

#### ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Baymag2013GeologicalReport\_event# 5468126

#### TOTAL COST: \$52921.90

AUTHOR(S): Fabio Stern, Ian Knuckey SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): n/a STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5468126

YEAR OF WORK:2013

PROPERTY NAME: Baymag

CLAIM NAME(S) (on which work was done):213798,213794,213796,596229,596231,596506,596517,596518,596519,596529,597887,597888

#### COMMODITIES SOUGHT: magnesite

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Golden NTS / BCGS: 82 J / 13 LATITUDE: \_\_\_\_\_50\_\_\_\_° \_\_\_47\_\_\_\_, \_\_\_\_" LONGITUDE: \_\_\_115\_\_\_\_° \_\_\_41\_\_\_\_, \_\_\_\_" (at centre of work) UTM Zone: EASTING: NORTHING:

OWNER(S): Baymag Inc.

MAILING ADDRESS: Box 399, Radium Hot Springs, BC , V0A 1M0

OPERATOR(S) [who paid for the work]: Baymag Inc.

MAILING ADDRESS: above

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

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)	135 km²	213798, 213794, 213796, 596229, 596517, 596518, 596529, 597887, 597888	\$34,946.63
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line- kilometres)			
GEOCHEMICAL (number of sam )	ples analysed for		
Soil			
Silt		040700 040704 040700 500000	
Rock	95	213798, 213794, 213796, 596229, 596517, 596518, 596529, 597887, 597888	\$6,037.87
Other			
DRILLING (total metres, number location)	of holes, size, storage		
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (	(scale, area)		
Legal Surveys (scale, ar	rea)		
Road, local access (km)	/trail		
Trench (number/metres)			
Underground developme	ent (metres)		
Other PAC acct			\$11,937.40
		TOTAL COST	\$52,921.90

BC Geological Survey Assessment Report 34429

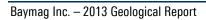


2013 GEOLOGICAL REPORT Event # 5468126

### **GEOLOGICAL EXPLORATION**

Consisted of mineral exploration on Baymag Mineral Claims.

GOLDEN MINING DIVISION NTS 82 J/13 @ 562700 N, 593000 E LATITUDE 50 47' N LONGITUDE 115 41' W CLAIMS OWNED BY: Baymag Inc. AUTHORS: Ian Knuckey, Fabio Stern DATE SUBMITTED: December 10, 2013





## TABLE OF CONTENTS

1 IN	ITRODUCTION	1
1.1	Location and Access	1
1.2	Previous Work	1
2 GE	EOLOGICAL SETTINGS	4
2.1	GEOLOGY OF THE OREBODY	4
3 DE	ETAILED TECHNICAL DATA AND INTERPRETATION	6
3.1	Овјестіvе	6
3.2	Метнодоlogy	6
3.3	Results	6
3.4	SUMMARY AND CONCLUSIONS	8
4 FI	IGURES	9
4.1	FIGURE 01: BAYMAG LOCATION	9
4.2	FIGURE 02: REGIONAL GEOLOGY	10
4.3	FIGURE 03: MINERAL CLAIMS	11
4.4	FIGURE 04: EXPLORATION SUMMARY	12
4.5	FIGURE 05: MILLER PASS DETAIL	13
4.6	FIGURE 06: STRUNA CREEK DETAIL	
4.7	FIGURE 07: AURORA CREEK DETAIL	15
5 IT	EMIZED COST STATEMENT	16
6 RE	EFERENCES	17
7 Al	JTHORS' QUALIFICATIONS	17
8 AF	PPENDIX A – SAMPLES ASSAY SHEET	18



#### **1** INTRODUCTION

This report summarizes activities and results from the geological exploration program carried out by Baymag Inc. between May and August 2013.

During four months two geologists conducted field work in the area with the main objective of evaluating potential viable sources of magnesite ore. The main executed activities were: field reconnaissance, geological mapping, rock description and sampling. All samples were described, labeled and sent to chemical analysis. Throughout this time, several new outcrops were identified, 95 samples were collected and analyzed.

Baymag Inc. personnel were responsible for the program's design, coordination, field supervision, sampling and handling.

Geochemical composition of the samples was determined through application of Induced Coupled Plasma (ICP) analyze, at the Baymag chemical lab in Exshaw, Alberta.

#### 1.1 Location and Access

The Mt. Brussilof Magnesite Mine is located within Mining Lease M31, immediately north of the confluence of the Mitchell River and Assiniboine Creek approximately 35 km north-east of Radium Hot Springs in the East Kootenay District of British Columbia (See Fig.01). The property is crossed by latitude 50°47'N and longitude 115° 41'W.

Access to the site is by Provincial Highway 93 from Radium Hot Springs northeast to Settlers Road in Kootenay National Park. The Road, which starts about 20 km of Radium, leads for 12 km south/southeast along the Valley of the Kootenay River. At the 12 km mark Palliser Road branches off from Settlers and continues through bridge on the Kootenay River for additional 2 km where it connects to Cross River Road at the 14 km junction. From the junction Cross Road follows the northeast direction along the south side of the Cross River Valley to a crossroad at 32 km. From this crossroad Mitchell River Road forks off and leads northward directly to the Baymag Mine. (Fig. 01).

In total the roads cover a distance of 38 km from the highway to the Mine Site and are maintained year round by Baymag Inc.

#### 1.2 Previous Work

Exploration activities performed on the area have a long and rewarding history. They resulted in a discovery of a world class magnesite deposit, which currently is mined and processed by Baymag Inc.

Commercial scale mining started in the second quarter of 1982 and has increased dramatically since then. The Mine is an open pit development and operates year round. Currently it produces in the order of 180,000 mt/year of high quality magnesite ore.

The ore is subsequently transported to Baymag's production facilities in Exshaw, Alberta where it is calcined into various grades of magnesium oxide (MgO). The calcined product is used in a wide variety of industrial, agricultural and environmental applications. Baymag produces several grades of MgO suitable for all of these purposes.

The history of the mine started in 1966 when G.B. Leech of the Geological Survey of Canada first discovered magnesite occurrence. Rock samples collected during the time upon chemical assaying showed high contents of MgO. The content was consistently reaching or exceeding 97% MgO level. Because of the Leech report, New Jersey Zinc Exploration Canada Ltd. staked the area and conducted a mapping and diamond drill program. Imperial Oil Enterprises also investigated the area but no additional work was performed. Baykal Minerals Ltd. conducted a mapping program in 1969, which resulted in acquisition of additional claims to bring the total to 278. Following the completion of fieldwork in 1969 to 1970, which included diamond-drilling programs, Acres Western Limited of Vancouver completed a production feasibility report for Baykal Minerals Ltd.

During 1971 Brussilof Resources Limited and Baykal Minerals Ltd. amalgamated to form Baymag Mines Co. Limited.

The property was optioned to Canadian Exploration Limited (CANEX) in 1972. CANEX conducted a field orientation program that included 2819.4 meters of diamond drilling to bring the total length then drilled on the property to 5,255 meters. Geological mapping of specific areas was also completed.

In 1975, a 250 m.t bulk sample was shipped to Refratechnik, a major German producer of refractory products, which showed interest in securing a raw material source. Crushed material was then forwarded to the research and manufacturing companies KHD, Lurgi and Polysius for industrial scale bulk testing for calcining and dead-burning Mt. Brussilof type ore.

In 1979 Baymag Mines Co. Limited - a subsidiary of Refratechnik GmbH of West Germany - contracted Techman and Kilborn Engineering (B.C.) Ltd to re-evaluate the feasibility of bringing the magnesite deposit into production. The evaluation involved surveys, 130 meters of percussion drilling, 75 meters of shallow diamond drilling and bulk sample extraction. A 100 ton sample of magnesite was extracted from a site on Rok 17 (now mine lease M31) and shipped to a crusher to be reduced to a minus 10 millimetres mesh. The crushed sample was then shipped to Nichols Engineering and Research in New Jersey for industrial scale dead burning trials.

In 1981, Baymag entered into a contractual agreement with John Wolfe Construction Co. Ltd to operate the mine and to be responsible for ore supply to the production plant at Exshaw, Alberta, a facility leased from Canada Cement Lafarge.

During 1984, eight exploration holes totalling a length of 731.5 meters of diamond drilling was completed on the Rok 17 claim. The core was descriptively logged, sampled and assayed.

A major exploration program was conducted in 1987, the purpose of which was to investigate the extension of the known magnesite deposit up-slope from the current pit development and further delineate and evaluate the quality and quantity of the ore in the immediate vicinity of the active mining operations. Thirty-four diamond drill holes totalling 2707 meters were drilled, logged, sampled and assayed.

A smaller exploration program was conducted in 1989 in two areas of the claim block. In the area proximal to the current mine development, the goal was to further delineate and evaluate the quality and quantity of ore immediately north of the known reserves. Fifteen shallow diamond drill holes totalling 273 meters were drilled, logged, sampled and assayed. The other area of interest was near the confluence of the Cross and Mitchell Rivers on the southern Vano claims (now Bay 19 & 21 claims). Ten shallow diamond drill holes totalling 110 meters were drilled, logged, sampled and assayed.

The following year Baymag acquired new ground up the Alcantara, Assiniboine and Aurora Creeks bringing the total number of claims to 461 units.

A small, percussion drilling program was conducted in 1990 with the goal of delineating zones of contamination near the little explored upper pit area. A total of 370 meters was drilled, sampled and assayed. It became evident that these localized contamination zones greatly influence the direction of pit development. Future drill and assay programs will be targeted toward these structures.

Eight shallow percussion holes were drilled in the summer of 1991 to further delineate the zones of contamination in the north section of the upper pit. A total of 166 m were drilled, logged and assayed.

A diamond-drilling program consisting of 16 holes was drilled in the summer of 1992. A total of 950 m was drilled, concentrated in an area immediately north of the upper pit. The program hoped to delineate new reserves and determine future pit development.

A small exploration program was conducted in 1993 on the Bay-21 claim. Three diamond drill holes totalling 182 meters were drilled, logged, sampled and assayed.

At the end of the 1993 exploration program, a total of 27 percussion holes and 145 diamond drill holes had been drilled on the property.

The last drilling program was executed in 2011, in the Struna Creek area (approximately 3.5 km south from Baymag Magnesite Open Mine), where 5 diamond drill holes were drilled. As a result of the drilling a total of 776.1 meters of core was recovered. Subsequently 470 samples were taken from the core for purpose of mineral and chemical evaluation.

Most recently, in the summer of 2012 an exploration program was conducted with the objective of evaluating potential viable sources of magnesite ore. Three areas located within Baymag claims (Aurora Creek, Struna Creek and Miller Pass) showed geochemical evidence for existence of magnesite mineralization. These three areas were further investigated in the 2013 exploration campaign.

#### 2 GEOLOGICAL SETTINGS

According to Simandl and Hancock (1990) the Mount Brussilof deposit is situated east of a Cambrian bathymetric feature commonly referred to as the Cathedral escarpment. The carbonate rocks east of this feature, which hosts the magnesite mineralization, were deposited in a shallower marine environment than their stratigraphic equivalents to the west.

The magnesite deposit occurs in the Cathedral Formation (Fig. 02), a Middle Cambrian buff and grey limestone and dolomitic body with about 340 meters thick.

The carbonate rocks from Cathedral Formation are underlain by the thin bedded, brown and green shales of Naiset Formation and overlain by the argillaceous dolomites and limestones of the undivided Eldon and Pika Formations. The thin Stephen Formation, composed of fossiliferous tan to grey shale might occur at some locations between Cathedral and Eldon Formations.

It is suggested that the magnesite postdates early diagenesis of the Cathedral Formation and probably of the Stephen, Eldon and Pika formations as well. Widespread dolomitization, subsequent fracturing, and brecciation contributed significantly to an increase in porosity. Some of the fracturing may be due to reactivation of a pre-Cathedral escarpment fault or to a difference in competence of deep and shallow water sediments during the post-Middle Cambrian tectonic activity. However, most of the breccias were probably produced by a partial dissolution and collapse of the carbonate host rock, caused by incursion of meteoric water or hydrothermal solutions in the manner described by Sangster (1988). Fluids responsible for crystallization of coarse sparry carbonates reacted with dolomitized, permeable and fractured reef facies along the Cathedral escarpment and moved up-dip along the permeable zones. The fluid cooled and evolved chemically along its path due to interaction with dolomitic host rock. Predictions based on this model suggest that the highest grade magnesite deposits should be located along the edge of the Cathedral escarpment, within the reef facies. Lower grade magnesite deposits and sparry dolomites would be located at a greater distance up-dip from the Cathedral escarpment along the same permeable zones, or adjacent to escarpment but in the zones of lesser permeability.

#### 2.1 Geology of the Orebody

The genesis of the deposit is thought to be mineralogical replacement or molecular substitution. As such, the process occurred when a fine-grained dolomite  $CaMg(CO_3)_2$  was substituted by a coarse-crystalline magnesite  $MgCO_3$ . The replacement, when taking place in geological past, likely included several phases of progressive influx of magnesium (Mg) rich fluids into existed dolomite sediment.

On the molecular basis, the incursion resulted in a near complete removal of Ca<sup>+2</sup> from chemical structure of the sediment and a fill up of available vacancies with Mg<sup>+2</sup>. The above chemical process was accompanied by a textural transformation, where original fine-grained layout of dolomite molecules was transposed into coarse-crystalline texture of newly formed magnesite.

When viewed on a large scale the deposit is a relatively homogenous, high-grade orebody. Its appearance is well defined by a white to light-grey colour and remarkably evident crystalline texture of the magnesite rock.

Closer examination, predominantly by chemical analysis, have identified that broad irregular zones of contaminants occur through such forms as veining, in-filling of fractures and within the magnesite matrix itself. The value of these contaminants and the form in which they occur play a key role in determining whether the material is considered as ore or waste.

The components of vein material are generally fine-grained pyrite and/or aphanitic white dolomite. Veins occur as irregularly oriented structures with individual veins swelling to thickness of 10 cm and pinching out to nothing. Some veins, especially pyrite, tend to form in swarms covering areas tens of meters wide.

In-filling of fractures occurs in thickness up to 5 cm and generally occurs as a light brown silty clay material, aphanitic white dolomite or as pyrite. Minor occurrences of palygorskite can sometimes be seen coating fracture walls. The fractures are generally narrow elongated curvy-planar structures with local deviations of strike and dip. An invisible chemical halo often brackets the more visible fracture. These halos pinch and swell in a similar manner as veining but on a larger scale.

The interstitial or in-matrix contaminants are comprised of thin coatings of calcite or dolomite between magnesite crystals or as a simple Ca ion exchange within the crystal lattice itself. This form of contamination is the broadest form, covering areas as wide as 100 meters. With sufficient drilling, these areas can now be generally classified in the complimentary and marginal ore types, as contaminant values are usually less than occur in the other forms of contamination.

The competitive market and specific end uses of magnesite, place a great importance on the chemical specification of the product. Somewhat unique to industrial minerals and magnesite in particular, as opposed to metal mining, is the requirement of continually meeting a set grade specification without receiving any bonus for surpassing it. Material under spec on the other hand, has a very sharp value cut-off and is essentially valueless mere tenths of a percent below spec. Most, if not all naturally occurring deposits, rarely conform to such strict boundaries (e.g. some material within the deposit is above spec, some right at spec and some below.) As a result, before mining can be contemplated, a complex and feasible sequence of blending ore quality and ore type has to be determined.

The Brussilof deposit is somewhat lucky in the respect that inverse grade relationship exists between various chemical zones of the ore-body. For example, when the ore has iron values above spec the calcium values are often consistently below spec and vice versa. Similar associations exist with other element pairs to a lesser degree. Baymag has initiated a complementary ore pile strategy in order to capitalize on this characteristic. Complimentary materials from different blasts are routinely blended together to achieve a uniform product exactly at the spec level thereby optimizing usage of the deposit. (A high iron, low calcium blast, which by itself would be waste, is blended with a low iron, high calcium which, again by itself would be waste, resulting in onspec ore; in other words the right waste with its correct complimentary waste results in ore).

#### **3 DETAILED TECHNICAL DATA AND INTERPRETATION**

#### 3.1 Objective

The primary objective of the 2013 Exploration Program was to continue the previous year program conducting a geological and geochemical evaluation on Baymag's Mineral Claims (Fig. 03) as potentially viable sources of magnesite ore.

#### 3.2 Methodology

The regions of interest were reached primarily by Forest Service Roads. After driving to the area of investigation, the trek continued on foot. The daily treks, outcrops and samples were tracked by a handheld GPS.

Rock that was determined to be outcrop was described and recorded in the field book as well as marked on the handheld GPS. To describe the outcrops, hand samples were obtained and then characteristics such as crystal/grain size, texture, color, mineral inclusions, level of reactivity with 10% Hydrochloric Acid (HCI) and hardness were observed and recorded within the field book. After all these characteristics were observed, a lithology was determined.

After description and identification, half of rock samples were selected, and sent out for chemical analyses. At the same time, remaining sample halves were safely stored in for future references if needed.

The chemical assaying was performed by Baymag's laboratory at the processing Plant in Exshaw, Alberta. It resulted in quantitative determination of MgO, CaO,  $Fe_2O_3$ ,  $Al_2O_3$ , and  $SiO_2$  as major components of the researched material. All chemical analyses are Lost of Ignition (LOI) basis. Appendix A provides a complete set of chemical data obtained from the program.

#### 3.3 Results

The fieldwork conducted in the studied area described and identified several outcrops of dolomitic and magnesitic rocks. A total of 95 samples were analyzed in this campaign, including all new magnesite outcrops identified. The chemical analysis results are shown in Appendix A.

The 2013 campaign developed further magnesite exploration in three potential areas identified in the previous 2012 campaign: Miller Pass, Struna Creek and Aurora Creek, (Fig. 04). Among these areas, in the north Struna Creek new outcrops of magnesite were described and sampled. All the areas studied in the 2013 campaign are described in detail below.

#### <u>3.3.1 Miller Pass</u>

The Miller Pass area (Fig. 05) rock type is a fine grained, crystalline, grey dolomite. During explorations up the surrounding mountains, outcrops were not detected until an approximate elevation of 1400m. Below this elevation, the study area is covered by a thick till blanket that conceals the underlying units and is easily

accessible due to logging in the area. Above 1400 meters, most of the outcrops were primarily found on ridges. While the majority of outcrops were fine crystalline dolomite, lenses of coarse white magnesite rocks were observed with crystals grains ranging from 1-3 mm in length. Samples were collected from magnesite outcrops. Visually it was not possible to identify other minerals in the rock. The maximum elevation reached was close to 180 meters.

A total of 30 samples were collected in this area, in addition to the 45 collected in the previous year, including dolomites and magnesites. Among all the samples analyzed, magnesitic rocks show MgO ranging from 91.2 to 97 %, Fe<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub> are low (< 3.29 % and < 0.5 % respectively), and CaO ranges from 2.7 to 8.6 %.

#### 3.3.2 Struna Creek

Extensive field work was conducted in the Struna Creek area (Fig. 06). The outcrops observed were located between 1400 m and 1900 m in elevation. Throughout this summer 64 magnesite outcrops were observed. While the magnesite was found in many areas around Mount Brussilof, there was one distinct area of interest where several magnesite outcrops have been found. This is located on the west side of Mount Brussilof between the north side of the Camp Gully and North Struna.

Magnesite outcrops occur in small to medium size lenses (< 20 m), sometimes bounded by dolomite. These lenses of magnesite occur extensively between elevations 1400 m to 1800 m. Magnesitic rocks are grey to white in color; grain size is usually medium with few samples showing coarser grain size. Color banding was observed in some samples. Small grains of pyrite are present in some samples, occurring as scattered in magnesitic matrix or as thin small veins (< 0.5 cm).

A total of 77 magnesite samples were collected in the Struna Creek area in the last two summers (37 samples in 2012 and 40 in 2013). Bulk rock analysis show high MgO concentrations, ranging from 86 to 97.75 %. The  $Fe_2O_3$  concentration ranges from 0.36 % up to 2.0 % in rocks where pyrite veins were observed. CaO concentration ranges from 1.28 to 9.9 %. The overall concentration of SiO<sub>2</sub> is low, below 2.0 %.

#### 3.3.3 Aurora Creek

Located on the East-Southeast side of the Mine Site road, the Aurora creek flows downhill from steep cliff (Fig. 07). Field work was conducted along this creek with the objective of identifying new magnesite outcrops, in addition to previous outcrops found in the 2012 campaign.

Fine-grained massive quartzites from Gog Formation occur in lower elevations, usually below 1600m. Greenish brown colored shales overly the quartzites. The shale outcrops were observed until 1700m, where fine grained limestones started to occur. The changing in lithology, indicate a possible contact between the older Naiset and the younger dolomites from Cathedral Formations.

Limestones occur intercalated with dolomites until 1720m. Above this elevation only dolomitic rocks were observed. The dolomites have fine to coarse grain size, and are usually yellowish-white in color.

Small magnesite outcrops were observed bounded by the dolomite. The outcrops are metric in size, and occur in higher elevations (> 1750m). Magnesitic rocks are medium to coarse grained, and white to grey in color. Small pyrite crystals (< 0.2 cm) were observed in a few samples, they occur scattered in the matrix and are not abundant (< 1%). Small calcite crystals (< 1.0 cm) were described in one location.

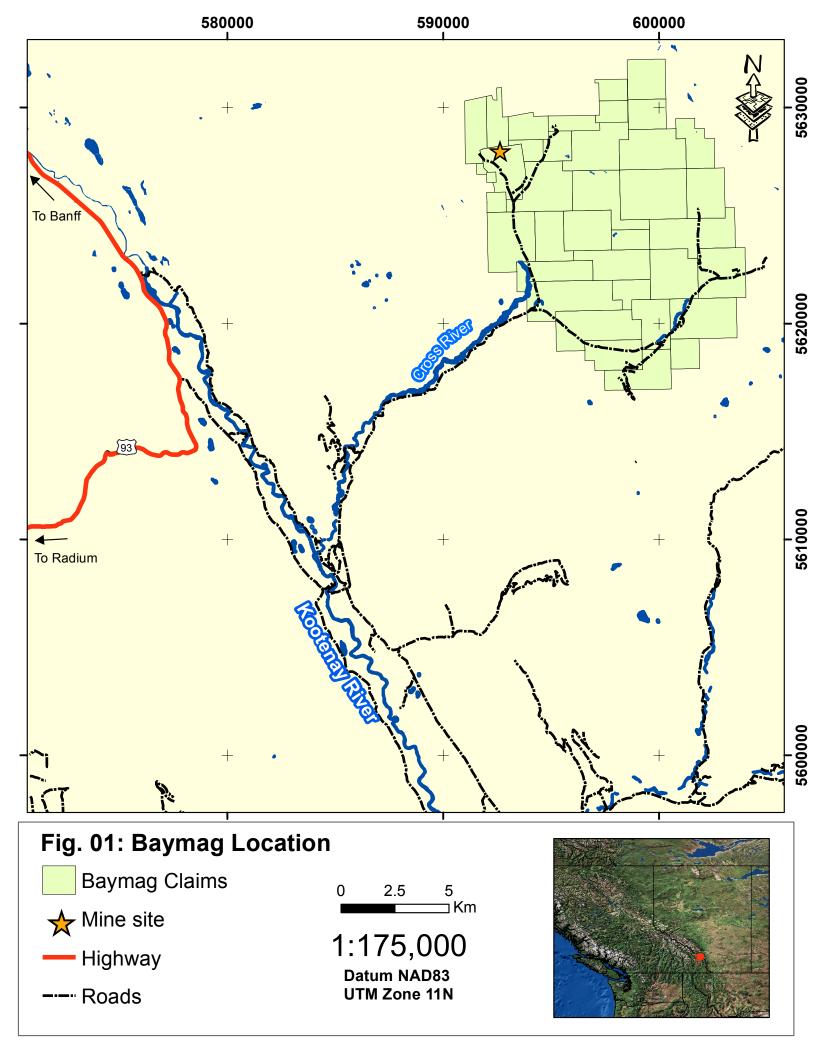
In this area a total of 47 samples were collected (20 in 2012 and 27 this summer). A total of 38 samples show magnesite chemical signature. In these samples, the bulk rock analysis shows high MgO concentrations (up to 98 %). The CaO concentration ranges from 1.2 to 8.3 %; the highest numbers were detected in calcite bearing samples. The Fe<sub>2</sub>O<sub>3</sub> concentration is low, the highest concentration was 1.95 %. SiO<sub>2</sub> concentrations range from 0.2 % to 3.0%, possibly due to small quartz crystals.

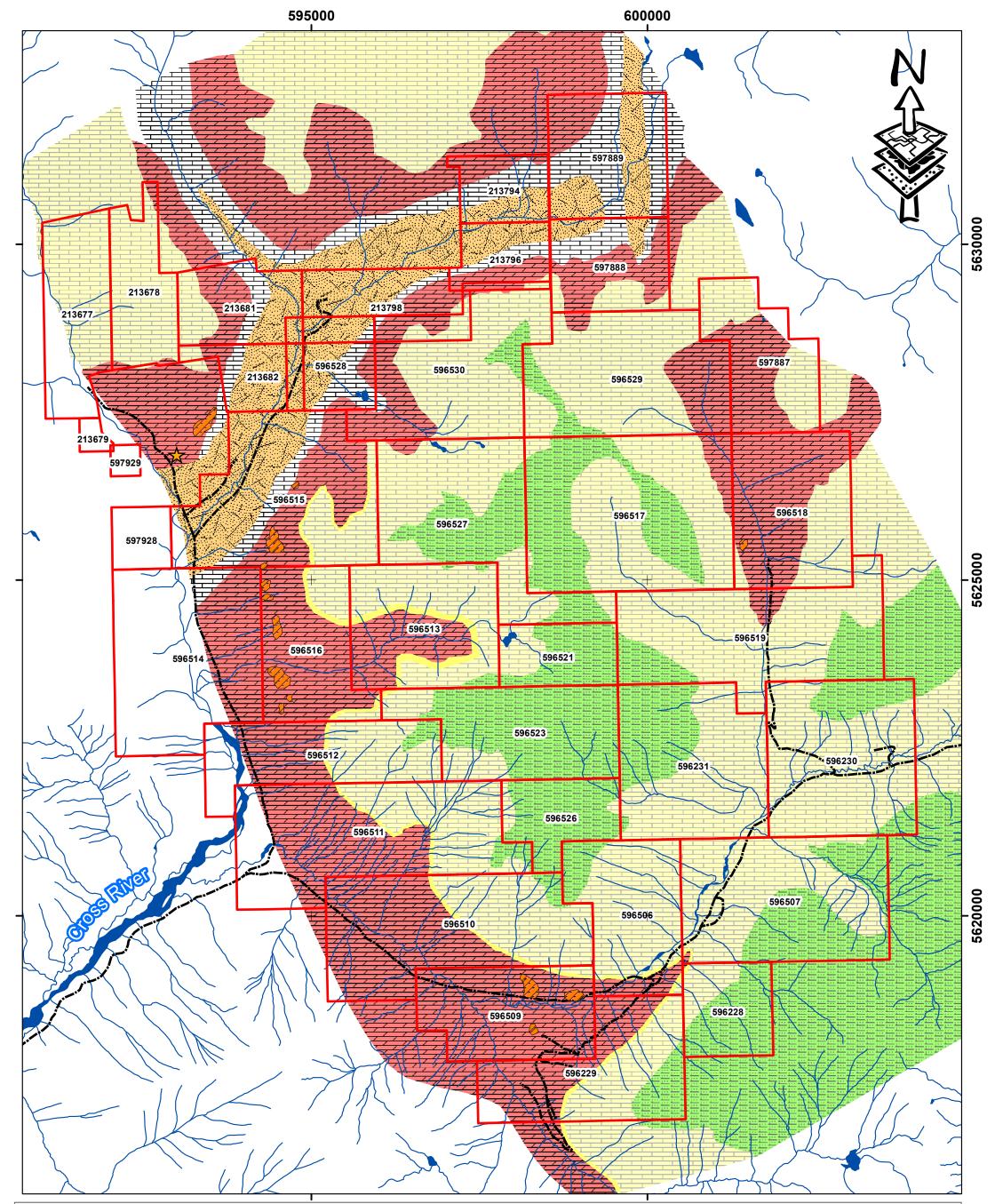
#### 3.4 Summary and Conclusions

The Baymag Inc. 2013 exploration was focused around the west side of Mount Brussilof. During the 2013 summer several outcrops of various lithologies were analyzed. Rocks such as limestone, mudstone, shale, quartzite, dolomite, and more importantly, magnesite and magnesitic dolomite were described.

The three potential areas located within claims (Aurora Creek, Struna Creek and Miller Pass) were further investigated this summer, continuing the previous year investigation. Among them, one area located in the Camp Gully and North Struna area showed new magnesite outcrops. These outcrops lie between 1600 and 1800m in elevation and in some areas show and apparent thickness of 130 meters.

Further investigation is still needed to confirm the potential of the area. Future exploration programs should focus on the delimitation of the horizontal extension of the lithologically crystalline magnesitic formation, which hosts the Brussilof Magnesite Orebody.





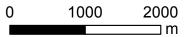
# Fig. 02: Baymag - Mt. Brussilof Mine

----- Roads

# Geology

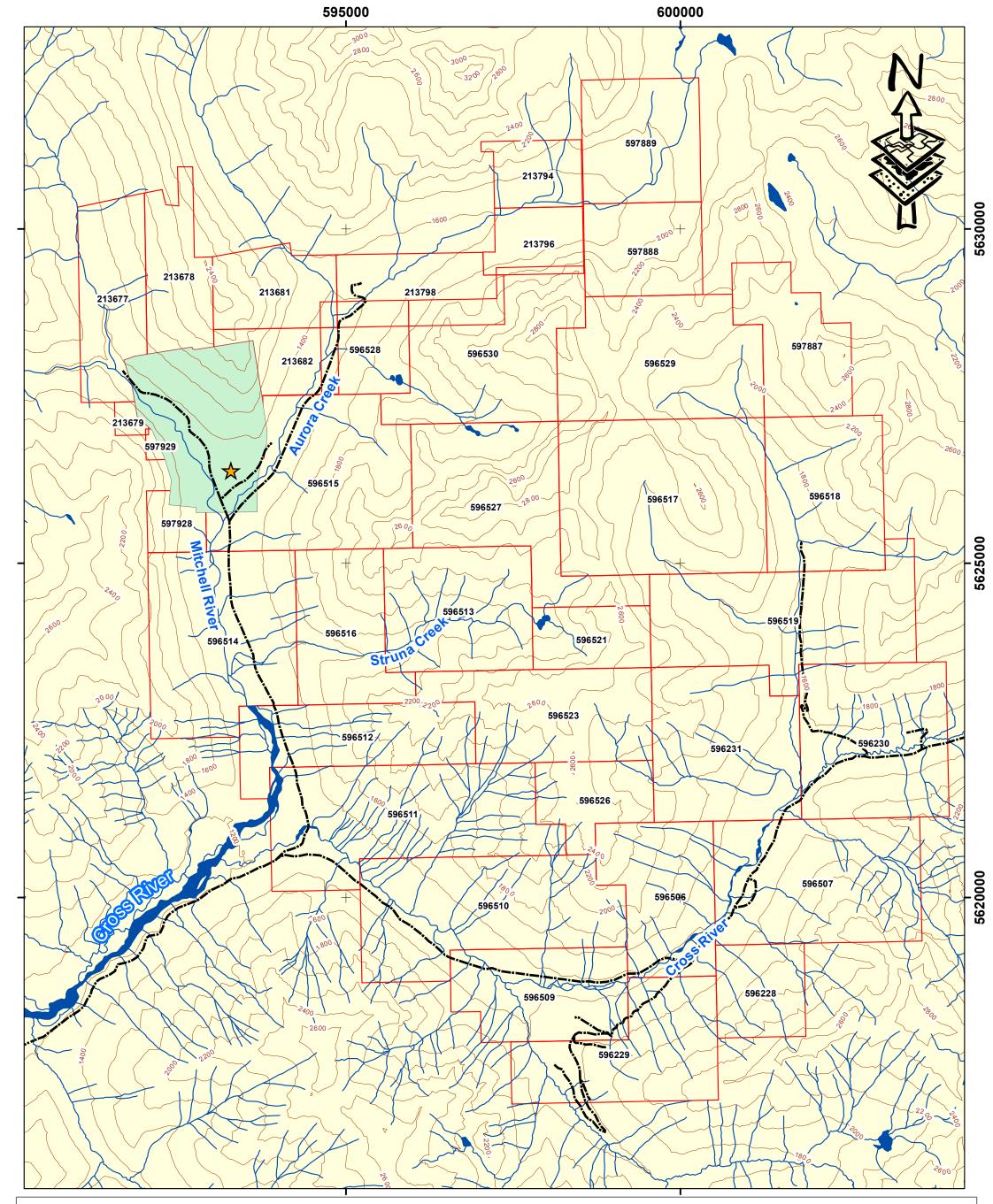
☆	Mine site	Arctomys	Ż
	Magnesite Outcrops	Eldon	Ħ
	Baymag Claims	Stephen	_XC

Cathedral 🗄 Naiset 🥄 Gog

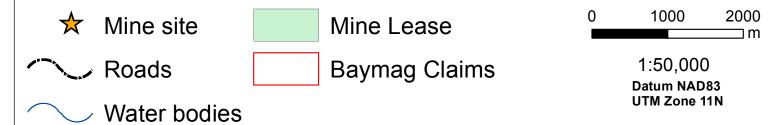


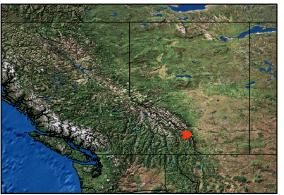
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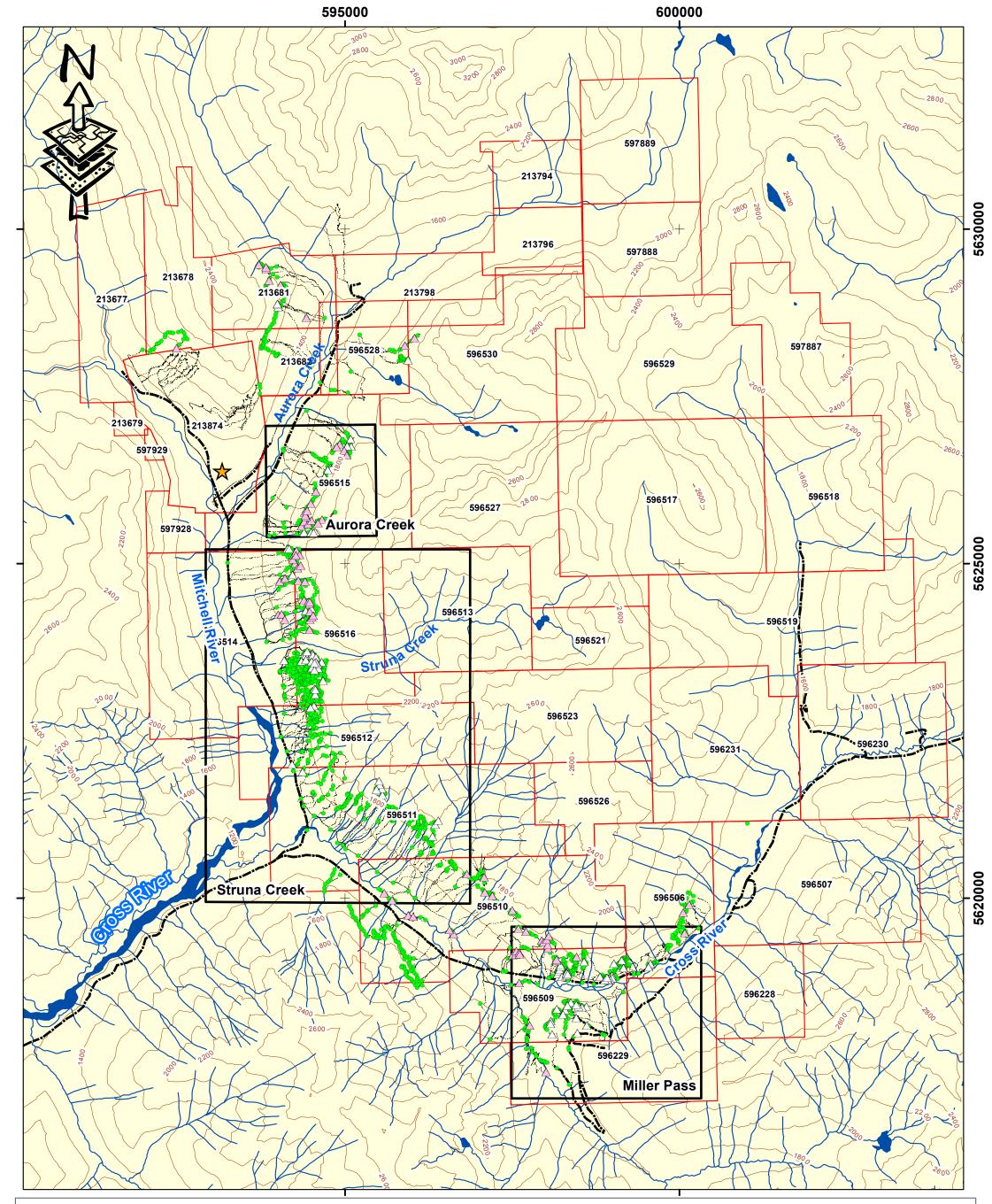




# Fig. 03: Baymag - Mineral Claims



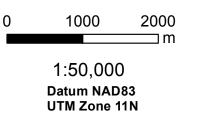




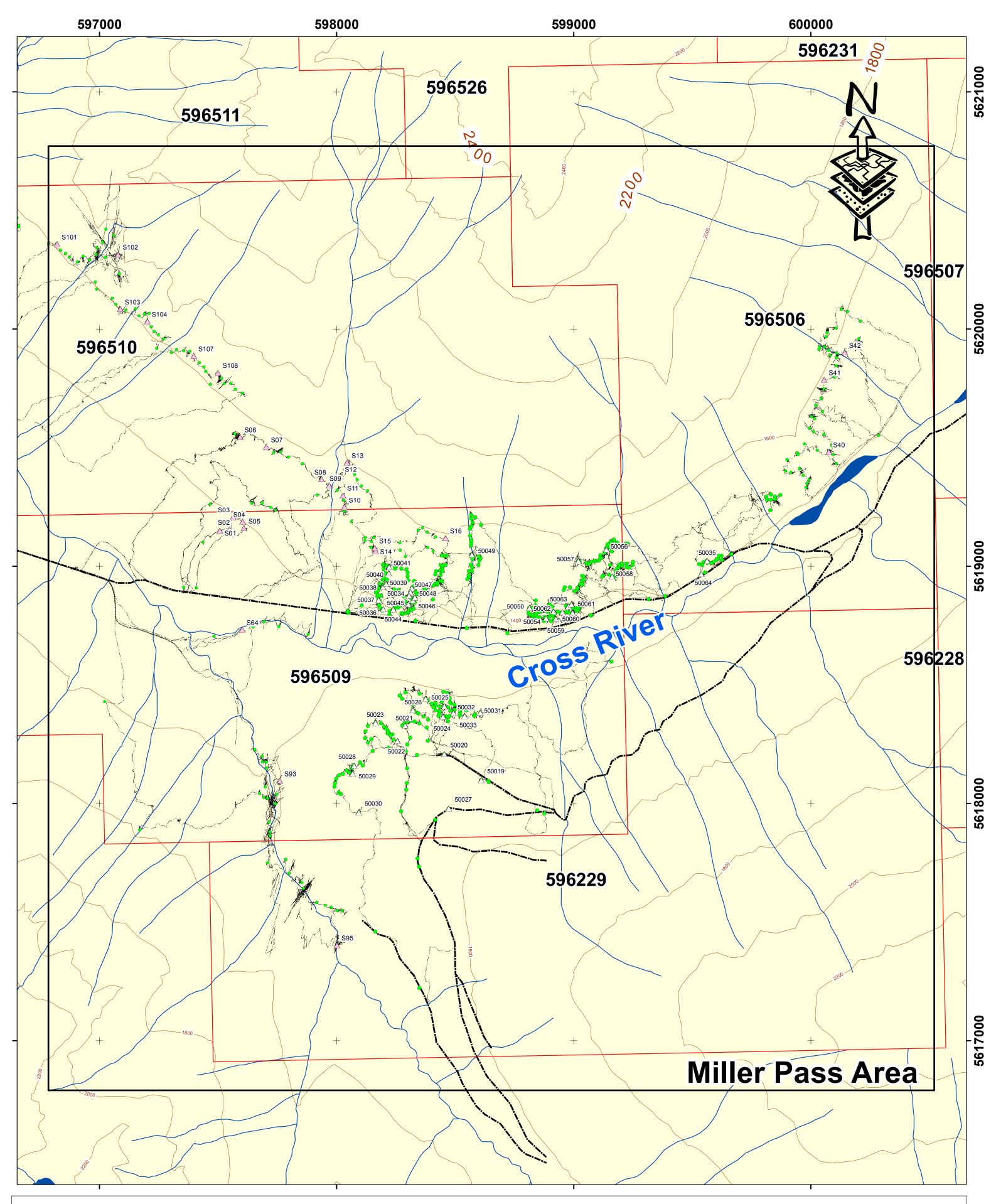
# Fig. 04: Baymag - Exploration Summary Legend

- 2013 Samples Mine site  $\triangle$  $\triangle$ 
  - Baymag Claims 2012 Samples
  - Geo Stations Roads •

March Tracks







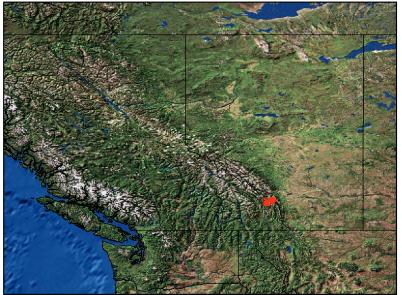
# Fig. 05: Miller Pass area location Legend

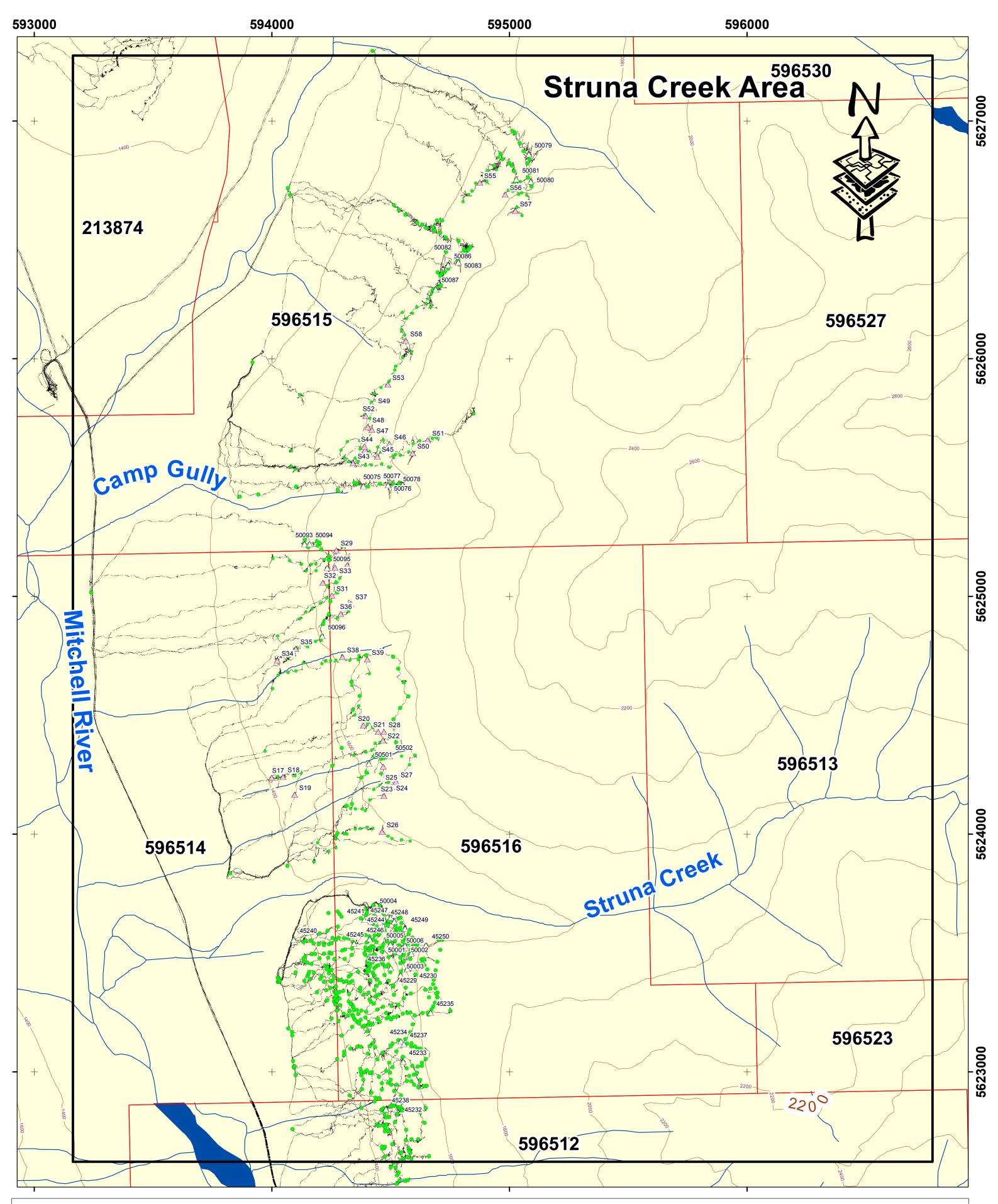
- 2013 Samples Tracks
- 2012 Samples Roads

Baymag Claims

Geo Stations

0 250 500 m 1:10,000 Datum NAD83 UTM Zone 11N





# Fig. 06: Struna Creek area location Legend

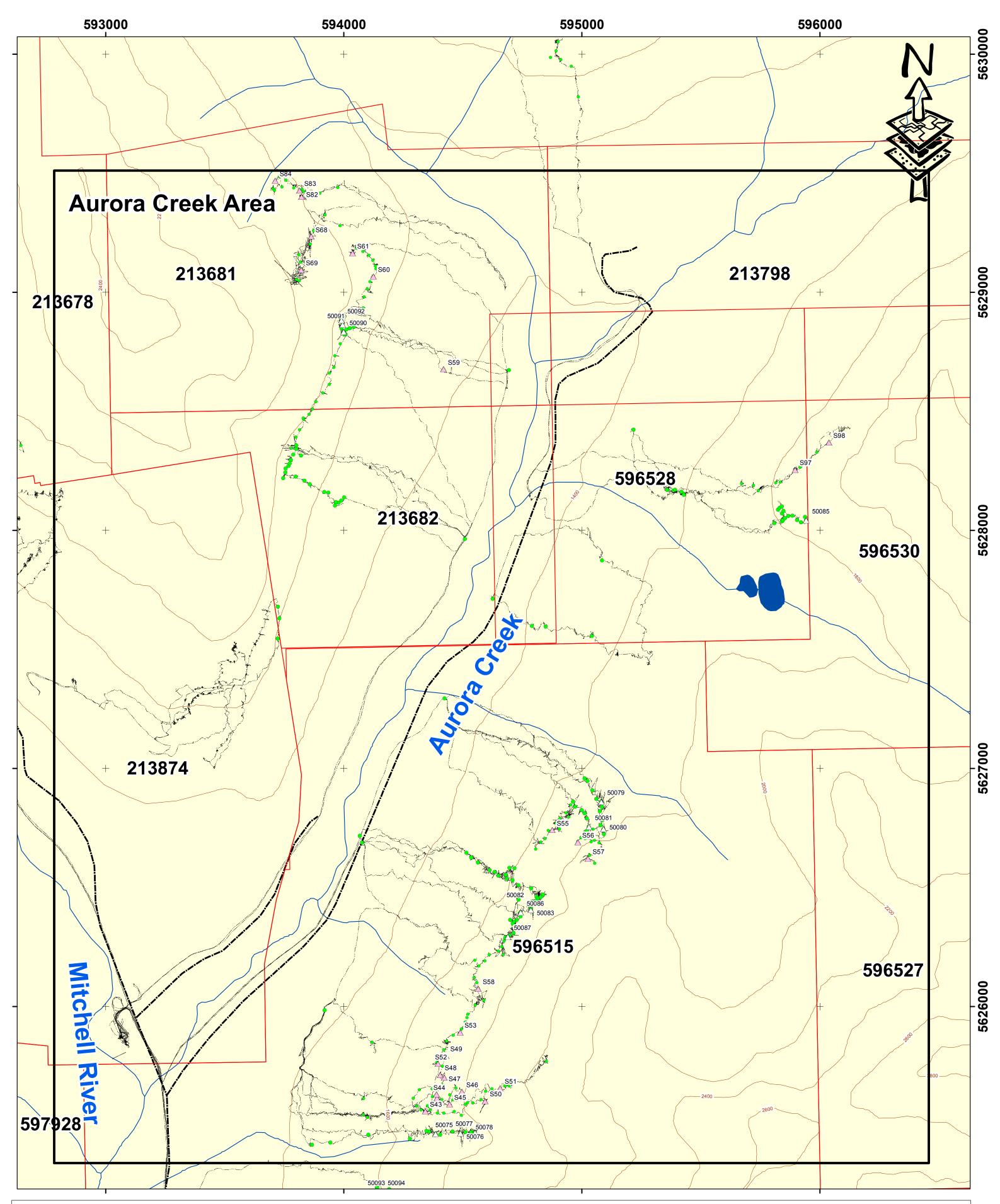
- 2013 Samples Tracks
- 2012 Samples ----- Roads

**Baymag Claims** 

Geo Stations

0 250 500 1:10,000 Datum NAD83 UTM Zone 11N





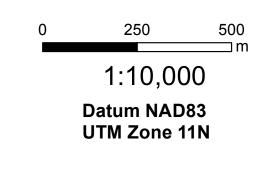
# Fig. 07: Aurora Creek area location

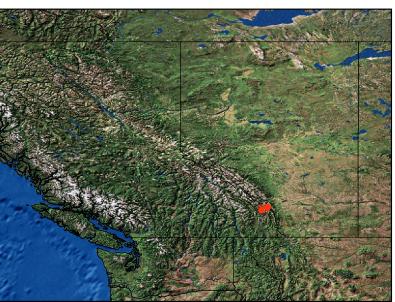
# Legend

- 2013 Samples ~~~~ Tracks
- △ 2012 Samples

Baymag Claims

Geo Stations C Roads





### 5 ITEMIZED COST STATEMENT

The total costs incurred during the 2013 exploration program:

		Itemized	Cost St	atement					
	ITEM		NUMBER	UNIT	UNIT COST		QUANTITY	TOTAL COST	
Personnel	Geo	2 geo's	2	day	\$	186.27	62	\$	23,097.1
	Supervision			day	\$	300.00	11.6	\$	3,487.5
	Report Preparation			hr	\$	50.00	50	\$	2,500.00
Geochem	Baymag Lab (Exshaw)	sample analysis		MgO, CaO, Fe <sub>2</sub> O <sub>3</sub> , Al <sub>2</sub> O <sub>3</sub> , SiO <sub>2</sub> sample analysis	\$	60.00	95	\$	5,700.0
Drilling	Diamond Drilling	BQTW		meters	\$	55.77	0.0	\$	-
	Core Boxes			box			0		
Other Operations Drill access trail	Drill Pad Construction	320 Backhoe		hr	\$	135.00	0	\$	-
	Drill Mobilization /	backhoe pulling		backhoe (hr)	\$	135.00	0	\$	-
	demobilization	D7 pushing		D7 Cat (hr)	\$	125.00	0	\$	-
	Trail Construction	320 backhoe		backhoe (hr)	\$	135.00	0	\$	-
	Settling Pond Construction			backhoe (hr)	\$	135.00	0	\$	-
	Lowbed	mob / demob D7 Cat		hr	\$	194.62	0	\$	-
	Lowbed	mob / demob 320 Hoe		hr	\$	175.00	0	\$	-
Transportation	Pickup (4X4)			day	\$	19.17	62	\$	1,188.5
	rate			km	\$	0.37	2911	\$	1,069.7
Accommodation	camp		2	day	\$	21.38	62	\$	2,651.0
Equipment Rentals	rock saw	sample prep		days	\$	10.30	21	\$	212.8
	blades	sample prep		blades	\$	125.00	1	\$	125.0
	chainsaw drill			day	\$	20.00	0	\$	
	GPS			day	\$	5.15	62	\$	319.3
	Sat phone			month	s	123.97	3.00	\$	371.9
	Misc supplies			item	\$	261.42	1	\$	261.4
Grand Total								-	

#### **6 REFERENCES**

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## 7 AUTHORS' QUALIFICATIONS

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## 8 APPENDIX A – Samples Assay Sheet

Sample	Assay #	east	north	Rock desc	Mg0	CaO	Fe <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>
S51	50601	594656	5625657	Magnesitic Dolomite	90.52	8.92	0.43	0.04	0.10
S52	50602	594395	5625759	Magnesite	91.60	5.77	0.61	0.80	1.23
S53	50603	594488	5625892	Magnesitic Dolomite	86.99	11.71	0.65	0.25	0.40
S54	50604	594917	5626783	Dolomite	90.81	7.59	0.88	0.19	0.53
S55	50605	594875	5626741	Dolomite	87.52	9.54	1.04	0.70	1.20
S56	50606	594982	5626690	Dolomite	87.35	11.57	0.51	0.13	0.44
S57	50607	595025	5626621	Magnesite	96.90	1.28	0.58	0.13	1.11
S58	50608	594564	5626075	Dolomite	45.33	52.14	1.41	0.44	0.68
S59	50609	594418	5628677	Magnesitic Dolomite	91.72	6.45	1.07	0.23	0.53
S60	50610	594124	5629067	Magnesitic Dolomite	94.56	3.84	0.64	0.22	0.75
S61	50611	594036	5629165	Magnesite	94.65	3.12	0.68	0.35	1.20
S62	50613	595946	5619746	Magnesite	59.82	39.58	0.29	0.10	0.21
S63	50614	596014	5619724	Dolomite	56.73	42.56	0.37	0.12	0.23
S64	50615	597601	5618733	Magnesite	79.25	19.80	0.84	0.04	0.07
S65	50616	592416	5627714	Magnesitic Dolomite	89.94	9.58	0.42	0.02	0.05
S66	50617	592678	5627875	Magnesitic Dolomite	86.00	13.40	0.51	0.03	0.07
S67	50618	592720	5627951	Magnesitic Dolomite	87.17	11.84	0.96	0.01	0.02
S68	50619	593862	5629234	Dolomite	86.76	12.29	0.51	0.15	0.29
S69	50620	593821	5629095	Magnesite	91.21	7.15	0.77	0.26	0.61
S70	50621	592481	5628222	Dolomite	44.87	53.32	0.71	0.24	0.87
S72	50622	592310	5628019	Dolomite	76.77	22.69	0.39	0.05	0.10
S73	50623	592359	5628094	Dolomite	83.27	15.08	0.76	0.06	0.82
S74	50624	592426	5628032	Dolomite	81.83	12.61	3.45	0.10	2.01
S71	50625	594391	5625616	Magnesite	94.83	2.01	1.95	0.24	0.96
S01	50651	597507	5619149	Dolomite	50.32	48.89	0.69	0.05	0.05
S02	50652	597548	5619155	Dolomite	65.80	33.73	0.28	0.06	0.14

S03	50653	597563	5619207	Dolomite	62.26	37.46	0.16	0.04	0.08
S04	50654	597603	5619188	Dolomite	62.48	36.91	0.45	0.08	0.08
S05	50655	597609	5619161	Dolomite	61.81	37.10	1.00	0.03	0.06
S06	50656	597592	5619545	Dolomite	60.64	38.19	0.60	0.18	0.38
S07	50657	597703	5619503	Dolomite	59.35	39.47	0.59	0.24	0.36
S08	50658	597936	5619367	Dolomite	61.36	37.95	0.26	0.18	0.25
S09	50659	597968	5619340	Magnesitic Dolomite	75.50	23.33	0.84	0.13	0.21
S10	50660	598032	5619249	Dolomite	68.06	31.37	0.41	0.07	0.09
S11	50661	598026	5619299	Dolomite	65.24	34.10	0.55	0.03	0.07
S12	50662	598015	5619379	Magnesitic Dolomite	76.69	22.43	0.67	0.07	0.14
S13	50663	598044	5619437	Dolomite	61.42	38.02	0.45	0.05	0.06
S14	50664	598164	5619064	Dolomite	70.92	27.92	0.20	0.06	0.90
S15	50665	598160	5619077	Dolomite	91.19	7.42	0.41	0.13	0.84
S16	50666	598459	5619119	Dolomite	57.51	41.61	0.79	0.04	0.05
S17	50667	593999	5624238	Magnesitic Dolomite	84.95	14.22	0.26	0.02	0.55
S18	50668	594047	5624241	Magnesitic Dolomite	78.63	20.24	0.35	0.21	0.56
S19	50669	594096	5624166	Dolomite	59.28	39.54	0.14	0.36	0.68
S20	50670	594385	5624457	Magnesitic Dolomite	77.85	21.37	0.53	0.06	0.19
S21	50671	594447	5624431	Magnesitic Dolomite	82.75	16.69	0.39	0.05	0.12
S22	50672	594468	5624395	Magnesite	97.74	1.72	0.46	0.03	0.06
S23	50673	594472	5624161	Magnesite	95.90	2.28	1.18	0.16	0.48
S24	50674	594504	5624197	Magnesite	97.75	1.61	0.36	0.08	0.20
S25	50675	594469	5624284	Magnesite	96.46	2.27	0.47	0.20	0.60
S75	50676	592586	5627893	Dolomite	79.92	18.74	0.98	0.04	0.31
S76	50677	592638	5628005	Dolomite	86.68	9.20	3.39	0.18	0.55
S77	50678	592706	5628151	Dolomite	43.59	55.67	0.57	0.09	0.08
S78	50679	592806	5628127	Dolomite	88.24	10.32	0.35	0.12	0.98
S79	50680	592794	5628045	Magnesite	88.64	9.57	0.54	0.09	1.17

S80	50681	594925	5630205	Dolomite	45.74	52.50	1.20	0.17	0.38
S81	50682	594894	5630353	Dolomite	43.88	54.99	0.99	0.05	0.09
S82	50683	593822	5629402	Magnesitic Dolomite	90.50	7.66	0.79	0.32	0.73
S83	50684	593814	5629428	Magnesite	94.74	3.81	0.75	0.22	0.47
S84	50685	593711	5629469	Dolomite	95.27	4.05	0.60	0.03	0.05
S93	50694	597760	5618095	Dolomite	43.28	55.80	0.71	0.09	0.12
S95	50696	598001	5617402	Dolomite	40.86	55.46	0.90	0.97	1.80
S97	50698	595895	5628255	Dolomite	61.88	37.08	0.78	0.08	0.17
S98	50699	596037	5628369	Dolomite	43.24	54.89	1.67	0.07	0.12
S99	50700	596626	5619457	Dolomite	74.29	24.42	0.49	0.32	0.48
S100	50701	596561	5619525	Dolomite	47.02	52.16	0.72	0.03	0.06
S101	50702	596821	5620358	Dolomite	90.46	8.61	0.63	0.08	0.21
S102	50703	597078	5620315	Dolomite	44.51	54.80	0.58	0.03	0.08
S103	50704	597087	5620084	Dolomite	44.42	53.74	0.82	0.32	0.69
S104	50705	597201	5620033	Dolomite	31.68	65.75	2.09	0.18	0.29
S105	50706	595702	5619967	Dolomite	33.33	65.21	1.11	0.13	0.22
S106	50707	595583	5620075	Dolomite	32.54	65.45	1.92	0.03	0.07
S107	50708	597397	5619887	Dolomite	31.54	64.77	3.30	0.13	0.27
S108	50709	597499	5619816	Dolomite	36.58	62.56	0.70	0.06	0.10
S26	50726	594464	5624009	Magnesite	87.07	8.01	0.56	0.55	3.80
S27	50727	594523	5624220	Magnesite	96.82	1.99	0.67	0.16	0.36
S28	50728	594472	5624430	Magnesite	90.66	8.33	0.31	0.23	0.48
S29	50729	594271	5625194	Magnesite	97.52	1.51	0.31	0.17	0.49
S30	50730	594317	5625131	Magnesitic Dolomite	77.02	22.12	0.44	0.18	0.25
S31	50731	594252	5625003	Magnesite	93.50	5.47	0.31	0.28	0.44
S32	50732	594215	5625058	Magnesite	93.83	5.45	0.40	0.09	0.24
S33	50733	594265	5625121	Magnesitic Dolomite	82.90	16.49	0.49	0.04	0.08
S34	50734	594022	5624731	Magnesite	90.76	8.29	0.28	0.30	0.37

S35	50735	594101	5624780	Magnesite	90.14	9.35	0.33	0.04	0.14
S36	50736	594290	5624927	Magnesite	95.30	2.97	0.44	0.34	0.95
S37	50737	594332	5624969	Magnesite	86.92	11.74	0.43	0.18	0.73
S38	50738	594297	5624745	Magnesite	95.72	2.31	0.61	0.30	1.05
S39	50739	594402	5624735	Magnesite	91.04	8.23	0.45	0.08	0.20
S43	50743	594342	5625560	Magnesite	95.31	3.45	0.62	0.23	0.39
S44	50744	594389	5625631	Magnesite	96.21	2.98	0.63	0.06	0.11
S45	50745	594444	5625589	Magnesite	97.29	1.89	0.64	0.06	0.12
S46	50746	594495	5625642	Magnesite	96.02	2.60	0.38	0.32	0.68
S47	50747	594421	5625702	Magnesite	97.29	1.77	0.52	0.14	0.29
S48	50748	594404	5625713	Magnesite	96.35	2.61	0.47	0.23	0.34
S49	50749	594428	5625793	Magnesite	96.83	2.67	0.36	0.07	0.08
S50	50750	594593	5625603	Magnesitic Dolomite	85.66	12.74	0.36	0.40	0.84