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**Ministry of Energy and Mines**
BC Geological Survey

**Assessment Report**
**Title Page and Summary**

**TYPE OF REPORT [type of survey(s)]:** Geochemical, Geological

**TOTAL COST:** 3,177.23

**AUTHOR(S):** Andris Kikauka **SIGNATURE(S):** A. Kikauka

**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):** **YEAR OF WORK:** 2016

**STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):** 5644826

**PROPERTY NAME:** Marysville Magnesite

**CLAIM NAME(S) (on which the work was done):** Mag 4 (1047074)

**COMMODITIES SOUGHT:** Magnesite

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:** 082GNW005

**MINING DIVISION:** Ft Steele **NTS/BCGS:** 082G 12/W, 082G.051

**LATITUDE:** 49 ° 36 ' 23 " **LONGITUDE:** 115 ° 57 ' 22 " **(at centre of work)**

**OWNER(S):**
1) MGX Minerals Inc 2)

**MAILING ADDRESS:**
303-1080 Howe St, Vancouver BC V6Z 2T1

**OPERATOR(S) [who paid for the work]:**
1) same 2)

**MAILING ADDRESS:**

**PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):**
Lower Cambrian Cranbrook Fm quartzite is interbedded with indurated, argillaceous siltstone, and sparry magnesite lenses that occur as 5-15 m wide, X 50-600 m strike length lenses which collectively occur along a 6 km strike length. Cretaceous faulting and burial of Cambrian sediments has weakly metamorphosed to lower Greenschist facies. Stratigraphic sequence is displaced by large scale regional faults trending N & NNE (dextral), magnesite lenses parallel stratigraphy and dip 50-80 degrees west

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:**

Next Page

| 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 | 1:2,500 16 hectares | Mag 4 (1047074) | 1,367.28 |
| Photo interpretation | | | |
| **GEOPHYSICAL (line-kilometres)** | | | |
| Ground | | | |
| Magnetic | | | |
| Electromagnetic | | | |
| Induced Polarization | | | |
| Radiometric | | | |
| Seismic | | | |
| Other | | | |
| Airborne | | | |
| **GEOCHEMICAL (number of samples analysed for...)** | | | |
| Soil | | | |
| Silt | | | |
| Rock | 8 ME-XRF26 whole rock (Li Borate Fusion) | Mag 4 (1047074) | 1,809.95 |
| Other | | | |
| **DRILLING (total metres; number of holes, size)** | | | |
| Core | | | |
| Non-core | | | |
| **RELATED TECHNICAL** | | | |
| Sampling/assaying | | | |
| Petrographic | | | |
| Mineralographic | | | |
| Metallurgic | | | |
| **PROSPECTING (scale, area)** | | | |
| **PREPARATORY / PHYSICAL** | | | |
| Line/grid (kilometres) | | | |
| Topographic/Photogrammetric (scale, area) | | | |
| Legal surveys (scale, area) | | | |
| Road, local access (kilometres)/trail | | | |
| Trench (metres) | | | |
| Underground dev. (metres) | | | |
| Other | | | |
| | | **TOTAL COST:** | 3,177.23 |

NTS 082G 12W, TRIM 082G.051
LAT. 49 36' 23" N
LONG. 115 57' 22" W

# GEOLOGICAL, & GEOCHEMICAL REPORT ON MINERAL TENURE 1044738 & 1047074 CLAIM NAME: Mag 3, & 4 PERRY CREEK MAGNESITE MINERAL OCCURRENCES MARYSVILLE, B.C.

Fort Steele Mining Division

by

Andris Kikauka, P.Geo.
4199 Highway 101,
Powell River, BC V8A 0C7



April 25, 2017

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## SUMMARY

The Marysville Mag 3 & 4 magnesite property (MTO ID numbers 1044738 & 1047074) consists of a total area of approximately 125.65 hectares (310.4 acres). Marysville Mag 3 & 4 claims magnesite occurrences are located about 3 km south-southwest of Marysville, BC and approximately 7 km south of Kimberly, BC (Fig 1). The Marysville sediment hosted 'sparry' magnesite occurs as coarse crystalline massive lenses that trend north-northeast, dip 50 to 80 degrees northwest, are 1-25 meters wide (up to 75 m width including interbedded magnesite, quartzite & siltstone), and individual magnesite lenses vary from 50 to 600 meter strike lengths (including minor fault offset & displacement in the order of 5-75 m). Magnesite lenses form a combined strike length of approximately 2,200 meters along a total strike length of 6,000 meters, hosted in Lower Cambrian age upper member of Cranbrook Formation quartzite (minor indurated siltstone). Geological mapping suggests that the Cranbrook Formation is estimated to be variable between 200 to 300 meters thickness, but no continuous top to bottom stratigraphic section is exposed.

The magnesite lenses present on Mag 4 claim contain variable amounts of quartz (8 rock chip samples range 3.29-21.24% SiO2), as well as trace amounts of serpentine and talc. Quartz present in the magnesite was probably deposited as Cambrian chert and re-crystallized during Cretaceous burial low-grade regional metamorphism resulting in textures that include milky-white micro-veinlet quartz sweats, patches and bands of milky-white to clear, glassy quartz.

The writer performed fieldwork consisting of geochemical sampling and geological mapping on the north portion of Marysville magnesite on the Mag 4 claim (covering 16 hectares approximately 400 X 400 m area). Fieldwork was carried out Oct 6-8, 2016. Technical work is recorded in this assessment report, and reported as MEM Event number 5644826. Geochemical sampling was carried out on exposed surface bedrock located in close proximity to historic mapped lenses of magnesite. A total of 4 rock chip samples (MA-5 to 8) were collected from surface outcrop and 4 rock chip samples (MA-1 to 4) collected from surface exposures of angular float. Rock chip samples were analyzed by ALS Minerals, North Vancouver, BC, using Li Borate fusion, whole rock analysis ME-XRF-06 (XRF26). Highlights of significant results from Marysville Central Zone are listed as follows:

| Sample # | Width | Al2O3% | CaO% | Fe2O3% | K2O% | MgO% | Na2O% | P2O5% | SO3% | SiO2% | Total% | LOI% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-MA-1 | | 0.76 | 0.5 | 0.93 | 0.06 | 43 | 0.13 | 0.12 | 0.02 | 8.45 | 100.4 | 46.35 |
| 16-MA-2 | | 1.06 | 0.96 | 1.53 | 0.16 | 44.4 | 0.13 | 0.23 | 0.01 | 3.99 | 100.25 | 47.68 |
| 16-MA-3 | | 0.77 | 0.94 | 1.74 | 0.08 | 43.8 | 0.12 | 0.09 | 0.01 | 3.98 | 99.34 | 47.71 |
| 16-MA-4 | | 0.84 | 0.82 | 1.77 | 0.08 | 44.4 | 0.12 | 0.11 | 0.01 | 3.29 | 99.77 | 48.24 |
| 16-MA-5 | 200 cm | 0.76 | 0.55 | 0.95 | 0.07 | 41.5 | 0.13 | 0.15 | 0.02 | 10.65 | 99.84 | 44.99 |
| 16-MA-6 | 200 cm | 1.24 | 0.91 | 1.64 | 0.05 | 35.6 | 0.1 | 0.36 | 0.01 | 21.24 | 99.58 | 38.31 |
| 16-MA-7 | 200 cm | 0.67 | 0.44 | 0.81 | 0.04 | 41.5 | 0.12 | 0.17 | 0.02 | 11.95 | 100.5 | 44.71 |
| 16-MA-8 | 200 cm | 1 | 0.63 | 1.01 | 0.09 | 40.8 | 0.12 | 0.15 | 0.02 | 12.34 | 100.1 | 43.89 |

The relatively high MgO content (35.6-44.4% MgO) compares favourably with other magnesite producers such as Baymag property near Radium Hot Springs, BC (NOTE: pure magnesite is about 47.6% MgO). Impurity compounds of interest (Al2O3, CaO) approach specifications required for producing deadburn, calcined and fused magnesia. The relatively high SiO2 and Fe2O3 may require beneficiation in order to remove silica and iron, which may be recoverable as a commercial by-products. Based on the range of %MgO and impurities Al2O3, SiO2, CaO, Fe2O3, detailed mapping and geochemical sampling is recommended in order to test the extent and purity of the Marysville magnesite. Bulk sample metallurgical testing could be done in order to determine suitability for use as a raw material for refractories in the steel industry as well as other industrial end uses such as agricultural, fire retardant, and/or specialized moisture/mold resistant filler, and MgCl (road salt). MGX is planning further evaluation of commercial applications for Marysville magnesite as well as geochemical analysis of rock samples in order to determine grade and distribution of Marysville Magnesite.

## 1.0 Introduction

This technical report has been prepared on behalf of MGX Minerals Inc, and describes property history and recent geological and geochemical fieldwork done on the Marysville Mag 3 & 4 Magnesite mineral claim (Oct 6-8, 2016). This report is prepared for BC Ministry of Energy and Mines with respect to requirements for technical fieldwork reporting.

## 2.0 Location, Access, Infrastructure, & Physiography

The Marysville Mag 3 & 4 mineral property consists of MTO tenure ID numbers 1044738 & 1047074 and are located approximately 7 km (4.35 miles) south of Kimberly, BC (Fig 1). The property is located on NTS map sheet 082G/12W and on TRIM map sheet 082G.051 in the Fort Steele Mining Division of southern British Columbia, Canada (Figure 2). The Marysville Magnesite Mag 4 occurrences are centered near latitude 49°36' 23" N and longitude 115°57' 22" W. The property covers a north to northeast trending ridge forming quartzite with lenses of relatively pure magnesite that are located 1-6 km northwest of Perry Creek. Near Antwerp Creek canyon (3 km to the SW), topography is steep, and N to NE trending cliffs less than 7 m (23 ft) high occur in the vicinity of a NNE trending, sub-vertical dipping major fault. Elevations on the claims ranges from 1,060 to 1,350 meters (3,477-4,428 feet).

The Marysville magnesite property can be accessed using Perry Creek FSR, which is connected to paved Interprovincial Highway 95A located east of the property. There is good infrastructure in the form of paved highways, a CPR spur line and a major power line all of which are within 6 kilometers of the property. Marysville magnesite deposit is partly exposed on surface, as a series of NNE trending outcrops. A series of northwest trending, cross-cutting faults has resulted in some small scale dextral offsets (in the order of 5-75 meters) of geologic contacts.

Vegetation on the property consists mainly of Lodgepole Pine with lesser Douglas Fir and Western Yellow Larch, with minor birch and aspen. The nearest towns are Marysville, Cranbrook and Kimberly on Highway 95A. Both Kimberly and Cranbrook have suitable infrastructure to support mining and mineral processing.

## 3.0 Property Status

The Marysville magnesite Mag 3 & 4 claims consist of two mineral tenures (listed below) located within the Fort Steele Mining Division (Figure 2).

| Tenure number | Claim Name | Issue Date | Good To Date | Area in hectares |
|---|---|---|---|---|
| 1044738 | Mag 3 | 2016/jun/14 | 2021/dec/05 | 83.77 |
| 1047074 | Mag 4 | 2016/oct/04 | 2021/dec/05 | 41.88 |

The total area of the mineral tenures that comprise the property is 125.65 hectares (310.4 acres). Details of the status of tenure ownership for the Marysville Magnesite property were obtained from the Mineral-Titles-Online (MTO) electronic staking system managed by the Mineral Titles Branch of the Province of British Columbia. This system is based on mineral tenures acquired electronically online using a grid cell selection system. Tenure boundaries are based on lines of latitude and longitude. There is no requirement to mark claim boundaries on the ground as these can be determined with reasonable accuracy using a GPS. The Marysville magnesite claim has not been surveyed.

The mineral tenures comprising the Marysville Magnesite mineral property are shown in Figure 2. The claim map shown in Figure 2 was generated from GIS spatial data downloaded from the Government of BC GeoBC website. These spatial layers are the same as those incorporated into the Mineral-Titles-Online (MTO) electronic staking system that is used to locate and record mineral tenures in British Columbia. BC Government MTO website lists mineral tenures 1044738 & 1047074 are owned 100% by MGX Minerals Inc.

## 4.0 Marysville Magnesite Property History

In 1932 the GSC announced the discovery of coarse crystalline magnesite in the area between Perry Creek and St Marys River. Cominco acquired the property and subsequent mapping and sampling (including a 2,700 tonne bulk sample shipped to Trail, BC) was carried out. Cominco held the mineral title for Marysville magnesite for several decades and did not file any assessment reports so there are publie access documents for work done by Cominco on the property. A map published in EMPR Annual Report 1964 (pg 187) suggests that Cominco performed considerable stripping and trenching at the north end of the magnesite zone, at an elevation of 4,060 to 4,120 feet (1,237.5 to 1,255.8 m) for a length of about 500 feet (152.4 m) across widths of 50-60 feet (15.24-18.3 m). The main excavation where Cominco removed 2,700 tonnes came from a NE trending pit that is about 160 ft long and 50 ft wide. A total of 4 diamond drill holes appear to have been drilled 50-150 meters west of the trenches (not reported). Cominco did not pursue commercial production and the claims eventually lapsed. The Marysville magnesite property was acquired by Magna Precious and Industrial Minerals Inc and in 2000 the property was optioned by Stralak Res Inc. It was announced that the main purpose of the property acquisition was for the production of magnesium chloride, considered to be suitable for the replacement of road salt with magnesium chloride. Stralak Res did not file any assessment work.

In 2008, D Fredlund performed prospecting on 125 hectares and filed an assessment report (AR 30,075). One sample was reported taken from the north portion of the claims and was analyzed by ALS Minerals and returned values of 41.9% MgO, 7.39% SiO2, 0.39% Al2O3, 1.48% Fe2O3, 0.36% CaO. Conclusions of work done indicated that further work is recommended. The claims were allowed to lapse and MGX Minerals Inc acquired a portion of the 6 km strike length that hosts lenses of magnesite.

## 5.0 Regional Geology

The Marysville Magnesite high purity magnesite deposit is hosted by Lower Cambrian age Cranbrook Formation, part of the Upper Proterozoic to Lower Cambrian Eager and Cranbrook Formations consisting of various lithologies including slate, siltstone, limestone, argillite, and magnesite. The magnesite layers occur in the upper part of the Cranbrook Formation. The Marysville Magnesite Creek deposit is classified as a stratabound magnesite deposit type that is most likely of a sedimentary origin as a platform carbonate deposition, and recrystallized by a burial process that has been subjected to Cretaceous (Laramide Orogeny)? low-grade regional metamorphism (200-300 degrees C, and 300-400 MPa pressure).

Lithological units in the area of Marysville Magnesite are described as follows:

**Lithology Legend**
**Upper-Proterozoic-Lower Cambrian**
**H** Eager Fm argillite, clastic sediments
**G** Cranbrook Formation magnesite
minor serpentine/talc
(upper portion of F quartzite)
**F** Cranbrook Formation quartzite
**Middle Proterozoic Purcell Supergroup**
**E** Purcell lava (basalt, andesite)
**D** Purcell intrusive sills
**C** Siyeh Fm argillite, clastic sediments
**B** Kitchener Formation dolomite
**A** Creston Formation quartzite

Bedrock geology of the area surrounding Marysville Magnesite magnesite occurrence has been mapped by the Geological Survey of Canada (Memoir 76). A description of lithologies are listed:

Creston Formation: The oldest rocks in the area consist of Middle Proterozoic light to dark green and grey phyllitic siltstone, siltstone and sericitic quartzite. General attitude of bedding is N to NNE and dip is steep to the east. The Creston Formation has a fault contact with Cambrian Eager Formation to the north.

Kitchener Formation: Middle Proterozoic Kitchener Formation consists of dolomite, argillaceous dolomite, calcareous argillite and argillite. The bedding strikes N to NE and dips are steep to the W and NW. Cleavage and dragfolds suggest that beds are overturned and on the east limb of a large scale anticline.

Siyeh Formation: Middle Proterozoic Siyeh Formation conformably overlies the Kitchener Formation . Siyeh lithologies include fine grained, light to dark coloured, buff thin-bedded striped argillite,

Cranbrook Formation: Lower Cambrian Cranbrook Formation contains mainly quartzite, with interlayered magnesite and siltstone near the top of the section. The quartzites are medium to coarse grained white, pink, pale-green or brown. Quartzite beds vary from massive to 2-4 feet (0.61-1.22 m) thick, to 2-4 inches (5-10 cm) thick and cross-bedding is frequently preserved.

Eager Formation: The Lower Cambrian Eager Formation consists of argillite, argillaceous siltstone, minor schist, quartzite, and dolomite. The argillite is dark to light green and black slaty rocks that form thin bedded, well developed flow cleavage, and closely spaced fracture cleavage nearly parallel to bedding.

The Marysville magnesite occurrence is hosted in the upper member of the Lower Cambrian Cranbrook Formation. The magnesite member outcrops over widths of 5-75 meters wide (that includes interbedded quartzite and siltstone) near the east flank of the north- northeast trending ridge. The bedding in the north portion of the 6 km strike length magnesite zone trends NNE and dips steeply WNW. In the south portion of the 6 km strike length magnesite zone trends NE and dips steeply NW. Bedding is interpreted as compositional layering and not metamorphic banding/cleavage. Metamorphic grade is low (greenschist facies) and it is possible to identify compositional layering. The genesis of magnesite is interpreted as an extreme example of dolomitization associated with platform sediment compaction & burial diagenesis.

## 6.0 2016 Field Program

### 6.1 Scope & Purpose

The 2016 geological mapping and geochemical sampling was carried out in order to evaluate mineral potential in a 400 X 400 m area, located in the central portion of Mag 4 (ID 1047074) Marysville magnesite mineral occurrences in the area where magnesite is partly exposed as sub-crop to the south and outcrop to the north.

### 6.2 Methods and Procedures

A total of 4 of 8 rock chip samples were taken across 2 meter intervals (at right angle to apparent strike) along exposures of bedrock in the north-central portion of Mag 4 claim (tenure number 1047074). A total of 4 of the 8 samples were taken in areas of no outcrop (central portion of Mag 4 claim). Rock chip samples were taken with rock hammer and chisel and consist of acorn to walnut sized bedrock pieces for a total weight ranging from 0.88 to 1.48 kgs. Sample material was placed in marked poly ore bags and shipped to ALS Minerals, North Vancouver. Locations were verified by Garmin 60Cx GPS portable receiver to 3 meter accuracy.ALS Minerals crushed better than 70% passing a 2 mm screen split and pulverized rock chip samples. A split of 250 grams is pulverized to better than 85% passing a 75 micron screen. The sample pulp is analyzed using ALS Minerals ME-XRF-06 (XRF-26) Li borate flux major oxide whole rock geochemical

analytical methods (Appendix A & B).Geological mapping was carried out over 16 hectares of exposed magnesite. Geological structure such as fault orientation, bedding, & outcrop as well as lithology changes were noted and mapped at a scale of 1:2,500 (Fig 7). Locations were verified by Garmin 60Cx GPS portable receiver to 3 meter accuracy.

### 6.3 Property Geology & Mineralization

Geological mapping identified strata-bound magnesite layers and lenses that striking north-northeast and dipping steeply northwest. The dominant structure appears to be steep dipping strata and sub-vertically oriented faults generally striking northwest and north-northeast. The magnesite member of the Cranbrook Formation quartzite is extensive throughout the local area occurring as 60-600 m strike length lenses of magnesite along a 6 kilometer strike length. The Marysville mineral property features high purity magnesite hosted in the Cranbrook Formation.

The writer performed fieldwork consisting of geochemical sampling and geological mapping on the south portion of Marysville magnesite. Fieldwork was carried out June 27-29, 2015. Technical work is recorded in this assessment report, and reported as MEM Event number 5606672. Geochemical sampling was carried out on exposed surface bedrock located in close proximity to historic mapped lenses of magnesite. A total of 8 rock chip samples were collected from surface outcrop. Rock chip samples were analyzed by ALS Minerals, North Vancouver, BC, using Li Borate fusion, whole rock analysis ME-XRF-06 (XRF26). Highlights of significant results from Marysville South Zone are listed as follows:

| Sample # | Width | Al2O3% | CaO% | Fe2O3% | K2O% | MgO% | Na2O% | P2O5% | SO3% | SiO2% | Total% | LOI% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-MA-1 | | 0.76 | 0.5 | 0.93 | 0.06 | 43 | 0.13 | 0.12 | 0.02 | 8.45 | 100.4 | 46.35 |
| 16-MA-2 | | 1.06 | 0.96 | 1.53 | 0.16 | 44.4 | 0.13 | 0.23 | 0.01 | 3.99 | 100.25 | 47.68 |
| 16-MA-3 | | 0.77 | 0.94 | 1.74 | 0.08 | 43.8 | 0.12 | 0.09 | 0.01 | 3.98 | 99.34 | 47.71 |
| 16-MA-4 | | 0.84 | 0.82 | 1.77 | 0.08 | 44.4 | 0.12 | 0.11 | 0.01 | 3.29 | 99.77 | 48.24 |
| 16-MA-5 | 200 cm | 0.76 | 0.55 | 0.95 | 0.07 | 41.5 | 0.13 | 0.15 | 0.02 | 10.65 | 99.84 | 44.99 |
| 16-MA-6 | 200 cm | 1.24 | 0.91 | 1.64 | 0.05 | 35.6 | 0.1 | 0.36 | 0.01 | 21.24 | 99.58 | 38.31 |
| 16-MA-7 | 200 cm | 0.67 | 0.44 | 0.81 | 0.04 | 41.5 | 0.12 | 0.17 | 0.02 | 11.95 | 100.5 | 44.71 |
| 16-MA-8 | 200 cm | 1 | 0.63 | 1.01 | 0.09 | 40.8 | 0.12 | 0.15 | 0.02 | 12.34 | 100.1 | 43.89 |

The relatively high MgO content (40.7-45% MgO) compares favourably with other magnesite producers such as Baymag property near Radium Hot Springs, BC (NOTE: pure magnesite is about 47.6% MgO). Impurity compounds of interest (Al2O3, CaO) approach specifications required for producing deadburn, calcined and fused magnesia. The relatively high SiO2 and Fe2O3 may require beneficiation (e.g. flotation and gravity separation) in order to remove these impurities. The silica impurities may have commercial value and may be considered a by-product.

## 7.0 Discussion of Results

Based on the range of 35.6-44.4% MgO and impurities Al2O3 (0.67-1.24%), SiO2 (3.29-21.24%), CaO (0.55-0.94%), Fe2O3 (0.81-1.77%), detailed mapping and geochemical sampling is recommended in order to test the extent and purity of the Marysville magnesite. Core drilling is suggested to determine mapping of magnesite lenses to a 25-100 meter depth, leading to resource estimate and metallurgical testing for suitability for use as a raw material for refractories in the steel industry as well as other industrial end uses such as agricultural, fire retardant, and/or specialized moisture/mold resistant filler, MgCl (road salt). MGX is planning further evaluation of commercial applications for Marysville magnesite as well as geochemical analysis of rock samples in order to determine grade and distribution of Marysville magnesite.

## 8.0 Conclusion

Reviewing available data, the writer offers the following interpretations & conclusions:

- The Marysville magnesite is a significant magnesite resource, comparing favourably in size with other deposits in BC e.g. Baymag, Driftwood.
- Access to the property is relatively good with a reasonable access road connecting Marysville Magnesite to Cranbrook and Kimberley.
- There is good infrastructure in the form of a paved highway, CPR spur line and powerline all of which are located approximately 10 kilometers east of the property. The magnesite bearing mineral zones have year-round, secondary class road access
- Lower Cambrian Cranbrook Formation sandstone, clastic and carbonate sedimentary sequence has been subjected to regional metamorphism (heat and pressure from deep burial during Cretaceous orogeny events, and subsequent erosion) has resulted in recrystallization of the sediments into magnesite, slate, marble and other metamorphic equivalents. The genesis of magnesite is interpreted as an extreme example of dolomitization associated with platform sediment compaction & burial diagenesis.
- Marysville property has exposed Cranbrook Formation magnesite bearing magnesite lithology along a segmented ridge crest that strikes north-northeast and dips steeply. Magnesite exposed near the crest of the ridge is accessible by a network of trails developed by Cominco in 1960's.
- High purity magnesite has been mapped over a strike length of 2,200 meters within 6,000 metre strike length, and a maximum width of about 1-25 meters. Impure (interbedded quartzite/siltstone) magnesite occurs as 20-75 m wide zones that are parallel to narrower, high purity lenses.

## 9.0 Recommendations

Future exploration and development of Marysville Magnesite should be focused on defining the extensions of known magnesite formations hosted within the Cranbrook Formation. In order to outline zones of high purity magnesite, geochemical data should be collected from the zones of magnesite mineralization. Based on new data interpretation and geochemical results, bulk sample metallurgical testing for use in various end products are recommended, as well as core drilling a total of 750 meters from 10 sites (all angle holes of 50-60 degree dip, in a fence pattern, collared 35-70 m west of surface target, and drilled to a depth of approximately 50-100 meters).

## 10.0 References

EMPR Annual Report 1937-A25, 1941-78, 1959-176, 1961-150, 1964-187

EMPR Bulletin 76, p 77

EMPR Open File 1987-13 1988-14

EMPR Property File, Oct 27, 1994

GSC Map 396A, 15-1957, 11-1960

GSC Memoir 76

GSC Summary Report 1932, Part AII

Henderson, G. G. L. (1954): Geology of the Stanford Range of the Rocky Mountains. EMPR Bulletin 35. pp.24-25, Figure 2

Leech, G. B. (1954): Canal Flats, British Columbia, GSC Paper 54-7, pp.18-19

## CERTIFICATE AND DATE

I, Andris Kikauka, of 4199 Highway, Powell River, BC am a self-employed professional geoscientist. I hereby certify that:

**1.** I am a graduate of Brock University, St. Catharines, Ont., with an Honours Bachelor of Science Degree in Geological Sciences, 1980.
**2.** I am a Fellow in good standing with the Geological Association of Canada.
**3.** I am registered in the Province of British Columbia as a Professional Geoscientist.
**4.** I have practiced my profession for twenty five years in precious and base metal exploration in the Cordillera of Western Canada, U.S.A., Mexico, Central America, and South America, as well as for three years in uranium exploration in the Canadian Shield.
**5.** The information, opinions, and recommendations in this report are based on fieldwork carried out in my presence on the subject property during which time a technical evaluation consisting of geological mapping, surveying, geochemical rock sampling of mineralized zones carried out Oct 6-8, 2016.
**6.** I have a direct interest in the Marysville Property and MGX Minerals Inc. The recommendations in this report cannot be used for the purpose of public financing.
**7.** I am not aware of any material fact or material change with respect to the subject matter of this Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
**8.** This technical work report supports requirements of BCEMPR for Exploration and Development Work/Expiry Date Change.

Andris Kikauka, P. Geo.,

A. Kikauka


April 25, 2017

**ITEMIZED COST STATEMENT-**
**MARYSVILLE MINERAL TENURE 1044738, 1047074 (Claim name: Mag 3 & Mag 4)**
**FIELDWORK PERFORMED OCT 6-8, 2016,**
**WORK PERFORMED ON MINERAL TENURES 1044738, 1047074**
**FORT STEELE MINING DIVISION, NTS 82G 12W (TRIM 082G 051)**

**FIELD CREW:**

**A. Kikauka (Geologist) 3 days (surveying, mapping) $ 1,575.00**

**FIELD COSTS:**

| | |
|---|---|
| **Mob/demob/preparation** | **180.05** |
| **Meals and accommodations** | **180.25** |
| **Truck mileage & fuel** | **212.20** |
| **Li Borate Fusion ICP AES geochemical analysis (6 rock samples)** | **529.73** |
| **Report** | **500.00** |
| **Total=** | **$ 3,177.23** |

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

APPENDIX A

To: **MGX MINERALS INC**
**303-1080 HOWE STREET**
**VANCOUVER BC V6Z 2T1**


**Finalized Date: 2-APR-2017**
**Account: MGXMIN**

## CERTIFICATE VA17051775

Project: Marysville

This report is for 8 Rock samples submitted to our lab in Vancouver, BC, Canada on 17-MAR-2017.

The following have access to data associated with this certificate:

| | | |
|---|---|---|
| ANDRIS KIKAUKA | MGX MINERALS | |

## SAMPLE PREPARATION

| ALS CODE | DESCRIPTION |
|---|---|
| WEI-21 | Received Sample Weight |
| PUL-QC | Pulverizing QC Test |
| CRU-QC | Crushing QC Test |
| LOG-22 | Sample login - Rcd w/o BarCode |
| CRU-31 | Fine crushing - 70% <2mm |
| SPL-21 | Split sample - riffle splitter |
| PUL-31 | Pulverize split to 85% <75 um |

## ANALYTICAL PROCEDURES

| ALS CODE | DESCRIPTION | INSTRUMENT |
|---|---|---|
| ME-XRF26 | Whole Rock By Fusion/XRF | XRF |
| OA-GRA05x | LOI for XRF | WST-SEQ |

To: **MGX MINERALS INC**
**ATTN: ANDRIS KIKAUKA**
**303-1080 HOWE STREET**
**VANCOUVER BC V6Z 2T1**

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

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

**Signature:**

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **MGX MINERALS INC**
**303-1080 HOWE STREET**
**VANCOUVER BC V6Z 2T1**


**Finalized Date: 2-APR-2017**
**Account: MGXMIN**

Project: Marysville

# CERTIFICATE OF ANALYSIS VA17051775

| Sample Description | Method / Analyte / Units / LOR | WEI-21 Recvd Wt. kg 0.02 | ME-XRF26 Al2O3 % 0.01 | ME-XRF26 BaO % 0.01 | ME-XRF26 CaO % 0.01 | ME-XRF26 Cr2O3 % 0.01 | ME-XRF26 Fe2O3 % 0.01 | ME-XRF26 K2O % 0.01 | ME-XRF26 MgO % 0.01 | ME-XRF26 MnO % 0.01 | ME-XRF26 Na2O % 0.01 | ME-XRF26 P2O5 % 0.01 | ME-XRF26 SO3 % 0.01 | ME-XRF26 SiO2 % 0.01 | ME-XRF26 SrO % 0.01 | ME-XRF26 TiO2 % 0.01 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16MA-01 | | 1.40 | 0.76 | <0.01 | 0.50 | <0.01 | 0.93 | 0.06 | 43.0 | 0.02 | 0.13 | 0.12 | 0.02 | 8.45 | <0.01 | 0.05 |
| 16MA-02 | | 1.00 | 1.06 | <0.01 | 0.96 | <0.01 | 1.53 | 0.16 | 44.4 | 0.03 | 0.13 | 0.23 | 0.01 | 3.99 | <0.01 | 0.05 |
| 16MA-03 | | 0.88 | 0.77 | 0.01 | 0.94 | <0.01 | 1.74 | 0.08 | 43.8 | 0.04 | 0.12 | 0.09 | 0.01 | 3.98 | <0.01 | 0.04 |
| 16MA-04 | | 1.16 | 0.84 | <0.01 | 0.82 | <0.01 | 1.77 | 0.08 | 44.4 | 0.04 | 0.12 | 0.11 | 0.01 | 3.29 | <0.01 | 0.04 |
| 16MA-05 | | 1.32 | 0.76 | <0.01 | 0.55 | <0.01 | 0.95 | 0.07 | 41.5 | 0.02 | 0.13 | 0.15 | 0.02 | 10.65 | <0.01 | 0.04 |
| 16MA-06 | | 1.18 | 1.24 | <0.01 | 0.91 | <0.01 | 1.64 | 0.05 | 35.6 | 0.03 | 0.10 | 0.36 | 0.01 | 21.24 | <0.01 | 0.07 |
| 16MA-07 | | 0.98 | 0.67 | <0.01 | 0.44 | <0.01 | 0.81 | 0.04 | 41.5 | 0.02 | 0.12 | 0.17 | 0.02 | 11.95 | <0.01 | 0.04 |
| 16MA-08 | | 1.48 | 1.00 | <0.01 | 0.63 | <0.01 | 1.01 | 0.09 | 40.8 | 0.02 | 0.12 | 0.15 | 0.02 | 12.34 | <0.01 | 0.04 |

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

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

To: **MGX MINERALS INC**
**303-1080 HOWE STREET**
**VANCOUVER BC V6Z 2T1**


**Finalized Date: 2-APR-2017**
**Account: MGXMIN**

Project: Marysville

# CERTIFICATE OF ANALYSIS VA17051775

| Sample Description | Method / Analyte / Units / LOR | ME-XRF26 Total % 0.01 | OA-GRA05x LOI 1000 % 0.01 |
|---|---|---|---|
| 16MA-01 | | 100.40 | 46.35 |
| 16MA-02 | | 100.25 | 47.68 |
| 16MA-03 | | 99.34 | 47.71 |
| 16MA-04 | | 99.77 | 48.24 |
| 16MA-05 | | 99.84 | 44.99 |
| 16MA-06 | | 99.58 | 38.31 |
| 16MA-07 | | 100.50 | 44.71 |
| 16MA-08 | | 100.10 | 43.89 |

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

ALS Canada Ltd.
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www.alsglobal.com

To: **MGX MINERALS INC**
**303-1080 HOWE STREET**
**VANCOUVER BC V6Z 2T1**


**Finalized Date: 2-APR-2017**
**Account: MGXMIN**

Project: Marysville

# CERTIFICATE OF ANALYSIS VA17051775

## CERTIFICATE COMMENTS

### LABORATORY ADDRESSES

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

| | | | |
|---|---|---|---|
| CRU-31 | CRU-QC | LOG-22 | ME-XRF26 |
| OA-GRA05x | PUL-31 | PUL-QC | SPL-21 |
| WEI-21 | | | |

ALS Minerals

APPENDIX B

## WHOLE ROCK GEOCHEMISTRY

# ME- XRF06

### SAMPLE DECOMPOSITION

**50% - 50% $Li_2B_4O_7$ - $LiBO_2$** (WEI- GRA06)

### ANALYTICAL METHOD

**X-Ray Fluorescence Spectroscopy** (XRF)

A calcined or ignited sample (0.9 g) is added to 9.0g of Lithium Borate Flux (50 % - 50 % $Li_2B_4O_7$ - $LiBO_2$), mixed well and fused in an auto fluxer between 1050 - 1100°C. A flat molten glass disc is prepared from the resulting melt. This disc is then analysed by X-ray fluorescence spectrometry.

| ELEMENT | SYMBOL | UNITS | LOWER LIMIT | UPPER LIMIT |
|---|---|---|---|---|
| Aluminum Oxide | $Al_2O_3$ | % | 0.01 | |
| Barium Oxide | BaO | % | 0.01 | 100 |
| Calcium Oxide | CaO | % | 0.01 | 100 |
| Chromium Oxide | $Cr_2O_3$ | % | 0.01 | 100 |
| Ferric Oxide | $Fe_2O_3$ | % | 0.01 | 100 |
| Potassium Oxide | $K_2O$ | % | 0.01 | 100 |
| Magnesium Oxide | MgO | % | 0.01 | 100 |
| Manganese Oxide | MgO | % | 0.01 | 100 |
| Sodium Oxide | $Na_2O$ | % | 0.01 | 100 |
| Phosphorus Oxide | $P_2O_2$ | % | 0.01 | 100 |
| Silicon Oxide | $SiO_2$ | % | 0.01 | 100 |
| Strontium Oxide | $SrO_2$ | % | 0.01 | 100 |
| Titanium Oxide | $TiO_2$ | % | 0.01 | 100 |
| Loss On Ignition | LOI | % | 0.01 | 100 |
| | Total | % | 0.01 | 101 |

**NOTE:** Since samples that are high in sulphides or base metals can damage Platinum crucibles, a ME- ICP06 finish method can be selected as an alternative method.

# APPENDIX C

| Sample ID | Zone name | Easting NAD 83 | Northing NAD 83 | Elev (m) | Type | Lithology |
|---|---|---|---|---|---|---|
| 16-MA-1 | Main Zone | 575398 | 5495337 | 1099 | sub-crop | sparry magnesite |
| 16-MA-2 | Main Zone | 575405 | 5495349 | 1097 | sub-crop | sparry magnesite |
| 16-MA-3 | Main Zone | 575411 | 5495368 | 1094 | sub-crop | sparry magnesite |
| 16-MA-4 | Main Zone | 575421 | 5495385 | 1092 | sub-crop | sparry magnesite |
| 16-MA-5 | Main Zone | 575380 | 5495473 | 1099 | outcrop | sparry magnesite |
| 16-MA-6 | Main Zone | 575384 | 5495496 | 1099 | outcrop | sparry magnesite |
| 16-MA-7 | Main Zone | 575389 | 5495512 | 1099 | outcrop | sparry magnesite |
| 16-MA-8 | Main Zone | 575397 | 5495542 | 1099 | outcrop | sparry magnesite |

| Sample ID | Alteration | Mineralization | Comments | Bed Strike | Bed Dip | Width (cm) |
|---|---|---|---|---|---|---|
| 16-MA-1 | weak qtz stringers, sweats <1 mm | magnesite | angular float | | | |
| 16-MA-2 | weak qtz stringers, sweats <1 mm | magnesite | angular float | | | |
| 16-MA-3 | weak qtz stringers, sweats <1 mm | magnesite | angular float | | | |
| 16-MA-4 | weak qtz stringers, sweats <1 mm | magnesite | angular float | | | |
| 16-MA-5 | weak qtz stringers, sweats <1 mm | magnesite | outcrop 2 m | | | 200 |
| 16-MA-6 | weak qtz stringers, sweats <1 mm | magnesite | outcrop 2 m | | | 200 |
| 16-MA-7 | weak qtz stringers, sweats <1 mm | magnesite | outcrop 2 m | 12 | 58 W | 200 |
| 16-MA-8 | weak qtz stringers, sweats <1 mm | magnesite | outcrop 2 m | 13 | 60 W | 200 |

| Sample ID | Al2O3% | BaO% | CaO% | Fe2O3% | K2O% | MgO% | MnO% | Total% | LOI% |
|---|---|---|---|---|---|---|---|---|---|
| 16-MA-1 | 0.76 | 0.01 | 0.5 | 0.93 | 0.06 | 43 | 0.02 | 100.4 | 46.35 |
| 16-MA-2 | 1.06 | 0.01 | 0.96 | 1.53 | 0.16 | 44.4 | 0.03 | 100.25 | 47.68 |
| 16-MA-3 | 0.77 | 0.01 | 0.94 | 1.74 | 0.08 | 43.8 | 0.04 | 99.34 | 47.71 |
| 16-MA-4 | 0.84 | 0.01 | 0.82 | 1.77 | 0.08 | 44.4 | 0.04 | 99.77 | 48.24 |
| 16-MA-5 | 0.76 | 0.01 | 0.55 | 0.95 | 0.07 | 41.5 | 0.02 | 99.84 | 44.99 |
| 16-MA-6 | 1.24 | 0.01 | 0.91 | 1.64 | 0.05 | 35.6 | 0.03 | 99.58 | 38.31 |
| 16-MA-7 | 0.67 | 0.01 | 0.44 | 0.81 | 0.04 | 41.5 | 0.02 | 100.5 | 44.71 |
| 16-MA-8 | 1 | 0.01 | 0.63 | 1.01 | 0.09 | 40.8 | 0.02 | 100.1 | 43.89 |

| Sample ID | Na2O% | P2O5% | SO3% | SiO2% | TiO2% | Total% | LOI% |
|---|---|---|---|---|---|---|---|
| 16-MA-1 | 0.13 | 0.12 | 0.02 | 8.45 | 0.05 | 100.4 | 46.35 |
| 16-MA-2 | 0.13 | 0.23 | 0.01 | 3.99 | 0.05 | 100.25 | 47.68 |
| 16-MA-3 | 0.12 | 0.09 | 0.01 | 3.98 | 0.04 | 99.34 | 47.71 |
| 16-MA-4 | 0.12 | 0.11 | 0.01 | 3.29 | 0.04 | 99.77 | 48.24 |
| 16-MA-5 | 0.13 | 0.15 | 0.02 | 10.65 | 0.04 | 99.84 | 44.99 |
| 16-MA-6 | 0.1 | 0.36 | 0.01 | 21.24 | 0.07 | 99.58 | 38.31 |
| 16-MA-7 | 0.12 | 0.17 | 0.02 | 11.95 | 0.04 | 100.5 | 44.71 |
| 16-MA-8 | 0.12 | 0.15 | 0.02 | 12.34 | 0.04 | 100.1 | 43.89 |

APPENDIX D



## MINFILE Record Summary

## MINFILE No 082GNW005



File Created: 24-Jul-85 by BC Geological Survey (BCGS)
Last Edit: 20-Apr-08 by Mandy N. Desautels(MND)

XML Extract

### SUMMARY

Summary Help

| | | | |
|---|---|---|---|
| **Name** | MARYSVILLE, PERRY CREEK | **NMI** | 082G12 Mg1 |
| | | **Mining Division** | Fort Steele |
| | | **BCGS Map** | 082G051 |
| **Status** | Past Producer | **NTS Map** | 082G12W |
| **Latitude** | 49° 34' 40" N | **UTM** | 11 (NAD 83) |
| **Longitude** | 115° 58' 33" W | **Northing** | 5492192 |
| | | **Easting** | 574039 |
| **Commodities** | Magnesite | **Deposit Types** | E09 : Sparry magnesite |
| **Tectonic Belt** | Omineca | **Terrane** | Ancestral North America |

**Capsule Geology**

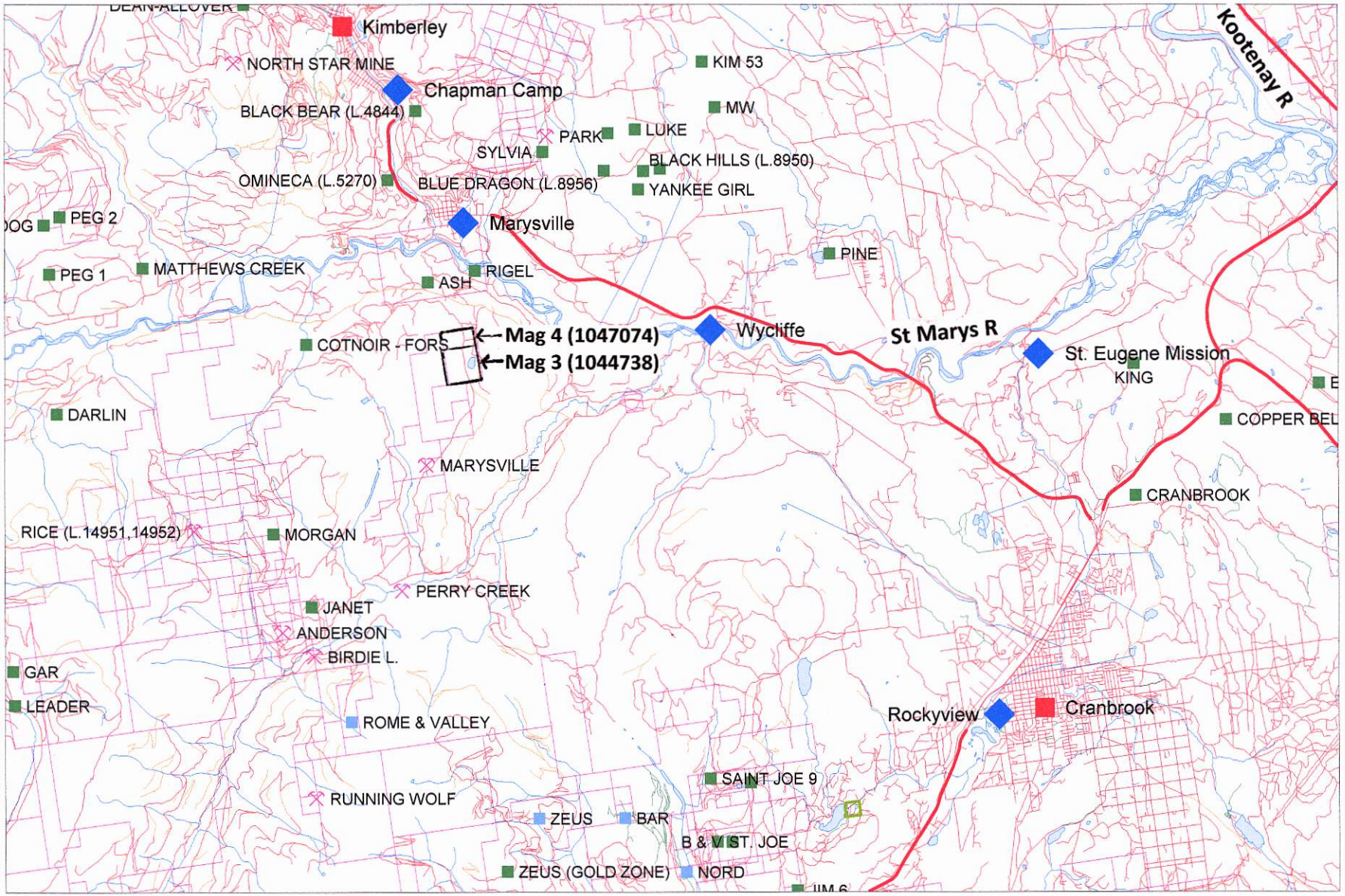
Magnesite forms a bed which is conformably interbedded with quartzites of the Lower Cambrian Cranbrook Formation. It is underlain by a sequence of thinly banded, reddish quartzitic and buff magnesite beds and is overlain by magnesite interstratified with thin, greenish argillite beds and locally thin limestone. It varies from coarse to finely crystalline, weathers rough and commonly has a rusty brown surface. Fresh surfaces are pearly grey, white or cream-coloured and are cut by minor quartz veins or host to knots of quartz. The best bed of magnesite is about 15 metres thick and samples indicate the following chemistry: 4.54 per cent SiO2, 2.4 per cent Fe2O3, 0.4 per cent Al2O3, 0.79 per cent CaO, 43.7 per cent MgO and 48 per cent Loss On Ignition.

Minor production has been reported for the Marysville deposit (Z.D. Hora, personal communication, 1990), but no figures are available.

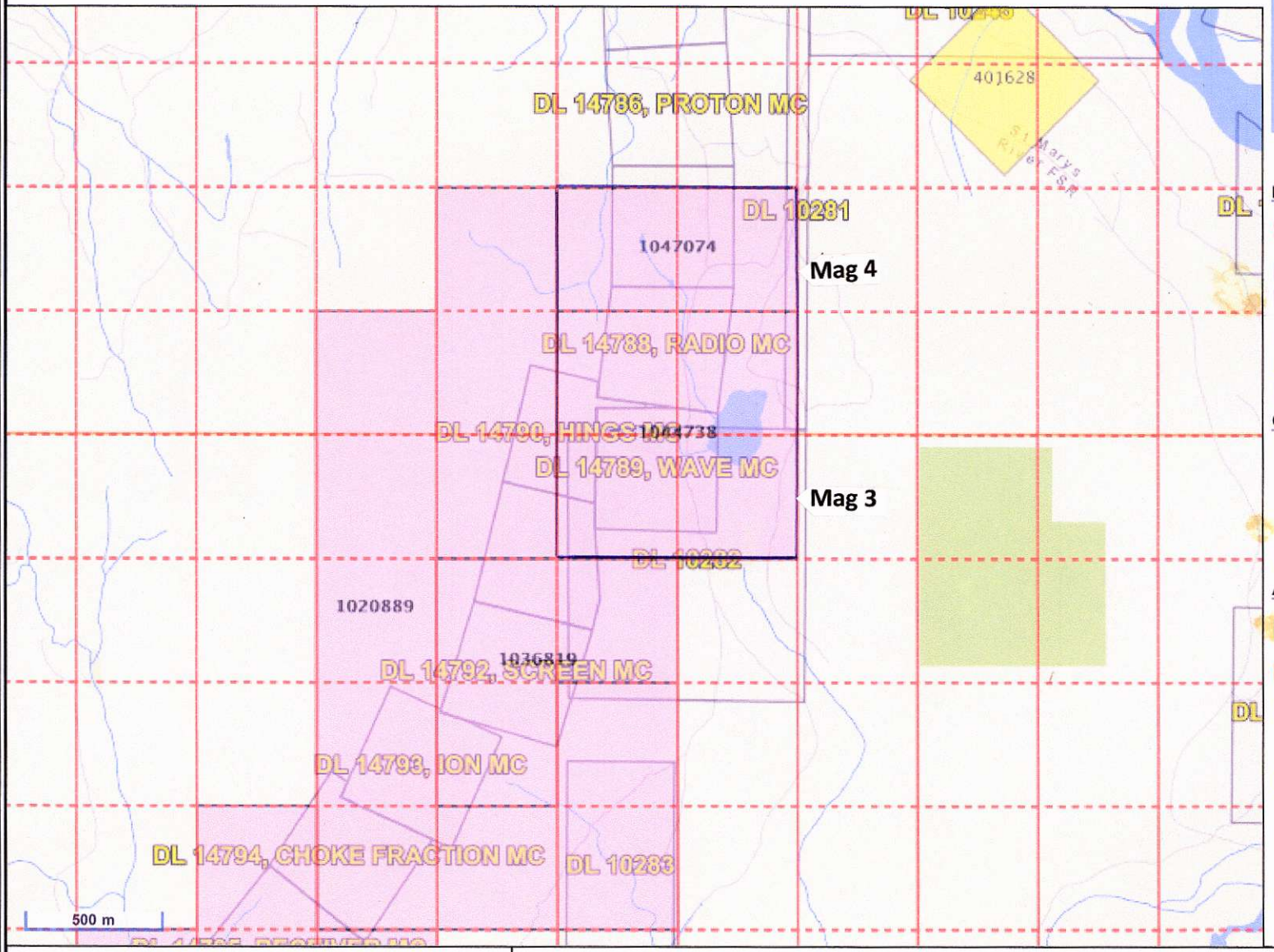
**Bibliography**

EMPR AR 1937-A25; *1941-78; 1947-219; *1959-176; 1961-150; *1964-187
EMPR BULL 76 p. 77
EMPR OF 1987-13; *1988-14
EMPR PF (Letter and graph from Richard B. Berg to Kirk Hancock, October 27, 1994)
GSC MAP 396A; 15-1957; 11-1960
GSC MEM 76; *207, pp. 18,56
GSC SUM RPT 1932, Part AII, p. 101
WWW http://www.infomine.com/index/properties/FORT_STEELE.html

# Fig 1 Marysville Magnesite Mag 3 & 4 Claim General Location



# MTO 1044738 Mag 3 & 1047074 Mag 4




## Legend

**Mineral Titles (MTO)**
- MTO Grid
- Title (current)
- LEASE
- CLAIM
- Reserves
- No Registration
- Conditional
- Heritage/Historic Site

**Crown Land Layers (Tantalis)**
- Land Act Survey Parcels - Tantalis - Legal Descriptions
- Label Text
- Land Act Survey Parcels - Tantalis - Outlined

**Administrative Boundaries**
- Federal Transfer Lands - Outlined
- Federal Transfer Lands - Colour Filled
- National Parks - Outlined
- National Parks
- National Parks - Colour Filled
- Conservancy Areas - Tantalis - Colour Filled
- Ecological Reserves - Tantalis - Colour Filled
- Protected Areas - Tantalis - Colour Filled

*This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.*
*THIS MAP IS NOT TO BE USED FOR NAVIGATION.*

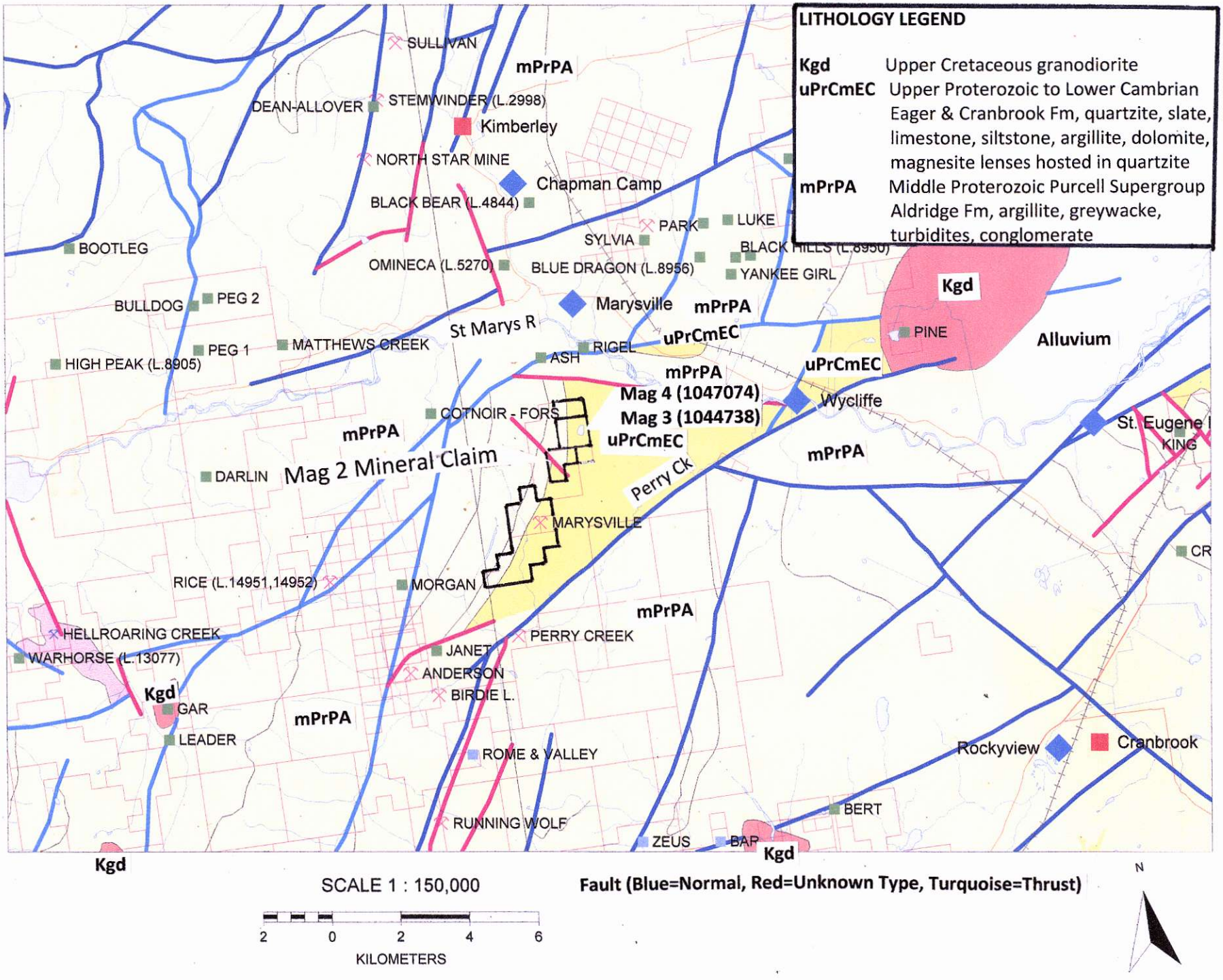
Printed using the Mineral Titles Online (MTO) application.NTS 082G 12/W BCGS 082G.051, Fort Steele Mining Division

**Fig 2**

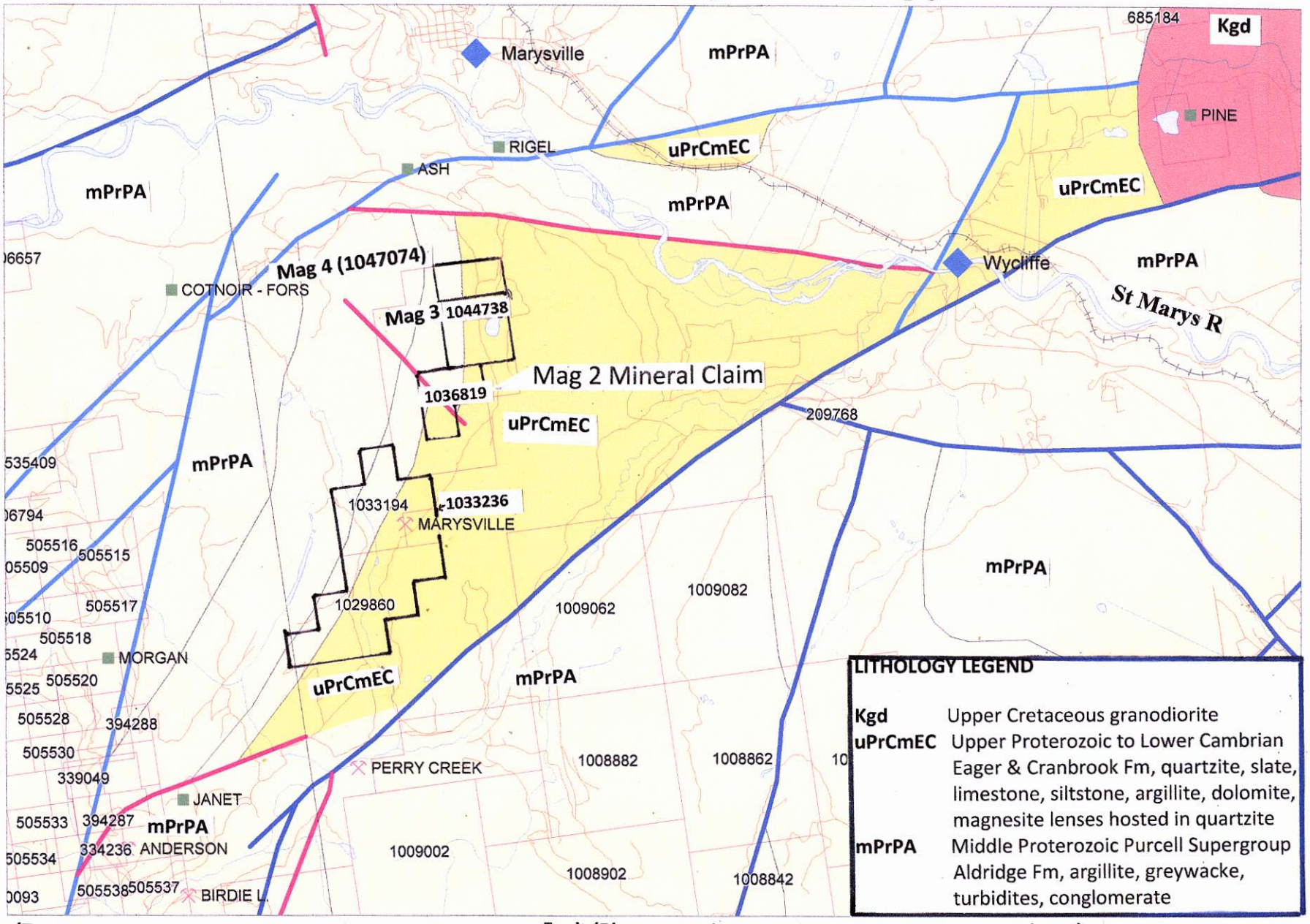
**Center:** 49°35'55", -115°57'34"
**Scale:** 1 : 33,855
**SRS:** EPSG:3857
**UTM Zone:** 11

N

# Fig 3A General Geology



# Fig 3B Property Geology




**Marysville (Tenure** 1029860, 1033194, 1033236)

**'Tenure 1036819, 1044738 1047074**

**Fault (Blue=Normal, Red=Unknown Type, Turquoise=Thrust)**

SCALE 1 : 75,000

2 0 2 4 6

KILOMETERS

N

**NTS 082G 12/W BCGS 082G.051**

**Fort Steele Mining Division**

# MTO 1044738 Mag 3 & 1047074 Mag 4

**Ft Steele Mining Division, BCGS 082G.051, NTS 082G12W**

| Sample ID | Width (cm) | Al2O3% | CaO% | Fe2O3% | K2O% | MgO% | Na2O% | P2O5% | SO3% | SiO2% | Total% | LOI% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-MA-1 | | 0.76 | 0.5 | 0.93 | 0.06 | 43 | 0.13 | 0.12 | 0.02 | 8.45 | 100.4 | 46.35 |
| 16-MA-2 | | 1.06 | 0.96 | 1.53 | 0.16 | 44.4 | 0.13 | 0.23 | 0.01 | 3.99 | 100.25 | 47.68 |
| 16-MA-3 | | 0.77 | 0.94 | 1.74 | 0.08 | 43.8 | 0.12 | 0.09 | 0.01 | 3.98 | 99.34 | 47.71 |
| 16-MA-4 | | 0.84 | 0.82 | 1.77 | 0.08 | 44.4 | 0.12 | 0.11 | 0.01 | 3.29 | 99.77 | 48.24 |
| 16-MA-5 | 200 | 0.76 | 0.55 | 0.95 | 0.07 | 41.5 | 0.13 | 0.15 | 0.02 | 10.65 | 99.84 | 44.99 |
| 16-MA-6 | 200 | 1.24 | 0.91 | 1.64 | 0.05 | 35.6 | 0.1 | 0.36 | 0.01 | 21.24 | 99.58 | 38.31 |
| 16-MA-7 | 200 | 0.67 | 0.44 | 0.81 | 0.04 | 41.5 | 0.12 | 0.17 | 0.02 | 11.95 | 100.5 | 44.71 |
| 16-MA-8 | 200 | 1 | 0.63 | 1.01 | 0.09 | 40.8 | 0.12 | 0.15 | 0.02 | 12.34 | 100.1 | 43.89 |

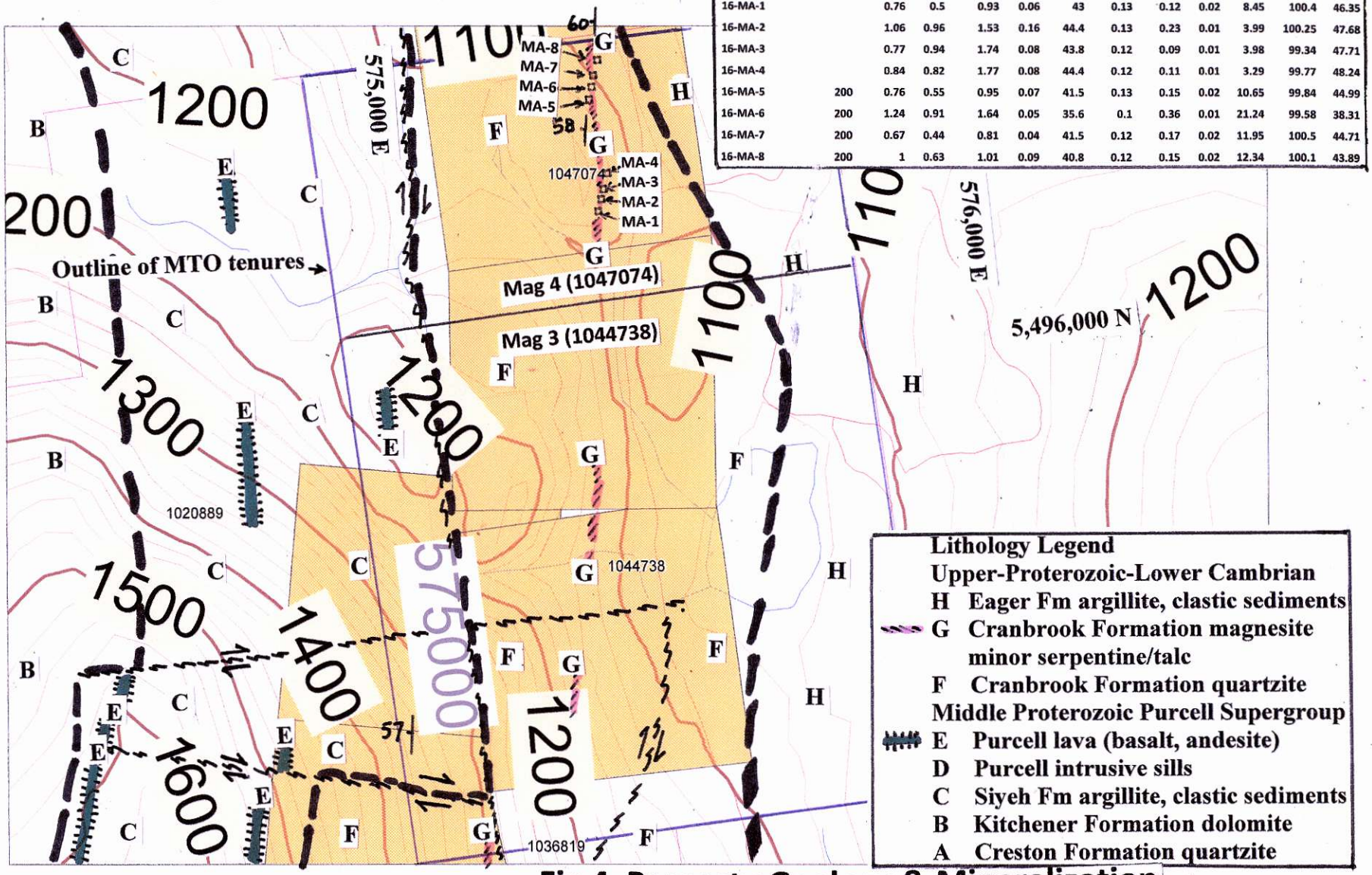
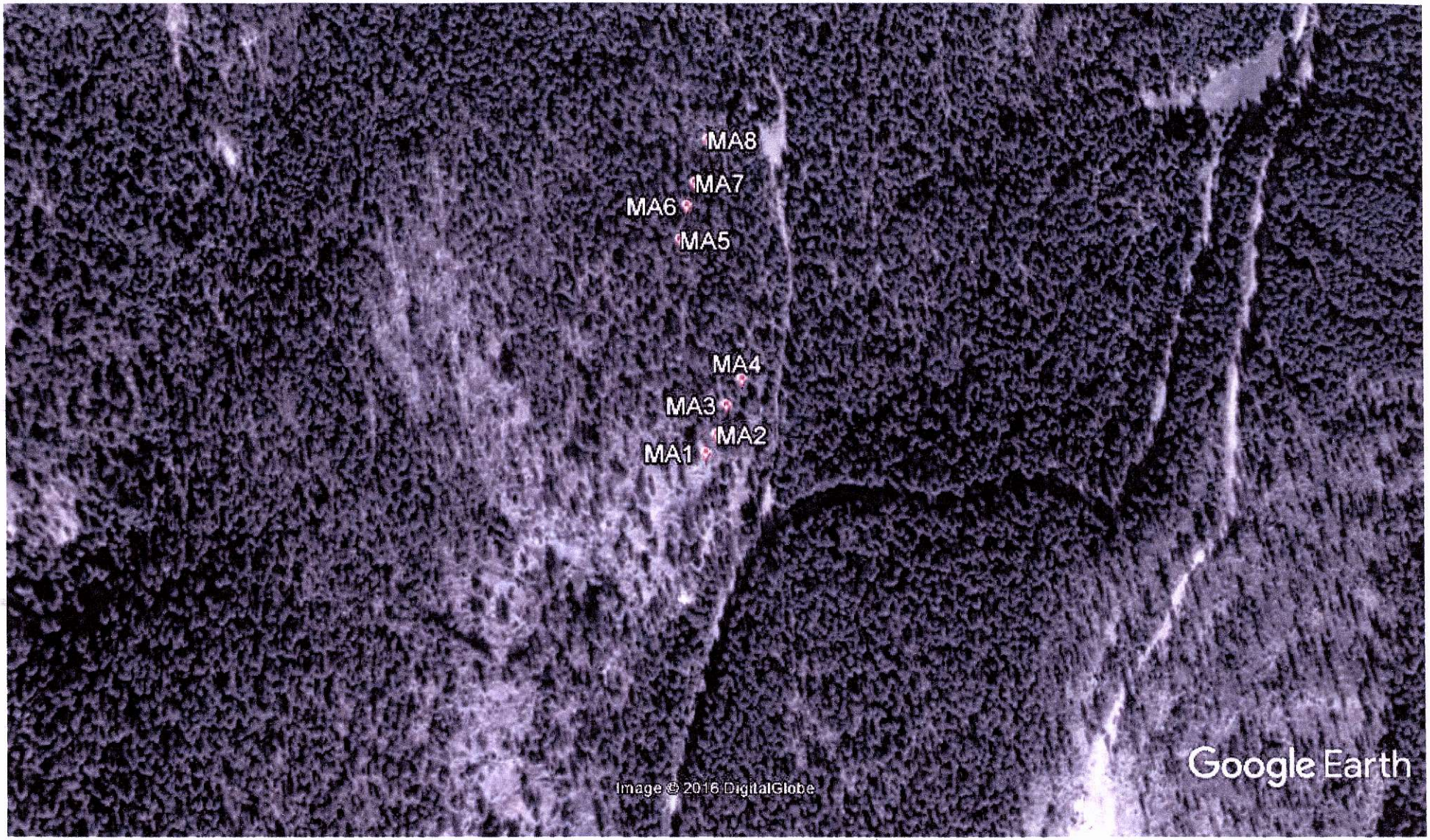



**Fig 4 Property Geology & Mineralization**




Google Earth feet 1000 meters 500

| Sample ID | Width (cm) | Al2O3% | CaO% | Fe2O3% | K2O% | MgO% | Na2O% | P2O5% | SO3% | SiO2% | Total% | LOI% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-MA-1 | | 0.76 | 0.5 | 0.93 | 0.06 | 43 | 0.13 | 0.12 | 0.02 | 8.45 | 100.4 | 46.35 |
| 16-MA-2 | | 1.06 | 0.96 | 1.53 | 0.16 | 44.4 | 0.13 | 0.23 | 0.01 | 3.99 | 100.25 | 47.68 |
| 16-MA-3 | | 0.77 | 0.94 | 1.74 | 0.08 | 43.8 | 0.12 | 0.09 | 0.01 | 3.98 | 99.34 | 47.71 |
| 16-MA-4 | | 0.84 | 0.82 | 1.77 | 0.08 | 44.4 | 0.12 | 0.11 | 0.01 | 3.29 | 99.77 | 48.24 |
| 16-MA-5 | 200 | 0.76 | 0.55 | 0.95 | 0.07 | 41.5 | 0.13 | 0.15 | 0.02 | 10.65 | 99.84 | 44.99 |
| 16-MA-6 | 200 | 1.24 | 0.91 | 1.64 | 0.05 | 35.6 | 0.1 | 0.36 | 0.01 | 21.24 | 99.58 | 38.31 |
| 16-MA-7 | 200 | 0.67 | 0.44 | 0.81 | 0.04 | 41.5 | 0.12 | 0.17 | 0.02 | 11.95 | 100.5 | 44.71 |
| 16-MA-8 | 200 | 1 | 0.63 | 1.01 | 0.09 | 40.8 | 0.12 | 0.15 | 0.02 | 12.34 | 100.1 | 43.89 |

**Fig 5 Rock Chip Samples MA-1 to 8 Google Earth**

**NTS 082G 12/W BCGS 082G.051 Fort Steele Mining Division**


Google Earth

feet 1000

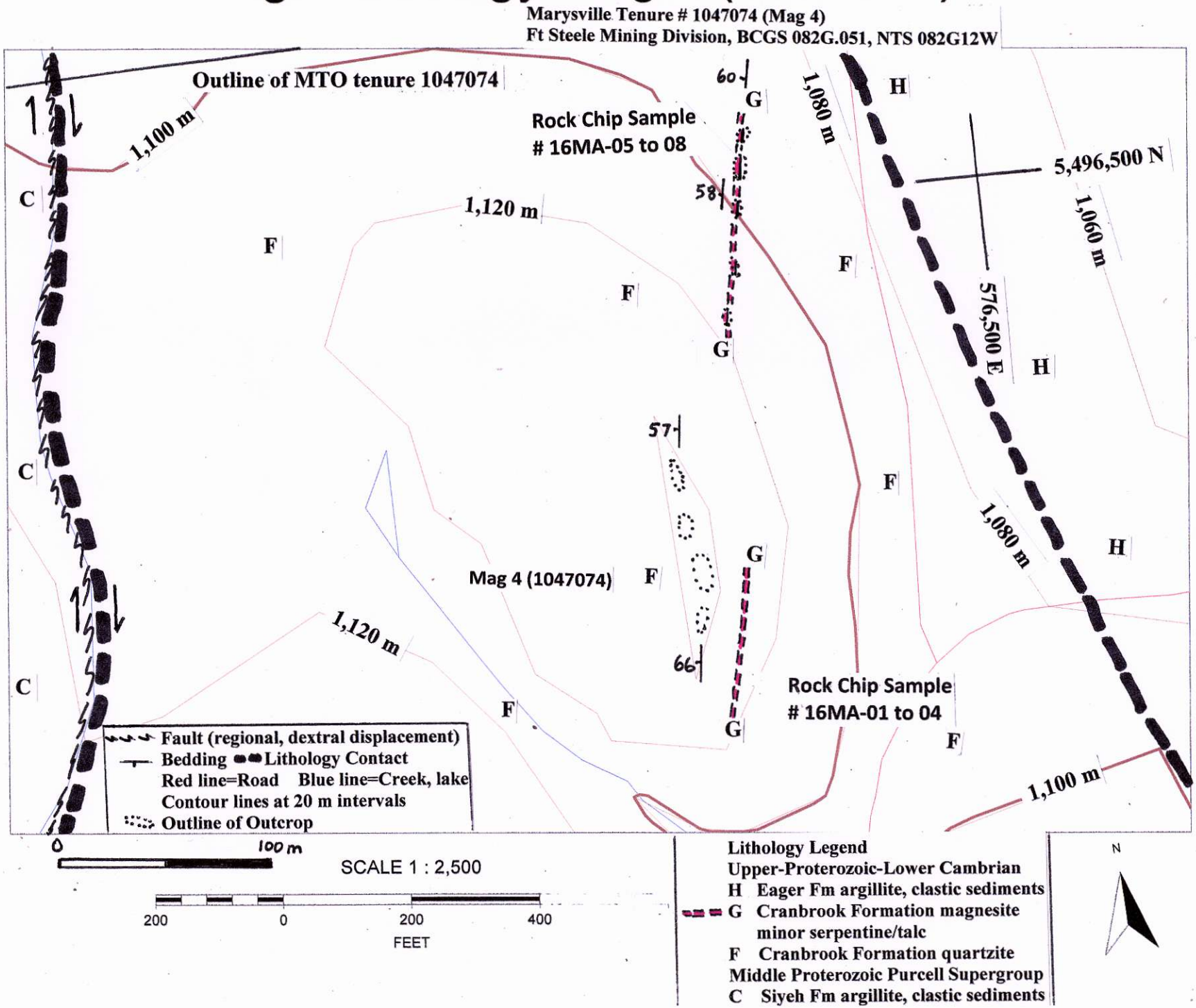
meters 300

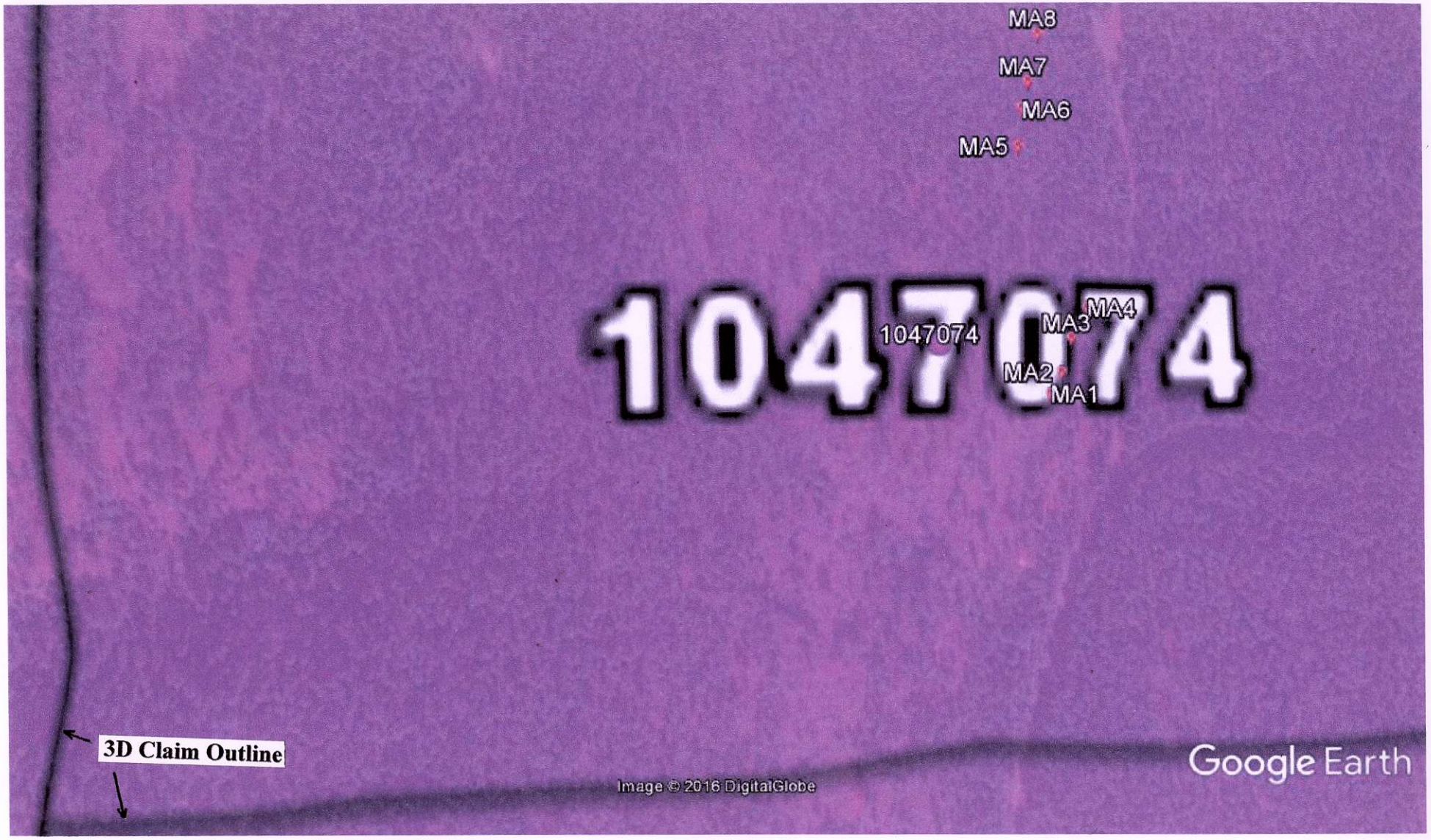
| Sample ID | Width (cm) | Al2O3% | CaO% | Fe2O3% | K2O% | MgO% | Na2O% | P2O5% | SO3% | SiO2% | Total% | LOI% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-MA-1 | | 0.76 | 0.5 | 0.93 | 0.06 | 43 | 0.13 | 0.12 | 0.02 | 8.45 | 100.4 | 46.35 |
| 16-MA-2 | | 1.06 | 0.96 | 1.53 | 0.16 | 44.4 | 0.13 | 0.23 | 0.01 | 3.99 | 100.25 | 47.68 |
| 16-MA-3 | | 0.77 | 0.94 | 1.74 | 0.08 | 43.8 | 0.12 | 0.09 | 0.01 | 3.98 | 99.34 | 47.71 |
| 16-MA-4 | | 0.84 | 0.82 | 1.77 | 0.08 | 44.4 | 0.12 | 0.11 | 0.01 | 3.29 | 99.77 | 48.24 |
| 16-MA-5 | 200 | 0.76 | 0.55 | 0.95 | 0.07 | 41.5 | 0.13 | 0.15 | 0.02 | 10.65 | 99.84 | 44.99 |
| 16-MA-6 | 200 | 1.24 | 0.91 | 1.64 | 0.05 | 35.6 | 0.1 | 0.36 | 0.01 | 21.24 | 99.58 | 38.31 |
| 16-MA-7 | 200 | 0.67 | 0.44 | 0.81 | 0.04 | 41.5 | 0.12 | 0.17 | 0.02 | 11.95 | 100.5 | 44.71 |
| 16-MA-8 | 200 | 1 | 0.63 | 1.01 | 0.09 | 40.8 | 0.12 | 0.15 | 0.02 | 12.34 | 100.1 | 43.89 |

# Fig 6 Rock Chip Samples MA-1 to 8 Google Earth (MTO Grid in Red)

**NTS 082G 12/W BCGS 082G.051 Fort Steele Mining Division**

# Fig 7 Geology Mag 4 (1047074)






Google Earth

feet 1000
meters 400

**Fig 8 MA-1 to 8 Rock Chip Sample Locations Google Earth (Tenure ID: 1047074, Name: Mag 4)**

**Marysville Magnesite Project,**
**Tenure # 1047074 (Mag 4)**
**Ft Steele Mining Division,**
**BCGS 082G.051, NTS 082G12W**