      |
| 09PXB040  | Baptiste | 348585 | 6083715  | peridotite | 2    | 2.5       | 4         | 4          | a      |           | patchy                             | 1627  |     |      |
| 09PXB041  | Baptiste | 348527 | 6083728  | peridotite | 2    | 2.5       | 4         | 4          | a      |           | psbx                               | 1888  |     |      |
| 09PXB042  |          | 348452 | 6083703  | peridotite | 2    | 2         | 3         | 2-3        | c      |           | crackle                            | 2103  | 915 | 2211 |
| 09PXB043  | Baptiste | 348420 | 6083690  | peridotite | 2    | 2.5       | 5         | 4-5        | a      |           | crackle, psbx                      | 1856  | 917 | 2234 |
| 09PXB044  | Baptiste | 348334 | 6083666  | peridotite | 2    | 2         | 4         | 4          | a      |           | crackle                            | 1905  |     |      |
| 09PXB045a | Baptiste | 348187 | 6083626  | peridotite | 2    | 2.5       | 4         | 4-3        | a      |           | patchy                             | 1297  |     |      |
| 09RMB002  | Sid?     | 349125 | 6085163  | peridotite | 2.5  | 3         | 1         | 1          | w      |           | mfr                                | 2520  | 937 | 2247 |
| 09RMB004  | Sid?     | 349172 | 6085133  | peridotite | 3    | 2.5       | 4         | 4          | a-c    |           | psbx                               | 1488  |     |      |
| 09RMB005  | Sid?     | 349245 | 6085132  | peridotite | 2.5  | 2.5       | 4         | 4          | a-c    |           | ckbx                               | 1447  |     |      |
| 09RMB010  |          | 349627 | 6084959  | peridotite | 2.5  | 2         | 1         | 1          | w      |           | patchy                             | 2629  |     |      |
| 09RMB011  |          | 349688 | 6084939  | peridotite | 2.5  | 2         | 3         | 3          | c      |           | psbx, mfr                          | 1628  |     |      |
| 09RMB012  |          | 349924 | 6084675  | peridotite | 2.5  | 2         | 1         | 1          | c      |           | psbx                               | 2410  |     |      |
| 09RMB015  |          | 349130 | 6089758  | peridotite | 2.5  | 2         | 2         | 2          | c      |           | mfr, patchy, psbx                  | 2323  |     |      |
| 09RMB020  |          | 349522 | 6089506  | peridotite | 2.5  | 2         | 4         | 4          | a-c    |           | ckbx                               | 1648  |     |      |
| 09RMB021a |          | 349487 | 6089501  | dunite     | 2.5  | 2         | 0         | 0          |        |           | msv                                | 1951  |     |      |
| 09RMB021b |          | 349490 | 6089501  | peridotite | 2.5  | 2         | 3         | 3          | c      |           | irreg/patchy/psbx                  | 2733  |     |      |
| 09RMB022  |          | 349380 | 6089422  | dunite     | 2.5  | 3         | 1         | 1          | c      |           | msv, fg                            | 2376  |     |      |
| 09RMB024  |          | 349224 | 6089359  | peridotite | 2.5  | 2         | 1         | 1          | c-w    |           |                                    | 1929  |     |      |
| 09RMB025  |          | 347926 | 6090514  | peridotite | 2.5  | 3         | 4         | 4          | c-a    |           | ckbx                               | 1531  | 951 | 2088 |
| 09RMB026  |          | 347926 | 6090504  | gb, volc   |      |           | 0         | 0          |        |           | light grn wh, chl, sil-w ser viets | 1239  | 953 | 1996 |
| 09RMB030  |          | 347424 | 6091218  | monz       |      |           | 0         | 0          |        |           | pink monz, fg                      | 275.9 |     |      |
| 09RMB031a |          | 347358 | 6091318  | volc       |      |           | 0         | 0          |        |           | rest alt                           | 1651  |     |      |
| 09RMB031b |          | 347358 | 6091318  | peridotite | 2.5  | 2         | 1         | 1          | c      |           |                                    | 2186  |     |      |
| 09RMB032  |          | 347063 | 6091363  | Bas        |      |           | 1         | 0          |        | sul diss  | ph & frags/ basalt, chl-fe cb      | 1859  |     |      |

| Sample #   | Target   | Easting | Northing | Rock Type           | Serp | Magnetite | Awar_size | Awar_range | Awar_% | Sulphide  | Comment  | Ni   | Zn   | Cu   |
|------------|----------|---------|----------|---------------------|------|-----------|-----------|------------|--------|-----------|--|------|------|------|
| 09RMB033   |          | 346977  | 6091412  | cb-sil/mt           |      |           | 0         | 0          |        |           | s alt, fecb ll                                   | 1897 |      |      |
| 09RMB034   |          | 346971  | 6091528  | ultramafic          | 2    | 2.5       | 0         | 0          |        |           | m chl-cb (mg)-cal-ep, gy spots cb, mt lattice    | 2780 |      |      |
| 09RMB035   |          | 346926  | 6091543  | ultramafic          | 2    | 2.5       | 0         | 0          |        | tr py     | (mg)-cal, gy spots cb, mt lattice                | 2571 |      |      |
| 09RMB036   |          | 346884  | 6091612  | ultramafic          | 2    | 3         | 0         | 0          |        |           | m chl-cb (mg)-cal, gy spots cb, mt lattice       | 2419 |      |      |
| 09RMB040   |          | 350007  | 6084477  | peridotite          | 2.5  | 2         | 4         | 4          |        | c         | mfr  | 2346 |      |      |
| 09RMB041   |          | 349731  | 6084873  | peridotite          | 2    | 0.5       | 1         | 1          |        | w         | mg light grn 30%-40% px                          | 2224 |      |      |
| 09RMB042   |          | 349665  | 6084986  | peridotite          | 2    | 2.5       | 1         | 1          |        | c         | mg light grn 20% px                              | 2400 |      |      |
| 09RMB043   |          | 349447  | 6084795  | peridotite          | 2    | 0.5       | 2         | 2          |        | c         | mg light grn 20% px                              | 1804 |      |      |
| 09RMB044   |          | 349420  | 6084737  | peridotite          | 2    | 1         | 1         | 1          |        | c         | mfr  | 2431 |      |      |
| 09RMB046   |          | 349436  | 6084627  | peridotite          | 2    | 1.5       | 2         | 1-2        |        | c         | v w awar, grn blk serp, 2 awar sizes             | 2268 |      |      |
| 09RMB047   |          | 349526  | 6084531  | peridotite          | 2.5  | 2.5       | 2         | 2          |        | c         | ckbx, lattice                                    | 2151 |      |      |
| 09RMB048   |          | 349679  | 6084394  | peridotite          | 2    | 2         | 3         | 3          |        | c-a       | mfr, vlets blk chl                               | 2185 |      |      |
| 09RMB049   | Baptiste | 349803  | 6084312  | peridotite          | 2.5  | 2.5       | 4         | 4          |        | c         | psbx orient frags                                | 2148 |      |      |
| 09RMB050   |          | 349985  | 6084195  | peridotite          | 2    | 2         | 2         | 2-1        |        | w         | mfr, blk serp                                    | 3039 |      |      |
| 09RMB051   |          | 350042  | 6084045  | peridotite          | 2.5  | 2         | 2         | 2          |        | w py-diss | mix blk serp                                     | 1904 | 976  | 2443 |
| 09RMB052   |          | 350139  | 6083924  | peridotite          | 2    | 2         | 3         | 1-3        |        | c         | psbx, cb vlet                                    | 2322 | 979  | 2290 |
| 09RMB053   |          | 350267  | 6083774  | peridotite          | 2    | 2         | 2         | 2          |        |           | psbx, mfr  | 2405 |      |      |
| 09RMB054   |          | 350128  | 6083514  | peridotite          | 2    | 2         | 2         | 2-1        |        | c         | 30% px, psbx, mfr                                | 2532 |      |      |
| 09RMB055   | Baptiste | 350097  | 6083828  | peridotite          | 2.5  | 3         | 4         | 4          |        | a         | psbx, blk serp                                   | 1976 |      |      |
| 09RMB056   |          | 349928  | 6083750  | peridotite          | 2    | 2         | 2         | 2          |        | c-w       | mfr  | 2308 |      |      |
| 09RMB057   |          | 349877  | 6083971  | peridotite          | 2    | 2         | 3         | 3          |        | mill hz   | psbx, rod text                                   | 1927 |      |      |
| 09RMB058   | Baptiste | 349728  | 6083975  | peridotite          | 2    | 2         | 4         | 3-4        |        | c         | patchy   | 2225 |      |      |
| 09RMB059   | Baptiste | 349622  | 6084079  | peridotite          | 2    | 2         | 4         | 4          |        | c-a       | ckbx, mfr  | 1764 |      |      |
| 09RMB060   |          | 349406  | 6084161  | peridotite          | 2    | 2         | 2         | 2-1        |        | c         | ckbx, mfr, psbx                                  | 2331 |      |      |
| 09RMB061   |          | 349535  | 6083973  | peridotite          | 2    | 2         | 0         | 0          |        |           | cb qt vlet                                       | 2646 |      |      |
| 09RMB062   | Baptiste | 349840  | 6083658  | peridotite          | 2.5  | 2         | 4         | 4          |        | c-a       | knobby, pen foliation, psbx                      | 1813 |      |      |
| 09RMB063   | Baptiste | 349932  | 6083587  | peridotite          | 2.5  | 2         | 5         | 4-5        |        | c-a       | knobby, pen foliation, psbx                      | 2337 |      |      |
| 09RMB064   | Baptiste | 349951  | 6083480  | peridotite          | 2.5  | 2         | 5         | 4-5        |        | c-a       | knobby, pen foliation, psbx                      | 1967 |      |      |
| 09RMB065   |          | 349834  | 6085931  | dunite              | 2    | 2         | 0         | 0          |        |           | rest alt, sh-fluid text                          | 1884 |      |      |
| 09RMB067   |          | 350739  | 6084960  | peridotite          | 2    | 2         | 3         | 3          |        | c         | psbx   | 1601 |      |      |
| 09RMB068   |          | 351001  | 6084776  | cb-sil/mt           |      |           |           |            |        |           | cb viets   | 2099 |      |      |
| 09RMB069   |          | 351207  | 6084509  | peridotite          | 2    | 2         | 1         | tr         |        | tr        | wh px alt to serp, chl                           | 2124 |      |      |
| 09RMB070   |          | 351215  | 6084280  | peridotite          | 2    | 2         | 1         | 1          |        | c         | mfr  | 2629 |      |      |
| 09RMB072   |          | 351284  | 6084120  | peridotite          | 2    | 2         | 1         | 1          |        | c         | patchy   | 2343 |      |      |
| 09RMB130   |          | 351194  | 6083177  | fecb-sil            |      |           | 0         |            |        |           |  |      |      |      |
| 09RMB131fl |          | 351315  | 6082977  | peridotite          |      |           | 0         |            |        |           | wcb spots  |      |      |      |
| 09RMB132fl | Sid      | 348853  | 6086023  | peridotite          | 2    | 3         | 2         | 1 to 2     |        | c         | psbx   | 1828 | 771  | 2269 |
| 09RMB133   | Sid      | 348882  | 6085754  | peridotite          | 2    | 1         | 1         | 1          |        | c         | viets, mf, 30%px                                 | 2330 | 1006 | 2182 |
| 09RMB140   | Baptiste | 348053  | 6083289  | peridotite          | 2.5  | 3         | 4         | 4          |        | a         | soc, psbx, hbx, sh/banding text                  | 1401 |      |      |
| 09RMB141   | Baptiste | 347999  | 6083296  | peridotite          | 2.5  | 3         | 4         | 3 to 4     |        | a         | psbx, hbx, sh/banding text                       | 1386 |      |      |
| 09RMB142   | Baptiste | 347897  | 6083579  | bx                  | 2.5  | 3         | 3         | 3          |        | c         | bx, micro granular gy subdrd frags               | 1774 |      |      |
| 09RMB143   | Baptiste | 348002  | 6083262  | ultramafic          | 2.5  | 3         | 1         | 1          |        | r-c       |  | 1797 |      |      |
| 09RMB144   | Baptiste | 347895  | 6083318  | bx, peridotite      | 2.5  | 3         | 3         | 3          |        | c         | stripe text                                      | 1572 |      |      |
| 09RMB145   | Baptiste | 347927  | 6083299  | ultramafic          | 2    | 3         | 2         | 1 to 2     |        | c         | ckbx   | 1425 |      |      |
| 09RMB148   | Baptiste | 346918  | 6082822  | peridotite          | 3    | 2.5       | 3         | 1 to 3     |        | c         | psbx, ckbx, late wh viets crystalline            | 1469 |      |      |
| 09RMB149   | Baptiste | 347271  | 6083170  | gb                  |      |           | 0         |            |        |           | late stage wh granular felsic stwk               | 373  |      |      |
| 09RMB154   | Baptiste | 347334  | 6083677  | peridotite          | 3    | 3         | 4         | 3 to 4     |        | c         | psbx, hbx, crude, banding stripe text            | 1608 |      |      |
| 09RMB155   | Baptiste | 347358  | 6083734  | peridotite          | 3    | 2.5       | 4         | 4          |        | a         | ckbx, mf, tect, text sim 154 above               | 1152 |      |      |
| 09RMB156   | Baptiste | 347496  | 6083740  | gb                  |      |           | 0         |            |        |           | sim R149   | 338  |      |      |
| 09RMB158   | Baptiste | 347758  | 6083661  | dunite & peridotite | 1.5  | 3         |           |            |        |           | light gy fg granular                             | 2721 |      |      |
| 09RMB159   | Baptiste | 347708  | 6083643  | peridotite          | 1    | 2         | 1         | 1          |        | r-c       | late blk serp-awar vlet                          | 2320 |      |      |
| 09RMB160   | Baptiste | 347643  | 6083597  | peridotite          | 2    | 2.5       | 3         | 1 to 3     |        | c         | ckbx, psbx                                       | 2053 |      |      |
| 09RMB161   | Baptiste | 347556  | 6083560  | peridotite          | 2.5  | 3         | 5         | 4 to 5     |        | a         | bx, react rim                                    | 1380 |      |      |
| 09RMB162   | Baptiste | 348599  | 6083466  | ultramafic          | 2    | 2.5       | 3         | 2 to 3     |        | c         | v, weird text                                    | 1942 |      |      |
| 09RMB163   | Baptiste | 348482  | 6083618  | peridotite          | 2    | 2         | 3         | 3          |        | a         | psbx   | 1668 |      |      |
| 09RMB164   | Baptiste | 348101  | 6083618  | dunite, tect bx     | 2    | 2         | 3         | 1 to 3     |        | r-c       | bx, frags fg dun in later P; mainly awar in P    | 2430 |      |      |
| 09RMB165A  | Baptiste | 348033  | 6083627  | dunite              | 2    | 3         | 1         | 1          |        | r         | wh vlet serp-trace awar                          | 2312 |      |      |
| 09RMB165B  | Baptiste | 348022  | 6083732  | peridotite          | 2.5  | 2.5       | 4         | 3 to 4     |        | c         | psbx   | 1492 |      |      |
| 09RMB166   | Baptiste | 347931  | 6083779  | peridotite          | 2.5  | 2.5       | 4         | 4          |        | a         | psbx   | 1384 | 801  | 2398 |
| 09RMB167   | Baptiste | 347938  | 6083638  | intrusive, tect bx  |      | 2         | 1         | 1          |        | r-c       | chult bx, friable, subdrd frags, feox serp?-awar | 2194 |      |      |
| 09RMB168   | Baptiste | 347909  | 6083636  | peridotite          | 2.5  | 2         | 3         | 2 to 3     |        | c         | k  | 1674 |      |      |
| 09RMB169   | Baptiste | 347811  | 6083679  | peridotite          | 2.5  | 3         | 2         | 2          |        | c         | psbx, cbnx                                       | 2052 |      |      |
| 09RMB170   | Baptiste | 347770  | 6083698  | dunite              | 1    | 2         | 1         | 1          |        | r-c       | serp-awar viets                                  | 2753 |      |      |
| 09RMB171   | Baptiste | 347772  | 6083776  | peridotite          | 2.5  | 2         | 3         | 2 to 3     |        | c         | psbx, ckbx                                       | 1945 |      |      |
| 09RMB172   | Baptiste | 347770  | 6083759  | dunite              | 1    | 3         |           |            |        |           | feox serp-mt-awar viets                          | 2658 |      |      |

**APPENDIX IIA      ACME TOTAL NICKEL SAMPLE DATA**

**CERTIFICATE OF ANALYSIS**

**VAN09001837.1**

**CLIENT JOB INFORMATION**

Project: None Given  
Shipment ID:  
P.O. Number:  
Number of Samples: 46

**SAMPLE DISPOSAL**

RTRN-PLP Return  
RTRN-RJT Return

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

Invoice To: First Point Minerals Corporation  
906 - 1112 W. Pender St.  
Vancouver BC V6E 2S1  
Canada

CC: Ron Britten

**SAMPLE PREPARATION AND ANALYTICAL PROCEDURES**

| Method Code | Number of Samples | Code Description                            | Test Wgt(g) | Report Status |
|-------------|-------------------|---|-------------|---------------|
| R200        | 46                | Crush, split and pulverize rock to 200 mesh |             |               |
| 1D          | 46                | 1:1:1 Aqua Regia digestion ICP-ES analysis  | 0.5         | Completed     |

**ADDITIONAL COMMENTS**



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.  
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Vancouver BC V6E 2S1 Canada

Project: None Given  
Report Date: June 02, 2009

Page: 2 of 3 Part 1

CERTIFICATE OF ANALYSIS

VAN09001837.1

| Method   | WGHT | 1D  | 1D  | 1D  | 1D  | 1D   | 1D   | 1D  | 1D   | 1D   | 1D  | 1D  | 1D  | 1D  | 1D  | 1D   | 1D  | 1D  | 1D  | 1D    | 1D |
|----------|------|-----|-----|-----|-----|------|------|-----|------|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-------|----|
| Analyte  | Wgt  | Mo  | Cu  | Pb  | Zn  | Ag   | Ni   | Co  | Mn   | Fe   | As  | U   | Au  | Th  | Sr  | Cd   | Sb  | Bi  | V   | Ca    |    |
| Unit     | kg   | ppm | ppm | ppm | ppm | ppm  | ppm  | ppm | ppm  | %    | ppm | ppm | ppm | ppm | ppm | ppm  | ppm | ppm | ppm | %     |    |
| MDL      | 0.01 | 1   | 1   | 3   | 1   | 0.3  | 1    | 1   | 2    | 0.01 | 2   | 8   | 2   | 2   | 1   | 0.5  | 3   | 3   | 1   | 0.01  |    |
| 08PCL094 | Rock | <1  | 7   | 8   | 18  | <0.3 | 1956 | 91  | 821  | 4.40 | <2  | 8   | <2  | <2  | <1  | 1.0  | <3  | <3  | 9   | 0.09  |    |
| 08PCL096 | Rock | <1  | 6   | <3  | 21  | <0.3 | 2329 | 95  | 768  | 4.25 | <2  | 10  | <2  | <2  | <1  | 0.7  | 5   | <3  | 14  | 0.04  |    |
| 08PCL097 | Rock | <1  | 32  | <3  | 18  | <0.3 | 2177 | 99  | 881  | 4.81 | <2  | <8  | <2  | <2  | <1  | 1.0  | <3  | <3  | 14  | 0.05  |    |
| 08PCL099 | Rock | <1  | 11  | <3  | 17  | <0.3 | 2329 | 102 | 886  | 4.52 | <2  | <8  | <2  | <2  | <1  | 0.8  | 6   | <3  | 15  | 0.07  |    |
| 08PCL100 | Rock | <1  | 13  | <3  | 16  | <0.3 | 2299 | 97  | 834  | 4.40 | <2  | <8  | <2  | <2  | <1  | 0.7  | 5   | <3  | 18  | 0.06  |    |
| 08PCL101 | Rock | <1  | 11  | <3  | 12  | <0.3 | 2036 | 85  | 724  | 4.20 | <2  | 14  | <2  | <2  | <1  | 0.6  | 4   | <3  | 10  | 0.02  |    |
| 08PCL102 | Rock | <1  | 21  | <3  | 13  | <0.3 | 1848 | 76  | 803  | 3.85 | <2  | 10  | <2  | <2  | <1  | 0.6  | 3   | <3  | 15  | 0.13  |    |
| 08PCL103 | Rock | <1  | <1  | <3  | 10  | <0.3 | 2096 | 85  | 717  | 4.12 | <2  | <8  | <2  | <2  | <1  | 0.8  | 6   | <3  | 21  | 0.16  |    |
| 08PXB225 | Rock | <1  | 3   | <3  | 18  | <0.3 | 2291 | 99  | 830  | 4.55 | <2  | 11  | <2  | <2  | <1  | 0.8  | 7   | <3  | 13  | 0.06  |    |
| 08PXB226 | Rock | <1  | 10  | 3   | 27  | <0.3 | 2242 | 97  | 849  | 4.73 | <2  | 11  | <2  | <2  | <1  | 0.9  | 5   | <3  | 15  | 0.05  |    |
| 08RMB102 | Rock | <1  | 8   | <3  | 15  | <0.3 | 2203 | 87  | 684  | 3.95 | <2  | 10  | <2  | <2  | <1  | 0.8  | 5   | <3  | 12  | 0.02  |    |
| 08RMB103 | Rock | <1  | 1   | <3  | 13  | <0.3 | 1650 | 82  | 703  | 4.45 | <2  | 11  | <2  | <2  | <1  | 0.8  | 4   | <3  | 21  | 0.27  |    |
| 08RMB108 | Rock | <1  | 2   | <3  | 14  | <0.3 | 2302 | 105 | 1032 | 3.95 | <2  | <8  | <2  | <2  | 3   | 0.8  | 6   | <3  | 12  | 0.44  |    |
| 08RMB109 | Rock | <1  | 5   | <3  | 13  | <0.3 | 2320 | 91  | 625  | 3.97 | <2  | <8  | <2  | <2  | <1  | 0.8  | 6   | <3  | 4   | 0.01  |    |
| 08RMB110 | Rock | <1  | 1   | <3  | 4   | <0.3 | 1051 | 4   | 96   | 0.63 | <2  | 10  | <2  | <2  | <1  | <0.5 | 5   | <3  | 9   | <0.01 |    |
| 08RMB111 | Rock | <1  | 12  | 5   | 16  | <0.3 | 2349 | 98  | 879  | 4.60 | <2  | <8  | <2  | <2  | <1  | 0.9  | 8   | <3  | 19  | 0.06  |    |
| 08RMB112 | Rock | <1  | 13  | <3  | 17  | <0.3 | 2076 | 89  | 920  | 4.34 | <2  | 10  | <2  | <2  | <1  | 0.7  | 4   | <3  | 8   | 0.05  |    |
| 08RMB113 | Rock | <1  | 8   | <3  | 19  | <0.3 | 2206 | 92  | 844  | 4.56 | <2  | 9   | <2  | <2  | <1  | 0.7  | 6   | <3  | 14  | 0.04  |    |
| 08RMB114 | Rock | <1  | 7   | <3  | 17  | <0.3 | 2009 | 92  | 839  | 4.52 | <2  | 13  | <2  | <2  | <1  | 1.1  | 5   | <3  | 16  | 0.13  |    |
| 08RMB115 | Rock | <1  | 6   | <3  | 17  | <0.3 | 2055 | 94  | 885  | 4.71 | <2  | <8  | <2  | <2  | <1  | 1.0  | 6   | <3  | 15  | 0.06  |    |
| 08RMB116 | Rock | <1  | 11  | <3  | 17  | <0.3 | 2316 | 95  | 850  | 4.59 | <2  | 10  | <2  | <2  | <1  | 0.9  | 5   | <3  | 18  | 0.06  |    |
| 08RMB117 | Rock | <1  | 7   | <3  | 17  | <0.3 | 2306 | 100 | 876  | 4.71 | <2  | <8  | <2  | <2  | <1  | 0.9  | 8   | <3  | 16  | 0.06  |    |
| 08RMB118 | Rock | <1  | 6   | <3  | 18  | <0.3 | 2433 | 104 | 911  | 5.19 | <2  | 11  | <2  | <2  | <1  | 1.0  | 8   | <3  | 6   | 0.03  |    |
| 08RMB119 | Rock | <1  | 16  | <3  | 12  | <0.3 | 2083 | 100 | 863  | 4.59 | 10  | <8  | <2  | <2  | 2   | 1.0  | 7   | <3  | 14  | 0.56  |    |
| 08RMB120 | Rock | <1  | 5   | <3  | 15  | <0.3 | 1988 | 84  | 735  | 4.31 | <2  | 10  | <2  | <2  | <1  | 0.7  | 7   | <3  | 16  | 0.14  |    |
| 08RMB122 | Rock | <1  | 2   | <3  | 14  | <0.3 | 1833 | 89  | 710  | 4.30 | <2  | 9   | <2  | <2  | <1  | 0.7  | 6   | <3  | 9   | 0.09  |    |
| 08RMB123 | Rock | <1  | 8   | <3  | 14  | <0.3 | 1922 | 87  | 710  | 4.36 | <2  | 11  | <2  | <2  | <1  | 0.8  | 7   | <3  | 16  | 0.06  |    |
| 08RMB125 | Rock | <1  | 9   | <3  | 14  | <0.3 | 1833 | 81  | 788  | 4.20 | <2  | <8  | <2  | <2  | <1  | 0.7  | 7   | <3  | 14  | 0.01  |    |
| 08RMB126 | Rock | <1  | 6   | <3  | 18  | <0.3 | 2407 | 100 | 832  | 4.65 | 4   | 11  | <2  | <2  | <1  | 0.9  | 8   | <3  | 15  | 0.05  |    |
| 08RMB127 | Rock | <1  | 10  | <3  | 19  | <0.3 | 2185 | 101 | 907  | 4.64 | <2  | 8   | <2  | <2  | <1  | 0.9  | 7   | <3  | 22  | 0.09  |    |

This report represents an initial or preliminary report and final reports will be issued prior to the date on this certificate. Signature indicates final approval, preliminary reports are unsigned and should be used for reference only.



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Project: None Given  
Report Date: June 02, 2009

Page: 2 of 3 Part 2

CERTIFICATE OF ANALYSIS

VAN09001837.1

| Method   | Analyte | Unit | MDL    | 1D | 1D   | 1D    | 1D | 1D    | 1D  | 1D   | 1D    | 1D    | 1D | 1D    | 1D | 1D |
|----------|---------|------|--------|----|------|-------|----|-------|-----|------|-------|-------|----|-------|----|----|
|          |         |      |        | P  | La   | Cr    | Mg | Ba    | Ti  | B    | Al    | Na    | K  | W     | S  |    |
|          |         |      |        | %  | ppm  | ppm   | %  | ppm   | %   | ppm  | %     | %     | %  | ppm   | %  |    |
| 08PCL094 | Rock    |      | <0.001 | 2  | 331  | 19.54 | <1 | <0.01 | <20 | 0.17 | 0.03  | <0.01 | <2 | <0.05 |    |    |
| 08PCL096 | Rock    |      | 0.001  | 2  | 613  | 18.62 | <1 | <0.01 | <20 | 0.20 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08PCL097 | Rock    |      | <0.001 | 2  | 436  | 21.10 | <1 | <0.01 | <20 | 0.35 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08PCL099 | Rock    |      | <0.001 | 2  | 630  | 20.60 | <1 | <0.01 | <20 | 0.25 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08PCL100 | Rock    |      | <0.001 | 2  | 675  | 18.93 | <1 | <0.01 | <20 | 0.27 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08PCL101 | Rock    |      | <0.001 | 2  | 465  | 15.78 | <1 | <0.01 | <20 | 0.12 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08PCL102 | Rock    |      | <0.001 | 2  | 685  | 16.84 | <1 | <0.01 | 28  | 0.16 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08PCL103 | Rock    |      | <0.001 | 2  | 998  | 19.99 | <1 | <0.01 | 88  | 0.17 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08PXB225 | Rock    |      | <0.001 | 2  | 510  | 19.39 | <1 | <0.01 | <20 | 0.15 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08PXB226 | Rock    |      | <0.001 | 2  | 602  | 18.90 | <1 | <0.01 | <20 | 0.17 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08RMB102 | Rock    |      | <0.001 | 2  | 451  | 17.50 | <1 | <0.01 | <20 | 0.19 | <0.01 | <0.01 | 3  | <0.05 |    |    |
| 08RMB103 | Rock    |      | <0.001 | 2  | 855  | 17.01 | <1 | <0.01 | 24  | 0.28 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08RMB108 | Rock    |      | <0.001 | 2  | 814  | 21.08 | <1 | <0.01 | 75  | 0.16 | <0.01 | <0.01 | <2 | 0.05  |    |    |
| 08RMB109 | Rock    |      | <0.001 | 2  | 261  | 18.38 | <1 | <0.01 | <20 | 0.19 | <0.01 | <0.01 | 3  | <0.05 |    |    |
| 08RMB110 | Rock    |      | <0.001 | <1 | 1576 | 5.05  | <1 | <0.01 | <20 | 1.46 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08RMB111 | Rock    |      | <0.001 | 2  | 786  | 19.73 | <1 | <0.01 | <20 | 0.31 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08RMB112 | Rock    |      | <0.001 | 2  | 440  | 17.28 | <1 | <0.01 | <20 | 0.08 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08RMB113 | Rock    |      | <0.001 | 2  | 483  | 19.39 | <1 | <0.01 | <20 | 0.13 | <0.01 | <0.01 | 3  | <0.05 |    |    |
| 08RMB114 | Rock    |      | <0.001 | 2  | 585  | 20.45 | <1 | <0.01 | <20 | 0.24 | 0.03  | <0.01 | 2  | <0.05 |    |    |
| 08RMB115 | Rock    |      | <0.001 | 2  | 517  | 20.39 | <1 | <0.01 | <20 | 0.27 | 0.05  | <0.01 | 2  | <0.05 |    |    |
| 08RMB116 | Rock    |      | <0.001 | 2  | 626  | 19.62 | <1 | <0.01 | <20 | 0.17 | <0.01 | <0.01 | 3  | <0.05 |    |    |
| 08RMB117 | Rock    |      | <0.001 | 2  | 628  | 20.08 | <1 | <0.01 | <20 | 0.22 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08RMB118 | Rock    |      | <0.001 | 2  | 249  | 20.64 | <1 | <0.01 | <20 | 0.05 | <0.01 | <0.01 | <2 | <0.05 |    |    |
| 08RMB119 | Rock    |      | <0.001 | 2  | 903  | 19.50 | 4  | <0.01 | 54  | 0.19 | <0.01 | <0.01 | 3  | 0.10  |    |    |
| 08RMB120 | Rock    |      | <0.001 | 2  | 693  | 16.88 | <1 | <0.01 | <20 | 0.19 | <0.01 | <0.01 | 3  | <0.05 |    |    |
| 08RMB122 | Rock    |      | <0.001 | 2  | 400  | 16.89 | <1 | <0.01 | 47  | 0.07 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08RMB123 | Rock    |      | <0.001 | 2  | 688  | 18.28 | <1 | <0.01 | 25  | 0.29 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08RMB125 | Rock    |      | <0.001 | 2  | 570  | 17.51 | <1 | <0.01 | 30  | 0.20 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08RMB126 | Rock    |      | <0.001 | 2  | 663  | 20.03 | <1 | <0.01 | <20 | 0.19 | <0.01 | <0.01 | 2  | <0.05 |    |    |
| 08RMB127 | Rock    |      | <0.001 | 2  | 792  | 20.60 | <1 | <0.01 | <20 | 0.33 | <0.01 | <0.01 | 2  | <0.05 |    |    |

This report supersedes all previous preliminary and final reports with this number dated prior to the date on this certificate. Signature indicates final approval, preliminary reports are unsigned and should be used for reference only.

**CERTIFICATE OF ANALYSIS**

**VAN09001837.1**

| Method    | WGHT | 1D  | 1D  | 1D  | 1D  | 1D   | 1D   | 1D  | 1D   | 1D   | 1D  | 1D  | 1D  | 1D  | 1D  | 1D   | 1D  | 1D  | 1D  | 1D   | 1D |
|-----------|------|-----|-----|-----|-----|------|------|-----|------|------|-----|-----|-----|-----|-----|------|-----|-----|-----|------|----|
| Analyte   | Wgt  | Mo  | Cu  | Pb  | Zn  | Ag   | Ni   | Co  | Mn   | Fe   | As  | U   | Au  | Th  | Sr  | Cd   | Sb  | Bi  | V   | Ca   |    |
| Unit      | kg   | ppm | ppm | ppm | ppm | ppm  | ppm  | ppm | ppm  | %    | ppm | ppm | ppm | ppm | ppm | ppm  | ppm | ppm | ppm | %    |    |
| MDL       | 0.01 | 1   | 1   | 3   | 1   | 0.3  | 1    | 1   | 2    | 0.01 | 2   | 8   | 2   | 2   | 1   | 0.5  | 3   | 3   | 1   | 0.01 |    |
| 08RMB129  | Rock | <1  | 7   | <3  | 11  | <0.3 | 1645 | 76  | 660  | 4.35 | <2  | 10  | <2  | <2  | <1  | 1.0  | 6   | <3  | 26  | 0.51 |    |
| 08RMB132  | Rock | <1  | 13  | <3  | 15  | <0.3 | 2450 | 82  | 992  | 3.35 | <2  | 10  | <2  | <2  | <1  | 0.5  | 7   | <3  | 10  | 0.01 |    |
| 08RMB152  | Rock | <1  | 3   | <3  | 16  | <0.3 | 2401 | 107 | 1043 | 4.60 | 2   | 10  | <2  | <2  | <1  | 1.0  | 8   | <3  | 21  | 0.09 |    |
| 08RMB155  | Rock | <1  | 5   | <3  | 24  | <0.3 | 2355 | 98  | 885  | 4.80 | <2  | <8  | <2  | <2  | <1  | 1.0  | 10  | <3  | 8   | 0.05 |    |
| 08RMB205  | Rock | <1  | 7   | <3  | 8   | <0.3 | 1960 | 80  | 698  | 3.76 | <2  | 15  | <2  | <2  | <1  | <0.5 | 8   | <3  | 8   | 0.02 |    |
| 08RMB226  | Rock | <1  | 10  | 6   | 9   | <0.3 | 2365 | 100 | 872  | 4.64 | <2  | <8  | <2  | <2  | <1  | <0.5 | 9   | <3  | 14  | 0.05 |    |
| 08RMB228  | Rock | <1  | 9   | 5   | 12  | <0.3 | 2044 | 97  | 1052 | 4.68 | <2  | <8  | 3   | <2  | <1  | <0.5 | 11  | <3  | 26  | 0.02 |    |
| 08RMB240L | Rock | <1  | 16  | 6   | 12  | <0.3 | 2480 | 104 | 1044 | 4.83 | <2  | <8  | 3   | <2  | <1  | 0.5  | 11  | <3  | 24  | 0.02 |    |
| 08RMB227L | Rock | <1  | 15  | <3  | 12  | <0.3 | 2342 | 95  | 1007 | 4.47 | 2   | <8  | <2  | <2  | <1  | 0.5  | 11  | <3  | 20  | 0.04 |    |
| 08RMB261L | Rock | <1  | 17  | 3   | 12  | <0.3 | 2223 | 91  | 932  | 4.34 | <2  | <8  | <2  | <2  | <1  | 0.5  | 9   | <3  | 22  | 0.02 |    |
| 08RMB214L | Rock | <1  | 18  | <3  | 19  | <0.3 | 2209 | 106 | 900  | 4.63 | <2  | <8  | 3   | <2  | <1  | <0.5 | 9   | 3   | 36  | 0.10 |    |
| 07PX8028L | Rock | <1  | 12  | <3  | 9   | <0.3 | 2266 | 90  | 824  | 4.16 | <2  | <8  | <2  | <2  | <1  | <0.5 | 10  | <3  | 17  | 0.03 |    |
| 08RMB205L | Rock | <1  | 5   | <3  | 12  | <0.3 | 1884 | 98  | 1049 | 4.68 | <2  | <8  | <2  | <2  | <1  | 0.5  | 9   | <3  | 8   | 0.01 |    |
| 08RMB241L | Rock | <1  | 16  | <3  | 9   | <0.3 | 2188 | 92  | 1051 | 3.80 | <2  | <8  | <2  | <2  | <1  | <0.5 | 9   | <3  | 21  | 0.05 |    |
| 08PCL093  | Rock | <1  | 7   | <3  | 10  | <0.3 | 1966 | 90  | 829  | 4.61 | <2  | <8  | <2  | <2  | <1  | 0.6  | 8   | 4   | 9   | 0.19 |    |
| 08PXB241  | Rock | <1  | 11  | 4   | 12  | <0.3 | 2448 | 102 | 875  | 4.54 | <2  | <8  | <2  | <2  | <1  | 0.6  | 10  | <3  | 15  | 0.04 |    |

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Project: None Given  
 Report Date: June 02, 2009

Page: 3 of 3 Part 2

CERTIFICATE OF ANALYSIS

VAN09001837.1

| Method         | 1D     | 1D  | 1D   | 1D    | 1D  | 1D    | 1D  | 1D   | 1D    | 1D    | 1D  | 1D    |
|----------------|--------|-----|------|-------|-----|-------|-----|------|-------|-------|-----|-------|
| Analyte        | P      | La  | Cr   | Mg    | Ba  | Ti    | B   | Al   | Na    | K     | W   | S     |
| Unit           | %      | ppm | ppm  | %     | ppm | %     | ppm | %    | %     | %     | ppm | %     |
| MDL            | 0.001  | 1   | 1    | 0.01  | 1   | 0.01  | 20  | 0.01 | 0.01  | 0.01  | 2   | 0.05  |
| 08RMB129 Rock  | <0.001 | 2   | 1134 | 16.18 | <1  | <0.01 | 76  | 0.41 | <0.01 | <0.01 | 3   | <0.05 |
| 08RMB132 Rock  | <0.001 | 2   | 535  | 17.49 | <1  | <0.01 | <20 | 0.10 | <0.01 | <0.01 | 3   | <0.05 |
| 08RMB152 Rock  | <0.001 | 3   | 1067 | 22.76 | <1  | <0.01 | 101 | 0.25 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB155 Rock  | <0.001 | 2   | 317  | 20.32 | <1  | <0.01 | <20 | 0.08 | <0.01 | <0.01 | 2   | <0.05 |
| 08RMB205 Rock  | <0.001 | 3   | 520  | 16.31 | <1  | <0.01 | 23  | 0.09 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB226 Rock  | <0.001 | 3   | 610  | 18.36 | <1  | <0.01 | <20 | 0.14 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB228 Rock  | <0.001 | 3   | 1435 | 20.54 | <1  | <0.01 | <20 | 0.26 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB240L Rock | 0.003  | 3   | 1275 | 21.83 | 2   | <0.01 | <20 | 0.24 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB227L Rock | <0.001 | 3   | 838  | 18.96 | <1  | <0.01 | <20 | 0.18 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB261L Rock | 0.002  | 3   | 1173 | 20.36 | <1  | <0.01 | <20 | 0.25 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB214L Rock | <0.001 | 3   | 1677 | 21.55 | 2   | <0.01 | 22  | 0.63 | <0.01 | <0.01 | <2  | <0.05 |
| 07PXB028L Rock | 0.002  | 3   | 824  | 19.23 | <1  | <0.01 | <20 | 0.27 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB205L Rock | <0.001 | 2   | 859  | 16.80 | 4   | <0.01 | <20 | 0.12 | <0.01 | <0.01 | <2  | <0.05 |
| 08RMB241L Rock | 0.001  | 3   | 1207 | 20.47 | <1  | <0.01 | 25  | 0.19 | <0.01 | <0.01 | <2  | <0.05 |
| 08PCL093 Rock  | <0.001 | 3   | 368  | 18.88 | <1  | <0.01 | <20 | 0.11 | 0.02  | <0.01 | <2  | <0.05 |
| 08PXB241 Rock  | <0.001 | 3   | 633  | 20.31 | <1  | <0.01 | <20 | 0.22 | <0.01 | <0.01 | <2  | <0.05 |

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Project: None Given  
 Report Date: June 02, 2009

Page: 1 of 1 Part 1

QUALITY CONTROL REPORT

VAN09001837.1

| Method              | WGHT       | 1D  | 1D  | 1D  | 1D  | 1D   | 1D   | 1D  | 1D   | 1D    | 1D  | 1D  | 1D   | 1D  | 1D  | 1D   | 1D  | 1D  | 1D  | 1D    | 1D |
|---------------------|------------|-----|-----|-----|-----|------|------|-----|------|-------|-----|-----|------|-----|-----|------|-----|-----|-----|-------|----|
| Analyte             | Wgt        | Mo  | Cu  | Pb  | Zn  | Ag   | Ni   | Co  | Mn   | Fe    | As  | U   | Au   | Th  | Sr  | Cd   | Sb  | Bi  | V   | Ca    |    |
| Unit                | kg         | ppm | ppm | ppm | ppm | ppm  | ppm  | ppm | ppm  | %     | ppm | ppm | ppm  | ppm | ppm | ppm  | ppm | ppm | ppm | %     |    |
| MDL                 | 0.01       | 1   | 1   | 3   | 1   | 0.3  | 1    | 1   | 2    | 0.01  | 2   | 8   | 2    | 2   | 1   | 0.5  | 3   | 3   | 1   | 0.01  |    |
| Pulp Duplicates     |            |     |     |     |     |      |      |     |      |       |     |     |      |     |     |      |     |     |     |       |    |
| 08PXB225            | Rock       | <1  | 3   | <3  | 18  | <0.3 | 2291 | 99  | 830  | 4.55  | <2  | 11  | <2   | <2  | <1  | 0.8  | 7   | <3  | 13  | 0.06  |    |
| REP 08PXB225        | QC         | <1  | 3   | <3  | 18  | <0.3 | 2274 | 97  | 865  | 4.52  | <2  | <8  | <2   | <2  | <1  | 0.7  | 6   | <3  | 13  | 0.06  |    |
| 08RMB240L           | Rock       | <1  | 16  | 6   | 12  | <0.3 | 2480 | 104 | 1044 | 4.83  | <2  | <8  | 3    | <2  | <1  | 0.5  | 11  | <3  | 24  | 0.02  |    |
| REP 08RMB240L       | QC         | <1  | 16  | <3  | 11  | <0.3 | 2355 | 100 | 1042 | 4.67  | <2  | <8  | 3    | <2  | <1  | 0.6  | 11  | <3  | 24  | 0.02  |    |
| Reference Materials |            |     |     |     |     |      |      |     |      |       |     |     |      |     |     |      |     |     |     |       |    |
| STD DS7             | Standard   | 18  | 97  | 59  | 376 | 1.1  | 50   | 8   | 595  | 2.29  | 42  | 11  | <2   | 3   | 65  | 5.2  | 5   | <3  | 73  | 0.89  |    |
| STD DS7             | Standard   | 19  | 99  | 65  | 384 | 0.8  | 50   | 8   | 624  | 2.33  | 44  | 14  | <2   | 5   | 67  | 5.4  | 4   | <3  | 76  | 0.90  |    |
| STD DS7             | Standard   | 21  | 109 | 71  | 413 | 1.0  | 54   | 9   | 666  | 2.53  | 52  | 10  | <2   | 5   | 75  | 5.6  | 3   | <3  | 81  | 0.97  |    |
| STD DS7             | Standard   | 20  | 111 | 72  | 410 | 0.8  | 53   | 9   | 677  | 2.49  | 51  | <8  | <2   | 4   | 75  | 5.6  | 5   | 5   | 80  | 0.97  |    |
| STD DS7 Expected    |            | 21  | 109 | 71  | 411 | 0.9  | 56   | 10  | 627  | 2.39  | 48  | 5   | 0.07 | 4   | 68  | 6.4  | 5   | 5   | 84  | 0.93  |    |
| BLK                 | Blank      | <1  | <1  | <3  | <1  | <0.3 | <1   | <1  | <2   | <0.01 | <2  | <8  | <2   | <2  | <1  | <0.5 | <3  | <3  | <1  | <0.01 |    |
| BLK                 | Blank      | <1  | <1  | <3  | <1  | <0.3 | <1   | <1  | <2   | <0.01 | <2  | <8  | <2   | <2  | <1  | <0.5 | <3  | <3  | <1  | <0.01 |    |
| Prep Wash           |            |     |     |     |     |      |      |     |      |       |     |     |      |     |     |      |     |     |     |       |    |
| G1                  | Prep Blank | <1  | 1   | <3  | 44  | <0.3 | 5    | 4   | 550  | 2.05  | <2  | <8  | <2   | 4   | 63  | <0.5 | <3  | <3  | 37  | 0.55  |    |
| G1                  | Prep Blank | <1  | 1   | <3  | 43  | <0.3 | 4    | 4   | 523  | 1.80  | <2  | 8   | <2   | 4   | 55  | <0.5 | <3  | <3  | 36  | 0.51  |    |

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval, preliminary reports are unsigned and should be used for reference only.

**QUALITY CONTROL REPORT**

**VAN09001837.1**

| Method                     | 1D         | 1D     | 1D  | 1D   | 1D    | 1D   | 1D    | 1D   | 1D    | 1D    | 1D    | 1D   | 1D    |
|----------------------------|------------|--------|-----|------|-------|------|-------|------|-------|-------|-------|------|-------|
| Analyte                    | P          | La     | Cr  | Mg   | Ba    | Ti   | B     | Al   | Na    | K     | W     | S    |       |
| Unit                       | %          | ppm    | ppm | %    | ppm   | %    | ppm   | %    | %     | %     | ppm   | %    |       |
| MDL                        | 0.001      | 1      | 1   | 0.01 | 1     | 0.01 | 20    | 0.01 | 0.01  | 0.01  | 2     | 0.05 |       |
| <b>Pulp Duplicates</b>     |            |        |     |      |       |      |       |      |       |       |       |      |       |
| 08PXB225                   | Rock       | <0.001 | 2   | 510  | 19.39 | <1   | <0.01 | <20  | 0.15  | <0.01 | <0.01 | <2   | <0.05 |
| REP 08PXB225               | QC         | <0.001 | 2   | 504  | 19.69 | <1   | <0.01 | <20  | 0.15  | <0.01 | <0.01 | <2   | <0.05 |
| 08RMB240L                  | Rock       | 0.003  | 3   | 1275 | 21.83 | 2    | <0.01 | <20  | 0.24  | <0.01 | <0.01 | <2   | <0.05 |
| REP 08RMB240L              | QC         | 0.003  | 3   | 1245 | 21.32 | 1    | <0.01 | <20  | 0.23  | <0.01 | <0.01 | <2   | <0.05 |
| <b>Reference Materials</b> |            |        |     |      |       |      |       |      |       |       |       |      |       |
| STD DS7                    | Standard   | 0.068  | 10  | 187  | 0.97  | 404  | 0.11  | 29   | 0.95  | 0.08  | 0.45  | 3    | 0.17  |
| STD DS7                    | Standard   | 0.070  | 11  | 194  | 1.01  | 412  | 0.11  | 30   | 0.99  | 0.08  | 0.46  | 3    | 0.18  |
| STD DS7                    | Standard   | 0.073  | 12  | 210  | 1.10  | 448  | 0.13  | 33   | 1.10  | 0.09  | 0.51  | 3    | 0.19  |
| STD DS7                    | Standard   | 0.072  | 12  | 210  | 1.11  | 444  | 0.13  | 39   | 1.09  | 0.10  | 0.50  | 2    | 0.19  |
| STD DS7 Expected           |            | 0.08   | 13  | 179  | 1.05  | 370  | 0.124 | 39   | 0.959 | 0.073 | 0.44  | 4    | 0.19  |
| BLK                        | Blank      | <0.001 | <1  | <1   | <0.01 | <1   | <0.01 | <20  | <0.01 | <0.01 | <0.01 | <2   | <0.05 |
| BLK                        | Blank      | <0.001 | <1  | <1   | <0.01 | <1   | <0.01 | <20  | <0.01 | <0.01 | <0.01 | <2   | <0.05 |
| <b>Prep Wash</b>           |            |        |     |      |       |      |       |      |       |       |       |      |       |
| G1                         | Prep Blank | 0.090  | 6   | 9    | 0.61  | 258  | 0.14  | <20  | 1.03  | 0.09  | 0.55  | <2   | <0.05 |
| G1                         | Prep Blank | 0.078  | 6   | 9    | 0.57  | 238  | 0.13  | <20  | 0.96  | 0.07  | 0.50  | <2   | <0.05 |

## APPENDIX IIB ACME VERSES NITON TOTAL NICKEL COMPARISON

Since 2007 the accuracy and precision of the Niton NLP 502 analyser that is used in the field has been studied (see Appendix IV). Selected samples taken during the 2008 field season were analyzed by Acme labs using package 1-D. The results from Acme labs were compared to data acquired from the Niton analyzer (Figure 11). A weak correlation ( $R^2=0.244$ ) suggests that higher Ni concentrations yields lower values from the analyser.

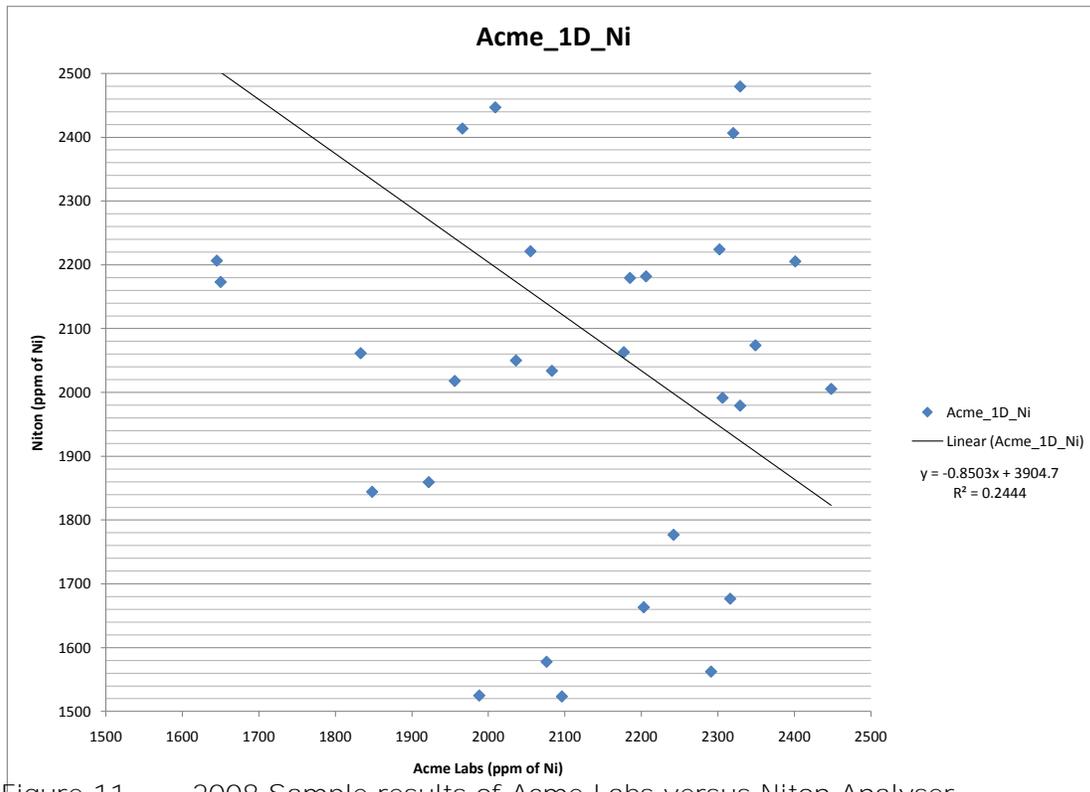


Figure 11 2008 Sample results of Acme Labs versus Niton Analyser

Element concentrations from the Niton analyser were often under or over-reported compared to Acme analytical results. In instances when the Ni concentration was under reported by the analyser, it is speculated that a slight nugget effect may be produced due to the majority of the results have disseminated medium to coarse grained awaruite exceeding 0.08%. This is evident in samples 08RMB132, 08RMB126, and 08PXB225. When element concentrations were over reported by the analyser, **the analyser's Ni** reading was found to be erroneous by factors of 1.2 to 1.9. Higher Ni Niton values compared to Acme data, could be related to the presence of chromite and, to a lesser extent, magnetite. The presence of chromite may greatly reduce the accuracy of the **analyser's ability to detect nickel, as seen from chromite**-bearing samples 08RMB103, 08RMB110 and 08RMB129 (see Appendix I *in* Britten, 2008). A weaker correlation also exists between vein related magnetite and a reduction of the accuracy of Ni readings.

## **APPENDIX III SEDIMENT SAMPLE DATA**

| Sample No | Easting | Northing | Sediment | Notes                    | Ni   |
|-----------|---------|----------|----------|--------------------------|------|
| 09PXB028s | 346564  | 608497   | standard | sed, volc, ?             | 1781 |
| 09PXB030s | 344763  | 608407   | standard | sed, volc                | 0    |
| 09PXB031s | 344995  | 608410   | standard | sed, volc, other         | 829  |
| 09PXB032s | 341680  | 6078581  | standard | volc, sed, int           | 0    |
| 09PXB033s | 345106  | 6079711  | standard | FeOx stain peb, sed, phy | 0    |
| 09PXB034s | 343648  | 6080867  | standard | sed, other               | 852  |
| 09PXB035s | 352304  | 6084000  | standard | ?, int, volc, sed, other | 1816 |
| 09PXB036s | 351105  | 6083123  | standard | volc, (?), other         | 2778 |
| 09KNB001s | 350235  | 6084427  | standard |                          | 2011 |
| 09KNB002s | 350198  | 6084471  | standard |                          | 4791 |
| 09KNB003s | 349591  | 6084949  | standard |                          | 1938 |
| 09KNB004s | 349809  | 6084496  | standard |                          | 3559 |
| 09RMB003s | 349152  | 6085143  | standard |                          | 2403 |
| 09RMB006s | 349279  | 6085136  | standard |                          | 3561 |
| 09RMB007s | 349387  | 6085115  | standard |                          | 2805 |
| 09RMB008s | 349454  | 6085102  | standard |                          | 1818 |
| 09RMB009s | 349470  | 6085040  | standard |                          | 2682 |
| 09RMB013s | 348907  | 6089739  | standard |                          | 2735 |
| 09RMB014s | 349146  | 6089740  | standard |                          | 2572 |
| 09RMB016s | 349220  | 6089743  | standard |                          | 2613 |
| 09RMB017s | 349769  | 6089787  | standard |                          | 2593 |
| 09RMB018s | 349727  | 6089873  | standard |                          | 2213 |
| 09RMB019s | 349522  | 6089506  | standard |                          | 2366 |
| 09RMB023s | 349317  | 6089294  | standard |                          | 2545 |
| 09RMB025s | 347926  | 6090504  | standard |                          | 2649 |
| 09RMB027s | 347851  | 6090555  | standard |                          | 1462 |
| 09RMB028s | 347593  | 6090803  | standard |                          | 3903 |
| 09RMB029s | 347424  | 6091218  | standard |                          | 1213 |
| 09RMB037s | 349639  | 6082893  | standard |                          | 3751 |
| 09RMB038s | 350166  | 6084308  | standard |                          | 2625 |
| 09RMB039s | 349962  | 6084466  | standard |                          | 2531 |
| 09RMB045s | 349404  | 6084641  | standard |                          | 2111 |
| 09PXB046s | 349528  | 6082830  | standard |                          | 909  |
| 09PXB047s | 346835  | 6082490  | standard |                          | 3227 |
| 09PXB048s | 346427  | 6081411  | standard |                          | 1484 |
| 09RMB066s | 350002  | 6085613  | standard |                          | 1736 |

| Sample No  | Easting | Northing | Sediment | Notes | Ni   |
|------------|---------|----------|----------|-------|------|
| 09RMB 068s | 351001  | 6084776  | standard |       | 1604 |
| 09RMB 071s | 351271  | 6084442  | standard |       | 1735 |
| 09RMB 134s | 347566  | 6086850  | standard |       | 2742 |
| 09RMB 135s | 347659  | 6087813  | standard |       | 3419 |
| 09RMB 136s | 348148  | 6088728  | standard |       | 2783 |
| 09RMB 137s | 348909  | 6082788  | standard |       | 3062 |
| 09RMB 138s | 348388  | 6083244  | standard |       | 3151 |
| 09RMB 139s | 348129  | 6083369  | standard |       | 3844 |
| 09RMB 146s | 348146  | 6082680  | standard |       | 1834 |
| 09RMB 147s | 348718  | 6082680  | standard |       | 1215 |
| 09RMB 150s | 347128  | 6083450  | standard |       | 3022 |
| 09RMB 151s | 347168  | 6083461  | standard |       | 3091 |
| 09RMB 152s | 347249  | 6083799  | standard |       | 4116 |
| 09RMB 153s | 347259  | 6083809  | standard |       | 4711 |
| 09RMB 157s | 347350  | 6084310  | standard |       | 3810 |

## APPENDIX IV MEMO: TESTS OF NITON NLP 502 ANALYZER

Author Peter Bradshaw - December 2007

A series of test were run to determine how to most effectively use this analyser, to check the precision and accuracy under various conditions and to determine the effect of variables such as: different styles of sample presentation (pulps in mylar holders, pulps in baggies, pulps in field bags, hand specimens, cut surfaces); effect of moisture; effect of surface roughness and air gaps; etc. This work was focused on Ni, with some attention paid to Fe and Cr.

### GENERAL CONCLUSIONS

1. For *single* measurement of 30 sec of *outcrop or hand samples* in the field for Ni, Fe and Cr can be in the +100% - 60% range and can be used for *very general* conclusions only.
2. The precision generally improves x2 when the count time is increased by x4 as predicted by the manufacturers, while at the same time the detection limit reduced by approximately x2.
3. For *outcrop or hand specimens* a better result is obtained by taking readings from different samples rather than taking several readings from the same sample, and the more readings taken the better the precision. For the same parameters considerably better precision is obtained from Ni and Fe than for Cr (probably due to the coarse grained nature of the chromite)
4. *Averaging 3 to 4 or 6 analyses from different parts of an outcrop or hand samples with a 60 sec count is a good compromise between speed and accuracy.* To increase the reliability increase the number of different places analysed rather than time.
5. Multiple readings *for pulps* in the mylar holders (plastic containers with thin film support on the base with a thickness of 6 microns) all fall with the +/- range stated by the analyser which is approximately +/- 10% for Ni, 2% for Fe and 12% for Cr at the concentration levels tested and a counting time of 60 seconds used. The improvement in accuracy by averaging 3 readings for homogenized *pulps* samples is very marginal. It would be better to increase the counting time on the *pulps* rather than averaging several readings.
6. For Ni and Fe the mean difference between the 3 readings on a single *cut surfaces* on samples (i.e. the variability of reading on one sample) is a bit worse for cut surfaces than pulp and much worse for hand specimens indicating that the roughness of the surface is a greater cause of poor precision than variable content of metal within the sample.
7. The detector resolution is tested by the shutter calibration each time calibration is done and displayed on the screen and should be in the order of 220 keV
8. Using the ACME samples as standards the analyser was *recalibrated*.
9. The light weight "snack baggies" do not degrade the signal for the 3 elements tested any more than the 6 $\mu$  thin film support in the mylar holders and therefore can be used

in the field with the same reliability as the mylar holders for soil and sediment samples (keeping in mind the need to also homogenize the samples and to dry them – see paragraph 12 below). Paper and field plastic bags degrade the signal by ~20% for Ni, ~30% for Fe and ~ 50% for Cr. These figures double with a double thickness of paper. A 2.5mm air gap reduces the value by ~ 5% for Ni, 30% for Fe and Cr; a 5mm gap by ~20%, 50% and 50% and a 10mm gap by ~40%, 60% and 60%. Therefore a 1mm gap, probably a very common occurrence on outcrop samples, can be expected to reduce the value by ~5% for Ni and 10 to 20% for Fe and Cr.

10. For wet *sediment samples* the value was reduced by the same % whether the sample was just wet enough to get it damp or if there was free standing water. For Ni this reduction was ~40% at 1,500 ppm Ni dry, ~25% at 1,000 ppm Ni dry and ~20% at 500 ppm Ni dry.

For Fe the reduction was ~ 35% between 3 and 4% Fe dry.

Fe Cr the reduction was ~ 30% between 1,500 and 3,000 ppm Cr.

The same would apply to soil samples.

For soil and sediment samples, if they are dried and sieved the field, with a 60 second count should have an accuracy of 10% and detection limit of ~250 ppm.



## **DETAILS of CONCLUSIONS**

### **1. Field Results vs Acme Lab results**

Initially 72 individual hand samples were analysed once in the field camp on Aug 9/07 with a single 30 second reading using the factory calibration, and later analysed by Acme by their standard hot HCl-HNO<sub>3</sub> extraction except using a 15gm sample.

#### **Conclusions**

- *For a single 30 sec reading on outcrop the Ni field results can be anywhere from +100% to – 60% of the analytical result.*
- *Field results taken in this manner should only be used for broad general conclusions about the Ni level, e.g. to insure all samples >1,500ppm Ni are collected all samples with a single field reading of 30 seconds >750 need to be collected.*
- 

### **2. Multiple Readings of the Same Sample to Check Homogeneity and Reproducibility of the Pulp**

Some of the pulps from the 72 samples from 1 above were obtained from Acme and mounted in the mylar holders and held in the Niton stand. A series of tests were run by analysing several pulps 6 times each using the factory calibration and a 60 second count. For the first 3

readings the sample was undisturbed. Between each of the next 3 the sample was shaken and rotated to mix the pulp in the holder.

Conclusions

- Multiple readings for pulps in the mylar holders all fall with the +/- range stated by the analyser which is approximately +/- 10% for Ni, 2% for Fe and 12% for Cr at the concentration levels tested and a counting time of 60 seconds used.
- The pulps are reasonably homogeneous as they give the same readings on average if they were undisturbed or shaken and rotated between readings.
- A graph of pulps vs Acme results for shows correlations of  
 For Ni  $y = 1.145 + 262, R^2 = 0.86$   
 For Fe  $y = 0.589 + 2.11, R^2 = 0.682$   
 For Cr  $y = 0.719 - 224, R^2 = 0.154$
- The analyser was recalibrated using these factors from this time on.

**3. Multiple vs Single Readings on Pulps Mylar Mounted**

A few samples were examined to see what the improvement would be in the correlation to the Acme results by analysing the mylar mounted pulps 3 times and comparing the average to analyzing them once only. Counting time was 60 sec. The results were as follows:

| Element | R <sup>2</sup> with average of 3 analysis | R <sup>2</sup> against 1 <sup>st</sup> analysis only | R <sup>2</sup> against 2 <sup>nd</sup> analysis only |
|---------|---|--|--|
| Ni      | 0.88                                      | 0.84   | 0.84   |
| Fe      | 0.80                                      | 0.80   | 0.81   |
| Cr      | 0.19                                      | 0.16   |  |

Conclusion

- The improvement in accuracy by averaging 3 readings for homogenized pulp samples is very marginal. It would be better to increase the counting time on the pulps rather than averaging several readings, see item 7 below.

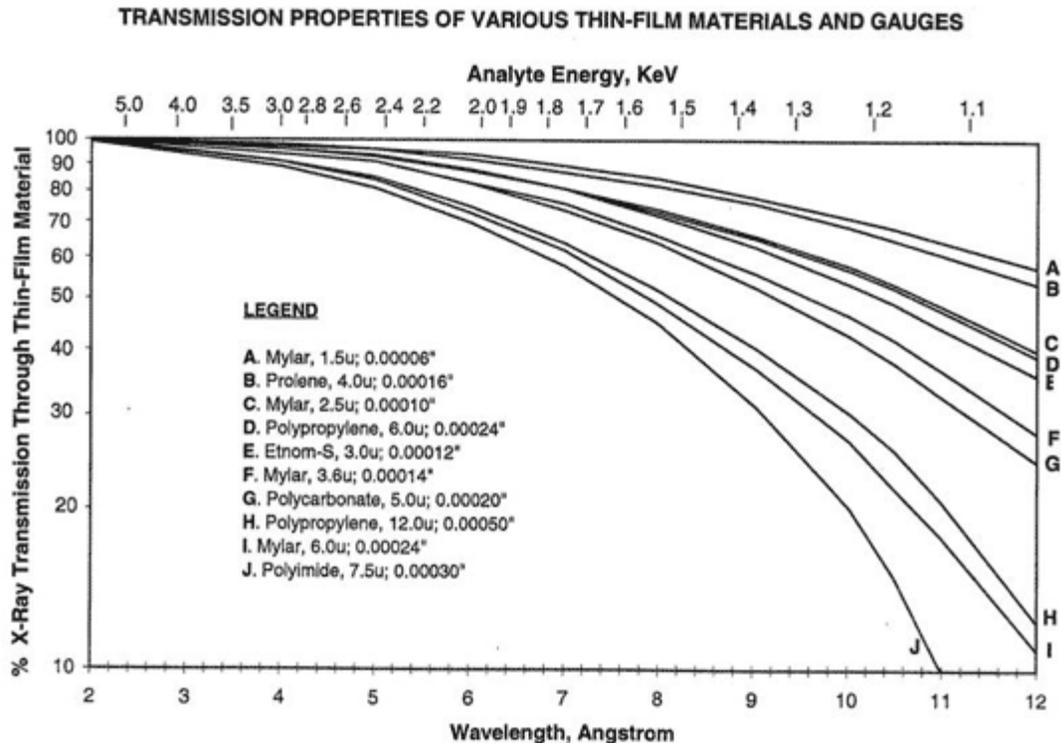
**4. Effect of analysing with different coverings and different air gaps**

Experiments were run on Ni, Fe and Cr with results, which are average of 4 samples, as follows.

|  | % difference from Acme value |      |        |
|--|------------------------------|------|--------|
|  | Ni ppm                       | Fe % | Cr ppm |
| <i>Atomic No</i>                                 | 28                           | 26   | 24     |
| <i>Analyte Energy, K<math>\alpha</math>, KeV</i> | 7.48                         | 6.40 | 5.41   |
| 6 $\mu$ Mylar - not moved                        | 105                          | 70   | 97     |
| Snack bag - not moved                            | 108                          | 71   | 109    |
| snack bag - moved                                | 106                          | 72   | 103    |
| lab paper bag for pulps - not moved              | 80                           | 46   | 43     |
| lab paper bag for pulps - moved                  | 74                           | 47   | 42     |

|  |    |    |    |
|--|----|----|----|
| double lab paper bag (at end) - moved      | 58 | 29 | 18 |
| Plastic field bag                          | 81 | 72 | 55 |
| 6 $\mu$ Mylar + 2.5 mm air gap - not moved | 95 | 56 | 72 |
| 6 $\mu$ Mylar + 5 mm air gap - not moved   | 80 | 50 | 50 |
| 6 $\mu$ Mylar + 10 mm air gap - not moved  | 61 | 42 | 38 |

Data provided by Niton in their Nov 6/05 Applications Update shows the x-ray transmission properties of various thin films. FP is using the 6 $\mu$  Mylar film provided by Niton, - curve “I” in the figure below.



NOTE, for the elements FP is using the atomic number is >24 and the KeV >5.9

### Conclusions

#### *X-ray penetration*

- For the 3 elements tested the response to different coverings and air gaps is roughly proportional to their atomic No i.e. the lower the atomic No the greater the effect of thicker coverings and bigger air gaps
- The light weight “snack baggies” do not degrade the signal for the 3 elements tested any more than the 6 $\mu$  Mylar
- Paper and field plastic bags degrade the signal by ~20% for Ni, ~30% for Fe and ~50% for Cr. These figures double with a double thickness of paper
- A 2.5mm air gap reduces the value by ~5% for Ni, 30% for Fe and Cr; a 5mm gap by ~20%, 50% and 50% and a 10mm gap by ~40%, 60% and 60%. Therefore a 1mm gap, probably a very common occurrence on outcrop samples, can be expected to reduce the value by ~5% for Ni and 10 to 20% for Fe and C.

## 5. Outcrop homogeneity

At several locations in the field multiple hand specimen sized samples were collected over several 10's of m<sup>2</sup> and have been retained. For 2 of these multiple specimen samples 8 individual "hand specimens" were analysed 3 times each so the variation within a hand specimen vs multiple samples from a larger outcrop could be assessed. Results were as follows

| <b>07PXB074B</b>   | <b>Acme value (not available yet)</b> |      |     |
|--|---------------------------------------|------|-----|
|  | Ni                                    | Fe   | Cr  |
| "total average" i.e. arithmetic avg of all 3 readings of the 8 samples, i.e. 24 readings   | 2290                                  | 3.63 | 673 |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 3 samples and "total avg." | 170                                   | .14  | 131 |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 4 samples and "total avg." | 117                                   | .10  | 98  |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 5 samples and "total avg." | 90                                    | .07  | 72  |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 6 samples and "total avg." | 31                                    | .03  | 77  |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 7 samples and "total avg." | 11                                    | .02  | 124 |
| Diff. between avg of 1 <sup>st</sup> reading on all 8 samples and "total avg."             | 46                                    | .00  | 124 |
| Diff. between avg of 2 <sup>nd</sup> reading on all 8 samples and "total avg."             | 25                                    | .06  | 53  |
| Diff. between avg of 3 <sup>ed</sup> reading on all 8 samples and "total avg."             | 21                                    | .06  | 56  |

| <b>07PXB076B</b>   | <b>Acme value (not available yet)</b> |      |     |
|--|---------------------------------------|------|-----|
|  | Ni                                    | Fe   | Cr  |
| "total average" i.e. arithmetic avg of all 3 readings of the 7 samples, i.e. 21 readings   | 2227                                  | 3.62 | 423 |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 3 samples and "total avg." | 38                                    | .32  | 427 |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 4 samples and "total avg." | 39                                    | .15  | 258 |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 5 samples and "total avg." | 71                                    | .05  | 122 |
| Diff. between avg of 1 <sup>st</sup> reading on 1 <sup>st</sup> 6 samples and "total avg." | 35                                    | .03  | 111 |
| Diff. between avg of 1 <sup>st</sup> reading on all 7 samples and "total avg."             | 69                                    | .04  | 218 |
| Diff. between avg of 2 <sup>nd</sup> reading on all 7 samples and "total avg."             | 42                                    | .06  | 40  |
| Diff. between avg of 3 <sup>ed</sup> reading on all 7 samples and "total avg."             | 130                                   | .02  | 101 |

### Conclusions

- *A better result is obtained by taking results from different samples rather than taking 2 or more readings from the same sample.*
- *Obviously the more readings the better but a minimum 3 and preferably 5 to 6 readings appears a reasonable compromise.*
- *Considerably better precision is obtained from Ni and Fe than Cr*

## 6. Comparison of pulps vs cut surface vs hand specimen/outcrop

Using the 22 samples analyses were completed to judge the effect of analysing different surfaces. Summary below.

|  | ACME               | NITON    |             |              |
|--|--------------------|----------|-------------|--------------|
|  | Avg of all samples | Pulps    | Cut surface | Hand Samples |
| Number of samples  |                    | 22       | 6           | 22           |
| <b>Ni</b>  | <b>2173</b>        |          |             |              |
| Mean difference from the average value of the 3 readings (%) |                    | 3.3      | 4.2         | 9.0          |
| Correlation with Acme - R <sup>2</sup>                       |                    | 0.69     | 0.84        | 0.49         |
| Difference of average of all samples Acme / Niton            |                    | -276     | -292        | -322         |
| % difference between avg. Acme and avg. Niton                |                    | -12.7    | -13.4       | -14.8        |
| <b>Fe</b>  | <b>4.57</b>        |          |             |              |
| Mean difference from the average value of the 3 readings (%) |                    | 1.1      | 2.7         | 7.1          |
| Correlation with Acme - R <sup>2</sup>                       |                    | 0.73     | 0.36        | 0.45         |
| Difference of average of all samples Acme / Niton            |                    | 1.70     | 1.92        | 1.52         |
| % difference between avg. Acme and avg. Niton                |                    | 37.2     | 42.0        | 33.2         |
| <b>Cr</b>  | <b>920</b>         |          |             |              |
| Mean difference from the average value of the 3 readings (%) |                    | 7        | 21.6        | 20.8         |
| Correlation with Acme - R <sup>2</sup>                       |                    | negative | 0.11        | negative     |
| Difference of average of all samples Acme / Niton            |                    | 503      | 263         | 661          |
| % difference between avg. Acme and avg. Niton                |                    | 54.7     | 28.6        | 71.8         |
| Mean difference from the average value of the 3 readings (%) |                    | 7        | 21.6        | 20.8         |

### Conclusions

*These conclusions are based on a very limited sample set and so are preliminary*

- *For Ni and Fe the mean difference between the 3 readings on a single samples (i.e. the variability of reading on one sample) is a bit worse for cut surfaces than pulp and much worse for hand specimens indicating that the roughness of the surface is a greater cause of poor precision than variable content of metal within the sample*
- *The cut-surface and pulps have very roughly the same correlation with the Acme samples for the individual readings. The hand specimen surface results are significantly worse.*

- *The AVERAGE % difference, i.e. the difference between the average Ni in all 22 samples and the same for the 3 surfaces tested are only  $\sim\pm 15\%$ . Fe and Cr are quite a bit worse.*

## **7. Effect of Moisture**

Three stream sediment samples were analyzed in a baggie. First sample analyzed dry, second sample dampened throughout with water and third totally saturated with water.

### Conclusions

- *The analytical value was reduced by the same % whether the sample was just enough water to get it damp or if there was free standing water.*
- *For Ni this reduction was  $\sim 40\%$  at 1,500 ppm Ni dry  
 $\sim 25\%$  at 1,000 ppm Ni dry  
 $\sim 20\%$  at 500 ppm Ni dry*
- *For Fe the reduction was  $\sim 35\%$  between 3 and 4% Fe dry*
- *Fe Cr the reduction was  $\sim 30\%$  between 1,500 and 3,000 ppm Cr*

## **APPENDIX V PETROGRAPHIC DESCRIPTIONS**

| sample #                         | olivine   |        | cpx   |        | serp   | trem | brucite | magnetite | chromite | awaruite       | ni sulphide | talc           |
|----------------------------------|---|--------|-------|--------|--------|------|---------|-----------|----------|----------------|-------------|----------------|
|                                  | fresh   | psuedo | fresh | psuedo |        |      |         |           |          |                |             |                |
| 09RMB 140                        | √   | √      | √     | √      | 70-80% | ?    |         | √√        | √        | √              |             | cal-talc vlets |
| pseudo breccia                   | • awar is triangular rods; rare mt with awar incl (<20μ); <5 and 50-150μ euhedral chr                             |        |       |        |        |      |         |           |          |                |             |                |
| crude layering                   | • secondary ol? Dog-tooth spar-appearing mantles on ol(?) clear cleavage displayed - something else               |        |       |        |        |      |         |           |          |                |             |                |
| blk-grn serp matrix              | • aggregate or aggregate-cumulate opx   |        |       |        |        |      |         |           |          |                |             |                |
| variable grn patches             | • mt is <5-500μ   |        |       |        |        |      |         |           |          |                |             |                |
| 09RMB 155                        | √   |        | 5-10% |        | 60-70% |      |         | √         | √        | √              |             |                |
| pseudo breccia                   | • irregular equant, rare triangular awaruite <5μ and 50-100μ, local mt mantle                                     |        |       |        |        |      |         |           |          |                |             |                |
| large crystals, px + frags       | • bx to pseudobreccia; definite opx   |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • disseminated mt <5μ, commonly 5μ  |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • chromite /w irreg-embayed margins >500μ   |        |       |        |        |      |         |           |          |                |             |                |
| 09RMB 156                        |   |        |       |        |        |      |         |           |          |                |             |                |
| gabbro? harzburgite?             | • hb rich, possible alteration? anorthite-gabbro /w sphere, strongly pleochroic homblende with poikilitic texture |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • cpy+py disseminated as 5-9μ grains; local py-cpy mantled by biotite; cpy <310μ                                  |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • mt 5μ disseminated  |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • anorthite has low relief; 2nd grain has higher relief   |        |       |        |        |      |         |           |          |                |             |                |
| 09RMB 158                        |   |        |       |        | >90%   |      |         | √         | √        | 1, fg          | ?           |                |
| fine grained gy                  | • probe remnants and micro veinlets /w fresh, fg awaruite <5-10μ widely spread disseminated; minor sulph?         |        |       |        |        |      |         |           |          |                |             |                |
| ghost microfracture veinlets /w  | • awaruite is present as mainly micro fracture infills and micro veinlets   |        |       |        |        |      |         |           |          |                |             |                |
| serpentine                       | • euhedral chr crystals, mantled by mt?   |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • interlocking, low-relief serp   |        |       |        |        |      |         |           |          |                |             |                |
| 09RMB 162                        |   |        |       |        |        | ?    | ?       | √         | √        | √              |             |                |
| pseudo breccia                   | • variable textures in awaruite - serrated, triangular, irregular-equant, and bladed                              |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • core spongy chr? Texture enclosed by mt   |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • trem? Epi? High relief, high birefringence, not pleochroic, splintery shark tooth-like crystals                 |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • post-serpentine-veinlets, high Ca >3%, +Na, low Mg. Shark tooth spar-like texture                               |        |       |        |        |      |         |           |          |                |             |                |
| 09RMB 164                        |   | √      |       |        | 70%    | √    | ?       | √         | √        | 2 pops<br>> 2) | 1)          | √?             |
| fragments are fine grained, grey | • composite: awar mantled by mt + later pent in peridot; larger comp in fg grey unit, less in c.g. dunite         |        |       |        |        |      |         |           |          |                |             |                |
| same as 158 in peridotite        | • interlocked shreddy serpentinite  |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • core is chr mantled by Fe-rich mt; abundant fg gy   |        |       |        |        |      |         |           |          |                |             |                |
| 09RMB 164                        | √   |        |       |        | 60%    |      |         |           |          | √              | √           |                |
| later fg ol                      | • ol shattered showing serpentine alteration  |        |       |        |        |      |         |           |          |                |             |                |
|                                  | • >100μ composites - awaruite mantled by pentlandite / heazlewoodite; vfg <5-100μ: awaruite is disseminated       |        |       |        |        |      |         |           |          |                |             |                |

