

# **TECHNICAL REPORT ON THE Niobium Claim Group Property QUEBEC, CANADA**

**Prepared for Saville Resources Inc.  
Report for NI 43-101**

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**LIST OF ABBREVIATIONS**

<b>Definition</b>	<b>Abbreviation</b>
Acme Analytical Laboratories Ltd.	Acme Labs
Activation Laboratories Ltd.	Actlabs
ALS Canada Ltd.	ALS
Billion years ago	Ga
°C	Degrees Celsius
Centimetre	cm
Certified Reference Material	CRM
Commerce Resources Corp.	Commerce Resources
Coordinate System	NAD83 Zone 19
Dahrouge Geological Consulting Ltd.	Dahrouge Geological
Digital Elevation Model	DEM
Niobium Claim Group Property	Property
Eldor Resources Ltd.	Eldor Resources
Example	e.g.
Fluorine	F
Fluorspar/Fluorite	CaF <sub>2</sub>
Geological Survey of Canada	GSC
Global Positioning System	GPS
Hectare	ha
Inductively Coupled Plasma Mass Spectrometry	ICP-MS
In other words,	i.e.
International Union of Geological Sciences	IUGS
Kilometre	km
Micrometre	µm
Million tonnes	Mt
Million years ago	Ma
Metre	m
National Instrument 43-101	NI 43-101
Net Profit Interest	NPI
Net Smelter Royalty	NSR
Niobium	Nb
Parts Per Million	ppm
Per cent	%
Phosphate	P <sub>2</sub> O <sub>5</sub>
Quality Assurance / Quality Control	QAQC
Rare Earth Element	REE
Saville Resources Inc.	Saville Resources
Standard Reference Material	SRM
Tantalum	Ta
Tech-Cominco Global Discovery Labs	GDL
Tonnes	t
Total Rare Earth Oxide (La, Ce, Nd, Pr, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y)	TREO
Universal Transverse Mercator	UTM
Unocal Canada Ltd.	Unocal
Virginia Mines Inc.	Virginia
Weight	Wt.
X-Ray Fluorescence	XRF

## **1. SUMMARY**

Saville Resources Inc. (“Saville Resources” or the “Company”) has retained Alex W. Knox (the “Author”), M.Sc., P.Geol., an independent consulting geologist, to prepare an independent Technical Report on the Niobium Claim Group Property (the “Property”), located in northern Quebec, Canada.

This report was commissioned by Saville Resources to comply with regulatory disclosure and reporting requirements outlined in Canadian National Instrument 43-101 (“NI 43-101”), companion policy NI 43-101CP, and Form 43-101F.

### **1.1. PROPERTY DESCRIPTION**

The Property is located in the Nunavik Territory of northern Quebec, Canada, on NTS map sheet 024C16, and is comprised of 26 contiguous mineral claims that cover an area of approximately 1,222.78 ha. The centre of the Property is situated at about 537700 Easting and 6311100 Northing NAD83 Zone 19, approximately 130 km south of the village of Kuujjuaq and 250 km north of Schefferville.

### **1.2. MINERAL TENURE**

On January 11<sup>th</sup>, 2018, Commerce Resources announced, via press release, that it had entered into an Earn-in Agreement (the “Agreement”) with Saville Resources, whereby Saville Resources will have the right to acquire a 75% interest in 21 claims within the Eldor Property, with the 21 claims thereafter termed the “Niobium Claim Group Property”. The Agreement was subsequently amended, under the same terms and conditions, to include an additional 5 claims.

The Niobium Claim Group Property consists of 26 claims, totalling 1,222.78 ha, which are registered under and subject to, the Mining Act of the Province of Quebec. The claims are registered in the name of Commerce Resources Corp.

### **1.3. GEOLOGY AND MINERALIZATION**

The Niobium Claim Group Property is situated within the Eldor Carbonatite Complex (formerly known as Lac Lemoyne carbonatite), located in the north-central portions of the New Québec Orogen (Labrador Trough). Recent interpretation indicates the carbonatite was emplaced in multiple intrusive stages as sills and dikes, brecciating and metasomatizing the local host rocks. The footwall to the main complex is a several hundred metre-thick, fine- to coarse-grained chlorite/biotite – K-feldspar (?) and blue amphibole

(?) rock which has been previously interpreted as fenite (Schmidt, 2013). The main complex comprises multiple stages of crosscutting phoscorite (apatite, olivine,  $\pm$ magnetite) and calcite carbonatite intrusions with the latter being volumetrically dominant. Metasomatism has altered large portions of the outer calcite carbonatite to dolomite carbonatite. The phoscorite, calcite carbonatite, and dolomite carbonatite (alteration unit) are the dominant carbonatite rock types found throughout the outer portions of the complex. Deformation at about 1.8 Ga tilted the region and resulted in a regional dip to the northeast for the carbonatite complex.

The niobium-tantalum mineralization is ubiquitous throughout the carbonatite and phoscorite within the Property; however, the higher-grade occurrences of primary interest are interpreted to be present in the outer portions of the Eldor Carbonatite Complex, and have been sampled in the northwestern, eastern, and southeastern portions. These higher-grade mineralized occurrence(s) are interpreted to be northwest striking (northeast dipping), elongated lenses of phoscorite cumulates or as mutually crosscutting phoscorite - calcite carbonatite sills and dikes. In general, based on current surface, drill hole, and geophysical data, mineralization located in the Southeast Area is interpreted to be up to 1 km in length and occur over several 100 m in width. However, this mineralized occurrence remains poorly delineated with a significant amount of drilling required to better understand continuity, extent, and controls on the mineralization

On the Property, the niobium and tantalum in the primary carbonatite and phoscorite is dominantly hosted by pyrochlore-group minerals, while in the altered carbonatite and phoscorite is dominantly hosted by columbite-(Fe) and niobaeschnynite-(Ce). Magnetite, apatite, and biotite are the most common accessory minerals associated with the pyrochlore-group minerals, while apatite, fluorite, and pyrite are the most common accessory minerals associated with columbite-(Fe) and niobaeschnynite-(Ce).

#### **1.4. EXPLORATION**

This report is a compilation and evaluation of historic exploration on the Property. As of the effective date of this report, Saville Resources has not completed any exploration work on the Property.

#### **1.5. DEVELOPMENT AND OPERATIONS**

There is currently no mining infrastructure on the Property.

## 1.6. CONCLUSIONS AND RECOMMENDATIONS

The Property is considered to have a strong potential for discovery of carbonatite hosted niobium-tantalum-(phosphate) deposit(s) of significance, as well as for fluorite. The Author considers niobium-tantalum to be of primary interest, with fluorspar (fluorite) and phosphate as secondary commodities. Various mineralogical studies indicate pyrochlore-group minerals are the dominant host to the niobium-tantalum mineralization, with apatite the dominant host to the phosphate mineralization.

Historic exploration of the Niobium Claim Group Property has defined several prospective areas including the Southeast Area, the Northwest Area, the Star Trench Area, and more recently the Miranna Area. The Southeast, Northwest, and Star Trench areas have been the subject of drill programs in 2008, and the Southeast and Star Trench areas again in 2010.

The assay data indicate that the Southeast Area is host to higher grades of niobium-tantalum over larger widths when compared to other areas on the Property, while also hosting a large number of other targets to follow-up as well as new ones to test. Therefore, the Author considers the Southeast Area to hold the strongest potential for hosting a niobium-tantalum deposit of appreciable grade and tonnage on the Property and recommends that this area initially remain the focus of exploration. This is highlighted by the wide intercept starting from 4.22 m depth in EC10-033 (0.72% Nb<sub>2</sub>O<sub>5</sub> over 21.35 m), which demonstrates higher-grade mineralization essentially reaches surface. This interval also includes the highest niobium-grade drill core sample collected to date at 1.85% Nb<sub>2</sub>O<sub>5</sub> and 720 ppm Ta<sub>2</sub>O<sub>5</sub> (over 0.48 m) at 24 m depth. The highest-grade niobium intercept to date was also returned from the same area with 1.09% Nb<sub>2</sub>O<sub>5</sub> over 5.84 m in EC10-040. The Southeast Area also hosts potential for fluorite with several well-mineralized intercepts over ~20 m returned in past drilling.

Drilling to date at the Star Trench Area suggest its size potential may limited; however, the area is also host to the highest grades of tantalum on the Property and requires further ground work ahead of additional drill testing.

The Miranna Area exploration is less advanced, being limited to surface prospecting and sampling to date. A well mineralized, northwest-southeast oriented, elongated Ta-Nb mineralized boulder field has been traced for ~1 km. A number of sources for this mineralized train are possible, including a nearby magnetic anomaly (the "Miranna Target"). The Miranna Target is considered a high priority for further work including possible drill testing.

Based on the favourable geologic setting, abundant niobium-tantalum mineralized boulders found on surface, and in historic drill holes, as well as other targets remaining to be fully explored, the Niobium Claim Group Property is considered of sufficient geological merit to warrant further exploration.

A two-phase exploration approach is proposed. Phase I is recommended to focus on refining drill targets and include geologic modelling of historic drill intercepts, and surface follow-up (e.g. prospecting, trenching, ground geophysics). Phase II is recommended to include diamond drilling (6,000 m) to test new targets, as well as further evaluate and expand known mineralized horizons. Work overall is recommended to focus on the Southeast Area, where the strongest potential has been identified, as well as the Miranna Target.

The estimated budget is \$693,00 for Phase I and \$5,132,00 for Phase II, for a combined total budget of \$5,825,000. The completion of Phase II is not contingent on the results of Phase I as the primary objective of Phase I is to refine drill targets ahead of the drilling in Phase II.

## 2. INTRODUCTION

Alex Knox, P.Geol. (the “Author”), has been retained by Saville Resources (“Saville Resources” or the “Company”) to prepare an independent Technical Report on the Niobium Claim Group Property (“the Property”), located in northern Quebec, Canada (Figure 1). This report was commissioned by Saville Resources to comply with regulatory disclosure and reporting requirements outlined in Canadian National Instrument 43-101 (“NI 43-101”), companion policy NI 43-101CP, and Form 43-101F.

The purpose of this report is to summarize and review the historic exploration, including diamond drilling, on the Property and to provide an assessment of mineral exploration potential.

Information, conclusions, and recommendations contained in this report are based on field observations as well as on published and unpublished data, see Section 27: References.

The Qualified Person (the “QP” or the “Author”) responsible for this report is Alex W. Knox., an independent consultant with more than 35 years experience with various commodities, including a particular focus on rare metals and rare earth elements. Mr. Knox is responsible for all items in this report.

Mr. Knox has visited the Property on numerous occasions, the latest being September 14<sup>th</sup> to 26<sup>th</sup>, 2017, and has reviewed and discussed the sample techniques with the relevant employees of Dahrouge Geological Consulting Ltd. (“Dahrouge Geological”) and is confident that the work performed is of sound quality. Moreover, the Author has been involved in past exploration of the Property, including the geological logging of several drill holes as well as the collection of the vast majority of the Miranna Area boulder samples.





### **3. RELIANCE ON OTHER EXPERTS**

This report has been prepared by Alex Knox, P.Geol. for Saville Resources Corp. The information, conclusions, opinions, and estimates contained herein are based on assumptions, conditions, and qualifications as set forth in this report.

The Author has no reason to believe that the information used in the preparation of this report is false or purposefully misleading and has relied on the accuracy and integrity of the data referenced in Sections 12 and 27 of this report.

For the purpose of this report, specifically Section 4.2: Mineral Tenure, the Author has relied upon registered title information available on the Quebec Ministère de l'Énergie et des Ressources Naturelles (MERN) website known as GESTIM. This information was last accessed on March 15<sup>th</sup>, 2018. The Author has also reviewed the Property agreements between Virginia Mines Inc. and Commerce Resources, and between Commerce Resources and Saville Resources. The Author has not further researched Property title or mineral rights and expresses no opinion as to the legal ownership status of the Property.

Except for the purposes legislated under provincial securities laws, any use of this report by any third party is at that party's sole risk.

As of the effective date of this report, the Author is not aware of any material fact or material change with respect to the subject matter of this report that is not presented herein, or which the omission to disclose could make this report misleading.

## 4. PROPERTY DESCRIPTION AND LOCATION

### 4.1. LOCATION

The Property is located in the Nunavik Territory of northern Quebec, Canada, on NTS map sheet 024C16 (Figure 1). The centre of the Property is situated at about 537700 Easting and 6311100 Northing NAD83 Zone 19, approximately 130 km south of the village of Kuujjuaq and 250 km north of Schefferville (Figure 2).

The Property is comprised of 26 contiguous mineral claims that cover an area of approximately 1,222.78 ha (Figure 3, Table 1). Due to its remote location, the Property is best accessed from Kuujjuaq by fixed-wing aircraft and helicopter, depending on the time of year. Currently there are no access roads, trails or permanent infrastructure on the Property.

**Table 1: Claim Listing for the Niobium Claim Group Property**

NTS	Title Type	Title No.	Status	Area (ha)	Registration Date	Expiry Date	Registered Title Holder	Excess Expenditure	Work Required	Renewal Fee
24C16	CDC	1007657	Active	47.04	11-Apr-2001	13-May-2020	Commerce Resources Corp.	\$641,574	\$1,625	\$132
24C16	CDC	1007658	Active	47.04	11-Apr-2001	13-May-2020	Commerce Resources Corp.	\$1,303,806	\$1,625	\$132
24C16	CDC	1007659	Active	47.03	11-Apr-2001	13-May-2020	Commerce Resources Corp.	\$246,755	\$1,625	\$132
24C16	CDC	1007660	Active	47.03	11-Apr-2001	13-May-2020	Commerce Resources Corp.	\$145,863	\$1,625	\$132
24C16	CDC	1007661	Active	47.02	11-Apr-2001	13-May-2020	Commerce Resources Corp.	\$1,417,612	\$1,625	\$132
24C16	CDC	1007883	Active	47.02	11-Apr-2001	13-May-2020	Commerce Resources Corp.	\$236,376	\$1,625	\$132
24C16	CDC	1007889	Active	47.01	11-Apr-2001	13-May-2020	Commerce Resources Corp.	\$46,819	\$1,625	\$132
24C16	CDC	1007890	Active	47.01	11-Apr-2001	13-May-2020	Commerce Resources Corp.	\$638,524	\$1,625	\$132
24C16	CDC	2087760	Active	47.05	30-May-2007	13-May-2020	Commerce Resources Corp.	\$243,890	\$1,625	\$132
24C16	CDC	2087761	Active	47.05	30-May-2007	13-May-2020	Commerce Resources Corp.	\$92,087	\$1,625	\$132
24C16	CDC	2087762	Active	47.05	30-May-2007	13-May-2020	Commerce Resources Corp.	\$98,117	\$1,625	\$132

24C16	CDC	2087763	Active	47.05	30-May-2007	13-May-2020	Commerce Resources Corp.	\$14,838	\$1,625	\$132
24C16	CDC	2087764	Active	47.05	30-May-2007	13-May-2020	Commerce Resources Corp.	\$6,849	\$1,625	\$132
24C16	CDC	2087774	Active	47.04	30-May-2007	13-May-2020	Commerce Resources Corp.	\$369,864	\$1,625	\$132
24C16	CDC	2087775	Active	47.04	30-May-2007	13-May-2020	Commerce Resources Corp.	\$347,395	\$1,625	\$132
24C16	CDC	2087776	Active	47.04	30-May-2007	13-May-2020	Commerce Resources Corp.	\$14,357	\$1,625	\$132
24C16	CDC	2087781	Active	47.03	30-May-2007	13-May-2020	Commerce Resources Corp.	\$116,734	\$1,625	\$132
24C16	CDC	2087782	Active	47.03	30-May-2007	13-May-2020	Commerce Resources Corp.	\$89,195	\$1,625	\$132
24C16	CDC	2087785	Active	47.03	30-May-2007	13-May-2020	Commerce Resources Corp.	\$26,312	\$1,625	\$132
24C16	CDC	2087786	Active	47.03	30-May-2007	13-May-2020	Commerce Resources Corp.	\$22,873	\$1,625	\$132
24C16	CDC	2087792	Active	47.02	30-May-2007	13-May-2020	Commerce Resources Corp.	\$73,016	\$1,625	\$132
24C16	CDC	2087793	Active	47.02	30-May-2007	13-May-2020	Commerce Resources Corp.	\$28,292	\$1,625	\$132
24C16	CDC	2087794	Active	47.02	30-May-2007	13-May-2020	Commerce Resources Corp.	\$26,320	\$1,625	\$132
24C16	CDC	2087798	Active	47.01	30-May-2007	13-May-2020	Commerce Resources Corp.	\$84,268	\$1,625	\$132
24C16	CDC	2087799	Active	47.01	30-May-2007	13-May-2020	Commerce Resources Corp.	\$29,597	\$1,625	\$132
24C16	CDC	2087800	Active	47.01	30-May-2007	13-May-2020	Commerce Resources Corp.	\$340,613	\$1,625	\$132

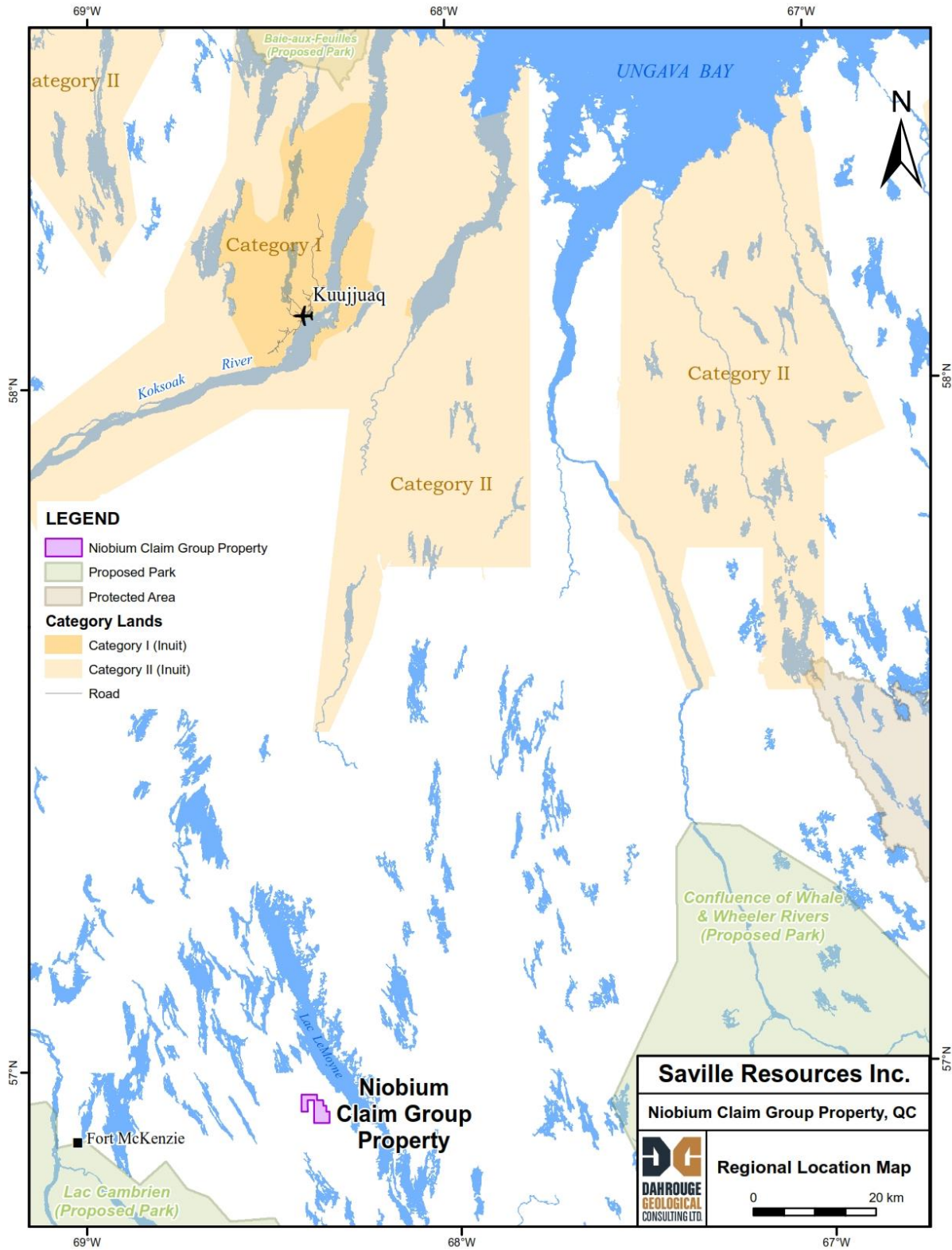


Figure 2: Regional Location of the Property

## 4.2. MINERAL TENURE

The Niobium Claim Group Property consists of 26 claims, totalling 1,222.78 ha, which are registered under and subject to, the Mining Act of the Province of Quebec. Full claim details can be found on the GESTIM website; tenure information used in this report was obtained from the GESTIM FTP site found at <ftp://ftp.mrn.gouv.qc.ca/Public/Gestim/telechargements/>.

The 26 claims that comprise the Niobium Claim Group Property are part of the Eldor Property held by Commerce Resources Corp. (“Commerce Resources”), a British Columbia company with an office at Suite 1450, 789 West Pender Street, Vancouver (Figure 3). On January 11<sup>th</sup>, 2018, Commerce Resources announced, via press release, that it had entered into an Earn-in Agreement (the “Agreement”) with Saville Resources, whereby Saville Resources will have the right to acquire a 75% interest in 21 claims within the Eldor Property, with the 21 claims thereafter termed the “Niobium Claim Group Property”, by satisfying the following conditions:

1. Complete \$5,000,000 of exploration work over a five-year period, as follows;
  - a. \$750,000 on or before the first anniversary of Closing
  - b. An additional \$750,000 on or before the second anniversary of Closing
  - c. An additional \$1,000,000 on or before the third anniversary of Closing
  - d. An additional \$2,500,000 on or before the third anniversary of Closing
2. A payment of \$25,000 upon signing the Agreement and an additional \$225,000 following Exchange approval.
3. Commerce Resources will receive a 2% Net Smelter Royalty (NSR) on production from thirteen claims not already subject to royalties, and a 1% NSR on the eight claims that are already subject to royalties (see Section 4.3 Royalty Obligations). Saville will retain the right to repurchase half of the NSR for \$1,000,000.

On April 19<sup>th</sup>, 2018, the Author was informed by the Company that the Agreement had been amended (the “Amendment”) to include an additional five claims, thereby revising the Property size to 26 contiguous claims for a total of 1,222.78 hectares. All other terms and conditions of the original Agreement apply equally to all 26 claims.

Saville Resources will act as Operator to the Property, with a joint venture between the companies (75% Saville Resources / 25% Commerce Resources) to be formed once the Agreement has fully vested. The Agreement grants Saville Resources the right to explore for any and all commodities; however, in the event a discovery of rare earth minerals is made that, in the sole discretion of Commerce Resources, have a substantial likelihood of being developed, then Commerce Resources may exercise a "Reverse JV". Under the terms of the Reverse JV, Commerce Resources will pay Saville Resources 200% of the incurred expenditures and become Operator of the Property with the interest of Saville Resources in the Property reduced to 25%.

In 2007, eight of the twenty-six Niobium Claim Group Property claims were acquired by Commerce Resources by way of purchase agreement with Virginia Mines Inc (Figure 3). The remaining eighteen claims were map staked shortly thereafter by Commerce Resources in 2007. The Author has received and reviewed both the original claim agreement between Commerce Resources and Virginia Gold Mines Inc., as well as the Earn-in Agreement, and subsequent Amendment, between Commerce Resources and Saville Resources.

The Quebec mineral tenure system (GESTIM) allows individuals and corporations to acquire mineral rights and conduct mineral exploration situated on crown and private land after obtaining a prospecting license. Exploration rights to search for mineral substance (except sand/gravel/clay) are acquired by registering a mineral claim to land through an online staking system. Once registered, the claim is in good standing for two years (anniversary date) and can be renewed indefinitely subject to applicable work requirements being completed.

According to Quebec's Mining Act, to maintain the claim after the anniversary date the following is required: (i) A renewal application must be submitted at a minimum 60 days prior to the anniversary date. (ii) Payment of applicable renewal fees must be submitted at a minimum 60 days prior to the anniversary date, or subject to double the fees if submitted after 60 days. (iii) A work declaration form followed by an assessment report must be submitted 60 days prior to the anniversary date, or subject to late fees. If sufficient work is not completed on the claim(s) prior to the anniversary date, the claim holder may pay an amount equal to double the required work expenditure that is deficient.

Minerals claims in Quebec may be split into two categories based on their location, those north of the 52<sup>nd</sup> parallel and those south of 52<sup>nd</sup> parallel, with the category determining the fee and work expenditure

requirement framework the claim will be subject to. The claims which comprise the Property are situated north of the 52<sup>nd</sup> parallel.

A minimum work expenditure per claim must be satisfied each term in order for the claim renewal to be completed for that term. The minimum work expenditure required to maintain a mineral claim increases as the term increases and is presented in Table 2. Renewal fees, akin to rental fees, must be paid independently of work expenditures, and thus, cannot be satisfied with excess work expenditure credits. Renewal fees are due each term (2 years), with the fee doubling if not paid prior to the 60<sup>th</sup> day preceding the expiry date of the claim.

The Author makes no further assertion with regard to the legal status of the Property. The Property has not been legally surveyed to date and, to the Author's knowledge, no requirement to do so exists.

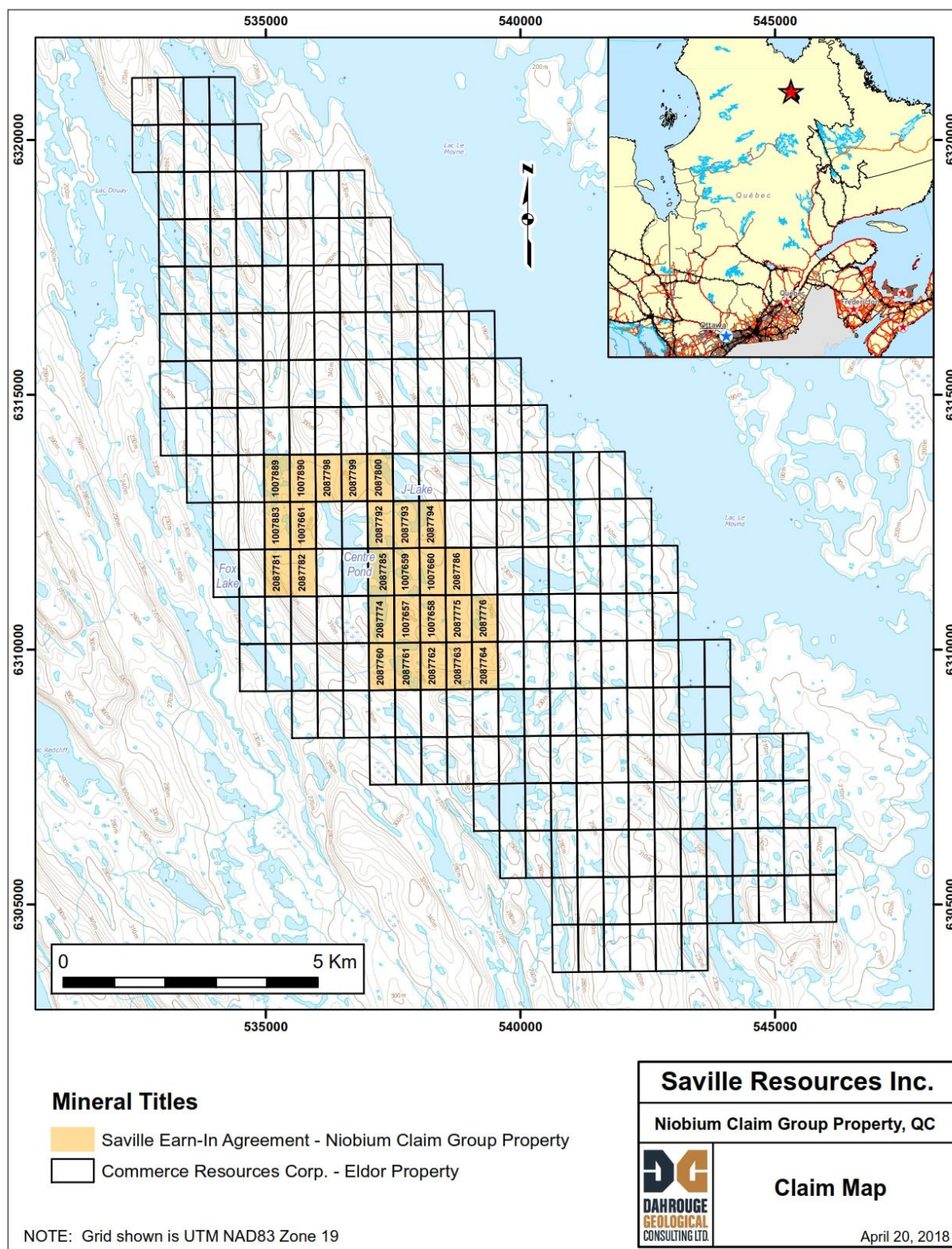
**Table 2: Minimum Work Requirements in Quebec (North of 52<sup>nd</sup> degree of latitude)**

Term	Area of Claim		
	Less than 25 ha	25 – 45 ha	Over 45 ha
1	\$31.20	\$78.00	\$87.75
2	\$104.00	\$260.00	\$292.50
3	\$208.00	\$520.00	\$585.00
4	\$312.00	\$780.00	\$877.50
5	\$416.00	\$1,140.00	\$1,170.00
6	\$487.50	\$1,170.00	\$1,170.00
7 and over	\$650.00	\$1,625.00	\$1,625.00

All 26 claims that comprise the Niobium Claim Group Property have recently been renewed by Commerce Resources Corp. and have a current expiration date of May 13<sup>th</sup>, 2020. A claim listing for the Niobium Claim Group Property is presented in Table 1.

The work expenditure required to satisfy the current term is \$1,625 per claim, for a total of \$42,250 for the Property. The combined excess expenditure attributed to the Property is \$6,701,948.64, and exceeds \$1,625 on each individual claim, and therefore, is sufficient to satisfy the next term's expenditure requirements for all 26 claims that comprise the Property. The combined renewal fee required prior to the 60<sup>th</sup> day preceding the claim expiry is \$3,438.24 (\$132.24 per claim).





**Figure 3: Niobium Claim Group Property Claims with respect to Eldor Property**



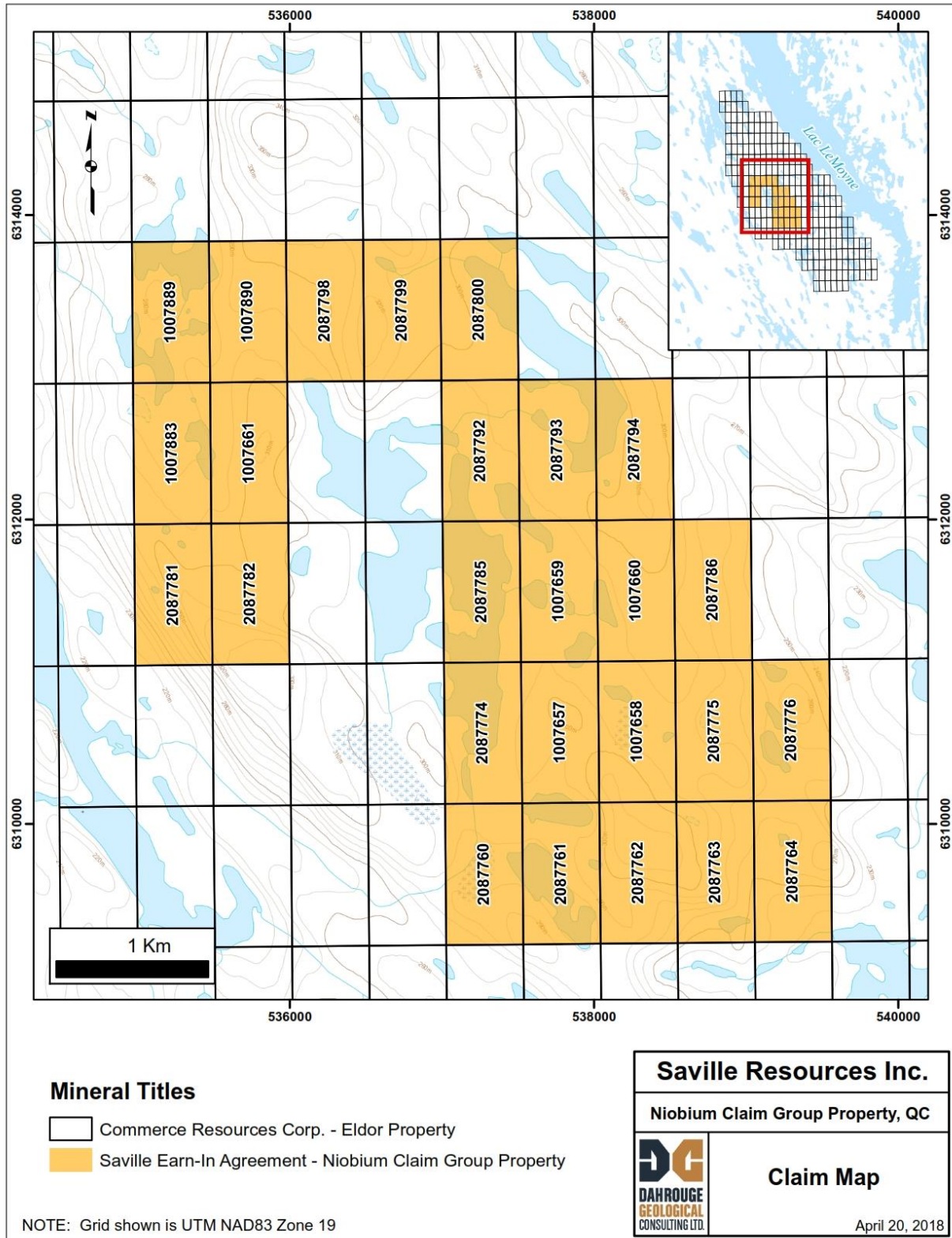


Figure 4: Niobium Group Property Claim Map

### **4.3. ROYALTY OBLIGATIONS**

Several royalty agreements exist through prior transactions involving the claims that form the Niobium Claim Group Property (Table 3).

The eight claims originally vended by Virginia Mines Inc. to Commerce Resources are subject to a 2% Net Smelter Royalty (NSR) (claims 107657 to 107661, and 1007883, 889, and 890). Five claims from this original group (107657 to 107661) are subject to an additional 5% Net Profit Interest (NPI) in favour of two individuals, with the right to buyback the 5% NPI for \$500,000. Through the Earn-in Agreement and subsequent Amendment, with Commerce Resources, the original eight claims are subject to a 1% NSR, with the remaining eighteen claims subject to a 2% NSR in favour of Commerce Resources. Saville maintains the right to repurchase half of the NSR held by Commerce Resources for \$1,000,000.

**Table 3: Summary of Third Party Royalties**

Claim Number	Royalty in Favour of		
	Individual (NPI) <sup>(1)</sup>	Virginia (NSR)	Commerce (NSR)
1007657	5%	1%	1%
1007658	5%	1%	1%
1007659	5%	1%	1%
1007660	5%	1%	1%
1007661	5%	1%	1%
1007883		1%	1%
1007889		1%	1%
1007890		1%	1%
2087760			2%
2087761			2%
2087762			2%
2087763			2%
2087764			2%
2087774			2%
2087775			2%
2087776			2%
2087781			2%
2087782			2%
2087785			2%
2087786			2%
2087792			2%
2087793			2%
2087794			2%
2087798			2%
2087799			2%
2087800			2%

(1) Company retains right to repurchase full 5% NPI for \$500,000

(2) Company retains right to repurchase half of the NSR for \$1,000,000

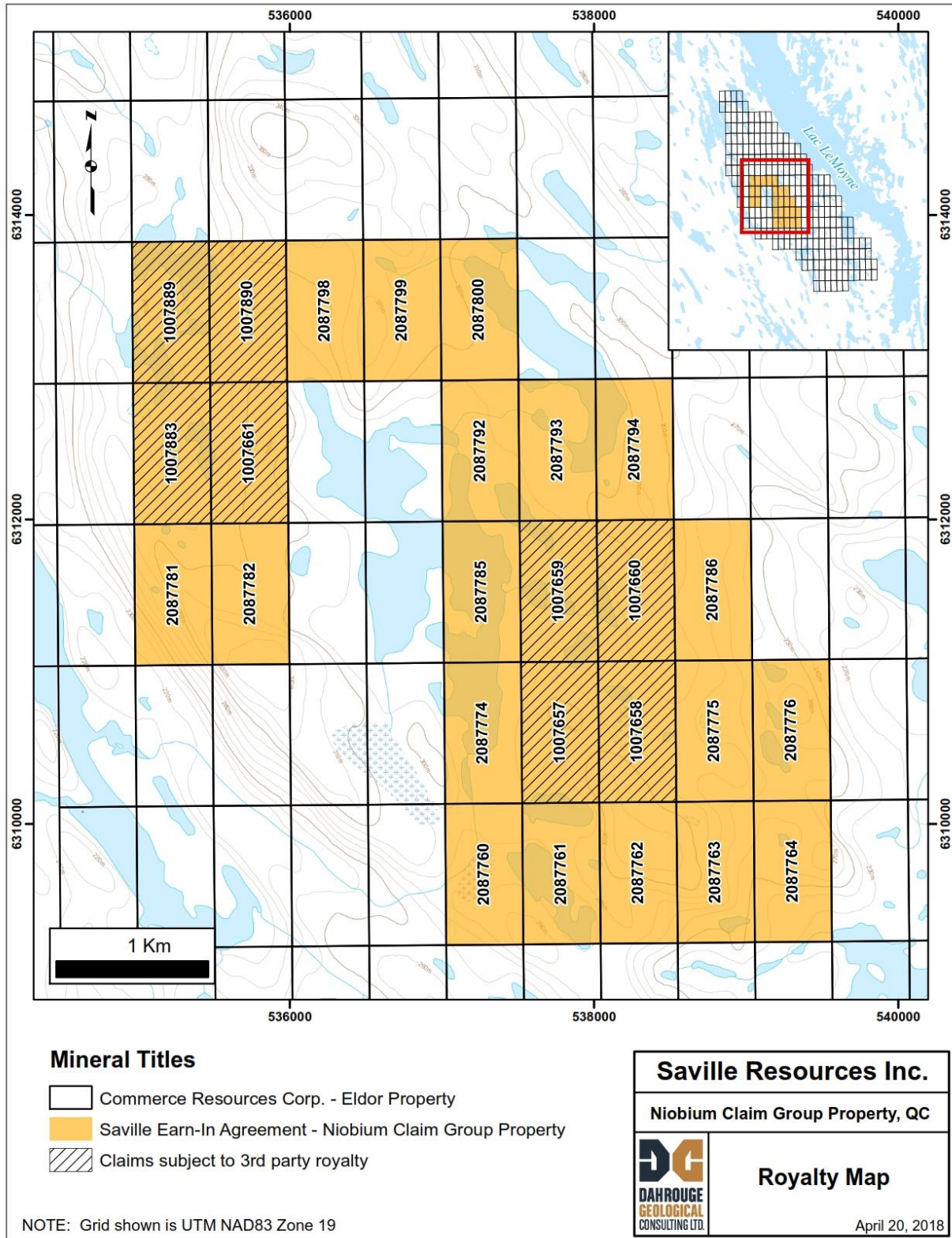


Figure 5: Royalty Map



#### **4.4. CATEGORY LANDS & SOCIAL PORTRAIT**

There are no foreseeable issues with respect to access to the Property by the Company for the purposes of mineral exploration.

The Property is located on Category III land within the Nunavik Territory, as defined under the James Bay and Northern Quebec Agreement (JBNQA). Category III lands under the JBNQA are public lands where Indigenous people may fish, hunt, and trap without licenses. Non-Indigenous people have equal access rights as well as certain harvesting rights, although proper licenses are required.

Nunavik is mainly host to Inuit communities, with the closest being the Northern village of Kuujjuaq, located approximately 130 km north of the Property. Prior to completing exploration activities in the region, there are several Inuit organizations whereby engagement is strongly recommended and recognized as an industry best practice. The primary organizations include the Nayumivik Landholding Corporation of Kuujjuaq (LHC), the Northern Village of Kuujjuaq (NV), and the Makivik Corporation (Makivik).

The Naskapi Nation of Kawawachikamach (Naskapi) are located in the Schefferville area, approximately 250 km south of the Property. Although located further from the Property than Kuujjuaq, the Naskapi have a significant land use history in the region, as well as ongoing activities and interest. In particular, this includes Fort McKenzie, located approximately 40 km west of the Property, where the Naskapi were established back in the early-mid 20th century (Figure 6). As such, it is strongly recommended that the Naskapi are engaged with and held informed with respect to exploration activities.

Further to the aforementioned best practise, only the Kativik Regional Government (KRG) is required to be informed of anticipated exploration activities under the applicable regulations. The KRG is the regional authority on various matters and is the official organization that must be informed at least 30 days prior to exploration activities. They in turn inform the LHC and the Naskapi of the planned activities and incorporate any comments prior to authorizations being issued. The KRG encourages companies operating in the region to engage directly with the Inuit (Makivik, LHC, NV) and Naskapi.

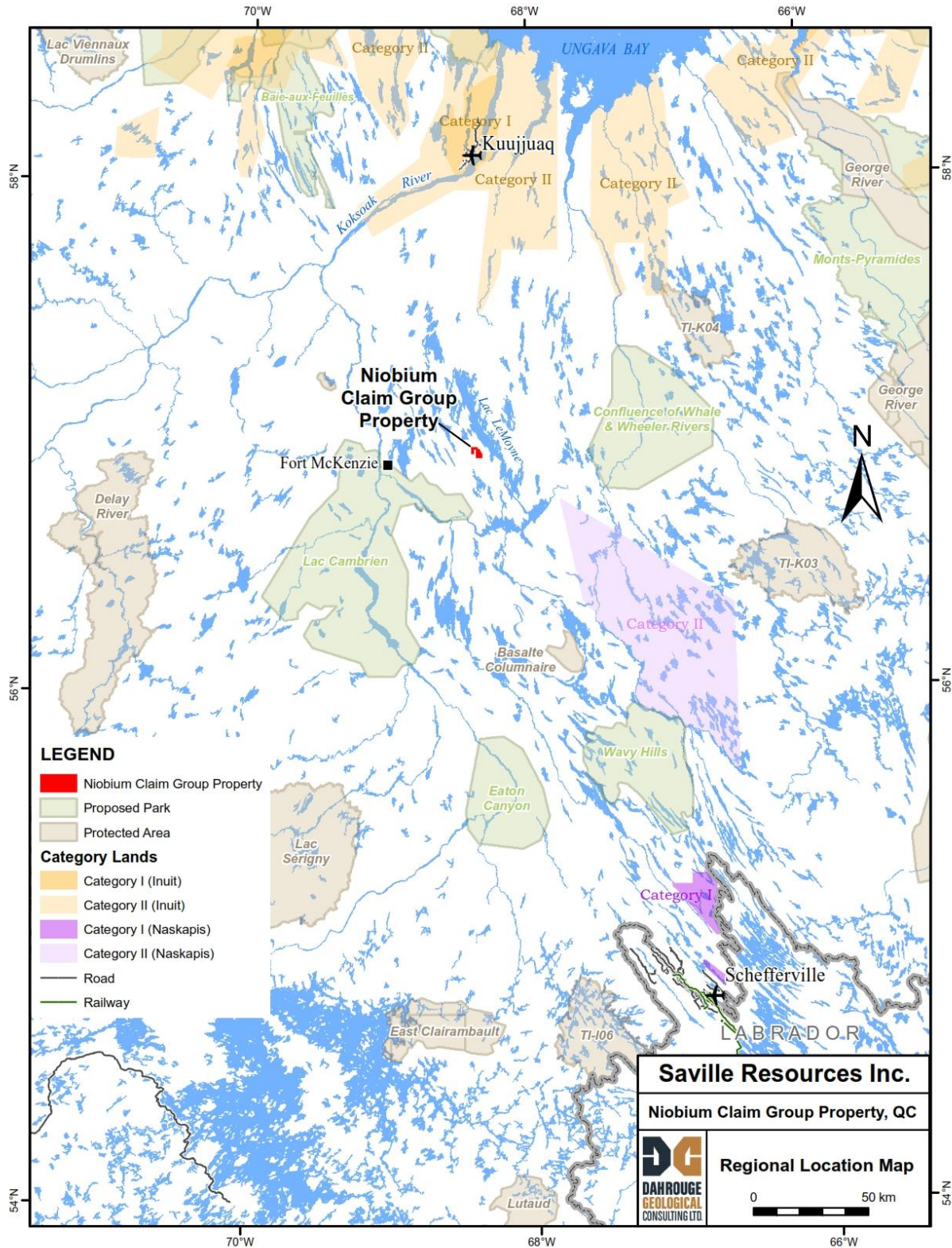


Figure 6: Property with respect to Category Lands

#### 4.5. PERMITS AND AUTHORIZATIONS

Since Commerce Resources began conducting exploration in 2007 on their Eldor Property, which includes the Niobium Claim Group Property, they have obtained a number of permits and authorizations from various provincial ministries which have changed names and exchanged responsibilities over the years. The current provincial ministries from which permits and authorizations are issued for normal exploration activities are:

- Ministère du Développement durable, de l'Environnement et de la Lutte aux changements climatiques (MDDELCC),
- Ministère des Forêts, de la Faune et des Parcs (MFFP), and
- Ministère de l'Énergie et des Ressources naturelles (MERN).

A permit is not required from the Kativik Regional Government (KRG) for exploration activities. However, an authorization is required for camp emplacement and operations, and they must also be informed at least 30 days prior to the start of any exploration activities. In some cases, Federal Government agencies, such as Environment Canada and the Department of Oceans and Fisheries (DFO), may require consultation, mostly with regards to fish and fish habitat, wetlands, species at risk, and migratory birds protection.

As of April 5<sup>th</sup>, 2018, Commerce Resources and Saville Resource have stated that the following work permits/authorizations are in good standing, which cover the Niobium Claim Group Property, or a portion thereof. The Author has not reviewed these.

- Authorization for Camp Valcourt opening and notice of activities (KRG) – Request submitted
- Intervention permit for access trail, drilling, wood cutting (MFFP) – Request submitted in Saville Resources name
- Certificate of Authorization for drilling on ice (MDDELCC) – requires verification with ministry and may require additional correspondence with DFO
- Certificate of Authorization for drilling in wetland and access to (MDDELCC) – requires verification with ministry

The following permits/authorizations do not overlap with the Property; however, would negatively impact the exploration of the Property if not obtained.

- Land lease for Camp Valcourt (MERN)
- Camp Valcourt authorization (KRG) – Request submitted for opening
- Certificate of Authorization for drinking water treatment system (MDDELCC)
- Certificate of Authorization for wastewater treatment system (MDDELCC)

#### **4.6. ENVIRONMENTAL LIABILITIES**

There are no known immediate environmental liabilities associated with the Property. However, there currently exists 26 trenches that have been completed on the Property by Commerce Resources, of which, only 4 have been reclaimed. Reclamation, consisting of backfilling with original material, will be required for the remaining 22 trenches as was noted in the original authorizations that are in Commerce Resources name. This work can be completed largely by hand with shovels and a crew of two; however, may require helicopter access for some.

The Author has reviewed the Earn-In Agreement between the companies and is left with the understanding that Saville Resources is not liable for this reclamation under the terms therein. However, there is an expectation that these trenches must be reclaimed throughout future programs, and as Operator of the claims with trenches that require reclamation, there maybe obligations with respect to said expectation. As such, some correspondence with the applicable ministry may be required, as well as with Commerce Resources.

A temporary weather station was installed in early 2013 by Commerce Resources, located at the southern end of claim 2087782. This station will have to be removed at some future undetermined date. As per above, this liability is expected to be that of Commerce Resources.

#### **4.7. OTHER SIGNIFICANT FACTORS AND RISKS**

Out outlined in Section 23: Adjacent Properties, the Niobium Claim Group Property is immediately proximal to the west, north, and east of the Ashram Deposit, held by Commerce Resources. As per the Preliminary Economic Assessment completed on Ashram (Gagnon, Rousseau, Camus, & Gagné, 2015) as



well as through subsequent public disclosure by Commerce Resources, development of the Ashram Deposit will require surface access to certain claims of the Property. In order to accommodate the unimpeded development of the Ashram Deposit in this regard, as well as to make exploration and potential development amenable for Saville Resources, the following clause was included in the Earn-In Agreement.

*During the Option Period and after exercise of the Option, each party agrees that it will not take any action or do anything which would impede the exploration or development by the other party of its claims adjacent to or nearby the claims the other party is developing or intends to develop. Whenever a party intends to explore, build, develop, use or store anything on a claim which is adjacent to a claim of the other party, it will first consult with the other party to attempt to prevent any impediment or delay resulting for the other party. Notwithstanding the foregoing, or any subsequent exploration or access concessions afforded to Saville by the Vendor, and in the event that agreement is not reached between Saville and the Vendor, then the Vendor is per this agreement afforded irrevocable primacy over the surface or excavated access to, and development of its Ashram deposit discovery and any extensions thereof, such surface access to include the construction of all surface mine infrastructure, including buildings, access ways, waste and stockpile facilities, whether temporary or permanent in nature.*

The Author notes that once the Earn-In has fully vested, Commerce Resources will still retain a 25% interest in the Property, and therefore, be further afforded a vested interest in seeing any potential discovery on the Property developed. Further, the potential opportunity of shared infrastructure during development is in both Party's interest. However, as Commerce Resources retains "irrevocable primacy over the surface or excavated access to" the claims that comprise the Niobium Claim Group Property, an element of uncertainty exists that may facilitate certain unforeseen and potentially challenging situations for Saville Resources in the future.

It may also be noted, as per prior corporate disclosure by Commerce Resources, that the Miranna Target and the majority of the Southeast Area, do not currently have any planned infrastructure in relation to the development of the Ashram Project.

An additional risk that should be highlighted is the clause governing the "Reverse JV" as is described in Section 4.2 Mineral Tenure. Under the terms of the Agreement, Saville could be reduced to 25% interest

in the Property should exploration culminate in the discovery of rare earth minerals that in the opinion of Commerce Resources “...*acting in its sole discretion, are sufficient such that the likelihood of developing and commercializing the rare earth are substantial...*”. Although Saville Resources would be compensated for 200% of exploration expenditures incurred until such a Reverse JV is exercised, their interest in the Property, and therefore all niobium, tantalum, and other commodities discovered or under development, would also be reduced with Operatorship surrendered. The exercise of the Reverse JV remains entirely at the sole discretion of Commerce Resources, and therefore subjective to what may be considered “substantial”. Rare earth elements have been reported by Commerce Resources in drill intersections in the Southeast Area, and there is no data available on whether or not these would be recoverable as a by-product during niobium, tantalum, or phosphate processing, or if this would be subject to the terms governing the Reverse JV. Further, although the current Ashram Deposit mineral resource does not encroach on the Property, the current revised outer shell model of the deposit (BD Zone) does extend up to 15 m onto the Property. This is discussed further in Section 23: Adjacent Properties.

## **5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY**

The Property is located in the Nunavik Region of Quebec, approximately 130 km south of the community of Kuujuaq, several kilometres west of Lac Le Moyne, and approximately 170 km south of Ungava Bay. Due to its relatively remote location, the Property is most readily accessed by helicopter or fixed-wing aircraft. The Property may be accessed in winter months by snowmobile with a regional trail passing by Lac Le Moyne annually; however, this is impractical for exploration purposes.

Apart from several metres of access trail to an on-site weather station, located at the south end of claim 2087782, there are no access trails, or other infrastructure located on the Property (Figure 7). However, a well-established temporary camp (Camp Valcourt - 535400E, 6309600N - NAD83, Z19), found at the south end of Fox Lake, is located within approximately 1.5 km of the Property's nearest claim boarder and is the logical staging area for exploration programs. The camp is owned by Commerce Resources, and has a current operable capacity of 20 people, complete with core processing facilities, dock, and helipad. An exploration access trail amenable to quads and side-by-sides, extends from the camp to Centre Pond, providing good access to the western areas of the Property. Further, access to the eastern part of the Property is possible by a small boat via Centre Pond.

The Earn-in Agreement stipulates that Saville Resources "will rent all or a portion" of Camp Valcourt, and therefore, the exploration access trail located on Commerce Resources claims will be the primary means of access to much of the Saville Property.

A D5 CAT is present at the end of the trail near Centre Pond, adjacent to the Property; however, it is generally confined to drill support in the immediate area due to permitting and related constraints. As such, apart from the ground access provided through the adjacent trails, as well as boat access, a drill program will likely require helicopter support to carry-out, especially in those areas to the north, east, and south of Centre Pond.



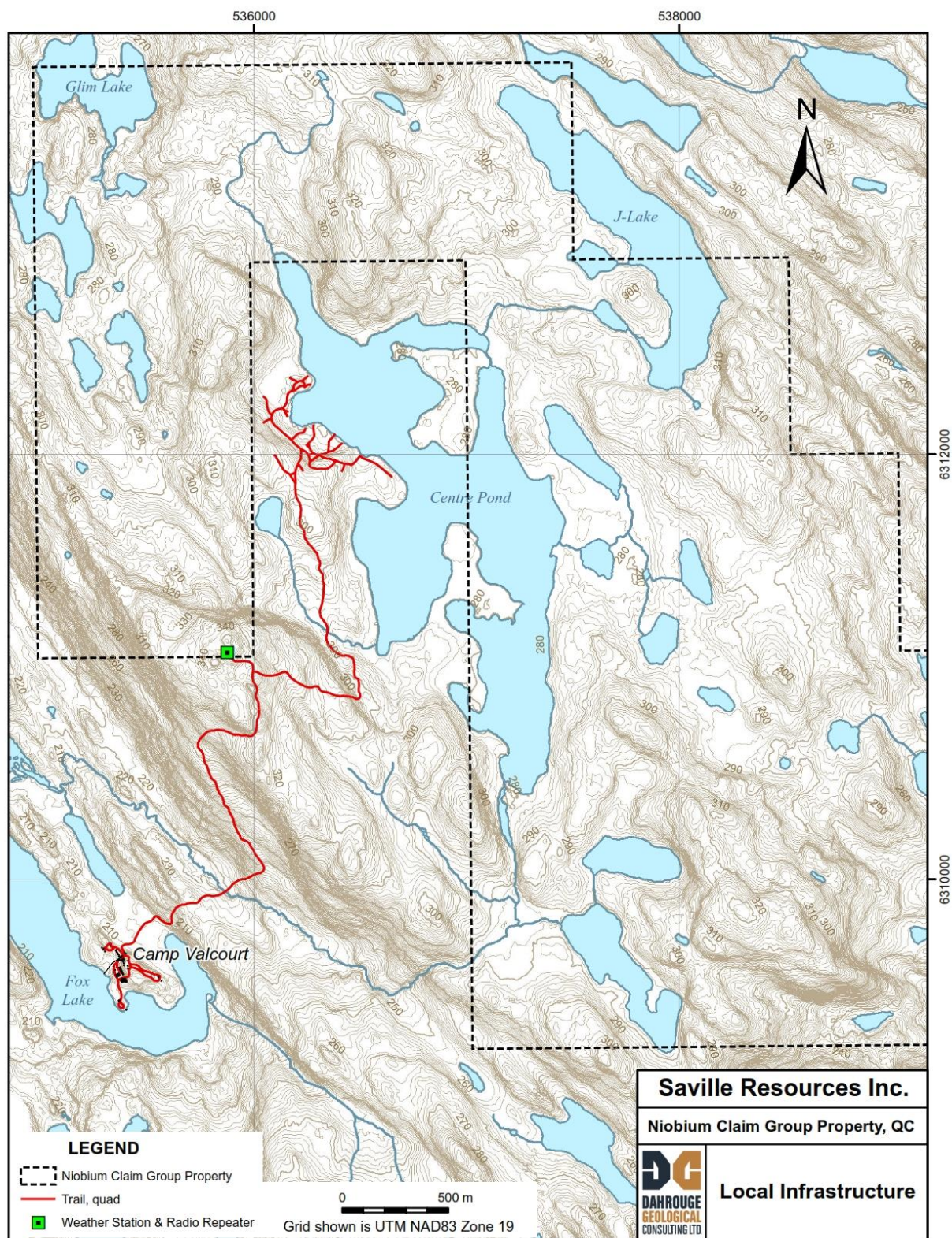


Figure 7: Local Property access

### **5.1. TOPOGRAPHY, ELEVATION, AND VEGETATION**

Overall, topography on the Property is characterized by rolling hills. The area is draped in a veil of glacial till, which is in some local areas up to 10 m thick. As such, outcrop exposure is rare; however, glacially derived and dispersed surface and subsurface boulders are abundant. Ice direction is estimated to have advanced from a generally southern direction (310°-330°). Elevations range from 280 m to 330 m above sea level.

The Property is located in the transitional vegetation zone, between sub-arctic and tundra (Taiga) biomes. The majority of the area is covered by forest, with black spruce and tamarack trees being more dominant in the low-lying areas with lesser willow and alder shrubs, which are often densely packed. Drainage in the area is northward toward Ungava Bay by way of small creeks and local swampy areas connecting to larger lakes and rivers.

### **5.2. INFRASTRUCTURE AND LOCAL RESOURCES**

The nearest community to the Property is Kuujjuaq, located 130 km north, with a population of 2,375 (Canada 2011 Census). Kuujjuaq is the administrative centre for the Nunavik region of Quebec, providing an effective staging area for exploration of the Property.

The community is serviced regularly by First Air with direct daily flight between Montreal and Kuujjuaq, as well as Air Inuit with flights to and from neighbouring communities and Kuujjuaq, as well as Montreal. In addition, several sealift cargo ships arrive in Kuujjuaq, via Ungava Bay and the Koksoak River, through the summer/fall to offload supplies to the region and pick up any backhaul. The water is shallow near the community; therefore, the sealift must offload onto barges downriver near Mackay's Island (on the Koksoak River) for the transport to the Kuujjuaq offloading facilities. There is no port in Kuujjuaq.

An alternative staging area is Schefferville (including the nearby community of Kawawachikamach), situated approximately 250 km to the southeast of the Property with a population of about 213 (Canada 2011 Census). Schefferville is serviced regularly by Air Inuit as well as hosting a float plane base, and occasional helicopter base.

Schefferville is the northern terminus of the Tshiuetin railway (formerly operated by the Quebec North Shore & Labrador), which connects to Labrador City through to Sept-Îles in the south. The rail-line is an option for transporting heavier equipment.

No permanent access road has been built on the Property although a primary exploration access trail connects Camp Valcourt to the Ashram Deposit, both located off the Property, and is passable by quad and side-by-side all-terrain vehicles

### **5.3. CLIMATE**

The climate is sub-arctic continental with average temperatures typically around -25°C in January, with extreme temperatures of -40°C to -55°C not uncommon, and average typically around +12°C in July for the nearest community of Kuujjuaq. The average annual precipitation in the region is ~54 cm with ~252 cm of snow (CantyMedia, 2014). Lake freeze-up generally begins in late October and ice break-up usually occurs around the end of May to early June.



## **6. HISTORY**

### **6.1. REGIONAL GOVERNMENT SURVEYS**

The regional survey work covered, to various extent, the New Quebec Orogen (also known as the “Labrador Trough”), which is host to the Eldor Carbonatite Complex, and thus the Property. The corridor, extending from Schefferville to Kuujuaq, has been the subject of various regional surveys by the Geological Survey of Canada (GSC) and the Ministère des Ressources naturelles et de la Faune (MRNF). During the 1950s through the 1970s, various regional geological surveys were completed by the GSC and the MRNF within the New Quebec Orogen at varying scales, from 4 miles per inch (1:253,440) to 1 mile per inch (1:63,360). A compilation of the various geological surveys conducted in the area was completed in 1979 (Dressler & Ciesielski, 1979). Since this time, the MRNF has completed only a few localised and more detailed geological surveys in the region.

Since the 1990s, the MRNF reported a geological syntheses for the region, which included a 1:250,000 scale map of the mineral occurrences of the New Quebec Orogen (Avramtchev et al., 1990), as well as a preliminary lithotectonic and metallogenic synthesis at a 1:500,000 scale (Bandyayera et al., 2002), and more recently, a complete lithotectonic and metallogenic synthesis of the New Quebec Orogen (Clark & Wares, 2006).

This regional geological work is complemented by a regional stream sediment geochemical survey completed in 1974 (Dressler B., 1974), as well as a regional lake sediment geochemical survey completed in 1987 (Beaumier, 1987).

### **6.2. MINERAL EXPLORATION WORK (ELDOR RESOURCES, UNOCAL, VIRGINIA)**

The exploration work discussed in this section, including all samples collected, was completed directly on the Niobium Clam Group Property.

In 1981, Eldor Resources Ltd. (“Eldor Resources”) completed a regional-scale lake water and sediment sampling program over the northern portions of the Labrador Trough, with a focus on uranium exploration. Several lakes returned anomalous values. These results were subsequently followed up on the ground and led to the discovery of radioactive showings hosted by carbonate rocks. Following these encouraging results, Eldor Resources acquired an exploration permit in January 1982, and completed a

982 line-km airborne radiometric and electromagnetic survey. The survey outlined an approximately 7.3 km long by 3 km wide elliptical area of what is now referred to as the Eldor Carbonatite Complex.

The following work programs completed by Eldor Resources Ltd., Unocal Canada Ltd., and Virginia Gold Mines Inc., were focused on the Southeast and Northwest areas within the current Niobium Claim Group Property of Saville Resources. In addition, several samples were collected in what would later be termed the Star Trench Area, located a couple hundred metres south of the southern tip of Centre Pond, as well as in the area termed Glimmerite Pit, located south of the Northwest Area.

Eldor Resources followed up the airborne anomalies discovered in 1982 with a prospecting program the following year (1983). The program was successful in locating the anomalies on the ground using a handheld scintillometer. The anomalies were further explored in hand-dug pits or trenches, which identified radioactive carbonatite outcrops and boulders. Assays of samples collected ranged from <0.01% to 7.0% Nb (10.0% Nb<sub>2</sub>O<sub>5</sub>), nil to 0.16% Ta (0.19% Ta<sub>2</sub>O<sub>5</sub>), and 4% total lanthanides, as well as anomalous thorium. Shortly thereafter, the newly discovered carbonatite was the subject of a reconnaissance geological mapping survey (Meusy et al., 1984); (Lafontaine, 1984).

In June of 1984, Union Molycorp obtained several samples from Eldor Resources and completed a check analyses as well as mineralogical evaluation (Sherer, 1984). The work indicated columbite was the main Nb bearing mineral in the Northwest Area, while pyrochlore was the main Nb-Ta bearing mineral in the Southeastern Area. It was recommended additional ground work be completed and exploration agreement with Eldor Resources be considered.

In 1985, a three-person crew completed an examination of the area over five days for Unocal Canada Ltd. ("Unocal"), with the Author part of the field team (Knox A. , 1986). Numerous samples were collected for analysis and petrographic study and returned values ranging from <0.1% to 11.4% Nb<sub>2</sub>O<sub>5</sub> and <0.002% to 0.18% Ta<sub>2</sub>O<sub>5</sub>. The peak sample assay (11.4% Nb<sub>2</sub>O<sub>5</sub> and 0.18% Ta<sub>2</sub>O<sub>5</sub>) was returned from the Glimmerite Pit in the Northwest Area. Additional work included magnetic and radiometric geophysical orientation surveys, and a soil geochemical orientation survey. Although the high values reported by Eldor Resources were confirmed by Unocal, as well as additional Nb-Ta occurrences discovered, the property was considered too remote to be potentially economic at the prevailing commodity prices.

Academic work, completed in a 1997 by the University of Missouri-Rolla, proposed the Eldor Carbonatite Complex consisted of seven identifiable units; metamorphic country rock



(metasediments/metavolcanics), syenite, calcite carbonatite, dolomite carbonatite, ankerite carbonatite, glimmerite, and breccia (Wright et al., 1998). This work also indicated pyrochlore as the dominate Nb-Ta mineral in the complex.

Attracted by the high Ta values that had been reported by Eldor Resources in 1983, Virginia Gold Mines Inc. ("Virginia") staked claims over the Northeast and Southeast areas of the Eldor Carbonatite in 2001. Virginia focused on the areas where prior exploration had returned high Nb-Ta values (i.e. the Southeast and Northwest areas) and re-sampled the occurrences. The work was completed by four-person crew over a period of four days and confirmed the results of Eldor Resources, with sample assays ranging from <0.01% to 3.3% Nb<sub>2</sub>O<sub>5</sub>, <0.002% to 0.21% Ta<sub>2</sub>O<sub>5</sub>, and 0.05% to 28.2% P<sub>2</sub>O<sub>5</sub>. However, no follow-up work was completed on the property by Virginia and most of the property was left to lapse. A total of eight claims were retained; four claims over the Northwest Area, and four claims over the Southeast Area (Demers & Blanchet, 2001).

A summary of historic sampling by Eldor Resources, Unocal, and Virginia is presented in Figure 8.

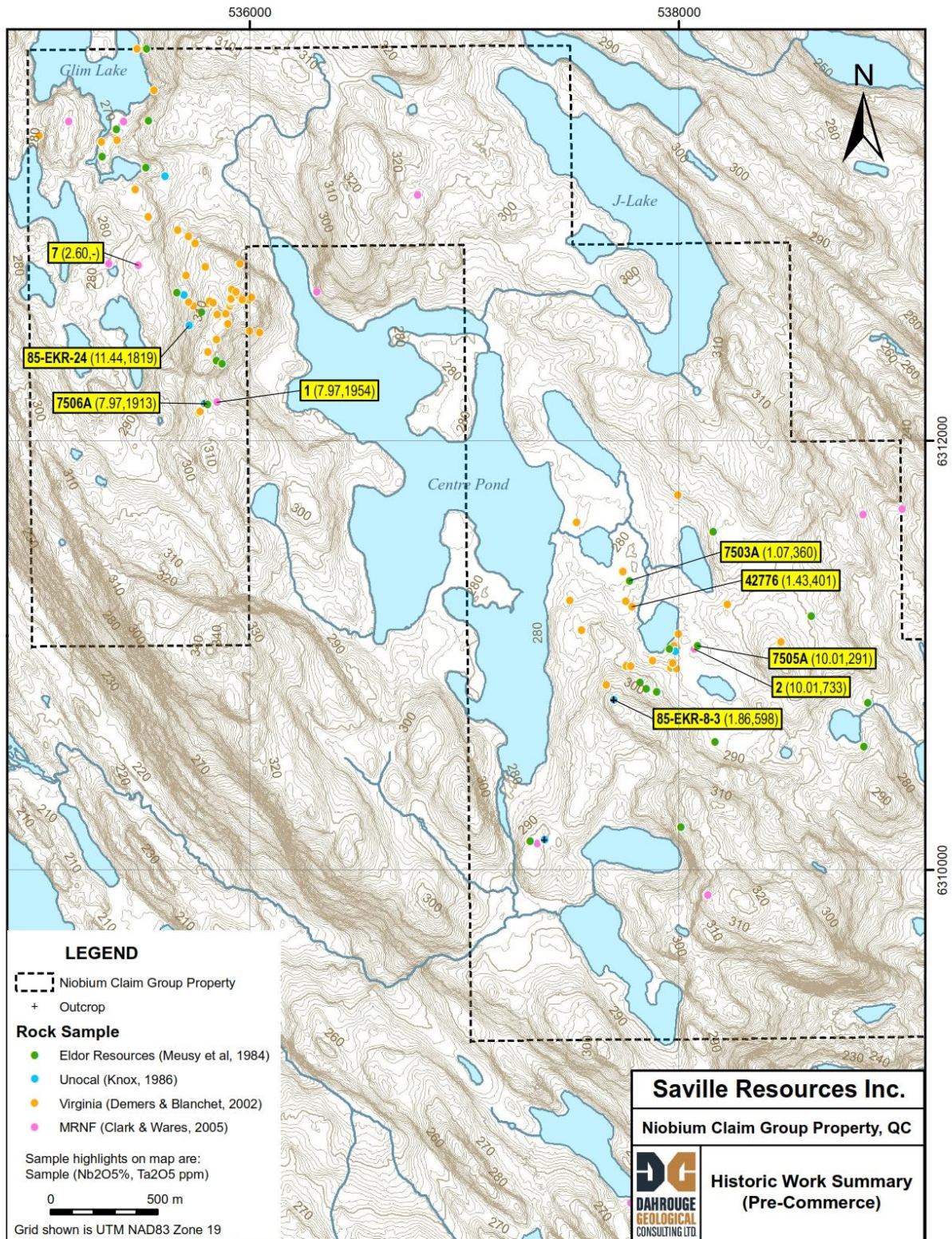


Figure 8: Historic work summary (Eldor Resources, Unocal, Virginia)

### **6.3. MINERAL EXPLORATION WORK (COMMERCE RESOURCES)**

In April of 2007, Commerce Resources Corp (“Commerce Resources”) learned, from the Author, of the high Ta values associated with the Eldor Carbonatite at a technical meeting in Calgary, AB. Commerce optioned eight claims from Virginia Mines Inc., which were originally staked in April of 2001, and subsequently staked the rest of the complex. In the months following, Commerce acquired, via map designation, an additional 357 mineral claims bringing the total land package at the time to more than 17,000 ha.

In the summer of 2007, Commerce Resources retained the services of Dahrouge Geological, to conduct mineral exploration of the property (termed “Eldor”). Dahrouge has operated each subsequent exploration program, on behalf of Commerce Resources.

The 2007 exploration of the Eldor Property consisted of prospecting and rock sampling (20 samples), soil sampling (209 samples), trenching (1) with hand tools, as well as limited ground scintillometer and magnetic surveys. This helicopter-supported ground work was based out of a small temporary camp, located west of the carbonatite, and focused on the Northwest and Southeast areas as identified from the historic work. In addition, a property-wide fixed wing aeromagnetic-radiometric-VLF-EM survey was completed by Tundra Airborne Surveys of Toronto, ON. The data from these surveys was interpreted by Abitibi Geophysics of Val-d’Or, QC. (Smith et al., 2008).

The airborne survey outlined numerous targets, as well as distinct circular magnetic highs in the Northwest and Southeast Areas. The best overall sample from the Northwest Area returned 2.35% Nb<sub>2</sub>O<sub>5</sub> and 0.136% Ta<sub>2</sub>O<sub>5</sub>, with a sample of 28.2% P<sub>2</sub>O<sub>5</sub> also collected. The highest-grade niobium sample from the Southeast Area returned 0.62% Nb<sub>2</sub>O<sub>5</sub> and 0.016% Ta<sub>2</sub>O<sub>5</sub>. A peak of 0.0383% Ta<sub>2</sub>O<sub>5</sub> and 14.7% P<sub>2</sub>O<sub>5</sub> was also returned from the area.

Exploration continued through 2008, consisting of prospecting and rock sampling (59 samples), ground geophysics, trenching (14), and diamond drilling (5,272.89 m in 25 holes). Much of this work was focused on the Northwest and Southeast areas.

The drilling program focused on the Northwest and Southeast areas with 11 holes (2,257 m) and 13 holes (2,876 m) completed, respectively, with one hole (170 m) completed at the Star Trench Area. Details of drill program and results is presented in Section 10.1: 2008 Drilling, with select highlights noted below:



Northwest Area: EC08-008 - 46.88 m grading 0.46% Nb<sub>2</sub>O<sub>5</sub>

Southeast Area: EC08-015 - 26.10 m grading 0.54% Nb<sub>2</sub>O<sub>5</sub>, including 10.64 m of 0.77% Nb<sub>2</sub>O<sub>5</sub>

EC08-015 - 25.38 m grading 281 ppm Ta<sub>2</sub>O<sub>5</sub>, 0.40% Nb<sub>2</sub>O<sub>5</sub>, and 8.8% P<sub>2</sub>O<sub>5</sub>

Star Trench Area: EC08-025 – 6.27 m grading 481 ppm Ta<sub>2</sub>O<sub>5</sub>, 0.28% Nb<sub>2</sub>O<sub>5</sub>, and 12.6 % P<sub>2</sub>O<sub>5</sub>

Significant fluor spar mineralization was also intersected in the Southeast Area, including 14.95% fluorine (~30.7% fluor spar) over 22.29 m in hole EC08-016.

The highest niobium grade from rock samples collected in 2008 in the Northwest Area exceeded detection limit at 7.15% Nb<sub>2</sub>O<sub>5</sub>, with the best overall sample returning 5.73% Nb<sub>2</sub>O<sub>5</sub> and 0.456% Ta<sub>2</sub>O<sub>5</sub> (highest Ta grade of program. Samples up to 27.6% P<sub>2</sub>O<sub>5</sub> were also collected in the Northwest Area. The highest-grade niobium sample from the Southeast Area returned 1.18% Nb<sub>2</sub>O<sub>5</sub> and 0.036 Ta<sub>2</sub>O<sub>5</sub>, and up to 19.2% P<sub>2</sub>O<sub>5</sub>.

The 2008 program by Commerce Resources is the largest exploration program to date on the Property. Overall, the program was successful in identifying significant drill intersections of niobium, tantalum, phosphate, and fluor spar mineralization on the Property.

A small surface program was completed on the Property during 2009, which included prospecting on an area of presumed REE potential near the centre of the carbonatite. Limited sampling on the Property was completed (22 rock samples), concentrated on the northern claims and east of the Star Trench Area. No significant values of niobium or tantalum were returned, although one sample returned 30.5% P<sub>2</sub>O<sub>5</sub>. Commerce Resources also completed an air photo interpretation of the area as well as a re-interpretation of the airborne data.

The niobium and tantalum occurrences were followed up in 2010 with additional prospecting and rock sampling (98 samples), where high-grade rock samples continued to be collected (up to 4.23% Nb<sub>2</sub>O<sub>5</sub>). In addition, soil surveys (134 samples), trenching (5), diamond drilling (1,885.31 m in 7 holes), and satellite image acquisition were completed. Mineralogical studies were also completed on Nb-Ta bearing samples from the Property with pyrochlore determined to be primary host mineral.

Four diamond drill holes, totalling 1,391.65 m, were completed in the Southeast Area in 2010 as follow-up to holes EC08-015 and 016. Results included, starting from surface, 0.85% Nb<sub>2</sub>O<sub>5</sub> over 19.54 m (EC10-

033) within a larger interval of 0.57% Nb<sub>2</sub>O<sub>5</sub> over 78.47 m, and with individual core samples up to 1.85% Nb<sub>2</sub>O<sub>5</sub>, as well as 329 ppm Ta<sub>2</sub>O<sub>5</sub> over 33.93 m (EC10-040). These results confirmed and extended the drill results from 2008.

An additional three drill holes, totalling 493.66 m, were completed in the Star Trench Area as follow-up to EC08-025, with similarly mineralized intervals to that of 2008 returned. However, several very high-grade Nb-Ta individual core samples were collected, including 1.50% Nb<sub>2</sub>O<sub>5</sub> and 0.181% Ta<sub>2</sub>O<sub>5</sub> over 0.52 m, and 1.69% Nb<sub>2</sub>O<sub>5</sub> and 0.222% Ta<sub>2</sub>O<sub>5</sub> over 0.31 m. These are the highest-grade tantalum values in drill core collected to date on the Property as well as the highest niobium grades to date collected from the drill core in the Star Trench Area.

In addition to the 2010 drilling, the prospecting work also found radioactive Nb-Ta boulders in what is now termed the Miranna Area, located immediately north of the Southeast Area. A ground magnetic survey was also completed over the Star Trench Area based on the observed association of Nb-Ta mineralization with magnetite in that area.

No further drilling has been done on the Property for niobium or tantalum since 2010, as Commerce Resources' focus shifted to exploration of the Ashram REE mineralization, which is situated off the Property.

From 2011 through to the present, some mineralogical work as well as surface outcrop mapping and sampling, and radioactive boulder prospecting and sampling was completed on the Property (221 rock samples). A tightly spaced soil survey was completed over much of the property in 2011 with 551 soil samples collected.

In late 2012 the Author compiled the results of radioactive boulder sampling to that date (Knox A. W., 2013). The sampling results defined a number of potential Nb-Ta-mineralized boulder trains, of which, the one in the Miranna Area was considered of the highest priority. The Miranna area was subjected to small programs of additional boulder prospecting and sampling in the years 2013, 2015, and 2017, with significant Nb-Ta values obtained from radioactive boulder sampling in each of these years. These results significantly extended the length and provide additional definition of the Miranna Area boulder train.

Interpretation of the field work suggests that several overlapping boulder trains are present in the Miranna Area, thereby indicating several bedrock potential sources, one of these potentially being the

Southeast Area. A summary of select mineralized boulders found in the Miranna Area is presented below in Table 4.

**Table 4: Select Mineralized Boulder Samples from the Miranna Area**

Sample ID	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	P <sub>2</sub> O <sub>5</sub> (%)
139977	<b>5.93</b>	310	11.5
116702	<b>4.24</b>	160	11.9
118014	<b>1.94</b>	<b>380</b>	9.9
118010	1.57	<b>1,220</b>	10.6
<b>116719</b>	1.60	<b>1,060</b>	10.3
139980	1.06	<b>1,040</b>	11.1
116718	1.04	<b>670</b>	9.1

In addition to the Miranna Target, the 2011 prospecting program produced the most highly mineralized sample obtained to date on the Property, as well as the entire Eldor Carbonatite Complex, with an assay of 16.1% Nb<sub>2</sub>O<sub>5</sub> and 0.754% Ta<sub>2</sub>O<sub>5</sub>. The boulder was collected west of the Northwest Area, near the Property border, within claim 1007883. The source of this boulder is difficult to determine as it is relatively isolated in occurrence; however, ice direction suggests a source to the southeast, probably within the complex.

The PANDS Showing was discovered in 2011, located just south of Glim Lake, on what has since been known as the PANDS Area. The area was found to host significant outcrop, which is unusual for the Property. A sample collected from outcrop in this area returned 0.41% Nb<sub>2</sub>O<sub>5</sub> and 0.066% Ta<sub>2</sub>O<sub>5</sub>, in addition to a nearby boulder sample, which returned 3.94% Nb<sub>2</sub>O<sub>5</sub> and 0.251% Ta<sub>2</sub>O<sub>5</sub>. The initial interest in the area was for its REE potential, with sample up to 3.0% REO collected; however, the Nb-Ta results have not been followed-up.

Summary interpretative maps for niobium and tantalum, with data included through 2017, are presented in Figure 11 and Figure 12. An interpretive summary map of the Miranna Target, with data inclusive through 2017, is presented in Figure 13. The ground magnetic survey completed over the Star Trench Area in 2010 is presented in Figure 14.



An airborne gravity survey (200 m line spacing) was also completed over the carbonatite complex in 2011 by Fugro Airborne Surveys Pty Ltd., with an interpretation provided by Condor Consulting Inc. Unfortunately, the survey has been of limited value.

In the fall of 2015, a PhD thesis project was initiated by Mr. Patrik Schmidt through the University of Windsor, with Dr. Iain Samson as Supervisor. This scope of this work is to understand the niobium-tantalum mineralization within the Eldor Carbonatite Complex, as well as to determine the overall emplacement and evolution of the complex itself. Data for this work has largely been obtained from drill core collected from the Northwest and Southeast areas.

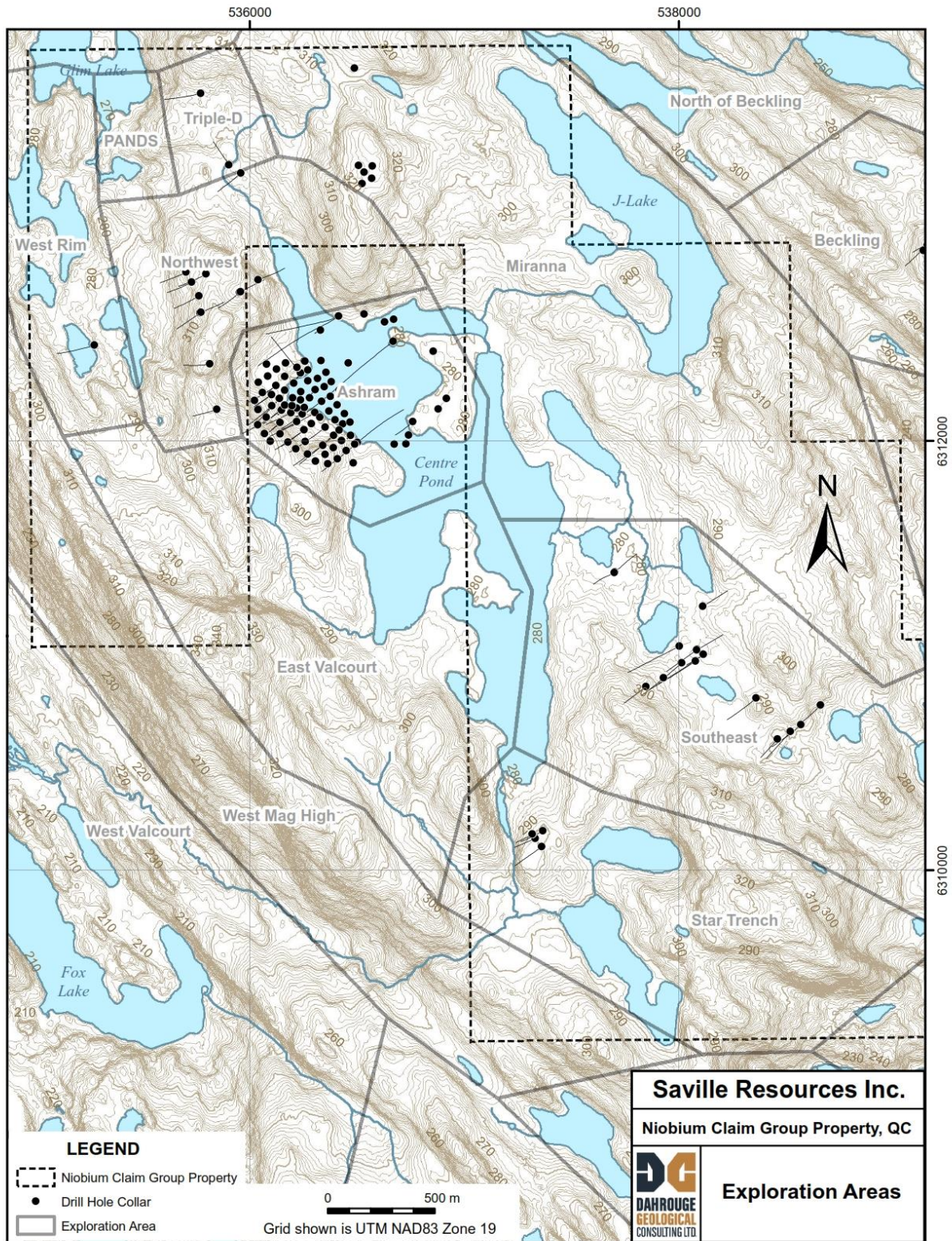


Figure 9: Historic exploration areas (Commerce Resources)



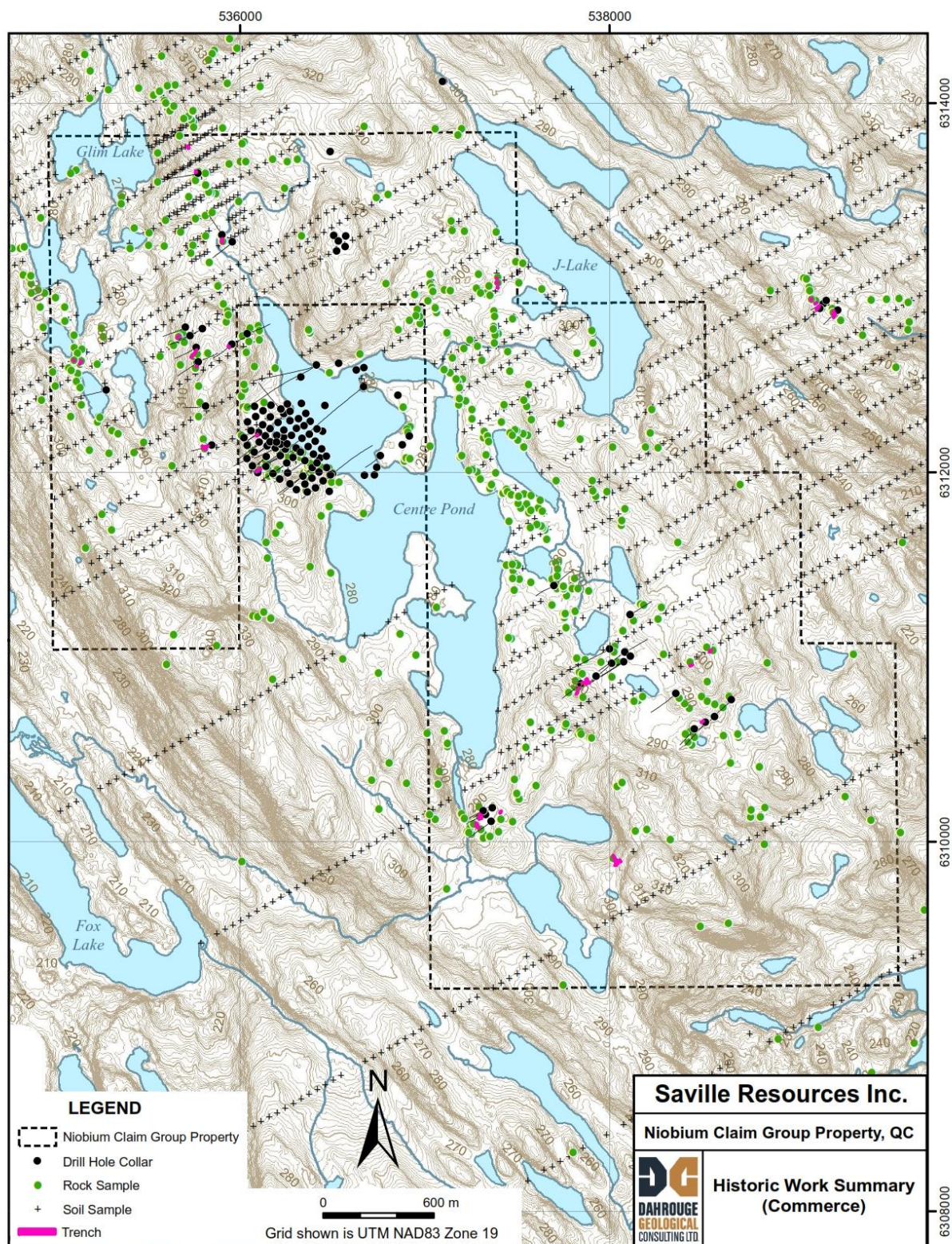


Figure 10: Historic work summary (Commerce Resources)



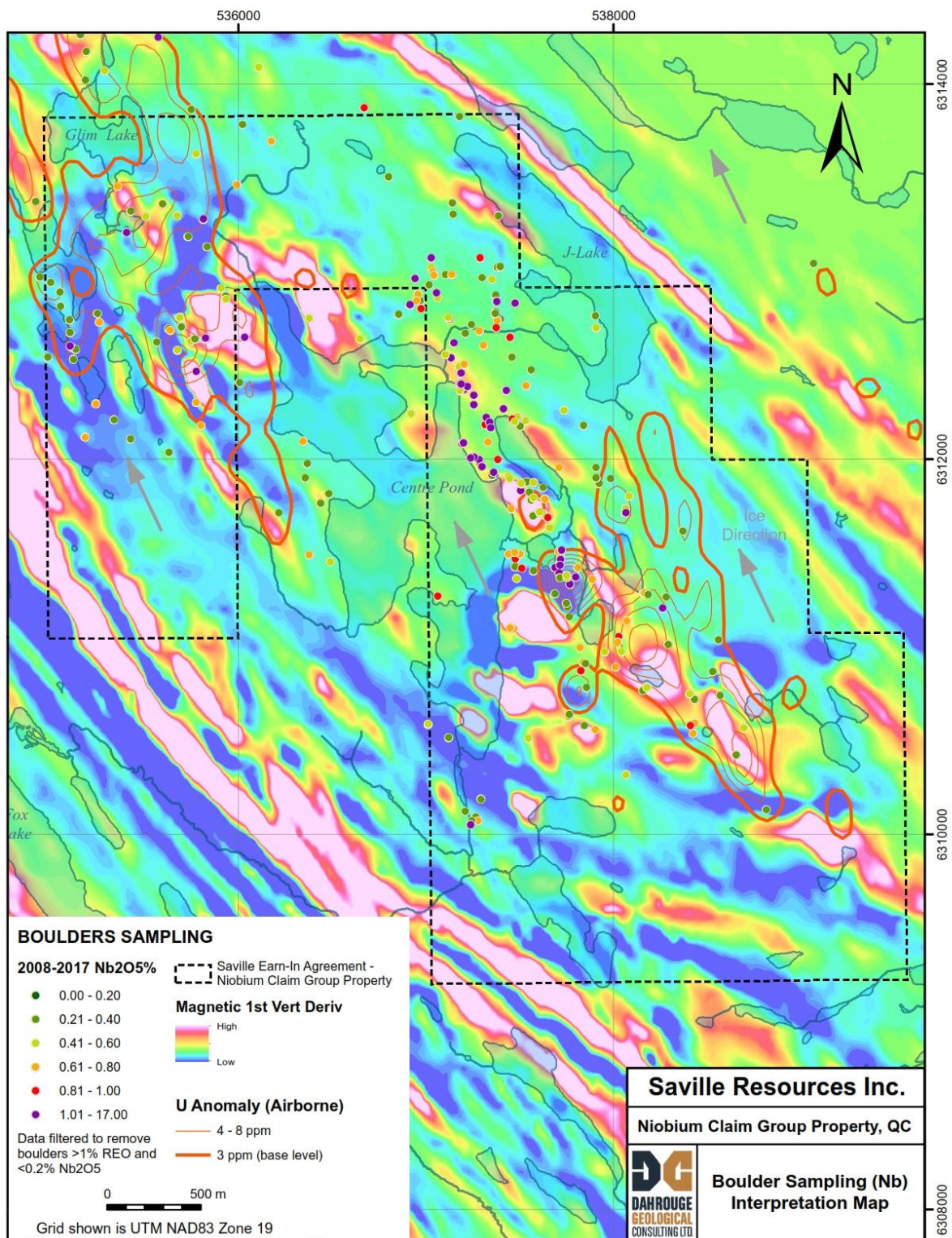


Figure 11: Niobium data summary



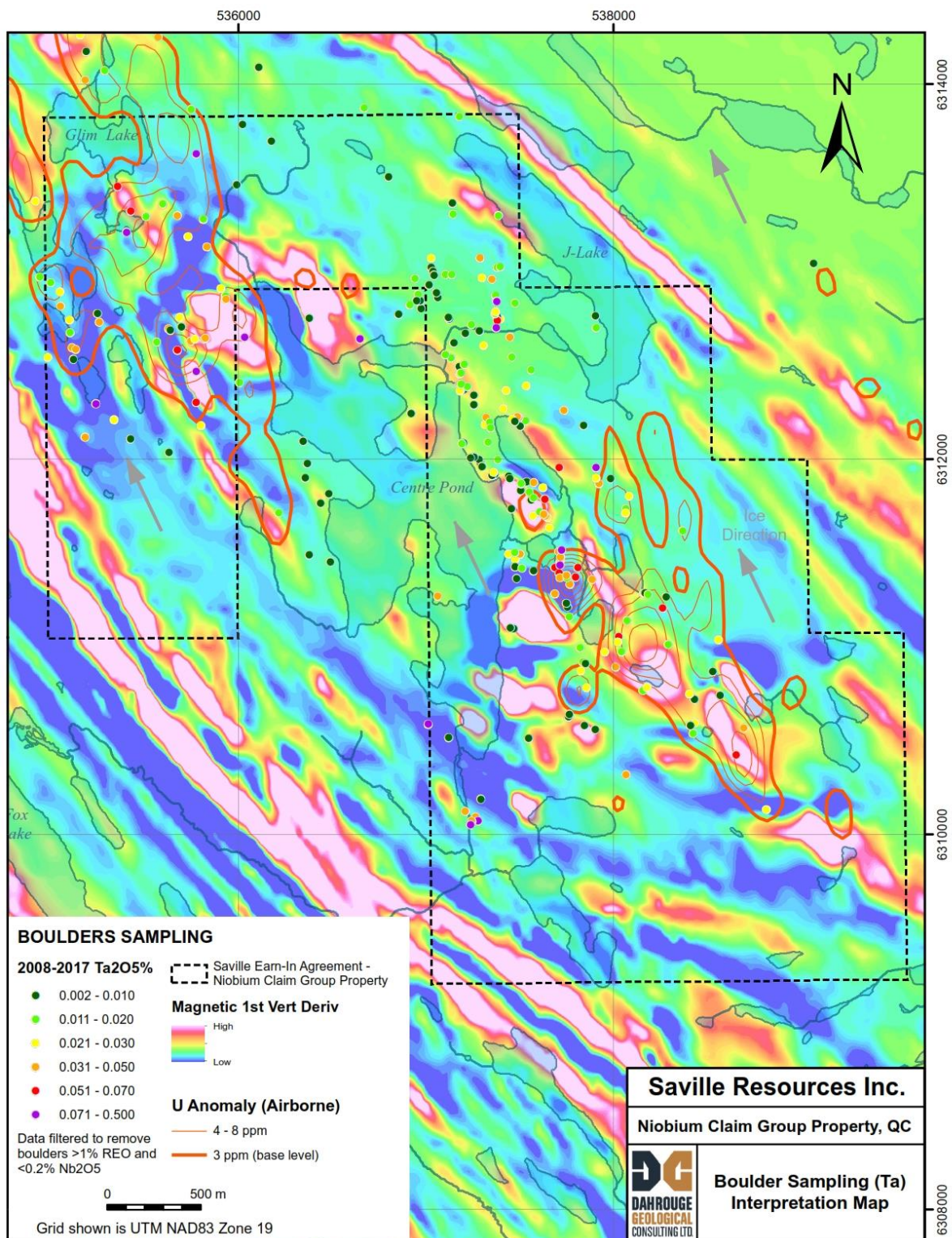


Figure 12: Tantalum data summary



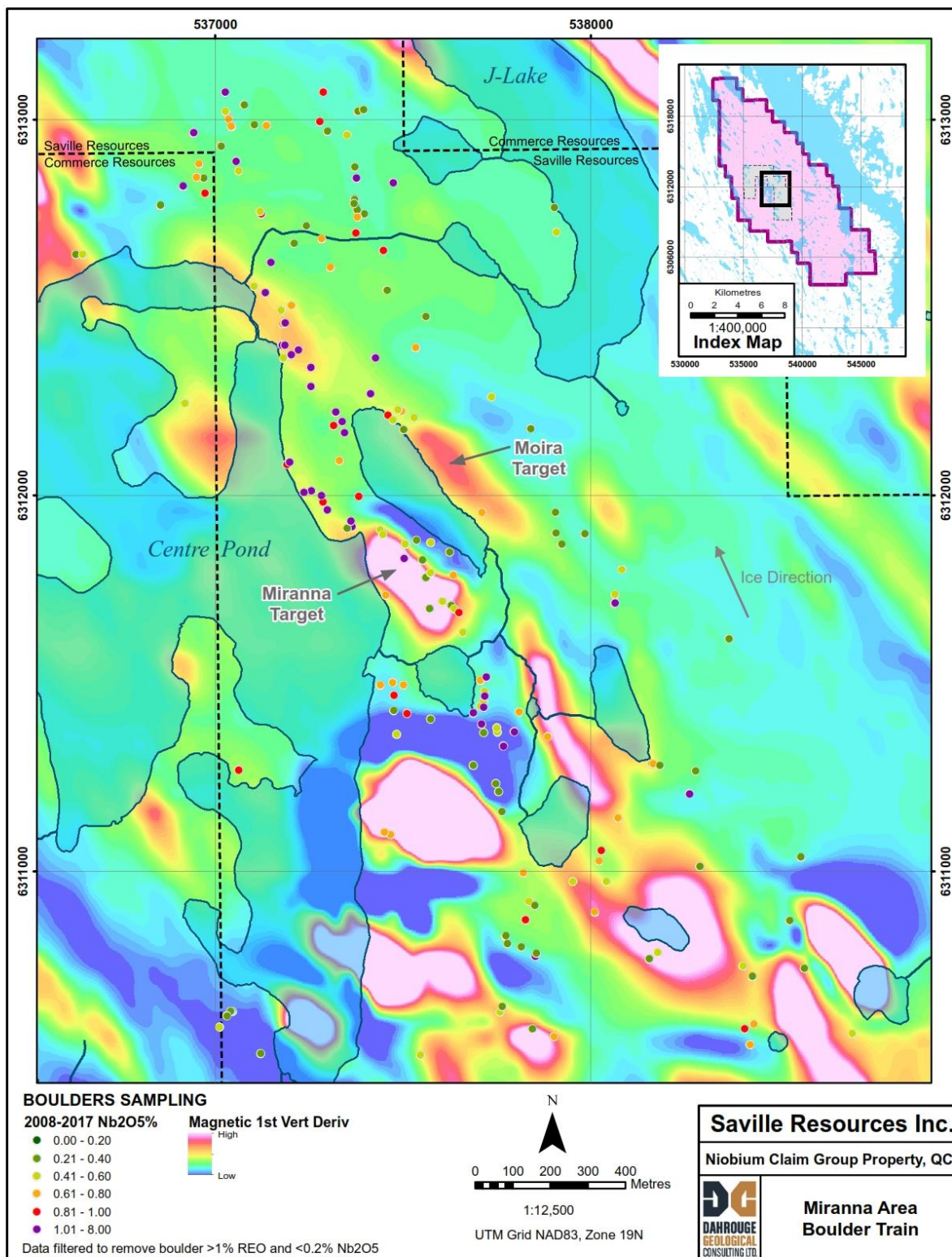
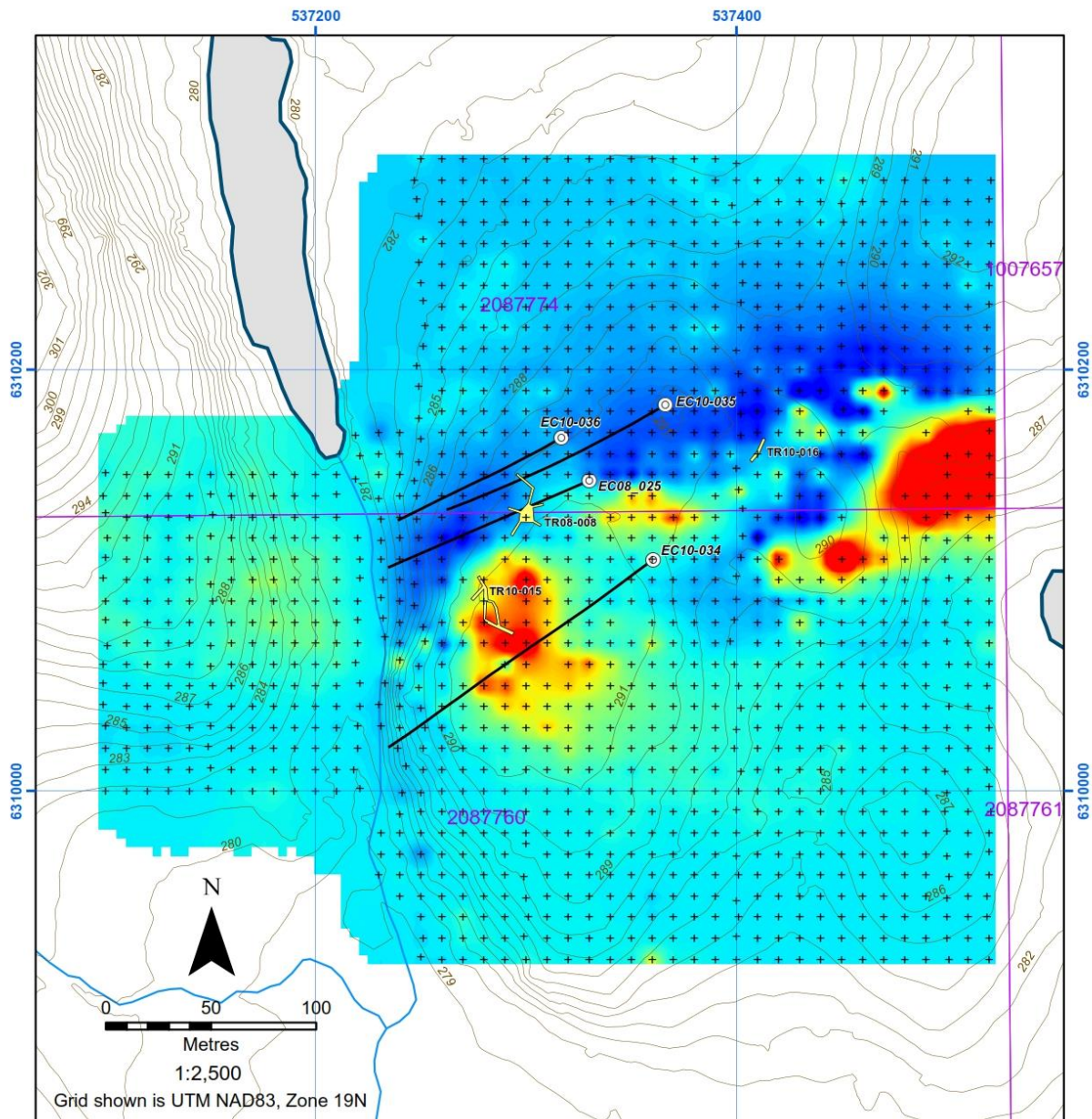


Figure 13: The Miranna Target





### LEGEND

- Mineral Title
  - Drill Hole Collar
  - Trench
  - 2017-01-27\_DD\_H\_Trace\_Non-Ashram
  - Contour (1m)
  - + Magnetometer Station
- Total Mag (nT)**  
 High : 68959  
 Low : 53785

**Saville Resources Inc.**

Niobium Claim Group Property, QC



**Ground Magnetometer  
Survey  
(Star Trench Area)**

**Figure 14: Ground magnetic survey – Star Trench Area**

## 7. GEOLOGICAL SETTING AND MINERALIZATION

The following sections consist of various excerpts, paraphrases, and adaptations from those noted in (Smith, Schmidt, & Carter, 2014) as well as that of the Author.

### 7.1. REGIONAL GEOLOGY

The Niobium Claim Group Property is situated within the Eldor Carbonatite Complex (formerly known as Lac Lemoyne carbonatite), located in the north-central portions of the New Québec Orogen (Labrador Trough). This orogen is an approximately 800 km long, NW-SE trending continental collision zone of Proterozoic age that is interpreted to be the western margin of the Southeastern Churchill Province (SECP), with the Archean Superior Province to the east, and the Proterozoic Grenville Province to the south. The orogen represents the closing of the Manikewan Ocean at approximately 1.8 Ga (Stauffer, 1984; Symons, 1998) and is part of the ~3,400 km long Circum-Superior Belt (Baragar & Scoates, 1987) that includes the Cape Smith Belt, Eastern Hudson Bay, Thompson region, Animikie Basin, and the Western interior of the Superior craton (Figure 15).

The New Quebec Orogen has three cycles of sedimentation and volcanism, which make up the Kaniupiskau Supergroup. The cycles thicken eastwards and are separated from each other by erosional unconformities. The first two cycles are volcano-sedimentary in nature with an emplacement age, via U-Pb dating, of between 2.17 and 2.14 Ga and between 1.88 and 1.87 Ga respectively. Overlying this sequence is a syn-orogenic suite of meta-sedimentary rocks that form the third cycle. The belt is subdivided into eleven lithotectonic zones separated by major thrust faults.

The first cycle of the belts formation was prompted by continental rifting, followed by passive continental margin development, further rifting, and finally the re-establishment of the platform. A period of 175 Ma years or greater followed with relatively little tectonic activity resulting in non-deposition and erosion.

The second cycle is characterized by deposition of sedimentary sandstones, etc. and turbidites within a high energy environment. During this period the central part of the trough was intruded by several tholeiitic, ultra-mafic sills known as the 'Montagnais Sills'. Near the end of this cycle, the Le Moyne Intrusion (Eldor Carbonatite) was emplaced, intruding basaltic to rhyolitic volcanic rocks. It is the only sizeable, relatively deep level carbonatite so far recognized in the area (Knox A. , 1986). There is no direct dating on the Eldor Carbonatite Complex; however, the older age constraint of the complex is thought to be  $1874 \pm 3$  Ma (Wright et al., 1998).

The third cycle occurred between 1.82 and 1.77 Ga and consisted of molasse type sedimentation on the margin of the Superior Province.

In general, metamorphic grade increases from west to east across the orogeny. The foreland passes from sub-greenschist to upper greenschist facies and the hinterland from upper greenschist, amphibolite and/or granulite facies (Clark & Wares, 2006). The carbonatite suite of rocks is interpreted to have undergone greenschist facies metamorphism.

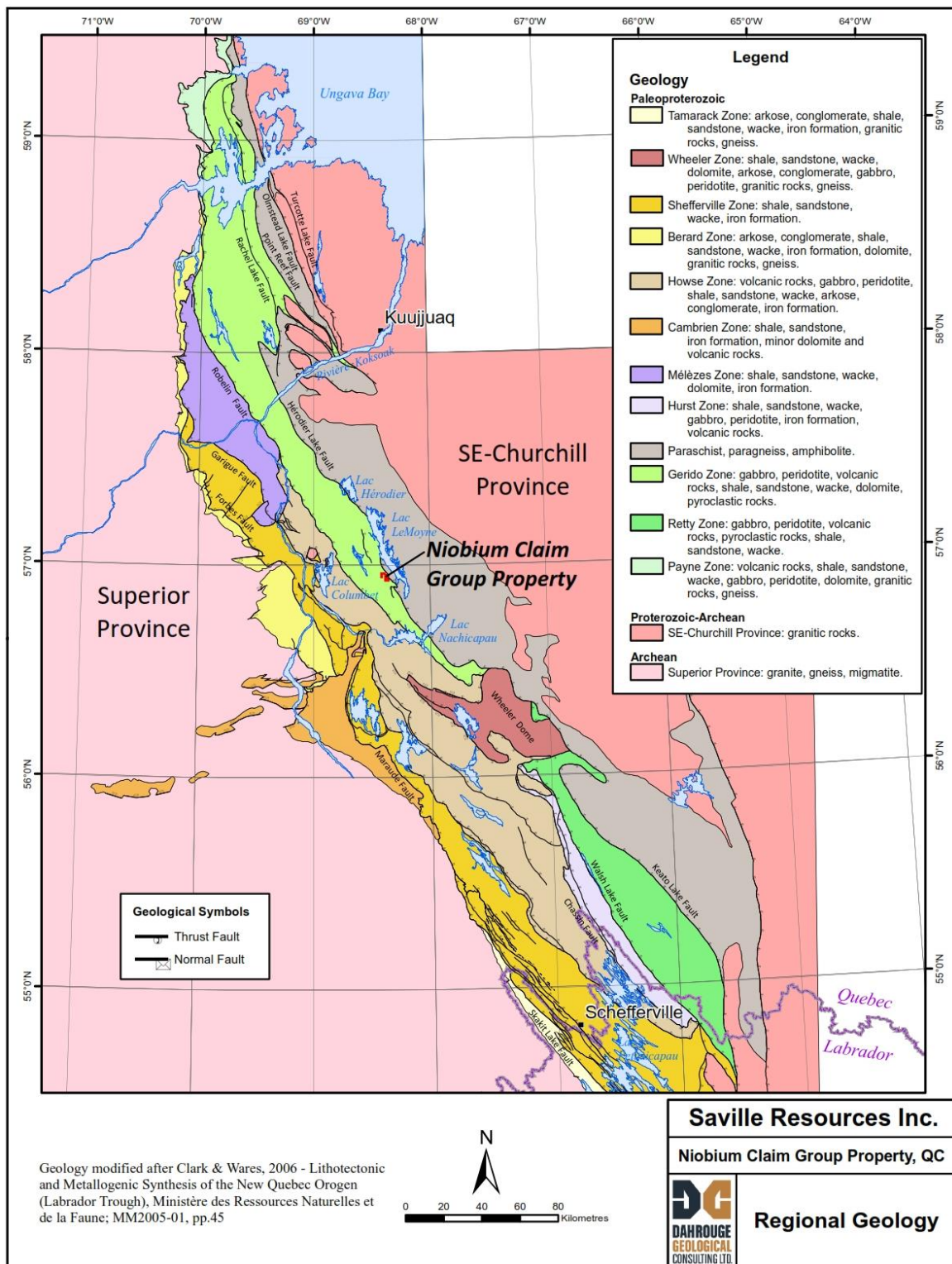


Figure 15: Regional geology



## 7.2. LOCAL AND PROPERTY GEOLOGY

The Niobium Claim Group Property is situated within the central portion of the New Quebec Orogen, straddling two lithotectonic zones that are separated by a major thrust fault. To the east is the SC Zone, comprised of Proterozoic paraschist, paragneiss, and amphibolites; to the west is the Gerido Zone, comprised of the Le Moyne Group, Doublet Group, and the Le Moyne Intrusion, also known as the Eldor Carbonatite (Figure 16). Of these units, only the Eldor Carbonatite and associated rocks (the “Eldor Carbonatite Complex”) underlie the Property.

The Doublet Group rocks are older and underlay the Le Moyne Group rocks. They consist of mafic pyroclastics, basalts, dolomites, and gabbros. The Le Moyne Group consists of volcanic and sedimentary rocks of the Douay Formation (rhyolites, rhyodacites, felsic tuffs, dolomites, shales, and pelites), the sedimentary Aulneau Formation (conglomerate, mudstones, dolomite, and dolomite tuff), and include mafic pyroclastics coeval with the Le Moyne Intrusion. Lastly, the Eldor Carbonatite (‘Le Moyne Intrusion’), a carbonatite intrusion and the youngest unit, was emplaced within the Le Moyne Group.

Historic exploration of the complex has shown it to have an elliptical shape with approximate dimensions of 7.3 km long by 3 km wide (Sherer, 1984). More recently, Clark and Wares (2006) suggested a carbonatite extent of almost double, at 15 km long by 4 km wide. Deformation at about 1.8 Ga tilted the region and resulted in a regional dip to the northeast for the carbonatite complex.

The geologic understanding of the Eldor Carbonatite has evolved over time, with several lithological subdivisions initially proposed/identified (Wright et al., 1998) and separate eruptive centres postulated (Demers & Blanchet, 2001). Simplistically, the Eldor Complex has been separated into three major divisions: early, mid, and late-stage carbonatite. The mid-stage carbonatite is most closely related to tantalum-niobium mineralization (pyrochlore, columbite) while the late-stage carbonatite crosscuts all earlier phases and is the primary host to the REE mineralization.

Recent interpretation indicates the carbonatite was emplaced in multiple intrusive stages as sills and dikes, brecciating and metasomatizing the local host rocks. The footwall to the main complex is a several hundred metre-thick, fine- to coarse-grained chlorite/biotite – K-feldspar (?) and blue amphibole (?) rock which has been previously interpreted as fenite (Schmidt, 2013). The main complex comprises multiple stages of crosscutting calcite carbonatite intrusions with phoscorite (apatite, olivine,  $\pm$ magnetite), the former being volumetrically dominant. Metasomatism has altered large portions of the outer calcite

carbonatite to dolomite carbonatite. This alteration involves the destruction of magnetite with a commensurate lowering of the total magnetic intensity. The calcite carbonatite, dolomite carbonatite (alteration unit), and phoscorite are the dominant carbonatite rock types found throughout the outer portions of the complex as well as the Property.

As final stage of complex emplacement, a REE-mineral bearing dolomite carbonatite was emplaced in the center of the complex, off the Property between the Northwest and Southeast areas. It is interpreted to be an ~500 m-wide pipe-like body of REE-rich Fe-rich dolomite – ankerite - siderite carbonatite with accessory fine-grained apatite, fluorite, and monazite, with common narrow dykes extending throughout the complex.

The carbonatite exhibits minimal weathering, mainly due to glacial scouring of the bedrock surface and the sub-arctic climate. Only a thin veil of overburden covers the complex, with fresh rock being encountered essentially at the soil-rock interface.

The entire carbonatite, and therefore the Property, is covered by glacially-derived unconsolidated material, mainly glacial till. In the Miranna Area, where the glacial deposits have been most studied, the glacial till is interpreted to have two separate till sheets. The topographically lowest is composed of locally derived, almost exclusively carbonatite boulders in a sandy matrix. This is the till sheet which is interpreted to contain all of the Nb-Ta mineralized boulders.

The second till sheet is younger and overlies the first, as well as being much farther travelled. It consists of generally well-rounded boulders with non-carbonatite compositions-granitoids, gneisses, and meta-volcanic rocks. This till has a very low radioactivity and contains no mineralized boulders. Where preserved, this upper till masks the lower one, concealing any mineralized boulders which may be present. The upper till is preserved at higher elevations and only where this till has been eroded away to expose the lower till is radiometric prospecting for Nb-Ta boulders possible. Therefore, the distribution of the mineralized boulders is distorted by the presence of the inert upper till.



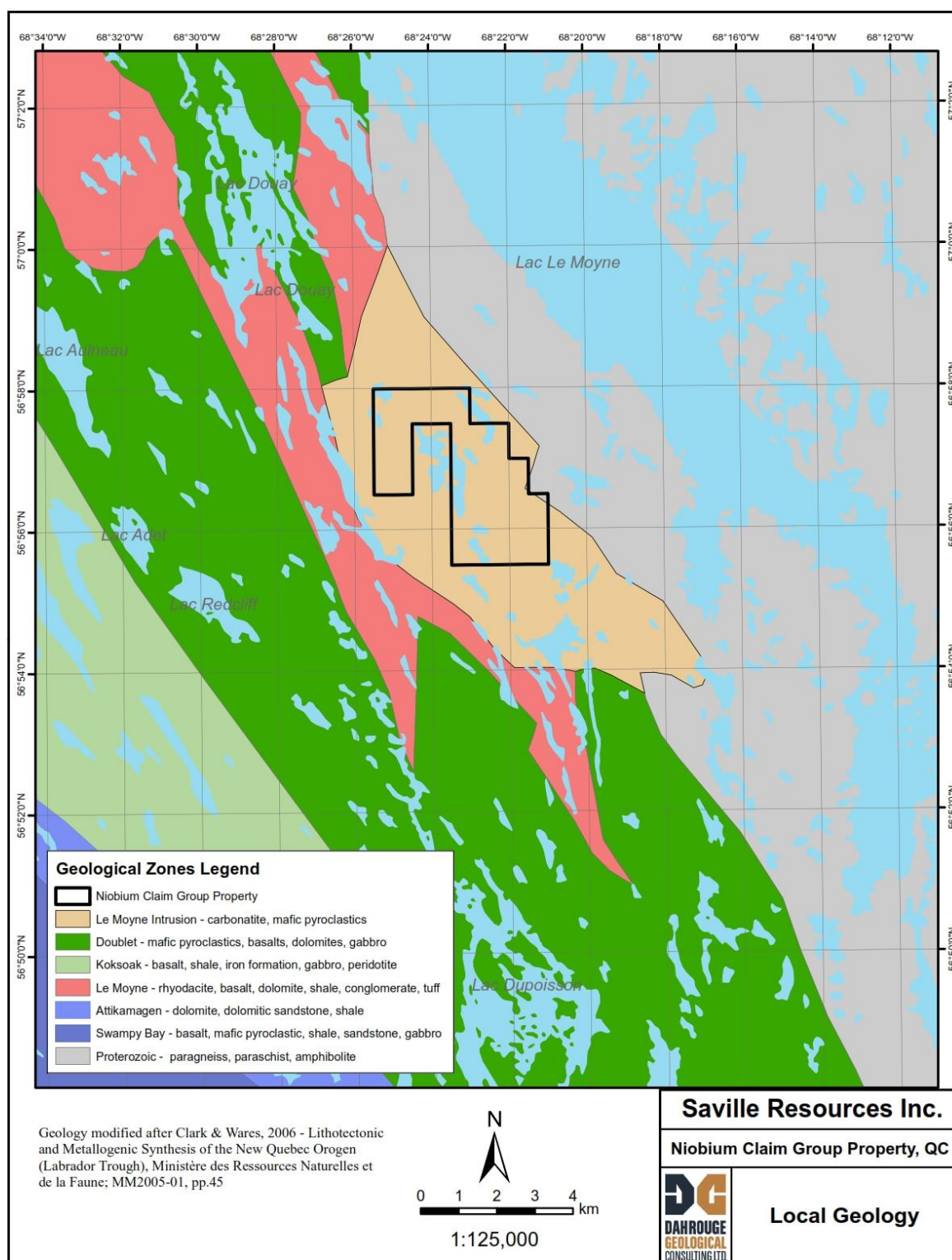


Figure 16: Local geology

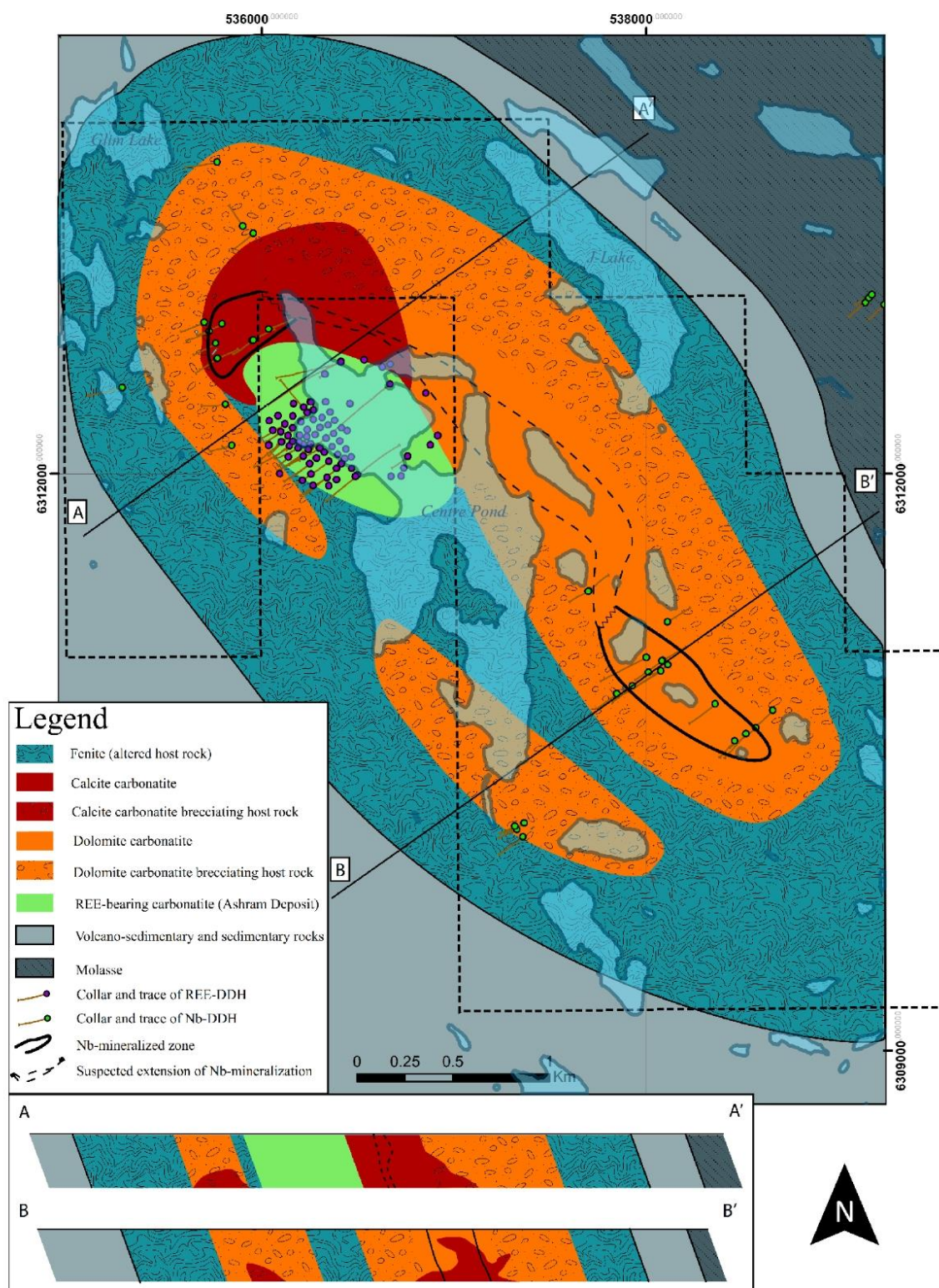


Figure 17: Property geology - Eldor Carbonatite Complex (Schmidt, Samson, & Smith, 2018)

### 7.3. PROPERTY MINERALIZATION

The primary targeted commodities of exploration on the Niobium Claim Group Property are niobium-tantalum associated with carbonatite and phoscorite. Secondary targets include phosphate (apatite) and fluorspar (fluorite), which tend to occur with the primary commodities of interest.

The relatively high niobium-tantalum values are ubiquitous throughout the carbonatite and phoscorite within the Property; however, the higher-grade occurrences of primary interest are interpreted to be present in the outer portions of the Eldor Carbonatite Complex, and have been sampled in the northwestern, eastern, and southeastern portions. These higher-grade mineralized occurrence(s) are interpreted to be northwest striking (northeast dipping), elongated lenses of phoscorite cumulates or as mutually crosscutting phoscorite - calcite carbonatite sills and dikes. In general, based on current surface, drill hole, and geophysical data, the primary prospective horizon, located in the Southeast Area, is interpreted to be up to 1 km in length and several 100 m in width. However, this mineralized occurrence remains poorly delineated with a significant amount of drilling required to better understand continuity and controls on the mineralization (Figure 17).

On the Property, the niobium and tantalum in the primary carbonatite and phoscorite is dominantly hosted by pyrochlore-group minerals, while in the altered carbonatite and phoscorite is dominantly hosted by columbite-(Fe) and niobaeschynite-(Ce). Magnetite, and apatite are the most common accessory minerals associated with the pyrochlore-group minerals, while apatite, fluorite, and pyrite are the most common accessory minerals associated with columbite-(Fe) and niobaeschynite-(Ce). The Nb-Ta bearing mineral grains are typically euhedral and variable size from tens of  $\mu\text{m}$  up to  $\sim 1$  cm, with the majority visible to the naked eye.

The historic focus and majority of the mineralization sampled on the Property has been collected from the Northwest and Southeast areas, where common and sub-circular magnetic high anomalies are concentrated. These magnetic highs may be caused by magnetite-bearing calcite carbonatite and phoscorite, which are exposed in the Northwest Area for example, or as deeply seeded calcite carbonatite typically overlain by dolomite carbonatite. The dolomite carbonatite is interpreted to have formed through alteration processes, whereby the magnetite is destroyed causing the total magnetic intensity of the host rock to be diminished. This process is evident in the Southeast Area, highlighted by EC08-021, where many drill holes encounter a cover of dolomite carbonatite and a root of calcite carbonatite (Figure 17).



## 8. DEPOSIT TYPE

The target deposit type at the Property is a Nb-Ta-Phosphate enriched carbonatite  $\pm$  fluorite, hosted within certain phases of the Eldor Carbonatite Complex. At Eldor, the mineralized zones of interest are concentrated in the outer parts of the complex and occur in sills and dikes of crosscutting earlier primary carbonatite. These zones have been interpreted on the Property to dominantly strike to the northwest and dip moderately to steeply to the northwest.

Through 2008, there have been 527 documented carbonatites globally (Woolley & Kjarsgaard, 2008), of which, numerous have attained production for a variety of commodities. These include rare earth elements (REEs), niobium, iron, copper, apatite, and fluorite (Schulz, K. J.; Piatak, N. M.; Papp, J. F., 2017). Moreover, the dominant source of REEs and niobium in the world is from carbonatite deposits. Therefore, carbonatites are well-regarded as an excellent target for mineral exploration, especially for niobium, which is of primary interest to the Company.

Carbonatites are defined as igneous or carbohydrothermal rocks that contain more than 50% (by volume) carbonate minerals, such as calcite, dolomite, ankerite, siderite, etc. (Le Maitre R.W., 2002; Mitchell R.H., 2005). Carbohydrothermal carbonatites are associated with diverse potassic or sodic peralkaline silica-saturated to undersaturated silicate magmas derived predominantly from metasomatized lithospheric mantle, as well as REE-carbonate-rich rocks of undetermined genesis.

Primary carbonatites are mantle derived igneous rocks for which three formation mechanisms are recognized from a mantle-derived melt: i) directly from partial melting of fertile mantle (Harmer & Gittens, 1998), ii) liquid immiscibility of a CO<sub>2</sub>-silicate melt (Kjarsgaard & Hamilton, 1989) and, iii) crystal fractionation of CO<sub>2</sub>-rich alkaline silicate magma (Lee & Wylie, 1994). They are most commonly formed in extensional settings like intracratonic rifts or post-orogenic extensional settings (Woolley & Kjarsgaard, 2008).

As carbonatite magma typically has a low viscosity, due to the scarcity of SiO<sub>4</sub>-tetrahedrons and high amount of volatiles, it ascends rapidly and fractures the crust on impact, causing extensive brecciation as well as extensive Na- and K-metasomatism in the host rocks (finitization). Carbonatites are typically emplaced as dike and sill structures or as pipes, and typically occurs in multiple phases. Due to crystal fractionation, carbonatites generally evolve from early calcite-rich carbonatites to mid magnesium-rich dolomite carbonatites to late iron-rich carbonatites. Therefore, based on their chemical composition,

carbonatites are commonly classified as either calcio-, magnesio- or ferro-carbonatites. The early to middle stages, dominated by calcite and dolomite carbonatites are typically considered the most prospective for Nb-Ta mineralization (Simandl, 2015).

Global examples of carbonatite hosted niobium deposits include the operating Niobec Mine within the Saint-Honoré Carbonatite, Canada, the past producing St. Lawrence Mine within the Oka Carbonatite, Canada, and the Crown Deposit within the Mount Weld Carbonatite, Australia. The global niobium market is almost entirely supplied by two carbonatite hosted mines; predominantly the Araxa Mine in Brazil, and to a lesser extent the Niobec Mine in Canada.



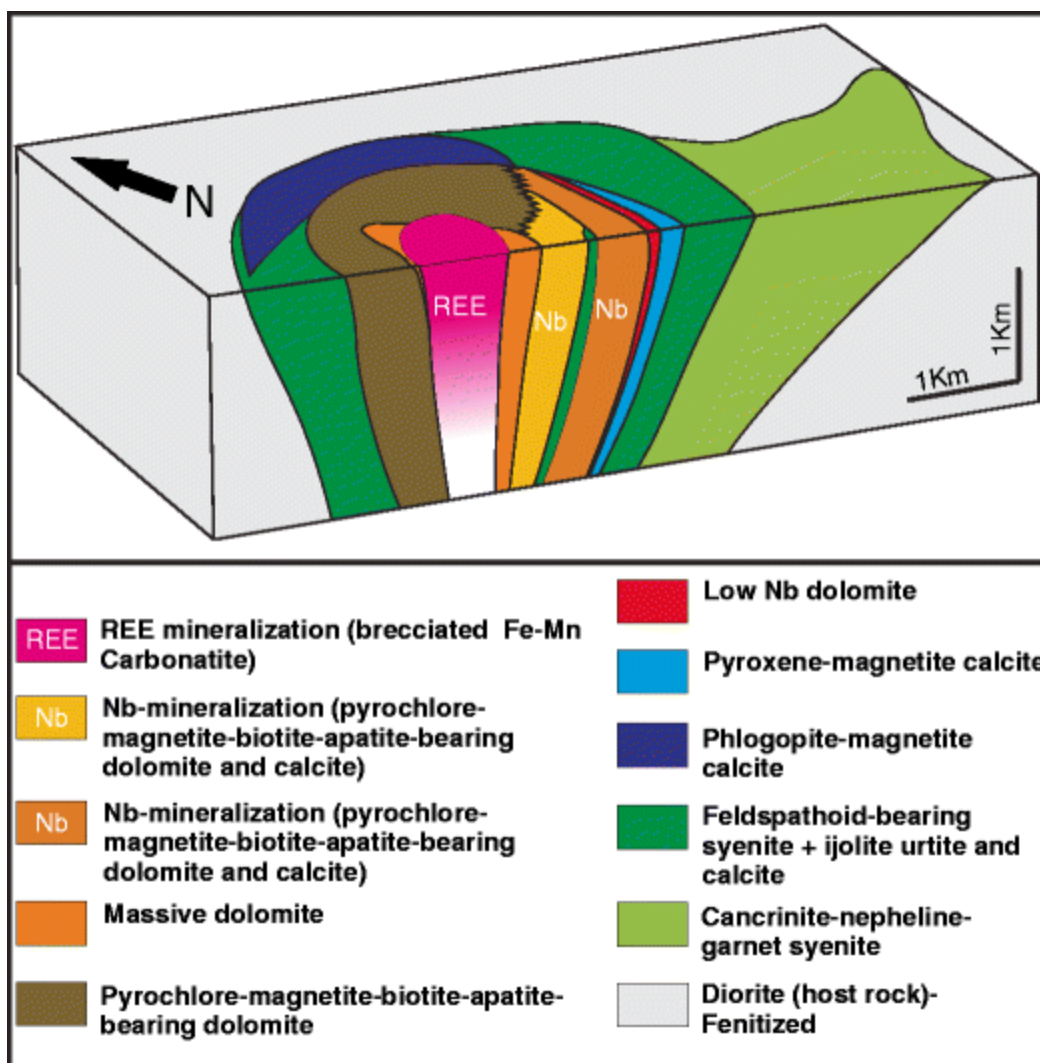


Figure 18: Cross-section of the St Honoré carbonatite, Canada (Simandl & Mackay, 2014)

## **9. EXPLORATION**

This report is a compilation and evaluation of historic exploration on the Property. As of the effective date of this report, Saville Resources has not completed exploration work on the Property.

Historic ground exploration completed on the Property is summarized in Section 6: History, while historic drilling is summarized in Section 10: Drilling

## 10. DRILLING

No drilling has been completed by the Company on the Property. This drilling summary is a compilation and evaluation of diamond drilling, which was completed in 2008, 2010, 2011, and 2015 by Commerce Resources, on the Niobium Claim Group Property. This compilation and summary is presented in the context of this Technical Report to verify and present, in sufficient detail, the primary data set for the Property.

The Author was present on-site for portions of the 2008, 2011, and 2015 drill programs, which included geological logging of numerous holes, and is therefore familiar with the QAQC and sampling procedures as outlined in Section 11 Sample Preparation, Analyses, and Security. The Author is not aware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results presented herein.

A total of 41 diamond drill holes, totalling 8,175.30 metres, have been completed on the Niobium Claim Group Property, primarily testing niobium and tantalum targets as developed from historic work (Table 5 and Figure 19). The drill holes were completed over several programs (2008, 2010, 2011, and 2015), and were managed by Dahrouge Geological, on behalf of Commerce Resources. Each program was helicopter supported out of a temporary camp located at the south end of Fox Lake (2008 and 2011), which was later upgraded and relocated to what is now the present-day Camp Valcourt (2011, and 2015). No other drill holes have been completed on the Property. Drill hole locations are presented in Figure 19 with program summaries and drill hole attributes presented in Table 5 and Table 6, respectively.

All drill core is under long-term storage (cross-stacked outside) at Camp Valcourt, located off the Property on claims registered to Commerce Resources. All remaining analytical reject and pulp material is currently in secure, sheltered, storage in Edmonton, Alberta with access limited to Commerce Resources, Dahrouge Geological, and the owner of the building.

**Table 5: Drill holes completed on the Property**

Year	Core Size	Number of Drill Holes Completed	Total Meterage (m)
2008	BTW	25	5,272.89
2010	BTW	7	1,885.31
2011	BTW	3	716.03
2015	NQ	6	301.07
		<b>41</b>	<b>8,175.30</b>



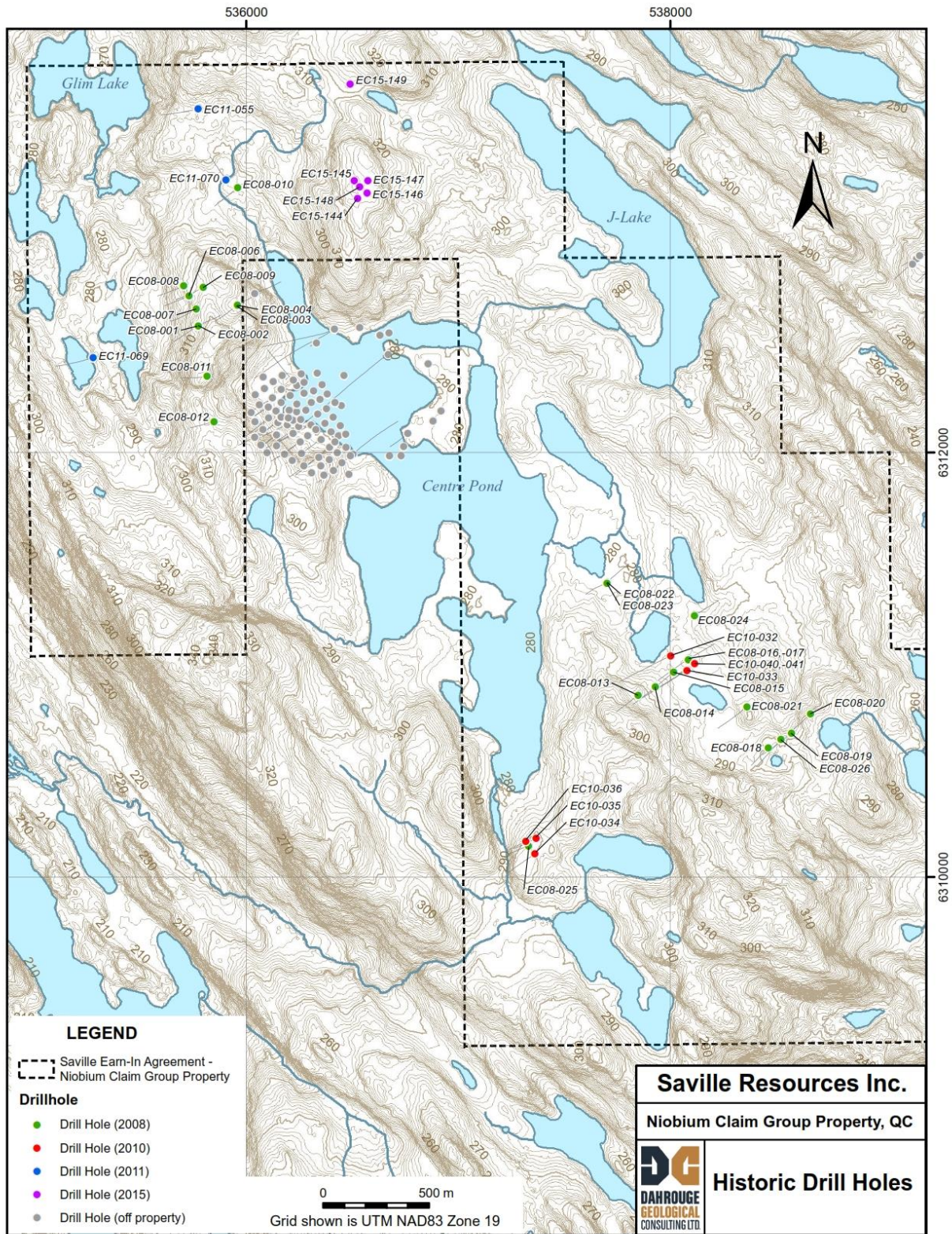


Figure 19: Historic diamond drill holes



Table 6: Drill hole attributes

Year	Company	Drill Hole ID	Exploration Area	Target	Claim Collared	Easting	Northing	Azi (°)	Dip (°)	Total Depth (m)
2008	Commerce Resources	EC08-001	Northwest	Nb, Ta	1007661	535769	6312595	240	-55	239.88
2008	Commerce Resources	EC08-002	Northwest	Nb, Ta	1007661	535773	6312598	60	-55	204.40
2008	Commerce Resources	EC08-003	Northwest	Nb, Ta	1007661	535953	6312691	240	-55	201.47
2008	Commerce Resources	EC08-004	Northwest	Nb, Ta	1007661	535957	6312694	60	-50	200.25
2008	Commerce Resources	EC08-006	Northwest	Nb, Ta	1007661	535729	6312739	240	-50	198.30
2008	Commerce Resources	EC08-007	Northwest	Nb, Ta	1007661	535763	6312675	240	-50	202.95
2008	Commerce Resources	EC08-008	Northwest	Nb, Ta	1007661	535704	6312785	240	-50	204.22
2008	Commerce Resources	EC08-009	Northwest	Nb, Ta	1007661	535796	6312777	240	-50	220.98
2008	Commerce Resources	EC08-010	Northwest	Nb, Ta	1007890	535959	6313247	240	-50	200.60
2008	Commerce Resources	EC08-011	Northwest	Nb, Ta	1007661	535815	6312359	260	-50	201.40
2008	Commerce Resources	EC08-012	Northwest	Nb, Ta	1007661	535847	6312146	260	-50	182.27
2008	Commerce Resources	EC08-013	Southeast	Nb, Ta	1007657	537846	6310855	230	-50	201.09
2008	Commerce Resources	EC08-014	Southeast	Nb, Ta	1007657	537928	6310896	230	-50	203.63
2008	Commerce Resources	EC08-015	Southeast	Nb, Ta	1007657	538013	6310966	230	-50	203.30
2008	Commerce Resources	EC08-016	Southeast	Nb, Ta	1007658	538086	6311029	235	-50	275.14
2008	Commerce Resources	EC08-017	Southeast	Nb, Ta	1007658	538083	6311025	60	-50	215.10
2008	Commerce Resources	EC08-018	Southeast	Nb, Ta	1007658	538460	6310610	240	-50	185.10
2008	Commerce Resources	EC08-019	Southeast	Nb, Ta	2087775	538569	6310678	220	-50	271.65
2008	Commerce Resources	EC08-020	Southeast	Nb, Ta	2087775	538660	6310769	218	-50	180.51
2008	Commerce Resources	EC08-021	Southeast	Nb, Ta	1007658	538360	6310802	259	-50	266.80
2008	Commerce Resources	EC08-022	Southeast	Nb, Ta	1007659	537702	6311388	60	-50	197.00
2008	Commerce Resources	EC08-023	Southeast	Nb, Ta	1007659	537700	6311386	240	-50	173.00
2008	Commerce Resources	EC08-024	Southeast	Nb, Ta	1007660	538112	6311229	235	-50	222.85
2008	Commerce Resources	EC08-025	Star Trench	Nb, Ta	2087774	537330	6310147	250	-50	170.00
2008	Commerce Resources	EC08-026	Southeast	Nb, Ta	1007658	538520	6310646	220	-50	251.00
2010	Commerce Resources	EC10-032	Southeast	Nb, Ta	1007657	538002	6311043	235	-45	349.80
2010	Commerce Resources	EC10-033	Southeast	Nb, Ta	1007658	538077	6310973	235	-45	353.10
2010	Commerce Resources	EC10-034	Star Trench	Nb, Ta	2087760	537360	6310110	230	-45	210.30
2010	Commerce Resources	EC10-035	Star Trench	Nb, Ta	2087774	537366	6310183	240	-45	163.36
2010	Commerce Resources	EC10-036	Star Trench	Nb, Ta	2087774	537317	6310168	240	-45	120.00
2010	Commerce Resources	EC10-040	Southeast	Nb, Ta	1007658	538114	6311004	230	-45	344.40
2010	Commerce Resources	EC10-041	Southeast	Nb, Ta	1007658	538114	6311005	230	-75	344.35
2011	Commerce Resources	EC11-055	Triple D	REE	1007890	535772	6313618	252	-50	289.26
2011	Commerce Resources	EC11-069	West Rim	REE	1007883	535276	6312446	245	-45	241.71
2011	Commerce Resources	EC11-070	Triple D	REE	1007890	535903	6313285	320	-45	185.06
2015	Commerce Resources	EC15-144	Miranna	Condemnation	2087799	536528	6313197	-	-90	142.65
2015	Commerce Resources	EC15-145	Miranna	Geotechnical	2087799	536508	6313280	-	-90	20.44
2015	Commerce Resources	EC15-146	Miranna	Geotechnical	2087799	536574	6313225	-	-90	23.77
2015	Commerce Resources	EC15-147	Miranna	Geotechnical	2087799	536575	6313280	-	-90	21.03
2015	Commerce Resources	EC15-148	Miranna	Geotechnical	2087799	536535	6313250	-	-90	36.27
2015	Commerce Resources	EC15-149	Miranna	Condemnation	2087799	536487	6313733	-	-90	56.91

(1) Drill hole EC08-003 was collared on the Property; however, its subsurface trace extends off the Property

(2) Azimuth (Azi) and Dip of drill holes is noted as was spotted

(3) UTM Grid – NAD83, Zone 19

Downhole orientation survey for the 2008 and 2010 holes was completed using single shots with a Flexit SingleSmart/MultiSmart tool. The tool is considered sufficient for the purposes required. However, downhole orientation surveys for drill holes EC08-015 and 016 were not completed due to equipment malfunction. This is unfortunate as those were two of the best holes completed in the Southeast Area in 2008.



### 10.1. 2008 DRILLING

Superior Diamond Drilling Ltd., based out of Peachland, BC, was contracted for the 2008 drill work, on behalf of Commerce Resources, and used a helicopter-portable Discovery One drill built by Multi Power in Kelowna, BC. A total of 25 BTW diamond drill holes, totalling 5,273 m, were completed and focused on the Northwest and Southeast areas where historic work had identified significant surface mineralization in niobium and tantalum. One hole was also completed to test a Nb-Ta target in the Star Trench Area, located west of the Southeast Area.

The drill core was transported back to the camp by helicopter, where it was geologically logged and marked for sampling by a geologist. Sampling was primarily guided by lithology, with individual sample lengths ranging from 0.19 to 3.24 m, with an average sample length of 1.15 m. Drill core was saw-cut in half with one-half collected for analysis, and the other half remaining in the core box for reference. The QAQC program included regular, although not systematic, insertion of quartz blanks, internal standard reference material, and quarter-core duplicates, as well as check analysis at a secondary lab (Tech-Cominco Global Discovery Labs, and Activation Laboratories Ltd.).

Individual split drill core samples were packed into pails and flown on chartered fixed-wing back-hauls to Kuujuaq, and then by air via First Air Cargo to Montreal. The samples were transferred to a ground shipping company and shipped to Acme Analytical Laboratories Ltd. (Acme Labs) located in Vancouver, BC, for analysis. Analysis included whole rock major and trace element by ICP-MS (Group 4A/4B package), with part of holes EC08-015 and 016 also analyzed for fluorine (package Group 8F).

All three areas (Northwest, Southeast, and Star Trench) returned encouraging mineralized intercepts of niobium and tantalum, with the Southeast Area interpreted to have demonstrated the best potential, highlighted by EC08-015 where the final sample, marking the bottom of the hole, returned 1.21% Nb<sub>2</sub>O<sub>5</sub> and 440 ppm Ta<sub>2</sub>O<sub>5</sub> (over 0.73 m). Drill hole EC058-015 also returned the highest-grade drill core sample of the program at 1.81% Nb<sub>2</sub>O<sub>5</sub> (over 1.25 m) within a broader high-grade interval of 0.97% Nb<sub>2</sub>O<sub>5</sub> over 6.32 m. Encouraging intervals of tantalum and phosphate were also returned, as well as in association with niobium. Select niobium-tantalum mineralized intervals are presented below in Table 7.

The Star Trench Area hole (EC08-025), the only hole completed in this area, returned the five strongest individual tantalum mineralized samples of the program with a peak sample of 864 ppm Ta<sub>2</sub>O<sub>5</sub>. Although strong tantalum and phosphate mineralization was returned in drill core from the Star Trench Area, the

intervals were relatively narrow (<8 m) accompanied by only moderate niobium mineralization when compared to that of the Southeast Area.

**Table 7: Select 2008 niobium-tantalum mineralized intercepts**

Exploration Area	DDH ID	From (m)	To (m)	Interval (m)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	P <sub>2</sub> O <sub>5</sub> (%)
Northwest	EC08-002	0.90	6.22	5.32	0.25	212	3.4
	EC08-006	63.39	76.54	13.15	0.56	166	5.0
	EC08-007	66.54	71.30	4.76	0.59	304	6.6
	EC08-008	30.65	77.53	46.88	0.46	67	4.6
	Incl.	65.57	77.53	11.96	0.61	32	5.6
	EC08-011	9.74	18.58	8.84	0.34	204	5.7
Southeast	EC08-015	165.96	171.68	5.72	0.34	431	11.0
		177.20	203.30	26.10	0.54	71	5.9
	Incl.	177.20	187.84	10.64	0.77	77	8.4
	Or	177.20	183.52	6.32	0.97	62	10.4
	EC08-016	138.50	163.89	25.38	0.40	281	8.8
		193.44	197.93	4.49	0.67	130	8.4
		244.03	267.91	23.89	0.49	206	8.6
	EC08-019	190.90	200.10	9.20	0.24	259	4.9
		224.74	266.05	41.31	0.34	226	5.9
	Incl.	232.07	237.29	5.23	0.46	323	5.7
	EC08-021	195.74	204.56	8.82	0.60	214	5.3
	EC08-022	27.13	50.42	23.29	0.47	62	9.1
	EC08-026	24.43	38.66	14.23	0.48	43	3.8
Star Trench	EC08-025	15.50	23.32	7.82	0.23	454	10.0
	Incl.	20.25	23.32	3.07	0.31	597	15.4
		42.10	48.37	6.27	0.28	481	12.6
	Incl.	44.59	48.37	3.78	0.31	632	17.1

(1) True widths not known

In addition to the niobium, tantalum, and phosphate mineralization encountered in the Southeast Area, several well-mineralized fluorite intercepts were returned from holes EC08-015 and 016 and are presented in Table 8 and Figure 21. Only the two intercepts in holes EC08-015 and 016 were analyzed for fluorine and were guided by visual modal estimations of fluorite content.

**Table 8: Select 2008 fluorite mineralized intercepts**

Exploration Area	DDH ID	From (m)	To (m)	Interval (m)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	P <sub>2</sub> O <sub>5</sub> (%)	CaF <sub>2</sub> (%)
Southeast	EC08-015	187.84	201.62	13.78	0.34	49	4.3	33.0
	EC08-016	202.38	223.17	20.79	0.32	105	5.0	31.6

(1) True widths not known

(2) CaF<sub>2</sub> calculated from fluorine assay using conversion factor of 2.055

The fluorite, also known as fluorspar, is purple in colour and is massive to interfingering with the carbonatite host unit, and therefore, the intervals also contain moderate grades of niobium, tantalum, and phosphate. The intervals are encouraging and indicate potential for a fluorite body of significance to be present.

All mineralized intercepts reported reflect apparent thickness, as true thickness is not known. The orientation of the mineralization is poorly constrained although more recent interpretation, based on the 2008 and 2010 drill data as well as subsequent work, indicate a strike to the northwest with a moderate to steep dip to the northeast (Figure 17). As such, several drill holes during the 2008 program may have been completed down-dip to some extent (EC08-002, 004, 017, and 022) as that was the first drill program in the area and the exploration model was not as refined at the time. No detailed modelling of the mineralization has been completed, thus, limiting the ability to correlate between drill holes and interpret the overall mineralized trend. Several cross-sections of the mineralized intervals are presented in Figure 20, Figure 21, Figure 22, and Figure 23.

Additional sampling of the 2008 core was completed in 2009 and 2010 to infill certain interval gaps not initially sampled in 2008. This additional sampling was completed to ensure no unexpected mineralized carbonatite intervals were missed. The infill sampling returned several samples  $>0.5\%$  Nb<sub>2</sub>O<sub>5</sub> (peak of  $0.79\%$  Nb<sub>2</sub>O<sub>5</sub>), as well as several samples  $>200$  ppm Ta<sub>2</sub>O<sub>5</sub> (peak of  $250$  ppm Ta<sub>2</sub>O<sub>5</sub>). Following the infill sampling, it was recommended that a more refined sampling approach of the carbonatite be adopted until the lithological characteristics of the mineralized horizons were better understood. This refined approach was incorporated into the 2010 drill program for the holes completed on the Property.

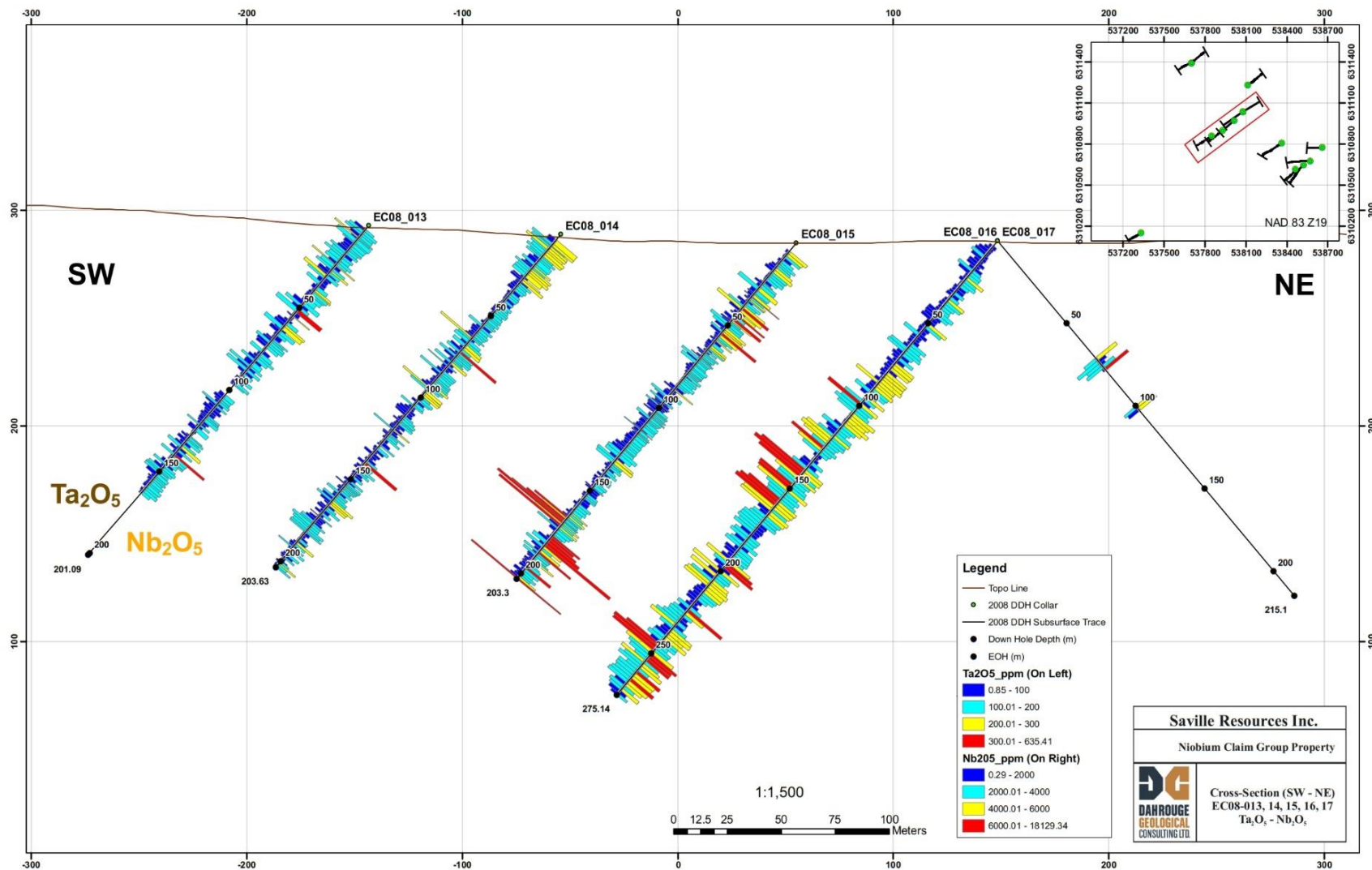


Figure 20: Cross-section downhole of Nb-Ta grade (EC08-013, 014, 015, 016, and 017)

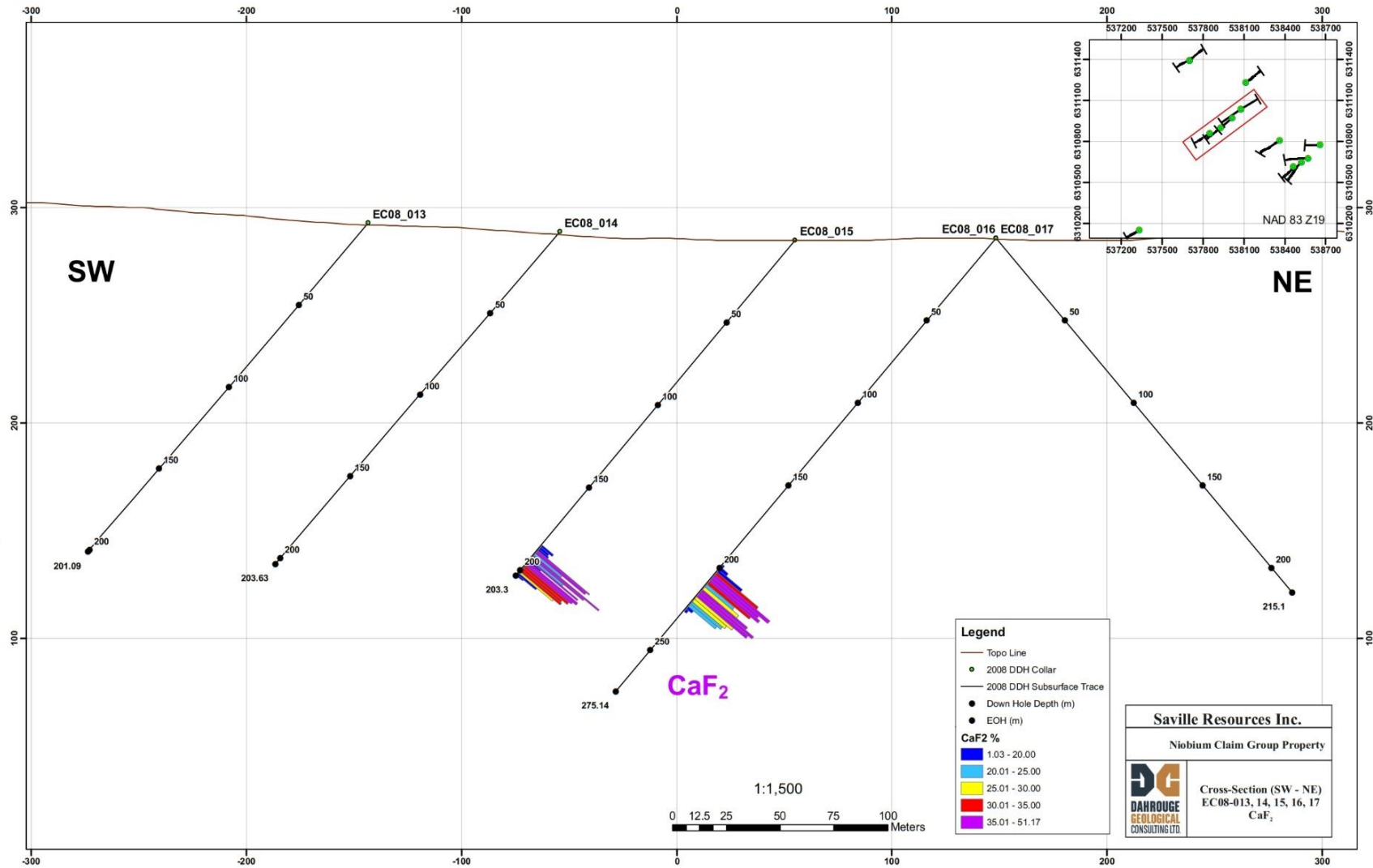


Figure 21: Cross-section of downhole fluorite grade (EC08-013, 014, 015, 016, and 017)



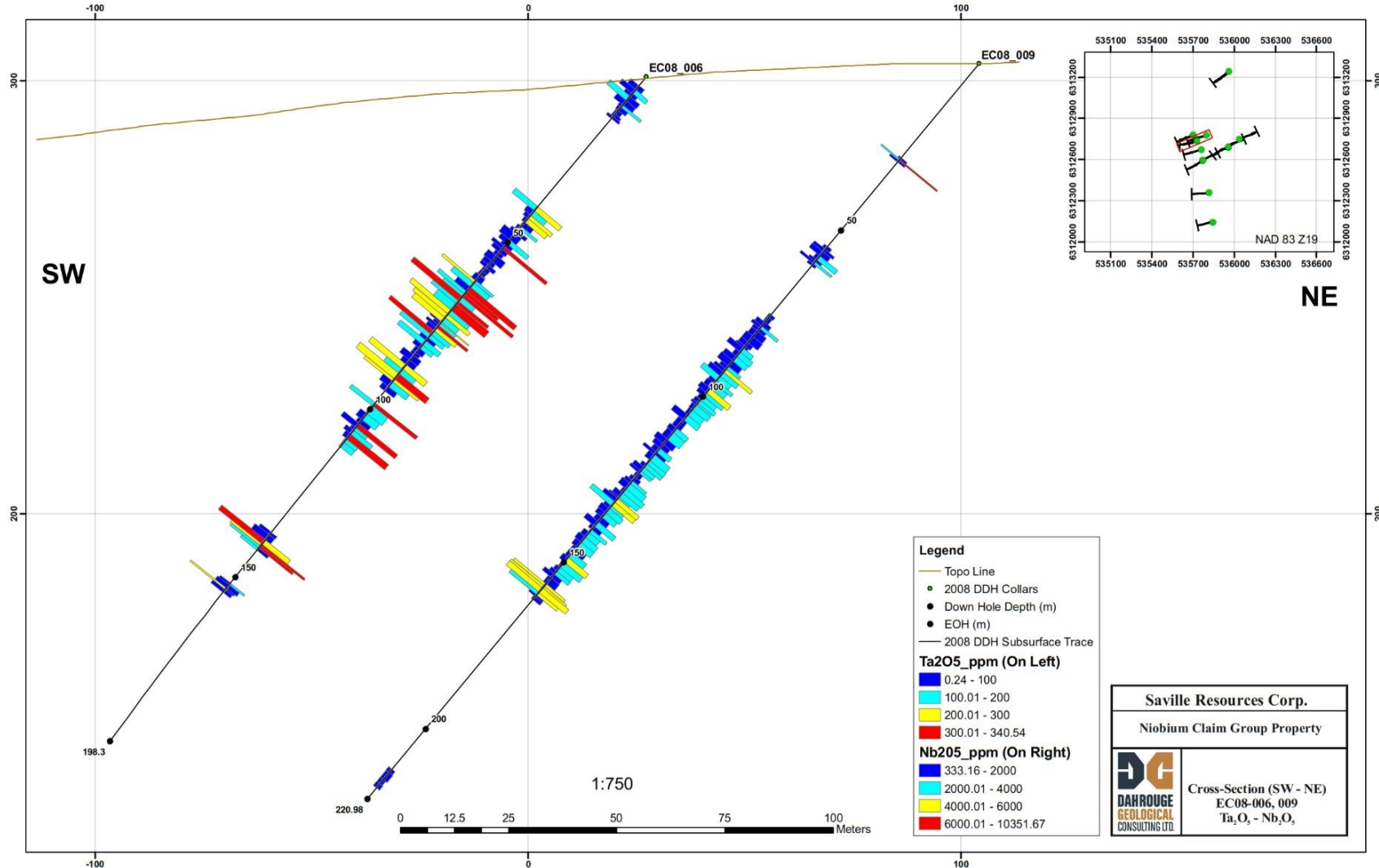


Figure 22: Cross-section downhole of Nb-Ta grade (EC08-006, and 009)

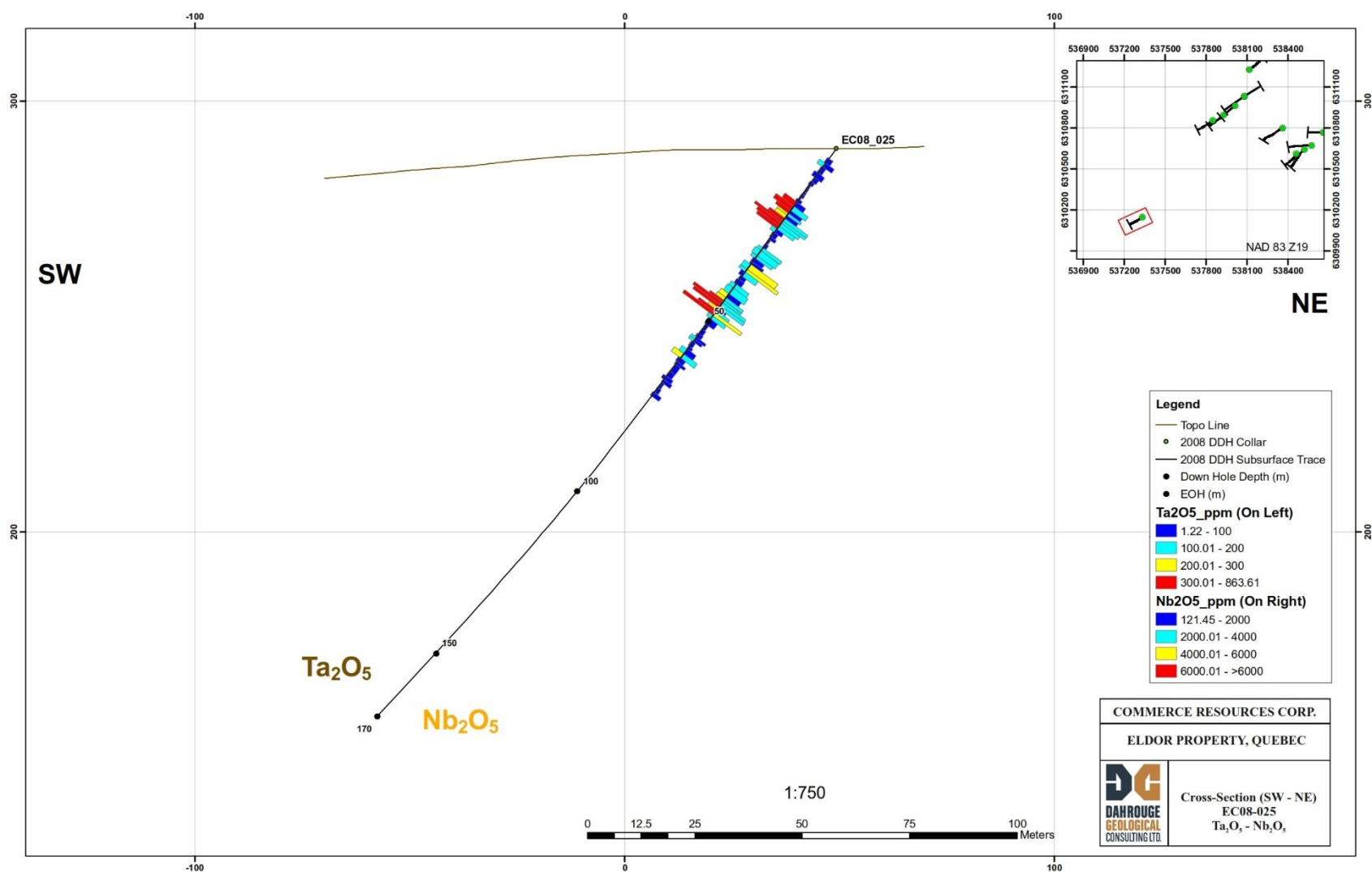


Figure 23: Cross -section downhole of Nb-Ta grade (EC08-025)

## 10.2. 2010 DRILLING

Bodnar Drilling Ltd., based out of Ste Rose du Lac, MB, was contracted for the 2010 drill work, on behalf of Commerce Resources, and used the same helicopter-portable Discovery One drill as was used in 2008. A total of 7 BTW diamond drill holes, totalling 1,885.31 m, were completed on the Property in 2010. Four of the holes, totalling 1,391.65 m, were completed in the Southeast Area as follow-up to the 2008 intercepts of Nb-Ta in drill holes EC08-015 and 016, with three holes totalling 493.66 m completed as follow-up to EC08-025 in the Star Trench Area.

The drill core was transported back to the camp by helicopter where it was geologically logged and marked for sampling by a geologist. Sampling was primarily guided by lithology, with individual sample lengths ranging from 0.18 to 3.00 m, with an average sample length of 0.86 m. Drill core was saw-cut in half with one-half collected for analysis, and the other half remaining in the core box for reference. The QAQC program included systematic insertion of quartz blanks, certified reference materials (CRMs), quarter-core duplicates, as well as check analysis at a secondary lab (ALS Chemex).

Individual split drill core samples were packed into pails and shipped out of camp to Activation Laboratories Ltd. (Actlabs) in Ancaster, ON by way of two routes; 1) float plane to Kuujuaq, air cargo to Montreal, and truck to Ancaster or 2) float plane to Schefferville, train to Sept-Îles, and truck to Ancaster. Samples were analyzed for major, base, and trace elements (Code 8-REE package by ICP and ICP-MS), Nb-Ta (Code 8 by XRF) and fluorine (Code 4F-F by Ion Electrode-ISE). The majority of the Star Trench Area drill core samples were also analyzed for gold (Code 1A2 by Fire Assay with AA).

In the Southeast Area, the 2010 drill program focused on step-outs from drill holes EC08-015 and 016 where some of the best mineralization had been returned from the 2008 program. The four drill holes completed in this area were successful in expanding the area of mineralization, returning intervals of strong niobium-tantalum mineralization over various widths, including some of the best overall intercepts to date. Of particular note is the wide intercept starting from 4.22 m depth in EC10-033 (0.72% Nb<sub>2</sub>O<sub>5</sub> over 21.35 m), which demonstrates higher-grade mineralization essentially reaches surface. This interval also includes the highest niobium-grade drill core sample collected to date at 1.85% Nb<sub>2</sub>O<sub>5</sub> and 720 ppm Ta<sub>2</sub>O<sub>5</sub> (over 0.48 m) at 24 m depth. The highest-grade niobium intercept to date was also returned from the 2010 program with 1.09% Nb<sub>2</sub>O<sub>5</sub> over 5.84 m in EC10-040. Select mineralized intercepts from the are presented below in Table 9.

In the Star Trench Area, three holes followed up the intersections returned in 2008 from EC08-025. The drill holes tested the mineralized horizon along strike (EC10-034, and 036) and at depth (EC10-035). Comparable results to that of 2008 were returned along strike with the interval widths remaining relatively narrow at <7 m. However, several very high-grade Nb-Ta individual core samples were collected, including 1.50% Nb<sub>2</sub>O<sub>5</sub> and 0.181% Ta<sub>2</sub>O<sub>5</sub> over 0.52 m, and 1.69% Nb<sub>2</sub>O<sub>5</sub> and 0.222% Ta<sub>2</sub>O<sub>5</sub> over 0.31 m. These are the highest-grade tantalum values in drill core collected to date on the Property and the highest niobium grades to date collected from the drill core in the Star Trench Area.

Drill hole EC10-035, which was completed as a step-back from EC08-025 returned the strongest mineralization from the Star Trench Area in 2010 and suggests there is potential for mineralization to continue at depth in the area. Drill hole EC10-034, an ~50 m step-out along strike to the south of EC08-025, also returned a mineralized interval at a similar depth to that of EC08-025, suggesting there is potential for mineralization to continue along strike as well.

No further drilling has been completed in the Southeast or Star Trench Areas since the 2010 program.



Table 9: Select 2010 niobium-tantalum mineralized intercepts

Exploration Area	DDH ID	From (m)	To (m)	Interval (m)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	P <sub>2</sub> O <sub>5</sub> (%)
Southeast Area	EC10-032	30.79	34.42	3.63	0.77	59	6.4
		<b>55.10</b>	<b>70.43</b>	<b>15.33</b>	<b>0.71</b>	<b>30</b>	<b>6.6</b>
		82.58	91.26	8.68	0.59	254	5.1
		116.60	127.70	11.10	0.59	138	7.8
		<b>182.50</b>	<b>211.05</b>	<b>28.55</b>	<b>0.57</b>	<b>63</b>	<b>6.7</b>
	<i>Incl.</i>	<i>202.78</i>	<i>206.18</i>	<i>3.40</i>	<i>0.77</i>	<i>60</i>	<i>8.3</i>
	EC10-033	<b>4.22</b>	<b>25.57</b>	<b>21.35</b>	<b>0.72</b>	<b>145</b>	<b>9.6</b>
	<i>Incl.</i>	<b>4.22</b>	<b>9.00</b>	<b>4.78</b>	<b>0.90</b>	<b>65</b>	<b>8.4</b>
	<i>Incl.</i>	<i>18.76</i>	<i>51.89</i>	<i>33.13</i>	<i>0.42</i>	<i>222</i>	<i>10.3</i>
		<b>58.93</b>	<b>80.82</b>	<b>21.89</b>	<b>0.82</b>	<b>93</b>	<b>8.5</b>
	<i>Incl.</i>	<b>63.05</b>	<b>72.03</b>	<b>8.98</b>	<b>0.92</b>	<b>95</b>	<b>9.0</b>
		158.33	187.27	28.94	0.55	101	6.4
	<i>Incl.</i>	<i>158.33</i>	<i>163.65</i>	<i>5.32</i>	<i>0.73</i>	<i>152</i>	<i>6.6</i>
	<i>Incl.</i>	<i>182.32</i>	<i>187.27</i>	<i>4.95</i>	<i>0.75</i>	<i>96</i>	<i>7.5</i>
		210.13	216.75	6.62	0.62	41	5.3
		<b>241.54</b>	<b>244.58</b>	<b>3.04</b>	<b>1.05</b>	<b>194</b>	<b>5.4</b>
		305.33	311.30	5.97	0.77	113	8.6
	EC10-040	48.52	56.26	7.74	0.81	85	8.0
		<b>70.00</b>	<b>87.35</b>	<b>17.35</b>	<b>0.72</b>	<b>64</b>	<b>6.6</b>
		101.44	120.50	19.06	0.61	45	5.9
		<b>156.97</b>	<b>178.61</b>	<b>21.64</b>	<b>0.48</b>	<b>374</b>	<b>8.8</b>
		203.74	212.34	8.60	0.63	178	7.0
		223.00	228.65	5.65	0.86	81	10.1
		<b>250.48</b>	<b>256.32</b>	<b>5.84</b>	<b>1.09</b>	<b>46</b>	<b>9.8</b>
	EC10-041	48.81	53.70	4.89	0.59	64	7.4
		60.45	67.92	7.47	0.60	42	7.6
		80.53	84.90	4.37	0.74	59	8.1
		100.89	105.47	4.58	0.62	123	7.1
		213.79	226.06	12.27	0.41	244	6.4
Star Trench Area	EC10-034	51.00	57.13	6.13	0.26	397	6.9
	EC10-035	90.33	96.50	6.17	0.34	406	4.2

(2) True widths not known

In addition to furthering the understating of the niobium, tantalum, and phosphate mineralization encountered in the Southeast Area, significant fluorite intercepts continued to be returned from all four of the 2010 drill holes and are presented in Table 10.

**Table 10: Select 2010 fluorite mineralized intercepts**

Exploration Area	DDH ID	From (m)	To (m)	Interval (m)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	P <sub>2</sub> O <sub>5</sub> (%)	CaF <sub>2</sub> (%)
Southeast	EC10-032	248.44	254.66	6.22	0.17	63	3.3	14.8
	EC10-033	203.88	236.3	32.42	0.39	63	4.2	26.1
	<i>Incl.</i>	<i>218.88</i>	<i>223.92</i>	<i>5.04</i>	<i>0.27</i>	<i>42</i>	<i>3.8</i>	<i>38.8</i>
	EC10-040	275.01	304.02	29.01	0.22	91	4.3	21.7
	<i>Incl.</i>	<i>296.00</i>	<i>302.59</i>	<i>6.59</i>	<i>0.27</i>	<i>0</i>	<i>4.9</i>	<i>39.8</i>
	EC10-041	171.26	176.94	5.68	0.25	61	4.1	17.3
		249.02	263.36	14.34	0.34	64	4.4	21.7

(3) True widths not known

(4) CaF<sub>2</sub> calculated from fluorine assay using conversion factor of 2.055

The encouraging intersections of fluorite mineralization discovered in 2008, in drill holes EC08-015 and 016, were further expanded in 2010, with all four holes intersecting the unit. Drill holes EC10-033 and 044 returned some of the highest-grade intercepts to date. The fluorite zones remain to be modeled and intercepts correlated however, the data indicates a strong potential for a fluorite zone of significance to be present. Further, although, intersected at depth, the mineralization has potential to extend to surface given the sizable intervals over multiple holes, the moderate to steep dip interpreted for the unit.

All mineralized intercepts reported reflect apparent thickness, as true thickness is not known. The orientation of the mineralization is poorly constrained, although a strike to the northwest with a moderate to steep dip to the northeast is interpreted (Figure 17). No detailed modelling of the mineralization has been completed, thus, limiting the ability to correlate between drill holes and interpret the overall mineralized trend in each drill area. Several cross-sections of the mineralized intervals are presented in Figure 24, Figure 25, and Figure 26.

No further drilling was completed for niobium-tantalum on the Property since 2010, leaving a significant number of targets remaining to be testing, as well as drill intercepts to be followed-up (niobium-tantalum, and fluorite).

Following the 2010 drill campaign, all 2008 and 2010 drill hole collar locations were independently surveyed by Gascon Land-Surveyors A.-G. Inc. of Montreal, QC with an estimated precision of  $\pm 0.01$  m in plan, and  $\pm 0.02$  m in elevation.

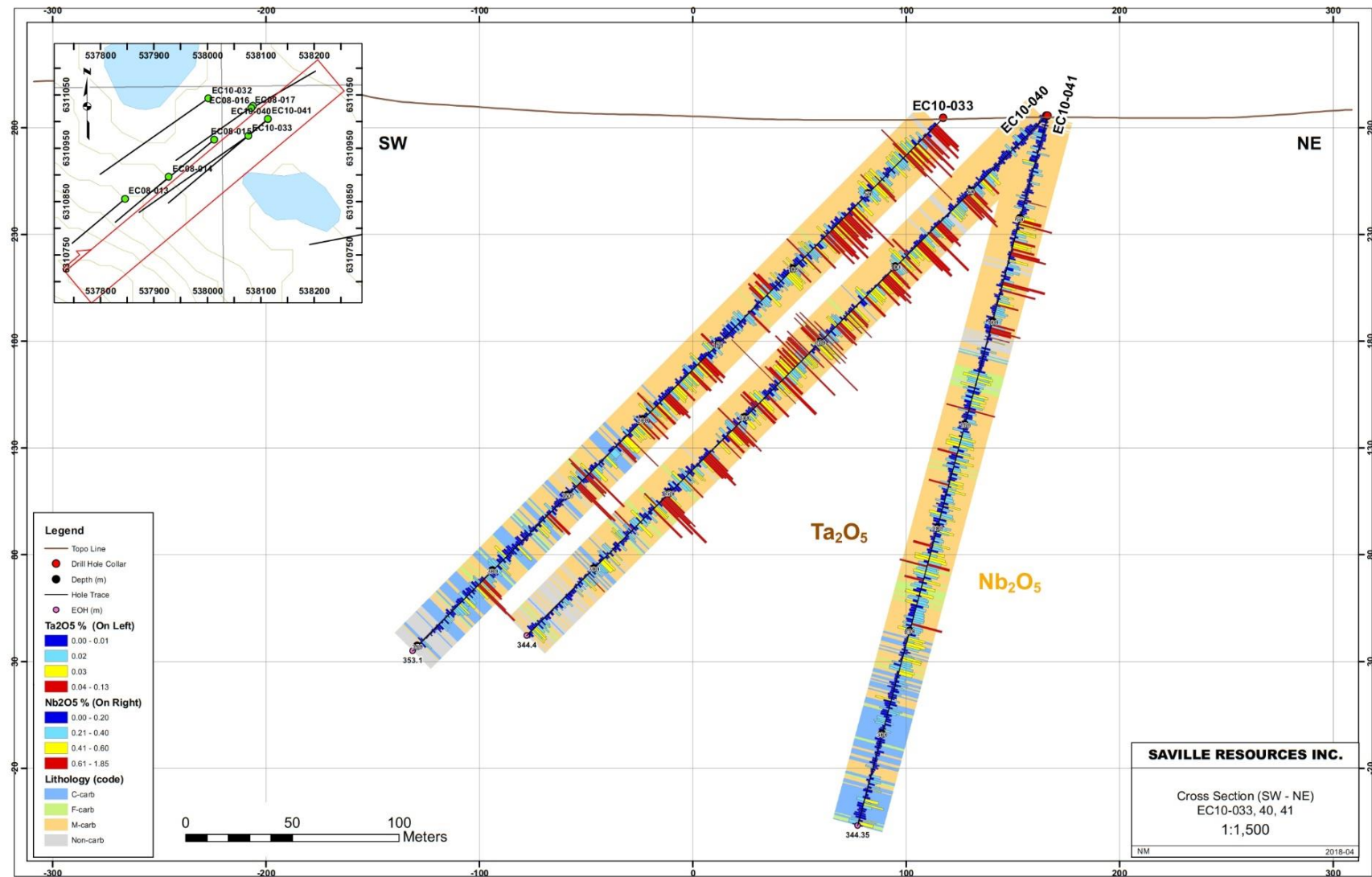


Figure 24: Cross-section downhole of the Nb-Ta grade (EC10-033, 040, and 041)

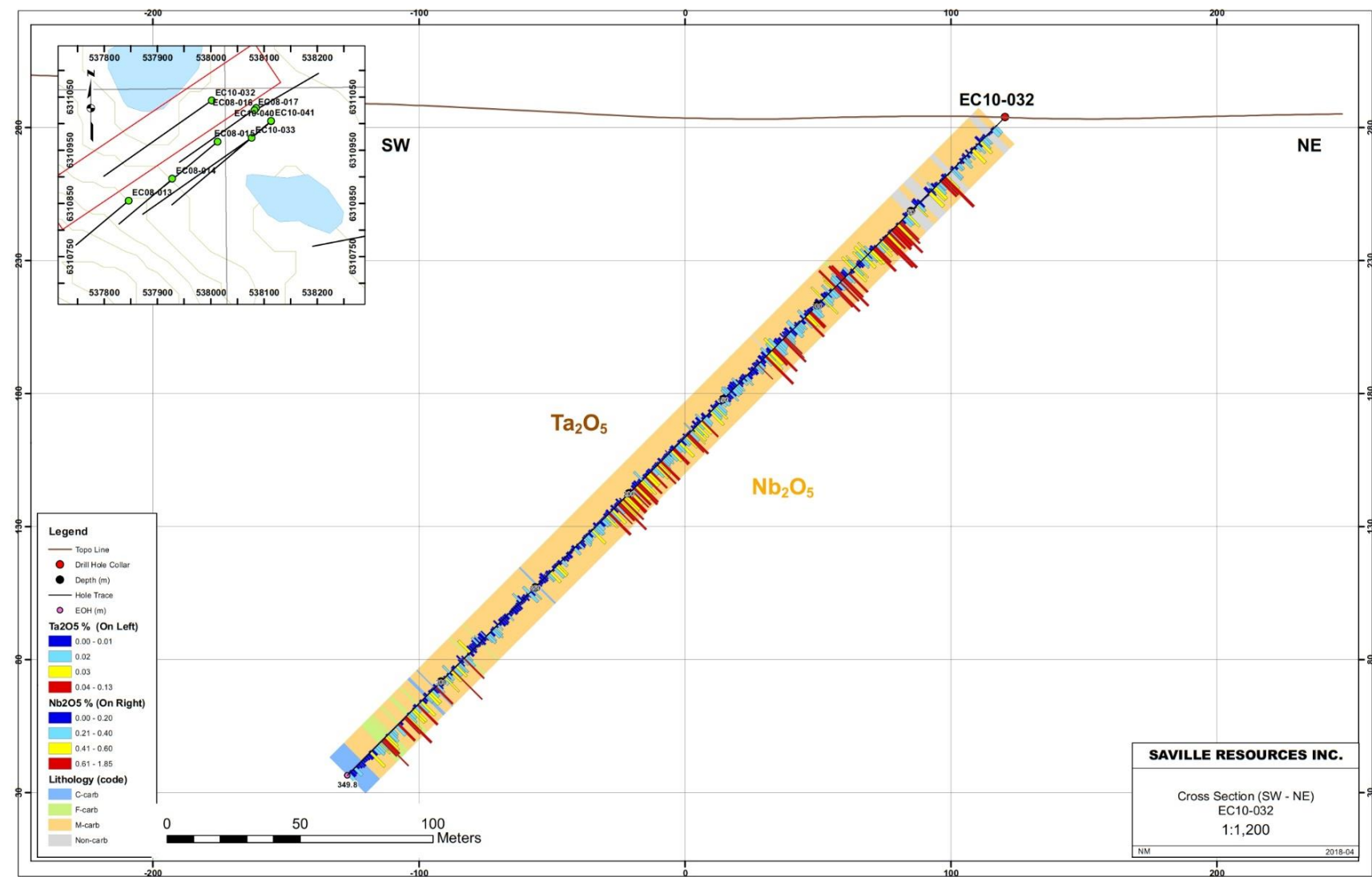


Figure 25: Cross-section downhole of the Nb-Ta grade (EC10-032)



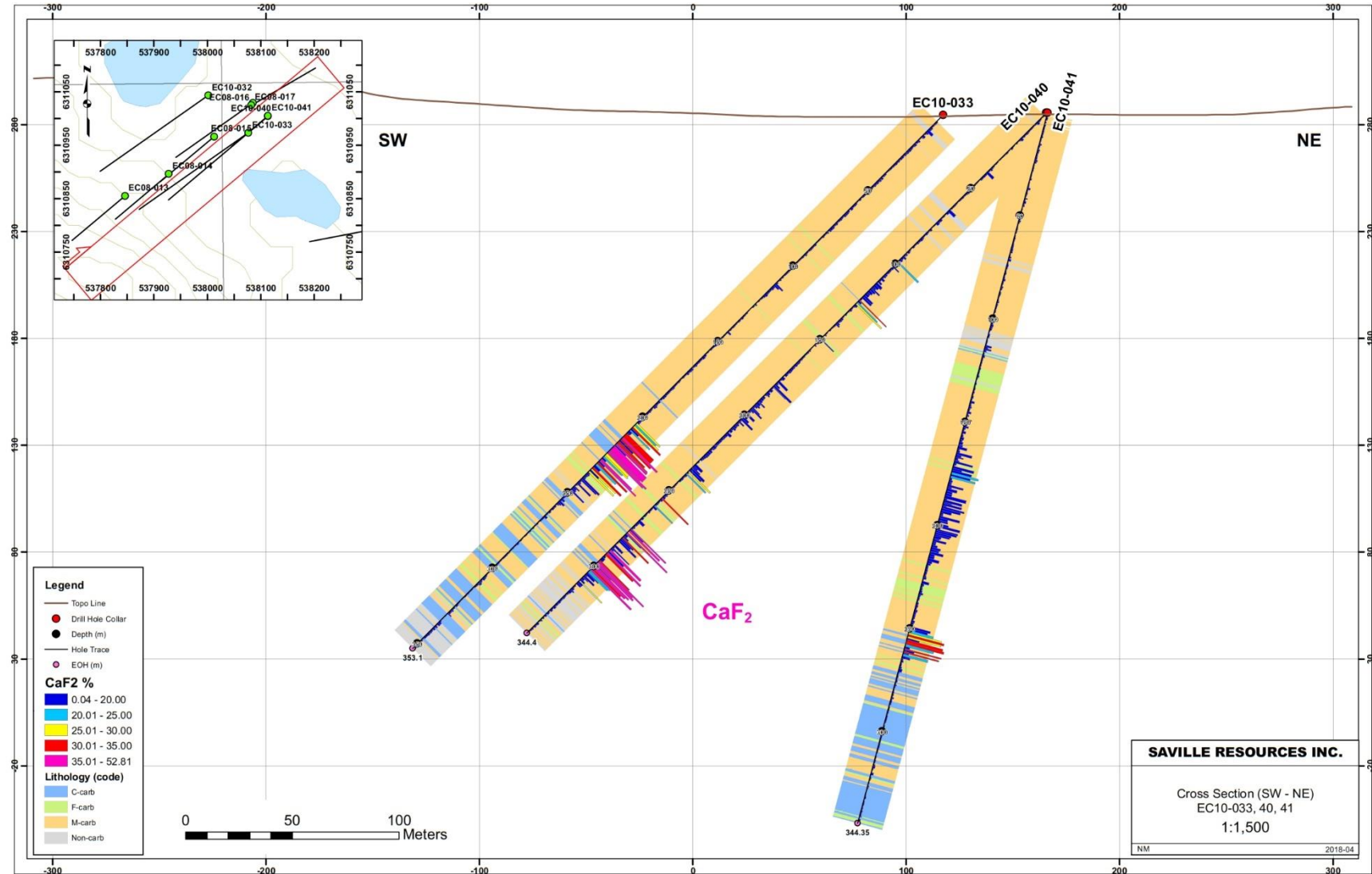


Figure 26: Cross-section downhole of the fluorite grade (EC10-033, 040, and 041)

### **10.3. 2011 AND 2015 DRILLING**

The drill completed on the Property during 2011 and 2015 focused on rare earth element targets (2011) and condemnation/geotechnical drilling (2015) in support of Prefeasibility Study work for the Ashram Rare Earth Project owned by Commerce Resources.

A total of three drill holes totalling 716.03 m were completed in 2011, including two holes in the Triple D Area and one hole in the West Rim Area (Figure 9). These drill holes were completed over REE targets with only minor intervals of mineralization returned. This is highlighted by EC11-055 with 1.38% REO over 10.00 m, including 1.83% REO over 3.61 m in the Triple D Area, and EC11-069 with 1.96% REO over 2.85 m in the West Rim Area. The Triple D Area also returned 0.60% Nb<sub>2</sub>O<sub>5</sub> over 1.43 m at depth in hole EC11-055.

A total of 6 drill holes for 301.07 m were completed in 2015 over two locations north of Centre Pond. Drill holes EC15-144 and 149 served as condemnation holes, while drill holes EC15-145, 146, 147, and 148 were completed as geotechnical holes, with all six holes targeting proposed infrastructure locations in support of Prefeasibility Study work for the Ashram Project held by Commerce Resources. Although the data remains to be formally compiled, a cursory review by the Author identified no significant mineralized intervals were present in any of the six holes.

## 11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

The evaluation of the geological setting and mineralization on the Property is based upon surface sample and drill core observations. This section summarizes the QAQC and sampling procedures followed by Commerce Resources during the 2008 and 2010, 2011, and 2015 drilling that occurred on the Niobium Claim Group Property. The summary is based on information provided to the Author by Dahrouge Geological, on behalf of Commerce Resources, as well as observations made by the Author during his time on site which overlapped with some of the drilling discussed herein.

Approximately 5,476 core samples were collected from drill holes completed on the Property. Samples collected in 2008 and 2009 (from the 2008 core) were analyzed by Acme Analytical Laboratories Ltd. (Acme Labs) located in Vancouver, BC, while samples collected in 2010, 2011, and 2015 were sent to Activation Laboratories Ltd. (Actlabs), in Ancaster, ON for analysis.

**Table 11: 2008 and 2010 Core Sample and QAQC Summary**

Year of Drilling	Year of Sampling	No. of Core Samples Collected	No. of Qtz Blanks Inserted	No. of CRMs/SRMs Inserted	No. of Quarter-Core Duplicates Inserted	Primary Analytical Laboratory
2008	2008	2,800	120	120	34	Acme Labs
2008	2009	89	7	7	4	Acme Labs
2008	2010	424	21	21	15	Actlabs
2010	2010	2,163	126	122	126	Actlabs
<b>TOTAL</b>		<b>5,476</b>	<b>274</b>	<b>270</b>	<b>179</b>	

As drilling for niobium and tantalum was limited to the 2008 and 2010 drill programs, the 2011 and 2015 programs, which focused on geotechnical and condemnation drilling only, are not discussed in the following sections.

All unsampled drill core is under long-term storage (cross-staked outside) at Camp Valcourt, located off the Property on claims registered to Commerce Resources. All remaining analytical reject and pulp material is currently in secure, sheltered, storage in Edmonton, Alberta with access limited to Commerce Resources, Dahrouge Geological, and the owner of the building.

### 11.1 SAMPLING METHOD AND APPROACH

The drill core was flown by helicopter direct from the drill to the camp at the end of each shift. The drill core was aligned and pieced together, metre marked, and basic geotechnical logging completed. The drill core was then geologically logged by a geologist with sample intervals noted directly on the core. The sampling was guided by mineralogy, lithology, and radioactivity. Sample lengths were approximately 1 metre but varied according to lithological variation. All information was recorded on paper and later entered into excel spreadsheets and vetted, or entered directly into excel on-site. The drill core was then wet-photographed outside in natural light to create a long-term core record.

If sampling indicated, the drill core was then saw-cut in half with one-half collected for analysis, and the other half remaining in the core box for reference. Where a duplicate sample was indicated, the half core remaining in the box was cut in half again, produced two quarter-core pieces with one collected for analysis and the other remaining in the core box for reference. In addition to quarter-core duplicates, the QAQC program included regular (2008-09), and systematic (2010), insertion of quartz blanks, and certified reference materials (standards). The sampling methods varied between 2008 and 2010, with the later applying a more systematic approach to core processing with refined sample and core box marking, photos (dry, wet, UV), and more systematic method of QAQC inserts.

Samples were placed in a labelled poly ore sample bag with the corresponding sample book tag. The bags were closed with zip ties and catalogued before being packaged in labelled and sealed pails ready to be transported to the lab.

For the 2008-09 samples, pails were transported on chartered fixed-wing back-hauls to Kuujjuaq, and then by air via First Air Cargo to Montreal. The samples were transferred to a ground shipping company and shipped to Acme Analytical Laboratories Ltd. ("Acme Labs") located in Vancouver, BC, for analysis.

For the 2010 samples, pails were transported out of camp to Activation Laboratories Ltd. ("Actlabs") in Ancaster, ON by way of two routes; 1) float plane to Kuujjuaq, air cargo to Montreal, and truck to Ancaster or 2) float plane to Schefferville, train to Sept-Îles, and truck to Ancaster.

Both the primary labs (Acme Labs and Actlabs) utilized for analysis are commercial and independent of the issuer and vendor.



The Author has reviewed the sampling procedures used and confirm they are of industry standard and conform to generally accepted best practices. The samples are of good quality and are representative of the main rocks encountered.

## 11.2. LABORATORY SAMPLE PREPARATION AND ANALYSIS

Samples collected during the 2008 drill campaign, and subsequently in 2009, were sent to Acme Labs for major, base, and trace element analysis by ICP-MS (package Group 4A/4B), with part of holes EC08-015 and 016 analyzed for fluorine (package Group 8F). Acme Labs is an ISO 9001 and ISO/IEC 17025 accredited lab.

Samples from the 2010 drill campaign, as well as the 2008 core samples collected in 2010, were sent to Actlabs for major, base, and trace element analysis (Code 8-REE package by ICP and ICP-MS), Nb-Ta (Code 8 by XRF) and fluorine (Code 4F-F by Ion Electrode-ISE). The majority of the Star Trench Area drill core samples were also analyzed for gold (Code 1A2 by Fire Assay with AA).

### 11.2.1. Sample Preparation and Analysis

Upon being receipt at the labs, each sample is sorted, catalogued, and weighed. Sample preparation methods for each of the individual labs are summarized in Table 12 below.

**Table 12: Laboratory sample preparation methods**

Lab	Method of Sample Preparation
Acme Labs	Dry, crush to 70% passing -10 mesh, 250 g split pulverised to 85% passing -200 mesh
Act Labs	Dry, crush to 85% passing -10 mesh, 250 g split pulverised to 95% passing -200 mesh

Analytical methods Acme Labs and Actlabs are summarized below in Table 13. Further information detailing each of the laboratories' analytical methods, including detection limits, is available on their respective websites and *Schedule of Services*.

**Table 13: Laboratory sample analytical methods**

Lab	Analytical Package	Analytical Method Summary
Acme Labs	Group 4A/4B Whole Rock Major & Trace Element Analyses	Lithium metaborate/tetraborate fusion & dilute nitric digestion, analyzed by ICP & ICP-MS. 0.5g split digested in Aqua Regia, analyzed by ICP-MS
Actlabs	Code 8 REE Assay	Lithium metaborate/tetraborate fusion, analyzed by ICP and ICP-MS

Actlabs	Code 8 Coltan	Lithium metaborate/tetraborate fusion in platinum crucible with molten glass cast, analyzed by XRF
Actlabs	Code 4-F-ISE	Lithium metaborate/tetraborate fusion, fusion ion selective electrode (ISE)

### 11.3. QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURE

Acme Labs and Actlabs implement routine Quality Assurance and Quality Control (QAQC) protocols during their internal analysis. These are routine procedures which consist of using pulp duplicates for repeat analysis.

In addition to the standard internal laboratory QAQC, the Company implemented its one on-site QAWQC program in alignment with industry best practices. This included a QAQC program which consisted of a regular/systematic insertion of Standard Reference Materials (SRMs) in 2008 and Certified Reference Materials (CRMs) in 2010, as well as quartz blanks and quarter-core duplicates over all programs. Rates of QAQC insertion were typically 4-6%; apart from quarter-core duplicates collected in 2008 which were lower at <2%. A drill core sample and QAQC insert summary is presented in Table 11.

Additionally, a check sample program was carried out comprised of re-analysis of core pulp samples by a secondary laboratory. For the 2008 program, check analysis was completed by Tech-Cominco Global Discovery Labs (GDL), as well as by Actlabs on select mineralized intersections. For the 2010 program, a systematic analytical check was completed by ALS Canada Limited (ALS).

#### 11.3.1. Standards and Certified Reference Materials

Various control samples are inserted into a sample batches submitted to test for the laboratories ability to produce accurate results. This is done by assessing the labs ability to return values within an accepted tolerance of the best value of the control sample. A Certified Reference Material (CRM) is accompanied by an official certificate, issued by an authoritative body, that provides the expected value and associated uncertainty. A Standard Reference Material (SRM) may or may not have only a provisional certificate, and therefore, is typically limited in use as internal standard.

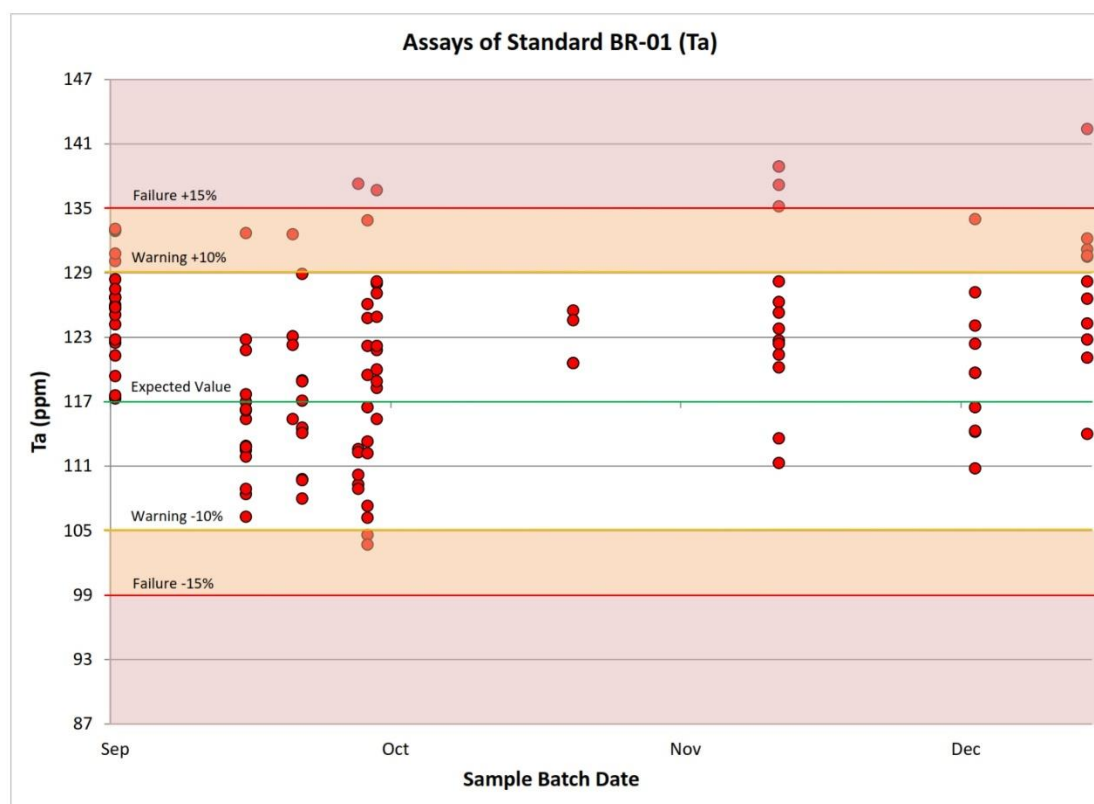
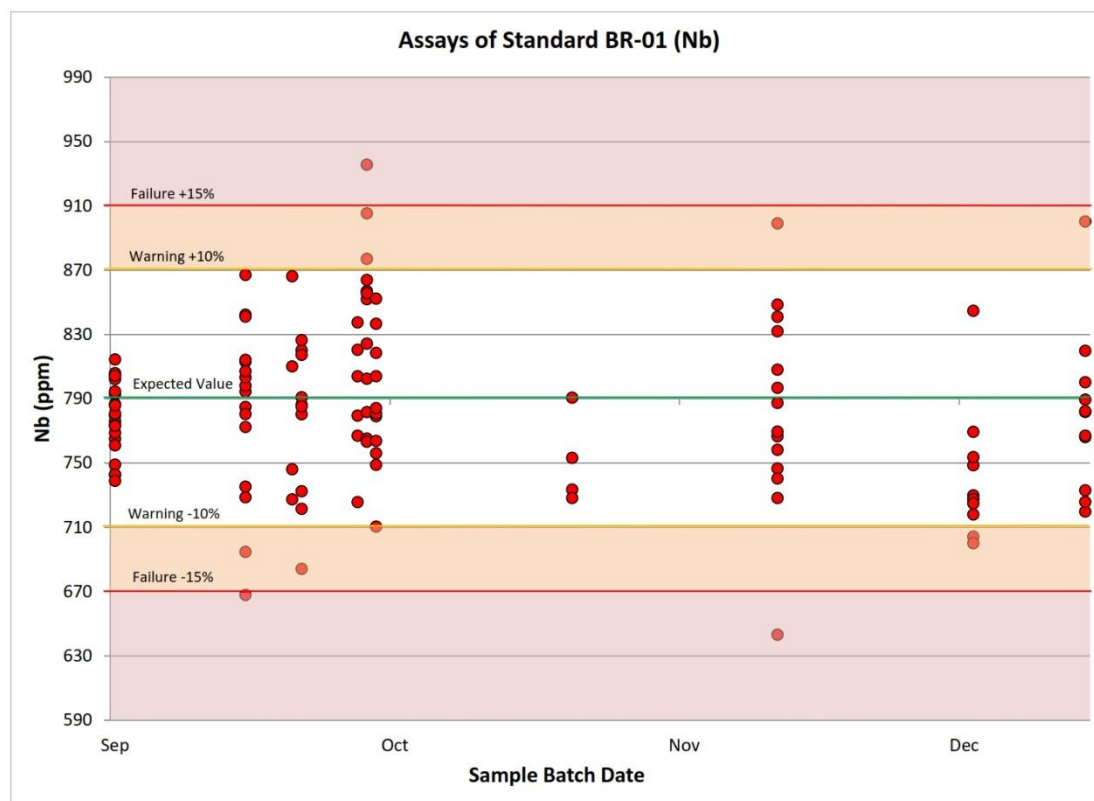
In 2008, a total of 120 SRMs (BR-01) were inserted within sample batches submitted for analysis for drill holes completed on the Property, representing an insertion rate of approximately 4.3% (based on 2,800 core samples collected in 2008). The SRM BR01 was internally produced by Acme Labs, at the request of Commerce Resources, using material from its Upper Fir Deposit (Blue River Property). Preparation did

include a three-lab round-robin; however, the BR-01 SRM is not certified and was inserted directly by Acme Labs removing the independence of the check. The main purpose of BR-01 was to provide material representative of tantalum in a carbonatite matrix for use as a standard on the Upper Fir Deposit at the time, with material readily available for the 2008 program on the Property. The use of BR-01 was discontinued following the 2008 program and replaced with certified reference materials in subsequent drill programs.

The 2008 SRM data for BR-01 has a fairly wide window of dispersion across batches for Nb; although only a few failures occurred (Figure 27). The tantalum data displays a similar dispersion, although more failures are noted with a bias evident to the high side. As BR-01 is not a certified reference material it is difficult to evaluate in further detail; however, some of these failures may be attributed to the added uncertainty of the BR-01 analysis due to lack of certification.

In 2010, a total of 122 CRMs (SX18-01 and SX18-05) were inserted within sample batches submitted for analysis for drill holes completed on the Property, representing an insertion rate of approximately 5.6% (based on 2,163 core samples collected in 2010). The certificates for SX18-01 and SX18-05 are provided by the Dillinger Hütte Laboratory in Germany and are recognized as principally niobium CRMs with Nb<sub>2</sub>O<sub>5</sub> certified values of 0.695% and 0.973%, respectively. Tantalum is also provided with Ta<sub>2</sub>O<sub>5</sub> certified values of 0.005% and 0.0035%, respectively. The certificates note a 95% confidence interval instead of standard deviation, and therefore, a 10% Warning Limit deviation and 15% Failure Limit deviation was applied for QAQC analysis. While normal practise is to apply a 2x and 3x standard deviations for warning and failure limits, respectively, the 10% and 15% limits applied are considered acceptable for the purposes of exploration.

With respect to niobium, the performance of the SX18-01 and SX18-05 CRMs were very good with no warnings or failures reported, as well as having far less variation than the BR-01 SRMs utilized on the 2008 core (Figure 28). With respect to tantalum, the SX18-01 and SX18-05 CRMs are less applicable due to their relatively low levels of tantalum (0.005% and 0.0035%, respectively) that, when coupled with the 0.003 % detection limit of the analytical method applied to the core samples, provide for a poor reference material in this regard.



**Figure 27: Top: 2008 SRM BR-01 (Nb ppm); Bottom: 2008 SRM BR-01 (Ta ppm)**

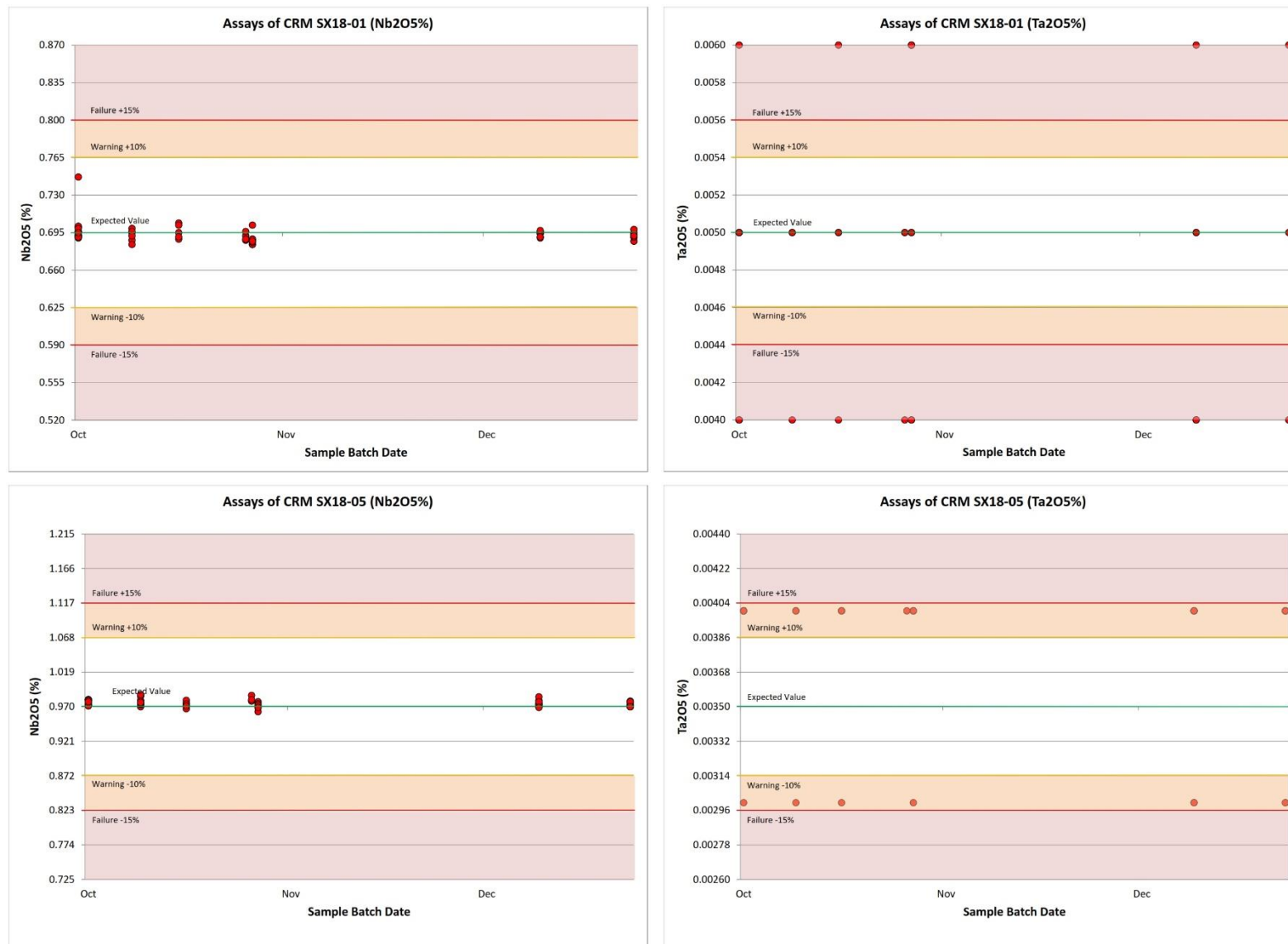


Figure 28: Top Left: 2010 CRM SX18-01 (Nb2O5 %); Top Right: 2010 CRM SX18-01 (Ta2O5 %); Bottom Left: 2010 CRM SX18-05 (Nb2O5 %); Bottom Right: 2010 CRM SX18-05 (Ta2O5 %)



### 11.3.2. Quartz Blanks

Quartz blanks are inserted into a sample stream to test for the laboratories potential for contamination being introduced by the lab during sample preparation and/or analysis. This is tested by inserting a blank control sample which is relatively free of the element being assessed and comparing the blank results with the results of the sample that was assayed immediately prior.

In 2008, a total of 120 quartz blanks were inserted within sample batches submitted for analysis for drill holes completed on the Property, representing an insertion rate of approximately 4.3% (based on 2,800 core samples collected in 2008). The quartz was field sourced from quartz veins located near camp.

The contamination in the quartz blanks are typically less than 50 ppm Nb; however, several outliers are present in excess of about 500 ppm Nb (Figure 29). One sample blank returned greater than 2,500 ppm Nb and is interpreted to be a result of a field swap and not lab contamination. The niobium, tantalum, and phosphate levels of the quartz blanks all returned similar results. In general, the level of laboratory preparation contamination, as inferred from the inserted quartz field blanks, is not considered material in comparison to the mineralization levels of interest found in drill core. Further, it is likely that the field blanks were not pure quartz and therefore may have contained some level of contaminant.

In 2010, a total of 126 quartz blanks were inserted within sample batches submitted for analysis for drill holes completed on the Property, representing an insertion rate of approximately 5.8% (based on 2,163 core samples collected in 2010). The quartz was field sourced from quartz veins located near camp.

Several obvious field sample swaps are evident; however, in general, the level of laboratory preparation contamination, as inferred from the inserted quartz field blanks, is not considered material in comparison to the mineralization levels of interest found in drill core (Figure 30). Further, it is likely that the field blanks were not pure quartz and therefore may have contained some level of contaminant. The niobium, tantalum, and phosphate levels of the quartz blanks all returned similar results; however, the fluorine appears to be more variable.

After the 2010 program, Commerce Resources switched from a field sourced quartz blanks to high-quality quartz blanks sourced for a third-party supplier. The Author considers this a more favourable approach and recommends field source blanks be avoided in future programs by the Company.

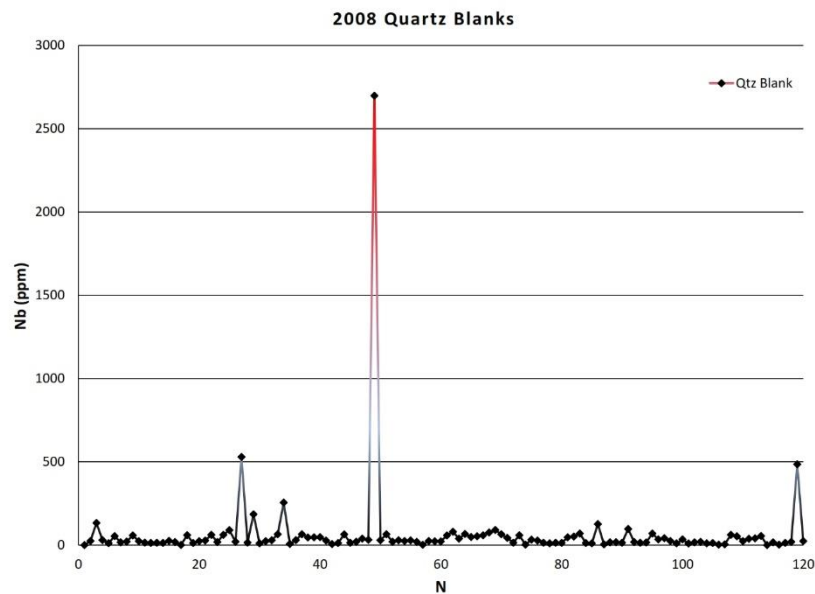


Figure 29: 2008 quartz blank inserts (Nb ppm)

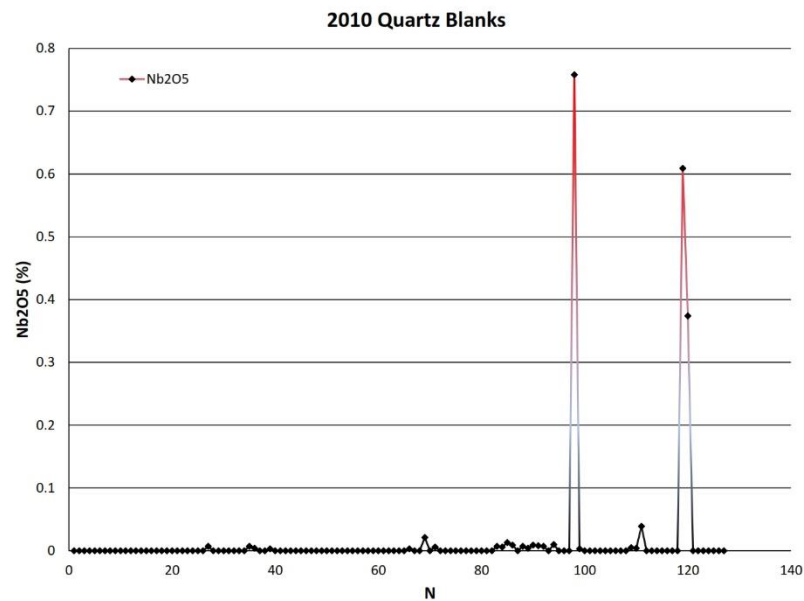


Figure 30: 2010 quartz blank inserts (Nb<sub>2</sub>O<sub>5</sub> %)

### **11.3.3. Duplicate Core Samples**

In 2008, a total of 34 quarter-core duplicates were collected for analysis for drill holes completed on the Property, representing an collection rate of approximately 1.2% (based on 2,800 core samples collected in 2008). They collection of quarter-core duplicates in 2008 was not systematic, resulting in fewer than the 5% collection rate typically targeted.

In 2010, a total of 126 quarter-core duplicates were collected for analysis for drill holes completed on the Property, representing an collection rate of approximately 5.8% (based on 2,163 core samples collected in 2010). The higher collection rate is due to a revised, more systematic approach to collection, which has since been implement on a go forward basis from 2010 by Commerce Resources.

For the purposes of this report, the 2008 and 2010 quarter-core duplicate data indicates a fair to good correlation for the majority of the data and is considered acceptable for the commodities of interest (Figure 31 and Figure 32). Scatter is common in quarter-core duplicates. The variations may be attributed to a non-uniform mineral distribution within the core (i.e. nugget effect), which may be visual in the case of fluorine (via fluorspar), as well as analytical detection limits with respect to tantalum specifically.

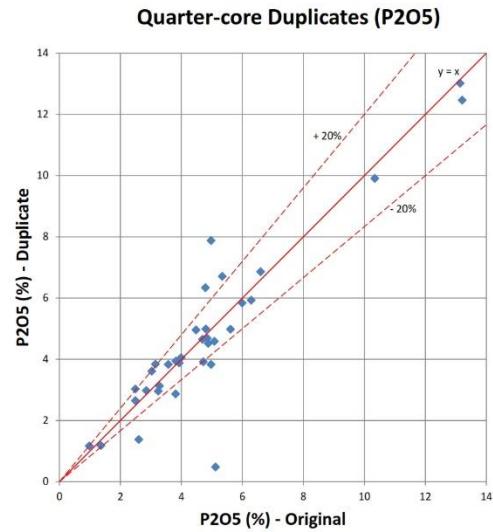
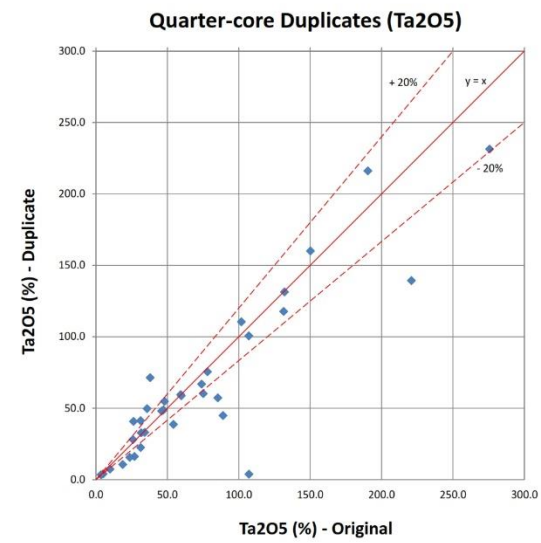
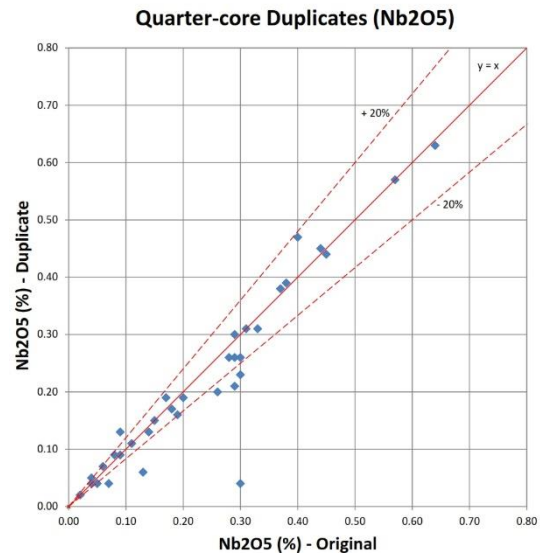


Figure 31: 2008 quarter-core duplicates

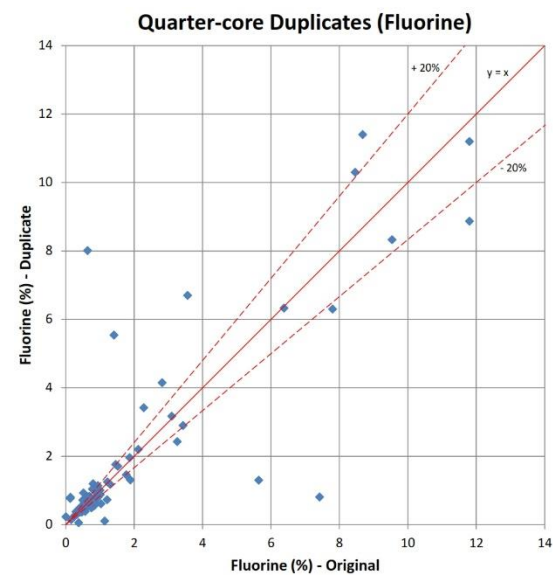
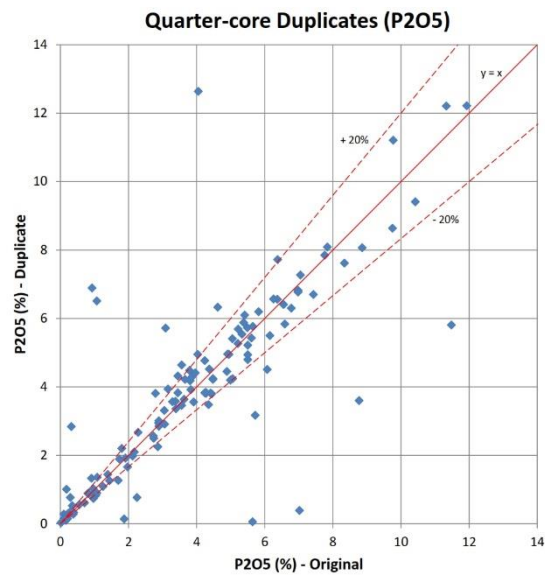
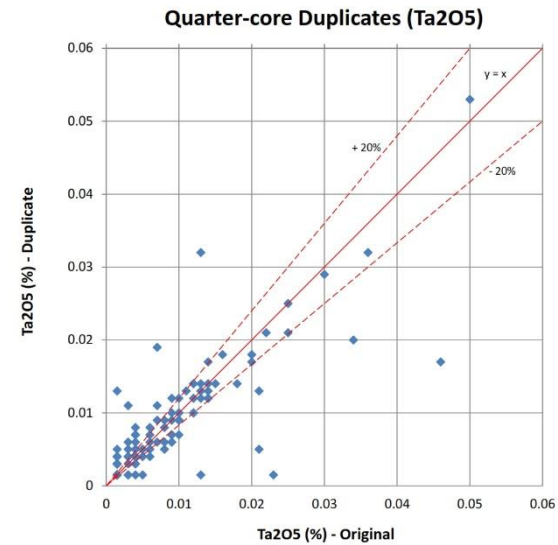
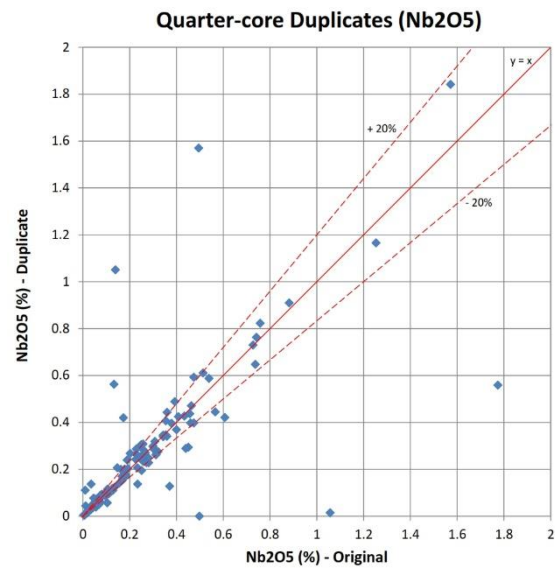


Figure 32: 2010 quarter-core duplicates



#### 11.3.4. Check Samples

Various check analysis over several labs were completed on the 2008 core, mostly driven by the expectation of better results than that received from the primary analysis with Acme Labs. This expectation was derived through visual modal logging of pyrochlore in core that did not appear to accurately reflect the corresponding sample interval assay.

The primary check laboratory was Tech-Cominco Global Discovery Labs (“GDL”) with 129 drill core sample pulps submitted for analysis. GDL was acquired by Acme Labs in 2009, and therefore, the Author is not able to verify the certification of GDL; however, Acme Labs is accredited to ISO 9001 and ISO/IEC 17025.

The analytical packages used by GDL were XRF with fusion preparation for P2O<sub>5</sub>, and XRF with pressed pellet preparation for Nb, and Ta, whereas Acme utilized ICP methods (Table 13).

The check assays from GDL indicated that Acme labs was biased higher for the both niobium and tantalum, especially in the lower grade ranges, and that the visual logging should not be relied upon heavily for grade inference (Figure 33 and Figure 34).

The following is an excerpt from the 2008-09 assessment report, with respect to drill holes EC08-015, 019, and 025, which describe the Nb-Ta check analysis approach (Smith & Peter-Rennich, 2010).

*Check analysis by GDL was completed on 129 drill core sample pulps collected in 2008. Analysis consisted of XRF for determination of Ta and Nb using a pressed pellet preparation and XRF for P2O<sub>5</sub> using a lithium borate fusion preparation.*

*Additional check analysis on 2008 drill core was pursued as original Acme and subsequent GDL analytical results did not match those expected based on visual mineralogical logging of the core. A specific check analysis was devised for both reject and pulp sample fractions in order to confirm that no mineralized material was being lost to the courser reject fraction during preparation of the pulp. The object of the exercise was to find the ‘true’ value of the niobium and tantalum in the samples. Activation Laboratories Ltd. (ACTLABS) of Ancaster, ON was used for the check.*

*A total of 20 pulps and 20 corresponding reject fractions for 20 core samples were sent to ACTLABS for analysis. Pulps were re-homogenized and each analyzed using a fusion method, Ta by instrumental neutron activation (INAA) and Nb by X-Ray Fluorescence (XRF). The rejects were re-sieved and a new pulp created from the greater than 2 mm course fraction. Each new pulp created from the rejects was*

*then analyzed using a fusion method, Ta by INAA, and Nb by XRF. Therefore, each sample pulp was analyzed by three different methods and each reject fraction pulp was analyzed by three different methods. The ACTLABS check analysis was largely inconclusive ...”.*

Commerce Resources changed the primary analytical lab from Acme Labs to Actlabs for the 2010 work, as well as the check laboratory from GDL to ALS Canada Limited (“ALS”). Both Actlabs and ALS are ISO 9001 and ISO/IEC 17025 accredited labs.

In 2010, a total of 136 pulps were shipped to ALS for check analysis, representing a check of 6.3% (based on 2,163 core samples collected in 2010). Analysis included niobium and tantalum by XRF (code ME-XRF10), phosphate by ICP (ME-ICP06), and fluorine by KOH fusion and ion selective electrode (F-ELE81a).

The data for niobium and phosphate compare well, with a slight bias to the high side at higher grades for ALS. The tantalum comparison is inconclusive due to the detection limits of the methods applied. The fluorine data displays more scatter, with slight bias to the high side for Actlabs evident. However, the grade range is low at up to ~2%, which is also the upper detection limit for the ALS method used. As such, the scatter may be exaggerated as only the lower end of the spectrum is plotted.

Both the check labs (GDL and ALS) utilized for analysis are commercial and independent of the issuer and vendor.

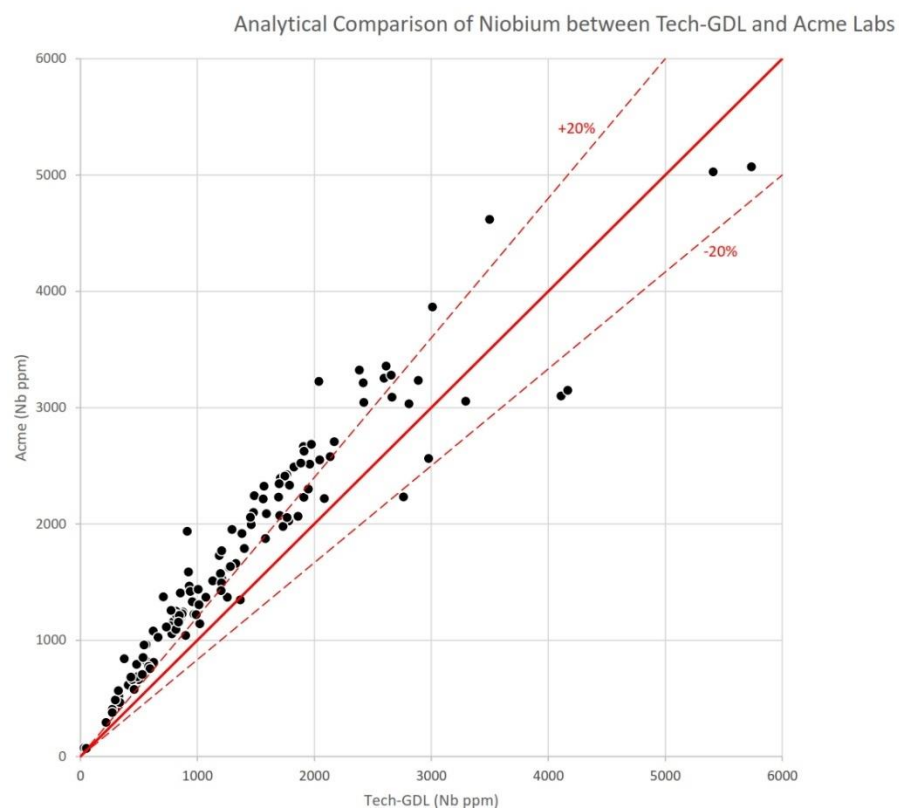


Figure 33: Assay Check - Acme Labs vs Tech-GDL (Nb)

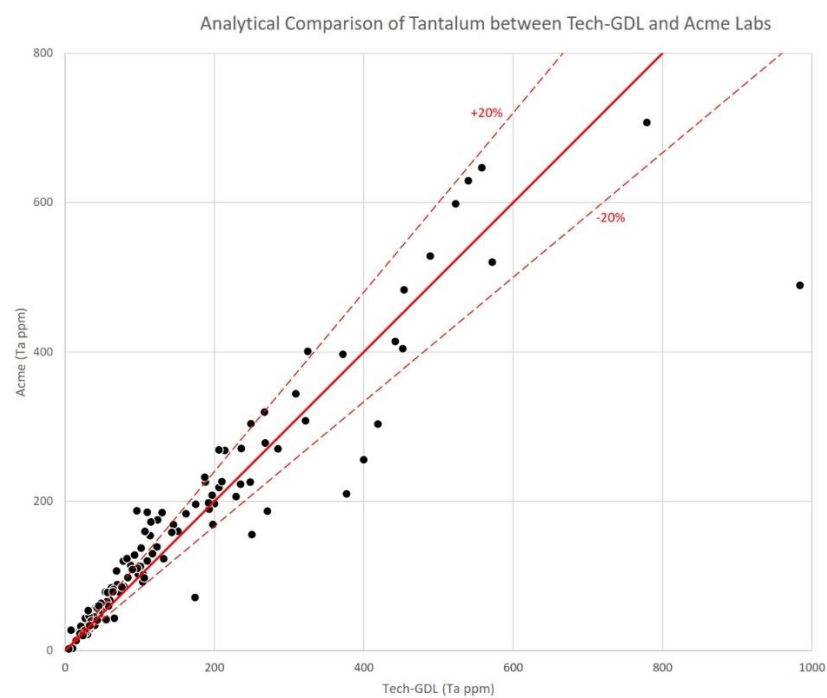


Figure 34: Assay Check – Acme Labs vs Tech-GDL (Ta)

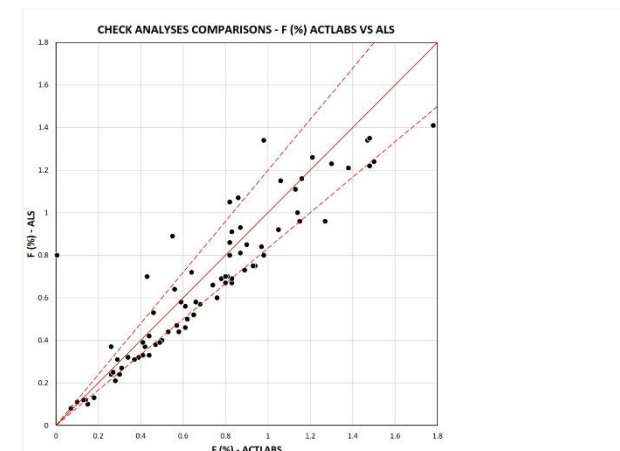
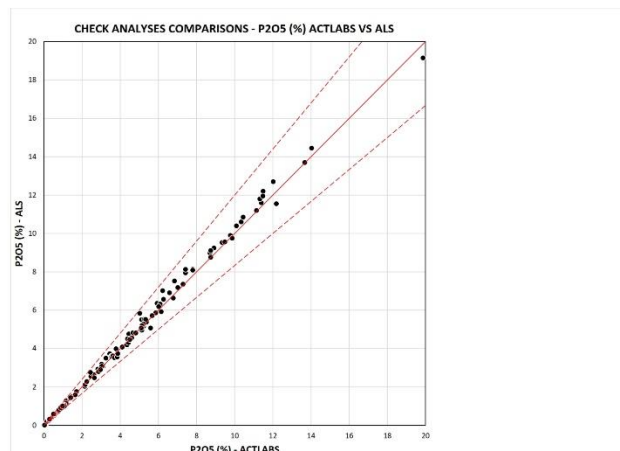
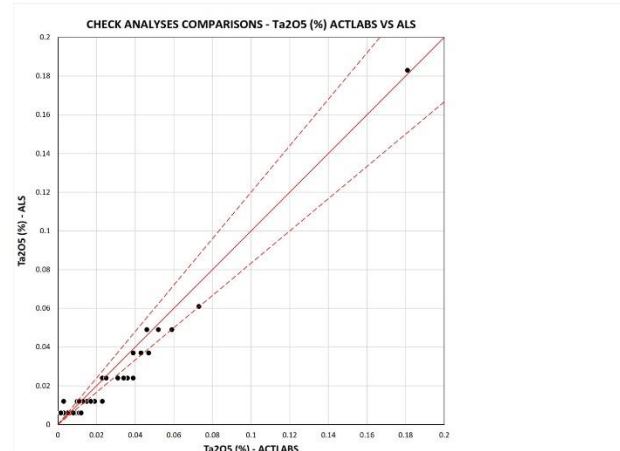
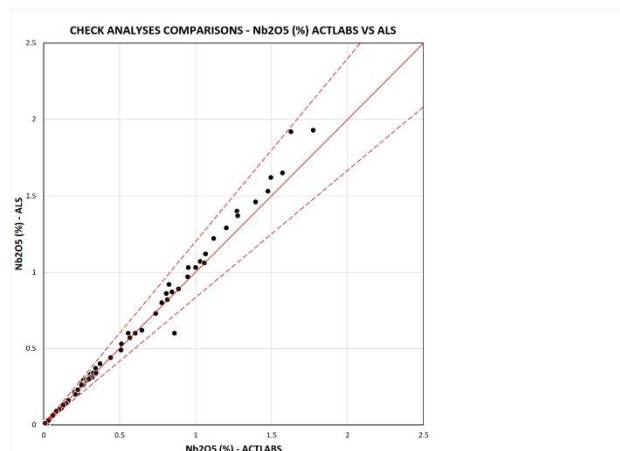


Figure 35: 2010 Assay Check – Actlabs vs ALS (Nb2O5)

## **11.4 CONCLUSIONS**

The 2008, 2010, 2011, and 2015 drill programs completed by Commerce Resources on the Niobium Claim Group Property included quartz blanks, standard or certified reference materials, quarter-core duplicates, and core pulp check analysis at secondary laboratories. Several improvements are documented from the 2010 program compared to the 2008 program, including the use of certified over standard reference materials, as well as a more systematic collection of quarter-core duplicates. Subsequent programs also incorporated a higher quality and purer quartz blank sourced from a third-party provider as opposed to from a local quartz vein near the Property.

The Company should consider a review of available CRMS for future programs so to incorporate a more relevant tantalum CRM, as well as implement an fluorine specific CRM with a carbonate matrix.

The Author considers the data collected to be have been done so following industry best practices and is therefore of sufficient quality for the purposes of this report. Additional review and validation may be required if a mineral resource estimate is pursued in the future.



## 12 DATA VERIFICATION

This report is a compilation and evaluation of historic exploration work completed on the Niobium Claim Group Property. Dahrouge Geological, on behalf of Saville Resource, identified and isolated all surface sampling and drilling information that was collected directly from the Property, and created an independent dataset for review.

The data for all surface samples include descriptions, location information, and analysis, and for drill holes include various logs, photos, collar location, downhole survey, and analytical information, all of which was compiled into MS Excel files. Verification was completed by the Author and included review of protocols, as well as checks against hard copy data and personal field notes from involvement in several field programs.

The Author confirms that no material discrepancies are noted, and that the data has been collected as per industry best practices and is of sound quality and therefore considered adequate for the purposes used in this technical report.

The Author has been a part of various field programs involving exploration of the Eldor Carbonatite Complex since the early 1980s, shortly after its discovery. This includes several programs for Commerce Resources and, in particular, the 2008 season where the vast majority of the drill data was collected on the Property. During this time, the Author oversaw drill sample collection procedures, as well as corresponding analytical data for drill holes completed on the Property. As such, the Author has logged numerous holes on the Property and is very familiar with the rock types and mineralization styles present.

The most recent program the Author was apart of was 2017 and included prospecting and surface sampling of the Miranna Area. Given the Author's extensive presence on the Property in past years, as well as deep snow and winter conditions on site this time of year, and as camp is closed with authorization pending, no site visit was completed specifically for this NI 43-101 report. Further, given the involvement in the 2008 drill program and sampling carried out under the Author's direction, as well as with corresponding analytical review, the sample verification is considered to have been completed, with no additional site visit anticipated at this time.

## **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing or metallurgical testing has been completed on the Property by Saville Resources.

## **14 MINERAL RESOURCE ESTIMATES**

No mineral resource estimation has been completed on the Property by Saville Resources.

**15. ITEMS 15 TO 22 - NOT APPLICABLE (EARLY STAGE PROPERTY)**

The Property is an early-stage exploration project. Sections 15 through 22, as defined under NI 43-101, are not relevant to this report and have been omitted.

## 23 ADJACENT PROPERTIES

All of the information in this section was obtained from the websites and public disclosures of the claim owners/operators, as well as data made available by Commerce Resources regarding their Eldor Property and Ashram Project. Claim information was obtained from the GESTIM FTP site found at <ftp://ftp.mrn.gouv.qc.ca/Public/Gestim/telechargements/>. The Author is not able to verify the information with respect to the adjacent properties, and this information is not necessarily indicative of the mineralization on the Property that is the subject of this report.

The Niobium Claim Group Property (the “Property”) is comprised of 26 claims that also form part of the Eldor Property, held by Commerce Resources. These 26 claims are situated in the centre of the Eldor Property, and therefore, are surrounded on all sides by the claims the remaining claims that comprise the Eldor Property, held 100% by Commerce Resources (Figure 36). The primary focus of Commerce Resources is rare earth elements (REE), notably, the Ashram Rare Earth Deposit which has a measured resource of 1.6 million tonnes (Mt) at 1.77% TREO, an indicated resource of 27.7 Mt at 1.90% TREO, and an inferred resource of 219.8 Mt at 1.88% TREO (Gagnon & Canus, 2012), at a cut-off grade of 1.25% TREO. The mineral resource has an effective date of April 20<sup>th</sup>, 2012 and report filed on the System for Electronic Document Analysis and Retrieval (“SEDAR”). Mineral resources are not mineral reserves and do not have demonstrated economic viability.

A Preliminary Economic Assessment (PEA) was completed on the Ashram Project by SGS-Geostat of Montreal (Blainville) with an effective date of July 5, 2012 (revised date of January 7, 2015) and is available on SEDAR (Gagnon, Rousseau, Camus, & Gagné, 2015). A PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized

As outlined in the Ashram Project’s PEA and subsequent corporate disclosure by Commerce Resources, if developed, the Ashram Project will require surface access and infrastructure development over several of the of the 21 claims that comprise the Property. This is further discussed in Section 4.7 Other Significant Factors and Risks.

The Ashram Deposit is located immediately adjacent to Property claim 1007661, with the modeled “Outer” wireframe (BD Zone) of the deposit, as per the current resource, interpreted to be directly



adjacent to the claim border. Subsequent modelling indicates this wireframe to be encroaching up to ~10 to 15 m onto claim 1007661 of the Property (Figure 37). As the Ashram Deposit is not fully defined, the final extent of the deposit's encroachment onto the Property, if any is indeed confirmed present, remains to be determined. As per the terms and conditions of the Earn-In Agreement, this may present a scenario between the companies whereby advanced dialogue will be required for clarity of tenure. Please refer to Section 4.2 Mineral Tenure, as well as Section 4.7 Other Significant Factors and Risks, for additional information.

In addition to Commerce Resources, which holds the dominant land position in the area, several other companies and individuals hold various claim blocks for exploration over a variety of commodities, focused west of the Property. These include precious and base metals, most notably the claim position of Val d'Or Mining Corporation (a subsidiary of Golden Valley Mines Ltd.) and Harfang Exploration Inc., where several Ni-Cu-PGE occurrences are documented. As these properties are not located directly adjacent to the Property, they are not discussed further.

Several gold showings are also present in the area and include Lac Daubancourt (14.3 g/t Au), Lac Terre Rouge (24.8 g/t Au), and Lac Dietrich-Sud (1.9 g/t Au). Apart from claims held by Commerce Resources, there are no other occurrences of rare metals (REE, Ta, Nb), phosphate, or fluorspar documented in the immediate area.

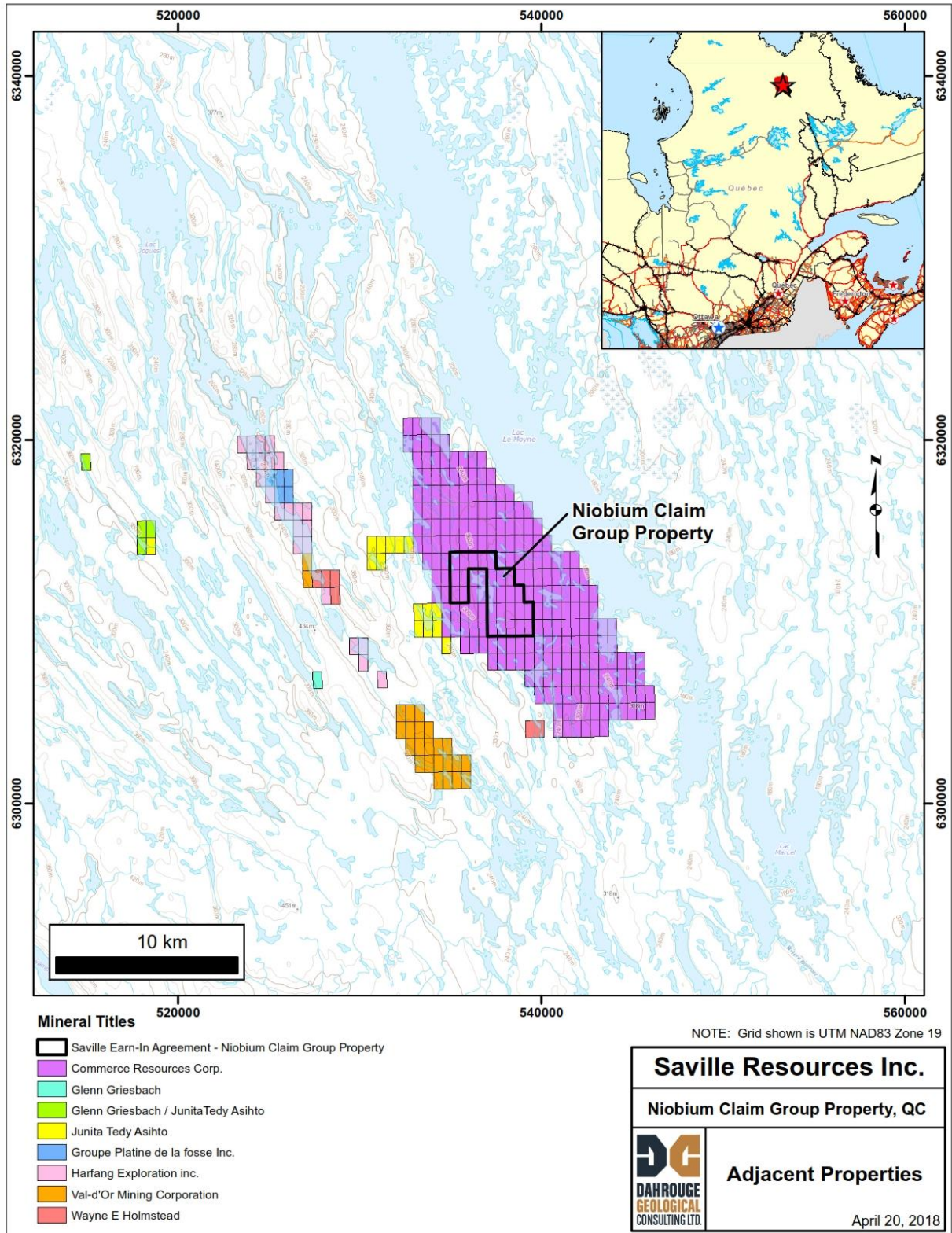
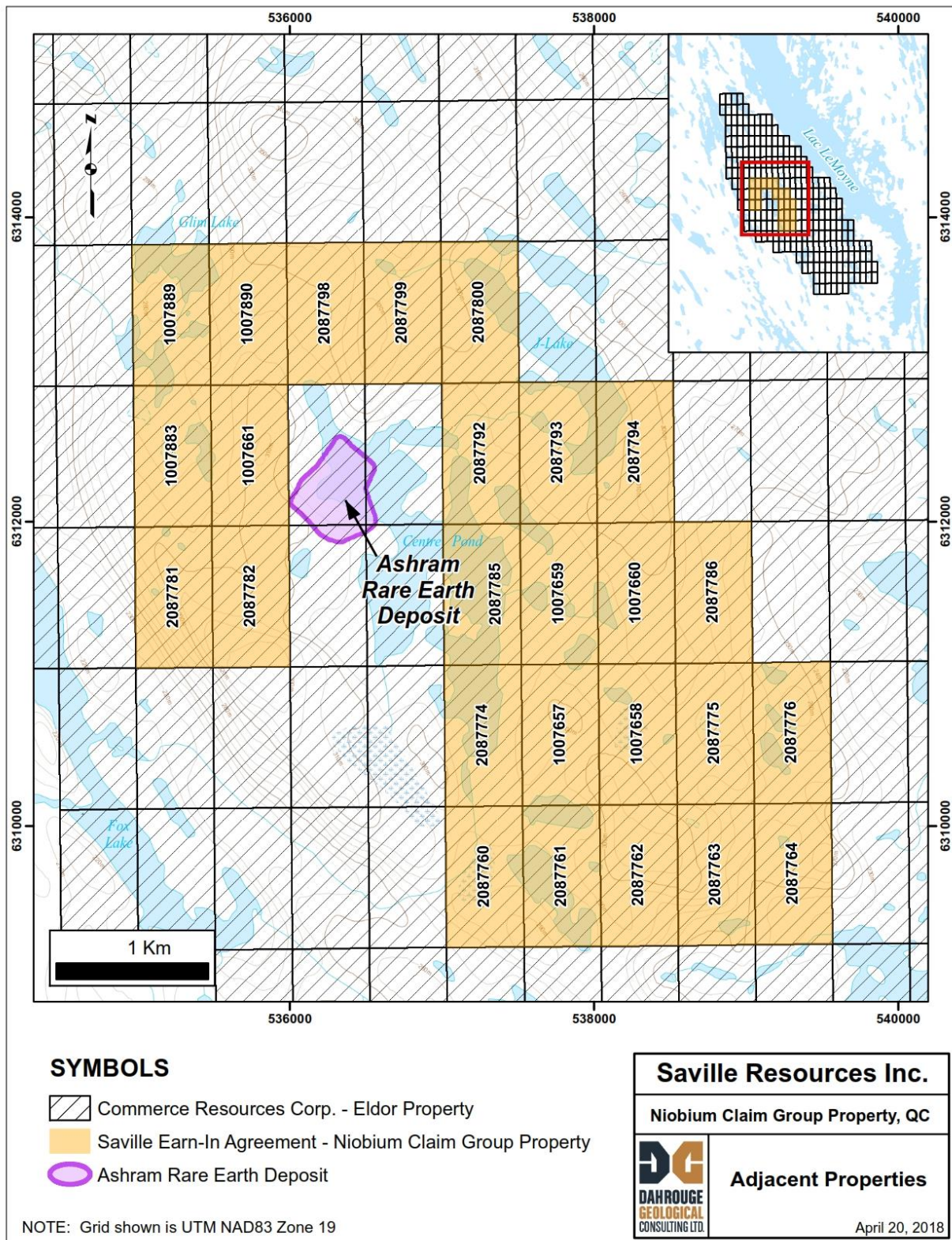


Figure 36: Adjacent properties





**Figure 37: Ashram Deposit (Commerce Resources) in relation to Property (Saville Resources)**

## **24 OTHER RELEVANT DATA AND INFORMATION**

The author is unaware of any other relevant data.

## **25. INTERPRETATION AND CONCLUSIONS**

The Property is considered to hold a strong potential for carbonatite hosted niobium-tantalum-phosphate deposit(s) of significance to be present, as well as that for fluorite. The Author considers niobium-tantalum, coupled with phosphate to be of primary interest, and fluorspar (fluorite) a secondary commodity of interest. Various mineralogical studies indicate pyrochlore-group minerals are the dominant host to the niobium-tantalum mineralization, with apatite the dominant host to the phosphate mineralization.

Historic exploration of the Niobium Claim Group Property has defined several prospective areas including the Southeast Area, the Northwest Area, the Star Trench Area, and more recently the Miranna Area. The Southeast, Northwest, and Star Trench areas have been the subject of drill programs in 2008, and the Southeast and Star Trench areas again in 2010.

The mineralogy and assay data indicate that the Southeast Area is host to stronger grades of niobium-tantalum over larger widths when compared to other areas on the Property, while also hosting a large number of targets to follow-up as well as new ones to test. Therefore, the Author considers the Southeast Area to hold the strongest potential for hosting a niobium-tantalum deposit of appreciable grade and tonnage on the Property and recommends that this area remain the focus of exploration.

Drilling to date at the Star Trench Area suggest its size potential may limited; however, the area is also host to the highest grades of tantalum on the Property and requires further ground work ahead of additional drill testing.

The Miranna Area exploration is less advanced, being limited to surface sampling to date. A well mineralized, northwest-southeast oriented, elongated boulder field indicates a nearby magnetic anomaly may be a bedrock source (the “Miranna Target”). The Miranna Target is considered a high priority for drill testing.

The Author is not aware of any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information presented in this report.

### **25.1. SOUTHEAST AREA**

The Southeast Area has been of primary interest for its niobium and tantalum potential since the Eldor Carbonatite Complex was discovered in 1981. Since this time, a significant dataset has been developed



and includes boulder and outcrop sampling, soil sampling, trenching, airborne geophysics, and 17 diamond drill holes totalling 4,328 m. However, the Southeast Area remains underexplored with the last niobium-tantalum focused work in the area completed in 2008 and 2010 respectively. The 2008 drilling was successful in extending mineralization from surface to depth, which was successfully expanded upon in 2010. The results to date have been highly encouraging and additional drilling is warranted.

The 2008 drilling was completed over three different geophysical and geochemical targets, concentrated on the northern half of the Southeast Area, with each returning good grades of niobium and/or tantalum over varied thicknesses. The 2010 program focused on the areas surrounding EC08-015 and 016 where the highest grades were returned from the 2008 program. The results confirm and extend the significant Nb and Ta mineralization over wide intervals (Table 14).

The niobium and tantalum occur together in the same intervals, although ratios within an interval are highly variable. The highest-grade phosphate intervals are associated with moderate niobium and tantalum grades. Additional analysis and interpretation are required to better understand the relationships among the various targeted commodities. This includes an evaluation of specific element ratios (e.g. Nb:Ta), which have not been reviewed in any significant detail.

The orientation of the Nb-Ta mineralization is poorly constrained, with cross-cutting dykes present throughout the complex, occurring in nearly every orientation. However, in general the mineralization is interpreted to dominantly dip to the northeast, in line with the general regional trend. Further, the drilling to date in the Southeast Area, coupled with surface sampling and geophysical surveying, suggest a broad mineralized zone(s) is present and is interpreted to extend of up to 1 km in length and several 100 m in width (Figure 17). Within this broad zone, the area of drill holes EC08-015, 016, 032, 033, 040, and 041 has returned the strongest mineralization to date, and over significant intervals. The Author interprets there is a strong potential for a deposit of significance to be present in this area although additional drilling is required to delineate.

In addition to the niobium-tantalum and phosphate potential, the Southeast Area also returned encouraging intersections of fluorite mineralization in drill holes EC08-015, 016, 032, 033, 040, and 041. The purple fluorite can be pervasive to banded within the Nb-Ta-phosphate carbonatite host. The fluorite zones remain to be modeled and intercepts correlated; however, the data indicates a strong potential for a fluorite zone of significance to be present. In addition, although intersected at depth, the fluorite

mineralization has potential to extend to surface given the sizable intervals over multiple holes, and the moderate to steep dip interpreted for the unit.

Core logging indicates that dolomite carbonatite is dominant in the Southeast Area and is interpreted to be the result of the later stage alteration of calcite carbonatite, whereby the magnetite present is destroyed, and the calcite carbonatite altered to dolomite carbonatite.

In addition to the three main targets drill tested in the Southeast Area, there remain numerous other targets yet to be evaluated as indicated from the surface sampling and geophysical anomalies. Therefore, significant “blue sky” exploration upside exists in the Southeast Area and its proposed extension to the northwest.

Select drill intersections from the Southeast Area are presented in Table 14.

**Table 14: Select mineralized drill hole intersections from the Southeast Area**

Exploration Area	DDH ID	From (m)	To (m)	Interval (m)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	P <sub>2</sub> O <sub>5</sub> (%)
Southeast	EC08-015	165.96	171.68	5.72	0.34	431	11.0
		177.20	203.30	26.10	0.54	71	5.9
	<i>Incl.</i>	<b>177.20</b>	<b>187.84</b>	<b>10.64</b>	<b>0.77</b>	<b>77</b>	<b>8.4</b>
	<i>Or</i>	<b>177.20</b>	<b>183.52</b>	<b>6.32</b>	<b>0.97</b>	<b>62</b>	<b>10.4</b>
	EC08-016	138.50	163.89	25.38	0.40	281	8.8
		193.44	197.93	4.49	0.67	130	8.4
		244.03	267.91	23.89	0.49	206	8.6
	EC08-019	190.90	200.10	9.20	0.24	259	4.9
		<b>224.74</b>	<b>266.05</b>	<b>41.31</b>	<b>0.34</b>	<b>226</b>	<b>5.9</b>
	<i>Incl.</i>	<i>232.07</i>	<i>237.29</i>	<i>5.23</i>	<i>0.46</i>	<i>323</i>	<i>5.7</i>
	EC08-021	195.74	204.56	8.82	0.60	214	5.3
	EC08-022	27.13	50.42	23.29	0.47	62	9.1
	EC08-026	24.43	38.66	14.23	0.48	43	3.8
	EC10-032	30.79	34.42	3.63	0.77	59	6.4
		<b>55.10</b>	<b>70.43</b>	<b>15.33</b>	<b>0.71</b>	<b>30</b>	<b>6.6</b>
		82.58	91.26	8.68	0.59	254	5.1
		116.60	127.70	11.10	0.59	138	7.8
		<b>182.50</b>	<b>211.05</b>	<b>28.55</b>	<b>0.57</b>	<b>63</b>	<b>6.7</b>
	<i>Incl.</i>	<i>202.78</i>	<i>206.18</i>	<i>3.40</i>	<i>0.77</i>	<i>60</i>	<i>8.3</i>
	EC10-033	4.22	25.57	21.35	0.72	145	9.6
	<i>Incl.</i>	<b>4.22</b>	<b>9.00</b>	<b>4.78</b>	<b>0.90</b>	<b>65</b>	<b>8.4</b>
	<i>Incl.</i>	<i>18.76</i>	<i>51.89</i>	<i>33.13</i>	<i>0.42</i>	<i>222</i>	<i>10.3</i>
		<b>58.93</b>	<b>80.82</b>	<b>21.89</b>	<b>0.82</b>	<b>93</b>	<b>8.5</b>
	<i>Incl.</i>	<b>63.05</b>	<b>72.03</b>	<b>8.98</b>	<b>0.92</b>	<b>95</b>	<b>9.0</b>

		158.33	187.27	28.94	0.55	101	6.4
	<i>Incl.</i>	158.33	163.65	5.32	0.73	152	6.6
	<i>Incl.</i>	182.32	187.27	4.95	0.75	96	7.5
		210.13	216.75	6.62	0.62	41	5.3
		<b>241.54</b>	<b>244.58</b>	<b>3.04</b>	<b>1.05</b>	<b>194</b>	<b>5.4</b>
		305.33	311.30	5.97	0.77	113	8.6
	EC10-040	48.52	56.26	7.74	0.81	85	8.0
		<b>70.00</b>	<b>87.35</b>	<b>17.35</b>	<b>0.72</b>	<b>64</b>	<b>6.6</b>
		101.44	120.50	19.06	0.61	45	5.9
		<b>156.97</b>	<b>178.61</b>	<b>21.64</b>	<b>0.48</b>	<b>374</b>	<b>8.8</b>
		203.74	212.34	8.60	0.63	178	7.0
		223.00	228.65	5.65	0.86	81	10.1
		<b>250.48</b>	<b>256.32</b>	<b>5.84</b>	<b>1.09</b>	<b>46</b>	<b>9.8</b>
	EC10-041	48.81	53.70	4.89	0.59	64	7.4
		60.45	67.92	7.47	0.60	42	7.6
		80.53	84.90	4.37	0.74	59	8.1
		100.89	105.47	4.58	0.62	123	7.1
		213.79	226.06	12.27	0.41	244	6.4

(1) True widths not known

## 25.2. NORTHWEST AREA

After the Southeast Area, the Northwest Area on the Property has seen the most exploration attention since the Eldor Carbonatite Complex was discovered in 1981. Since this time, a significant dataset has been developed and includes boulder and outcrop sampling, soil sampling, trenching, airborne geophysics, and 11 diamond drill holes totalling 2,257 m. The only drilling to be completed in the Northwest Area was in 2008 and targeted niobium-tantalum mineralization.

The drilling was completed over three different geophysical and geochemical targets. Although several high grade individual core samples collected assayed >0.90% Nb<sub>2</sub>O<sub>5</sub> to a peak of 1.1% Nb<sub>2</sub>O<sub>5</sub>, the most well-mineralized intervals remained limited to a few metres, while widespread lower-grade mineralization (<0.30% Nb<sub>2</sub>O<sub>5</sub>) was dominant.

Core logging indicates that calcite carbonatite is dominant in the Northwest Area and that magnetite is strongly associated with the niobium-tantalum mineralization, forming large (>1 cm) phenocrysts in the, whereas, this appears to be much less prominent in the Southeast Area. This is interpreted to be the result of the later stage alteration in the Southeast Area whereby the magnetite is destroyed, and the calcite carbonatite is altered to dolomite carbonatite.

As well, the Northwest Area contains bedrock trenches excavated in 2008, which may require additional sampling, as they appear, at least locally, to be well mineralized. These areas need to be examined in more detail and are potential drilling targets. The Northwest Area has been prospected to a lesser degree and needs to be explored in more detail.

The Northwest Area has seen only little exploration attention since the 2008 drill program with several targets of interest yet to be drill tested. Numerous high-grade Nb-Ta samples have been collected from the Northeast Area historically, including Commerce Resources; however, the drilling completed in 2008 did not produce as encouraging results as that of the Southeast Area (Table 7).

### **25.3. MIRANNA AREA**

A strongly mineralized (Nb-Ta-Phosphate), glacially dispersed, boulder characterizes the Miranna Area. A geophysical anomaly (the “Miranna Target”), interpreted to coincide with the apex of this boulder train, may be the bedrock source of the mineralization.

The Miranna Target remains to be drill tested and is the highest priority target in the area. Numerous high-grade niobium-tantalum-phosphate samples have been collected from the boulder train leading to the Miranna Target, and contains some of the highest grades on the Property. Select boulder sample highlights are presented in Table 4 and Figure 13. A complete listing of boulders collected on the Property, filtered to display only those grading <1% TREO and >0.2% Nb<sub>2</sub>O<sub>5</sub>, are presented in Appendix 1.

Nonetheless, further work on the Miranna Area is needed, especially to define areas where the presence of the high till has interfered with the prospecting. This work should include, an analysis of the size of the Nb-Ta bearing boulders to interpret their distance from source and the to look at the mineralogy and geochemistry of the boulders to see if multiple boulder trains can be resolved.

The mineralogy and geochemical data (Nb/Ta ratio) indicate that there are several distinct, but partially overlapping, boulder trains in the Miranna area, and therefore, multiple potential bedrock sources and targets. The boulders are, in general, more mineralized than that of the Southeast Area and appear to be well delineated.

The data also suggests that that one of these sources may reside in the Southeast Area where strong Nb-Ta-Phosphate mineralization is also documented. The Miranna Area’s mineralized boulders are, in

general, more mineralized than that of the Southeast Area. Further, there is a distinct lull in mineralized boulders overtop the Miranna Target, indicating it as a potential primary source.

Another less intense magnetic anomaly (the “Moirra Target”) is located approximately 200 m northeast of the primary anomaly (i.e. the Miranna Target) (Figure 12 and Figure 13). The highest tantalum grades in the boulder train are concentrated along its eastern margin, and therefore, may indicate that this anomaly is also prospective (Figure 13).

## **25.4. STAR TRENCH AREA**

The Star Trench Area was first visited during the first ground programs completed on the Property in the early 1980s. The area is named after a trench in the shape of a star that was completed at the time. The general area of the Property is covered by relatively thin overburden, typically <1 m making trenching an effective exploration tool. As such, the 2008 and 2010 drill programs were heavily guided by several trenches that were completed in the area. The rocks are characterized as phoscorite, with a mineralogy dominated by apatite with common abundant phenocrysts of magnetite.

The first hole completed in 2008 returned encouraging high-grade intervals of tantalum, although widths were relatively narrow at < 8 m (Table 7). The general strike of the mineralization is interpreted to be northwest with dip to the northeast, similar to that of the Southeast Area and the general region.

The 2010 program targeted the mineralized horizon at depth and along strike, and was successful in expanding both, although the intervals continued to be of similar, relatively narrow widths (Table 9). The 2010 drilling of the Star Trench Area also returned the highest-grade tantalum values in drill core collected to date on the Property, as well as the highest niobium grades to date collected from the drill core in the Star Trench Area.

Although some of the most impressive Nb-Ta drill core grades are present in the Star Trench Area, as well the 2010 drilling suggesting there is potential for additional mineralization along strike and at depth, the potential for large tonnage is not clear and would require significantly larger intercepts.

A 2010 ground magnetic survey, completed after the drill holes in the area, outlined a magnetic high anomaly located directly east of the drill area. This anomaly remains to be drill tested and appears to be very prospective as the mineralization is strongly associated with magnetite in the area.



## 25.5. OTHER AREAS

There remain several other targets on the Property of interest for niobium-tantalum mineralization. Of immediate note is the PANDS Area, first visited in 2011, where significant outcrop exposure is present. An outcrop sample collected in this area reportedly returned 0.41% Nb<sub>2</sub>O<sub>5</sub> and 0.066% Ta<sub>2</sub>O<sub>5</sub>. In addition, one boulder sample collected returned in the area returned 3.94% Nb<sub>2</sub>O<sub>5</sub> and 0.251% Ta<sub>2</sub>O<sub>5</sub>. The area was again briefly visited again in 2013 with a sample re-affirmed the presence of significant Ta mineralization in outcrop (0.34% Ta<sub>2</sub>O<sub>5</sub>). Further, these samples appear coincident with several magnetic high anomalies. The area is of primary interest for tantalum, with niobium also of interest.

Another area of interest includes the West Rim where a relatively small, isolated, primarily tantalum mineralized boulder train is present. At the southern end of this boulder train is the highest Nb-Ta mineralized sample (boulder) ever collected from the Eldor Carbonatite Complex – 16.1% Nb<sub>2</sub>O<sub>5</sub> and 7,540 ppm Ta<sub>2</sub>O<sub>5</sub>. The presence of this boulder train and high-grade sample in this area of the complex is intriguing and the data should be reviewed further. One drill hole was completed in this area, targeting REEs, however, the drill hole was dominated by non-carbonatite rocks types.

In 2012, the Author studied the distribution of mineralized Nb-Ta boulders found to that date and recognized four additional possible radioactive boulder trains with Nb-Ta values. All of these require further prospecting work.

## 26. RECOMMENDATIONS

Based on the favourable geologic setting, abundant niobium-tantalum mineralized occurrences encountered in surface samples and drill core, as well as numerous targets remaining to be drill tested, the Niobium Claim Group Property is considered of sufficient geological merit to warrant further exploration.

The following two-phase exploration program, for a combined estimated total of approximately \$5,825,000, is proposed. The program is recommended to comprise ~6,000 m of NQ size diamond drilling (15 to 20 holes to ~ 300 to 400 m depth), focused on the Southeast Area (~3,000 m), the Miranna Area (~2,000), and other targets of interest (~1,000 m) on the Property. In addition, it is recommended the exploration program include surface sampling, ground geophysics, and trenching to further refine drill targets (Phase I and II budget total - Table 15 and Table 16). The program may be completed in one phase or in two phases, with the Southeast Area considered to have the strongest potential, and therefore, the priority.

If completed in two phases, Phase I is recommended to focus on refining drill targets ahead of drilling in Phase II. This includes a drill core relog of the Southeast Area drill holes followed by geological modelling, geophysical surveying, additional surface sampling, and trenching (budget Phase I - Table 15). The completion of Phase II is not contingent on the results of Phase I as the primary objective of Phase I is to refine drill targets ahead of the drilling in Phase II.

The estimated total for the smaller Phase I is approximately \$693,000. Phase II, with a total estimate budget of \$5,132,000, would comprise all 6,000 m of drilling proposed (Table 16).

**Table 15: General estimate of exploration budget (Phase I)**

Description	Estimated Cost (\$)
<b><u>Phase I</u></b>	
Program Preparation	\$100,000
- Geophysical Survey Layout	
- Target Review and Interpretation	
Southeast Area Core Relog and Geological Modelling	\$200,000
Surface sampling and ground geophysics	\$100,000
Trenching Program	\$200,000
Program Data Comp & Reporting (5% of total)	\$30,000
Contingency (10%)	\$63,000
<b>Total:</b>	<b>\$693,000</b>

**Table 16: General estimate of exploration budget (Phase II)**

Description	Estimated Cost (\$)
<b><u>Phase II</u></b>	
Program Preparation & Geological Modelling	\$300,000
Surface sampling and geophysics	\$80,000
Trenching program	\$100,000
Drilling Program (6,000 m)	
- Drill Contractor (\$130 m all in)	\$780,000
- Helicopter support + fuel (404 hrs)	\$950,000
- Accommodations & Food (\$375/person/day)	\$511,000
- Travel/Transport (Commercial & Charter)	\$740,000
- Management, field staff, supplies, misc.	\$982,000
Program Data Comp & Reporting (5% of total)	\$222,000
Contingency (10%)	\$467,000
<b>Total:</b>	<b>\$5,132,000</b>

The Author suggests that certain terms of the Earn-In Agreement be re-visited with the objective of providing more clarity and certainty with respect to those aspects noted in Section 4.7: Other Significant Factors and Risks.

The Company should consider a review of available CRMs for future programs so to incorporate a more relevant tantalum CRM, as well as implement a fluorine specific CRM with a carbonate matrix.

## 26.1. NORTHWEST AND SOUTHEAST AREAS

Based on work completed to date, the Southeast Area is considered to be more prospective than the Northwest Area. As such, the exploration recommendations described below should prioritize the Southeast Area.

A large amount of data compilation remains to be completed on the Northwest and Southeast areas. Moreover, the PhD thesis work, being undertaken at the University of Windsor, suggests a reorganization and reclassification of the rock types used during the 2008 and 2010 programs may be prudent. As such, a detailed review of drill holes, potentially including a re-logging via photos or field logs, may be equally prudent. Upon completion, it is recommended the data then be modelled to further the understanding of the mineralization's orientation, as well as allow the mineralization to be potentially targeted closer to surface.

This modelling is particularly applicable to the Southeast Area where one of the strongest intervals in EC08-015 occurred near the end of the hole (0.76% Nb<sub>2</sub>O<sub>5</sub> over 10.64 m starting at 177 m depth) while also ending in mineralization with a final sample of 1.21% Nb<sub>2</sub>O<sub>5</sub> and 440 ppm Ta<sub>2</sub>O<sub>5</sub> at 203 m. The strongest intervals of fluor spar were also encountered at similar depths in this area around EC08-015, 016, EC10-033 and 040 and modelling will allow them to potentially be projected to surface where they may be trenched and targeted as shallower depths by drill holes. Therefore, a trenching program is recommended prior to the next phase of drilling (i.e. Phase I), if practical based on permitting constraints, to target the mineralized zones as modelled at surface.

Prior to any drilling, a small, focused ground magnetometer survey should be undertaken to see if a survey of this type would be of any help in determining the orientation of any Nb-Ta mineralized body present

It is recommended the drill program for the Southeast Area should be designed to produce a potential mineral resource estimate upon its completion. It should be noted the lack of down-hole survey data in holes EC08-015 and EC08-016, which are likely to be included in any mineral resource estimate. It is not clear if the casing in these holes was left in, and if the holes can be re-entered if so. However, completing the downhole survey at this stage could be considered.

Drilling in the Southeast Area should also focus on follow-up to the well mineralized intervals returned from EC10-033 with 0.71% Nb<sub>2</sub>O<sub>5</sub>, 140 ppm Ta<sub>2</sub>O<sub>5</sub>, and 9.6% P<sub>2</sub>O<sub>5</sub> over 21.35 m starting from 4.22 m

depth, and from EC10-040 with 1.09% Nb<sub>2</sub>O<sub>5</sub>, 50 ppm Ta<sub>2</sub>O<sub>5</sub>, and 9.8% P<sub>2</sub>O<sub>5</sub> over 5.84 m starting from 250.48 m depth.

In addition, further prospecting in the Southeast Area is also recommended to extend the coverage south of the main drill area, where limited surface work has been completed.

It is recommended any drilling completed in the Northwest Area be focused around the intersections in drill holes EC08-006 and EC08-008 and be modified based on core re-logging and modelling. Additional prospecting and trenching should be considered based on the modelled mineralization at surface. This surface work should be done prior to drilling.

## **26.2. MIRANNA AREA**

The Miranna Area has been subject to a significant amount of surface work, with the Miranna Target indicated as the primary target of interest. This target is recommended to be initially drill tested with 2,000 m (6 drill holes) during Phase II. Depending on results, more drill holes may be required to ensure both the magnetic high anomaly and its margins are adequately tested.

As part of Phase I, and prior to Phase II drilling, a ground magnetic survey is recommended to further refine drill targets given the association of the Nb-Ta mineralization with magnetite. Trenching may also be considered to further refine drill targets; however, may be limited based on ground conditions.

Prior to confirming the on-ground drill holes, the data should be reviewed further and filtered to attempt to isolate overlapping boulder trains. Various ratios have been identified (Schmidt, Samson, William-Jones, & Smith, 2017) and may aid in the final drill hole location selections. Further, the review may also identify secondary targets located north and south of the Miranna Target, as well as further qualify the Moira Target, located ~200 m northeast of the Miranna Target.

The site of sample 87465, collected in 2010 from the Miranna Area, should be re-visited to confirm if the source is boulder or outcrop as the data set currently describes it as “subcrop?” with an assay of 2.42% Nb<sub>2</sub>O<sub>5</sub> (Appendix 1).

## **26.3. STAR TRENCH AREA**

The Star Trench Area requires additional follow-up work to the most recent drill work completed in 2010. Similar to the Southeast and Northwest areas, a relog of the drill core or photos followed by geologic



modelling should be considered. The work will allow for a better understanding of the mineralized horizon and its orientation allowing it to be targeted closer to surface. As the overburden in this area is relatively shallow, a comprehensive trenching program is then recommended targeting where the mineralized horizon is modelled to subcrop. Once complete, additional drilling should be considered targeting strike and depth extensions. This work should be completed as part of Phase II or later exploration.

In addition, the magnetic high anomaly, identified from the 2010 ground magnetic survey, should be drill tested.

#### **26.4. OTHER TARGETS**

The PANDS Area requires additional evaluation for Ta potential (primary) and Nb potential (secondary). Additional prospecting and sampling, trenching, and potentially drilling (if trenching results are positive), are recommended to better evaluate the mineralized outcrop present in the area.

The data collected to date regarding the tantalum mineralized boulder train in the West Rim Area should be reviewed in detail to determine if additional work is warranted.

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## DATE AND SIGNATURE PAGE

This report, entitled “**Technical Report on the Niobium Claim Group Property**” and with an effective date of May 28<sup>th</sup>, 2018, was prepared on behalf of Saville Resources Inc. and is signed by the author, Alex W. Knox, M.Sc., P.Geol.

“Signed and Sealed”

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**ALEX W. KNOX, M.SC., P.GEOL.**  
AWK GEOLOGICAL CONSULTING LTD.  
2233 4TH AVE NW, CALGARY, ALBERTA, T2N 0N8, CANADA

**CERTIFICATE OF QUALIFIED PERSON**

I, Alex W. Knox, M.Sc., P.Geol., do hereby certify that:

1. I am a Professional Geoscientist with a business address at 2233, 4<sup>th</sup> Ave NW, Calgary, AB, T2N 0N8, Canada.
2. I am the author of the technical report entitled “**Technical Report on the Niobium Claim Group Property**”, prepared on behalf of Saville Resources Corp. and with an effective date of May 28<sup>th</sup>, 2018
3. I graduated in 1980 with an M.Sc. in Geology from University of Calgary.
4. I am a Registered Professional Geologist (P.Geol.) with the Association of Professional Engineers and Geoscientists of Alberta. I have more than 40 years’ experience in the mineral exploration industry, which includes significant experience with carbonatite hosted rare metal deposits.
5. I have been working as a consulting mineral exploration geologist since 1993.
6. I am a Qualified Person for purposes of National Instrument 43-101.
7. I have visited the Property on numerous occasions since 1983, the latest being September 14<sup>th</sup> to 26<sup>th</sup>, 2017.
8. I am responsible for the preparation and take responsibility for all sections of the report entitled “**Technical Report on the Niobium Claim Group Property**”, prepared on behalf of Saville Resources Inc. and with an effective date of May 28<sup>th</sup>, 2018.
9. I am independent of the issuer of this report, Saville Resources Inc., and the vendor, Commerce Resources Corp., and the Property, as defined by Section 1.5 of NI 43-101
10. My prior involvement with the Niobium Claim Group Property is limited to geological support of various filed programs.
11. I have read National Instrument 43-101 and the report entitled “**Technical Report on the Niobium Claim Group Property**” which has been prepared in compliance with this Instrument.
12. On the effective date of the report, May 28<sup>th</sup>, 2018 to the best of my knowledge, information, and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

“Signed and Sealed”

Alex W. Knox, M.Sc., P.Geol., Dated May 28<sup>th</sup>, 2018



## CONSENT OF QUALIFIED PERSON

To: Securities Regulatory Authority – British Columbia Securities Commission and the Alberta Securities Commission

I, Alex W. Knox, M.Sc., P.Geol., do hereby consent to the filing of the technical report entitled **“Technical Report on the Niobium Claim Group Property”** dated May 28<sup>th</sup>, 2018, (the “Technical Report”) by Saville Resources Inc. (the “Issuer”), with the TSX Venture Exchange under its applicable policies and forms in connection with the Earn-In Agreement dated as of January 11<sup>th</sup>, 2018 respecting the Niobium Claim Group Property entered into by the Issuer and I acknowledge that the Technical Report will become part of the Issuer’s public record.

“Signed and Sealed”

Alex W. Knox, M.Sc., P.Geol.

May 28<sup>th</sup>, 2018

## **APPENDIX 1: BOULDER SAMPLES AND ASSAYS**

Year	Exploration Area	Claim_No	Sample ID	Easting	Northing	UTM Grid	Property	Source	Nb2O5 (%)	Ta2O5 (%)	P2O5 (%)	CaF2 (%)
2015	Miranna	2087792	139977	537426	6312368	NAD83, Z19	ON	Boulder	5.93	0.0310	11.5	2.7
2017	Miranna	2087792	119105	537426	6312367	NAD83, Z19	ON	Boulder	4.30	0.0240	12.8	2.8
2015	Miranna	2087799	116702	536942	6312965	NAD83, Z19	ON	Boulder	4.24	0.0160	11.9	2.5
2017	Miranna	2087792	119079	537344	6312168	NAD83, Z19	ON	Boulder	2.75	0.0130	7.2	1.6
2010	Miranna	2087799	87465	536943	6312966	NAD83, Z19	ON	Subcrop?	2.42	0.0120	13.5	
2017	Miranna	2087785	119076	537360	6311932	NAD83, Z19	ON	Boulder	2.30	0.0240	11.5	2.3
2017	Miranna	2087800	119102	537026	6313074	NAD83, Z19	ON	Boulder	2.24	0.0290	12.0	3.0
2013	Miranna	2087792	118014	537321	6312222	NAD83, Z19	ON	Boulder	1.94	0.0380	9.9	1.9
2015	Miranna	2087792	116681	537256	6312013	NAD83, Z19	ON	Boulder	1.65	0.0060	8.0	1.8
2010	Miranna	2087800	87461	537043	6312983	NAD83, Z19	ON	Boulder	1.61	0.0080	11.2	
2013	Miranna	2087792	118010	537376	6312844	NAD83, Z19	ON	Boulder	1.57	0.1220	10.6	2.3
2015	Miranna	2087792	116680	537283	6312001	NAD83, Z19	ON	Boulder	1.52	0.0070	11.8	2.2
2015	Miranna	2087792	116685	537178	6312401	NAD83, Z19	ON	Boulder	1.48	0.0100	10.9	2.1
2015	Miranna	2087792	116687	537338	6312197	NAD83, Z19	ON	Boulder	1.45	0.0190	7.3	1.4
2016	Miranna	2087785	116214	537364	6311918	NAD83, Z19	ON	Boulder	1.43	0.0090	8.9	1.7
2013	Miranna	2087792	118016	537254	6312341	NAD83, Z19	ON	Boulder	1.41	0.0100	12.6	2.9
2017	Miranna	2087792	119083	537186	6312460	NAD83, Z19	ON	Boulder	1.34	0.0130	7.8	1.6
2015	Miranna	2087792	116689	537198	6312090	NAD83, Z19	ON	Boulder	1.29	0.0090	11.5	2.4
2015	Miranna	2087792	116682	537236	6312009	NAD83, Z19	ON	Boulder	1.28	0.0030	2.0	0.7
2017	Miranna	2087792	119084	537148	6312621	NAD83, Z19	ON	Boulder	1.27	0.0070	7.1	1.5
2017	Miranna	2087792	119107	537185	6312400	NAD83, Z19	ON	Boulder	1.26	0.0150	6.4	1.6
2017	Miranna	2087792	119080	537413	6312272	NAD83, Z19	ON	Boulder	1.23	0.0300	15.3	4.4
2015	Miranna	2087792	116686	537202	6312374	NAD83, Z19	ON	Boulder	1.18	0.0040	7.8	2.1
2017	Miranna	2087791	119101	536915	6312823	NAD83, Z19	OFF	Boulder	1.16	0.0150	13.4	5.4
2017	Miranna	2087785	119077	537298	6311963	NAD83, Z19	ON	Boulder	1.16	0.0070	10.4	1.8
2013	Miranna	2087792	118015	537254	6312290	NAD83, Z19	ON	Boulder	1.15	0.0080	10.2	2.4
2011	Miranna	2087792	92316	537474	6312833	NAD83, Z19	ON	Boulder	1.10	0.0110	8.5	1.7
2015	Miranna	2087792	139988	537056	6312890	NAD83, Z19	ON	Boulder	1.10	0.0040	6.3	1.3
2015	Miranna	2087792	139984	537133	6312540	NAD83, Z19	ON	Boulder	1.09	0.0120	2.8	0.9
2016	Miranna	2087785	116202	537503	6311834	NAD83, Z19	ON	Boulder	1.08	0.0070	9.0	2.1
2015	Miranna	1007660	116725	538065	6311715	NAD83, Z19	ON	Boulder	1.05	0.0260	12.7	2.5
2017	Miranna	2087792	119081	537221	6312388	NAD83, Z19	ON	Boulder	1.03	0.0190	9.8	1.9
2017	Miranna	2087792	119085	537122	6312749	NAD83, Z19	ON	Boulder	0.99	0.0090	6.7	1.4
2013	Miranna	2087792	118013	537374	6312700	NAD83, Z19	ON	Boulder	0.96	0.0790	9.9	1.5
2015	Miranna	2087792	139985	537134	6312540	NAD83, Z19	ON	Boulder	0.95	0.0015	8.3	1.5
2015	Miranna	2087792	116690	537448	6312653	NAD83, Z19	ON	Boulder	0.94	0.0370	12.8	2.0
2015	Miranna	2087785	116679	537287	6311983	NAD83, Z19	ON	Boulder	0.93	0.0015	8.0	1.4
2008	Miranna	2087800	42852	537036	6313005	NAD83, Z19	ON	Boulder	0.90	0.0102	6.1	
2015	Miranna	2087791	116699	536973	6312805	NAD83, Z19	OFF	Boulder	0.90	0.0040	9.9	1.9
2015	Miranna	2087792	116683	537382	6311999	NAD83, Z19	ON	Boulder	0.90	0.0110	10.0	2.1
2010	Miranna	2087792	87628	537315	6312186	NAD83, Z19	ON	Boulder	0.86	0.0210	9.5	
2015	Miranna	1007659	139999	537649	6311689	NAD83, Z19	ON	Boulder	0.86	0.0290	10.4	2.2
2011	Miranna	2087809	92495	536670	6313873	NAD83, Z19	OFF	Boulder	0.84	0.0160	10.5	6.6
2011	Miranna	2087800	92314	537288	6313074	NAD83, Z19	ON	Boulder	0.83	0.0400	11.0	1.8
2015	Miranna	2087792	116688	537191	6312084	NAD83, Z19	ON	Boulder	0.83	0.0180	9.6	1.8

Year	Exploration Area	Claim_No	Sample ID	Easting	Northing	UTM Grid	Property	Source	Nb2O5 (%)	Ta2O5 (%)	P2O5 (%)	CaF2 (%)
2016	Miranna	2087792	116221	537460	6312214	NAD83, Z19	ON	Boulder	0.82	0.0230	5.0	1.2
2011	Miranna	2087793	92321	537534	6312393	NAD83, Z19	ON	Boulder	0.76	0.0270	10.5	2.1
2017	Miranna	2087792	119087	537307	6312607	NAD83, Z19	ON	Boulder	0.75	0.0220	12.2	1.9
2017	Miranna	1007659	119098	537710	6311956	NAD83, Z19	ON	Boulder	0.75	0.0660	15.2	2.2
2015	Miranna	2087785	116722	537454	6311735	NAD83, Z19	ON	Boulder	0.72	0.0100	5.1	1.0
2017	Miranna	2087792	119082	537179	6312457	NAD83, Z19	ON	Boulder	0.72	0.0270	8.7	2.2
2015	Miranna	2087792	116692	537203	6312506	NAD83, Z19	ON	Boulder	0.72	0.0130	5.7	1.0
2010	Miranna	2087800	87460	537036	6313002	NAD83, Z19	ON	Boulder	0.72	0.0100	6.7	
2015	Miranna	2087791	116701	536957	6312882	NAD83, Z19	OFF	Boulder	0.70	0.0130	8.4	1.7
2016	Miranna	2087791	116201	536950	6312847	NAD83, Z19	OFF	Boulder	0.69	0.0060	6.4	1.4
2011	Miranna	2087798	107613	536174	6313697	NAD83, Z19	ON	Boulder	0.69	0.0050	11.6	3.7
2016	Miranna	2087792	116219	537496	6312225	NAD83, Z19	ON	Boulder	0.68	0.0330	7.9	1.5
2015	Miranna	2087800	116706	537137	6312985	NAD83, Z19	ON	Boulder	0.64	0.0150	6.6	1.6
2010	Miranna	1007659	87632	537634	6311789	NAD83, Z19	ON	Boulder	0.64	0.0650	16.5	
2015	Miranna	2087800	116704	537043	6312981	NAD83, Z19	ON	Boulder	0.62	0.0030	8.9	1.8
2013	Miranna	2087792	118012	537379	6312741	NAD83, Z19	ON	Boulder	0.62	0.0580	9.1	1.7
2017	Miranna	2087792	119078	537330	6312093	NAD83, Z19	ON	Boulder	0.61	0.0180	5.1	1.1
2015	Miranna	2087792	139983	537284	6312683	NAD83, Z19	ON	Boulder	0.60	0.0100	3.0	0.6
2010	Miranna	2087800	87459	537027	6313022	NAD83, Z19	ON	Boulder	0.60	0.0015	6.4	
2016	Miranna	2087793	116218	537530	6312207	NAD83, Z19	ON	Boulder	0.59	0.0110	13.4	2.5
2015	Miranna	2087792	116697	537176	6312494	NAD83, Z19	ON	Boulder	0.59	0.0015	4.2	0.9
2015	Miranna	2087792	139986	537062	6312864	NAD83, Z19	ON	Boulder	0.58	0.0050	6.4	1.3
2017	Miranna	2087792	119086	537120	6312756	NAD83, Z19	ON	Boulder	0.58	0.0080	5.0	1.2
2016	Miranna	2087785	116208	537446	6311896	NAD83, Z19	ON	Boulder	0.57	0.0030	3.8	1.5
2010	Miranna	2087785	87629	537508	6311873	NAD83, Z19	ON	Boulder	0.57	0.0190	19.3	
2011	Miranna	2087793	92319	537735	6312263	NAD83, Z19	ON	Boulder	0.57	0.0340	11.7	2.0
2017	Miranna	2087792	119106	537182	6312365	NAD83, Z19	ON	Boulder	0.56	0.0220	7.4	1.6
2015	Miranna	1007660	116728	538083	6311804	NAD83, Z19	ON	Boulder	0.55	0.0220	12.0	2.4
2016	Miranna	2087792	116224	537473	6312200	NAD83, Z19	ON	Boulder	0.54	0.0015	4.6	1.0
2011	Miranna	2087800	92323	537351	6312960	NAD83, Z19	ON	Boulder	0.52	0.0390	11.7	2.3
2017	Miranna	2087792	119108	537103	6312557	NAD83, Z19	ON	Boulder	0.52	0.0130	6.7	1.2
2016	Miranna	2087785	116207	537439	6311910	NAD83, Z19	ON	Boulder	0.51	0.0060	11.4	2.5
2016	Miranna	2087785	116212	537506	6311871	NAD83, Z19	ON	Boulder	0.51	0.0190	7.3	1.4
2011	Miranna	2087808	92369	536106	6314089	NAD83, Z19	OFF	Boulder	0.50	0.0015	4.5	1.3
2016	Miranna	2087792	116220	537487	6312229	NAD83, Z19	ON	Boulder	0.50	0.0320	8.3	1.7
2015	Miranna	1007660	116727	538065	6311737	NAD83, Z19	ON	Boulder	0.47	0.0130	8.9	4.7
2015	Miranna	1007659	116720	537605	6311718	NAD83, Z19	ON	Boulder	0.46	0.0110	10.0	1.7
2015	Miranna	1007659	116678	537573	6311795	NAD83, Z19	ON	Boulder	0.45	0.0110	10.3	1.4
2015	Miranna	1007659	116713	537659	6311635	NAD83, Z19	ON	Boulder	0.43	0.0260	8.4	1.5
2015	Miranna	1007659	140000	537636	6311699	NAD83, Z19	ON	Boulder	0.43	0.0340	6.9	1.5
2015	Miranna	1007660	116726	538062	6311713	NAD83, Z19	ON	Boulder	0.42	0.0120	7.4	34.7
2015	Miranna	2087792	116691	537185	6312368	NAD83, Z19	ON	Boulder	0.41	0.0120	4.0	1.2
2010	Miranna	2087793	87454	537908	6312701	NAD83, Z19	ON	Boulder	0.41	0.0180	7.1	
2016	Miranna	1007659	116213	537574	6311876	NAD83, Z19	ON	Boulder	0.41	0.0450	6.8	1.4
2010	Miranna	2087799	83358	536800	6313505	NAD83, Z19	ON	Boulder	0.40	0.0030	3.3	

Year	Exploration Area	Claim_No	Sample ID	Easting	Northing	UTM Grid	Property	Source	Nb2O5 (%)	Ta2O5 (%)	P2O5 (%)	CaF2 (%)
2013	Miranna	2087800	118008	537390	6313050	NAD83, Z19	ON	Boulder	0.40	0.0130	5.0	1.6
2015	Miranna	1007659	139978	537906	6311956	NAD83, Z19	ON	Boulder	0.39	0.1020	1.2	0.2
2010	Miranna	2087800	83365	537380	6313022	NAD83, Z19	ON	Boulder	0.39	0.0140	10.2	
2010	Miranna	1007659	87634	537984	6311898	NAD83, Z19	ON	Boulder	0.39	0.0100	5.1	
2011	Miranna	2087800	92494	537178	6313828	NAD83, Z19	ON	Boulder	0.39	0.0130	7.6	1.3
2010	Miranna	2087792	87627	537242	6312718	NAD83, Z19	ON	Boulder	0.38	0.0120	7.0	
2015	Miranna	2087800	139989	537299	6312969	NAD83, Z19	ON	Unknown	0.37	0.0270	9.0	1.5
2015	Miranna	2087791	116700	536969	6312845	NAD83, Z19	OFF	Boulder	0.35	0.0015	3.0	1.2
2017	Miranna	2087793	119104	537561	6312477	NAD83, Z19	ON	Boulder	0.35	0.0130	4.7	0.7
2010	Miranna	2087800	87463	537016	6312930	NAD83, Z19	ON	Boulder	0.35	0.0030	5.4	
2015	Miranna	2087800	116705	537104	6312986	NAD83, Z19	ON	Boulder	0.35	0.0190	5.4	1.0
2008	Miranna	1007660	47735	538368	6311620	NAD83, Z19	ON	Boulder	0.32	0.0127	5.1	
2015	Miranna	1007659	116676	537628	6311708	NAD83, Z19	ON	Boulder	0.31	0.0320	12.2	2.5
2010	Miranna	2087792	83371	537397	6312750	NAD83, Z19	ON	Boulder	0.31	0.0260	14.0	
2008	Miranna	2087800	42851	537014	6312931	NAD83, Z19	ON	Outcrop?	0.30	0.0074	4.0	
2011	Miranna	2087792	92322	537372	6312874	NAD83, Z19	ON	Boulder	0.29	0.0130	4.7	1.0
2015	Miranna	1007659	116724	537624	6311850	NAD83, Z19	ON	Boulder	0.27	0.0240	8.6	2.6
2010	Miranna	2087800	83363	537386	6313301	NAD83, Z19	ON	Boulder	0.27	0.0170	8.7	
2015	Miranna	2087792	116707	537210	6312671	NAD83, Z19	ON	Boulder	0.27	0.0040	4.5	0.8
2015	Miranna	1007659	116723	537536	6311881	NAD83, Z19	ON	Boulder	0.27	0.0090	7.3	1.1
2015	Miranna	1007659	116677	537561	6311783	NAD83, Z19	ON	Boulder	0.27	0.0060	7.2	1.1
2013	Miranna	2087792	118011	537378	6312759	NAD83, Z19	ON	Boulder	0.26	0.0080	4.1	0.8
2010	Miranna	2087792	83372	537373	6312771	NAD83, Z19	ON	Boulder	0.25	0.0330	8.9	
2011	Miranna	2087793	92317	537840	6312179	NAD83, Z19	ON	Boulder	0.25	0.0050	5.3	1.0
2009	Miranna	2087798	70045	536020	6313786	NAD83, Z19	ON	Boulder	0.25	0.0004	6.1	
2010	Miranna	2087791	87470	536854	6312772	NAD83, Z19	OFF	Boulder	0.25	0.0015	1.8	
2010	Miranna	1007659	87630	537551	6311828	NAD83, Z19	ON	Boulder	0.24	0.0130	6.5	
2010	Miranna	1007659	87633	537923	6311870	NAD83, Z19	ON	Boulder	0.24	0.0310	11.4	
2015	Miranna	2087792	139981	537371	6312788	NAD83, Z19	ON	Boulder	0.24	0.0230	6.0	1.1
2017	Miranna	2087792	119103	537458	6312547	NAD83, Z19	ON	Boulder	0.24	0.0200	6.8	1.1
2016	Miranna	2087785	116215	537351	6311913	NAD83, Z19	ON	Boulder	0.23	0.0015	2.6	0.6
2010	Miranna	2087800	83361	537145	6313309	NAD83, Z19	ON	Boulder	0.23	0.0180	8.4	
2015	Miranna	1007659	116721	537570	6311699	NAD83, Z19	ON	Boulder	0.23	0.0300	10.1	1.6
2016	Miranna	2087792	116222	537501	6312176	NAD83, Z19	ON	Boulder	0.23	0.0040	4.3	0.8
2016	Miranna	2087785	116211	537506	6311871	NAD83, Z19	ON	Boulder	0.23	0.0210	5.8	1.1
2010	Miranna	2087800	83359	537139	6313365	NAD83, Z19	ON	Boulder	0.22	0.0015	0.3	
2010	Miranna	2087792	83373	537371	6312789	NAD83, Z19	ON	Boulder	0.22	0.0280	7.8	
2015	Miranna	1007659	139979	537907	6311900	NAD83, Z19	ON	Boulder	0.22	0.0220	8.7	1.5
2010	Miranna	2087793	87457	537903	6312766	NAD83, Z19	ON	Boulder	0.22	0.0060	2.0	
2015	Miranna	2087792	139982	537369	6312777	NAD83, Z19	ON	Boulder	0.20	0.0200	5.7	1.0
2011	Southeast	1007660	92965	538262	6311207	NAD83, Z19	ON	Boulder	1.63	0.0670	0.6	1.8
2015	Southeast	1007659	116719	537715	6311437	NAD83, Z19	ON	Boulder	1.60	0.1060	10.3	2.0
2015	Southeast	1007659	116710	537717	6311466	NAD83, Z19	ON	Boulder	1.47	0.0190	17.1	4.6
2010	Southeast	1007659	87483	537767	6311334	NAD83, Z19	ON	Boulder	1.21	0.0360	10.0	
2017	Southeast	1007659	119095	537796	6311372	NAD83, Z19	ON	Boulder	1.18	0.0590	13.1	1.9



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2017	Southeast	1007659	119091	537709	6311393	NAD83, Z19	ON	Boulder	1.16	0.0700	0.6	0.9
2015	Southeast	1007659	139980	537722	6311517	NAD83, Z19	ON	Boulder	1.06	0.1040	11.1	1.9
2015	Southeast	1007659	116718	537687	6311422	NAD83, Z19	ON	Boulder	1.04	0.0670	9.1	2.1
2008	Southeast	1007658	47730	538409	6310582	NAD83, Z19	ON	Boulder	0.94	0.0094	8.2	
2008	Southeast	1007658	42814	538027	6311056	NAD83, Z19	ON	Boulder	0.90	0.0510	8.6	
2015	Southeast	2087785	116715	537511	6311421	NAD83, Z19	ON	Boulder	0.89	0.0110	8.4	1.4
2011	Southeast	2087785	92480	537476	6311469	NAD83, Z19	ON	Boulder	0.83	0.0270	10.7	2.2
2010	Southeast	1007657	87441	537826	6310872	NAD83, Z19	ON	Boulder	0.82	0.0270	12.3	
2008	Southeast	1007660	42813	538072	6311142	NAD83, Z19	ON	Boulder	0.76	0.0145	12.8	
2010	Southeast	1007657	87447	537902	6310561	NAD83, Z19	ON	Outcrop?	0.74	0.0050	4.6	
2008	Southeast	1007658	42820	538424	6310540	NAD83, Z19	ON	Boulder	0.73	0.0159	9.7	
2017	Southeast	2087785	119088	537440	6311495	NAD83, Z19	ON	Boulder	0.73	0.0210	7.5	1.3
2015	Southeast	1007659	116708	537706	6311508	NAD83, Z19	ON	Boulder	0.72	0.0360	5.4	1.0
2008	Southeast	1007657	42816	538011	6310892	NAD83, Z19	ON	Boulder	0.70	0.0358	15.0	
2011	Southeast	1007659	92952	537809	6311425	NAD83, Z19	ON	Boulder	0.70	0.0660	14.6	2.3
2017	Southeast	1007659	119097	537885	6311359	NAD83, Z19	ON	Boulder	0.69	0.0350	9.4	1.4
2017	Southeast	2087785	119089	537472	6311503	NAD83, Z19	ON	Boulder	0.67	0.0190	8.3	1.3
2008	Southeast	1007657	42815	538022	6311028	NAD83, Z19	ON	Boulder	0.67	0.0224	12.7	
2009	Southeast	2087785	70013	537450	6311104	NAD83, Z19	ON	Boulder	0.66	0.0052	7.0	
2007	Southeast	1007660	29802	538166	6311286	NAD83, Z19	ON	Boulder	0.64	0.0093	10.8	
2009	Southeast	2087785	70012	537467	6311099	NAD83, Z19	ON	Boulder	0.63	0.0090	9.3	
2007	Southeast	1007657	29806	537820	6310996	NAD83, Z19	ON	Boulder	0.62	0.0166	14.7	
2008	Southeast	1007658	47726	538434	6310595	NAD83, Z19	ON	Boulder	0.60	0.0207	15.4	
2015	Southeast	2087785	116714	537501	6311496	NAD83, Z19	ON	Boulder	0.60	0.0400	7.0	1.2
2017	Southeast	1007659	119094	537749	6311383	NAD83, Z19	ON	Boulder	0.60	0.0330	7.8	2.1
2015	Southeast	1007658	116696	538067	6310319	NAD83, Z19	ON	Boulder	0.59	0.0310	9.9	1.7
2007	Southeast	1007658	29804	538041	6310973	NAD83, Z19	ON	Unknown	0.57	0.0145	14.2	
2015	Southeast	2087785	116717	537483	6311365	NAD83, Z19	ON	Boulder	0.57	0.0100	9.8	1.8
2008	Southeast	1007658	47732	538405	6310749	NAD83, Z19	ON	Boulder	0.56	0.0215	13.4	
2015	Southeast	1007659	116712	537717	6311479	NAD83, Z19	ON	Boulder	0.56	0.0480	12.2	2.5
2015	Southeast	1007659	116711	537717	6311478	NAD83, Z19	ON	Boulder	0.56	0.0480	9.8	2.5
2008	Southeast	1007658	RD045	538178	6310785	NAD83, Z19	ON	Boulder	0.52	0.0222	6.9	
2017	Southeast	1007659	119093	537751	6311371	NAD83, Z19	ON	Boulder	0.52	0.0160	4.4	0.8
2007	Southeast	1007657	29807	537758	6310626	NAD83, Z19	ON	Outcrop?	0.52	0.0056	13.5	
2010	Southeast	1007657	87661	537546	6310512	NAD83, Z19	ON	Boulder	0.51	0.0050	9.3	
2007	Southeast	1007657	29805	537835	6310920	NAD83, Z19	ON	Boulder	0.50	0.0122	8.7	
2015	Southeast	1007659	116709	537715	6311454	NAD83, Z19	ON	Boulder	0.50	0.0230	6.1	1.1
2008	Southeast	2087775	42822	538696	6310568	NAD83, Z19	ON	Boulder	0.46	0.0336	8.5	
2007	Southeast	1007660	29801	538161	6311287	NAD83, Z19	ON	Boulder	0.41	0.0119	9.3	
2010	Southeast	1007659	87486	537706	6311440	NAD83, Z19	ON	Boulder	0.41	0.0070	6.4	
2008	Southeast	1007657	47101	537952	6310974	NAD83, Z19	ON	Unknown	0.41	0.0248	10.1	
2008	Southeast	1007658	47733	538290	6311014	NAD83, Z19	ON	Boulder	0.39	0.0188	7.2	
2010	Southeast	1007657	67765	537855	6310783	NAD83, Z19	ON	Unknown	0.36	0.0280	5.0	
2010	Southeast	1007657	87440	537850	6310910	NAD83, Z19	ON	Boulder	0.35	0.0070	5.3	
2017	Southeast	1007659	119092	537715	6311370	NAD83, Z19	ON	Boulder	0.35	0.0340	1.5	0.3

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2008	Southeast	1007658	47729	538529	6310869	NAD83, Z19	ON	Unknown	0.34	0.0061	9.4	
2007	Southeast	1007660	29803	538184	6311282	NAD83, Z19	ON	Boulder	0.34	0.0117	6.3	
2008	Southeast	2087775	47739	538568	6310743	NAD83, Z19	ON	Unknown	0.34	0.0038	2.2	
2008	Southeast	1007658	47736	538155	6310768	NAD83, Z19	ON	Boulder	0.33	0.0125	4.8	
2007	Southeast	1007660	39066	538279	6311268	NAD83, Z19	ON	Boulder	0.30	0.0093	7.7	
2010	Southeast	1007657	87452	537764	6310641	NAD83, Z19	ON	Boulder	0.29	0.0050	2.6	
2010	Southeast	1007659	87479	537747	6311234	NAD83, Z19	ON	Boulder	0.29	0.0050	5.7	
2010	Southeast	1007659	87478	537754	6311213	NAD83, Z19	ON	Boulder	0.27	0.0015	3.4	
2015	Southeast	2087785	116716	537475	6311428	NAD83, Z19	ON	Boulder	0.27	0.0090	7.0	1.2
2008	Southeast	2087775	43228	538654	6310426	NAD83, Z19	ON	Boulder	0.26	0.0605	6.5	
2008	Southeast	2087775	43227	538559	6311038	NAD83, Z19	ON	Boulder	0.26	0.0238	6.4	
2008	Southeast	1007658	47731	538430	6310721	NAD83, Z19	ON	Boulder	0.25	0.0034	4.1	
2010	Southeast	1007659	87660	537687	6311283	NAD83, Z19	ON	Boulder?	0.25	0.0370	9.4	
2011	Southeast	2087763	92568	538815	6310134	NAD83, Z19	ON	Boulder	0.24	0.0220	4.3	1.0
2010	Southeast	1007659	87477	537763	6311160	NAD83, Z19	ON	Boulder	0.23	0.0150	6.9	
2017	Southeast	1007659	119090	537573	6311406	NAD83, Z19	ON	Boulder	0.23	0.0090	6.4	1.0
2010	Southeast	1007657	87445	537844	6310582	NAD83, Z19	ON	Unknown	0.22	0.0015	4.8	
2010	Star Trench	2087760	87435	537237	6310052	NAD83, Z19	ON	Boulder	4.23	0.1010	0.2	
2009	Star Trench	2087760	68004	537277	6310074	NAD83, Z19	ON	Boulder	0.62	0.1407	3.0	
2010	Star Trench	2087760	87432	537243	6310074	NAD83, Z19	ON	Subcrop?	0.39	0.0370	2.1	
2010	Star Trench	2087774	87428	537292	6310189	NAD83, Z19	ON	Boulder?	0.29	0.0030	7.4	
2009	Star Trench	2087760	70010	537210	6310125	NAD83, Z19	ON	Boulder	0.23	0.0423	5.6	
2010	Star Trench	2087760	87427	537244	6310070	NAD83, Z19	ON	Boulder	0.21	0.0190	4.3	
2009	Star Trench	2087760	68003	537264	6310094	NAD83, Z19	ON	Boulder	0.21	0.0429	5.8	
2007	North Block	2111158	39061	535872	6315919	NAD83, Z19	OFF	Boulder?	0.70	0.0001	1.5	
2011	North Glim	2087807	107625	535572	6314253	NAD83, Z19	OFF	Boulder	1.23	0.0490	4.4	1.9
2011	North Glim	2087808	92370	535980	6314296	NAD83, Z19	OFF	Boulder	0.94	0.0015	6.9	7.2
2010	North Glim	2111154	87680	535051	6314467	NAD83, Z19	OFF	Boulder	0.53	0.1080	1.8	
2011	North Glim	2111154	92551	535286	6314072	NAD83, Z19	OFF	Boulder	0.50	0.0200	8.4	1.8
2010	North Glim	2111154	87688	535187	6314173	NAD83, Z19	OFF	Boulder	0.29	0.0040	15.2	
2010	North Glim	2111154	87681	535000	6314505	NAD83, Z19	OFF	Boulder	0.27	0.0430	2.6	
2011	North Glim	2111154	92552	535183	6314023	NAD83, Z19	OFF	Boulder	0.26	0.0430	1.1	1.3
2010	North Glim	2087807	87652	535747	6313867	NAD83, Z19	OFF	Boulder	0.22	0.0190	6.0	
2010	North Glim	2111154	87658	535156	6314263	NAD83, Z19	OFF	Boulder	0.21	0.0260	11.0	
2010	North of Beckling	2111152	87403	539861	6313740	NAD83, Z19	OFF	Boulder?	0.35	0.0040	0.1	
2010	North of Beckling	2111152	87404	539968	6313461	NAD83, Z19	OFF	Outcrop?	0.20	0.0050	0.0	
2008	Northwest	1007661	42857	535775	6312469	NAD83, Z19	ON	Unknown	7.15	0.2365	0.1	
2007	Northwest	1007661	29822	535824	6312646	NAD83, Z19	ON	Boulder	1.99	0.0403	14.3	
2007	Northwest	2087790	29990	536032	6312650	NAD83, Z19	OFF	Boulder	1.44	0.0767	6.7	
2008	Northwest	1007661	42827	535800	6312179	NAD83, Z19	ON	Boulder	0.75	0.0238	15.2	
2007	Northwest	1007661	29982	535637	6312687	NAD83, Z19	ON	Boulder	0.63	0.0032	15.0	
2007	Northwest	1007661	29821	535817	6312642	NAD83, Z19	ON	Boulder	0.62	0.0393	5.4	
2010	Northwest	2087790	87499	536376	6312754	NAD83, Z19	OFF	Boulder	0.53	0.0030	10.2	
2011	Northwest	1007661	107610	535934	6312854	NAD83, Z19	ON	Outcrop?	0.52	0.0330	6.5	2.2
2008	Northwest	1007890	42805	535907	6312912	NAD83, Z19	ON	Boulder	0.52	0.0265	7.6	

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2008	Northwest	1007661	42830	535687	6312757	NAD83, Z19	ON	Boulder	0.49	0.0203	7.6	
2007	Northwest	1007661	29824	535746	6312630	NAD83, Z19	ON	Boulder	0.47	0.0343	7.6	
2008	Northwest	1007661	42859	535674	6312581	NAD83, Z19	ON	Outcrop?	0.40	0.0518	5.9	
2008	Northwest	1007661	42834	535627	6312695	NAD83, Z19	ON	Boulder	0.39	0.0308	12.8	
2008	Northwest	1007890	42804	535832	6313134	NAD83, Z19	ON	Boulder	0.39	0.0301	4.6	
2011	Northwest	1007661	107609	535930	6312872	NAD83, Z19	ON	Outcrop?	0.37	0.0200	1.8	0.5
2007	Northwest	1007661	29980	535696	6312706	NAD83, Z19	ON	Boulder	0.29	0.0042	1.5	
2012	Northwest	1007661	111516	535629	6312037	NAD83, Z19	ON	Boulder?	0.26	0.0060	0.9	2.5
2007	Northwest	1007661	29825	535767	6312642	NAD83, Z19	ON	Boulder	0.24	0.0276	6.6	
2007	Northwest	1007661	29983	535564	6312626	NAD83, Z19	ON	Boulder	0.24	0.0173	9.7	
2011	PANDS	1007889	92988	535403	6313212	NAD83, Z19	ON	Boulder	3.94	0.2510	0.1	0.3
2011	PANDS	1007889	92985	535355	6313455	NAD83, Z19	ON	Boulder	0.70	0.0700	5.4	1.8
2011	PANDS	1007890	92927	535506	6313296	NAD83, Z19	ON	Boulder	0.55	0.0170	8.6	2.2
2011	PANDS	1007889	92935	535425	6313323	NAD83, Z19	ON	Boulder	0.34	0.0700	1.9	0.9
2011	PANDS	1007890	107614	535595	6313363	NAD83, Z19	ON	Outcrop?	0.26	0.0140	4.7	1.0
2015	South Mag Blowout	2087741	139995	540904	6307691	NAD83, Z19	OFF	Boulder	0.76	0.0070	1.4	0.9
2011	Triple-D	1007890	92991	535812	6313280	NAD83, Z19	ON	Boulder	1.81	0.0200	12.7	2.3
2011	Triple-D	2087798	92358	535990	6313465	NAD83, Z19	ON	Boulder	0.77	0.0100	8.0	1.7
2008	Triple-D	1007890	42802	535675	6313300	NAD83, Z19	ON	Boulder	0.52	0.0358	6.5	
2011	Triple-D	1007890	92324	535775	6313628	NAD83, Z19	ON	Boulder	0.48	0.0860	10.6	3.8
2008	Triple-D	1007890	42831	535732	6313187	NAD83, Z19	ON	Boulder	0.35	0.0273	6.4	
2011	West Rim	1007883	92121	535102	6312604	NAD83, Z19	ON	Boulder	16.09	0.7540	0.5	6.3
2011	West Rim	1007883	92118	535182	6312120	NAD83, Z19	ON	Boulder	0.80	0.0360	0.1	1.1
2008	West Rim	1007883	42812	535257	6312732	NAD83, Z19	ON	Boulder	0.66	0.0331	15.5	
2011	West Rim	1007883	92986	535240	6312297	NAD83, Z19	ON	Boulder	0.66	0.0880	1.7	2.6
2011	West Rim	1007883	92116	535424	6312109	NAD83, Z19	ON	Boulder	0.40	0.0070	10.5	2.6
2011	West Rim	1007883	92114	535337	6312211	NAD83, Z19	ON	Boulder	0.39	0.0250	21.0	4.8
2011	West Rim	1007883	92280	535112	6312595	NAD83, Z19	ON	Boulder	0.39	0.0460	10.1	2.1
2007	West Rim	1007883	29984	535101	6312675	NAD83, Z19	ON	Boulder?	0.36	0.0149	6.7	
2011	West Rim	1007883	92120	534983	6312544	NAD83, Z19	ON	Boulder	0.35	0.0210	8.2	1.6
2011	West Rim	1007883	92283	535099	6312744	NAD83, Z19	ON	Boulder	0.35	0.0210	11.9	3.0
2011	West Rim	2087797	92293	534939	6312972	NAD83, Z19	OFF	Boulder	0.31	0.0160	5.4	1.7
2011	West Rim	1007889	92294	534999	6312943	NAD83, Z19	ON	Boulder	0.31	0.0140	5.4	1.2
2011	West Rim	1007883	92295	535048	6312894	NAD83, Z19	ON	Boulder	0.30	0.0240	9.7	2.2
2011	West Rim	1007883	92284	535051	6312818	NAD83, Z19	ON	Boulder	0.28	0.0330	15.0	2.7
2007	West Rim	2087797	39064	534918	6313377	NAD83, Z19	OFF	Boulder	0.27	0.0260	9.0	
2008	West Rim	1007883	42810	535247	6312778	NAD83, Z19	ON	Boulder	0.27	0.0041	3.3	
2011	West Rim	1007883	92279	535119	6312534	NAD83, Z19	ON	Boulder	0.24	0.0090	6.3	2.6
2011	West Rim	1007883	92940	535130	6312585	NAD83, Z19	ON	Boulder	0.23	0.0330	10.5	2.2
2011	West Rim	2087797	92288	534763	6313214	NAD83, Z19	OFF	Boulder	0.23	0.0015	1.1	7.4