

**Technical Report**  
**On**  
**The Murray Ridge Property**

**British Columbia**  
**Omineca Mining Division**

**NTS: 93K/09**

**124°10.56' W Longitude / 54°32.75' N Latitude**

Prepared for:  
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## 1.0 Summary

This independent technical report summarizes known information pertaining to the Murray Ridge nickel-iron (awaruite) property. This report describes the underlying geology of the project area, summarizes the property's exploration history, reviews the nature of awaruite mineralization and makes recommendations for further exploration. This report was prepared at the request of **Nanton Nickel Corporation (“Nanton”)** and was written under the guidelines of Canadian National Instrument 43-101.

The Murray Ridge Property is located approximately 12 km northeast of Fort St. James and 115 km northwest of Prince George in central British Columbia. The property consists of 7 contiguous mineral claims with a combined area of 1350.8 ha. The property is located in BC's Omineca Mining Division, and centered at approximately 124°10.56' W Longitude and 54°32.75' N Latitude, on NTS map sheet 93K/09. Accessibility to the property is provided by well-maintained gravel roads from Fort St. James off Highway 27.

Previous exploration in the region identified numerous mercury showings associated with the regional Pinchi Fault structural zone as well as chromite-low platinum-group-element occurrences hosted within ultramafic-mafic intrusions. Nanton Nickel Corp. has undertaken evaluation of this property for nickel-iron alloy mineralization (awaruite) in tectonized and serpentinized ultramafic rocks of Cache Creek Group Trembleur Intrusions. The geological and structural setting of the Murray Ridge Property is analogous to the Decar Project (First Point Minerals Ltd.) located approximately 60 km to the northwest.

The Murray Ridge Property is underlain by the Lower Pennsylvanian to Middle Triassic Cache Creek complex; a mixture of calcareous and clastic sedimentary rocks intruded by the Trembleur ultramafic and Rubyrock mafic intrusions. The Triassic to Jurassic Takla Group and Tezzeron Sequence are located along fault bounded contacts with older assemblage. The youngest is tonalite of the Cretaceous Endako Batholith. Northwest striking faults and thrusts, including the known Pinchi Lake Fault system, are characteristic of the strong, structural trend throughout the region.

The majority of exploration at Murray Ridge was conducted between 2011 and 2012 by Nanton Nickel Corporation. In 2011, Nanton contracted New-Sense Geophysics Ltd. (NSG) to carry out a high sensitivity, helicopter-airborne magnetic survey over the Murray Ridge Property. The objective of the aeromagnetic survey was to provide high-resolution total field magnetic maps suitable for anomaly delineation which in turn provided a tool for detailed geological evaluation and identification of structural and lithologic trends. The result of the 2011 aeromagnetic survey was successful in delineating linear, northwest striking zones of high TMI (Total Magnetic Intensity) and DVD (1<sup>st</sup> Order Vertical Derivative) corresponding to the magnetite-bearing ultramafic-mafic intrusions.

Reconnaissance geochemical sampling by Nanton Nickel Corporation confirmed the presence of trace nickel-iron (awaruite) mineralization from perspective ultramafic-mafic rocks on the property. Rock and soil geochemistry returned anomalous nickel contents with best assays of greater than 2000 ppm Ni in rocks and 1000 ppm Ni in soils, respectively. Limited stream sediment sampling also returned anomalous nickel contents with best assay of greater than 1200 ppm Ni. In addition, 54 samples (48 serpentinized ultramafic rocks and six volcanogenic and related sedimentary rocks) were sent for a complete petrographic analysis from transmitted and reflected light microscopy to Vancouver Petrographics Ltd. of Langley BC. Various minerals including awaruite were initially identified on the optical microscope and confirmed via

energy dispersive spectral (EDS) qualitative analyses on the scanning electron microscope (SEM).

A two-phase systematic exploration program of geological mapping, rock sampling and if necessary core drilling is recommended. This program would focus on the north half of the property from the ridge crest to the north edge of the property and specifically examine the areas of highest magnetic signature for increased nickel alloy mineralization within specific phases of the ultramafic rocks present.

## **2.0 INTRODUCTION AND TERMS OF REFERENCE**

### **2.1 Introduction**

This technical report summarizes the exploration history and geological information for the Murray Ridge nickel-iron alloy mineralization (awarurite) property. The property is located in central British Columbia, approximately 12 kilometers northeast of Fort St. James. Nanton Nickel Corp. has undertaken evaluation of this property for awaruite in tectonized and serpentinized ultramafic rocks of Cache Creek Group Trembleur Intrusions.

Nanton Nickel Corp owns 100% of the mineral right to the Murray Ridge property.

A two-phase systematic exploration program of geological mapping, rock sampling and if necessary core drilling is recommended.

### **2.2 Terms of Reference**

Nanton Nickel Corp. requested the author review the Murray Ridge project and prepare a technical summary for the property. This report has been prepared under the guidelines of Canadian National Instrument 43-101 (“NI 43-101”). Nanton has retained the author to update the company’s technical reporting. Nanton Nickel Corp. is a publically traded company on the TSX Venture Exchange (V.NAC) with an office at #800-1199 West Hastings St. Vancouver, British Columbia.

Richard J. Haslinger, P.Eng. is the author and independent Qualified Person for this Technical Report. The author is responsible for all sections of this Technical Report. A property visit was conducted by the author on October 19 and 24, 2011. The author, served as a consultant to Nanton Nickel Corporation, and designed, supervised visited the project during the 2011 and 2012 work programs. The Author has examined select showings and reviewed the historically reported styles of mineralization.

All currencies are in Canadian dollar denominations and measurements are in metric units (unless otherwise noted). All report plan and geology maps are plotted in NAD 83, Zone 10N as UTM coordinates, metric base (unless otherwise noted). The author has reviewed the geologic data provided by Nanton Nickel Corp.

### **2.3 Purpose of Report**

The purpose of this report is to submit an independent evaluation of the exploration potential of the Murray Ridge property and to summarize the underlying data from which that assessment is made. Recommendations are made herein to undertake further exploration in order to determine the extent of mineralization currently known on the property. The report conforms to the guidelines of Canadian National Instrument NI 43-101.

### **2.4 Sources of Information**

Sources of information utilized in the creation of this report include exploration, geological and other reports available in the public record and from private corporate files. Where cited, references are referred to in the text by author and date. Complete references are provided in Section 27. This report relies largely on the information contained in published British Columbia Government reports and maps, private corporate reports and also BC Government A.R.I.S. Assessment Report files. Recommendations made herein are based primarily on these documents.

The author conducted a research study of all available reports, publications and other documented results concerning the project. The studies were undertaken through various British Columbia and Canadian Government websites.

## 2.5 Definitions

DDH	diamond drill hole (core)
km	kilometer(s)
cm	centimetre(s)
mm	millimetre(s)
m	meter(s)
mi	mile(s)
ft	feet
in	inch(s)
ha	hectare
Ma	million years before present
NAD	North American Datum
Ni	nickel
Fe	iron
ppm	parts per million, equivalent to grams per tonne
ppb	parts per billion
UTM	Universal Transverse Mercator

Data generated at Murray Ridge utilize SI (metric) units in this Technical Report. Assay and/or geochemical data may be presented as parts per million (ppm) and percentage (%). Where relevant, conversions between different units used in this report were calculated utilizing the factors supplied by the BC government Ministry of Energy Mines website using the following conversion factors.

1 meter	39.370 inches
1 meter	3.28083 feet
1 kilometer	3,280 feet
1 percent	10,000 ppm
1 percent	10,000,000 ppb
1 ppm	1,000 ppb
1 kilogram (kg)	32.151 ounces (troy) = 35.274 ounces (avdp) = 2.205 lbs
1 hectare	2.471 acres = 10,000 sq meters = 0.00386 sq miles

Outcrop: a surface exposure of bedrock

Subcrop: a poor exposure of bedrock, which is not fully in place

Float: rock found on surface from an undetermined bedrock source.

Awaruite: naturally occurring alloy of nickel and iron with a composition from Ni<sub>2</sub>Fe to Ni<sub>3</sub>Fe

All currencies are in Canadian dollar denominations and measurements are in metric units (unless otherwise noted).

### **3.0 RELIANCE ON OTHER EXPERTS**

The author has relied on both private corporate and publicly available information on the Murray Ridge project. Critical components include historical property assessment reports, private company reports, BC and Canadian Federal Government publications and websites. The author has reviewed the private and public data and believes them to be accurate and reliable in their collection, disclosure and analysis of results and therefore can be relied upon and can be used for project evaluation and determination of value of the project. In cases of uncertainty, the author has qualified that information with accompanying clarification and explanation.

**The author, not an expert in legal matters, is required by NI 43-101 to include a description of the property title, terms of legal agreements and related information in Section 4.2 of this report. The author has relied on property agreement information provided by Nanton Nickel Corp. and claim information from British Columbia Mineral Titles Office and the B.C Land Titles Office in order to provide summaries of title, ownership and related information. The author has relied on documents provided by Nanton Nickel Corp. A careful review of the Murray Ridge claim title information was conducted by the author on January 20, 2015, via the British Columbia Mineral Titles inquiry website. The results of this review are discussed in Section 4.2 of this report. An independent verification of land title and tenure was not performed and as such this report does not represent a legal title opinion.**



## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Property Area and Location

The Murray Ridge Property is located central approximately 12 km north to northeast of Fort St. James and 115 km northwest of Prince George, on NTS map sheet 93K/09, within the Omineca Mining Division in central British Columbia (Figure 4.1). Geographic coordinates of the approximate centre of the property are 124°10.56' west longitude and 54°32.75' north latitude (NAD 83, UTM Zone 10: coordinates 423,900 m East and 6,044,900 m North).

### 4.2 Claims and Title

The Murray Ridge property consists of 7 contiguous mineral claims with a combined area of 1350.8 ha (Figure 4.2). Claims status was searched on January 20, 2015, on the website of the British Columbia Ministry of Energy and Mines, Mineral Titles Online BC (MTO: [www.mtonline.gov.bc.ca](http://www.mtonline.gov.bc.ca)). The Table 4.2 summarizing the mineral tenures of this property was taken directly from the MTO record. Of the 54 results returned, six of the claims are indicated to be in good standing until August 07, 2015 while one is in good standing until January 22, 2016. In addition, 47 claims were forfeited on various dates from January 15, 2013 to January 24, 2014. The claims are listed under Client ID 257590, Nanton Nickel Corporation of Suite #800-1199 West Hastings, Vancouver, BC, V6E 3T5.

Nanton Nickel Corp. entered into an agreement dated September 8th, 2011 with 0860208 B.C. Ltd (the "Vendor") whereby Nanton Nickel acquired a 100% right, title and interest in and to the Murray Ridge Property ("Property"). The terms of the purchase agreement included a payment of \$10,000 and the issuance of 100,000 common shares in Nanton. Nanton has agreed to pay the Vendor a net smelter returns royalty of 1% on the commercial production from the Property, with the Vendor having no further interest in or to the Property. Nanton Nickel Corp owns 100% of the mineral right to the Murray Ridge property.

Nanton's claims encompass the recreational lands of the Murray Ridge Ski hill, a not for profit Fort St. James community organization. The ski hill is on the south slope of Murray Ridge property, and covers an area of approximately 450 ha. This area and potential expansion areas in all likelihood would be unavailable for development of a mining project.

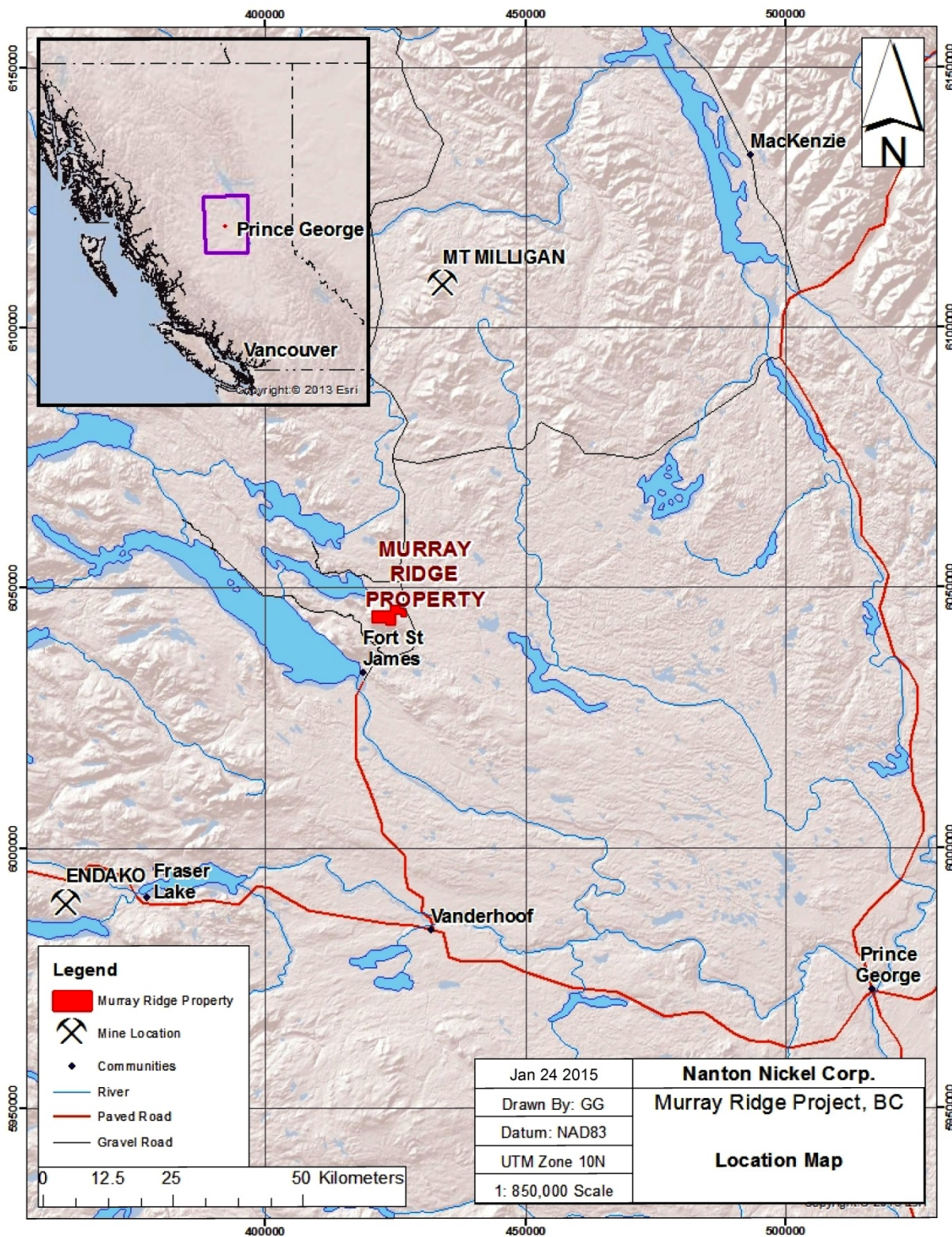


Figure 4.1. Murray Ridge Property Location.



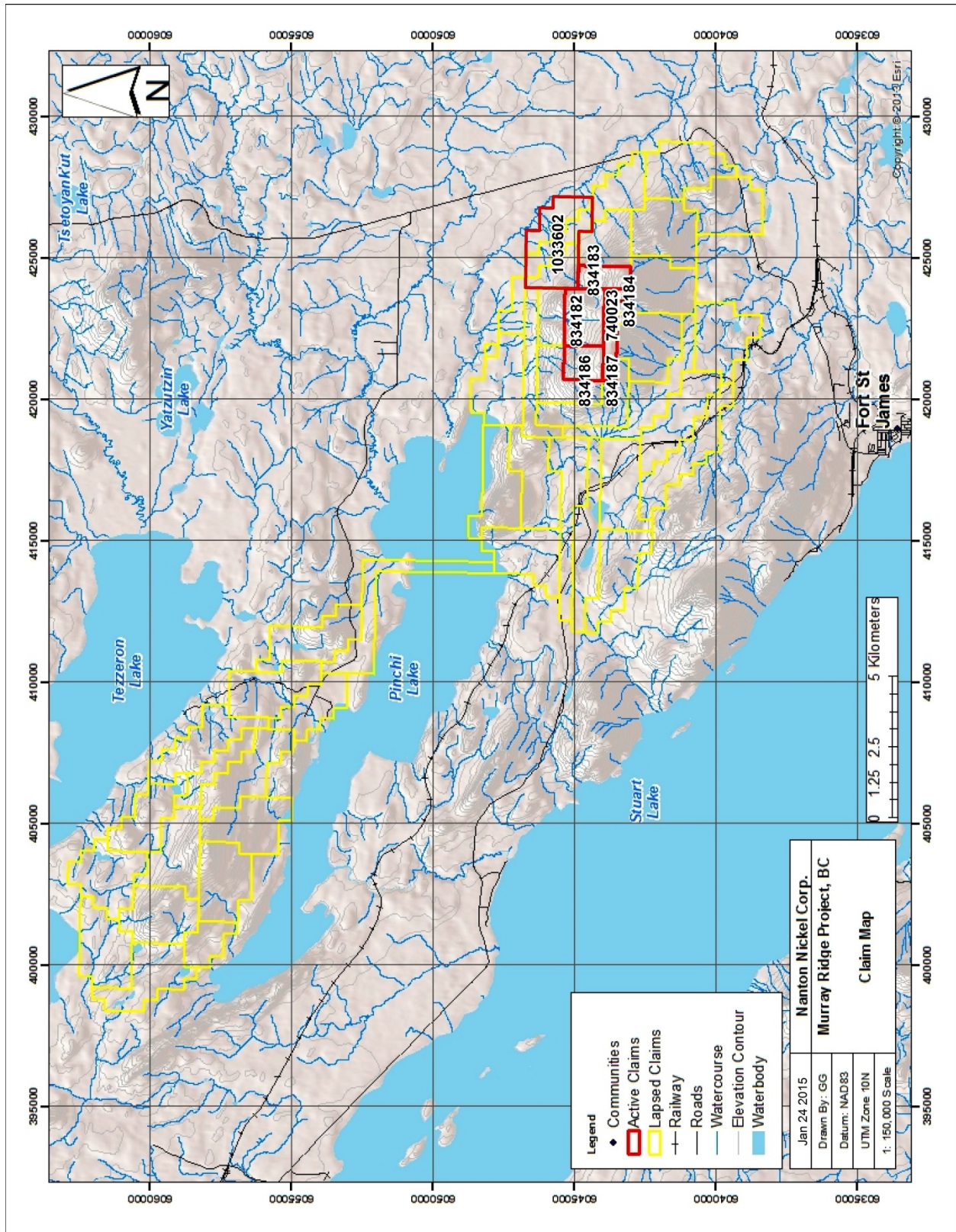


Figure 4.2. Claim Map.

Table 4.2. Murray Ridge Property Claims.

Tenure Number	Claim Name	Owner	Tenure Type	Tenure Sub Type	Map Number	Issue Date	Good To Date	Status	Area (ha)
740023	CIRC	257590 (100%)	Mineral	Claim	093K	2010/apr/04	2015/aug/07	GOOD	56.2972
834182	MR	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2015/aug/07	GOOD	281.427
834183	MR1	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2015/aug/07	GOOD	150.1175
834184	MR2	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2015/aug/07	GOOD	18.7677
834185	MR3	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/sep/24	FORF	469.3296
834186	MR4	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2015/aug/07	GOOD	168.8544
834187	MR5	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2015/aug/07	GOOD	93.8276
834188	MR6	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/sep/24	FORF	468.8928
834189	MR7	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/sep/24	FORF	469.2879
834190	MR8	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/sep/24	FORF	469.2768
834191	MR9	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/sep/24	FORF	469.5434
834192	MR10	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/sep/24	FORF	469.3904
834193	MR11	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/sep/24	FORF	469.0813
834222	MR14	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2014/jan/24	FORF	468.7395
834223	MR14	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2014/jan/24	FORF	131.2611
834224	MR15	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/jan/24	FORF	469.6038
834225	MR16	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/jan/24	FORF	469.3916
834227	MR12	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/jan/24	FORF	18.7674
834228	MR17	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/jan/24	FORF	18.7655
834229	MR18	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/jan/24	FORF	18.7617
834230	MR19	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/jan/24	FORF	18.7597
834231	MR20	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/jan/24	FORF	18.7579
834233	MR21	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/sep/24	FORF	18.7481
834234	MR22	257590 (100%)	Mineral	Claim	093K	2010/sep/24	2013/jan/24	FORF	56.3357
843122	MR100	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2013/jan/15	FORF	469.709
843142	MR101	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	469.4097
843143	MR102	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	469.3873
843162	MR103	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	469.5624
843163	MR104	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2013/jan/15	FORF	469.5644
843164	MR105	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2013/jan/15	FORF	375.765
843165	MR106	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	469.1674
843166	MR107	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	469.1367
843167	MR107	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	469.0361
843168	MR108	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	468.9743
843169	MR109	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	468.8084
843170	MR110	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	468.8554
843171	MR111	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	468.7154
843172	PL1	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	467.8302
843173	PL2	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	467.9063
843182	PL3	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	467.8901
843183	PL4	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	467.6378
843184	PL4	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	467.6014
843185	PL5	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	337.0523
843202	PL6	257590 (100%)	Mineral	Claim	093K	2011/jan/15	2014/jan/15	FORF	468.369

897589	PL7	257590 (100%)	Mineral	Claim	093K	2011/sep/15	2013/sep/15	FORF	224.5326
897772	PL8	257590 (100%)	Mineral	Claim	093K	2011/sep/16	2013/sep/16	FORF	467.387
897773	PL9	257590 (100%)	Mineral	Claim	093K	2011/sep/16	2013/sep/16	FORF	392.7148
1009482	PL 17	257590 (100%)	Mineral	Claim	093K	2012/jun/30	2013/jun/30	FORF	467.7202
1009502	PL 18	257590 (100%)	Mineral	Claim	093K	2012/jun/30	2013/jun/30	FORF	467.9717
1009542	PL 18	257590 (100%)	Mineral	Claim	093K	2012/jun/30	2013/jun/30	FORF	468.1184
1009582	PL20	257590 (100%)	Mineral	Claim	093K	2012/jun/30	2013/jun/30	FORF	467.3907
1009602	PL 21	257590 (100%)	Mineral	Claim	093K	2012/jun/30	2013/jun/30	FORF	467.5634
1009643	PL22	257590 (100%)	Mineral	Claim	093K	2012/jun/30	2013/jun/30	FORF	205.8249
1033602		257590 (100%)	Mineral	Claim	093K	2015/jan/22	2016/jan/22	GOOD	581.4882

NOTE: The claim information of Table 4.2 is not a legal title opinion but is a compilation of claims data based on the author's review of the government of British Columbia Mineral rights inquiry web site (January 20, 2015). The claims are located on BCGS Map 092K.059/060

### 4.3 Environmental Liability, Permits, Bonds and other Significant Risk Factors

The author, not an expert in political, environmental and societal matters, is required by NI 43-101 to comment on the environmental, permitting, First Nations treaty negotiations, societal and community factors related to the project. To this end, the author has relied on British Columbia and federal publications, reports and websites, guidance by Nanton Nickel Corp. and also a general working knowledge of the mineral exploration industry in British Columbia. The author has reviewed these data and believes them to be accurate and reliable in their collection and disclosure.

Potential environmental liabilities associated with historic exploration at the property have not been investigated thoroughly or verified by the author, but no significant environmental liabilities are apparent. While there are no minfile occurrences within the Murray Ridge Property, there are several mercury mineral occurrences proximal to the claims. The Pinchi Lake mercury mine is approximately 20 km northwest of the Nanton Nickel Corp. claim boundary. The author is not aware of any mercury mine tailings on the Murray Ridge claims

No exploration permits or reclamation bonds are in place for future large scale mineral exploration. Recent work done by Nanton in 2011 and 2012 resulted in very limited surface disturbance. When a larger scale exploration program is contemplated for the property, work permits, cash reclamation bonding and First Nations and private landholder consultations will be required. No archeological studies have been carried out by Nanton.

Nanton Nickel Corp. mineral claims lie within the traditional territory of several Carrier Sekani Tribal Council first nations. These are the Nak'azdli and Tl'azt'en nations, which are based on reservations in the nearby communities of Fort St. James and Tache. These First Nations have rights and title to portions of or all of the area of the Nanton's claims, and will need to be contacted and consulted with regarding future exploration programs and mineral development projects

The author is not aware of any significant risks or uncertainties or any reasonably foreseeable impacts thereof that could reasonably be expected to affect the project's future potential.

## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

Murray Ridge Property is situated approximately 12 km northwest of the community Fort St. James. The property can be accessed by taking Stuart Lake Highway (BC-27) north of the town site for approximately 7 km's, then continuing along Germansen Road for another 10 km's. From here, an approximately 6 km, well maintained service road for the Murray Ridge communication towers leads to the crest of the ridge.

The Murray Ridge Ski Area occupies the south side of the prominent ridge, referred to as Murray Ridge, and the Ministry of Forests radio repeater station, fire lookout and microwave towers are at its crest. All are accessible by all-weather gravel roads.

Basic supplies and services including lodging, restaurants, and hospitals can be found in the nearby towns of Fort St. James and Vanderhoof (located approximately 60 km south-southeast of the Property) and are situated on highways, #27 and #16, respectively.

The Murray Ridge property lies within the Nechako Plateau of the Interior Plateau System of the Canadian Cordillera. The Nechako Plateau is near the southern limits of the Swannell Range of the Omineca Mountains and the northern boundary of the Southern Plateau with the mountain region of the Cordilleran Interior System. The region is characterized by moderately sloped terrain with Murray Ridge and Pinchi Mountain forming prominent highs at approximately 1400 m asl and 1267 m asl, in southeast and northwest, respectively, with valley bottoms at approximately 750 m asl. The Pleistocene glaciation events affecting the entire area are manifested as a very thin to non-existent glacial till cover on the ridge tops to significant till thicknesses of up to tens of meters on lower hills and in the valleys. Glacial movement has been interpreted as easterly (Armstrong, 1965).

The terrain is covered predominantly by moderately dense stands of white and black spruce, lodge-pole pine, douglas fir and aspen. Willow and ground birch are widespread at lower elevations. Vegetation is sparse on the steep south facing slopes of the Murray Ridge and dense on the north oriented slopes. Bedrocks is abundant on ridge tops and locally in steep drainages, however it is rare to absent at lower elevations.

The climate in the region is characterized by short and cool summers with temperatures ranging from 10 to 25° C, and cold winters of sub-freezing temperatures dropping to -30° C. Recorded annual precipitation at Fort St. James is 40 cm. Snow accumulations of 1 to over 2 meters are normal with snow-free months from May to October.

## **6.0 Exploration History**

Exploration activity in the region dates back to mid 1860's when placer gold was discovered on lower Fraser and Thompson Rivers. In 1937, a modern exploration followed the discovery of cinnabar (ore of mercury) by J.G. Gray, a geologist with the Geological Survey of Canada, in the Cache Creek limestone on the north shore of the Pinchi Lake. Subsequently numerous other mercury showings were discovered within the Pinchi Lake fault zone in a variety of host rocks including limestone, serpentized ultramafic and non-calcareous rocks. The property was optioned by the Consolidated Mining and Smelting of Canada Ltd. (CMSC) which developed the occurrence into the well-known Pinchi Lake Mercury Mine in 1940. From 1940-1944 the mine produced 4 million pounds of mercury.

In the 1940's carbonatized and serpentinized float containing cinnabar was also discovered south of the Murray Ridge (Midnight claims) along the extension of the regional Pinchi Lake fault system. Canadian Exploration Ltd. conducted a 10-hole diamond drilling program in 1957, and was subsequently followed by Darbar Exploration Ltd. completing trenching and stripping of some carbonate altered zones in 1965. In 1969, Cominco Ltd. Conducted further exploration in the area for mercury mineralization. The prospect was staked by again in 1982 by M. Morrison. This time it was believed that mercury might represent a halo over a buried epithermal gold system. The results of 35 rock samples confirmed the presence of mercury, elevated Ba, Ni, Cr and As with negligible Au and Ag in association with carbonate altered ultramafic dykes (Morrison, 1983).

In 1986, the MR property covering the Trembleur ultramafic intrusion along the Murray Ridge crest was staked and explored for chromite and associated platinum group elements (PGE) (Morrison, 1987). The initial results of geological mapping and rock-chip sampling were not encouraging. The best values returned from 30 select samples returned Pt, Pa, and Ir values of 38, 13, and 13 ppm, respectively. In 2000, M. Morrison (with joint venture partner Doublestar Resources) conducted a program of geological mapping and sampling on the Murray property, in the lower portions of the ultramafic intrusion (Morrison, 2001). The program results failed to find anomalous PGE's in the ultramafic bodies.

## **7.0 Geological Setting & Mineralization**

### **7.1 Regional Geology**

The Murray Ridge Property is located in the Cache Creek (CC) Terrane which is part of Intermontane Supperterrane, a low metamorphic grade magmatic arc which was accreted to the ancestral North American continental margin in Jurassic time (Figure 7.1). To the east, the CC Terrane is in fault contact with the Lower Triassic to Early Jurassic island- arc complexes of the Quesnel Terrane comprising of mafic volcanic and sedimentary rocks and coeval plutons. Towards the west, the CC Terrane is juxtaposed against the Stikine Terrane, which has formed in the volcanic-arc environment, similarly to Quesnel Terrane, from Paleozoic to Mesozoic period.

The Cache Creek Terrane is composed of oceanic and marginal-basin assemblages that contain a complex mixture of Paleozoic to Mesozoic aged volcano-sedimentary rocks and abundant ultramafic, mafic to intermediate intrusives of possible ophiolite affinity. Ultramafic and mafic intrusions, and their associated metallogeny, are of the key importance in this report because of their potential to host nickel-iron alloy mineralization. In British Columbia, many of these ultramafic intrusions are considered to be of Alaskan-type, and are generally interpreted to be coeval with intermediate to mafic pre-accretionary arc volcanism in the western Cordillera. Many are deformed and strongly serpentinized bodies of questionable origin (Nixon and Hammack, 1991).

The Alaskan-type complexes are named for a distinctive suite of ultramafic-mafic intrusions with a type area in southeastern Alaska. Their geological and petrographic features are summarized by Taylor (1967). The majority these complexes represent crystal cumulates of mantle derived ultramafic magmas. One of the primary attributes of Alaska-type complexes is a crude zonation of rock types ranging from dunite through wehrlite and clinopyroxenite to hornblende pyroxenite and hornblende. In central British Columbia, these ultramafic bodies have commonly gabbro to diorite envelopes that may be comagmatic. Some intrusions also have well developed contact aureoles of lowermost amphibolite grade metamorphism.



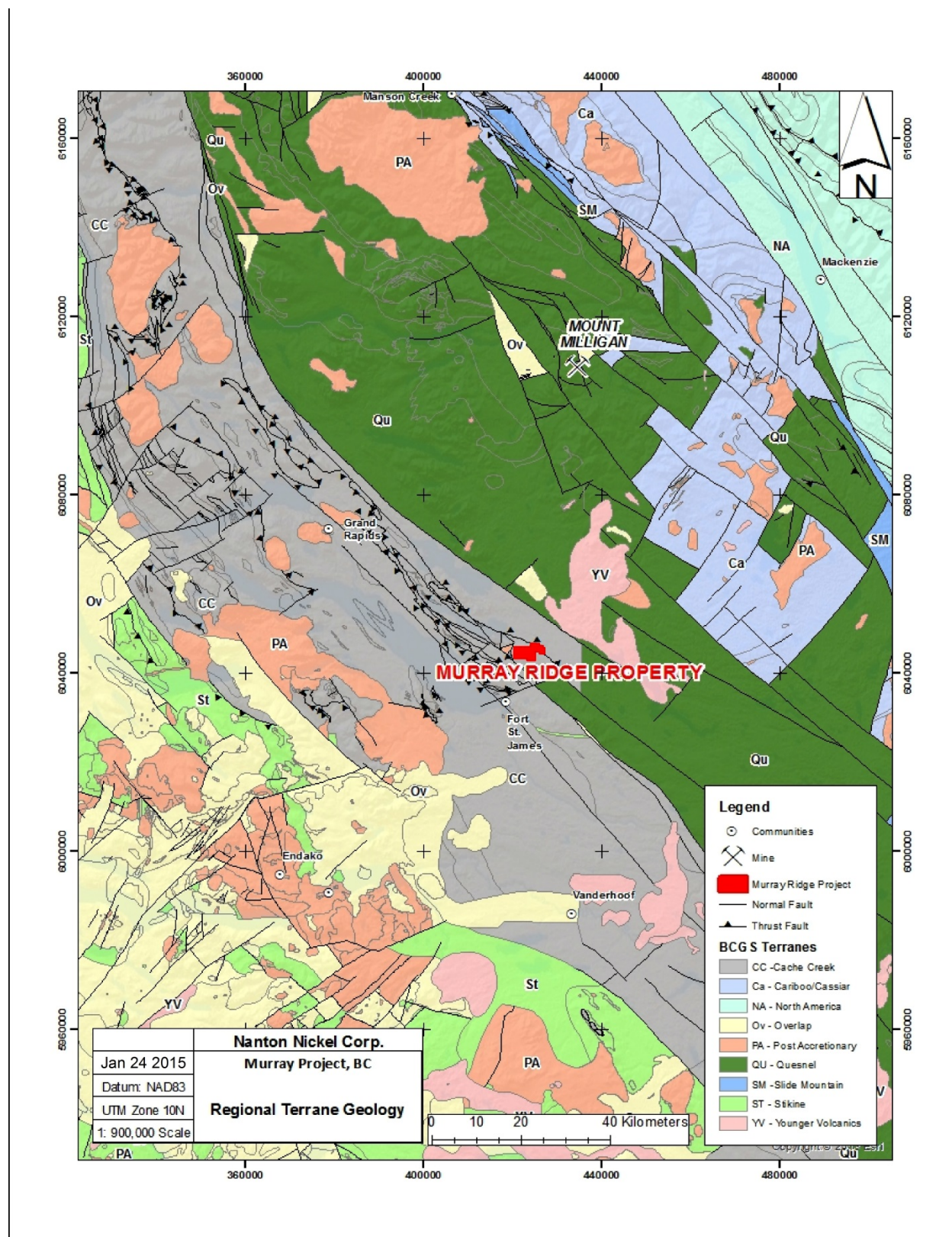


Figure 7.1 Regional Geology of Central British Columbia.



## 7.2 Property Geology and Structure

A geological compilation by the BC Geological survey detailing setting and structure of the Murray Ridge Property is presented in Figure 7.2 (<http://www.empr.gov.bc.ca/Mining/Geoscience/Pages/default.aspx>). The stratigraphic units from oldest to youngest are as follows:

The Pope Succession (PnTrCP/PnTrCPma), the oldest unit of the Lower Pennsylvanian to Middle Triassic Cache Creek complex, occurs as a continuous northwest striking sedimentary sequence along the entire length of the property. The lithologies are calcareous sediments and their metamorphic equivalents including limestone and marble. This unit is overlain by clastic sedimentary rocks (PTrCCh) composed of chert, siliceous argillite and other siliceous lithologies.

The supracrustal sequences are invaded by the Trembleur ultramafic intrusions (PTrCTum) covering large, NW trending, fault bounded areas throughout the property. Rocks include pyroxenite, harzburgite, dunite, gabbro and their serpentized equivalents. These lithologies typically form prominent ridges such as Murray Ridge and Pinchi Mountain, in the southeast and northwest, respectively.

The Ruby Igneous Complex (PTrCRgb) is documented in several localities as a fault bounded unit, both in the southeast and the northwest. Lithologies represented are gabbro to diorite. The spatial and temporal relationship of this unit with ultramafic intrusions suggests a co-magmatic zonation.

The Blueschist unit (PnTrCbs) is rare but can be observed as a structural contact with the ultramafic-mafic intrusions. The dominant lithologies include glaucophane schist, chert and metabasalt among others. The blueschist metamorphic lithologies are characterized by high-pressure, low-temperature assemblages considered to form in a subduction zone environment.

The Upper Triassic Takla Group (uTrTca) of calc-alkaline volcanic rocks outcrops towards southeastern margin of the property, at the fault contact with ultramafic-mafic rocks.

The Upper Triassic to Lower Jurassic Tezzeron sequence (uTrJTz/uTrJTzlm) of clastic and calcareous sedimentary rocks is mapped in areas of lower elevations, as northwest striking, fault-bounded basin strata straddling the ultramafic-mafic bodies throughout the region. These units are composed dominantly of argillite, greywacke and conglomerate (uTrJTz), and limestone and marble (uTrJTzlm).

Late Cretaceous Endako Batholith (LKEnP) outcrops as a small tonalite plug in the centre of the property.

Quaternary glacial till and gravel cover the entire area with thin veneer on steeper slopes and deeper accumulations in the valley bottoms.

Regional deformation and structural tendency of the Cache Creek Terrane is northwesterly. Within the terrane, the strike of the Cache Creek Group and younger volcano-sedimentary rocks and tectonic fabric and layering of the ultramafic assemblages is northwesterly, which is in conformity with the regional trend. Younger east-northeast cross-faults disrupt the northwest structures with minor strike-slip displacements.

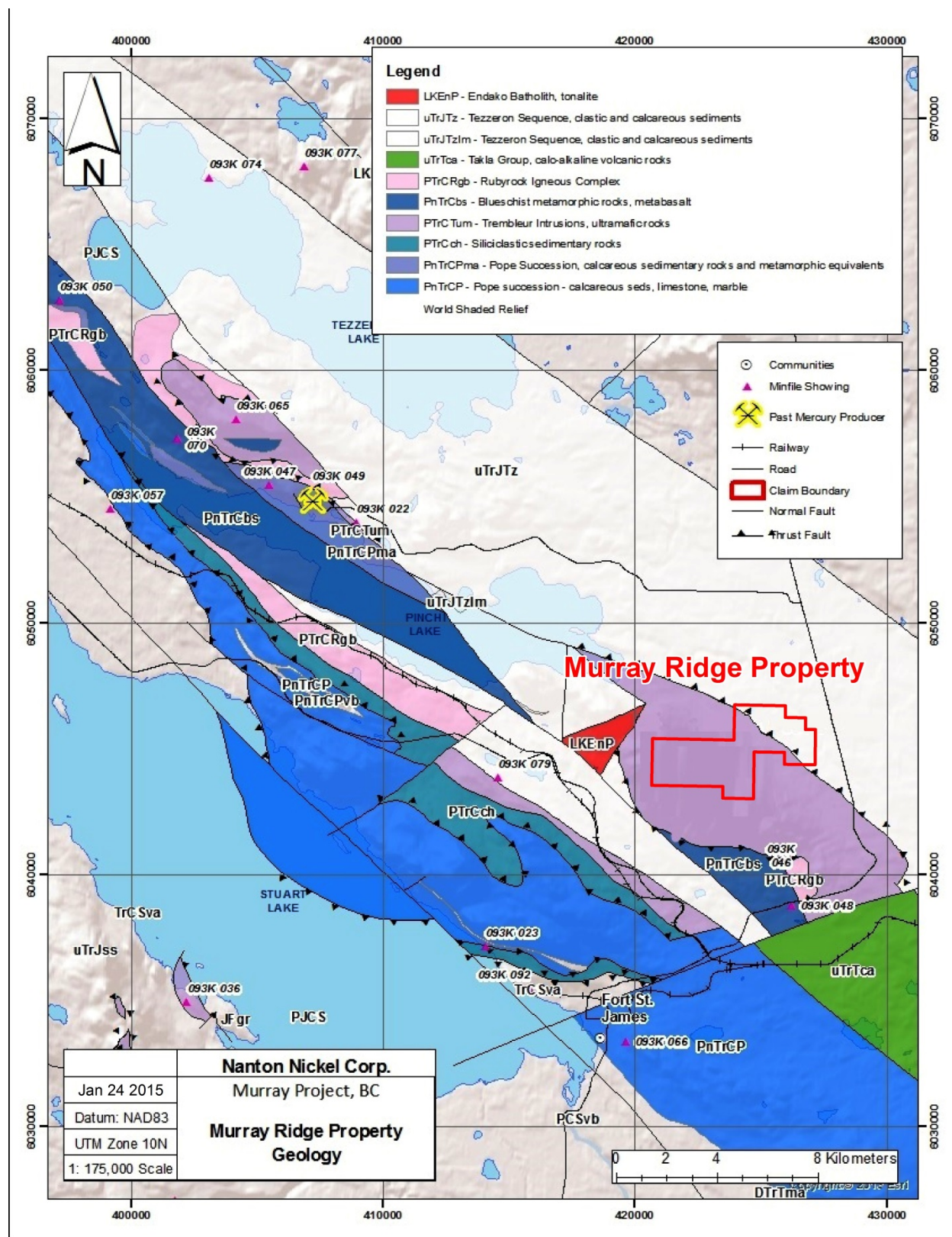


Figure 7.2 Murray Ridge Property Geology.

The Pinchi Lake Fault is a regional, northwest striking fault system forming a structural contact between Pennsylvanian-Permian Cache Creek assemblages to the southwest and Upper Triassic-Lower Jurassic Takla group of weakly metamorphosed volcano-sedimentary rocks to the northeast. Many northwesterly striking subsidiary faults with steep dips to west are documented. A number of these structures also mark the contacts between various intrusive units throughout the property (Figure 7.2).

### 7.3 Mineralization

The Murray Ridge Property and surrounding areas are historically known for their mercury showings and deposits as documented in BC Minfile and assessment records, as well as non-economic chromite and industrial mineral occurrences (<http://www.minfile.gov.bc.ca/Summary.aspx> (Figure 7.2).

No minfile occurrences lie within the current Murray Ridge Property claims. Three Mercury occurrences occur within 6 km of the Murray Ridge Property and are as follows: the **Sunshine** (Minfile 93K 046-6039971N, 426051E), the **Calex** (Minfile 93K 048-6038762N, 426229E) and the **Dad** (Minfile 093K 079- 6043850N, 414590E). Mercury occurrences are spatially and temporally associated with the Pinchi Fault zone. The host rocks are Cache Creek Group carbonate altered andesite, schist and Trembleur ultramafic intrusives.

One chromite occurrence is located approximately 200 m to the south of the Murray Ridge Claims: **MR and MUR showings** (Minfile 93K 012-6043300N, 422887E). Chromite showings are found in the northwest striking ultramafic rocks of disrupted ophiolite affinity near the Pinchi Fault system. The dominant hosts are harzburgite and subordinate dunite and orthopyroxene veins.

## 8.0 DEPOSIT TYPES

Nanton Nickel Corp. has undertaken exploration for the nickel-iron alloy mineralization, awaruite, in the ultramafic rocks of the Permian-Triassic Cache Creek complex on the Murray Ridge Property. The properties geological and structural setting is analogous to the Decar Property of First Point Minerals/Cliff Natural Resources, approximately 60 km to the northwest.

Compositionally, awaruite ( $\text{Ni}_2\text{Fe}-\text{Ni}_3\text{Fe}$ ) is comprised of approximately 75% nickel, 25% iron and 0% sulfur, and therefore it is considered “natural steel”. Absence of sulfur allows a concentrate to be shipped directly to steel mills without incurring smelting and refining costs, and minimal environmental problems.

Awaruite forms during serpentinization of peridotite whereby nickeliferous olivine is altered to serpentine minerals and awaruite (+magnetite) under conditions of low oxygen fugacity (Frost 1985). Historically, awaruite has been mined in river placer deposits derived from serpentinized peridotites and ophiolites. Awarutire often occurs in association with, heazlewoodite, pentlandite, violarite, chromite, and millerite in peridotites. (<http://rruff.geo.arizona.edu/doclib/hom/awaruite.pdf> Handbook of Mineralogy)

The economics of nickel-iron alloy deposits are potentially very favourable as they avoid the significant cost associated with nickel sulphide deposits required for smelting and environmental mitigation and large amounts of energy and acid required for the processing of laterite nickel deposits.

## 9.0 Exploration

### 9.1 2011 Exploration (from Haslinger 2012)

#### 9.1.1 Aeromagnetic Survey

New-Sense Geophysics Ltd. (NSG) was contracted to carry out a high sensitivity, helicopter-airborne magnetic survey over the Murray Ridge Property. The objective of the survey was to provide high-resolution total field magnetic maps suitable for anomaly delineation which in turn provides a tool for detailed geological evaluation and identification of structural and lithologic trends.

A total of 1055 line kilometers of aeromagnetic survey was completed in two areas separated by Pinchi Lake: southeast block, 779 km line-km and northwest block,

279 line-km (referred to as Ski Hill and Ski Hill Extension in Yakovenko, 2011).

The summary of survey parameters are as follows:

Traverse Line spacing:	200 m
Control Line spacing:	2000 m
Average Terrain clearance:	39 m (Ski Hill); 40 m (Ski Hill Extension)
Navigation:	GPS
Traverse Line direction:	90 <sup>0</sup> , 270 <sup>0</sup>
Control Line direction:	0 <sup>0</sup> , 180 <sup>0</sup>
Measurement interval: (average):	0.02/0.1 sec for magnetic; 0.1 sec for GPS 153km/hr (Ski Hill); 154km/hr (Ski Hill Extension)
Measurement spacing (average):	4.3 m/0.1 sec for magnetic & GPS

The aircraft used was a Bell 206 Jetranger B3 helicopter (C-GMPS) equipped with a high sensitivity cesium magnetometer mounted in a fixed stinger assembly. The aircraft service was provided by Northern Air Support based in Kelowna, BC. An airborne ancillary equipment included; digital recorders, fluxgate magnetometer, radar altimeter, and global positioning system (GPS) receiver. The GPS receiver provided accurate real-time navigation and subsequent flight path recovery. Surface equipment included a magnetic base station with GPS time synchronization, and a PC-based field workstation which was used to check the data quality and completeness on a daily basis.

The aeromagnetic data was plotted as Total Magnetic Intensity (TMI) in nT (nano Tesla) and 1<sup>st</sup> Order Vertical Derivative (VDV) in nT/m (nano Tesla per meter) for both surveyed blocks on the property structural map at a scale of 1:175,000, Figures 9.1a and 9.1b, respectively (at the end of the report).

#### 9.1.2 Aeromagnetic Survey Results

The TMI map (Figure 9.1a) documents magnetic intensity range from 55328 nT (in dark blue) to 58118 nT (in bright pink) from southeast surveyed block, and 56206 nT to 58018 nT from the northwest block, respectively.

The results of the survey delineate four major, magnetic-high (TMI) anomalies as discrete zones (pink to red colour range). In the southeastern surveyed block, the anomalously high magnetic values form several large zones; a broad zone over the Murray Ridge and its surroundings, and a narrow, linear zone to the south. Both have sharp boundaries and



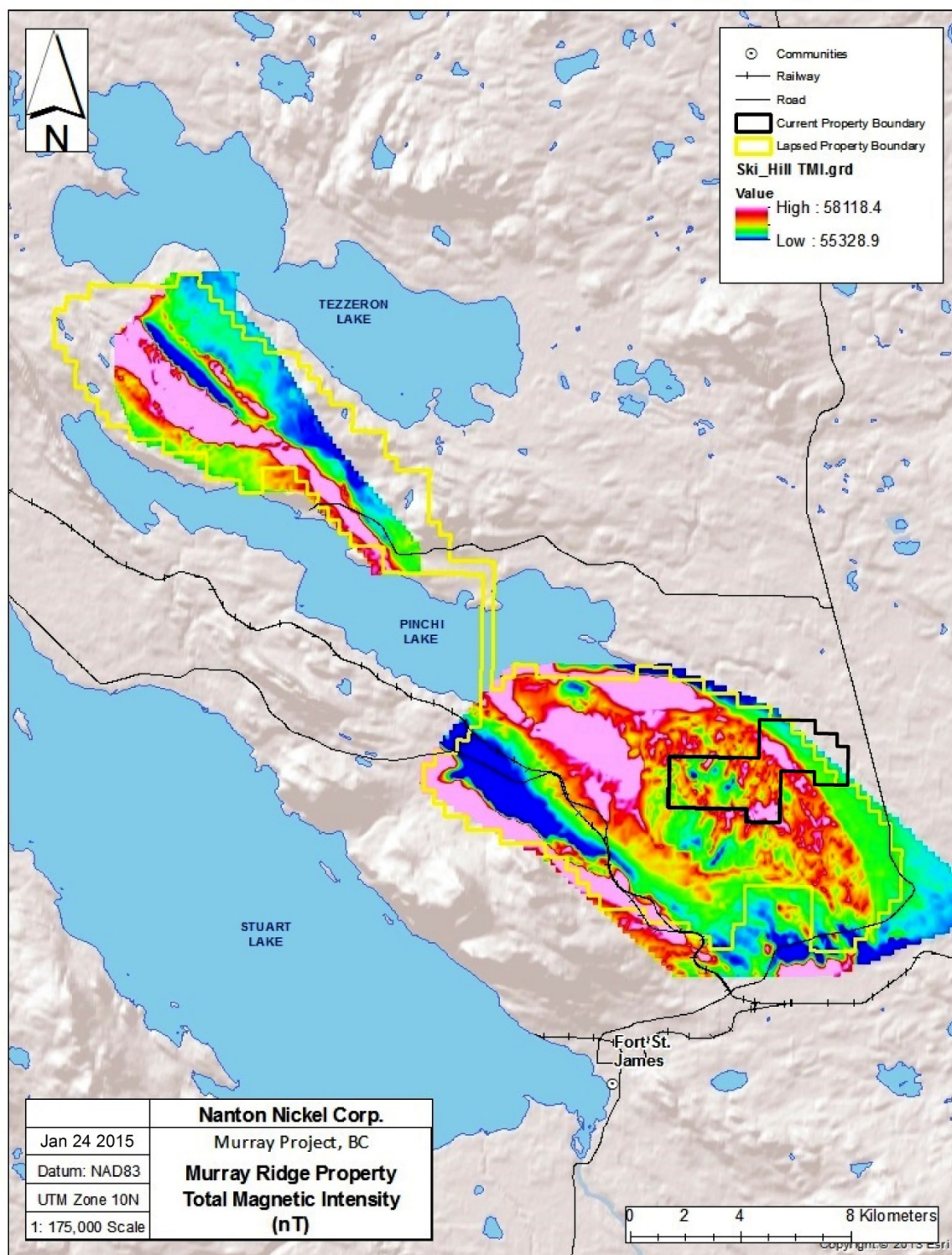


Figure 9.1a. Total Magnetic Intensity Map

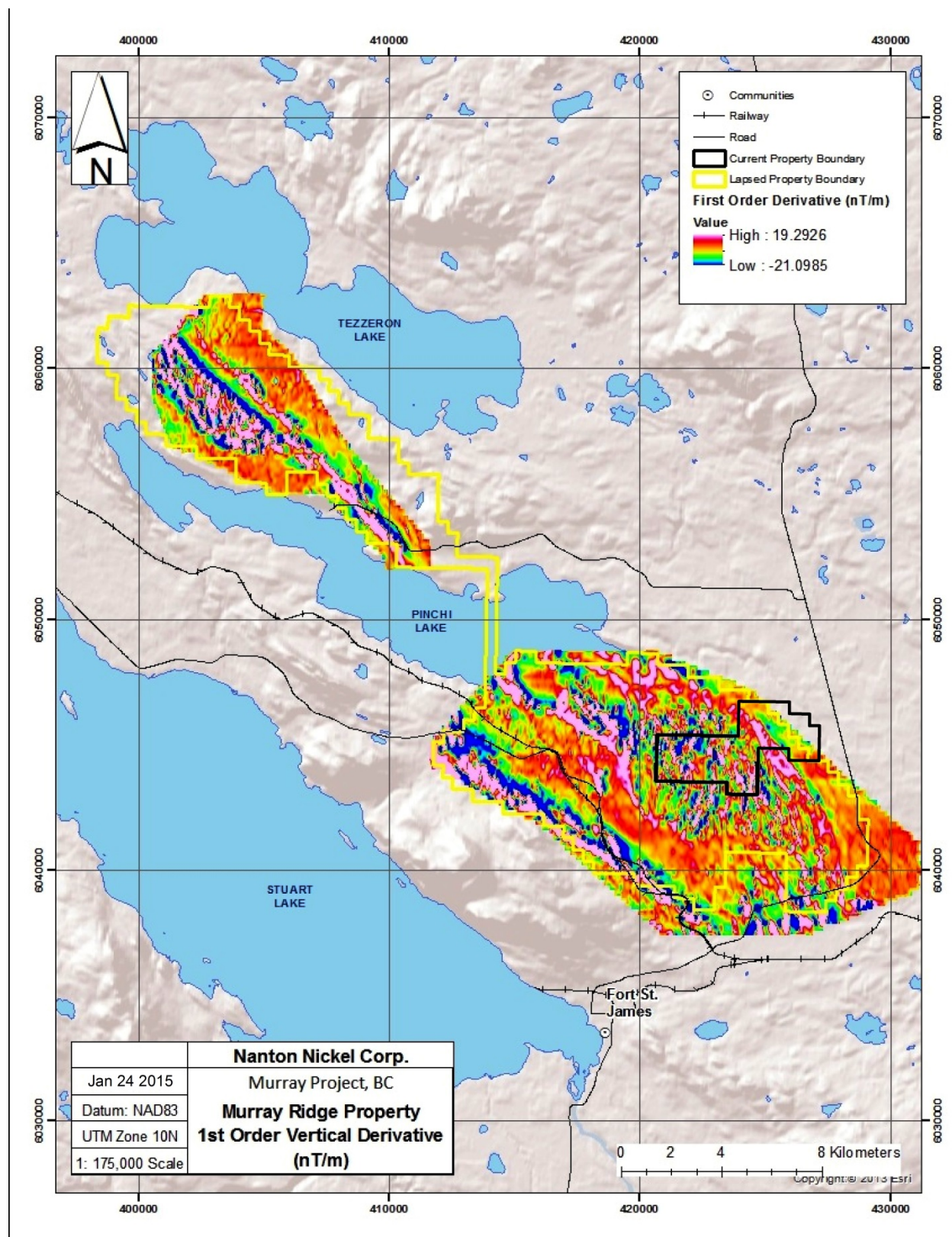


Figure 9.1b. 1<sup>st</sup> Order Vertical Derivative Map



northwesterly trends. On the other hand, low magnetic field values outline narrow, northwest trending zones (blue to green colour range) in between the magnetic-highs.

The TMI magnetic data in the northwestern block exhibit similar patterns; two strong, narrow, high magnetic intensity anomalies separated by low intensity zones. The transition from high to low magnetics is abrupt. Both, TMI highs and lows, delineate west-northwest to northwest striking zones. The 1<sup>st</sup> Order Vertical Derivative (VDV) (Figure 9.1b) plot shows similar but not as well defined magnetic patterns as TMI.

The compilation of the aeromagnetic surveys on the geology and structure map of the property indicates a strong correspondence between these parameters. The magnetic-high anomalies show excellent correlation with the Trembleur ultramafic and Rubyrock mafic intrusions that characteristically carry significant magnetite contents. Magnetic-highs are separated by magnetic-lows, latter corresponding to the non-magnetic Cache Creek Group and younger Triassic-Jurassic calcareous and clastic sediments. A sharp transition from high to low magnetics is marked by structural contacts, faults and thrust faults.

In the northwestern part of the southeast block strong TMI and VDV is noted over an area which is mapped as being underlain by the Triassic-Jurassic calcareous sediments and Cretaceous tonalite. This area has been briefly visited by the author during the recent prospecting program. However, the geology was not verified because of the absence of bedrock and poor accessibility.

### *9.1.3 Reconnaissance Mapping and Geochemical Sampling*

Reconnaissance geological mapping, prospecting and geochemical sampling of the Murray Property were undertaken by the author between October 15 to 24, 2011. The objective of the field examination was to evaluate the following:

1. Geological and structural setting of areas which returned magnetic-highs (TMI and VDV) from the earlier geophysical survey.
2. Re-sampling of sites/drainages with anomalous nickel-in-silts from Regional Geochemical Surveys (RGS) of BC Geological Survey (complete geochemical data is recorded on line at: [www.em.gov.bc.ca/mining/geoscience/geochemistry/pages/default.aspx](http://www.em.gov.bc.ca/mining/geoscience/geochemistry/pages/default.aspx))
3. Additional, more detailed prospecting/mapping, litho-geochemical, stream- sediment and soil sampling in prospective areas defined by previous geology compilation, and both, anomalous geophysical and RGS stream-sediment geochemical results.

**Reconnaissance mapping/prospecting** - The follow-up reconnaissance mapping involved verification of the geological and structural setting as mapped by previous authors and geologists of the BC Geological Survey. A network of well-maintained gravel roads allowed access to some parts of the property for this brief assessment. The readily accessible areas of highly anomalous magnetics were also examined. A total of 31 rock samples of ultramafic and mafic lithologies were collected dominantly from ridge tops and creek beds.

The low elevations areas, especially in the southern part of the property had total absence of bedrock exposure. As such, rock sampling is not representative of all perspective areas, but only those with abundant outcrops.

**Stream-sediment Sampling** – A total of 25 stream-sediment samples were collected throughout the property with majority of the samples from the southeastern part of the claims.

The focus of sample collection was a region drained by four creeks which returned anomalous nickel in stream-sediments from the RGS of BC Geological Survey. These sites were visited to verify the location, quality of sampling medium and to do the re-sampling. The additional stream- sediment sampling of the anomalous creeks was also undertaken.

The creek which returned highly anomalous nickel value (1,246.5 ppm Ni/93K021429) was investigated in a great detail which included stream-sediment sampling at 500-800 m centres, prospecting and rock sampling along the drainage. The stream-sediment samples were also collected, wherever the access was permissible, in adjacent creeks. At each sample site the description including the sample type, creek width and slope, intensity of the flow were recorded.

In the northwestern part of the property where RGS work did not generate any stream sediment anomalous sites, the exploration was concentrated in areas underlain by favourable ultramafic intrusions.

**Soil Sampling** - A small soil sampling program was designed, in addition to rock and silt sampling, to test the effectiveness of soil geochemistry as a useful tool in detecting anomalous metals over large, overburden covered areas. A total of 13 soil samples were collected, all in the southeastern part of the property. Commonly soil profile was poorly developed and B-horizon was identified in about 25% of the sites. Sampled material was generally pale-grey, bleached, clay-rich A horizon and medium brown silt-sand-subordinate clay with a partial glacial-till component. Samples were collected with a shovel from an average depth of 30-35 cm.

One small soil-grid was designed adjacent to the anomalous creek (RGS 93K021429) with samples collected on about 100 m centres sub-parallel to its strike (8 soil samples). In addition, 5 soils were collected along the gravel road straddling another high nickel-anomalous drainage (RGS 93K021430).

#### *9.1.4 Reconnaissance mapping/prospecting results*

Reconnaissance mapping and prospecting was focused on areas of known prospective geology. The best rock exposures were on the ridge tops and along road cuts, specifically Murray Ridge and Pinchi Mountain areas. Geological evaluation has confirmed the occurrence of ultramafic-mafic bodies of the Cache Creek Complex Trembleur Intrusions. Ultramafic rocks typically form prominent, rugged, outcrop covered ridges with sparse vegetation, both in the southeast and northwest.

Rocks are dominantly represented by harzburgite (95%) with subordinate dunite layering (5%), and rare orthopyroxenite and gabbro. Harzburgite is typically dark brown to black, weathered yellow-green with red blotches, massive, medium to coarse grained, and variably serpentized, weak to rarely strong. Dunite is minor lithologic component in this particular area occurring as differentially weathered, olive green, elongate, irregularly shaped, north-westerly trending bodies parallel to ridge crest) and vary in size from 5 to 10cm. In the literature, the recorded width is from 0.1 to 25 m across (Minfile 093K012). All ultramafic lithologies are weakly to moderately magnetic and rarely non-magnetic. Magnetic minerals are weakly disseminated, fine grained magnetite (<1-2%) and locally subordinate pentlandite. Chromite mineralization occurs as weak, brownish black, fine grained (1-3mm), disseminations in harzburgite and as disseminations and stringers in dunite, <0.5-1%.



In the Pinchi Mountain area, ultramafic rocks are locally strongly oxidized and fractured with largely obliterated primary textures. Fracturing is associated with white quartz veining and stockwork and fracture-controlled bright green mariposite. Rare medium grey, narrow (<1.5m) quartz diorite dykes are observed cutting ultramafics.

Medium to green, fine grained mafic rocks, gabbroic in composition are subordinate. These are probably related to the zoned envelope around the ultramafic intrusions represented by the Rubyrock Igneous Complex.

Structural fabric is generally northwesterly. Dunite and orthopyroxenite layering strikes 280° to 310° with steep northeasterly dips, 70° to 90°.

#### *9.1.5 Geochemical Sampling Results*

**Rock geochemistry.** The assay results of rock geochemistry have returned nickel values ranging from 37 to 2513 ppm nickel. Only two samples (MRR-20 and 22) carry low nickel contents, 37 and 61 ppm, respectively. Both were collected from outcrops of gabbroic rocks in the Pinchi Mountain area.

All the ultramafic rocks from the southeast, Murray Ridge area, consistently assayed 2053 to 2513 ppm Ni. The nickel values from the northwest, Pinch Mountain area, returned slightly lower nickel values ranging from 1329 to 1981 ppm.

**Stream-sediment geochemistry.** The stream-sediment geochemistry has returned nickel values ranging from 139 to 1519 ppm Ni from the southeast, and 172 to 782 ppm Ni from the northwest, respectively (Figures 7 and 8). The nickel contents are reflective of the high nickel bedrock underlying the drainages sampled.

Results of nickel geochemistry from stream-sediment re-sampling show elevated results. All nickel values were very well reproduced and closely comparable to the original results from the RGS program; **1280** ppm (SSM-11) (**1247** ppm-93K021429), **457** (SSM-15) (**545** ppm-93K21430), **190** (SSM-02) (**155** ppm-93K021428) and **573** ppm (**157** ppm-93K021427). The nickel values of the 13 stream sediment samples range from 457 to 1280 ppm.

Comparing the nickel results from the various explored areas, the best values were returned from the north-slopes of the Murray Ridge covering an area of about 2.5-3 km by 7 km.

**Soil geochemistry.** Analytical results of the soil sampling from a small grid adjacent to the creek with highest stream sediment nickel values returned soil nickel values from 134 to 558 ppm. Soil samples from a road cut adjacent to another high stream sediment nickel creek range from 315 to 881 ppm nickel.

## **9.2 2012 Exploration**

### *9.2.1 Geochemical Sampling*

From May 5th to 31st, and September 12th to October 12<sup>th</sup>, 2012, follow-up prospecting and geochemical soil sampling of the Murray Property was conducted. Reconnaissance prospecting/rock sampling was carried out in areas with highly anomalous magnetics. Lower elevations areas, especially in the southern part of the property have total absence of bedrock exposure. As such, rock sampling is not representative of all perspective area, but only those with abundant outcrops. A total of 55 rock samples of ultramafic and mafic lithologies were collected (Figure 9.2a).

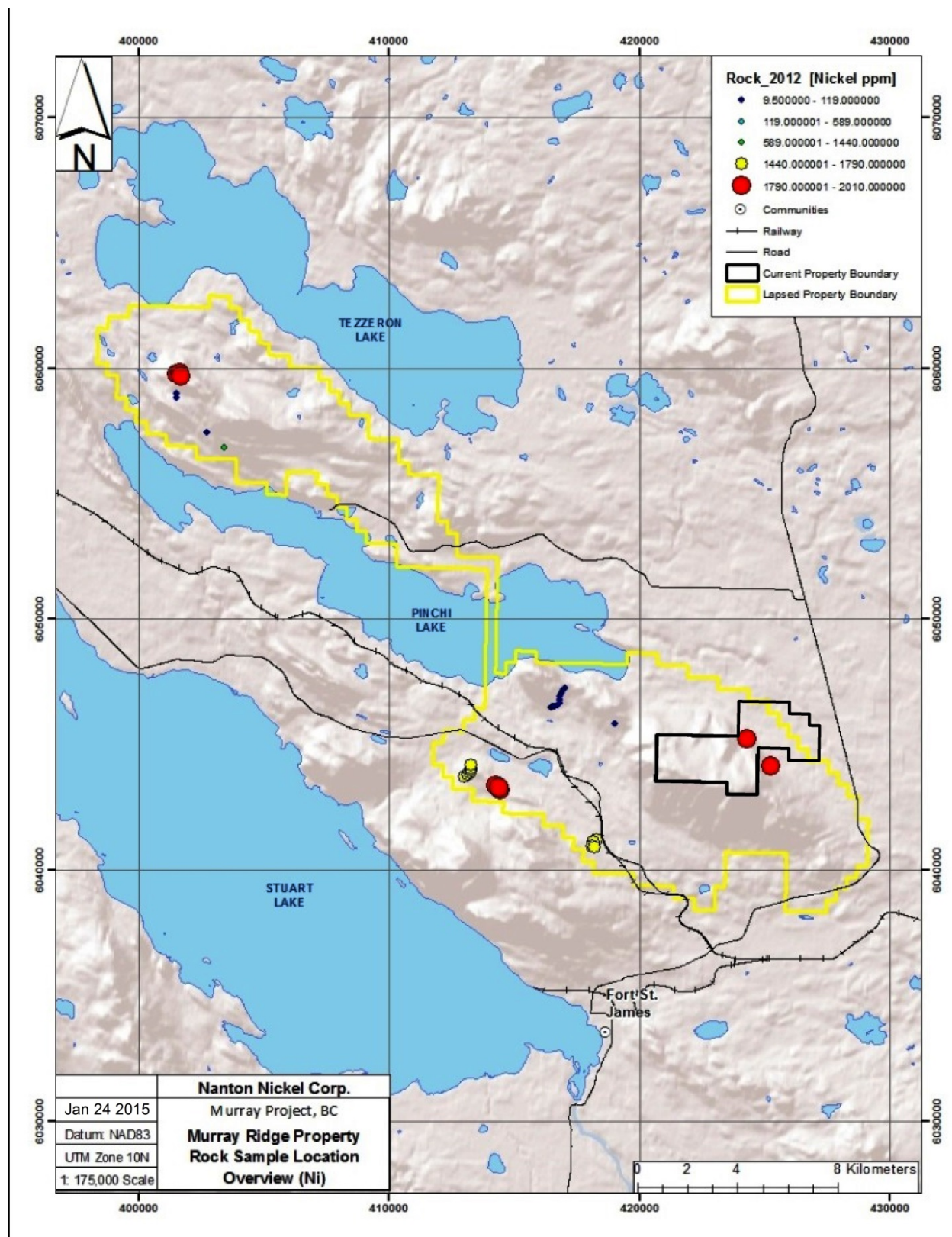


Figure 9.2a. 2012 Rock Sample Locations

Soil Sampling was conducted in various portion of the property with a total of 142 samples being collected. Samples were generally collected at approximately 50 meter intervals.

All soil and rock samples were packed into rice bags, sealed and shipped to AGAT Laboratories in Terrace from the Greyhound cargo depot in Fort St James. Rock samples were analyzed for 43 elements using the AGAT's inductively coupled plasma and optical emission spectrometry (ICP-OES) with a strong 4-acid digestion. As well, eight select samples were tested for magnetic using a Davis Tube magnetic separator. Soil samples were analyzed for 45 elements by ICP-OES with a strong 4-acid digestion.

In addition, 54 samples (48 serpentized ultramafic rocks and six volcanogenic and related sedimentary rocks) were sent for a complete petrographic analysis from transmitted and reflected light microscopy to Vancouver Petrographics Ltd. of Langley BC. Various minerals including awaruite were initially identified on the optical microscope and confirmed via energy dispersive spectral (EDS) qualitative analyses on the scanning electron microscope (SEM).

### *9.2.2 Geochemical Sampling Results*

Reconnaissance prospecting and sampling was focused on areas of known prospective geology. The best rock exposures were on the ridge tops and along road cuts. Geological evaluation has confirmed the occurrence of ultramafic-mafic bodies of the Cache Creek Complex Trembleur Intrusions. Ultramafic rocks typically form prominent, rugged, outcrop covered ridges with sparse vegetation. Rocks are dominantly represented by harzburgite (95%) with subordinate dunite layering (5%), and rare orthopyroxenite and gabbro. All ultramafic lithologies are weakly to moderately magnetic and rarely non-magnetic.

The ICP-OES results of the 55 rock sample collected returned nickel values ranging from 9.5 to 2110 ppm nickel. Of these, 38 of them have Ni values of greater than 1000 ppm. The eight rocks tested for magnetic content, seven returned values of less than 1% magnetic content. The eighth sample returned a highly anomalous value of 12.4% magnetic content.

Polished thin section and EDS qualitative analyses of samples confirmed the presence of awaruite mineralization at Murray Ridge. In total 38 of the 54 samples analyzed were found to have trace amounts of awaruite mineralization ranging in sizes up to 20 microns. In addition to awaruite; native copper, native iron and native tin have all been confirmed via electron microscopy and qualitative x-ray analyses. Another major ore mineral identified within the suite is chromite. Sulphides such as pentlandite, chalcopyrite, bornite, and pyrite are present at trace levels. Oxides such as magnetite and wustite are common within the all rocks analyzed. Two modes of occurrence for the awaruite were identified with the dominant mode occurring as an alteration product of pentlandite, and this is generally accompanied by native copper. More rarely the awaruite occurs as primary igneous inclusions within either chromite or olivine.

The ICP-OES results from the 142 soil samples return nickel values ranging from 7.5 to 1120 ppm nickel, with the majority of the more anomalous values occurring in samples taken sub-parallel to a creek in the south-eastern portion of the property

### **9.3 2013-2014 Exploration**

No exploration was conducted on the Murray Ridge property by Nanton Nickel Corporation during 2013-2014.



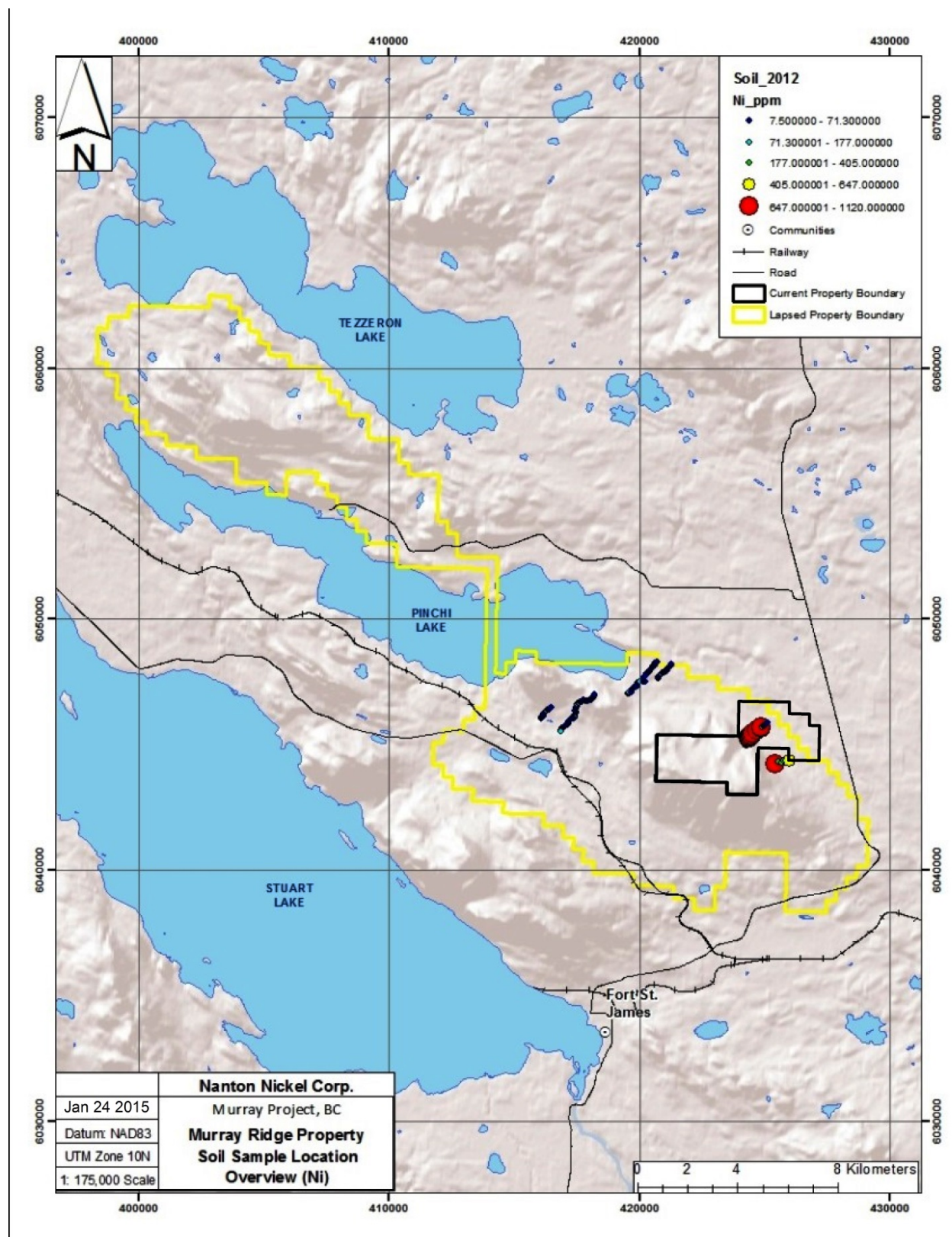


Figure 9.2b. 2012 Soil Sample Locations

## **10.0 Drilling**

No drilling has been conducted on or behalf Nanton Nickel Corp. on the Murray Ridge Property.

## **11.0 Sample Preparation, Analysis and Security**

### **11.1 Sample Preparation, Analysis and Security (Pre 2011)**

The author considers all of the pre-2011 geological, analytical and related data to be historical in nature and as such, makes no representation as to whether the historical information is complete or wholly accurate. While sampling methods and analytical procedures may not meet the current standards of National Instrument 43-101, and verification of the data is no longer possible, the work was completed by competent geologists. It is the opinion of the author that the sampling and analytical work was done to the highest standards of the day, and that the results may be relied upon and used for evaluation of the Snowbird property. There is no reason to believe that either sampling integrity or security was jeopardized at any time during the pre-2012 sampling programs reported in the project's historical reports

### **11.2 Sample Preparation, Analysis and Security (Nanton 2012-2013)**

A total of 86 rock, 25 stream-sediment and 155 soil samples were collected on the Murray Ridge Property during the 2011 and 2012 exploration programs. Samples were placed in clear plastic bags for rock and canvas bags for soil and silt, labeled and packed into the rice bags. After, the bags were secured and taken to the Greyhound cargo depot in Penticton for the shipment to the Acme Laboratories in Vancouver.

In the assay lab rock samples were dried and weighed, fine crushed, 80% passing less than 10 mesh (<2mm), split off 250 g and pulverized, 85% passing less than 200 mesh (75 microns), and soil and stream-sediment samples were dried at 60°C to 80 mesh (up to 100 g samples). After prepared samples were treated with strong four- acid digestion. This process involved a 0.25g sample split heated in HNO<sub>3</sub>-HClO<sub>4</sub>- HF to fuming and taken to dryness and then the residue dissolved in HCl. The final solution was analyzed for total of 33 elements (Al, Ag, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sr, Te, Th, Ti, V, W and Zn) using Acme's Inductively Coupled Plasma and Emission Spectrometry (ICP-ES)-1D01 method.

Quality control procedure was implemented at the laboratory involving insertion of standards, blanks and pulp duplicates for at least 25% of the total analyzed samples.

Sample preparation, analytical procedure and security conducted by the laboratory are acceptable. Examination of routine quality control data indicates that the assay results are within generally accepted parameters for accuracy, precision and lack of contamination.

## **12.0 Data Verification**

During the 2011-2012 exploration programs, Nanton conducted a program of rock, soil and stream sediment sampling on the Murray Ridge Property. A total of 86 rock samples, 155 soil samples and 25 stream-sediment samples were collected. No blank samples, certified reference samples (standards) or sample duplicates were submitted to the lab as part of this limited sampling program conducted by Nanton.

Stream-sediment samples were collected throughout the property to validate significant geochemical results of previous regional exploration. High nickel values were confirmed in stream sediments in the southeastern part of the property. Rock and soil geochemistry have returned similarly high nickel values verifying the presence of primary formational nickel in association with ultramafic and mafic rocks on the property.

The reported nickel content from the laboratory analysis of the ultramafic rocks falls well within the expected background range for these rock types on a global basis.

The analytical data quality assurance and quality control was indicated by the favourable reproducibility obtained in the laboratory standards, blanks and duplicates. The author has no reason to doubt the accuracy and precision of the laboratory data. The quality control procedures discussed under “Sample Preparation, Analysis and Security” verified the obtained results.

Future sampling and analysis protocols to be utilized by Nanton Nickel Corp. must be within modern acceptable industry standards and should conform to all industry standard quality control and acceptable procedures. For example, a qualified geologist must supervise all sampling; care of bagged samples and the security of those samples must be a priority; and sample assay procedures must be suitable and of high quality. Key items involving QA/QC from the field include: maintaining a clean environment at the drill, trench sites, geotechnical logging, geological logging and core cutting facility; preparing blank samples in a separate location from the core processing facility; implementing a blank and standard insertion schedule; preparation of certified matrix compatible standards; and use of a chain of custody document to accompany the samples from the field to the laboratory

## **13.0 Mineral Processing and Metallurgical Testing**

There has been no recent mineral processing or metallurgical testing on the Murray Ridge Property

## **14.0 Mineral Resource Estimates**

There are no current NI 43-101 mineral resource estimates for the Murray Ridge Property.

## **15.0 Mineral Reserve Estimates**

There have been no Mineral Reserves estimated on the Murray Ridge Property.

## **16.0 Mining Methods**

There has been no work on mining methods at the Murray Ridge Property.

## **17.0 Recovery Methods**

There has been no work on recovery methods at the Murray Ridge Property.

## **18.0 Project Infrastructure**

There has been no work on project infrastructure at the Murray Ridge Property.

## **19.0 Market Studies and Contracts**

There has been no work on market studies and there are no outstanding contracts at the Murray Ridge Property.

## **20.0 Environmental Studies, Permitting and Social or Community Impact**

There have been no environmental studies, permitting (other than permitting for exploration activities) or any work involving social or community impact at the Murray Ridge Property.

## **21.0 Capital and Operating Costs**

There has been no work on capital and operating costs at the Murray Ridge Property.

## **22.0 Economic Analysis**

There has been no economic analysis at the Murray Ridge Property.

## **23.0 Adjacent Properties**

The most significant property adjacent to the Murray Ridge Property is the Decar Project of First Point Minerals Ltd and their joint venture partner Cliff Natural Resources. The Decar Project covers an area of 245 square kilometres, approximately 90 km northwest of Fort St. James and is aggressively developed for its bulk- tonnage, open-pit mineable potential resource of nickel-iron alloy.

Nickel-iron alloy occurs in form silver-white grains of a heavy, magnetic awaruite mineral, which is naturally occurring stainless steel comprising of approximately 75% nickel, 25% iron and 0% sulfur. Awaruite is hosted in serpentized ultramafic rocks, in 0.1 to 0.15 % by volume range, and as 5 to 400 microns (0.4mm) in widths. Metallurgical testing have shown 80% of the awaruite is recoverable to produce a desirable ferronickel concentrate grading 2.6% nickel, 52% iron as magnetite and 2.2% chromite (Allan, 2011).

## **24.0 Other Relevant Data and Information**

The author is not aware of any other relevant information that could change the conclusions or recommendations of this report.

## 25.0 Interpretation and Conclusions

Nanton Nickel Corp. has undertaken exploration on the Murray Ridge property for nickel-iron alloy (awaruite) mineralization in the ultramafic rocks of the Permian-Triassic Cache Creek Complex. The analogous suite of ultramafic intrusions are hosts to widely disseminated, coarse grained awaruite mineralization on the Decar property of the First Point Minerals, approximately 60 km northwest.

The region is underlain by a complex mixture of Permian to Cretaceous rocks characterized by Cache Creek Complex clastic and calcareous sedimentary assemblages and Trembleur ultramafic-mafic and Rubyrock gabbro to diorite intrusions. Cache Creek Complex rocks are in structural contacts with younger Jurassic-Triassic clastic and calcareous sediments, and the Cretaceous Endako Batholith. The region has a strong northwest trending structural fabric of faults including Pinchi Lake fault system, historically significant for its associated mercury occurrences.

Several northwest trending, linear magnetic-high (TMI) anomalies have been delineated in the area. These anomalies exhibit an excellent correspondence with the previously mapped northwest striking ultramafic intrusions. The sharp transitions from high to low magnetic signatures coincide with the structural contacts of ultramafics-mafics (high magnetic susceptibility) and sediments (low magnetic susceptibility). High resolution aeromagnetic survey proved to be an effective geological mapping tool in defining prospective areas for further exploration.

Geological mapping, prospecting and geochemical soil sampling have confirmed the occurrence of favourable geology and structure on the property, and localized serpentinization associated with ultramafic rocks.

The 2011 and 2012, Nanton Nickel Corporation field work programs resulted in good rock sampling coverage of the lower level ultramafic rocks as supported by magnetics to the southwest of the main Murray Ridge ultramafic body. However substantial areas of the main Murray Ridge ultramafic body with relatively good outcrop abundance remain under sampled and under prospected. The insightful results of the petrographic investigation confirmed the potential for these rocks to generate and host nickel alloy mineralization.

Across the northern portion of the Murray Ridge property is a lensoidal shaped area of strong magnetic response. Topographically this lies along the north base of the ridge level with the till plain to the north. The area is forested and in part cleared by logging and somewhat accessible by maintained logging roads. This lensoidal feature warrants investigation for potential anomalous nickel alloy concentrations which may be associated with more strongly magnetic ultramafic rock phases.



## 26.0 Recommendations

The area of the property away from that used by the local ski hill represents a large area of underexplored potentially nickel alloy bearing ultramafic sequences.

The northern half of the property from the crest of Murray Ridge to its base on the north side will benefit from a systematic program of surface exploration. It is recommended that this area be covered by 1:20,000 scale geological mapping and prospecting. Systematic rock sampling traverses should be targeted on each of the ultramafic phases delineated by mapping.

If the area of most intense magnetic signature located toward the north edge of the property is not exposed and cannot be investigated and analyzed with surface mapping and rock sampling, then at least two cross sections over the area should be tested by core drilling. Core drilling should be conducted such that the adjacent less-magnetic ultramafic phases are also cored and sampled – allowing for adequate determination of the variation in composition and potential mineralization of the rock phases present.

A suitable two-phase budget for the next stage of exploration for the Murray Ridge property is as follows:

Phase 1	
Geological mapping, sample collecting and reporting	\$70,000
Geochemical and nickel alloy assaying	<u>\$30,000</u>
Total Phase 1	\$100,000
Phase 2	
Core drilling 1,000 m all-in	<u>\$400,000</u>
Total Phase 1 and 2	\$500,000

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## 28.0 Author Certificate, Signature and Consent

I, Richard J. Haslinger, P.Eng., am a consulting Geological Engineer residing at 1245 Woodland Drive in Vancouver, V5L 3S2, British Columbia, Canada, do hereby certify that:

1. I graduated from the University of British Columbia with a Bachelor of Applied Science degree in Geological Engineering in 1986. I have practiced my profession continuously since 1986.

2. I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia, License Number 16798. My relevant experience for the purpose of the Technical Report is: Mineral exploration and exploration project management experience on numerous projects, including Canada, United States, Africa and Brazil.

4. I have read the definition of “qualified person” set out in National Instrument 43- 101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined by NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

5. I am responsible for the Technical Report titled “Murray Ridge Technical Report” dated at January 28, 2015. I personally visited Murray Ridge Property on October 19 and 23, 2011 and June 26, 2014 and supervised the exploration activity, including examination of bedrock outcrops and stream-sediment sample sites.

6. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form

6. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

7. I am independent of the Nanton Nickel Corp. as described in Section 1.5 of NI 43- 101 and have no interests, either direct or indirect, in the Murray Ridge Property.

8. I consent to the filing of the Technical Report with any stock exchange and any other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

[signed]

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Richard J. Haslinger, P.Eng.  
Consulting Geological Engineer

Signed on January 28, 2015