



## ASSESSMENT REPORT TITLE PAGE AND SUMMARY

**TITLE OF REPORT:** Assessment Report for 2008 Diamond Drilling and Bulk Sampling on the MRM 1 Claim—Magnetite Ridge Project, Olivine Mountain, South-Central British Columbia, Canada.

**TOTAL COST:** \$148,541.62

**AUTHOR(S):** R. Whiteaker, P.Geo.

**SIGNATURE(S):** "Signed"

**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):** MX-4-522

**STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):** 4335228 and 4335190

**YEAR OF WORK:** 2008

**PROPERTY NAME:** Magnetite Ridge

**CLAIM NAME(S) (on which work was done):**

MRM 1

**COMMODITIES SOUGHT:** Magnetite, gold, platinum, vanadium

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:**

**MINING DIVISION:**

NTS / BCGS: NTS 092H 046

**LATITUDE:** 49° 29' 20"

**LONGITUDE:** 120° 53' \_\_\_\_\_" (at centre of work)

**UTM Zone:** NAD 83 10N    **EASTING:** 653,000    **NORTHING:** 5,484,000

**OWNER(S):**

Magnetite Metals and Minerals Ltd.

**MAILING ADDRESS:**

746 Carrier Rd.

Kamloops, B.C.

V2H 1G2

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

Magnetite Metals and Minerals Ltd.

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REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)

Ultramafic complex, hornblende clinopyroxenite, Lower Jurassic, greenschist facies, magnetite-platinum-gold-vanadium, southeast strike-steep west dip.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

Assessment Reports #11,888, 12,423, 16,323, and 17,819.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core	235.03m of NQ core in 2 holes; stored at Atlas Drilling yard Kamloops, B.C.	MRM 1	\$ 53,950.46

Non-core	Supervision, core- cutting, report writing, etc.	MRM 1	\$50,161.96
RELATED TECHNICAL	81	MRM 1	\$3,972.70
Sampling / Assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail	1,650m	MRM 1	\$25,509.75
Trench (number/metres)			
Underground development (metres)			
Other	Bulk Sample	400 tonne bulk sample	MRM 1 \$14,946.75
		<b>TOTAL COST</b>	\$148,541.62

**ASSESSMENT REPORT FOR 2008 DIAMOND DRILLING AND BULK  
SAMPLING ON THE MRM 1 CLAIM—MAGNETITE RIDGE  
PROJECT, OLIVINE MOUNTAIN SOUTH-CENTRAL  
BRITISH COLUMBIA, CANADA**

**BC Geological Survey  
Assessment Report  
31256**

**SIMILKAMEEN MINING DIVISION  
SOUTH-CENTRAL B.C.**

**NTS MAP SHEET: 092H 046  
UTM (NAD 83, ZONE 10N): 653,000E/5,484,000N  
LATITUDE: 49° 29'20" LONGITUDE: 120° 53'**

**For Owner-Operator:**

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**December 20 2009**

**(Amended July 8, 2010)**

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## 1.0 SUMMARY

This report presents the results from the mineral exploration work completed by Magnetite Ridge Metals and Minerals Ltd. (“MRMM” or “the Company”) on their MRM 1 claim between the dates of May 15 2008 and December 15 2008. Work was carried out under the authority of Mineral and Coal Exploration Activities and Reclamation Permit number MX-4-522. Costs filed for assessment total \$148,541.62. This report was amended by the Author July 8 2010. The only amendments to the report were in the Statement of Costs (Section 8.0) which was revised in greater detail. These changes are also reflected in the Assessment Report Title Page Summary.

The work conducted in 2008 on the Company’s MRM 1 claim was a preliminary exploration program aimed at examining the magnetite mineralization potential of an area containing bedrock exposure of magnetite-rich ultramafic rocks, as well as a well-defined strong geophysical magnetic anomaly. Diamond drilling tested an east-central portion of the anomaly, while the bulk sample pit investigated a part of the core of the anomaly, with the ultimate aim of developing a starter open-pit capable of delivering magnetite concentrates suitable for steel smelter feed and/or as a coal cleaning medium.

Historically, numerous companies have explored the Tulameen ultramafic complex but have primarily focused on minerals such as platinum, gold, chromite, olivine and copper. Most of this work has taken place to the north of the MRM 1 claim in areas adjacent to the Tulameen River basin in both placer and bedrock exploration. Some past work by other companies has also been directed on the regional Lodestone Mountain magnetite deposit.

The MRM 1 claim sits within the western edge of the elongate, northwest-trending and west-plunging Tulameen (Alaskan-type) ultramafic complex—a generally concentric intrusion body with more mafic phases in the core (dunite and olivine clinopyroxenite) and grading outwards towards less mafic phases (hornblende clinopyroxenite and gabbroic rocks). The magnetite deposit on the MRM 1 property is centrally underlain by medium to coarse-grained hornblende clinopyroxenite with olivine pyroxenite on the northeastern portion. Nicola Group volcanic and sedimentary rocks outcrop along the west-southwest side of the claim. A narrow section of gabbro has been mapped at the contact between Nicola Group rocks and hornblende clinopyroxenite along the southwest part of the MRM 1 claim.

A 2002 airborne geophysical survey (pole-dipole array IP and airborne geophysical survey—DIGHEM) performed by Bright Star Ventures Ltd. identified a distinct strong northwest-trending magnetic anomaly across the northern portion of the MRM 1 claim which extends northwest into adjacent claims. This magnetic anomaly is ‘dual-lobed’ with the south-eastern portion being the focus of work by the Company on the MRM 1 claim.

Drilling on the north-western corner of the MRM 1 claim was conducted between November 20, 2008 and December 10, 2008 by Atlas Drilling of Kamloops, B.C., and totaled 235.03 metres of non-oriented NQ-sized core in 2 drill-holes. All samples were assayed by Eco-Tech Laboratories of Kamloops, B.C. using multi-element analysis (Aqua-Regia digestion/ICPMS finish) with specific sections of interest receiving an additional Fire-Assay method for gold, platinum and palladium.

Testing for total magnetite percent of the samples was carried-out using a standard Davis-Tube apparatus at the Craigmont Laboratories, Merritt, B.C., and at UBC by BC Mining Research Ltd., Vancouver, B.C. Results of the Davis Tube analyses in both the 2008 holes were fairly consistent throughout, with average grades generally ranging between 20-25% magnetite. Higher percent magnetite is common in the upper portions of DDH 2008-C where grades of 25-35% magnetite were intersected. Locally, magnetite percent is lower (~10-20% magnetite) in zones containing narrow mafic hornblendite/micro-gabbro and/or basalt, or in sections of strong fault brecciation and shearing—typically less than 4 metres in core width.

Magnetite mineralization at the deposit occurs as fine to coarse disseminated grains/intergrowths and as centimetre-scale ‘bands’ or cumulate layers. Locally, the units are cut by both brittle faults and ductile to semi-ductile shear zones less than 0.5 metres wide. Typically these structures contain trace amounts of pyrite±chalcopyrite±arsenopyrite along fractures and within associated carbonate-quartz±chlorite veins.

In order to perform preliminary metallurgical and process testing on the deposit material, MMRM applied for, and received a bulk sample permit for a 1,000 tonne bulk sample (MX-4-405), which was updated by a subsequent 10,000 tonne bulk sample permit (MX-4-522). To date, the Company has excavated approximately 400 tonnes of bulk sample material from the core area of the deposit. The bulk sample consisted of magnetite-bearing bedrock which was transported to a stockpile on the northwest corner of the MRM 1 claim. Although no assays or tests were performed on this material in 2008, the excavated magnetite-rich hornblende clinopyroxenite appears to be similar in grade to that encountered in the 2008 diamond drilling program, with visual estimates of the magnetite content ranging between 15-25%.

An interval of elevated gold and silver mineralization was intersected in DDH 2008-C between 124-125 metres—5.57 g/t Au and 13.1 ppm Ag over 1 metre. The gold mineralization is associated with strong quartz-carbonate-arsenopyrite±pyrite±chalcopyrite veining and alteration in a semi-ductile shear zone. Note: this sampling and assay work is not included within the costs covering the period of this report as it was performed during a 2009 re-assaying program.

## **2.0 INTRODUCTION**

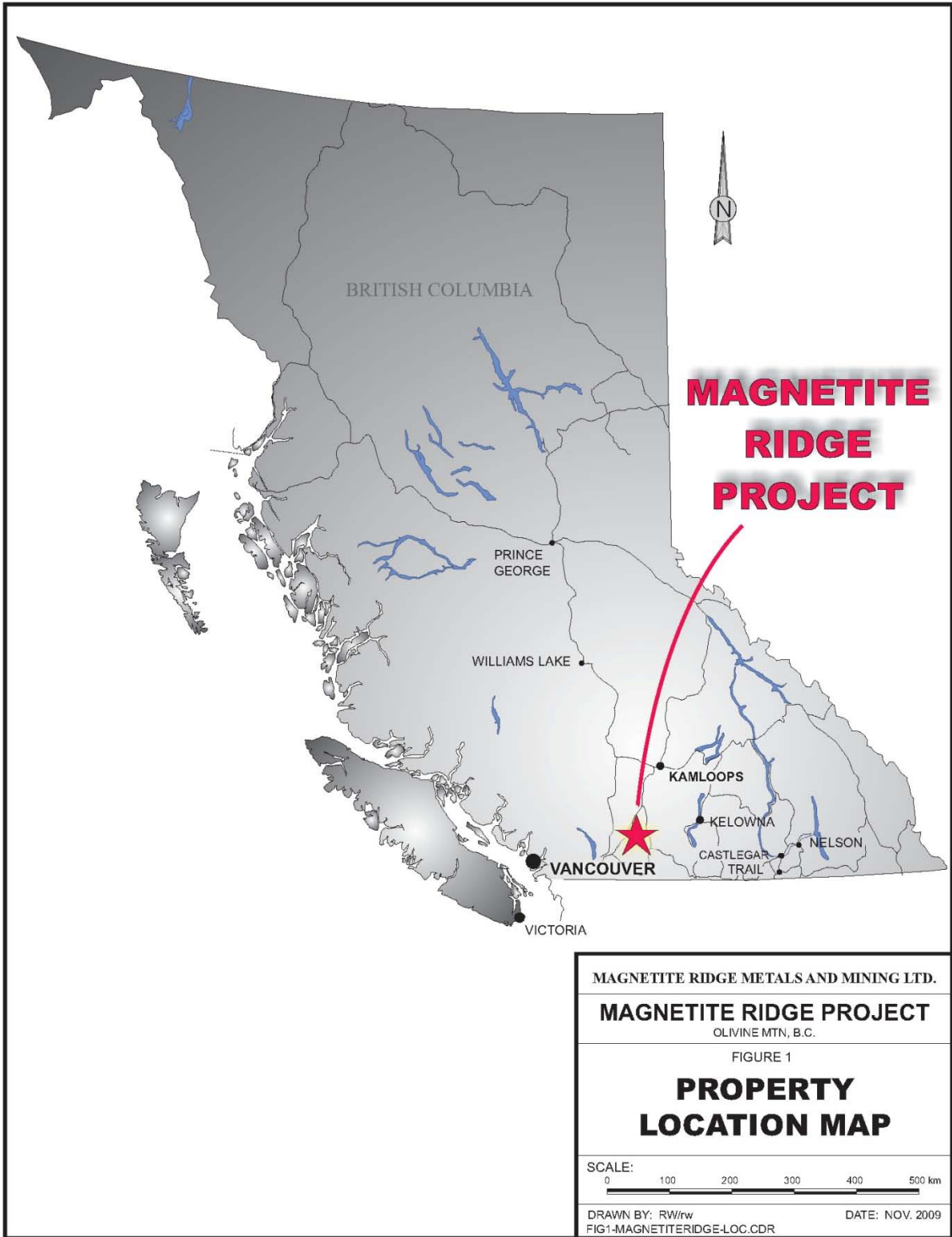
### **2.1 LOCATION, ACCESS AND PHYSIOGRAPHY**

The MRM 1 claim is situated on NTS map sheet 092H/046, centered at approximately 653,000E/5,484,000N (UTM NAD 83, Zone 10N), latitude 49° 29' 20" and longitude 120° 53'. The property lies within the Cascade Mountains of south-central British Columbia (Figure 1), and is approximately 45 kilometres northeast of Hope, B.C. and 25 kilometres west of Princeton, B.C. Elevations at the magnetite deposit range between 1,750-1,770m a.s.l.

The MRM 1 claim is accessed from the west by taking the Coquihalla Lakes Exit 228 and traveling 25 kilometres along the Tulameen Forest Service Road to the bridge at the Tulameen River where a new forest service road (Tulameen-Olivine FSR) continues east up Olivine Mountain for 6 kilometres to the start of the MRM drill access road, which carries-on for



**FIGURE 1: GENERAL LOCATION MAP**



approximately 1.6 km north-northeast up the southwest flank of Olivine Mountain to the edge of the property (Figure 2).

The magnetite deposit sits on the southwest edge of Olivine Mountain (the highest peak in the area at 1,798m), forming a relatively bare and uneven ridge that trends in a south-southeast direction. The MRM 1 claim is located on the west-central edge of the Tulameen Ultramafic Complex (“TUC”) which hosts numerous showings and prospects for platinum, magnetite, chromite, copper and gold.

Due to the high elevation of the deposit locale the forest cover is restricted to sparse amounts of small scrub pine and fir with very little, if any merchantable value. In addition, soil development is very limited and thin over the deposit with abundant bedrock exposed in the area.

The Tulameen region is located in a transitional climatic zone of south-central B.C. Summers are generally hot and dry while winters are cold with heavy snowfall at higher elevations—snow fall may commence as early as mid-September and remain until late May.

## **2.2 EXPLORATION HISTORY AND PREVIOUS WORK**

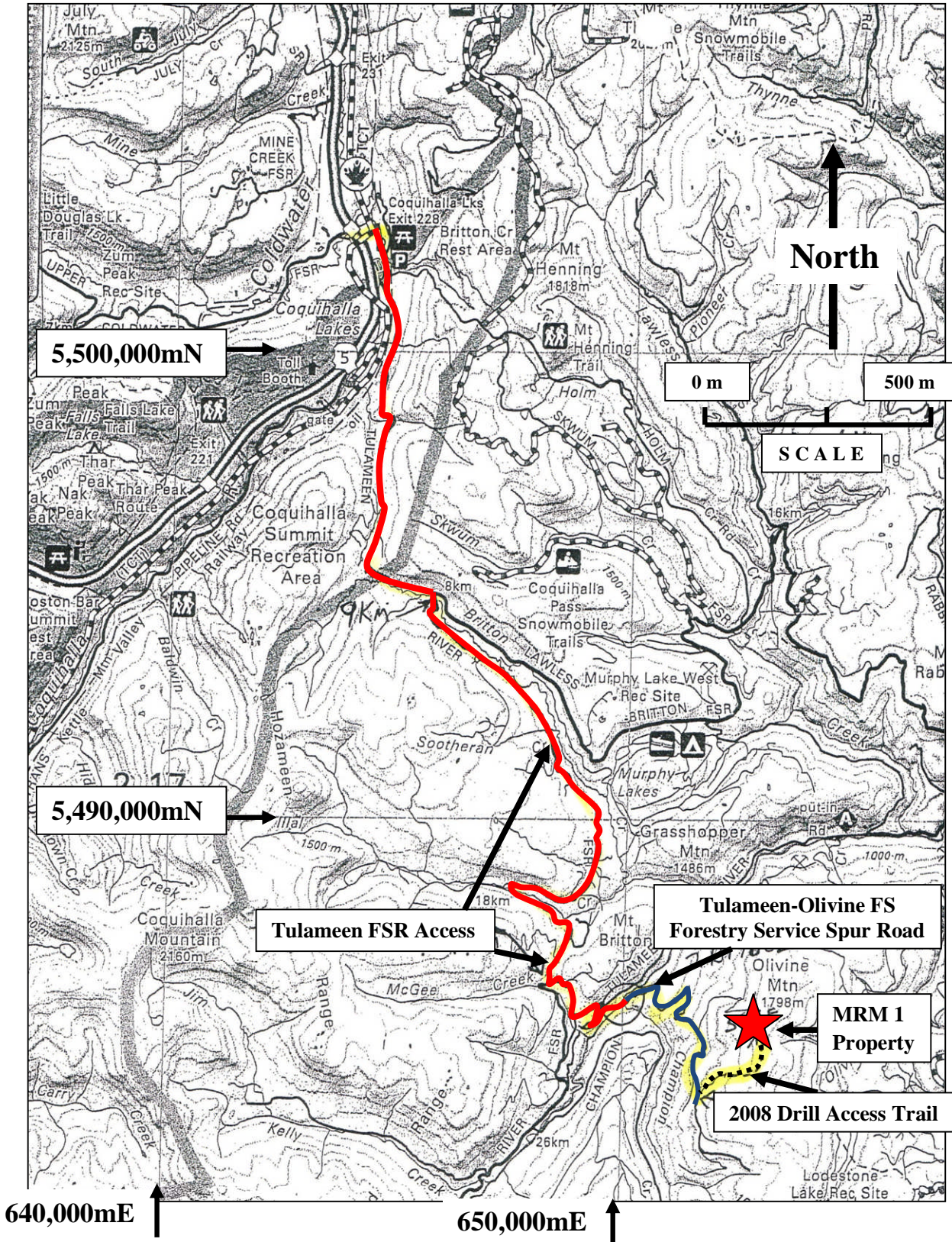
Historically, the Tulameen District has been the subject of platinum-gold exploration and mining since the late 1800’s where platinum has been recovered with placer gold from the Tulameen River and from the watershed tributaries in the area. Both platinum and gold occurred with heavy concentrations of magnetite and chromite (i.e. black sands).

Historical geologic fieldwork in the Tulameen area included work by the U.S Geological Survey who investigated the relationship between the alluvial platinum occurrences and the adjacent ultramafic rocks, while Camsell (1913) conducted several years studying the geology of the Tulameen area for the Geological Survey of Canada. There have also been studies of the potential similarities between the platinum-bearing rocks of the Tulameen region and ultramafic complexes in the Ural Mountains of Russia. Further geological work was carried-out to examine the setting for platinum mineralization in the Tulameen area by O’Neill and Gunning (1934), Rice (1960).

More recent work in the Tulameen area was performed by Findlay (1969) who conducted detailed petrological and geological studies during the course of his PhD research on the Tulameen Ultramafic Complex. The petrological, mineralogical and geochemical associations relative to the distribution of platinum group elements in the ultramafic complex were also studied and documented by St. Louis, et al. (1982, 1986) and Rublee (1986, 1994).

The most comprehensive studies of the Tulameen ultramafic complex were conducted by Nixon (1987, 1988, 1990), Evenchick et. al. (1986) and Nixon and Rublee (1987), who classified the Tulameen Alaska-type ultramafic complex as potential hosts for commercially mineable deposits of platinum-group metals. As well, the structural setting of the complex was recognized and compared with other Alaskan-type ultramafic systems in Alaska and the Ural Mountains in Russia.

**FIGURE 2: PROPERTY LOCATION AND ACCESS**



Historically, numerous companies have explored the Tulameen ultramafic complex but have primarily focused on minerals such as platinum, gold, chromite, olivine and copper. Most of this work has taken place to the north of the MRM 1 claim, in areas adjacent to the Tulameen River basin (i.e. Grasshopper Mountain, Hines Creek, etc.). Some of the platinum mineralization in the Tulameen has been correlated with chromite enriched zones in the dunite phases of the complex, although locally coarse-grained platinum mineralization is not always restricted to chromitiferous dunite (Yeomans and Wells, 2003).

To the south of the Tulameen River there have been sporadic exploration programs targeting platinum group metals, iron, base metals and gold. Past work has included geological mapping/prospecting, soil geochemistry, airborne geophysical surveys and ground magnetic/VLF-EM-16 surveys, and minor drilling activity. The portion of the Tulameen ultramafic intrusion south of the Tulameen River represents approximately 75% of the entire complex, yet due to poor access it remains highly unexplored (Yeomans and Wells, 2003).

Following is a summary of historical work conducted both in the general region south of Olivine Mountain and near the MRM 1 claim:

- 1959-1970: Imperial Metals Corporation conducted ground magnetic surveys, detailed geological mapping, trenching and diamond drilling for iron deposits at Tanglewood Hill and Lodestone Mountain (Corvalan, 1984).

Imperial Metals Corporation received a feasibility study (prepared by Wright Engineers, 1970) estimating iron reserves on their property to be 90 million tons proven, 115 million tons probable and 160 million tons inferred, with a grade of 17.56% Fe calculated for the proven reserves. An additional reserve of 2.84 million tons with an average grade of 16.4% Fe was identified at Tanglewood Hill, and included the delineation of 54,000 tons with an average grade of 53-59% Fe (Yeomans and Wells, 2003).

- 1968-1970: Fort Reliance Minerals Ltd., Bethlehem Copper, Anaconda and Scinitine Minerals Ltd. explored for base metals on the southern portion of the Tulameen ultramafic complex. Phases of gabbro and hornblende clinopyroxenite directly northwest of Arrastra Creek were shown to host minor occurrences of copper.
- 1970: Fort Reliance Minerals Ltd. conducted prospecting, geological mapping and trenching on four blocks of claims (Blocks A, B, C and D) covering Olivine Mountain, Tanglewood Mountain and two areas south and west of Lodestone Mountain (Yeomans and Wells, 2003). During this time several copper showings were discovered on the southern side of Olivine Mountain near the centre of the Amy #1 claim within olivine clinopyroxenite. In addition, copper mineralization was discovered near the western margin of the complex within hornblende clinopyroxenite on what is now the MRM 1 claim block.

- 1983: Tarnation Mining Ltd. requested a geological mapping and geochemical sampling survey (conducted by VLH Consultants Ltd.) on their H&H claim block which extended from the Tulameen River south between Olivine Creek and Hines Creek. Chromium and gold anomalies were discovered near the northeast portion of the property near a faulted contact with Nicola Group volcanic and metasediments (Jones, 1983).
- 1983: Lodestone Mining Corp. explored the Lode I-IV claims (78 units) west of Tanglewood Hill. Work included road building, geochemical sampling and geological mapping (Allen, 1983). Fieldwork identified magnetite-rich pyroxenite hosting values of up to 430 ppm Cu; no significant PGE anomalies were identified.
- 1984: Galit Resource Corp. completed a soil geochemistry survey over the Bry #1, #2 and #3 claim area located northwest of Tanglewood Hill. Numerous gold-in-soil anomalies (up to 335 ppb Au) were identified on the Amy #2 claim which line-up along a northwest and northeast trending shear zones (Yeomans and Wells, 2003).
- 1986: North American Platinum Ltd. performed geochemistry surveys over the H&H claim group. A chromite-rich area containing elevated platinum values was discovered in the headwater area of Hines Creek (Gravel, 1987).
- 1987: D.K. Platinum Corp. requested a geochemical report (completed by Fox Geological Services) on the H&H claims. A distinct platinum anomaly was identified over the north-central part of the grid and centered over the western portion of the Amy #1 claim, near the headwaters of Hines Creek and just east of the summit of Olivine Mountain. Further fieldwork identified the host rock to be hornblende clinopyroxenite with locally very-coarse to pegmatitic phases containing hornblende phenocrysts up to 5 cm in length. A surveyed outcrop of banded pegmatite was oriented N 10° E with a dip W at 70°, contained up to 20% pyrite and 2% chalcopyrite. Grab samples returned assays of 17.1 ppm Ag, 36,028 ppm Cu, 66 ppb Au, 247 ppb Pt and 730 ppb Pd—these results are significant as they represent one of the highest Pd assays ever obtained in bedrock within the Tulameen complex (Yeomans and Wells, 2003).
- 1987: Inter Canadian Development Corp. optioned the Lode I, III and IV claims and earned a 90% interest in the Lode II claim. Soil, silt and rock samples were collected by Allen (1987) along three widely spaced lines. As well, a Scintrex MP Proton magnetometer survey was performed along these lines. In 1988 Allen and Brownlee (1989) conducted additional geophysical surveys over the area and located four VLF-EM-16 conductors within mafic to ultramafic rocks. Three of the four conductors were present on the BJP #1 claim, now contained within the MRM 2 claim.

- 1991: Interpertex Resources Ltd. conducted a limited geophysical survey (IP, Ground magnetometer and VLF-EM-16) over claims centered on Tanglewood Hill. Interpretation of the results indicated a possible association between sulphides and strong silicification and shearing associated near contact zones. Additional geochemistry and geophysics was recommended but no further work was performed.
- 1998: Aboriginal Investments acquired a 100% interest in the BJP 1, 2 and 3 claims (53 units)—now the MRM 1, MRM 2 and MRM 3 claims. Anomalous outcrop samples were collected from within 200 metres of the VLF-EM-1 conductors by Perry (1999). Assay values were up to 315 ppb Pt and 633 ppm Ni in fine-grained magnetite-rich hornblende pyroxenite.

Lloyd Geophysics was contracted to confirm the locations of the VLF-EM-16 anomalies. As well, 13 B-horizon and 18 A-horizon soil samples were collected and submitted for Pt-Pd-Au-Cu-Cr-Ni analyses. Slightly elevated values of Pd and Cu in B-horizon soils were obtained in the vicinity of the east-central conductor on the property.

Trenching was also carried-out on the property that range from 35-80 metres in length and 0.5-5 metres depth. In three separate trenches the east-central conductor was exposed and a pyrite-bearing shear zone was identified. Locally malachite staining along with a coarse-grained cumulate pegmatite enriched in chalcopyrite was exposed—assayed samples returned values of up to 1.5% Cu, 50 ppb Au, 4600 ppb Ag and 30 ppb Pd in the cumulate pegmatite and in narrow copper-rich quartz veins (Yeomans and Wells, 2003). Anomalous Pt values were reported within the trench over the western conductor in magnetite-rich pyroxenite.

- 2001: Bright Star Ventures Ltd. performed a geochemical rock sampling program on their TUC Tulameen properties. A total of 163 rock samples were analyzed with the most significant results collected from the Amy #2 claim—2,290 ppb Au, 320 ppb Pd and 8,379 ppm Cu (Yeomans, 2002). In addition, the Company carried-out prospecting, mapping and extensive data compilation of historical work (primarily on their Grasshopper Mountain properties located north of the Tulameen River).
- 2002: Bright Star Ventures Ltd. performed an exploration program for platinum group mineralization on their TUC Tulameen properties. The work included geological mapping, prospecting and rock-soil sampling, stream sampling, an IP survey and a 915 metre diamond drill program. Three grids were established of which grid 1, grid 2-3 and grid 2 covered parts of the BJP 1, BJP 2 and BJP 3 claims (now comprising the MRM 1, MRM 2 and MRM 3 claims).

A total of 220 soil samples were collected on 'grid 2' within the BJP 1 claim. The most anomalous gold-in-soil values were randomly distributed but may correlate

with the presence of a copper-gold system in bedrock (Yeomans and Wells, 2003). Both Pt and Pd values in soils were sporadic or randomly distributed as isolated anomalies. Two large low, but consistent copper soil anomalies were identified (100-540 ppm Cu), that, when combined, cover an area of approximately 1km x 2km.

Soil samples were also collected on the 'grid 2-3' (covering the Amy #2, BJP 2 and BJP 3 claims). Bright Star Ventures took 329 soil samples and identified minor sporadic gold and palladium within gabbro, a well-defined Pt-Pd anomaly in olivine clinopyroxenite and a northwest extension of the copper anomaly in gabbro that was discovered on 'grid 2' (Yeomans and Wells, 2003).

The 'grid 3' survey (423 samples) covered the northern portion of the BJP 2 and BJP 4 claims. The anomalous gold values occurred away from the magnetite-rich hornblende clinopyroxenite in late quartz-sulphide veins and alteration zones. Northwest trending Pd anomalies were also identified in an area mapped as a sheared contact zone. Hornblende clinopyroxenite contained elevated Pt values and trend in a northwesterly fashion. Large copper anomalies were also identified on 'grid 3' (locally >10,000 ppm Cu for B-horizon soils) along the contact zone between the TUC and the Nicola Group volcanic on an area belonging to the current MRM claims.

The 2002 geophysics program was carried-out by SJ Geophysics and Scott Geophysics (pole-dipole array IP and airborne geophysical survey—DIGHEM) on 'grid 2' and 'grid 3'. The surveys outlined large volumes of high chargeability related to magnetite and subtle sulphide mineralization (Yeomans and Wells, 2003). The sulphide targets sit peripheral to the magnetite bodies. Elongate magnetic hornblende clinopyroxenite bodies were identified on 'grid 2' and in contact with gabbroic phases. Surveys on 'grid 3' delineated well-defined sulphide zones with distinctive chargeability and structural controls. The Company reported that a contoured EM Magnetite map over the area called the DP Zone indicated that the central core contains greater than 35% magnetite (Bright Star Ventures News Release, 2002).

Geophysical survey work was summarized by Yeomans and Wells (2003) as follows:

*"...there is an excellent correlation between airborne magnetic and electromagnetic signatures, IP, soil geochemistry and mapping/prospecting results. The most well developed drill target identified on grid 3 occurs at the contact between the Tulameen ultramafic complex and the sheared mylonitic Nicola volcanic/metasedimentary rocks in the vicinity of iron-rich hornblende clinopyroxenite and gabbros".*

In 2002 Bright Star Ventures Ltd. drilled 6 diamond drill holes totaling 1,027.78m on the eastern portion of 'grid 3' where coincident soil/bedrock geochemical and IP geophysical anomalies were identified. Drilling mainly intersected medium to

coarse-grained hornblende clinopyroxenite with assay grades ranging from 0.06-0.41 g/t PGE, and 0.01-0.21 % Cu.

- 2003: Bright Star Ventures Ltd. drilled three holes on their 'DP Zone' (DP 2003-01, DP 2003-02 and DP 2003-03) approximately 650 metres southwest of MRMMs magnetite deposit. Results for this work formed part of a confidential Bright Star Ventures Ltd. in-house report and no details are known.
- 2007: Perry (2007) authored a report regarding acid rock drainage characteristics of the BJP 2 claim. The study analyzed samples collected from the Magnetite Ridge deposit and immediate surroundings. Conclusions from the report state that the acid rock generating capabilities of the deposit and its host rocks was minimal due to non-acid generating characteristics of both magnetite and the host rock hornblende clinopyroxenite.

### **2.3 ECONOMIC AND GENERAL ASSESSMENT**

An airborne Magnetic-EM geophysical survey (Bright Star Ventures Ltd., 2002) delineated an N-NW trending 1,200m x 500m magnetite deposit extending to approximately 750m depth. Based on geophysical data alone Bright Star Ventures Ltd. estimated a potential resource of several hundred million tonnes magnetite (Yeomans and Wells, 2003). Prior to the 2008 drill program of MRMM the subsurface potential for a magnetite resource had not been tested.

Within the core of the deposit magnetite mineralization (as mapped on surface) occurs as lenses of massive magnetite and as disseminated magnetite grains; outward from the core magnetite occurs as disseminated mineralization. Prior surface sampling by Bright Star Ventures Ltd. suggests that the core of the deposit is exposed at surface over an area of approximately 80m x 100m with collected field samples returning grades ranging between 30-64% magnetite (Perry, 2007).

In order to perform preliminary metallurgical and process testing on the deposit material MMRM applied for, and received a bulk sample permit for a 1,000 tonne bulk sample (MX-4-405), which was updated by a subsequent 10,000 tonne bulk sample permit (MX-4-522). To date, the Company has excavated approximately 400 tonnes of bulk sample material from the core of the deposit.

Initial physical and chemical testing by MRMM on magnetite-bearing samples from the deposit support the potential use of the ore body as iron smelter feed and as a coal cleaning medium. Further testing is required to determine with certainty that the material has no deleterious features with respect to its potential use as iron ore and/or as a coal cleaning medium (Perry, 2007).

An initial acid rock drainage study (Perry 2007) analyzed samples from the magnetite core of the deposit and of the host rock hornblende clinopyroxenite. The samples were tested by industry standard acid-base accounting chemical analyses by Eco-Tech Laboratories (ISO 9001



Certified), Kamloops, B.C. Results from these tests showed that hornblende clinopyroxenite is essentially non-acid generating (due to the very low sulphide content of the deposit). Magnetite mineralization in the deposit area has been shown to have no acid generating potential as it also contains only trace sulphide content locally. Furthermore, the carbonate components of the host rock neutralize the small amounts of acid that could be generated. It was concluded that the acid neutralization potential of the deposit host rocks exceeds its acid generating potential by a factor of approximately 28:1.

## **2.4 2008 EXPLORATION-WORK PROGRAM SUMMARY**

An airborne geophysical survey performed by Bright Star Ventures Ltd. in 2002 identified a distinct strong northwest-trending magnetic anomaly across the northern portion of the MRM 1 claim which also extends northwest into adjacent claims. This magnetic anomaly is 'dual-lobed' with the south-eastern part being the focus of work by the Company in 2008.

The purpose of the 2008 exploration program on the Company's MRM 1 claim was to delineate the extent of magnetite mineralization in the area identified as containing a high magnetic response over bedrock of magnetite-rich hornblende clinopyroxenite. In addition, the Company conducted a small bulk sample program on the property consisting of 400 tonnes of excavated and stockpiled mineralized bedrock.

Prior to any drilling or sampling activity access roads needed to be improved. This included approximately 1,650 metres of refurbishing of old exploration trails (last utilized by Bright Star Ventures in 2003), as well as approximately 700 metres of new drill road development.

Diamond drilling at MRM 1 was carried-out between October 9, 2008 and October 14, 2008 with a total of 235.03 metres of core drilled in 2 holes (DDH 2008-B, 99.66m and DDH 2008-C, 135.37m). The drill-core is stored at the Company offices at the Atlas Drilling shop/yard in Kamloops, B.C. ICP analysis was carried-out on 76 halved core samples from the two holes in three metre sections.

Approximately 400 tonnes of bedrock was excavated during the 2008 bulk sampling program and piled on the MRM 1 property. No assaying or testing was performed on this material during the period covered in this report.

The anniversary dates of the MRM 1 claim on which assessment work is being filed are listed in Table 1, and all costs of work performed from May 1, 2008 through November 30, 2009 are included in Section 8.0 of this report. This section summarizes the work completed during this period. Costs filed for assessment total \$148,541,62.

## **2.5 TERMS OF REFERENCE**

This assessment report has been prepared by the Author using documents and information provided by the Company for this purpose. While reasonable care has been taken in the

preparation of this report, the Author cannot guarantee the accuracy or completeness of all supporting documentation.

### 3.0 MINERAL TENURE AND CLAIM STATUS

The MRM 1 claim (Figures 2 and 3) is located in the Similkameen Mining Division and now covers portions of claims that were previously recorded as the BJP 2 and BJP 3 claims. The MRM 1 claim borders the MRM 2 claim (tenure #591163) to the east, tenure #573327 to the west, tenures #584157 and #562938 to the south, and tenures #547840, #547811 and #553136 to the north. A single cell (tenure #537634) is situated in the northwest corner of the MRM 1 claim.

The Company also owns the MRM 2 (tenure #591163, 524.73 ha) and MRM 3 (tenure #591165, 188.88 ha) claims located to the east and adjacent to the MRM 1 claim, but no work was performed on these claims for the period of this report.

The MRM 1 claim covers 524.69 hectares and is 100% owned by the Magnetite Ridge Metals and Minerals Ltd. Based on the acceptance of this report the MRM 1 claim will all be in good standing until September 10, 2010. Table 1 lists details of MRM 1 mineral tenure.

**TABLE 1: MINERAL TENURE OF THE MRM 1 CLAIM**

<b>Tenure No.</b>	<b>Claim Name</b>	<b>Expiry Date</b>	<b>Area in Hectares</b>	<b>Owner-Operator</b>
591162	MRM 1	2010/Sept 10	524.69	Magnetite Ridge Metals and Minerals Ltd.

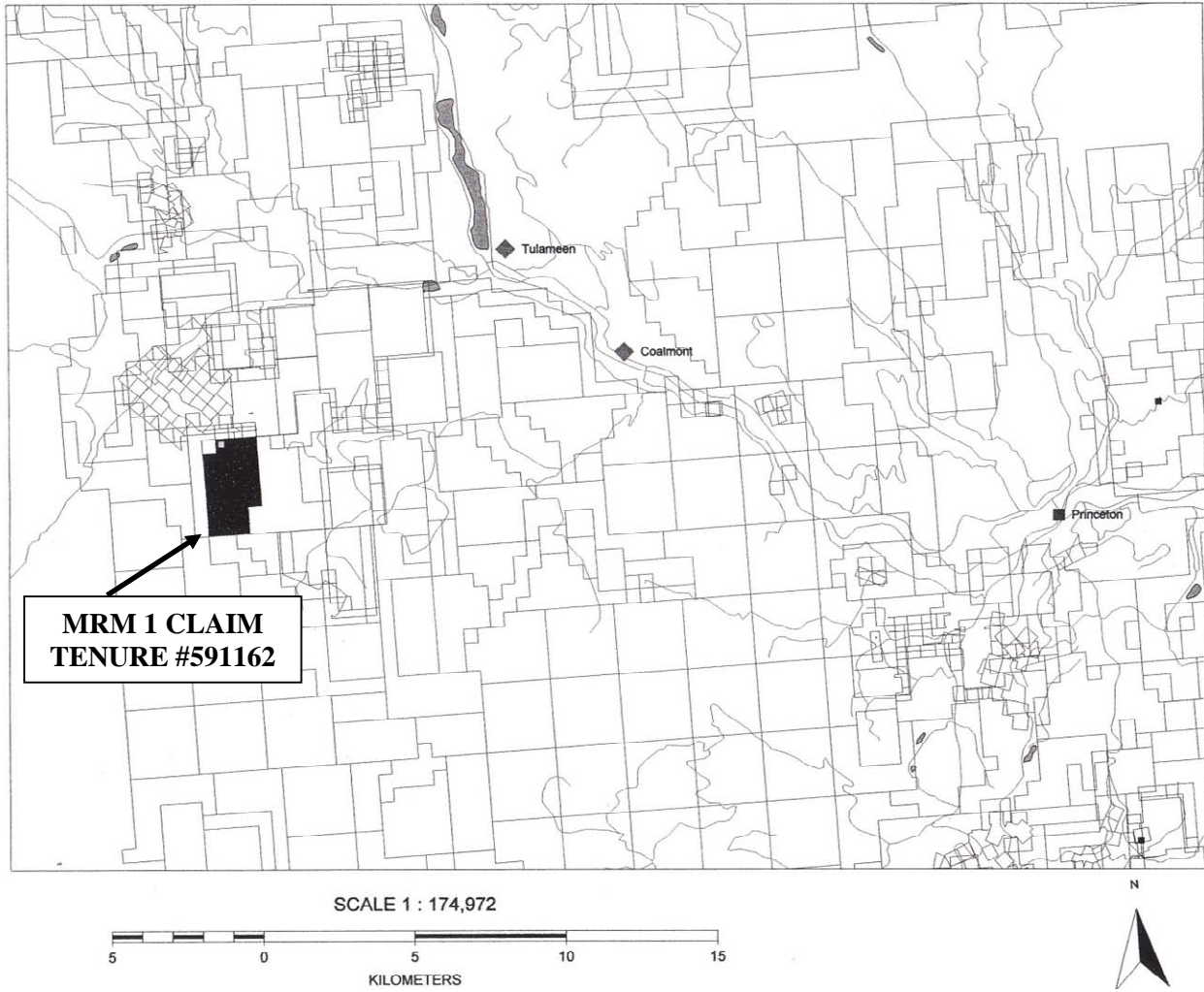
### 4.0 GEOLOGY

#### 4.1 REGIONAL GEOLOGY

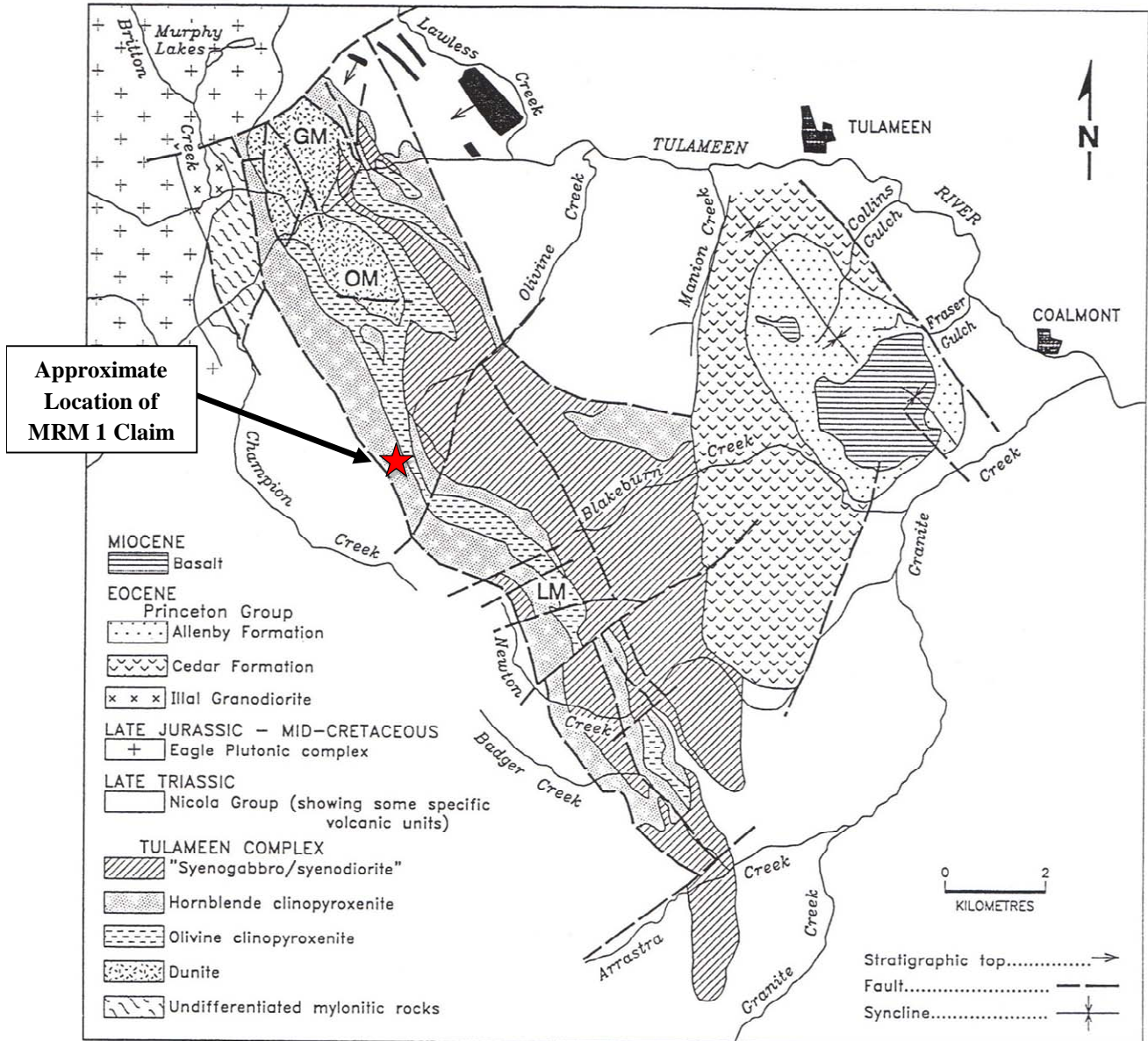
The MRM 1 claim is located on the west-central side of the Early Jurassic (Alaskan-Type) Tulameen ultramafic complex (TUC), which is situated in the southwestern Intermontane Belt of British Columbia (Figure 4). The TUC sits at the western most edge of Quesnellia Terrane near the boundary with the Late Jurassic to Early Cretaceous Eagle Plutonic Complex. The 64 km<sup>2</sup> TUC is one of the largest Alaskan-type ultramafic complexes within the Intermontane Belt and has been a historical source of platinum and gold—mainly along the Tulameen River basin.

The TUC is an elongate intrusive suite (gabbroic to ultramafic bodies) extending north-northwest for approximately 20 kilometres (ranging between 3-6 kilometres in width) between Arrastrada Creek in the south and Grasshopper Mountain to the north (Figure 4).

**FIGURE 3: MINERAL TENURE MAP**



**FIGURE 4: REGIONAL GEOLOGY**



(Modified after Nixon, 1988)

The complex intrudes, and runs parallel to, the western facies of the Upper Triassic Nicola Group sedimentary and volcanic rocks—which are generally intermediate to felsic in composition (Nixon and Rublee, 1988). Regionally, Nicola Group rocks have undergone greenschist to amphibolite grade metamorphism.

The Early Jurassic TUC was emplaced into the Upper Triassic Nicola Group during a period of Upper Triassic deformation whereby the Nicola Group rocks were folded along a north to northwest trending fold axis (Findlay, 1969). The eastern perimeter of the TUC and its host Nicola Group rocks are unconformably overlain by metasedimentary and metavolcanic assemblages of the Early Tertiary Princeton Group and Miocene plateau basalt flows (Yeomans and Wells, 2003).

At an elevation of approximately 1,760m a.s.l. the magnetite deposit area on the MRM 1 claim contains very little, if any, glacial deposits from the Fraser Glaciation period (~25,000-10,500 YBP). Glacial deposits occur at lower elevations in the valleys and river basins in the region.

## **4.2 PROPERTY GEOLOGY**

### **4.2.1 Lithologies and Structure**

The MRM 1 claim sits within the western edge of the elongate, northwest-trending Tulameen (Alaskan-type) ultramafic complex—a generally concentric intrusion body with more mafic phases in the core (dunite and olivine clinopyroxenite) and less mafic phases grading outwards (hornblende clinopyroxenite and gabbroic rocks). Locally, varieties of hornblende, ‘hybrid’ rocks and mafic pegmatites have been reported (Nixon, 1988).

The magnetite deposit on the MRM 1 property is centrally underlain by medium to coarse-grained hornblende clinopyroxenite with olivine pyroxenite on the northeastern portion, and Nicola Group rocks outcropping on the west-southwest side of the claim (Figure 5). A narrow section of gabbro has been mapped at the contact between Nicola Group rocks and hornblende clinopyroxenite along the southwest part of the MRM 1 claim. No dunite has been reported on the property but does outcrop northeast of the property closer to the summit of Olivine Mountain. Historical work has shown the TUC to be steeply-dipping to the west (Nixon, 1989).

The contact between hornblende clinopyroxenite and the western Nicola Group volcanic-sedimentary units crosses the southwest-central portion of the property with a northwest structural trend and marks the western margin of the TUC. The area of interest on the MRM 1 claim (identified as a very strong magnetite anomaly) is hosted within medium to coarse-grained hornblende clinopyroxenite (Figure 5).

TUC phases are characterized by a typical cumulate mineral assemblage of forsteritic olivine, diopsidic augite, chromite and magnetite. Orthopyroxene is generally absent in Alaskan-type ultramafic intrusions indicating an alkali affinity, while gabbroic rocks are typically tholeiitic in composition (Yeomans and Wells, 2003). However, in the TUC the gabbros have been uniquely classified as syenogabbros and syenodiorites (Nixon et. al., 1997).

Olivine clinopyroxenite, which surrounds the dunite core of the TUC outcrops on the northeastern portions of the property (Figure 5). This unit is medium to coarse-grained and is dark-green to black in colour due to deep-green clinopyroxene and the partial serpentinization of olivine. Some pegmatitic phases contain clinopyroxene phenocrysts up to 8 cm across and olivine crystals locally forming schlieren (Nixon and Rublee, 1988). The olivine clinopyroxenite is not known to contain economic amounts of magnetite and is currently not a target for magnetite mineralization.

Hornblende clinopyroxene is the primary host for magnetite mineralization at the deposit and is the principal mineralized lithology on the MRM 1 claim. This unit is dark-grey to greenish-grey, medium to coarse-grained, and contains an assemblage of diopsidic augite, hornblende, magnetite and accessory biotite, rutile, apatite and trace sulphides. Medium-grained varieties commonly display mineral foliations. Coarse-grained phases may contain hornblende phenocrysts up to 3 cm in length. Magnetite occurs as fine to medium-grained disseminations, blebby intergrowths, and as magnetite-rich horizons and podiform masses. The very limited 2008 diamond drill program (2 holes totaling 235.03 metres) indicates that hornblende clinopyroxenite contains between 15-25% magnetite but locally hosts up to 35% magnetite.

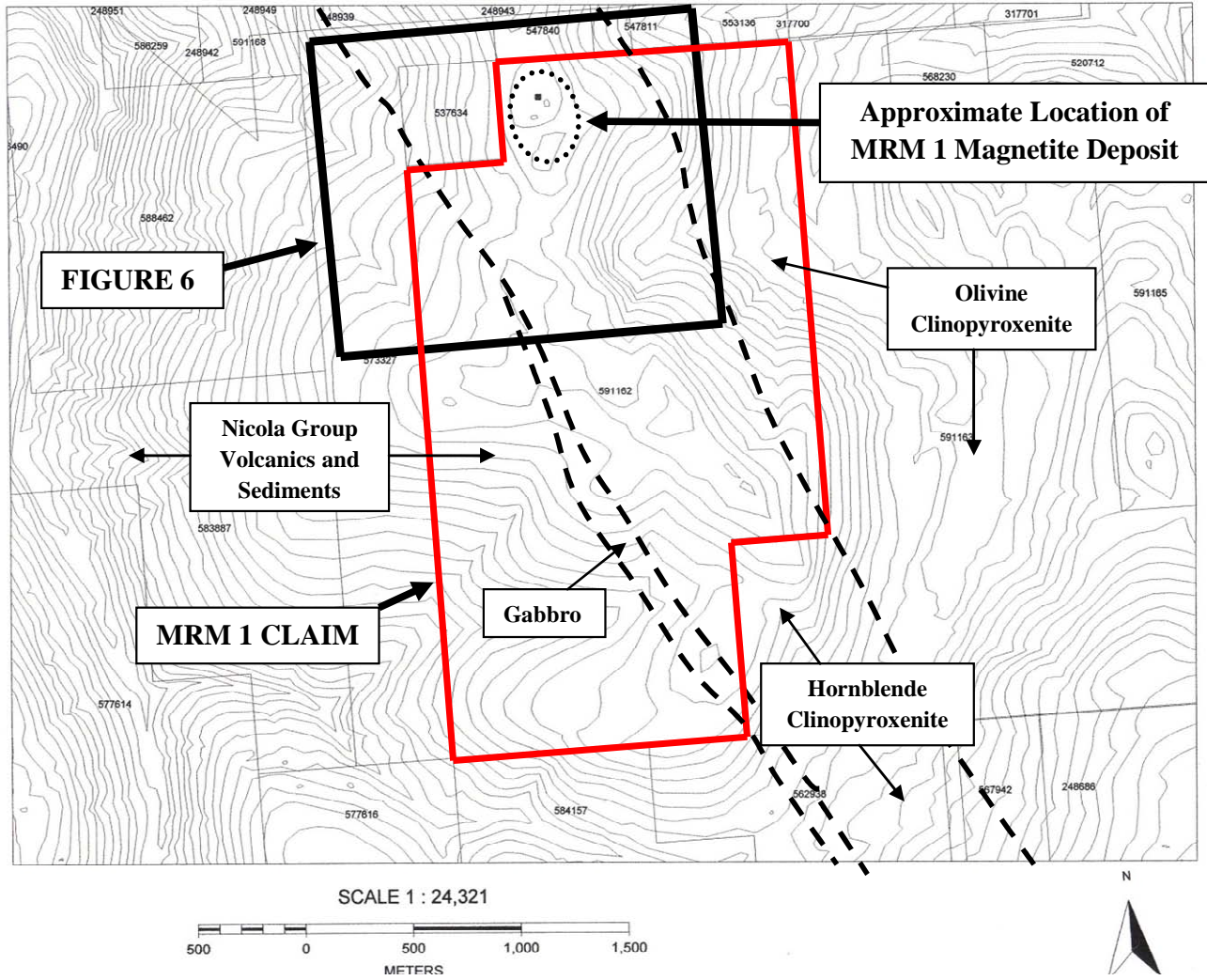
Mafic pegmatites are preferentially distributed near the margins of hornblende clinopyroxenite phases (Findlay, 1969), and have been identified at outcrop and in 2008 drill-core from the MRM 1 claim.

Previous work has shown that magnetite-rich hornblende clinopyroxenite on the BJP 1, BJP 2 and BJP 3 claims contain elevated PGE values (Yeomans and Wells, 2003). In addition, zones of strong shearing/mylonites developed near the contacts between hornblende clinopyroxenite and Nicola Group units, such as those on the southwest portions of MRM 1 (see Figure 5), may be favorable to 'contact-style' copper-PGE mineralization.

Gabbroic intrusive rocks occur throughout the TUC, primarily on its eastern side (Figure 4). A thin band of NW-SE trending gabbro lies along the contact between the hornblende clinopyroxenite on the property south-eastern part of the MRM 1 claim (Figure 5), but is uncommon within the immediate magnetite deposit area. Diamond-drilling from 2008 (this report) intersected several narrow micro-gabbro/dolerite dykes (typically < 1m wide), but some of these units may actually represent cumulate segregation layers within the pyroxenite phases. In drill-core these phases are fine to medium-grained, dark-grey to greenish-grey in colour and are moderately magnetic. Locally, they have characteristics of hornblendite.

Dark-grey to black mafic dykes, possibly basaltic in composition, were intersected in the 2008 drill program. These units appear to cross-cut hornblende clinopyroxenite phases, are less than 2m wide, and are non to weakly magnetic. They may belong to a sub-volcanic phase of the Tertiary basalt activity in the region.

**FIGURE 5: MRM 1 CLAIM REFERENCE MAP WITH DEPOSIT LOCATION AND LOCAL GEOLOGY**



Geology after Nixon, 1988.

Core-logging from the 2008 drilling program suggests that the TUC fabric is generally northwest-southeast trending and plunges steeply to the west against the sheared and mylonitic Nicola Group contact—which is consistent with historical interpretations of the TUC. Further drilling utilizing oriented drill-core would help to confirm the structural nature of the subsurface geology of the magnetite deposit.

The tectonic history of the TUC has been prolonged and complex. Evidence of penetrative ductile and brittle deformation has been reported by Nixon (1988), with major northwest trending shear-fault zones oriented along strike with the complex. The TUC generally exhibits a rudimentary ‘tipped’ concentric arrangement consisting of a central dunite core surrounded by olivine clinopyroxenite, hornblende clinopyroxenite and finally gabbroic phases—all of which have undergone some degree of syn- to post-emplacement deformation.

Structures in the region include north-northwest trending major faults with west-dipping penetrative foliation that parallels the eastern margin, and extends into, Nicola Group metasediments and the Eagle Plutonic Complex assemblages (Nixon, 1988).

#### **4.2.2 Alteration and Mineralization**

Post-emplacement regional metamorphic deformation events have affected both the TUC and the adjacent Nicola Group units. Alteration of these rocks is typically of greenschist facies, but may grade into amphibolites facies towards, or at major shear zones, and is most pronounced near contacts between the TUC and Nicola Group rocks. Weakly to moderately-altered ultramafic rocks are common in parts of the TUC suggesting that higher-grade alteration was mainly structurally controlled.

Hornblende clinopyroxenite on the property displays a variable alteration assemblage of chlorite-carbonate-sericite-epidote-phlogopite-hematite-albite ( $\pm$ biotite $\pm$ amphibole $\pm$ serpentine $\pm$ talc). The pyroxenes display variable phlogopite-biotite alteration and hornblende is typically altered to actinolite-chlorite $\pm$ carbonate. The 2008 drilling intersected numerous sections containing veins and small shears containing strong carbonate-quartz-pyrite $\pm$ epidote $\pm$ chalcopyrite $\pm$ arsenopyrite alteration and mineralization.

Fractures and veinlets developed within the units are commonly filled with carbonate and fine grained quartz-talc $\pm$ chlorite $\pm$ hematite $\pm$ serpentinite. Hematite is also developed on fractures and also as masses surrounding larger aggregations of magnetite.

Magnetite mineralization in hornblende clinopyroxenite at the magnetite deposit is characterized by: (a) medium to coarse mineral intergrowths, masses and evenly distributed grains; (b) finely disseminated grains throughout the groundmass and; (c) coarse, centimetre-scale lenses/layers near ‘contacts’ between medium and coarser-grained/pegmatitic phases of hornblende clinopyroxenite. The 2008 drill-holes covered in this report determined a magnetite content that varies between 10.6% and 35%, although the bulk of the host hornblende clinopyroxenite contained a fairly consistent 20%-25% magnetite.



Sulphide content in 2008 drill-core is restricted to local trace amounts of pyrite±chalcopyrite, generally associated with carbonate-quartz veining and wall-rock alteration.

## **5.0 2008 EXPLORATION-WORK PROGRAM**

### **5.1 Objective and Scope of Work**

The primary purpose of the 2008 work program on the MRM 1 claim was to collect data to aid in determining a potential resource for a starter open-pit for the production of 1-2 million tonnes of magnetite, with the ultimate aim of delivering magnetite concentrates suitable for steel smelter feed and/or as a coal cleaning medium. The Company also wished to obtain bulk sampled mineralization material from the deposit for process testing. Road access to the deposit was also refurbished to facilitate the work, as well as any future exploration activity.

Drilling and bulk sampling activity was focused in an area identified as containing extensive outcrop of magnetite-rich hornblende-clinopyroxenite and a very strong coincident magnetic geophysical response. Geological information gathered from the 2008 diamond-drill program and the bulk sample pit was also intended to assist in the description of the deposit in terms of the structural, lithological and geochemical controls on deposit mineralization.

Drill-holes DDH 2008-B and DDH 2008-C (this report) were the first holes to be drilled in a systematic series of 77 vertical holes (on 30m spacing and with depths of ~150m), designed by Company Management to outline the lateral and vertical extent of the magnetite deposit, as well as the magnetite grades and potential reserves at the 'measured' level of confidence within this zone.

### **5.2 Physical Work**

Prior to commencement of the 2008 diamond drilling and bulk sampling programs vehicle and equipment access to the property needed to be improved. Approximately 950 metres of pre-existing access road/exploration trail was brought to grade/refurbished, and approximately 700 metres of new access road was created (Figures 5 and 6).

The Company initially received a permit to remove a 1,000 tonne bulk sample from the deposit but this was updated with a new permit to bulk sample up to 10,000 tonnes of material. For the period of this report the Company has removed approximately 400 tonnes of rock to a stockpile on the northwest corner of the MRM 1 claim (Figure 6).

In 2008 MRMM excavated a small bulk sample pit (~40 m x 8 m x 1.5 m) between tie-line 7600E and tie-line 7700E on line 8050N (Figure 6). The work was carried-out during the month of August 2008. Approximately 400 tonnes of bedrock was removed from the bulk sample pit which was stripped and loaded using a 200 John Deere Excavator. The material was transported to a bulk sample pile with a Terrex 6WD Rock Truck and a Tandem Dump Truck. No blasting was required during the excavation. The bulk sample pit was excavated in an area with no

merchantable timber and minimal overburden material. The removed material was transported approximately 1,650 metres down the drill-access road and deposited in a systematic manner into piles near the junction with the forestry spur road (Figure 6). No assaying or testing was performed on this material during the 2008 bulk sampling program.

All excavating and road work was conducted by contractor Golden City Excavating of Rossland, B.C. and was under the supervision of owner Brian Pistak and MRMM Manager Bruce Perry, Ph.D.

### **5.3 Diamond Drilling**

Drilling on the northwestern corner of the MRM 1 claim was conducted between October 9, 2008 and October 14, 2008, and totaled 235.03 metres of non-oriented NQ-sized core in 2 drill-holes. The work was carried-out by Atlas Drilling Ltd. of Kamloops, B.C. using a Hydra-Core 2000 diamond drill rig.

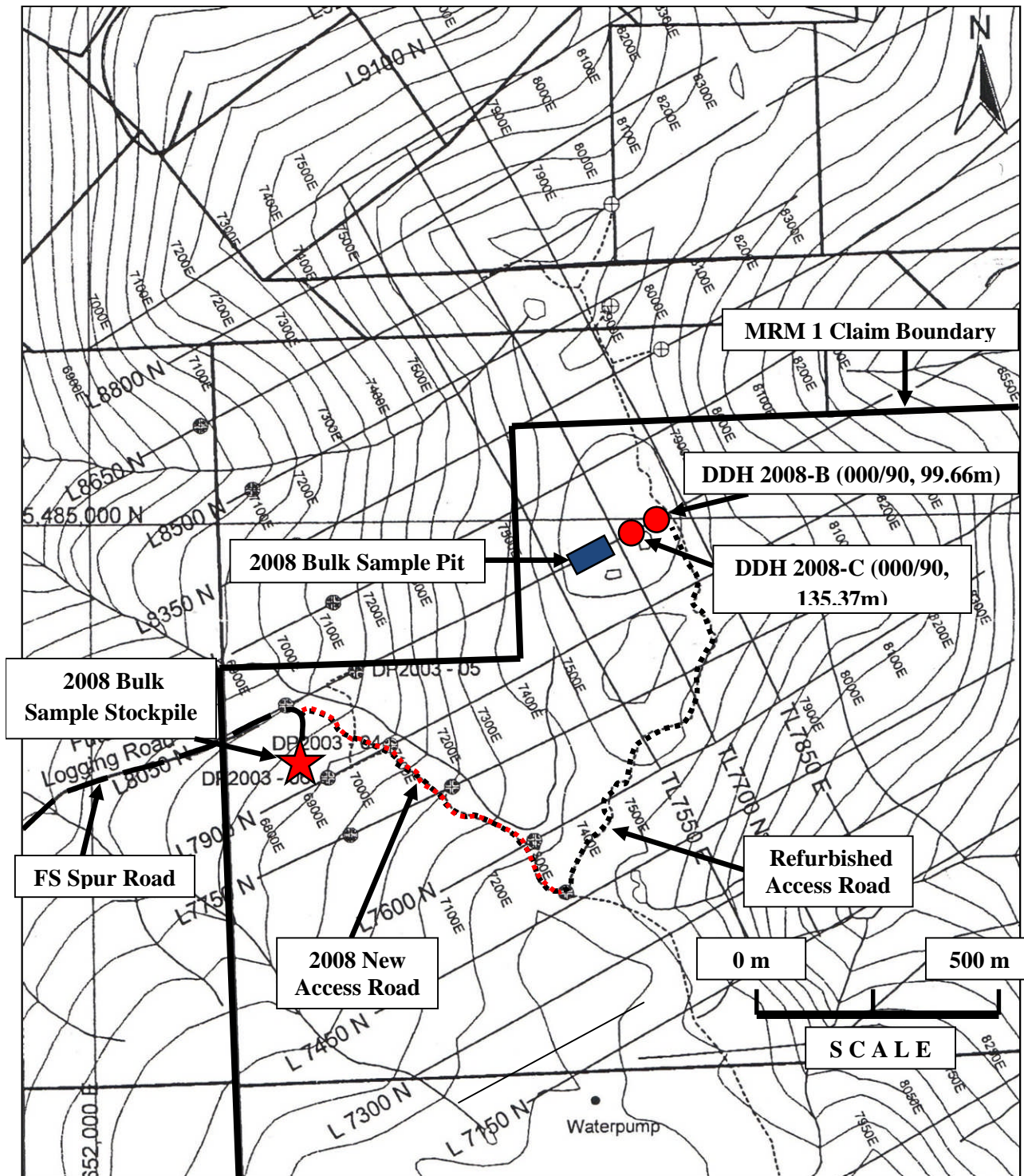
The drill-holes were designated DDH 2008-B and DDH 2008-C and were the first two holes to be drilled from a planned multi-hole program at the deposit. The drill holes were collared on line 8050 N approximately 30 metres apart between tie-lines 7700N and 7850N (Figures 6 and 7). Details of drill-hole statistics can be found in Table 2. Down-hole azimuth/dip surveys of these 2 short holes were not conducted. A program of quality control (QA/QC) was not carried-out for ICP analyses during the sampling program, except for those conducted by Eco-Tech Laboratories during standard assaying procedures. A cross-check on percent magnetite (Davis Tube test) was performed for five samples from DDH 2008-C (see below).

The Company obtained a permit to draw water for drilling from a local seasonal source located approximately 500 metres NNW of line 8050N.

Collars of the drill-holes were located with a GPS instrument using UTM coordinates in NAD83. Both holes were drilled vertically (000 azimuth/-90 dip) and the dip of the holes was established with a clinometer. Down hole surveys were not performed on the two drill holes. The core is stored at the secured shop/yard of Atlas Drilling Ltd., 746 Carrier St., Kamloops, B.C. Drill site preparation work was carried-out by Atlas Drilling Ltd. of Kamloops, B.C. using a Komatsu D58.

The program was under the supervision of B. Perry, Ph.D., geologist and Company President. Drill-core was transported to the yard/shop of Atlas Drilling Ltd. in Kamloops, B.C. where the core was logged, sampled and stored. The core was initially logged by B. Perry and sampled in three metre intervals by P. Watt. All samples were sawn in half and sent to Eco-Tech Laboratories (ISO 9001 Certified) in Kamloops, B.C. All samples were assayed using multi-element analysis (Aqua-Regia digestion/ICPMS finish) with specific sections of interest receiving an additional Fire-Assay method for gold, platinum and palladium (Appendix 4).

**FIGURE 6: DRILL-HOLE AND BULK SAMPLE PIT PLAN MAP**



Testing for total magnetite percent of the samples was carried-out using a standard Davis-Tube apparatus at the Craigmont Labs, Merritt, B.C. (DDH 2008-C), and at UBC by BC Mining Research Ltd., Vancouver, B.C. (DDH 2008-B).

In October 2009, the Author re-logged the drill-core from 2008 for the purpose of this report.

Following is a summary of the results for the 2008 diamond drilling on the MRM 1 claim—refer to Figure 6 for drill-hole location, Appendix 2 for diamond drill-logs, and Appendix 3 for drill-hole cross-section on line 8050N. Table 2 lists a summary of 2008 drill activity at MRM 1.

**TABLE 2 DIAMOND DRILL HOLE RECORD**

<b>TABLE 2: 2008 MRM 1 Diamond Drill Hole Record</b>											
<b>(UTM Zone 10N, NAD 83; azimuth relative to true north)</b>											
<b>Hole ID</b>	<b>Date</b>		<b>Az</b>	<b>Dip</b>	<b>Length</b>	<b>Coordinates (Collar)</b>			<b>Casing</b>	<b>Size</b>	<b>Sample series (8R)</b>
	<b>Start</b>	<b>End</b>				<b>(°)</b>	<b>(°)</b>	<b>(m)</b>			
2008-B	08/11/20	08/11/28	000	-90	99.66	653088	5484983	1761	3.05	NQ	250701-250732
2008-C	08/12/02	08/12/10	000	-90	135.37	653055	5484981	1762	2.74	NQ	250733-250776

As noted in section 4.2 above, the predominant rock type that underlies the area targeted by the drill program consists of a magnetite-bearing hornblende clinopyroxenite ‘cumulate’. Both 2008 drill-holes cut almost identical lithology types. Hornblende clinopyroxenite is generally medium to coarse grained, dark greenish-grey in colour, and fairly equigranular regardless of the grain size. Clinopyroxene compositions consist primarily of diopsidic augite. Variable amounts of medium to coarse grained amphibole (hornblende) are generally dark green to black, are scattered throughout the pyroxenite and are locally concentrated in narrow bands (or dykes?) of hornblendite—locally these phases may be up to 50cm wide. Very coarse grained, clinopyroxene-hornblende intergrowths are common as are more pegmatitic phases that occur as centimetre to metre-scale ‘layers’.

Magnetite occurs primarily as <1.0 cm grains/disseminations as interstitial intergrowths between medium and coarse grained clinopyroxenes, and less commonly as irregular and more massive segregations, or ‘bands’. The grain size of the magnetite is generally proportional to the grain size of the host hornblende clinopyroxenite.

Where analysed the platinum and palladium assay values from 2008 drill-core were generally low (<5 ppb)—Appendix 4.

## DDH 2008-B

This hole was drilled vertically (000° azimuth) with a dip of -90° for a length of 99.66 metres. The hole was planned to test the magnetite mineralization at the eastern side of a very strong geophysical magnetic anomaly on the MRM 1 claim (Figures 6 and 7).

In general, DDH 2008-B cut both medium-grained and coarse to very coarse-grained hornblende clinopyroxenite phases of the TUC. The units are generally massive and commonly display sections of rudimentary segregation/cumulate layering with some pegmatitic phases locally. The rocks are generally equigranular, strongly to very-strongly magnetic and display a fairly uniform texture and mineralogy. Commonly hornblende grains may be up to 2cm in length. Local centimetre to metre-scale micro-gabbro/dolerite and hornblende-rich dykes were intersected although some of these features may represent cumulate layering within the hornblende clinopyroxenite. A 30 cm wide black mafic dyke (basalt) was intersected at the base of the hole at 98.75-99.05m—this unit is weakly magnetic and displays sharp, chilled contacts with the pyroxenite phase.

Magnetite content is typically between 15-25% but is locally up to 35% over 25-40cm of core length. The magnetite occurs as medium to coarse interstitial grains, finer disseminations, 'pod-like' masses, and centimetre-scale 'bands' or layers typically at contacts between the medium and coarse-grained phases of pyroxenite.

There is a slight decrease in magnetite content from approximately 60 to 96 metres depth in a zone containing fault brecciation and local mafic dyke phases. The lowest magnetite value for the hole was between 63.0-66.0m (12.40% magnetite) where drilling intersected a foliated and moderately magnetic, dark-greyish green fine to medium-grained mafic phase from 62.81-64.40m—a magnetite-poor cumulate layer or a hornblendite/dolerite dyke? Below this unit was a zone of transition (at 64.40-67.61m) between medium and coarse-grained to pegmatitic pyroxenite which carried 25.60% magnetite (66.0-69.0m). Clearly, these small mafic layers and/or dykes can locally reduce the total percent magnetite, but they are typically narrow and fairly isolated bodies.

A strong fault zone between 69.20-71.30m contained 13.80% magnetite in brecciated coarse-grained hornblende clinopyroxenite. Thin carbonate-quartz veinlets occur throughout this zone along with strong sericite-chlorite-talc ( $\pm$ serpentine?) alteration.

Near the base of the hole a narrow fault-bound mafic (basalt?) dyke was intersected (at 98.75-99.05m), with chilled contacts with the pyroxenite host. This unit is dark-grey to black and non to very weakly magnetic. A similar lithology was intersected near the base of DDH 2008-C and the two may be related, but further drilling is required to confirm this relationship. Below the mafic dyke in hole 2008-C was a section of elevated gold and silver mineralization (see below) but similar mineral potential for DDH 2008-B has yet to be tested as this hole was halted at 99.66m, just past the dyke unit.

Numerous faults and shears were intersected in DDH 2008-B (Appendix 3). Initial interpretations suggest that early semi-ductile styles of shearing have been cut by brittle faulting and associated carbonate-quartz veining.

### DDH 2008-C

This hole was also drilled vertically (000° azimuth) with a dip of -90° for a length of 135.37 metres, approximately 30 metres southwest of DDH 2008-B (Figures 6 and 7). The hole was the second in a series of drill holes intended to test the magnetite mineralization on the east-central side of the very strong geophysical magnetic anomaly on the MRM 1 claim.

DDH 2008-C primarily cut coarse-grained hornblende clinopyroxenite with the medium-grained variety occurring locally within the lower third of the hole. The units are almost identical to those cut in DDH 2008-B with the exception of greater coarse to pegmatitic phases in the upper two-thirds of the hole (Appendix 3)—it should be noted that this portion of the hole returned the highest magnetite percents of both 2008 holes.

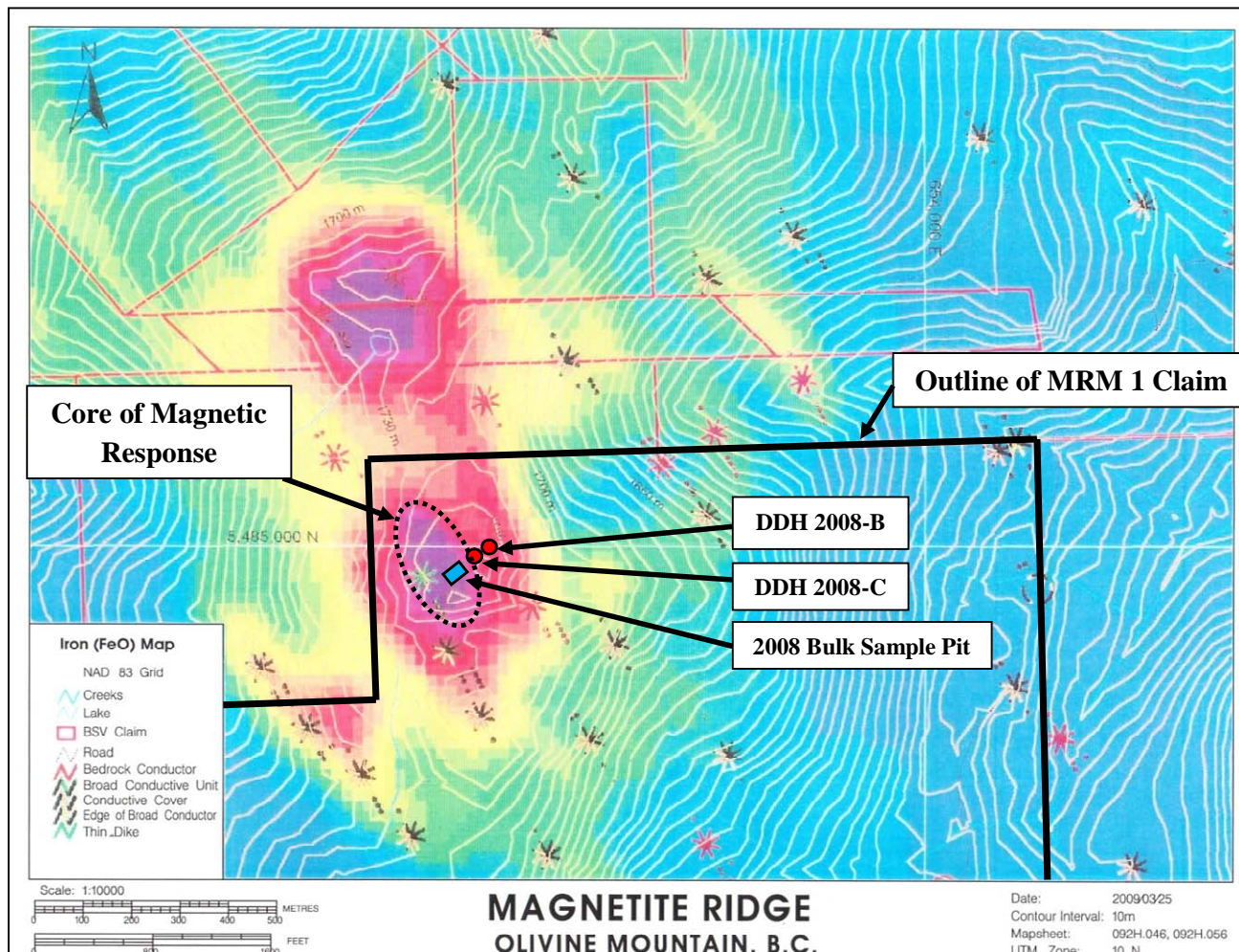
A fine to medium-grained, moderately magnetic mafic unit was cut between 99.40-99.71m and 112.90-113.22m, which may be hornblende or a pyroxenite segregation layer, and phlogopite is an abundant alteration mineral within these units. As well, the units are foliated suggesting an early deformation event, possibly concurrent with the reported regional structures. Penetrative foliation fabrics are common in these zones.

Between 54.0m and 57.0m the magnetite content was 13.70%, and contained a 'typical' gradational boundary between medium and coarse-grained hornblende clinopyroxenite. Up-section of this interval from 51.0-54.0m, the percent magnetite was 33.90, which may represent a magnetite-rich cumulate basal zone above a magnetite depleted pyroxenite(?)

In DDH 2008-C magnetite percent also decreases in zones of strong brittle fault brecciation (i.e. ~75.0-81.0m, 17.1% over 6m) containing localized gouge and slips.

Initial assaying of core between 123.0-126.0m returned elevated gold and silver values (1.73 g/t Au and 5.8 ppm Ag) over a 3 metre interval. To better constrain the mineralization in this zone the Company re-assayed this portion of the hole in 2009. Although this work is not included within the period covering this assessment report they are still worth noting. In DDH 2008-C, assayed intervals between (i): 123.5-124.0m returned 0.43 g/t Au and 2.8 ppm Ag over 0.5m; (ii) 124.0-125.0 m returned 5.57 g/t Au and 13.1 ppm Ag over 1m; and (iii) 125.0-125.50m assayed 0.01 g/t Au and 0.1 ppm Ag over 0.5m. Core-logging indicated that the elevated gold and silver values occur in a section of very strong quartz-carbonate-arsenopyrite veining and alteration within a semi-ductile shear zone. Structural measurements show this zone to be approximately 65°-70° to core axis but due to the use of non-oriented drill-core the actual strike and dip is not clear. In addition, this zone of elevated gold and silver also contained the lowest magnetite values for the either 2008 drill holes—10.60% magnetite over 3 metres between 123-126m (Table 3).

**FIGURE 7: GEOPHYSICAL MAP OF DP-EM RESPONSE (FeO) AT MAGNETITE RIDGE**



Assays for DDH 2008-B and DDH 2008-C are shown in Table 3 which contains percent Fe and corresponding percent magnetite. Assaying was performed by Eco-Tech Laboratories (ISO 9001 Certified) in Kamloops, B.C. All samples were assayed using multi-element analysis (Aqua-Regia digestion/ICPMS finish) with specific sections of interest receiving an additional Fire-Assay method for gold, platinum and palladium (Appendix 4). Total percent magnetite testing was performed using a standard Davis Tube apparatus by BC Mining Research Ltd. (UBC) and by Craigmont Laboratories, Merritt, B.C.

The Certificate for the BC Mining Research Ltd. (UBC) Davis Tube study is located in Appendix 5; the Davis Tube work at Craigmont Labs was performed by B. Perry, Ph.D.—there are no certificates for this work.

**TABLE 3: SUMMARY OF PERCENT IRON AND PERCENT MAGNETITE FOR DDH 2008-B AND DDH 2008-C**

*\*Eco-Tech ICP Assay (DDH 2008-B and DDH 2008-C)*

*\*\*BC Mining Research Ltd. (UBC)—Davis Tube (DDH 2008-B)*

*\*\*\*Craigmont Labs—Davis Tube (DDH 2008-C)*

HOLE ID	Sample From (m)	Interval To (m)	Length (m)	Sample No. (Series 8R)	Fe* %	Mt** %
	2008-B	3.05	6	2.95	250701	15.40
2008-B	6	9	3	250702	17.60	<b>22.80</b>
2008-B	9	12	3	250703	16.60	<b>17.40</b>
2008-B	12	15	3	250704	16.40	<b>22.00</b>
2008-B	15	18	3	250705	17.40	<b>22.40</b>
2008-B	18	21	3	250706	16.60	<b>21.60</b>
2008-B	21	24	3	250707	15.50	<b>19.20</b>
2008-B	24	27	3	250708	15.80	<b>20.40</b>
2008-B	27	30	3	250709	15.70	<b>20.40</b>
2008-B	30	33	3	250710	15.20	<b>19.20</b>
2008-B	33	36	3	250711	14.50	<b>19.20</b>
2008-B	36	39	3	250712	15.70	<b>21.80</b>
2008-B	39	42	3	250713	14.60	<b>17.00</b>
2008-B	42	45	3	250714	14.70	<b>17.20</b>
2008-B	45	48	3	250715	17.10	<b>21.00</b>
2008-B	48	51	3	250716	15.40	<b>18.60</b>
2008-B	51	54	3	250717	18.20	<b>22.00</b>
2008-B	54	57	3	250718	16.40	<b>21.60</b>
2008-B	57	60	3	250719	16.20	<b>19.60</b>
2008-B	60	63	3	250720	14.60	<b>20.00</b>
2008-B	63	66	3	250721	12.40	<b>12.40</b>



2008-B	66	69	3	250722	19.30	<b>25.60</b>
2008-B	69	72	3	250723	12.40	<b>13.80</b>
2008-B	72	75	3	250724	15.50	<b>21.00</b>
2008-B	75	78	3	250725	17.90	<b>21.60</b>
2008-B	78	81	3	250726	14.50	<b>21.00</b>
2008-B	81	84	3	250727	12.80	<b>16.60</b>
2008-B	84	87	3	250728	12.40	<b>16.80</b>
2008-B	87	90	3	250729	11.70	<b>15.00</b>
2008-B	90	93	3	250730	11.00	<b>16.00</b>
2008-B	93	96	3	250731	10.70	<b>18.60</b>
2008-B	96	99.66	3.66	250732	12.80	<b>22.00</b>

HOLE ID	Sample	Interval	Length	Sample No.	Fe*	Mt***
	From (m)	To (m)	(m)	(Series 8R)	%	%
2008-C	3	6	3	250733	20.20	<b>24.90</b>
2008-C	6	9	3	250734	27.70	<b>35.00</b>
2008-C	9	12	3	250735	24.00	<b>32.10</b>
2008-C	12	15	3	250736	19.80	<b>23.70</b>
2008-C	15	18	3	250737	21.00	<b>26.80</b>
2008-C	18	21	3	250738	16.60	<b>25.00</b>
2008-C	21	24	3	250739	15.00	<b>23.00</b>
2008-C	24	27	3	250740	26.50	<b>31.20</b>
2008-C	27	30	3	250741	15.80	<b>22.90</b>
2008-C	30	33	3	250742	15.90	<b>22.30</b>
2008-C	33	36	3	250743	17.30	<b>24.40</b>
2008-C	36	39	3	250744	21.70	<b>23.40</b>
2008-C	39	42	3	250745	18.00	<b>21.10</b>
2008-C	42	45	3	250746	23.30	<b>24.80</b>
2008-C	45	48	3	250747	22.20	<b>25.90</b>
2008-C	48	51	3	250748	20.20	<b>23.70</b>
2008-C	51	54	3	250749	25.90	<b>33.90</b>
2008-C	54	57	3	250750	10.50	<b>13.70</b>
2008-C	57	60	3	250751	16.40	<b>20.10</b>
2008-C	60	63	3	250752	17.80	<b>21.80</b>
2008-C	63	66	3	250753	20.40	<b>25.00</b>
2008-C	66	69	3	250754	21.20	<b>26.90</b>
2008-C	69	72	3	250755	18.60	<b>24.50</b>
2008-C	72	75	3	250756	18.40	<b>21.60</b>
2008-C	75	78	3	250757	18.00	<b>17.90</b>
2008-C	78	81	3	250758	13.60	<b>16.30</b>
2008-C	81	84	3	250759	19.50	<b>26.10</b>

2008-C	84	87	3	250760	15.80	<b>19.60</b>
2008-C	87	90	3	250761	21.90	<b>21.10</b>
2008-C	90	93	3	250762	16.30	<b>21.80</b>
2008-C	93	96	3	250763	17.50	<b>22.00</b>
2008-C	96	99	3	250764	19.20	<b>20.00</b>
2008-C	99	102	3	250765	17.40	<b>21.10</b>
2008-C	102	105	3	250766	18.30	<b>22.40</b>
2008-C	105	108	3	250767	20.60	<b>24.50</b>
2008-C	108	111	3	250768	16.00	<b>22.00</b>
2008-C	111	114	3	250769	17.70	<b>21.00</b>
2008-C	114	117	3	250770	17.30	<b>19.70</b>
2008-C	117	120	3	250771	14.20	<b>22.30</b>
2008-C	120	123	3	250772	8.80	<b>11.50</b>
2008-C	123	126	3	250773	9.60	<b>10.60</b>
2008-C	126	129	3	250774	11.70	<b>20.00</b>
2008-C	129	132	3	250775	14.30	<b>22.50</b>
2008-C	132	135.37	3.37	250776	13.00	<b>21.70</b>

In 2008 five random samples were selected from DDH 2008-C for percent magnetite cross-check purposes (Table 4 and Appendix 5). These samples were initially tested for percent magnetite by Craigmont Laboratories using a standard Davis Tube apparatus. They were then sent to B.C. Mining Research Ltd. (UBC) and re-tested using similar equipment. The results were generally agreeable with differences of 0.30% (or less) magnetite for three of the samples, and 1.10% and 1.30% magnetite for two of the samples.

**TABLE 4: CROSS-CHECKS OF PERCENT MAGNETITE FOR DDH 2008-C—DAVIS TUBE TEST**

<b>Interval (m)</b>	<b>Sample No.*</b>	<b>Mt%*</b>	<b>Sample No.**</b>	<b>Mt%**</b>
3-6	250733	<b>24.90</b>	081897A001	<b>25.20</b>
6-9	250734	<b>35.00</b>	081897A002	<b>35.30</b>
24-27	250740	<b>31.20</b>	081897A008	<b>32.50</b>
54-57	250750	<b>13.70</b>	081897A018	<b>13.60</b>
57-60	250751	<b>20.10</b>	081897A019	<b>21.20</b>

\*Craigmont Labs samples

\*\*BC Mining Research Ltd. (UBC) samples

## 6.0 DISCUSSION AND CONCLUSIONS

The 2008 diamond-drilling and bulk sampling program conducted by Magnetite Ridge Metals and Minerals Ltd. was successful in identifying strong magnetite mineralization in medium to coarse-grained hornblende clinopyroxenite on the eastern portion of a high geophysical magnetic anomaly located at the northwest corner of the MRM 1 claim.

The work conducted in 2008 was a preliminary exploration program aimed at examining the magnetite mineralization potential of an area containing bedrock exposure of magnetite-rich ultramafic rocks, as well as a well-defined strong magnetic geophysical anomaly (pole-dipole array IP and airborne geophysical survey—DIGHEM). Diamond drilling tested an east-central portion of the anomaly, while the bulk sample pit investigated part of the core of the anomaly.

The main lithologies underlying the area of work on the MRM 1 claim are principally medium to coarse-grained (to locally pegmatitic) hornblende-clinopyroxenite displaying typical cumulate-segregation layering throughout. Drill-core from the 2008 program was comprised of approximately 95% hornblende-clinopyroxenite with minor amounts of hornblendite and micro-gabbro/dolerite phases occurring as either dykes and/or cumulate layers within the pyroxenite. Both holes intersected non to weakly-magnetic, black basaltic dykes less than 1.5m wide.

Magnetite occurs as fine to coarse disseminated grains/intergrowths and as centimetre-scale 'bands' or cumulate layers. Locally, the units are cut by both brittle faults and ductile to semi-ductile shear zones less than 0.5 metres wide. Typically these structures contain trace amounts of pyrite±chalcopyrite±arsenopyrite along fractures and within associated carbonate-quartz±chlorite veins.

Results of Davis Tube test analyses in both 2008 holes were fairly consistent throughout, with average grades generally ranging between 20-25% magnetite. Higher percent magnetite is common in the upper portions of DDH 2008-C where grades of 25-35% magnetite were intersected. Locally, magnetite percent is lower (~10-20% magnetite) in zones containing narrow mafic hornblendite/micro-gabbro or basalt dykes, or in sections containing strong fault brecciation and shearing—typically less than 4 metres in core width.

Duplicate Davis Tube analysis for magnetite conducted by B.C. Mining Research at UBC, and representing approximately 6% of the total number of samples analysed, generally show good reproducibility.

In general, magnetite grades appear to be stronger westward from DDH 2008-B towards DDH 2008-C. This interpretation is in keeping with the magnetic geophysical response on the MRM 1 claim which strengthens just west of drill hole 2008-C and over the 2008 bulk sample pit.

Drill-core from DDH 2008-B (99.66m in length) averaged ~20% magnetite over the entire hole with the lowest grades intersected below 81.0 metres depth—81m to 99.66m, 17.5% magnetite. DDH 2008-C (135.37m length) averaged ~23% magnetite for the length of the hole, with local 3 metre sections between 6.0-69.0 metres returning grades of 26.9% to 35% magnetite.

An interval of elevated gold and silver mineralization was intersected in DDH 2008-C between 124-125 metres (5.57 g/t Au and 13.1 ppm Ag over 1 metre), approximately 4 metres past a basalt dyke, and although these assays are not included in the costs for the period of this report they may be worth follow-up drilling in the future. The gold mineralization is associated with strong quartz-carbonate-arsenopyrite±pyrite±chalcopyrite veining and alteration in a semi-ductile shear zone. Elevated gold and/or silver mineralization was not intersected in DDH 2008-B, which may be due to the fact that this hole ended at 99.66m just past a narrow basalt dyke similar to that intersected in DDH 2008-C. Further drilling may elucidate the nature of this gold-silver mineralization at the deposit.

DDH 2008-C intersected a zone of elevated gold-silver concentrations at 124.0-125.0 metres (5.57 g/t Au and 13.1 ppm Ag). Mineralization occurs in a quartz-carbonate altered semi-ductile shear zone with sulphide content ranging between 8-12% (arsenopyrite>>pyrite>chalcopyrite).

Bulk sampling on the MRM 1 claim was conducted approximately 50 metres southwest of DDH 2008-C, and was successful in excavating bedrock of magnetite-rich hornblende clinopyroxenite which appears to be similar in grade to that encountered in the 2008 diamond drilling program. Although no assays or tests were performed on this material in 2008, visual estimates of the magnetite content of this rock type range between 15-25%. Additional bulk sampling and testing of the deposit would support a better determination the grade and tonnage of a potential open-pit mine.

Preliminary structural interpretations suggest that the main hornblende clinopyroxenite phases dip moderately-steeply to the west with a south-eastern strike. Although this is consistent with the general structural interpretation of the Tulameen ultramafic complex, further work (i.e. drilling with oriented drill-core combined with surface mapping and modeling) is required to confirm this premise.

Historically, platinum and palladium mineralization has been chiefly encountered in association with chromite lenses in dunites in the Tulameen Complex. Although dunite has yet to be recognized on the MRM 1 claim it would be useful to analyse selected composite samples from future drill-holes for platinum group elements.

## **7.0 RECOMMENDATIONS AND PROPOSED EXPLORATION BUDGET**

Magnetite Metals and Minerals Ltd. has identified magnetite mineralization in an area outlined as containing a very strong magnetic geophysical response from a DP-EM FeO survey. The anomaly has a dimension of approximately 350m x 450m over which extensive outcrop of magnetite-rich hornblende clinopyroxenite has been mapped. Based on the results of the 2008 diamond drilling and bulk sampling program on the MRM 1 claim, the following recommendations for further work are warranted:

1. A comprehensive diamond-drill program aimed at delineating the tonnage and grade of magnetite mineralization, focused on the core and immediate periphery of the magnetite deposit—an area situated between grid lines 7900N and 8200N and stations 7500E and

7900E on those grid lines (Figure 6). The Company currently has permits in place for 77 drill-holes for the MRM 1 claim. A systematic and tightly spaced 3 phase drill campaign on the deposit grid is recommended in order to gain greater quantitative control for the evaluation of a potential resource for a starter open-pit for the production of magnetite. Note: Phase 2 is contingent on results from the Phase 1 drilling, and Phase 3 is, in turn, contingent on results from the phase 2 program. Costs are all inclusive (site prep, drilling, sampling, and assaying/testing):

**Phase 1**—The drilling of 20 holes in the core of the deposit, centered around the current bulk sample pit, spaced 30 metres apart on gridlines also spaced 30 metres apart, and to a depth of approximately 150 metres.

*20 holes x 150m depth x \$150/m cost (inclusive) = \$450,000*

**Phase 2**—The drilling of 20 holes peripheral to, and outward from, the core area, spaced 30 metres apart on gridlines also spaced 30 metres apart, and to a depth of approximately 150 metres.

*20 holes x 150m depth x \$150/m cost (inclusive) = \$450,000*

**Phase 3**—The drilling of 30 holes peripheral to, and further outward from the phase 2 drill-holes, spaced 30 metres apart on gridlines also spaced 30 metres apart, and to a depth of approximately 150 metres.

*30 holes x 150m depth x \$150/m cost (inclusive) = \$675,000*

***Total for all three phases = \$1,575,000***

2. A field mapping and rock sampling program—detailed deposit-scale and reconnaissance claim-scale work. This work would assist in further refining the deposit narrative as well as describing property-scale geology (structure, lithologies, alteration, etc.). Furthermore, this work would help to identify the surface extent of magnetite (and potentially gold-platinum) mineralization on the claim. Field work would also include the investigation of the large copper anomaly that covers a portion of the south-east side of the MRM 1 claim, and the potential for gold mineralization (i.e. DDH 2008-C) on the property.

*14 days x \$1,200 day (includes assaying costs) = \$16,800*

In total, a budget of approximately \$1,591,800 is recommended for future exploration work on the MRM 1 claim.

## **8.0 STATEMENT OF COSTS**

The following expenses were incurred on the MRM 1 claim, Similkameen Mining Division, for the purpose of mineral exploration activities between the dates of May 15 2008 and April 31 2009, and includes the cost of this report (December, 2009). All costs are in Canadian dollars.

**Diamond Drilling**

*Atlas Drilling Ltd., Kamloops, B.C.*

Oct 9- Oct 14, 2008; Invoice #081008

Drilling (235.03 metres)	\$ 23,150.00
Moving and others	\$ 10,317.50
Materials	\$ 11,747.89
Tractor charge	\$ 1,666.00
Mobilization and demobilization	\$ 4,500.00
Misc	\$ 2,569.07
<b>Total</b>	<b>\$ 53,950.46</b>

**Physical Work**

*Red Rock Ventures Ltd, Rossland, B.C.*

Aug 12-16, 2008 and August 24-Sept 01, 2008

Transport of equipment, road building and road upgrade	\$ 25,509.75
Bulk sample pit excavation and transport	\$14,946.75
<b>Total</b>	<b>\$ 40,456.50</b>

**Project Supervision**

Bruce Perry, *Project Manager*

May 18-Nov 15 2008 and March 15-April 15, 2009;

\$6,000/month x 7 months

Drilling and physical work supervision	<b>\$42,000</b>
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**Analytical Costs**

Eco-Tech Laboratory, Kamloops, B.C.

March 15-Nov 27 2009; Invoice #'s AK08-1870-1897r;

AK09-0103,-0782,-0783,-0782.

Assaying/geochemical analysis	<b>\$2,372.70</b>
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Craigmont Laboratory, Merritt, B.C.

Assaying/geochemical analysis; (Bruce Perry,

4 days @ \$400/day, March 24-27, 2008)	<b>\$1,600.00</b>
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**Geotechnical Core Preparation, Cutting and Sampling**

Paul Watt, March 15-16 and April 10-21 2008

5 days @ \$200/day	<b>\$1,000.00</b>
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**Report Preparation and Drafting**

Robin Whiteaker, P.Geo. Invoice #09-12 and #09-13

Oct 17-23 and Nov 1-Dec 10 2009. Property visit,

core-logging, report preparation and drafting: 3 days

@ \$625/day and 70 hrs @ \$70/hr (incl. GST)	<b>\$7,161.96</b>
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<b>Total</b>	<b>\$148,541.62</b>
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## **9.0 STATEMENT OF QUALIFICATIONS**

Magnetite Ridge Metals and Minerals Ltd. President Bruce J. Perry, PhD was the designated Project Manager between the dates of May 15, 2008 and December 15, 2008, and supervised the diamond drilling activity and some of the physical work on the MRM 1 claim.

Road/trail refurbishing and bulk sample pit excavating was carried-out by Golden City Excavating of Rossland, B.C. The supervisor for this work was the company owner Brian Pistak.

Drill-core from the 2008 drill program was initially logged by Bruce J. Perry, Ph.D. and re-logged for this report by geologist Robin J. Whiteaker, P.Geo.

Core sampling and cutting was carried-out by contractors Karl Reklinski and Paul Watt.

ICP analyses were performed by Eco-Tech Laboratories of Kamloops, B.C., which is ISO-9001 Certified.

Davis Tube Tests for percent magnetite for DDH 2008-B were performed by BC Mining Research Ltd. at the University of British Columbia. The tests for DDH 2008-C were conducted by Bruce Perry, Ph.D. at the Craigmont Mine Laboratories near Merritt, B.C., with 5 of these samples cross-checked by BC Mining Research Ltd. (UBC).

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## **APPENDICES**

## APPENDIX 1

### CERTIFICATE OF AUTHOR

I, Robin J. Whiteaker, residing at 1629 Coldwater Dr., Kamloops, British Columbia, do hereby certify that:

1. I am presently working as a Contract Geologist with an office located at 1629 Coldwater Dr., Kamloops, British Columbia, Canada, V2E 2M4.
2. I graduated with a Bachelor of Science honours degree in Geological Sciences from the University of British Columbia in 1996. I also hold a degree in Secondary Education (B.Ed.) from The University of British Columbia (2000).
3. I am a Professional Geoscientist in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Registration No. 30197).
4. I am a Qualified Person (QP) as outlined in National Instrument 43-101 of the Canadian Securities Commission.
5. I have worked as a Geologist for approximately 14 years since my graduation from University, primarily in the mining and mineral exploration industry throughout British Columbia, Latin America and West Africa.
6. That I was contracted by Magnetite Ridge Metals and Mining Ltd. to complete an assessment report on the 2008 work program, which included a property site visit on October 17 2009 and the re-logging of the 2008 drill-core in October of 2009.
7. I am the primary author of the amendments to the assessment report titled *Assessment Report for 2008 Diamond Drilling and Bulk Sampling on the MRM 1 Claim—Magnetite Ridge Project, Olivine Mountain, South-Central British Columbia, Canada*, dated December 20 2009.
8. Other than my capacity as a Consulting Geologist to Magnetite Ridge Metals and Mining Ltd., I have not received and do not expect to receive an interest, direct or indirect, in the property described in this report nor in Magnetite Ridge Metals and Mining Ltd.

Dated at Kamloops, British Columbia this 8<sup>th</sup> of July, 2010.

Signed By:



Robin J. Whiteaker, P.Geol.

Registered Professional Geoscientist



## **APPENDIX 2**

### **DIAMOND DRILL HOLE LOGS**

**DDH 2008-B****MAGNETITE RIDGE METALS AND MINING**

Diamond Drill Log

Az: 000° Dip -90°

Logged by: R. Whiteaker, P.Geo.

Collar: 653088mE/5484983mN

Core Size: NQ

Elevation: 1761m

Length: 99.66m

**0-3.05m:** Casing**3.05-5.0m:** Rubbled/rounded drill-core, poor recovery. Lithology—coarse-grained hnl-clinopyroxenite.**5.0-12.75m:** Dark grey to greenish-grey, coarse-grained to pegmatitic hnl-clinopyroxenite; strongly magnetic w/ ~15-20% coarse magnetite; mafics up to 2.5cm in length; short sections of medium-grained clinopyroxenite (segregations/layering?) <1m wide over ~10% of interval. Apatite and olivine as subordinate mineral phases.

5.71-6.40m: Strongly foliated/mylonitic ~35°-40° CA w/ up to 5% finely disseminated py-arsenopyrite(?).

@ 7.0m: Thin fault/slip ~40 CA, &lt;0.5cm wide.

9.70-11.70m: Qtz-carb±py veins ~40° CA and 60° CA, &lt;1 cm wide.

@ 12.75m: Slip ~ 68° CA, carb-lim fill/alteration.

**12.75-23.80m:** Dark-grey, medium-grained hnl-clinopyroxenite phase w/ upper 'contact' ~ 68° CA; ~10-20% magnetite; local 'pod-like' cumulate layers of very coarse to pegmatitic phase up to 50cm wide. Rare Qtz-carb±py veins

@ 16.25m: 5cm wide 'band' of magnetite ~40° CA.

**23.80-53.20m:** Coarse-grained hnl-clinopyroxenite—as upsection. Contact w/ medium-grained phase gradational but crudely ~40°-50° CA. Dark-green serpentine(?) on fractures (trace olivine). Magnetite as coarse interstitial grains and masses.

@ 25.90m: Dark green-grey, medium-grained hornblendite (or hnl-pyroxenite?) ~40° CA, &lt;2cm wide; trace py.

@ 26.40m: Dark grey-green, medium-grained hornblendite(?) dyke or foliated xenoliths(?); ~7 cm wide; accessory apatite and olivine(?) components; secondary biotite.

@ 28.20m: Fault/shear ~ 40° CA, <1 cm, along magnetite-rich layer within a pegmatitic phase.

31.50-33.90m: Section of medium-grained hnl-clinopyroxenite (cumulate segregation?); strongly magnetic; gradational contact with coarser phase ~40° CA. Central layer/dyke(?) of olivine pyroxenite(?) ~45°-50° CA, 30 cm wide, unit foliated ~45° CA.

35.95-38.30m: Section of strong brecciation and fracturing; local faults ~ 60° CA and 35° CA; hem staining. Qtz-carb veins ~30°-40° CA down section.

39.70-41.30m: Layers of dark-green, medium-grained pyroxenite (or hornblendite?) ~20°-25° CA, <5 cm wide. Biotite-rich, trace apatite, 1% py locally; foliated ~20° CA.

@ 41.85m: Carb-serp-ser-talc (antigorite?) vein ~ 68° CA, 1.5 cm wide.

42.0-53.20m: Coarse-grained, massive hnl-clinopyroxenite; local massive magnetite 'bands/layers' up to 2cm wide, 40°-50° CA.

**53.20-67.61m:** Dark-grey, medium-grained hnl-clinopyroxenite; fairly homogeneous and massive; gradational contact w/ upsection coarse phase ~40° CA. Approx 10-20% magnetite; local epidote alteration and coarse biotite (secondary?). Hnl foliation ~ 50°-60° CA? Some coarse hnl-bt±py clots up to 10 cm diam. Local finer-grained phases (as segregation layers?) ~3cm-10cm wide, ~20°-25° and 35°-40° CA, magnetic and typically hnl-rich.

@ 57.65m: Carb-antigorite (serp?)-qtz±py veins <1 cm wide over 5 cm core length, 60° CA.

@ 59.95m: Open-space carb-py-ep-qtz vein ~ 25° CA, 1 cm wide.

**Note:** From ~ 60-75m magnetite decreases to ~10-20%.

62.81-64.40m: Dark-greyish green, fine to medium-grained mafic cumulate layer (?) or hornblendite or dolerite dyke? Sharp 'contacts' ~18°-25° CA, secondary bt; internal foliation fabric ~20°-25° CA; pervasive chl-ep-carb alteration w/ up to 1% py disseminated locally over 50 cm. Moderately magnetic.

64.40-67.61m: Zone of transition between medium and coarser-grained phases with irregular coarse-pegmatitic hnlb-pyroxenite scattered throughout medium-grained phase.

**67.61-75.50m:** Dark-grey, coarse-grained hnlb-clinopyroxenite. Zone of strong brecciation and faulting ~ 35°-45° and 30° CA, <4cm wide. Xenoliths of olivine-clinopyroxenite(?)—increase in waxy serpentine on fractures and a distinct greenish colour to unit locally. Brecciated ep-qtz-carb veins. Strongest portion of fault breccia between 69.2-71.3m; ~10-15% mt. Thin white carb veinlets throughout.

74.51-74.70m: Faulted carb-qtz veins w/ hematite and chl-serp-carb-cly alteration; ~40° CA.

@ 75.20m: Sheared carb-ser-serp-talc(?)—hem breccia veins ~35 CA, 10cm.

**75.50-99.66m:** Dark greenish-grey, coarse-grained (to pegmatitic) hnlb-clinopyroxenite w/ ~ 15-25% magnetite. Strong chl-ep-serp(?) alteration—increasing olivine content in unit? Local narrow medium-grained hnlb-clinopyroxenite phases/layers <5cm wide, 40° and 20° CA, magnetic. Coarse pyroxene up to 3cm diam. commonly enclose magnetite grains.

@ 77.81m: Dark grey to black, fine to medium-grained dyke—hornblendite or dolerite? Chilled contacts ~ 35°-40° CA, 15 cm wide; mod-magnetic.

81.45-82.15m: Dark greenish-grey, fine to medium-grained micro-gabbro or dolerite? Sharp contacts ~ 40°-45° CA; Unit fault brecciated w/ brecciated carb-qtz veins locally (~40° and 70° CA); carb-ser-chl alteration.

@ 92.10m: Carb-ser-antig-serp veins and alteration ~ 60° CA, <1cm wide; trace hem.

@ 93.0m: Fault ~38° CA, <2cm.

**Note:** From ~ 93.0m unit is a combination of both coarse and medium grained phases w/ total magnetite ~ 10-15%.

94.82-95.06m: Dark-grey to greenish-grey, fine to medium-grained mafic-dolerite(?) dyke (layer?). Mod-magnetic; bt/phlogopite alteration; sharp contacts ~ 40° CA.

98.61-98.75m: Fault ~60°-65° CA along a qtz-carb vein.



98.75-99.05m: Black mafic dyke—basalt? Chilled lower contact  $\sim 35^{\circ}$ - $40^{\circ}$  CA. Non- to v. weakly-magnetic. Sheared upper contact w/ carb-qtz vein set  $\sim 60^{\circ}$ - $65^{\circ}$  CA.

**E.O.H. @ 99.66 m.**

**DDH 2008-C****MAGNETITE RIDGE METALS AND MINING**

Diamond Drill Log

Az: 000° Dip -90°

Logged by: R. Whiteaker, P.Geo.

Collar: 653055/5484981mN

Core Size: NQ

Elevation: 1762m

Length: 135.37m

**0-2.74m:** Casing

**2.74-44.82m:** Dark grey to deep greenish-grey, medium to coarse-grained hornblende-clinopyroxenite; massive, fairly uniform in texture and mineralogy; local cumulate/segregation textures with coarser textures/minerals (pyroxene-hornblende-biotite) up to 2 cm diameter; minor olivine constituent? Locally magnetite enclosed by biotite. Approximately 15-25% magnetite as medium-coarse irregular interstitial blebs/masses and grains throughout, locally with 'pod-like' textures. Pervasive chlorite-carbonate-albite-sericite±serpentinite alteration. Highly magnetic; apatite-olivine as accessory minerals.

@ 5.60m: 2cm qtz-carb vein w/ bleached wall rock ~40° CA; limonite.

@ 10.70m: 5cm zone of strong chl-carb-magnesite(?) veins ~35°-40° CA, weak mylonite/shear fabric.

@ 11.91m: 3 cm carb-qtz vein w/ trace py-cpy ~65° CA; secondary biotite?

12.20-12.91m: Fault~35° CA; brecciated/broken core, limonite.

12.96-13.57m: Fault breccia~35° CA; core well-broken.

@ 16.46m: 3.5cm carb-qtz-py vein~60°-65° CA; strong chl-ser-carb wall rock alteration.

20.12-20.70m: Section containing numerous qtz-carb-py veins~65° CA; bleached wall rock; veins display open-space textures locally.

@ 21.04m: 4cm qtz-py-carb vein~55 CA against a finer-grained pyroxenite 'layer' containing up to 1% disseminated py—unit is foliated~55° CA.

**Note:** from approx 25.90m unit becoming coarser w/ grains up to 2.5 cm; local 'layers' of hnbl-clinopyroxenite ~40 CA, up to 5 cm wide.

@ 29.50-30.0m: Section containing 4-14cm wide finer-grained units (layers or dykes?) within coarser unit—gabbro? Moderately magnetic; contacts ~ 30°-35° and 65° CA.

@ 31.25m: 2 cm shear ~25°-30° CA.

@ 33.80m: Fine-medium grained ultramafic dyke/cumulate layer (?) ~60° CA; bt-hnbl rich; 20 cm wide.

@ 35.20m: 2cm carb-qtz vein ~30° CA, lim-hem stained; sheared/brecciated.

41.46-44.82m: Local coarse irregular masses of magnetite up to 4cm diameter.

@ 42.07m: Fault ~40 CA, 1 cm, chl-bt alteration.

**44.82-76.37m:** Hornblende clinopyroxenite—continued as above but with a greater proportion of medium-grained variety pyroxenite throughout—cumulate features? In general magnetite ~15-25% but locally up to 30-35% as irregular coarse masses and blebs over 25-40cm core length. Magnetite 'masses' display a crude layering/orientation~30° CA. Highly magnetic.

53.05-53.35m: 1.5cm wide shear along core ~20°-25° CA; ser-bt-lim; sub-interval contains medium-grained mafic unit with strong bt-ser-chl-carb alteration.

53.05-54.27m: Medium-grained unit grades into the coarse variety with local pegmatitic phases.

@ 56.40m: Small faults ~45° CA over 10cm along qtz-carb±py veins; limonite.

@ 66.31m: 1-1.5cm carb-qtz vein ~58° CA; Coarse mt ~10cm into wall rock.

@ 73.05m: 3cm carb-qtz vein 60° CA with strong epidote-carb-chl alteration outwards into wallrock~10 cm.

**76.37-80.10m:** Fault/breccia zone. Hnbl-clinopyroxenite as above; foliation at upper contact ~ 45°-50° CA. Unit crushed and brecciated w/ local small faults ~ 25°-30° and 45°-50° CA. Carb-ser-chl-qtz veining throughout <1 cm wide, ~60°-70° CA w/ minor set ~20°-30° CA.

@ 76.60m: Fault gge/brx ~45-50 CA; chl-carb-cly-serp(?).

78.51-80.05m: Fault ~ 50°-60° CA w/ minor 25°-30° CA slips. Strong breccias and chl-serp-carb-cly gge. Structures at base ~ 60°-70° CA.

**80.10-90.20m:** Hnbl-clinopyroxenite (coarse) cont'd as 44.82-76.37m. Greater olivine component down section?

@ 80.79m: 3 cm, medium-grained pyroxenite unit ~30° CA.

83.84-84.15m: Fault? Core shattered into fragments.

88.61-88.90m: Fault ~30° CA. Chl-hem-cly-ser-carb gge.

**90.20-96.96m:** Dark grey, medium-grained hnbl-clinopyroxenite layer/dyke(?). Strongly magnetic but less so than coarser phase. Weak mineral alignment (foliation) ~ 35°-40° CA w/ cumulate 'contacts' ~ 30° CA. Approx 10-20% magnetite. Local qtz-carb±py veins ~30° CA, <1cm wide. Faulted lower contact ~ 50° CA w/ ~1 cm gge.

**96.96-109.76m:** Coarse-grained hnbl-clinopyroxenite w/ a general increase in grain size and volume of magnetite (~18-25%). Local strong alteration and foliation of amphiboles into a 'schistose' appearance.

98.40-98.92m: Fault/brx zone ~ 40°-50° CA. Chl-serp-carb alteration and veinlets.

99.40-99.71m: Section of hnbl-rich, fine-medium grained phase (hornblendite?). Dark grey-green, chilled intrusive contacts ~30° CA. Foliated ~40°-50° CA; moderately magnetic; trace pyrite.

@ 101.83m: 1-2 cm wide dykelet/cummulate layer(?) of fine-med grained unit—as above; contacts ~ 25°-30° CA.

@ 108.54m: Fault ~60° CA. Well crushed core over 10 cm.

109.10-109.76m: Fine-medium grained pyroxenite phase—as 101.83m. Sheared contact ~30° CA w/ 'bands' of py-rich micro-breccias; approx 1% py. Cumulate/segregation textures locally w/ coarser unit.

**109.76-114.33m:** Coarse-grained hnl-clinopyroxenite—cont'd as up section. Numerous short zones of the medium-grained phase throughout (cumulative layers?). Strongly magnetic interval. Approx 15-25% magnetite. Near base of interval numerous carb-qtz±py veins ~ 50°-55° CA, <1 cm wide, non-brecciated. In general, a structural fabric/foliation to unit ~ 30°-40° CA.

@ 110.37m: Fault ~ 58° CA, 1 cm wide.

112.90-113.22m: Medium-grained pyroxenite phase (possible hornblendite unit?). w/ sharp contacts ~ 35°-40° CA, brecciated ~ 30° CA; moderately magnetic w/ <8% magnetite; abundant phlogopite (alteration of hnl?).

@ 113.33m: Excellent cumulate/segregation features between coarse and medium-grained pyroxenites w/ ~2 cm magnetite layer (~30° CA) between the two phases.

**114.33-135.37m:** Coarse and medium-grained pyroxenite phases—as above. Local narrow dykes of hornblendite (?) and basalt. Strongly magnetic interval.

114.33-117.90m: Medium-grained pyroxenite phase w/ contacts ~ 55°-60° and 25°-30° CA (intrusive?). Narrow basaltic dyke from 117.38-117.51m, chilled contacts ~ 60 CA; weakly-magnetic; contains carb-qtz vnt's ~ 45° CA.

117.90-120.12m: V. coarse-grained, magnetite-rich hnl-clinopyroxenite; upper 'contact' ~ 60° CA. Local magnetite segregations ~ 8cm wide and ~30° CA.

120.12-121.70m: Fine to medium-grained, dark grey-black basaltic dyke; chilled upper contact ~ 60° CA; lower contact sheared ~68° CA w/ trace py (±arsenopyrite). Weak-mod magnetic.

121.70-125.0m: Medium-grained, dark-greyish hnl-clinopyroxenite phase w/ a penetrative foliation fabric ~ 60° CA (semi-ductile). Some carb-qtz±py±arsenopy(?) veins ~60°-75° CA, <1-1.5cm wide; Fe-oxide staining. Sheared base ~60° CA. Note: veins (60°-75° CA) cross-cut internal foliation (30°-40° CA) w/ sx locally disseminated into wall rock (1-3% sx).

@122.56m: 4 cm Qtz-carb-py±cpy vein ~68° CA; silver-coloured sulphide arsenopyrite?

123.18-124.43m: Qtz-carb-arsenopy-py±cpy veins and wall rock alteration (carb-albite-chl-Qtz) ~70° CA; approx 8-12% sx over subinterval; non-magnetic; locally arsenopy-py form thin bands in wall rock (replacement feature?). Unit displays a semi-ductile foliation fabric.

125.0-132.0m: Medium-grained phase > coarse-grained phase; cumulate textures common w/ crude fabric ~ 35°-45° CA. Strongly magnetic.

132.0-135.37m: Predominately coarse-grained hbl-clinopyroxenite phase; upper 'contact' w/ medium-grained phase ~38° CA. Coarse magnetite throughout as well as dark green-grey 'bands' or layers of finer-grained pyroxenite <3 cm wide, ~ 30° CA.

**E.O.H. @ 135.37m.**

**APPENDIX 3**

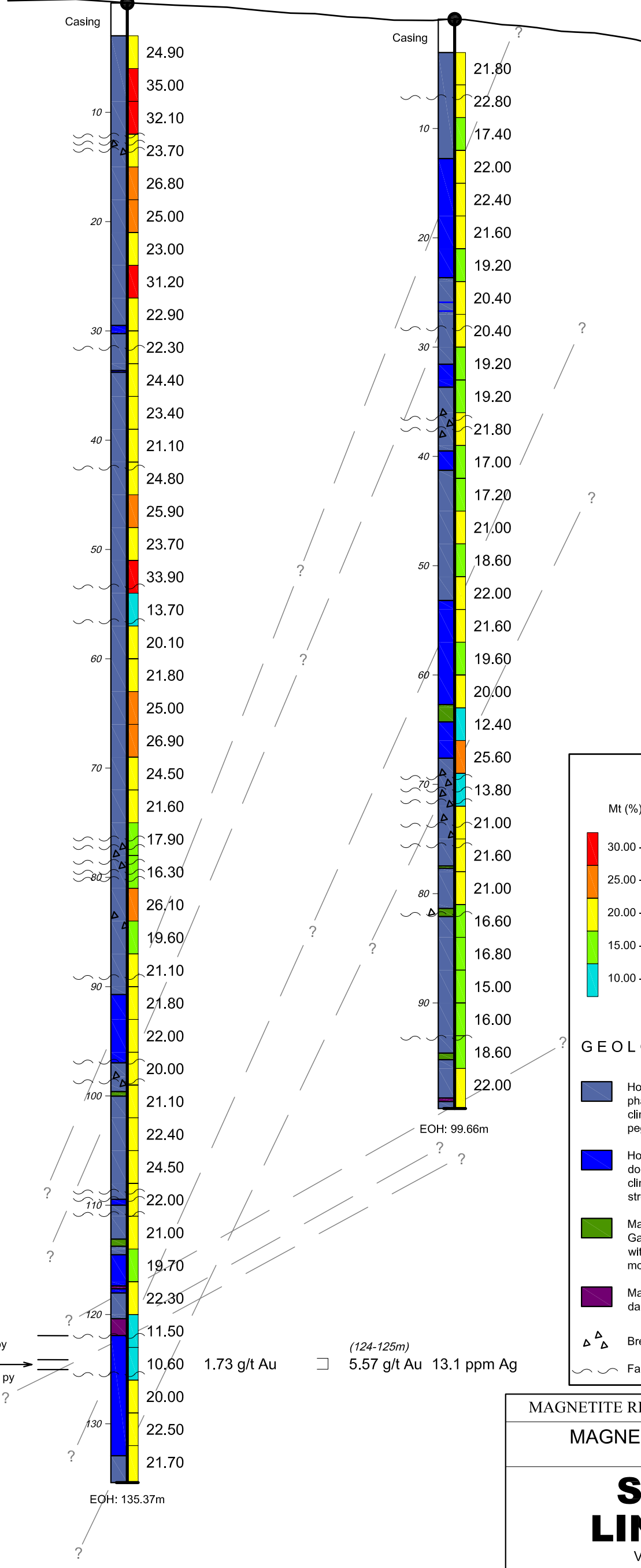
**DRILL-HOLE SECTION—LINE 8050 N**

elev (m a.s.l.)

1770  
1760  
1750  
1740  
1730  
1720  
1710  
1700  
1690  
1680  
1670  
1660  
1650  
1640  
1630  
1620

DDH 2008-C  
Az: 000°  
Dip: -90°

DDH 2008-B  
Az: 000°  
Dip: -90°



Tr arsenopy, py ± cpy  
Qtz-carb vns/altn,  
8-12% arsenopy, try py

1.73 g/t Au (124-125m) 5.57 g/t Au 13.1 ppm Ag

**LEGEND**

Mt (%)

- 30.00 - 35.00
- 25.00 - 30.00
- 20.00 - 25.00
- 15.00 - 20.00
- 10.00 - 15.00

**GEOLOGY**

- Hornblende-Clinopyroxenite: Coarse-grained phase dominant with subordinate medium-grained clinopyroxenite phases. Locally very coarse to pegmatitic; segregation banding; strongly magnetic.
- Hornblende-Clinopyroxenite: Medium-grained phase dominant with subordinate coarse-grained clinopyroxenite phases. Segregation banding; strongly magnetic.
- Mafic Phase (Hornblendite or altered Micro-Gabbro/Dolerite?): Fine to medium-grained locally with characteristics of a mafic cumulate layer; moderately magnetic.
- Mafic Dyke (Basalt?): Fine to medium-grained, dark-grey to black; weakly to moderately magnetic.
- Breccia
- Fault / shear

MAGNETITE RIDGE METALS AND MINING LTD.

MAGNETITE RIDGE PROJECT  
OLIVINE MTN, B.C.

**SECTION  
LINE 8050N**  
VIEWING NORTHWEST

SCALE: 0 5 10 15 20 25m

DRAWN BY: RW/rw  
DATE: NOV. 2009

FILENAME: SECTION-8050N.DWG



## **APPENDIX 4**

### **DIAMOND DRILLING ASSAY CERTIFICATES**



Et #.	Tag #	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
31	8R250731	0.2	0.64	1.2	15.5	<0.02	1.19	<0.01	39.5	73.5	11.87	10.37	6.6	<5	0.03	<0.5	1.04	343	0.64	0.067	50.8	104.0	15.01	0.04	0.12	6.1	<0.1	22.5	<0.02	<0.1	0.159	<0.02	<0.1	458	0.2	29.0
32	8R250732	0.3	0.89	3.5	12.5	0.02	1.77	0.02	53.5	76.0	10.99	11.72	9.0	5	0.03	0.5	1.58	522	0.30	0.072	64.4	66.0	14.73	0.04	0.36	13.2	<0.1	38.0	<0.02	<0.1	0.226	0.02	<0.1	598	0.2	43.0
<b>QC DATA:</b>																																				
<b>Repeat:</b>																																				
1	8R250701	0.4	0.76	61.2	65.0	<0.02	1.27	0.04	46.8	91.5	10.82	13.75	7.9	420	0.08	<0.5	1.34	501	1.30	0.069	73.2	211.0	21.64	0.30	2.00	12.3	0.2	28.5	<0.02	<0.1	0.161	0.20	<0.1	580	3.0	48.0
10	8R250710	0.2	0.52	0.5	33.5	<0.02	0.81	0.02	39.8	30.0	5.33	13.18	7.1	10	0.05	<0.5	0.80	308	0.56	0.059	48.0	37.0	15.55	0.02	0.10	5.4	0.1	13.0	<0.02	<0.1	0.208	<0.02	<0.1	512	<0.1	37.9
19	8R250719	0.1	0.70	6.1	81.0	<0.02	1.80	0.04	46.8	48.5	18.30	14.26	8.7	<5	0.06	<0.5	1.32	545	0.13	0.080	42.9	167.0	22.52	0.08	0.16	12.2	0.2	42.5	<0.02	<0.1	0.206	0.02	<0.1	606	0.1	46.3
28	8R250728	0.2	0.60	1.4	18.0	<0.02	1.41	<0.01	42.8	76.0	7.16	11.79	7.3	<5	0.04	<0.5	1.01	425	0.23	0.084	40.9	22.0	14.79	0.02	0.20	9.7	<0.1	23.5	<0.02	<0.1	0.263	<0.02	<0.1	512	0.2	40.9
<b>Resplit:</b>																																				
1	8R250701	0.5	0.75	68.5	66.0	<0.02	1.35	0.04	49.1	90.0	9.92	13.48	7.6	455	0.09	<0.5	1.36	518	0.91	0.069	76.2	205.0	19.39	0.34	2.30	13.1	0.1	31.0	<0.02	<0.1	0.144	0.26	<0.1	554	2.9	45.7
<b>Standard:</b>																																				
Pb129a		11.7	0.89	6.2	74.0	0.46	0.39	60.19	4.8	11.0	1434.00	1.58	2.5	85	0.09	4.5	0.69	374	2.02	0.057	5.5	438.0	6209.00	0.88	18.44	0.7	0.4	31.5	0.30	0.5	0.045	0.20	0.1	16	0.2	>10000

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ECO TECH LABORATORY LTD.  
 Jutta Jealouse  
 B.C. Certified Assayer

JJ/ndw  
 msr1779S  
 XLS/07

## CERTIFICATE OF ASSAY AK 2008-1870

**Magnetite Ridge Metals**  
325 Reighmont  
**Kamloops, BC**  
Postal Code

09-Dec-08

*No. of samples received: 32*  
*Sample Type: Core*  
**Project: MRM**  
*Submitted by: Bruce Perry*

ET #.	Tag #	Total Fe %
1	8R250701	15.4
2	8R250702	17.6
3	8R250703	16.6
4	8R250704	16.4
5	8R250705	17.4
6	8R250706	16.6
7	8R250707	15.5
8	8R250708	15.8
9	8R250709	15.7
10	8R250710	15.2
11	8R250711	14.5
12	8R250712	15.7
13	8R250713	14.6
14	8R250714	14.7
15	8R250715	17.1
16	8R250716	15.4
17	8R250717	18.2
18	8R250718	16.4
19	8R250719	16.2
20	8R250720	14.6
21	8R250721	12.4
22	8R250722	19.3
23	8R250723	12.4
24	8R250724	15.5
25	8R250725	17.9
26	8R250726	14.5
27	8R250727	12.8
28	8R250728	12.4
29	8R250729	11.7
30	8R250730	11.0
31	8R250731	10.7
32	8R250732	12.8

**ECO TECH LABORATORY LTD.**  
Jutta Jealouse  
B.C. Certified Assayer

**Magnetite Ridge Metals AK8-1870**

Total

09-Dec-08

ET #.	Tag #	Fe %
<b>QC DATA:</b>		
<b>Repeat:</b>		
1	8R250701	15.0
10	8R250710	14.8
19	8R250719	15.2
28	8R250728	12.2
<b>Standard:</b>		
CCu1c		29.3

JJ/nw  
XLS/08

**ECO TECH LABORATORY LTD.**  
Jutta Jealouse  
B.C. Certified Assayer



Et #.	Tag #	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm				
31	8R250763	0.1	0.61	0.9	22.0	<0.02	1.15	0.01	49.0	56.5	10.5	>10	8.6	10	0.03	<0.5	1.06	365	0.64	0.053	47.2	41	7.16	0.02	0.16	6.3	<0.1	16.5	<0.02	<0.1	0.152	0.02	<0.1	566	<0.1	43.0
32	8R250764	0.2	0.97	1.6	34.5	<0.02	2.58	0.03	50.7	55.0	12.6	>10	9.7	10	0.05	<0.5	1.88	505	0.06	0.060	61.1	145	5.74	0.04	0.24	13.2	<0.1	43.0	<0.02	<0.1	0.120	0.02	<0.1	564	<0.1	47.4
33	8R250765	0.1	0.78	2.1	79.5	<0.02	2.18	0.02	42.0	65.5	24.3	>10	8.6	5	0.15	<0.5	1.15	452	0.48	0.106	53.2	298	6.00	0.08	0.12	8.2	0.1	34.0	<0.02	<0.1	0.129	0.04	<0.1	558	<0.1	41.6
34	8R250766	0.1	0.55	0.6	24.5	<0.02	0.94	0.02	49.2	64.5	5.5	>10	8.8	5	0.03	<0.5	0.84	378	0.07	0.059	58.5	16	5.02	<0.02	0.08	5.4	<0.1	10.5	<0.02	<0.1	0.173	<0.02	<0.1	618	<0.1	37.6
35	8R250767	0.1	0.73	4.9	44.5	<0.02	1.76	0.02	52.6	69.0	16.0	>10	9.4	10	0.03	<0.5	1.23	435	0.04	0.063	65.5	90	6.28	0.04	0.18	7.9	<0.1	26.5	<0.02	<0.1	0.155	<0.02	<0.1	620	<0.1	40.5
36	8R250768	0.1	0.60	1.8	25.5	<0.02	1.55	0.02	47.0	34.5	5.7	>10	8.9	10	0.03	<0.5	0.96	387	0.06	0.058	72.1	17	5.27	<0.02	0.12	5.7	<0.1	18.0	<0.02	0.1	0.173	0.02	<0.1	550	<0.1	37.7
37	8R250769	1.7	0.81	19.7	27.0	<0.02	1.70	0.06	50.8	79.5	23.3	>10	8.9	15	0.05	<0.5	1.33	417	0.50	0.074	70.4	201	11.58	0.16	0.50	7.1	0.1	28.5	<0.02	<0.1	0.117	0.04	<0.1	536	0.1	49.1
38	8R250770	0.1	0.60	4.8	10.0	<0.02	1.50	0.06	49.3	55.0	9.6	>10	8.6	10	0.02	<0.5	1.05	412	0.57	0.069	53.3	97	6.28	0.02	0.44	7.5	<0.1	25.5	<0.02	<0.1	0.163	0.02	<0.1	558	0.1	42.7
39	8R250771	0.1	0.77	8.7	9.5	<0.02	1.97	0.02	52.6	56.5	11.4	>10	10.2	5	0.02	1.0	1.28	448	0.14	0.063	86.6	90	5.65	0.04	0.24	7.2	<0.1	31.0	<0.02	<0.1	0.156	0.02	<0.1	618	<0.1	49.1
40	8R250772	0.4	1.35	83.6	63.0	0.02	5.12	0.10	31.8	100.5	17.3	8.92	8.4	10	0.13	3.0	2.22	686	0.30	0.117	82.7	399	4.37	0.16	1.06	10.4	0.2	131.0	<0.02	0.3	0.078	0.08	<0.1	334	<0.1	42.3
41	8R250773	5.8	1.01	>10000	98.0	<0.02	5.80	0.70	41.9	48.5	36.4	>10	7.4	45	0.21	1.0	1.97	779	0.08	0.064	44.4	462	27.41	1.04	22.74	21.3	0.2	119.5	<0.02	0.3	0.043	0.12	<0.1	416	0.6	98.9
42	8R250774	0.4	0.64	13.1	19.0	<0.02	1.47	0.02	41.5	77.5	14.5	>10	7.5	5	0.02	<0.5	1.02	402	0.39	0.061	58.8	151	2.68	0.02	0.20	4.8	<0.1	20.0	<0.02	<0.1	0.141	0.02	<0.1	476	0.1	36.7
43	8R250775	0.1	0.63	18.7	8.5	<0.02	1.14	0.02	49.1	55.0	7.6	>10	8.7	5	0.02	<0.5	0.98	411	0.06	0.055	53.7	72	2.90	<0.02	0.20	4.9	<0.1	13.5	<0.02	<0.1	0.172	0.02	<0.1	580	<0.1	41.7
44	8R250776	0.1	0.57	3.0	23.0	<0.02	2.27	0.02	42.0	44.0	14.3	>10	7.8	5	0.02	<0.5	0.88	417	0.42	0.058	42.7	97	4.17	<0.02	0.16	4.7	0.1	20.0	<0.02	<0.1	0.175	<0.02	<0.1	536	<0.1	32.1

**QC DATA:**

**Repeat:**

1	8R250733	0.2	0.70	3.8	21.5	<0.02	1.33	0.01	54.7	41.5	7.0	>10	9.5	30	0.02	<0.5	1.06	447	0.32	0.053	56.2	51	7.55	0.02	0.16	7.0	<0.1	14.5	<0.02	0.1	0.172	0.04	<0.1	650	0.1	41.0
10	8R250742	0.1	0.56	0.8	29.5	<0.02	1.39	0.01	43.9	22.0	8.8	>10	7.8	10	0.03	<0.5	0.83	392	0.29	0.062	57.7	121	5.07	0.02	0.12	4.9	<0.1	15.0	<0.02	<0.1	0.140	0.04	<0.1	542	<0.1	38.3
19	8R250751	0.1	0.57	0.8	30.5	<0.02	1.90	<0.01	40.4	47.0	17.8	>10	7.4	5	0.04	<0.5	0.89	341	0.05	0.063	56.1	85	5.28	0.02	0.16	4.6	<0.1	20.0	<0.02	<0.1	0.139	0.04	<0.1	514	<0.1	33.8
36	8R250768	0.1	0.61	2.1	26.0	<0.02	1.54	0.01	46.5	35.0	5.8	>10	8.9	5	0.03	<0.5	0.99	388	0.06	0.060	71.5	17	5.09	<0.02	0.12	5.7	<0.1	18.5	<0.02	<0.1	0.172	<0.02	<0.1	548	<0.1	37.7

**Resplit:**

1	8R250733	0.1	0.70	4.1	19.5	<0.02	1.45	0.02	53.2	46.5	6.4	>10	9.5	40	0.02	<0.5	1.09	467	0.27	0.058	54.4	56	6.39	0.02	0.20	7.8	<0.1	17.0	<0.02	<0.1	0.172	0.02	<0.1	630	<0.1	39.7
36	8R250768	0.1	0.58	1.8	27.0	<0.02	1.42	0.01	46.3	38.0	5.5	>10	8.6	5	0.03	<0.5	0.93	373	0.05	0.055	71.6	17	5.37	<0.02	0.10	5.6	<0.1	16.5	<0.02	<0.1	0.173	<0.02	<0.1	552	<0.1	35.9

**Standard:**

STSD1		11.9	0.89	6.0	60.5	0.42	0.48	57.43	5.0	11.0	1406.0	1.55	2.5	85	0.08	4.0	0.70	360	1.96	0.068	5.0	433	6185.00	0.84	17.58	0.6	0.3	30.5	0.12	0.4	0.031	0.04	0.1	18	0.3	>10000
STSD3		12.2	0.87	6.2	64.0	0.42	0.51	57.49	5.0	11.0	1382.0	1.54	2.4	85	0.08	4.0	0.68	367	1.93	0.067	5.2	426	6218.00	0.84	16.86	0.6	0.3	29.5	0.12	0.4	0.029	0.04	0.1	16	0.2	9994.0

**ECO TECH LABORATORY LTD.**  
Norm Monteith  
B.C. Certified Assayer

## CERTIFICATE OF ASSAY AK 2008-1897

**Magnetite Ridge**  
325 Reighmount Dr  
**Kamloops, B.C**  
V2H 1M2

09-Dec-08

No. of samples received: 44

Sample Type: Core

**Project: MRM**

Submitted by: Bruce Perry

ET #.	Tag #	Total Fe (%)	As (%)
1	8R250733	20.2	
2	8R250734	27.7	
3	8R250735	24.0	
4	8R250736	19.8	
5	8R250737	21.0	
6	8R250738	16.6	
7	8R250739	15.0	
8	8R250740	26.5	
9	8R250741	15.8	
10	8R250742	15.9	
11	8R250743	17.3	
12	8R250744	21.7	
13	8R250745	18.0	
14	8R250746	23.3	
15	8R250747	22.2	
16	8R250748	20.2	
17	8R250749	25.9	
18	8R250750	10.5	
19	8R250751	16.4	
20	8R250752	17.8	
21	8R250753	20.4	
22	8R250754	21.2	
23	8R250755	18.6	
24	8R250756	18.4	
25	8R250757	18.0	
26	8R250758	13.6	
27	8R250759	19.5	
28	8R250760	15.8	
29	8R250761	21.9	
30	8R250762	16.3	
31	8R250763	17.5	
32	8R250764	19.2	
33	8R250765	17.4	

**ECO TECH LABORATORY LTD.**  
Norm Monteith  
B.C. Certified Assayer



**Magnetite Ridge***Total*

09-Dec-08

<b>ET #.</b>	<b>Tag #</b>	<b>Fe (%)</b>	<b>As (%)</b>
34	8R250766	18.3	
35	8R250767	20.6	
36	8R250768	16.0	
37	8R250769	17.7	
38	8R250770	17.3	
39	8R250771	14.2	
40	8R250772	8.8	
41	8R250773	9.6	1.066
42	8R250774	11.7	
43	8R250775	14.3	
44	8R250776	13.0	

**QC DATA:****Repeat:**

1	8R250733	19.7	
10	8R250742	16.4	
19	8R250751	15.8	
36	8R250768	15.8	

**Resplit:**

1	8R250733	19.4	
36	8R250768	16.6	

**Standard:**

FER-2	27.8	
FER-1	52.9	
PD-1		0.766

JJ/nw  
XLS/08**ECO TECH LABORATORY LTD.**Norm Monteith  
B.C. Certified Assayer

## CERTIFICATE OF ASSAY AK 2008-1870

**Magnetite Ridge Metals**

325 Reighmont  
Kamloops, BC  
Postal Code

11-Mar-09

*No. of samples received: 32*

*Sample Type: Core*

**Project: MRM**

*Submitted by: Bruce Perry*

<u>ET #.</u>	<u>Tag #</u>	<u>Au</u> <u>ppb</u>	<u>Pd</u> <u>ppb</u>	<u>Pt</u> <u>ppb</u>
1	8R250701	10	<5	<5
3	8R250703	15	5	<5
4	8R250704	<5	<5	<5
21	8R250721	<5	<5	<5
23	8R250723	<5	<5	<5

**QC DATA:**

**Repeat:**

3	8R250703	10	5	<5
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**Standard:**

PGMS-15	395	420	95
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NM/nw  
XLS/09

**ECO TECH LABORATORY LTD.**

Norman Monteith  
B.C. Certified Assayer

**CERTIFICATE OF ANALYSIS AK 2008- 1897**

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**Magnetite Ridge**  
325 Reighmount Dr  
**Kamloops, B.C**  
V2H 1M2

11-Mar-09

No. of samples received: 44  
Sample Type: Core  
**Project: MRM**  
Submitted by: Bruce Perry

<b>ET #.</b>	<b>Tag #</b>	<b>Au (ppb)</b>	<b>Pd (ppb)</b>	<b>Pt (ppb)</b>
7	8R250739	<5	<5	<5
8	8R250740	<5	<5	<5
18	8R250745	<5	<5	<5
37	8R250769	70	5	<5
41	8R250773	>1000	15	<5

**QC DATA:**

**Repeat:**

37	8R250769	75	10	<5
41	8R250773	>1000	10	<5

**Standard:**

PGMS-15		395	420	95
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NM/nw  
XLS/08

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**ECO TECH LABORATORY LTD.**  
Norman Monteith  
B.C. Certified Assayer

**CERTIFICATE OF ASSAY AK 2008-1897**

**Magnetite Ridge**  
325 Reighmount Dr  
**Kamloops, B.C**  
V2H 1M2

11-Mar-09

*No. of samples received: 44*  
*Sample Type: Core*  
**Project: MRM**  
*Submitted by: Bruce Perry*

<b>ET #.</b>	<b>Tag #</b>	<b>Au (g/t)</b>	<b>Au (oz/t)</b>
41	8R250773	1.73	0.050

**QC DATA:**

**Repeat:**

41	8R250773	1.74	0.051
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**Standard:**

SK43		4.10	0.120
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NM/nw  
XLS/08

**ECO TECH LABORATORY LTD.**  
Norman Monteith  
B.C. Certified Assayer

## **APPENDIX 5**

### **DAVIS TUBE (MAGNETITE) ASSAY CERTIFICATES**

# BC MINING RESEARCH LTD

Metallurgical and Geo-metallurgical Engineering Services

122-1857 West 4<sup>th</sup> Avenue, Vancouver, BC, V6J 1M4 Fax:604 738 9050

## Davis Tube Test Results

Date: October 8, 2009

Sample Number	Beaker #	Beaker Weight (g)	Sample Weight (g)	Sample+ Beaker Weight (g)	Magnetite(g)	Magnetite %
081870A001	8R250701	162.534	5.005	163.623	1.089	21.8
081870A002	8R250702	170.297	5.005	171.436	1.139	22.8
081870A003	8R250703	168.348	5.005	169.218	0.87	17.4
081870A004	8R250704	165.231	5.005	166.33	1.099	22.0
081870A005	8R250705	164.762	5.005	165.881	1.119	22.4
081870A006	8R250706	163.293	5.005	164.372	1.079	21.6
081870A007	8R250707	158.967	5.005	159.926	0.959	19.2
081870A008	8R250708	172.984	5.005	174.003	1.019	20.4
081870A009	8R250709	159.117	5.005	160.136	1.019	20.4
081870A010	8R250710	163.643	5.005	164.602	0.959	19.2
081870A011	8R250711	159.097	5.005	160.056	0.959	19.2
081870A012	8R250712	169.987	5.005	171.076	1.089	21.8
081870A013	8R250713	168.778	5.005	169.627	0.849	17.0
081870A014	8R250714	170.337	5.005	171.196	0.859	17.2
081870A015	8R250715	168.299	5.005	169.348	1.049	21.0
081870A016	8R250716	160.845	5.005	161.774	0.929	18.6
081870A017	8R250717	168.558	5.005	169.657	1.099	22.0
081870A018	8R250718	163.123	5.005	164.202	1.079	21.6
081870A019	8R250719	163.273	5.005	164.252	0.979	19.6
081870A020	8R250720	171.126	5.005	172.125	0.999	20.0
081870A021	8R250721	160.985	5.005	161.605	0.62	12.4
081870A022	8R250722	171.046	5.005	172.325	1.279	25.6
081870A023	8R250723	163.363	5.005	164.052	0.689	13.8
081870A024	8R250724	172.335	5.005	173.384	1.049	21.0
081870A025	8R250725	162.933	5.005	164.012	1.079	21.6

081870A026	8R250726	26	172.834	5.005	173.884	1.05	21.0
081870A027	8R250727	27	167.929	5.005	168.758	0.829	16.6
081870A028	8R250728	28	171.236	5.005	172.075	0.839	16.8
081870A029	8R250729	29	162.224	5.005	162.973	0.749	15.0
081870A030	8R250730	30	162.134	5.005	162.933	0.799	16.0
081870A031	8R250731	31	164.512	5.005	165.441	0.929	18.6
081870A032	8R250732	32	169.168	5.005	170.27	1.102	22.0
081897A001	8R250733	33	164.572	5.005	165.831	1.259	25.2
081897A002	8R250734	34	173.314	5.005	175.082	1.768	35.3
081897A008	8R250740	35	165.721	5.005	167.349	1.628	32.5
081897A018	8R250750	36	160.006	5.005	160.685	0.679	13.6
081897A019	8R250751	37	169.078	5.005	170.137	1.059	21.2
1870-RISI		39	170.287	5.005	171.296	1.009	20.2
1870-CTEST		38	171.146	5.005	171.166	0.02	0.4
1870-CTEST ***		40	164.002	5.005	164.102	0.1	2.0

\*\*\* This sample was tested twice.

**Bern Klein, PhD**  
**for BC Mining Research**