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**Trigan Resources
West Gabbro Property
Biogeochemical Survey
Claim No. 1240115, 1240130, 1240142, 1240150,
1240154 and 1240155**

Prepared For:

Trigan Resources Inc.
c/o General Delivery
Ashburn, Ontario
L9L 2A7

Project #: 17-2357

January 2018



ORE
Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

January 31, 2018

Trigan Resources Inc.
c/o Oakridge Golf Course
General Delivery
Ashburn, Ontario
L9L 2A7

Attention: **Matt Anderson**

Re: Trigan Resources Inc. - West Gabbro Property
Biogeochemical Survey (2017)
Claim Nos. 1240115, 1240130, 1240142, 1240150, 1240154 & 1240155
Township of Havelock-Belmont-Methuen (Methuen)
Our File No. 17-2357

Dear Mr. Anderson:

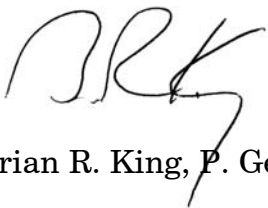
We are pleased to provide this report outlining the 2017 results of a biogeochemical survey of your claim group in Methuen Township.

This survey represents an expansion of the grid area from similar surveys completed in previous years and follows the same protocols and techniques. We are pleased to advise that the current survey has revealed the presence of a new anomaly, suggesting the potential presence of a barite-calcite-sulphide vein in the northeastern part of the claim group.

Our report provides a summary of our findings and an interpretation of the data.

If you have any questions, please contact our office.

Yours truly,
Oakridge Environmental Limited



Brian R. King, P. Geo.

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**Trigan Resources Inc. - West Gabbro Property
Biogeochemical Survey (2017)
Claim Nos. 1240115, 1240130, 1240142, 1240150,
1240154 & 1240155
Township of Havelock-Belmont-Methuen (Methuen)**

1.0 Introduction

This report presents the results of a recently completed biogeochemical survey conducted over a series of geophysical (magnetic) anomalies associated with a large meta gabbro body situated in west-central Methuen Township, Peterborough County (Figure 1).

Our 2017 survey represents an extension (to the east) of previous biogeochemical surveys completed in 2009, 2010, 2012, 2013, 2014, 2015 and 2016. The current survey was conducted following the same procedures and protocols as in the previous work.

As the area has little to no natural soil cover, conventional soil-geochemical surveys are not practical. Instead, biogeochemical surveys have been undertaken to determine the distribution of trace metals and to identify any significant areas of potentially economic mineralization. Previous surveys have been very successful in this regard, yielding discrete metal anomalies that we feel would not be discernable using conventional geochemical techniques.

The current survey focusses on an area containing a previously identified multi-element anomaly. Reprocessing of previous data has also been conducted, resulting in minor refinements to our previous interpretations.

2.0 Scope of Work

In completing this mapping program, the following tasks have been completed:

- The results of the previous biogeochemical surveys and earlier geophysical survey data (airborne magnetic and VLF-EM) were reviewed with respect to the location and orientation of the identified anomalies.
- Forest inventory mapping of the claim group area was obtained and reviewed with respect to tree species and potential usefulness with respect to biogeochemical sampling.
- A reconnaissance inspection of the survey area was conducted to determine

prevalent species, age, accessibility, distribution, health of trees for biogeochemical sampling purposes.

- Analytical requirements and protocols were discussed with the laboratory prior to sample collection, to ensure proper analytical procedures were followed.
- The sampling program protocols were implemented and the sampling program was undertaken, utilizing a differential Global Positioning System (dGPS) for determining sample locations. The nominal accuracy of the dGPS is ± 2 m.
- Traverse lines, outcrop extents and other features were determined in the field for plotting purposes.
- All data were plotted and analysed.
- Data from the current and previous surveys were combined, re-plotted and re-interpreted.
- This report was prepared, including all data, our findings, conclusions and recommendations.

3.0 Site Description, Access and Location

The subject claim group consists of six (6) contiguous claims (i.e., Nos. 1240115, 1240130, 1240142, 1240150, 1240154 and 1240155). The location of the claim group is provided in Figure 2. The claim group covers a total area of approximately 366 ha (904 acres). Of that total area, the main part of the 2017 survey covers approximately 17 ha (42 acres). Sampling during the current survey was conducted within south-eastern extent of claim No. 1240154 and within the northern portion of claim No. 1240150.

To access the site from Peterborough, at Highway 115, continue eastward to the intersection of Highway 115 and Highway 7 (Figure 1). Proceed onto Highway 7 eastward to the intersection of Highway 28. Follow Highway 28 (northbound) approximately 16 km to County Road 6 (formerly known as Stony Lake Road). Follow County Road 6 approximately 26.5 km eastward, south of Stony Lake, to County Road 44.

The nearest access trail is located approximately 4.5 km north of the intersection of

County Road 6 and County Road 44. The trail is accessed off County Road 6 via a small parking area 270 m south of County Road 56 (Northey's Bay Road). This trail is unmarked and is utilized by snowmobilers and hunters to enter the crown lands. The trail has been labelled "Route A" on Figure 2.

The claim group is located within a large expanse of Crown Lands on the east end of Stony Lake (Figure 2). Several parcels of privately owned land occur between County Road 6 and the claim group, essentially isolating the site from any kind of public roadway access. Therefore, public access to these lands and the claim group is via a network of trails that start from County Road 6 or via the CN Railway off of County Road 44 and Fire Route 51 south of Long Lake. Much of this area contains both registered and unregistered hunting camps and recreation trails for ATVs and snowmobiles.

The subject claims are held by:

Trigan Resources Inc.
35 Lauren Rd
Port Perry, ON, L9L 2A7
Attn. Mr. Matt Anderson

4.0 Topography and Drainage

The claim group area is generally dominated by bedrock outcrop ridges with very rare pockets of thin, discontinuous granular overburden materials. Most low-lying areas are dominated by extensive wetland areas that contain thick layers of organic material overlying sandy silty bottoms or rock substrates. There are generally insufficient soils in the area to allow for normal geochemical soil sampling. However, it is important to note that the 2017 survey area had comparatively continuous overburden cover along the easternmost extent of the claim group.

The maximum local relief within the survey area is somewhat subdued in comparison to the rest of the claim group, at approximately 5 m with the average relief being about 2 m to 4 m. The topography is essentially dominated by the bedrock structure which consists of a metagabbroic pluton which is thought to be at the core of a local synform, according to published mapping (Kingston, 1985). The topography of the gabbro pluton is somewhat dome-like and as such, the regional drainage pattern tends to be roughly radial - outward from the north-centre of the claim group. Locally, the sequence of parallel rock ridges can distort drainage patterns into long, narrow linear valleys.

In the survey area, drainage tends to be slow, with stagnant conditions common in the summer. The general regional flow pattern appears to be from east to west, although local flows may be quite different as a result of bedrock structure influences.

5.0 Previous Work

Previous exploratory work at the site has included a limited diamond drilling program, which consisted of 10 vertical holes (Phipps, 2003a). The depth of the holes ranged from 31.9 m to 45.7 m. The holes intersected medium grained gabbro, with absorbed metasedimentary inclusions, cut by granitic dikes.

Representative samples from each borehole were submitted for aggregate testing. Results of these tests were all positive and show that the bedrock, in the area of the gabbro covered by the boreholes, is suitable for aggregate resource material (Phipps, 2003b).

The gabbro body is somewhat layered, consisting principally of gabbro intruded by irregular masses of granitic material. Along the pluton's western boundary, the stratigraphy consists of layered metasediments, granitic gneiss and gabbro.

In addition to the diamond drilling, a baseline hydrogeochemical study was conducted (King, 2005) for the purpose of comparing trace element concentrations (i.e., major ions and metals) in surface water and groundwater between subwatersheds. That study revealed interesting and highly defined geochemical differences between the subwatersheds, potentially indicating future targets for metal exploration.

Geological mapping was conducted in 2006 (King, 2007) to determine the limits of the gabbro body and to examine transitional contact relationships in the surrounding country rock.

A fixed wing magnetic and VLF survey was conducted over the entire claim group (Webster, 2008) revealing the presence of several large magnetic and conductive anomalies which appear to be associated with the contact zone surrounding the meta gabbro body.

An experimental biogeochemical survey was conducted in 2009 (King, 2009) to explore part of one of the larger geophysical anomalies identified by the 2008 airborne survey (Figure 3). The biogeochemical survey was successful, revealing the presence of several multi-element anomalous zones which appeared to correlate with the geophysical survey results. These included base metal and precious metal anomalies. Follow-up biogeochemical surveys were conducted in 2010 (reported in 2011), 2012, 2013, 2014, 2015 and 2016 expanding on the previous grid areas. The current program (2017) continues to expand on the previous surveys, focussing on the eastern extent of the claim group.

6.0 Geology

6.1 Regional Setting

The claim group is situated less than 2 km north of the southern boundary of the Canadian Shield. While this area is known to contain Paleozoic outliers (such as those near Oak Lake), none have been observed within the claim group.

The claim group is within the “Belmont Domain,” a sub-component of the Elzevir Terrain within the Central Metasedimentary Belt of the Grenville Province (Precambrian). The Elzevir Terrain is characterized by volcanic and related sedimentary rocks which formed around a group of “volcanic centres”. These span much of north-central Hastings County and northern Peterborough County, extending from the southern edge of the shield to about Bancroft in the north. These rocks are intruded by a series of gabbroic complexes which are remarkably similar in chemical composition (e.g., Thanet Complex, Tudor Metagabbro, Cordova Gabbro, Duck Lake Sill, etc.).

In the study area, the closest volcanic centre would likely have been about 15 km to the southeast where the “Belmont Volcanics” occur. To the northwest, the volcanics yield to a thick band of volcanically derived metasediments which underlie the Oak Lake area, immediately east of the claim group. Structurally, this sequence is referred to as the Oak Lake Antiform.

The gabbro/metagabbro¹ within the claim group is a relatively small un-named mafic intrusive body (Figure 4, Regional Geology Plan). This small pluton, referred to herein as the “West Gabbro”, occurs at the core of a small synform feature with an arcuate, ENE-WSW axial trend. Granitic gneiss and metasediments are wrapped around the pluton. Late transgressive granitic intrusions and inclusions of metasediment occur within the gabbro body. These are evident in the diamond drill core logs from a previous drill program (Phipps, 2003a).

Published mapping of the area (Kingston, 1985) shows the gabbro pluton as an oval shaped body with a generally east-west long axis. In the field, the pluton has a much more complex and irregular shape which includes a series of finger-like granite porphyry bands that appear to extend into the pluton.

A similar, “East Gabbro” body also occurs approximately 11 km to the east and is the subject of a traprock quarry operation. The West Gabbro is also of interest with respect to future traprock production.

¹ Published mapping suggests that bodies of this type (in this area) may include diorite, gabbro, hornblendite, pyroxenite, anorthosite, metagabbro and amphibolite.

According to Ontario Geological Survey Special Volume 4 (Geology of Ontario), a variety of metallic mineralization types are known to occur in the gabbros of the Central Metasediment Belt. These include magmatic deposits consisting of disseminated copper and nickel. Iron and titanium deposits are also known in the gabbros. Stratiform sulphide lenses have reportedly been identified, consisting of chalcopyrite, pyrrhotite, pyrite, and sphalerite. Occurrences of stratabound volcanogenic massive sulphides are also known or suspected in the region.²

All Precambrian rocks in the area have been metamorphosed to middle-upper amphibolite facies (Bartlett, 1982).

6.2 Survey Area Geology

The local geology is exposed by rock cuts along the rail line which extends from Havelock in the south, northward to Nephton and Blue Mountain (nepheline syenite mine). The local rock cuts and outcroppings expose a sequence of granitic gneiss, metasediments, gabbro, diorite/metadiorite and pegmatite. The contact relationships between the West Gabbro pluton and its surrounding rocks are relatively consistent, although irregular.

Porphyritic granite occurs widely in the claim group and is present in the survey area. The porphyritic granites appear to have been emplaced in linear bands, possibly intruding the original bedding planes of the host metasediments and also within the gabbro. Occasional narrow quartz veining occurs in the granite, typically with minor sulphide mineralization. Some finer grained late granitic veining and zoned pegmatite also occur within the porphyritic granites. The granites also include narrow bands of metasediments and finely crystalline mafic rocks.

It is apparent that the gabbro magma has reacted with the wall rocks creating a zone of hybrid rocks transitional between the gabbro and adjacent country rock. The contact zone consists largely of layered meta-granodiorite and/or monzonite, with interbeds of metasedimentary rock and porphyritic granite. The Transition Zone is up to several hundred metres in width, is highly variable and appears to be narrower along the northwestern edge of the pluton. The gabbroic rocks occur principally within a “core” zone situated in mid-northern Claim 1240130.

The gabbro consists of a medium to coarsely crystalline, dark grey to black mixture of mafic plagioclase, olivine-clinopyroxenes (gabbro) and hornblende (diorite), with minor biotite. Rare to occasional specks of pyrite and/or pyrrhotite occur, although most of the gabbro contains no appreciable sulphide. Portions of the gabbro are weakly layered or

² Previous diamond drilling in the claim group did not reveal any significant occurrences of sulphide mineralization.

foliated, however, for the most part, the gabbro appears relatively unaffected by metamorphism (although is likely annealed).

The gabbro appears to be iron-rich and consistent with the typical tholeiitic composition of the volcanic rocks and mafic intrusives of the Belmont Domain as described by Lumbers (1969) and by Holm, et al. (1986).

7.0 2017 Biogeochemical Survey

7.1 General

Tree roots can extract metals and other elements from many cubic metres of soil, overburden, groundwater and bedrock. These metals are then transferred to aerial parts of the tree where they may concentrate. Data derived from the analysis of an appropriate vegetation sample medium permits geochemical mapping and the potential detection of geochemical anomalies that reflect the underlying metal content of the soil, rock and/or groundwater. This technique can be especially useful in areas where conventional soil-geochemical methods are not practical, due to minimal soil cover.

Biogeochemical sampling can provide similar results to those obtained from standard soil geochemical surveys. However, the tree extracts elements from a large volume of material of diverse composition, including groundwater. Some elements that are dissolved in groundwater can be readily extracted by the tree roots, but may not be precipitated on soil particles, thus a different suite of responses is possible, in comparison to standard soil geochemical prospecting methods.

Because each species of plant has a different requirement for, and tolerance to, a range of chemical elements, some partitioning of elements takes place and there is selective absorption and transference into the plants. For biogeochemical exploration, conifers are good sample media because they are primitive plants that have a wide tolerance to many trace elements.

The outer bark is generally considered a repository for many elements that do not fit elsewhere or are not required for the metabolic function of the tree. Some elements may be excluded from uptake at the roots or may only be partially absorbed, and some may be taken up but dispersed among tree tissues to the extent that inter-site variations are so small that they cannot be detected. The work of Springer, et al. (1988) suggests that biological uptake of metals in some tree leaves may be “capped”. This does not, however, appear to be the case for tree bark, based on our experience to date. Regardless, such factors need to be taken into consideration when interpreting geochemical results.

7.2 Survey Methodology and Protocols

Prior to conducting the sampling program, published mapping resources were consulted with regard to the vegetation types present in the survey area. Updated SOLRIS Ontario Land Cover Compilation Version 2 mapping (Figure 5) is a primary data layer that provides a comprehensive, standardized landscape level inventory of natural, rural and urban lands in Ecoregions 6E and 7E, current to 2015. The mapping is based on MNR's Ecological Land Classification (ELC) for southern Ontario (Lee et al., 1998).

A reconnaissance / feasibility inspection of the survey grid area was undertaken on September 20, 2017 to verify the types of vegetation and the viability for sampling in the expanded grid area. At that time, it was determined that the grid area contained a sufficient number of similar aged Eastern White Pine (*Pinus strobus*) with a reasonable areal distribution to permit expansion of the previous sampling area. The sampling commenced at once.

Other species that could potentially be sampled were also present, however, White Pine were found to be the most abundant and accessible. Given the large amount of wetland present, the survey focussed on areas of outcrop where this species occurs. Sampling of other species was not conducted.

During a previous survey, new growth twigs and needles were collected from smaller diameter, younger and/or less developed trees as an experiment to determine the viability of other sampling approaches. That experiment yielded interpretable results, however, may not have provided the same sensitivity and the results did not appear to correlate well with the bark data. As such, only bark samples were collected in subsequent surveys, including 2017.

The main sampling period for the 2017 biogeochemical survey was conducted from September 20, 2017 to October 10, 2017. Fieldwork was conducted and/or assisted by the following individuals:

- Mr. Dan MacIntyre, BSc., Peterborough, ON. (Senior Hydrogeological Technician)
- Mr. Brad Petterson, BSc., Peterborough, ON. (Senior Environmental Technician)
- Mr. Matthew Dimitroff, Peterborough, ON. (Environmental Technician)

The work was supervised and directed by Mr. Brian King, P. Geo., of Peterborough, ON.

Samples of loose outer bark were collected by scraping the circumference of the tree from approximately 0.75 m to 1.0 m height using a rigid plastic (i.e., non-metal containing) scraper. Only trees with diameters in the range 12 cm - 24 cm were sampled, to ensure similar ages. The samples were removed by cutting with a plastic (non-metal containing) serrated knife. All sample materials were transferred to "ziplock" plastic bags which were tagged in the field. Each sample location was determined in the field using differential

GPS (accuracy ± 2 m).

Figure 6 illustrates the sampling equipment used during the survey.

As in the previous surveys, the typical sample size was approximately 40 g. The amount of sample material varied, depending on the condition of the tree. Only the loose, outer bark was removed so as to not harm the tree. Care was taken not to include the inner bark as its composition is substantially different from that of the outer bark. Whereas there are seasonal variations in the chemistry of twigs and leaves, the chemistry of the outer bark does not change during the course of the year; this is because the bark is dead tissue that can be collected at any time. Moreover, samples from different survey periods can be integrated without the need to normalize data to a common datum.

During the survey, a total of 106 bark samples were collected and analysed. These include two duplicate samples for QA/QC purposes. Figure 7 illustrates the locations of all grid samples with respect to the subject claims.

All field data were entered into the existing MS Excel database upon returning to our offices. At that time, all samples were individually inspected and any visible non-bark materials (“debris”) were removed. Non-bark materials largely consisted of pine needles, insects, hardened tree gum and occasional plastic fragments from the scrapers. All samples were air-dried prior to shipment.

Following the inspections, samples were counted, weighed and boxed for shipment to AGAT Laboratories in Mississauga, Ontario.

7.3 Analytical Data

At the laboratory, the samples were reduced to ash by controlled ignition at 480°C for 24 hours. They were then digested in strong acid (aqua regia) and the solution analyzed for 51 elements by inductively coupled plasma mass spectrometry (ICP-MS). All 2017 data are presented in Appendix A. Data were provided electronically by the laboratory.

8.0 Analysis & Interpretation

8.1 General

The interpretation of biogeochemical data should be undertaken with due consideration of the chemical requirements and tolerances of plants. Plants require certain elements for their survival, and they have the ability to concentrate metals by scavenging them from the substrate. Zinc (Zn), for example, is needed for plant metabolism. Therefore, subtle differences in Zn concentrations between sample sites could simply reflect the health of

the plant and may not indicate significant differences in the chemistry of the substrate. However, major differences in Zn concentrations may reflect the presence of Zn mineralization.

In contrast, plants also have the ability to exclude those elements that would have a detrimental effect on their growth or health (referred to as the “barrier” effect), thus only weak enrichment of an element may occur in an environment where that element may have an anomalously high concentration in the soil or groundwater. As a consequence, there is not always a simple relationship between the chemistry of tree tissue and the chemistry of the soil and underlying parent material for some elements.

8.2 Data Management

To facilitate interpretation of the biogeochemical data, the laboratory results were entered into a Rockworks database for processing. The output from Rockworks was then loaded into an ArcGIS database to determine the spatial significance of the data.³

Based on our review of the 2017 data and the compiled results of the previous surveys, we have focussed our current data assessment on those parameters which have sufficient response to provide anomalies and for which discrete trends are visible.

For each analytical parameter considered, the areal distribution of that parameter was plotted and contoured for presentation. Contouring was undertaken using the Kriging method. The contoured element plots are presented in Appendix B.

In addition to the areal data, histograms for each parameter of interest were prepared and added to the corresponding plots to illustrate the statistical distribution and provide the mean value and standard deviation.

8.3 2017 Data Interpretation

Data from the 2017 survey appear to be continuous and form discrete areal concentration anomalies, indicating that the biogeochemical technique remains robust.

The 2017 survey was intended to expand the sample grid along part of the eastern claim group boundary where previous data were sparse. Using GIS, we were also able to further refine some of our previous anomaly interpretations. A brief description of our 2017 findings is presented below.

³ The software Rockworks provides a variety of statistical and mapping modules for this purpose.

The new data have allow further refinement of previously identified anomalies and revealed the presence of a new anomaly which occurs in the northeastern-most part of the 2017 grid area (referred to as “Anomaly VI”). This zone is comprised of multiple samples and appears to be continuous in that area, albeit on the eastern terminus of the claim group. The anomaly is dominated by a local high concentration of Strontium (Sr) within a large and discrete area. Other characteristics of Anomaly VI include:

- a localized core zone of Ba enrichment;
- a zone of Fe and Mn depletion is apparent along the eastern edge of the claim group suggesting some form of alteration, especially with respect to Mn;
- a general area of weak K and Na enrichment;
- a core zone of Mg enrichment that correlates with Ba and other parameters;
- a general zone of Pb enrichment;
- a fairly discrete zone of S enrichment, exhibiting an apparent linear trend, roughly along Azm 120°;

In addition to identifying the new Anomaly VI, the 2017 data have also allowed improvements to our earlier interpretations, including:

- Al occurs at a low concentration (i.e., background level), thus the 2017 data further confirm the eastern and southern extent of the Al rich part of Anomaly II;

The association of Ba, Mg, Sr and S with possible depletion of Fe and Mn in Anomaly VI appears to be a unique assemblage for this property. It is not clear what type of potential mineralization could be responsible for this assemblage. However, we note that the geochemical signature could be consistent with the occurrence of barite-calcite-galena (\pm sphalerite) veining, not previously observed within this claim group.

That type of deposit is well known to occur in the former Bedford Township, Tudor Township and in the southeastern corner of Methuen Township (Uglow, 1916). These comparatively late-stage vein systems generally have NW or WNW trends that reflect the regional tectonic setting at the time of emplacement. In this regard, there is a possible linear trend in our S data for Anomaly VI that would be consistent with that orientation. Most interestingly, the known occurrence in Methuen Township appears to have been reported as a locality for the strontium rich mineral celestite (Ontario Legislative Assembly, 1897).

While the barite-calcite veins are of considerable interest to mineral collectors and did historically support several small-scale mining operations, we are not aware of any recent

instances where these have representing significant exploration targets. These tend to be very narrow-vein deposits with sporadic sulphide mineralization. As such, Anomaly VI does not appear to represent a significant exploration target at this time.

The 2017 data also confirm our previous interpretations, primarily with regard to the characterization and extent of Anomaly II. It also further defines the background concentrations of Mg, Ce, Cs, Rb and Al which allows for refinement of all other previously identified anomalies.

The 2017 data have been compiled with the results of previous surveys and geochemical anomalies have been interpreted based on the various element concentrations and/or zonations. These are briefly described below and are identified on the updated Interpretive Plan, Figure 8.

Anomaly I

Anomaly I occurs in the northwestern corner of Claim 1240130 (i.e., at junction of Claims 1240142 & 1240154). Anomaly I is characterized by elevated Au, Fe, Cd, Mn, Mg, Pb, Ni, Rb, V, Y and Zn. A weak correlation with Ag, Cd and S was also thought to be present. This anomaly continues to stand out given the widespread presence of Au. The 2017 data have not changed our interpretation of this anomaly, other than Rb being slightly elevated above the new background concentration.

This anomaly appears to be associated with the main contact zone between the country rock and the outer transition zone surrounding the gabbro. Published mapping indicates that this area may also contain rusty paragneiss and schist. It also correlates with the north flank of a large magnetic anomaly.

We continue to interpret Anomaly I as a potential mineralized occurrence, perhaps related to the rusty schist host rock (which could include mineralized quartz veining or pegmatite).

Anomaly I continues to be considered a high priority target for future exploration.

Anomaly II

Anomaly II consists of elevated concentrations of Au, Al, Cd, Mn, Mg, S, Y and Zn.

Anomaly II continues to be considered a high priority target with respect to Au.

Anomaly III

Anomaly III occurs as an east-west band crossing through the central part of the claim group and is the largest identified biogeochemical anomaly. No significant changes to this interpretation result from the 2017 data.

Anomaly III is characterized by elevated base metals (Zn, Pb, Cd) and S in bark. The eastern part of the anomaly exhibits possible Na depletion. A weak Au anomaly also occurs within this zone, near the centre of claim 1240130. This anomaly also appears to have discrete metal sub-anomalies, possibly suggesting fractionation or zonation.

Anomaly III occurs in the centre of the main gabbro body. The gabbro is thought to be somewhat layered and contains zones where inclusions of country rock are more prominent. The geological mapping data do not provide any clear indication that Anomaly III coincides with such a zone. Similarly, there is no clear topographic expression that would suggest an accumulation of metals in sediment or groundwater. Anomaly III does, however, correlate with broad anomalies identified by the airborne magnetic survey.

Based on the above, we interpret this anomaly to potentially represent a deeply buried zone of base metal sulphide enrichment within the gabbro body.

Anomaly III is considered a medium priority target that will require further work to provide better definition of targets.

Ti Boundary

The compiled bark data indicate that there is a distinctive boundary separating the southern third of the survey area from the rest of the grid. Ti values clearly increase south of Anomaly III, reaching a maximum along the southern boundary of claim 1240130, coinciding with the mapped southern contact of the main gabbro body. No changes to our interpretation of the Ti boundary have resulted from analysis of the 2017 data.

It is not clear how to interpret this result other than as a compositional change in the underlying rock. However, it is also conceivable that an ilmenite rich segment of the gabbro may underlie the southern part of the gabbro, perhaps at depth, resulting in the broad geochemical Ti signature. In this regard, we also note that there are significant magnetic anomalies associated with the enrichment which could be related.

In this geological environment, elevated Ti may be highly significant. A similar gabbroic body that contains an important ilmenite deposit (also Trigan Resources) occurs east of the claim group. As such, any anomalies that suggest the presence of a similar deposit in the West Gabbro body are of considerable economic interest.

Anomaly IV

Anomaly IV is situated immediately south of the 'Ti Boundary' (see description above), in the southwestern part of the compiled survey area within Claim 1240130. This anomaly is based entirely on previous data and is characterized by elevated Ni, Cu, Co, Ba, Mo and Ag. Anomaly IV correlates with a magnetic anomaly that occurs along the southern boundary of the main gabbro body. No changes to the previous interpretation of Anomaly IV have resulted from the 2017 survey.

Anomaly IV appears to indicate the potential presence of metal enrichment in the gabbroic rocks. Anomaly IV is now considered a lower priority target, primarily based on its size.

Anomaly V

Anomaly V consists of elevated concentrations of Ag, Cd, Mn, Na, Sr and Y.

Anomaly V continues to be considered a high priority target with respect to Ag.

Anomaly VI

Anomaly VI is a new finding. See above for a description of this zone.

8.4 Discussion

Other than the rail line which passes through the survey area, the subject lands have not been disturbed and are undeveloped. As such, there are no known man-made factors which would account for any of the anomalies identified by the survey. Airborne dust, for example, would not appear to be a significant factor in this area. As such, it is likely that the anomalous geochemical values represent real occurrences in those areas, subject to the variability expected from this survey method.

In the almost complete absence of terrestrial soils, the biogeochemical survey is likely to provide results that are directly related to the chemistry of the underlying bedrock. White Pine tree roots extend into fractures in the rock where (presumably) some residual soils have accumulated in response to weathering. The roots are also likely to penetrate to the water table, thereby sampling local groundwater. Anomalous element concentrations in bark and/or twig samples should represent real accumulations (or depletions) of those elements in the underlying soil, rock and/or groundwater (subject to biological sensitivity considerations, etc.). As part of the 2017 grid area was found to have some overburden, the possibility of soil-related effects cannot be completely discounted, however, nothing in the current data suggest this to be an issue.

While the survey grid is mostly within the mapped boundary of the main gabbro body, differentiated rock units occur within and surrounding the gabbro, not the least of which are inclusions of felsic gneiss and pegmatite. As such, some of the geochemical patterns may be attributed to varying composition within the gabbro and/or any associated lithological transition zones.

According to Wilson (1994), there are four main Classes of metal deposits associated with mafic intrusives within the Grenville Province:

- Gabbro-hosted magmatic Ni-Cu sulphide deposits, such as the examples in the Raglan intrusive complex, in which there is evidence for sulphide liquid immiscibility. Anomaly IV appears to be of this assemblage.
- Gabbro-hosted Fe-Ti oxide deposits, of variable *magnetite* : *ilmenite* ratio, with accessory sphene and apatite, also related to magmatic processes. These may also contain minor sulphides, some of which have been mined, and which also seem to be magmatic concentrations (e.g., Lavant). The area south of the 'Ti Boundary' would potentially appear to be consistent with this type of mineralization.
- Zn deposits in metamorphosed carbonate scarns associated with gabbro, (e.g., the Long Lake Zn mine). None of the identified biogeochemical anomalies appear consistent with this type of occurrence.
- Au-Ag mineralization, of late (epigenetic) origin, hosted in shear zones along the intrusive margins (e.g., Cordova Gabbro). Anomalies I and II could possibly be indicators of this deposit type. Anomaly II is especially interesting due to the presence of Au with a variety of other elements that are commonly associated with precious metal occurrences, plus an accompanying (off-set) Na depletion zone.

Zinc is a dominant component of some of the anomalies at this site (not including Anomalies V and VI), likely due to its mobility. The correlation with other base metals and sulphur appears to suggest the potential presence of base metal sulphide mineralization (especially Anomalies II and III). Anomaly III does not appear to fit well with the above listed deposit types, however, could represent a different type of gabbro-hosted base metal enrichment. New Anomaly VI may represent a new type of occurrence, related to late-stage barite-calcite-galena veining which is not likely to be genetically related to the host rocks. For all anomalies, it must also be recognized that biogeochemical data may not yield classic geochemical anomalies.

Occasional examples of gossanous rocks have been noted within the claim group, also suggesting the presence of that type of mineralization. As such, we feel that Anomaly III remains the most important *base metal* exploration target identified within the claim group to date. Anomalies I, II and V represent the most important *precious metal* targets.

The “Ti Boundary” also suggests that there is a widespread compositional shift in the southern part of the survey area. As this area is also associated with a significant magnetic anomaly in the southern part of Claim No. 1240130, we feel that there is some potential for the occurrence of ilmenite mineralization in that area (or further south). Unfortunately, a specific target cannot be resolved from the available data. However, we also feel that further geophysical work, possibly including data re-interpretation, could identify future targets for follow-up exploration.

9.0 Conclusions & Recommendations

- 9.1 The compiled biogeochemical survey has revealed the presence of significant trace element anomalies over a wide area. The 2017 data expand the grid area to the east, revealing a new Strontium (Sr) anomaly (referred to as “Anomaly VI”) and confirming the boundaries of previous interpreted anomalies.

We feel that new Anomaly VI is a minor area of interest in comparison to the other identified anomalies within the claim group.

- 9.2 Anomaly II appears to represent the most prospective zone for future prospecting, exhibiting a widespread, low amplitude Au anomaly, associated with several other parameters and a discrete zone of Na depletion. Anomaly II appears to be centred in the western half of Claim 1240154. The 2017 survey has confirmed the eastern boundary for Anomaly II.

- 9.3 The central anomaly (‘Anomaly III’) appears to be consistent with the potential presence of base metal sulphide mineralization, occurring across a wide band in the central part of the main gabbro body. Anomaly III also straddles two large magnetic anomalies.

We continue to recommend that prospecting along this trend be conducted in an effort to determine whether there are any surficial indicators of mineralization and if any, what style of mineralization is present. The magnetic anomalies should be targeted for follow-up exploration by diamond drilling.

- 9.4 The area south of the ‘Ti Boundary’ and the presence of magnetic anomalies in the southern part of Claim 1240130 suggest that ilmenite mineralization could be present at depth, perhaps within a buried extension of the gabbro. Unfortunately, we cannot resolve any specific exploration targets from the available data, other than the magnetic anomaly.

Therefore, it is recommended that additional work be conducted to further evaluate the potential for ilmenite mineralization south of the Ti Boundary. As a first step, we would

recommend additional evaluation (i.e., modelling) of the available geophysical data. We also recommend that prospecting in the southern part of Claim 1240130 and northern part of Claim 1240155 be conducted in an effort to determine whether there are any surficial indicators of ilmenite mineralization. Any areas of interest should be explored by diamond drilling.

- 9.5 Anomaly I continues to represent an interesting potential occurrence of Au. Typically, Au occurrences in this area are within small quartz vein systems. Rare examples of Au bearing pegmatites are also known to occur.

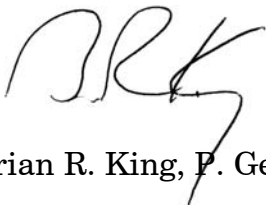
We recommend that prospecting within and around Anomaly I be conducted in an effort to determine whether there are surficial indicators of mineralization and the style of mineralization present, if any.

- 9.6 Anomaly V continues to represent an interesting potential occurrence of Ag. Similar to Au, the occurrences of Ag are typically found within small quartz vein systems.

We recommend that prospecting within and around Anomaly V be conducted in an effort to determine whether there are surficial indicators of mineralization and the style of mineralization present, if any.

****End of Report****

Sincerely,
Oakridge Environmental Ltd.



Brian R. King, P. Geo.



Statement of Qualifications

I, Brian R. King have been practising in the fields of environmental geology, hydrogeology and economic geology for more than 30 years. I am a Registered, Practising Professional Geoscientist (Ontario Reg. No. 0396). I have supervised the design of, collection of data for, and interpretive work involved in this study.

As a principal and the president of Oakridge Environmental Ltd., I am authorized to conduct and report on geological, hydrogeological and mineral exploration related studies and investigations.

My educational background includes completion of an Honours Bachelor of Science degree from Brock University, specializing in the geological sciences including hydrogeology, geochemistry and environmental science. I have completed continuing education courses in groundwater contaminant assessment from the University of Waterloo and have completed the Ministry of Environment's "Hydrogeological Technical Information Requirements for Land Development Applications," among other environmental courses.

Brian King holds memberships in the following organizations:

Practising Member of the Association of Professional Geoscientists of Ontario
Member of the International Association of Hydrogeologists

It is further stated that neither Oakridge Environmental Ltd. nor its employees have any ownership interest in the subject property and that the only remuneration to be received is monetary and that the remuneration is solely related to the work completed as outlined in this report.

Brian R. King, P. Geo.

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P.O. Box 431
Peterborough, Ontario
K9J 6Z3
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(705) 745-4163 fax

ore@oakridgeenvironmental.com email

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- King, B. R.,** *Trigan Resources Inc. - West Gabbro Property, Biogeochemical Survey (2014), Claim Nos. 1240115, 1240130, 1240142, 1240150, 1240154 & 1240155, Township of Havelock-Belmont-Methuen (Methuen),* December 2014.
- King, B. R.,** *Trigan Resources Inc. - West Gabbro Property, Biogeochemical Survey (2015), Claim Nos. 1240115, 1240130, 1240142, 1240150, 1240154 & 1240155, Township of Havelock-Belmont-Methuen (Methuen),* December 2015.
- King, B. R.,** *Trigan Resources Inc. - West Gabbro Property, Biogeochemical Survey (2016), Claim Nos. 1240115, 1240130, 1240142, 1240150, 1240154 & 1240155, Township of Havelock-Belmont-Methuen (Methuen),* December 2016.

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Phipps, D (b); *Trigan Resources Assessment Report (Aggregate Testing), West Gabbro Property, Methuen Township, Southern Ontario District*; November 18th, 2003.

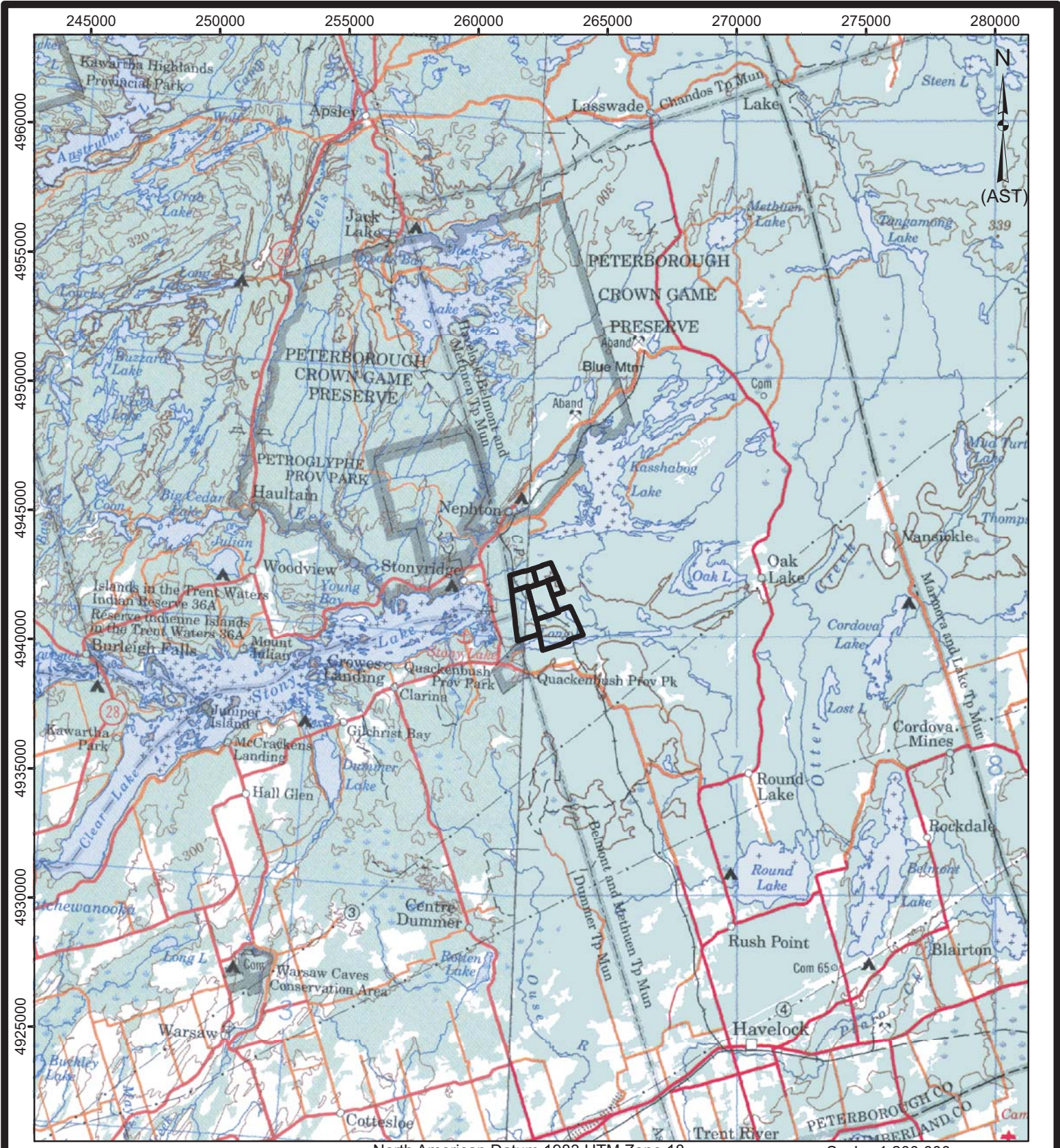
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FIGURES



North American Datum 1983 UTM Zone 18

Scale: 1:200,000

LEGEND

— Approximate Claim Boundaries

**TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY**

Claim No. 1240115, 1240130, 1240142,
1240150, 1240154 and 1240155
Township of Havelock-Belmont-Methuen (Methuen)



TITLE
GENERAL LOCATION

Notes: After Natural Resources Canada,
NTS Maps 31D and 31C (1998)
copyright Her Majesty The Queen in Right of Canada

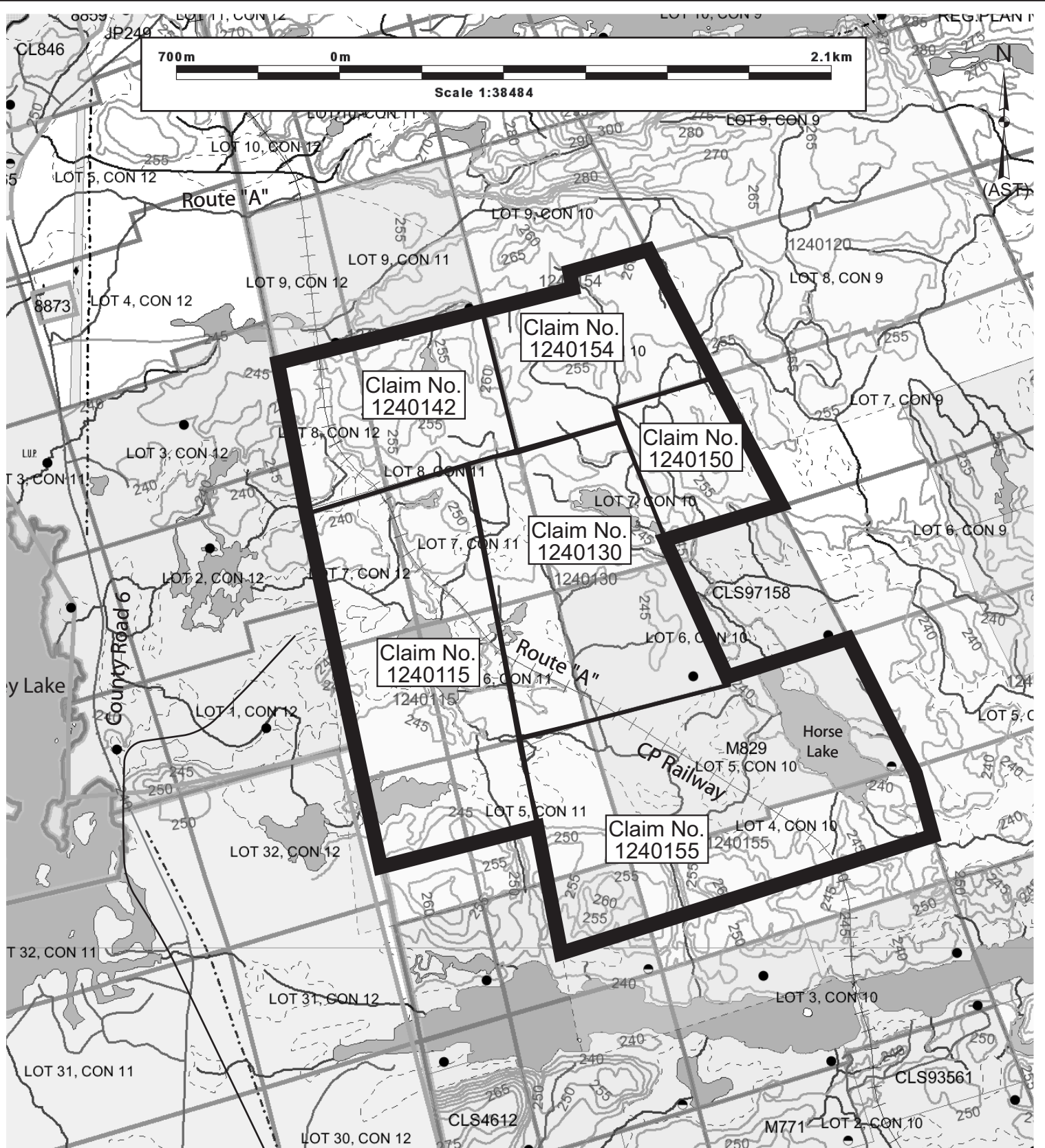


PROJECT #
17-2357


DATE
January 2018

FIGURE NO.

1



LEGEND

 Approximate Claim Boundaries

**TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY**

Claim No. 1240115, 1240130, 1240142,
1240150, 1240154 and 1240155
Township of Havelock-Belmont-Methuen (Methuen)

TITLE

CLAIM MAP

Notes: Ministry of Northern Development and Mines,
Claim Map III Database

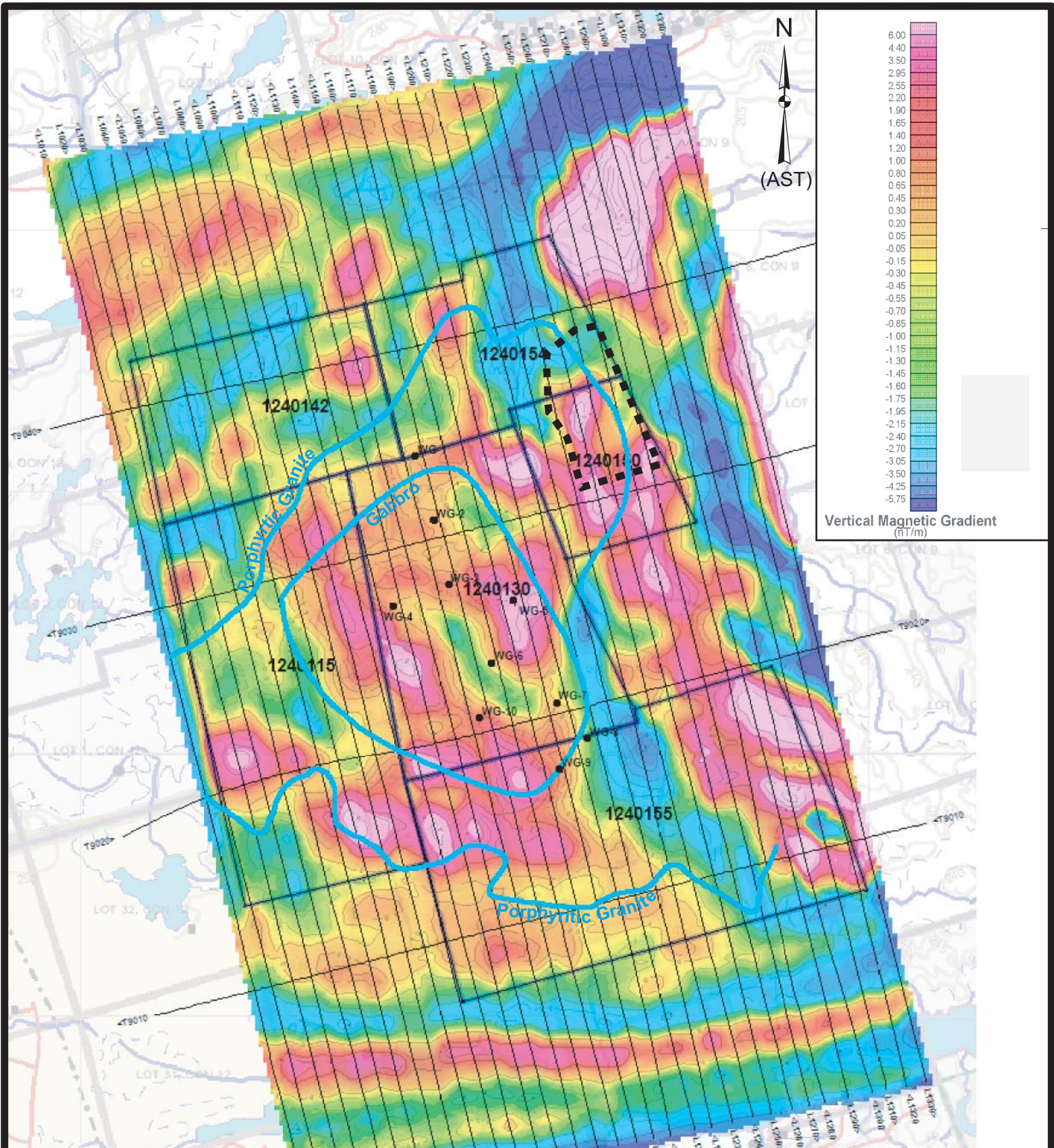


PROJECT #
17-2357

DATE
January 2018

FIGURE NO.

2



LEGEND

- ■ ■ ■ Approximate Location of 2017 Study Area
- WG-# Drill Hole
- Lithological Contact

Notes: After JVX Ltd. Calculated Vertical Magnetic Gradient (2008)

**TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY**

Claim No. 1240115, 1240130, 1240142,
1240150, 1240154 and 1240155
Township of Havelock-Belmont-Methuen (Methuen)



Approximate Scale: 1:20,000

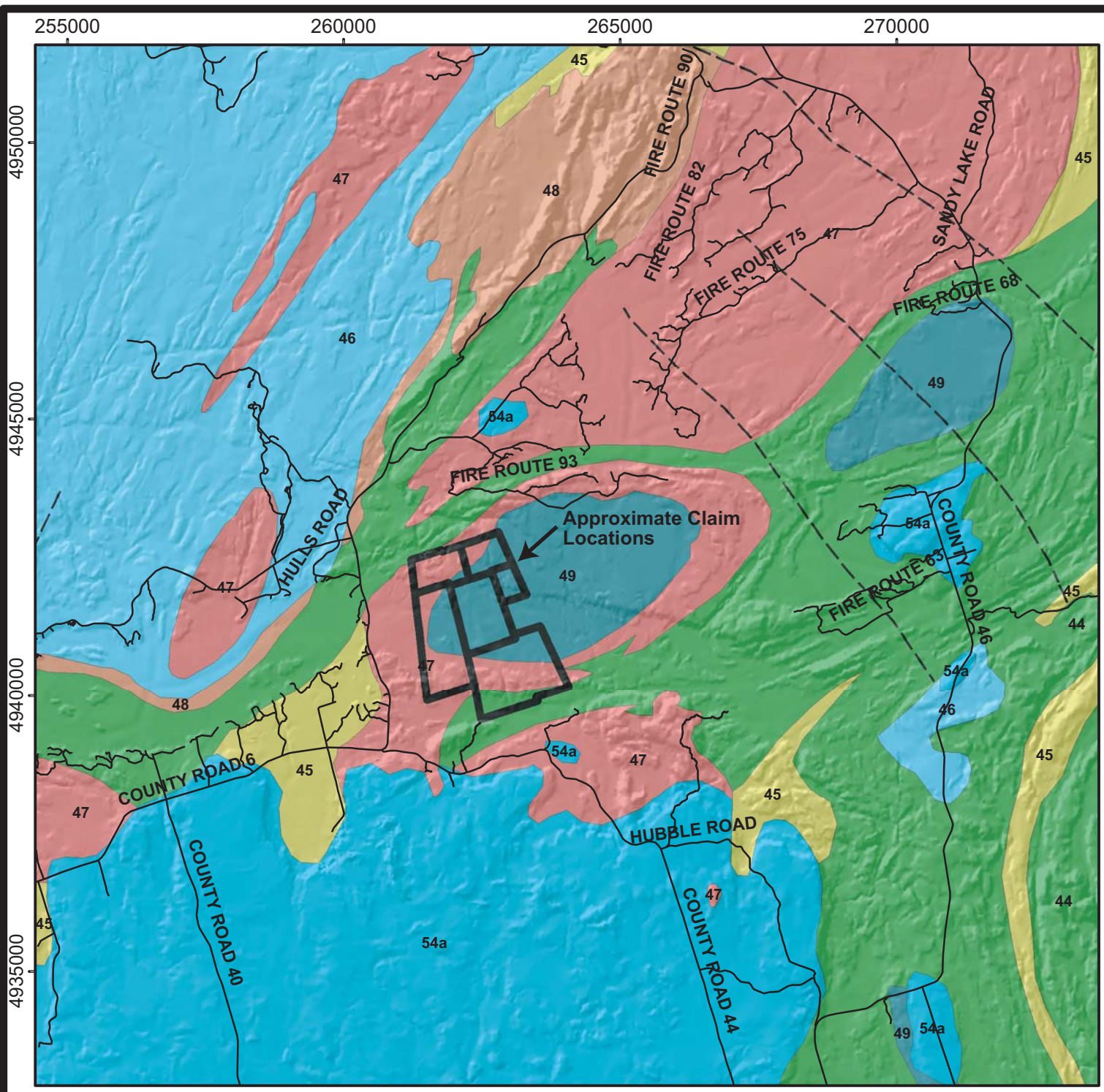
TITLE
MAGNETIC ANOMALY PLAN

PROJECT #
17-2357

DATE
January 2018

FIGURE NO.

3



North American Datum 1983 UTM Zone 18

**TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY**

Claim No. 1240115, 1240130, 1240142,
1240150, 1240154 and 1240155
Township of Havelock-Belmont-Methuen (Methuen)

LEGEND

- 54a Paleozoic Limestone, Dolostone, Shale, Arkose, Sandstone
- 49 Mafic to Ultramafic Plutonic Rocks
- 48 Alkalic Plutonic Rocks
- 47 Early Felsic Plutonic Rocks
- 46 Carbonate Metasedimentary Rocks
- 45 Clastic Metasedimentary Rocks
- 44 Mafic to Felsic Metavolcanic Rocks

--- Fault Line

N



(AST)

Scale: 1:100,000



Notes: Base map provided by the Ontario Geological Survey (MRD-126), copyright the Queen's Printer (2010)

TITLE
REGIONAL GEOLOGY



PROJECT #
17-2357

FIGURE NO.
4

DATE
January 2018

261000

262000

263000

264000

4943000

4942000

4941000

4940000



TRIGAN RESOURCES INC. WEST GABBRO PROPERTY BIOGEOCHEMICAL SURVEY

Claim No. 1240115, 1240130, 1240142,
1240150, 1240154 and 1240155
Township of Havelock-Belmont-Methuen (Methuen)

LEGEND

-  Claim Boundary
-  Approximate Location of 2017 Study Area
-  Open Water
-  Marsh
-  Swamp
-  Treed Upland
-  Deciduous Treed
-  Mixed Treed
-  Coniferous Treed
-  Agriculture and Undifferentiated Rural Land Use

Scale: 1:20,000



Notes: After The Southern Ontario Land Resource Information System (2015)

TITLE

SOLRIS DATA MAP



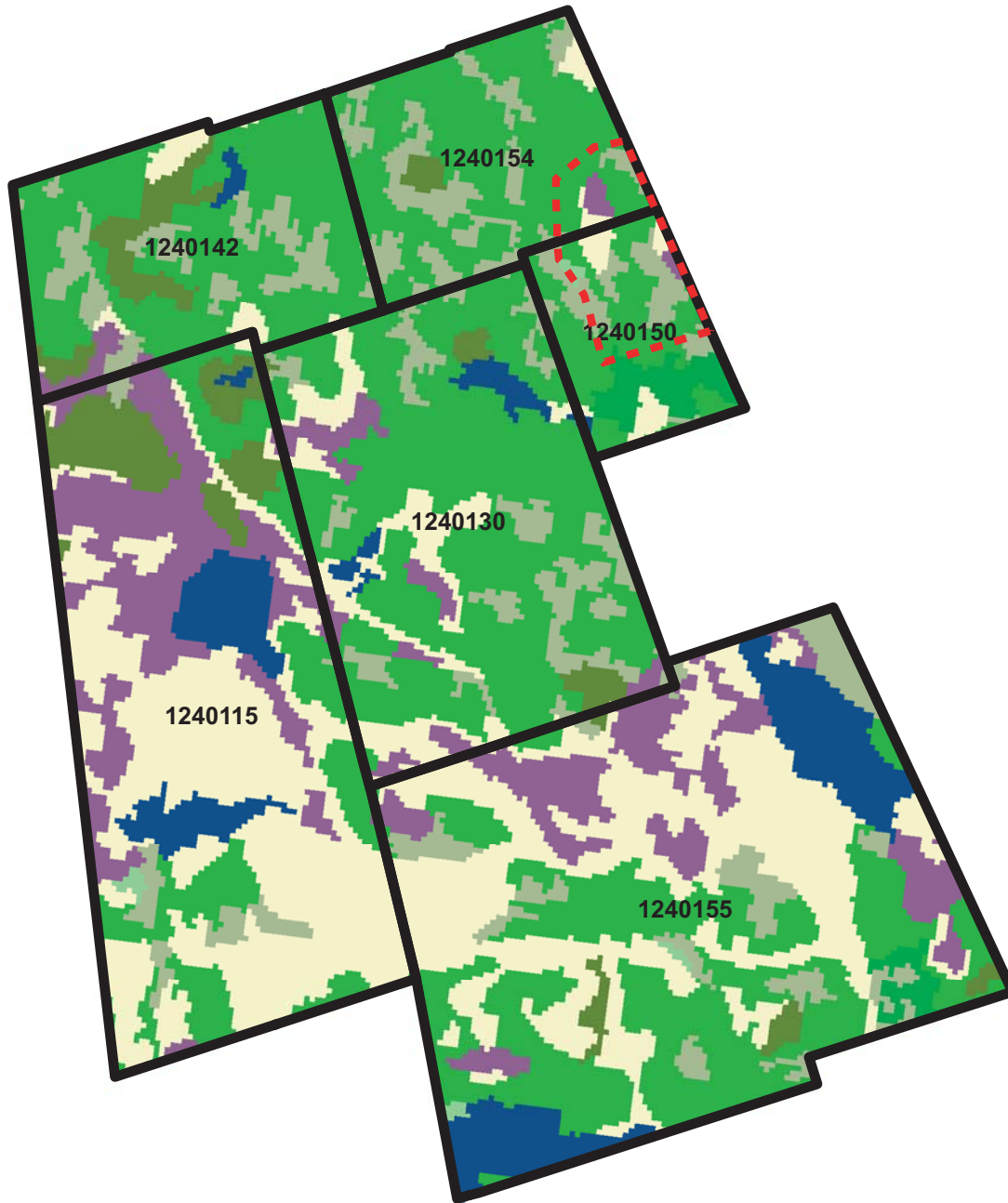
PROJECT #
17-2357

FIGURE NO.

5

DATE
January 2018

North American Datum 1983 UTM Zone 18





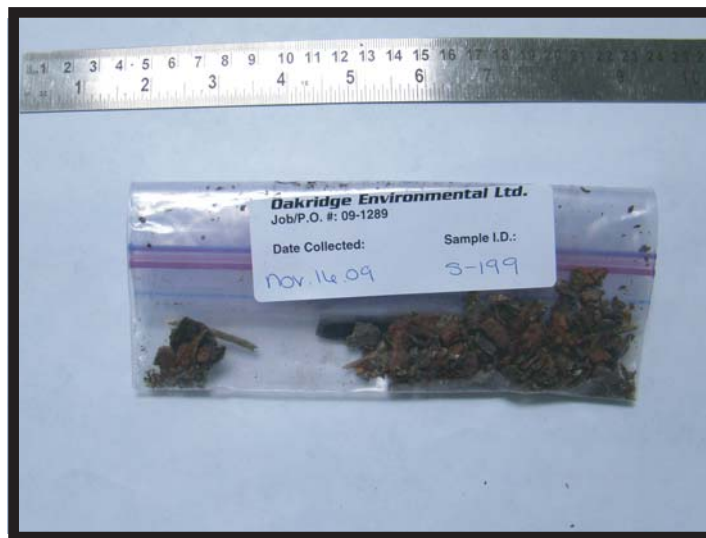
Sampling technique.




Sampling tools.

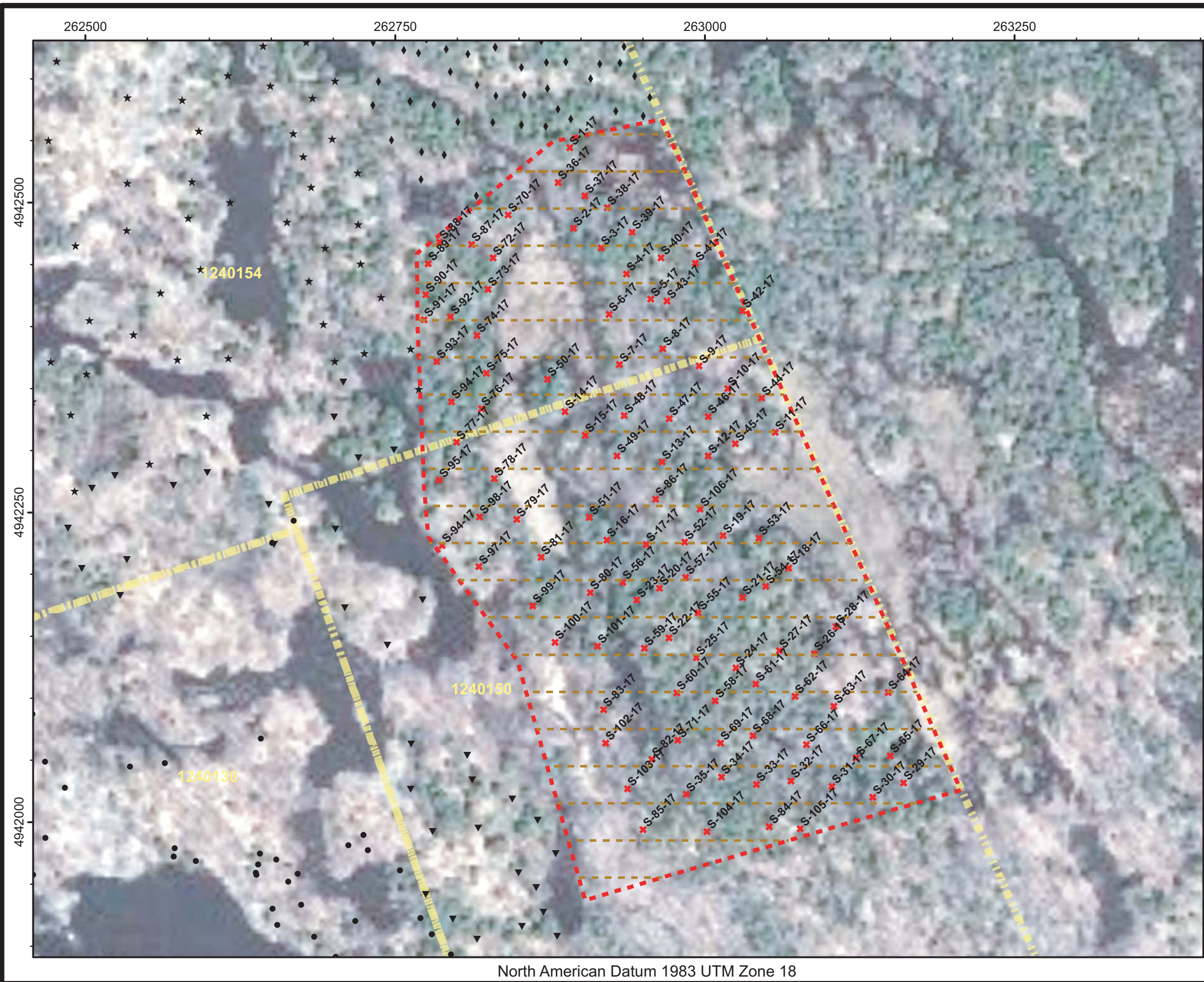


Alternate sampling tool



Typical tree bark sample prepared for shipment to laboratory.

<p>Notes: Photos taken over the 2009, 2012, 2014 & 2015 sampling periods</p>	<p>TRIGAN RESOURCES INC. WEST GABBRO PROPERTY BIOGEOCHEMICAL SURVEY</p> <p>Claim No. 1240115, 1240130, 1240142, 1240150, 1240154 and 1240155 Township of Havelock-Belmont-Methuen (Methuen)</p>	<p>TITLE</p> <p>TOOL AND SAMPLING PHOTOS</p>	
		<p>PROJECT # 17-2357</p> <p>DATE January 2018</p>	<p>FIGURE NO.</p> <p>6</p>



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen

N
 (AST)

2017 Survey Area

- Sampling Location (ORE, 2009)
- ▲ Sampling Location (ORE, 2010)
- Sampling Location (ORE, 2012)
- ▼ Sampling Location (ORE, 2013)
- ★ Sampling Location (ORE, 2014)
- ◆ Sampling Location (ORE, 2015)
- ⊕ Sampling Location (ORE, 2016)
- ✱ Sampling Location (ORE, 2017)

--- Traverse Lines
 Claim Boundary

Scale: 1:3,000

0 50 100 200m

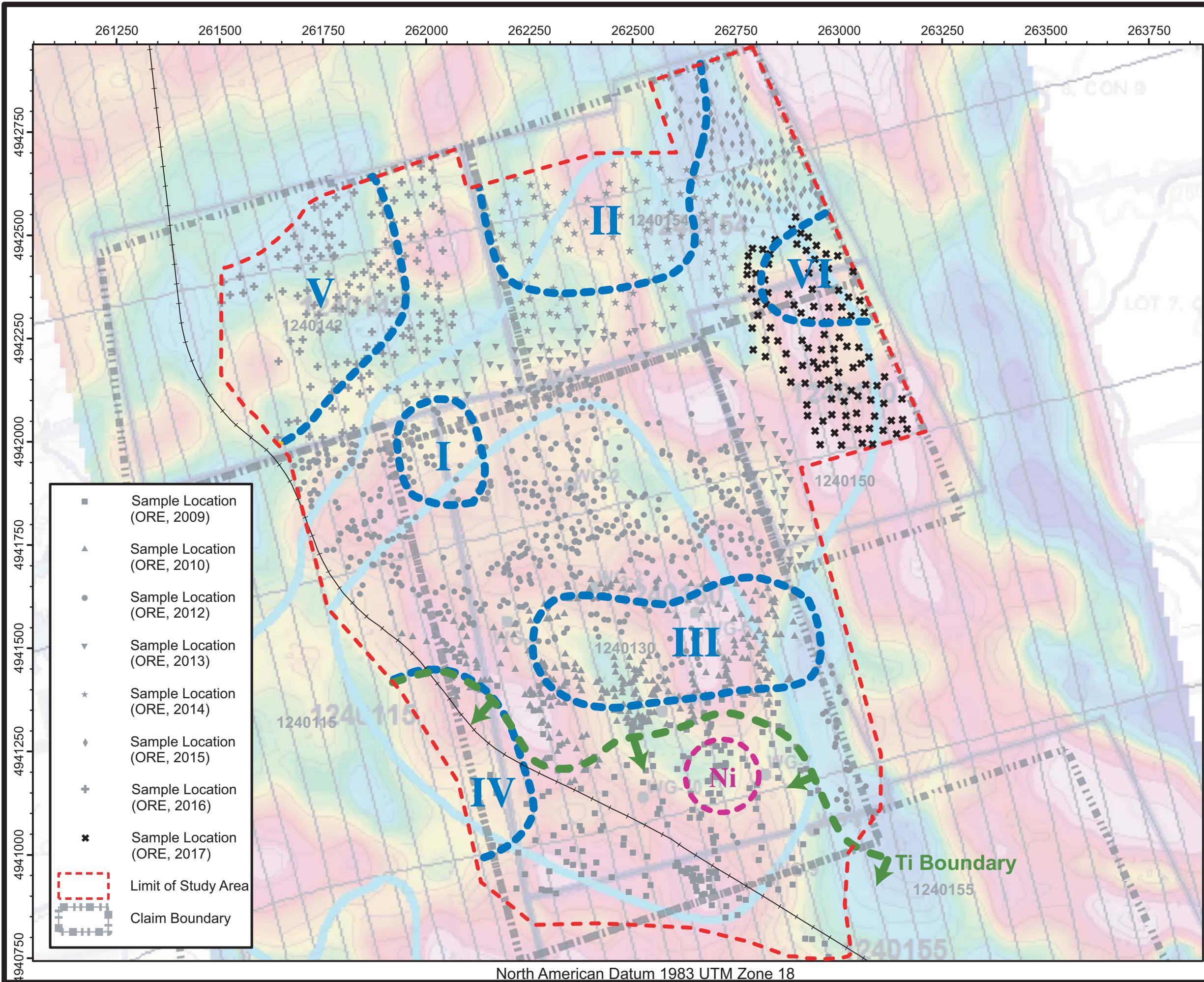
Notes: Air photo provided by ESRI, DigitalGlobe (2011)
 2009 & 2010 sample locations determined by differential global positioning system (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential global positioning system (dGPS, +/- 2.0 m)
 Claim boundary provided by Ministry of Northern Development and Mines (ClaimMaps, 2012)

TITLE
SAMPLE LOCATION PLAN

ORE
 Oakridge Environmental Ltd.
 Environmental and Hydrogeological Services

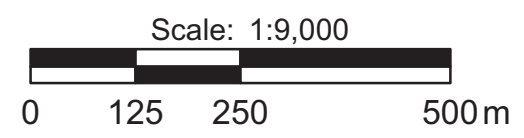
PROJECT # 17-2357	FIGURE NO. 7
DATE January 2018	

North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen

- Anomaly I**
 Au, Mg, Mn, Ni (weak), Rb, Tl, V, Zn
- Anomaly II**
 Al, Au, Cd, Mg, Mn, Pb, Rb,
 S (strong), Tl, Y, Zn, Na (depletion)
- Anomaly III**
 Cd, Cs, Mg, Mn, Ni (weak), Pb, S, Sr,
 Tl, V, Y, Zn
- Anomaly IV**
 Ba, Co, Cu, Fe, Li, Mo, Ni, Zn
- Anomaly V**
 Ag, Cd, Mn, Na, Sr, Y
- Anomaly VI**
 Ba, Mg, Pb (weak), S, Sr (strong)



Notes: Base map provided by JVX Ltd. Calculated Vertical Magnetic Gradient (2008)
2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)

- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- - - Limit of Study Area
- - - Claim Boundary

TITLE
INTERPRETIVE PLAN



PROJECT # 17-2357	FIGURE NO. 8
DATE January 2018	

North American Datum 1983 UTM Zone 18

APPENDIX A

2017 Laboratory Data

**CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
380 Armour Road, Suite 127
Peterborough, ON K9J6Z3
(705) 745-1181**

ATTENTION TO: Dan MacIntyre

PROJECT: West Gabbro

AGAT WORK ORDER: 17T271851

MISCELLANEOUS ANALYSIS REVIEWED BY: Mike Muneswar, BSc (Chem), Senior Inorganic Analyst

DATE REPORTED: Nov 29, 2017

PAGES (INCLUDING COVER): 17

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



Certificate of Analysis

AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-1-17	S-2-17	S-3-17	S-4-17	S-5-17	S-6-17	S-7-17	S-8-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823874	8823881	8823882	8823883	8823884	8823885	8823886	8823887
Aluminum	µg/g	5	18700	26600	21500	25000	28800	13400	30700	26200	
Antimony	µg/g	0.8	1.5	1.5	3.7	1.1	1.5	1.1	1.2	1.9	
Arsenic	µg/g	1	3	4	3	3	4	2	3	4	
Barium	µg/g	2	783	385	752	647	561	718	448	457	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	0.6	0.9	0.7	0.8	1.1	0.5	0.7	1.1	
Boron	µg/g	5	131	124	160	119	138	226	122	120	
Cadmium	µg/g	0.5	26.8	28.3	20.3	22.9	28.5	16.5	25.6	17.4	
Calcium	µg/g	100	296000	263000	290000	269000	268000	303000	275000	253000	
Cerium	µg/g	0.01	10.2	16.8	9.45	15.8	17.2	9.24	12.6	20.9	
Cesium	µg/g	0.01	6.17	6.03	0.76	0.88	1.65	8.39	1.70	1.97	
Cobalt	µg/g	0.5	10.1	8.8	6.9	6.8	8.3	17.9	10.0	11.9	
Chromium	µg/g	2	92	82	10	13	18	9	13	26	
Copper	µg/g	1	204	342	214	233	293	276	342	290	
Gallium	µg/g	0.50	2.32	3.49	2.20	2.87	3.69	1.57	2.55	3.78	
Germanium	µg/g	0.05	1.27	1.83	1.25	1.64	1.88	1.25	1.59	2.07	
Gold	µg/g	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	
Hafnium	µg/g	0.02	0.09	0.08	0.10	0.12	0.15	0.11	0.06	0.09	
Indium	µg/g	0.005	0.027	0.041	0.027	0.031	0.048	0.017	0.039	0.040	
Iron	µg/g	50	5340	8680	5180	7190	8900	4430	6840	10500	
Lanthanum	µg/g	0.1	5.3	8.5	4.9	7.6	8.6	4.4	6.3	10.7	
Lead	µg/g	1	108	614	1910	325	522	42	559	281	
Lithium	µg/g	0.5	3.3	4.4	2.9	3.4	5.8	5.5	6.4	5.4	
Magnesium	µg/g	100	20500	19300	20900	16100	21000	23000	19000	16900	
Manganese	µg/g	5	7060	2270	4050	3170	3840	2570	2960	2290	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	6.9	4.4	2.8	2.9	4.0	2.7	2.9	4.3	
Nickel	µg/g	1	71	50	28	29	37	19	31	28	
Niobium	µg/g	0.05	0.26	0.24	0.23	0.24	0.28	0.21	0.20	0.24	
Phosphorus	µg/g	5	12100	15500	15700	12600	16800	12400	14300	17200	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

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Parameter	Unit	SAMPLE DESCRIPTION:		S-1-17	S-2-17	S-3-17	S-4-17	S-5-17	S-6-17	S-7-17	S-8-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823874	8823881	8823882	8823883	8823884	8823885	8823886	8823887
Potassium	µg/g	100	23100	40500	20900	27700	39300	35800	45900	34400	
Sodium	µg/g	100	827	1950	577	1110	2120	1770	2700	2030	
Rhenium	µg/g	0.001	0.001	<0.001	0.003	0.003	0.006	0.004	0.004	0.007	
Rubidium	µg/g	0.1	115	178	53.7	77.5	131	227	155	109	
Scandium	ug/g	0.50	0.80	1.22	0.84	1.09	1.49	0.79	0.73	1.54	
Selenium	µg/g	0.8	4.7	7.1	4.1	5.0	7.1	2.8	4.4	6.9	
Silver	µg/g	0.4	0.6	0.8	0.7	0.6	0.7	0.5	0.5	0.8	
Strontium	µg/g	5	660	602	792	438	432	547	395	424	
Sulfur	µg/g	200	23500	24900	23200	22700	25300	20400	22300	23500	
Tantalum	µg/g	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	1.3	1.1	1.4	0.5	1.3	0.5	0.7	1.1	
Thorium	µg/g	0.4	0.5	0.7	0.5	0.7	0.8	0.5	0.5	1.1	
Tin	µg/g	1	3	3	2	2	3	2	2	3	
Titanium	µg/g	5	135	172	129	149	204	98	134	217	
Tungsten	ug/g	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.553	
Uranium	µg/g	0.50	<0.50	0.57	<0.50	<0.50	0.58	<0.50	<0.50	0.63	
Vanadium	µg/g	1	23	38	19	29	40	15	32	36	
Yttrium	µg/g	0.05	6.02	6.96	4.77	5.92	7.18	3.80	5.60	7.97	
Zinc	µg/g	5	3930	2660	3360	2500	2910	2760	2350	2810	
Zirconium	µg/g	0.5	2.5	2.7	2.5	2.7	3.1	2.2	2.2	3.3	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-9-17	S-10-17	S-11-17	S-12-17	S-13-17	S-14-17	S-15-17	S-16-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823888	8823889	8823890	8823891	8823892	8823893	8823894	8823895
Aluminum	µg/g	5	18300	15700	16400	24300	36800	15600	20200	36800	
Antimony	µg/g	0.8	2.0	1.6	0.9	1.4	2.5	1.4	1.1	1.5	
Arsenic	µg/g	1	4	2	2	4	14	3	3	6	
Barium	µg/g	2	467	357	405	423	886	496	427	626	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	1.0	0.6	0.5	0.9	2.3	0.7	0.7	1.4	
Boron	µg/g	5	144	173	118	196	184	116	173	162	
Cadmium	µg/g	0.5	17.0	20.4	35.8	24.9	21.7	24.1	23.2	17.2	
Calcium	µg/g	100	281000	291000	305000	306000	269000	228000	294000	231000	
Cerium	µg/g	0.01	15.6	9.50	10.3	17.0	34.7	11.3	14.1	21.8	
Cesium	µg/g	0.01	2.97	1.60	5.03	4.05	1.38	18.9	13.7	6.41	
Cobalt	µg/g	0.5	10.7	10.6	8.0	9.9	10.8	18.9	14.4	20.1	
Chromium	µg/g	2	14	13	62	145	26	13	18	19	
Copper	µg/g	1	298	279	235	333	319	304	254	358	
Gallium	µg/g	0.50	2.98	2.03	1.96	2.99	6.90	2.59	2.74	4.80	
Germanium	µg/g	0.05	1.82	1.53	1.33	1.84	3.11	1.73	1.68	2.45	
Gold	µg/g	0.01	0.02	0.02	0.01	0.02	0.02	0.01	<0.01	0.02	
Hafnium	µg/g	0.02	0.12	0.09	0.08	0.11	0.16	0.06	0.10	0.14	
Indium	µg/g	0.005	0.049	0.024	0.025	0.038	0.129	0.032	0.031	0.068	
Iron	µg/g	50	6780	4880	5850	8380	11700	7300	8090	12000	
Lanthanum	µg/g	0.1	8.1	4.7	5.0	8.4	16.7	5.8	6.7	11.0	
Lead	µg/g	1	644	165	174	524	1350	686	317	1080	
Lithium	µg/g	0.5	5.2	4.9	4.3	4.6	8.1	4.0	5.0	6.5	
Magnesium	µg/g	100	14900	19200	14900	18800	14300	21900	17400	18300	
Manganese	µg/g	5	1810	2970	4560	4330	2770	2690	2200	1990	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	4.7	2.8	3.2	5.8	8.5	3.7	2.8	5.6	
Nickel	µg/g	1	27	20	51	91	58	30	21	28	
Niobium	µg/g	0.05	0.24	0.21	0.16	0.24	0.30	0.19	0.20	0.26	
Phosphorus	µg/g	5	12900	15800	11000	14700	11700	12900	15900	16700	

Certified By:



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AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

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MISSISSAUGA, ONTARIO
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<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-9-17	S-10-17	S-11-17	S-12-17	S-13-17	S-14-17	S-15-17	S-16-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823888	8823889	8823890	8823891	8823892	8823893	8823894	8823895
Potassium	µg/g	100	31900	31500	25300	34200	43600	64300	35500	37800	
Sodium	µg/g	100	1840	1290	1660	2720	3370	1730	2290	1840	
Rhenium	µg/g	0.001	0.008	0.006	0.004	0.005	0.008	0.005	0.006	0.007	
Rubidium	µg/g	0.1	101	70.1	113	120	133	436	199	167	
Scandium	ug/g	0.50	1.06	0.97	0.83	1.11	1.82	0.91	0.98	1.62	
Selenium	µg/g	0.8	6.6	4.0	3.9	5.2	7.7	4.5	4.3	7.5	
Silver	µg/g	0.4	<0.4	0.9	1.0	0.7	0.7	0.8	0.9	0.5	
Strontium	µg/g	5	415	374	442	577	572	449	523	499	
Sulfur	µg/g	200	24200	24800	18800	29300	21500	23800	28000	30600	
Tantalum	µg/g	0.01	0.02	0.01	<0.01	0.01	0.02	<0.01	<0.01	0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	0.6	<0.4	1.3	0.9	1.3	1.6	2.9	2.5	
Thorium	µg/g	0.4	0.7	0.5	0.5	0.7	1.7	0.5	0.6	0.9	
Tin	µg/g	1	3	2	2	3	5	2	2	4	
Titanium	µg/g	5	141	113	125	143	223	175	151	199	
Tungsten	ug/g	0.50	0.524	< 0.50	< 0.50	0.585	0.850	< 0.50	< 0.50	0.524	
Uranium	µg/g	0.50	0.52	<0.50	<0.50	0.51	1.12	0.51	<0.50	0.75	
Vanadium	µg/g	1	46	19	21	44	125	33	25	51	
Yttrium	µg/g	0.05	6.69	3.63	4.02	7.35	16.0	4.73	5.61	8.90	
Zinc	µg/g	5	2340	2690	2890	2960	2270	2830	2400	2340	
Zirconium	µg/g	0.5	2.7	2.4	2.3	2.6	3.1	2.5	2.7	3.7	

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ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-17-17	S-18-17	S-19-17	S-20-17	S-21-17	S-22-17	S-23-17	S-24-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823896	8823897	8823898	8823899	8823900	8823901	8823902	8823903
Aluminum	µg/g	5	17100	16400	18200	20800	40700	25100	26100	22600	
Antimony	µg/g	0.8	1.3	0.9	1.7	2.1	5.1	2.1	1.6	3.5	
Arsenic	µg/g	1	2	2	4	4	14	5	5	6	
Barium	µg/g	2	488	578	490	814	877	685	613	597	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	0.7	0.6	1.0	1.2	2.2	1.2	0.9	1.2	
Boron	µg/g	5	139	166	126	113	256	150	126	108	
Cadmium	µg/g	0.5	18.8	26.9	17.3	30.5	15.6	20.9	14.6	20.5	
Calcium	µg/g	100	290000	277000	292000	263000	240000	291000	270000	298000	
Cerium	µg/g	0.01	11.7	11.0	15.6	19.7	33.0	18.1	17.8	21.0	
Cesium	µg/g	0.01	4.78	1.88	1.64	0.75	2.20	0.98	0.89	0.94	
Cobalt	µg/g	0.5	12.8	4.7	7.2	8.2	13.5	13.0	9.4	9.1	
Chromium	µg/g	2	47	11	24	17	126	18	15	17	
Copper	µg/g	1	214	210	178	249	393	208	234	289	
Gallium	µg/g	0.50	2.45	2.38	2.97	3.75	7.63	3.38	3.34	3.38	
Germanium	µg/g	0.05	1.49	1.51	1.56	1.83	4.27	2.03	1.73	1.99	
Gold	µg/g	0.01	0.02	0.01	<0.01	0.02	0.03	0.04	0.02	0.03	
Hafnium	µg/g	0.02	0.11	0.12	0.09	0.07	0.17	0.12	0.06	0.10	
Indium	µg/g	0.005	0.027	0.026	0.047	0.049	0.115	0.052	0.046	0.054	
Iron	µg/g	50	6180	6810	6660	8490	15100	9170	7910	8440	
Lanthanum	µg/g	0.1	6.0	6.1	7.8	9.8	15.7	9.0	8.7	10.7	
Lead	µg/g	1	234	71	656	907	1690	1130	659	843	
Lithium	µg/g	0.5	3.4	3.6	3.9	3.6	12.2	7.0	4.9	3.0	
Magnesium	µg/g	100	19000	15600	12300	19200	17800	20500	18900	18000	
Manganese	µg/g	5	2160	4290	3250	3990	2440	3740	2130	3350	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	3.1	2.3	3.5	4.4	12.3	3.8	4.3	5.5	
Nickel	µg/g	1	39	19	30	32	89	26	25	38	
Niobium	µg/g	0.05	0.21	0.19	0.18	0.20	0.49	0.25	0.20	0.25	
Phosphorus	µg/g	5	13200	14300	11300	14800	21000	13600	15300	15200	

Certified By:



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AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-17-17	S-18-17	S-19-17	S-20-17	S-21-17	S-22-17	S-23-17	S-24-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823896	8823897	8823898	8823899	8823900	8823901	8823902	8823903
Potassium	µg/g	100	20800	23300	27600	28700	78200	30100	30000	27700	
Sodium	µg/g	100	741	663	1680	919	6110	2360	1560	1900	
Rhenium	µg/g	0.001	0.004	0.005	0.003	0.006	0.011	0.008	0.006	0.005	
Rubidium	µg/g	0.1	70.3	70.3	96.4	53.4	164	51.6	48.0	58.4	
Scandium	ug/g	0.50	0.90	1.17	1.00	1.45	2.66	1.60	1.38	1.37	
Selenium	µg/g	0.8	3.8	3.2	5.8	6.0	13.0	7.7	7.6	8.5	
Silver	µg/g	0.4	0.4	0.8	0.9	0.4	0.9	0.5	0.5	0.6	
Strontium	µg/g	5	575	681	459	486	685	522	476	437	
Sulfur	µg/g	200	19800	17000	24200	23400	34100	24300	27000	27100	
Tantalum	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	0.06	0.02	0.02	0.02	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	1.3	1.7	0.5	0.6	<0.4	<0.4	<0.4	<0.4	
Thorium	µg/g	0.4	0.6	0.7	0.7	0.8	1.2	0.7	0.7	0.9	
Tin	µg/g	1	3	3	3	4	8	3	3	4	
Titanium	µg/g	5	132	138	124	174	312	191	167	164	
Tungsten	ug/g	0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.260	< 0.50	< 0.50	0.666	
Uranium	µg/g	0.50	<0.50	<0.50	0.55	0.65	0.94	0.65	<0.50	0.63	
Vanadium	µg/g	1	22	19	44	47	115	51	40	53	
Yttrium	µg/g	0.05	4.45	4.06	6.83	7.23	13.2	5.90	6.24	8.08	
Zinc	µg/g	5	2360	3240	2100	3110	2350	2970	3070	3310	
Zirconium	µg/g	0.5	3.1	3.5	2.7	3.3	4.0	3.6	1.7	3.3	

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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-25-17	S-26-17	S-27-17	S-28-17	S-29-17	S-30-17	S-31-17	S-32-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823904	8823905	8823906	8823907	8823908	8823909	8823910	8823911
Aluminum	µg/g	5	32600	32800	14100	18000	21700	36000	23000	15100	
Antimony	µg/g	0.8	1.7	3.6	1.1	1.5	2.4	4.4	1.5	<0.8	
Arsenic	µg/g	1	6	8	1	3	3	11	5	2	
Barium	µg/g	2	715	559	777	448	595	481	483	1140	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	1.2	1.8	0.3	0.5	0.8	1.5	1.0	0.3	
Boron	µg/g	5	165	164	148	180	85	253	106	114	
Cadmium	µg/g	0.5	20.1	25.4	38.2	41.1	48.5	32.1	26.6	29.7	
Calcium	µg/g	100	229000	279000	326000	272000	293000	253000	296000	318000	
Cerium	µg/g	0.01	22.2	31.1	5.70	9.83	13.9	22.5	19.0	8.67	
Cesium	µg/g	0.01	1.66	7.20	7.27	16.1	9.04	6.84	6.50	1.32	
Cobalt	µg/g	0.5	8.2	11.1	8.0	10.2	11.8	13.1	17.5	11.6	
Chromium	µg/g	2	31	45	7	12	15	24	17	12	
Copper	µg/g	1	388	431	262	337	247	666	256	191	
Gallium	µg/g	0.50	4.07	5.55	1.30	2.38	2.42	4.64	3.04	1.47	
Germanium	µg/g	0.05	2.17	2.48	1.18	1.59	1.26	3.41	1.74	1.16	
Gold	µg/g	0.01	0.03	0.03	<0.01	0.02	0.02	0.03	0.02	<0.01	
Hafnium	µg/g	0.02	0.12	0.08	0.07	0.04	0.06	0.12	0.11	0.05	
Indium	µg/g	0.005	0.052	0.106	0.013	0.026	0.034	0.089	0.053	0.019	
Iron	µg/g	50	12200	11500	3660	7930	5690	11000	6820	4180	
Lanthanum	µg/g	0.1	12.1	15.0	3.5	5.7	7.1	11.1	9.4	4.7	
Lead	µg/g	1	579	1240	45	58	731	1130	978	226	
Lithium	µg/g	0.5	6.7	5.5	2.7	5.1	2.5	11.7	4.1	3.0	
Magnesium	µg/g	100	16200	13800	19000	19200	17300	23100	16400	13400	
Manganese	µg/g	5	3840	3280	8480	5240	7130	4180	2760	5670	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	4.9	7.5	1.1	2.9	3.6	7.0	5.0	<0.5	
Nickel	µg/g	1	37	68	78	34	53	47	31	27	
Niobium	µg/g	0.05	0.25	0.27	0.15	0.20	0.17	0.34	0.22	<0.05	
Phosphorus	µg/g	5	20100	19500	13700	21500	12700	19300	12300	11600	

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AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-25-17	S-26-17	S-27-17	S-28-17	S-29-17	S-30-17	S-31-17	S-32-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823904	8823905	8823906	8823907	8823908	8823909	8823910	8823911
Potassium	µg/g		100	46300	30700	21000	32400	18200	63200	25400	20400
Sodium	µg/g		100	2860	2480	866	1910	1070	6300	1690	1120
Rhenium	µg/g	0.001	0.006	0.008	0.005	0.005	0.005	0.007	0.012	0.003	0.005
Rubidium	µg/g	0.1	117	129	117	149	97.7	239	99.1	79.8	
Scandium	ug/g	0.50	2.01	1.84	0.80	1.21	0.86	1.35	1.12	0.78	
Selenium	µg/g	0.8	8.6	11.9	2.5	3.2	6.4	10.4	7.9	4.0	
Silver	µg/g	0.4	1.6	0.8	1.8	1.0	1.1	0.6	<0.4	1.1	
Strontium	µg/g	5	521	547	640	611	584	552	503	655	
Sulfur	µg/g	200	29200	29900	15700	20400	20200	32900	24300	21000	
Tantalum	µg/g	0.01	0.02	0.02	0.01	0.02	0.01	0.03	0.01	<0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	0.5	1.2	<0.4	2.6	1.2	<0.4	0.8	<0.4	
Thorium	µg/g	0.4	1.0	1.2	<0.4	0.6	0.5	0.9	0.6	<0.4	
Tin	µg/g	1	4	4	1	3	3	5	4	<1	
Titanium	µg/g	5	243	223	80	157	114	178	157	86	
Tungsten	ug/g	0.50	< 0.50	0.905	< 0.50	< 0.50	< 0.50	0.888	< 0.50	< 0.50	
Uranium	µg/g	0.50	0.65	1.11	<0.50	<0.50	<0.50	0.90	0.57	<0.50	
Vanadium	µg/g	1	43	100	11	21	39	107	54	16	
Yttrium	µg/g	0.05	8.04	11.9	2.51	3.75	5.10	8.66	7.38	2.99	
Zinc	µg/g	5	3490	3150	4430	3510	4440	3380	2670	3180	
Zirconium	µg/g	0.5	4.0	3.2	2.0	1.1	2.2	4.1	3.6	1.4	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-33-17	S-34-17	S-35-17	S-36-17	S-37-17	S-38-17	S-39-17	S-40-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823912	8823913	8823914	8823915	8823916	8823917	8823918	8823919
Aluminum	µg/g	5	32100	19900	20400	19100	22900	16500	18100	25400	
Antimony	µg/g	0.8	2.4	2.5	1.7	2.6	<0.8	0.9	1.6	2.3	
Arsenic	µg/g	1	6	4	3	5	5	3	2	4	
Barium	µg/g	2	673	536	1100	721	666	572	571	787	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	1.3	0.9	0.7	1.3	0.7	0.6	0.5	0.7	
Boron	µg/g	5	118	221	121	149	230	171	204	180	
Cadmium	µg/g	0.5	29.0	31.0	31.7	18.7	34.5	19.3	21.0	39.4	
Calcium	µg/g	100	271000	271000	301000	255000	240000	306000	299000	280000	
Cerium	µg/g	0.01	23.6	10.9	13.2	26.1	16.9	13.4	10.0	15.6	
Cesium	µg/g	0.01	1.21	1.25	2.05	10.0	5.93	2.18	1.64	2.52	
Cobalt	µg/g	0.5	11.3	6.2	11.5	10.1	13.7	12.2	7.7	10.7	
Chromium	µg/g	2	21	13	11	23	121	12	69	16	
Copper	µg/g	1	350	267	240	306	470	213	273	310	
Gallium	µg/g	0.50	4.33	2.47	2.09	4.03	2.69	1.98	1.77	2.23	
Germanium	µg/g	0.05	2.04	1.65	1.45	2.37	1.67	1.33	1.43	1.67	
Gold	µg/g	0.01	0.02	0.01	<0.01	<0.01	0.02	0.01	0.01	<0.01	
Hafnium	µg/g	0.02	0.12	0.10	0.08	0.08	0.09	0.10	0.09	0.07	
Indium	µg/g	0.005	0.067	0.036	0.030	0.071	0.032	0.023	0.021	0.035	
Iron	µg/g	50	8890	6150	5580	12500	10200	6060	5890	7500	
Lanthanum	µg/g	0.1	11.8	5.9	6.3	12.5	8.1	6.7	5.4	8.1	
Lead	µg/g	1	875	850	445	717	170	169	93	294	
Lithium	µg/g	0.5	4.9	10.9	5.7	7.2	8.4	5.9	5.5	9.6	
Magnesium	µg/g	100	20800	34000	16900	19700	23900	25700	22200	23900	
Manganese	µg/g	5	4770	5310	4960	2570	3040	3500	4150	7320	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	4.8	3.5	2.0	5.2	4.7	3.0	3.1	3.5	
Nickel	µg/g	1	52	31	34	26	80	25	52	39	
Niobium	µg/g	0.05	0.27	0.20	0.19	0.27	0.22	0.22	0.21	0.30	
Phosphorus	µg/g	5	17300	12800	12700	18700	22200	12300	14800	16500	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-29

Parameter	Unit	SAMPLE DESCRIPTION:		S-33-17	S-34-17	S-35-17	S-36-17	S-37-17	S-38-17	S-39-17	S-40-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8823912	8823913	8823914	8823915	8823916	8823917	8823918	8823919
Potassium	µg/g		100	28200	69300	28700	37500	60300	29500	27300	41300
Sodium	µg/g		100	1590	3210	1640	2720	3330	1780	1640	4740
Rhenium	µg/g		0.001	0.006	0.004	0.004	0.008	0.008	0.004	0.004	0.002
Rubidium	µg/g		0.1	69.0	133	94.9	132	214	68.6	73.0	137
Scandium	ug/g		0.50	1.84	1.28	1.02	1.96	1.66	1.32	1.25	1.70
Selenium	µg/g		0.8	9.6	6.6	5.0	9.0	6.7	4.4	3.7	6.3
Silver	µg/g		0.4	1.0	1.4	1.2	0.6	0.9	0.8	0.9	0.7
Strontium	µg/g		5	528	445	500	694	552	735	537	623
Sulfur	µg/g		200	30600	25400	22500	31400	31100	24300	21600	25500
Tantalum	µg/g		0.01	0.02	0.01	<0.01	0.01	0.02	0.01	0.01	0.02
Tellurium	µg/g		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	µg/g		0.4	0.8	<0.4	0.7	0.6	0.9	<0.4	<0.4	<0.4
Thorium	µg/g		0.4	1.0	0.5	0.5	1.2	0.7	0.5	0.5	0.6
Tin	µg/g		1	4	3	2	3	4	2	2	2
Titanium	µg/g		5	223	163	125	234	250	158	133	156
Tungsten	ug/g		0.50	0.608	< 0.50	< 0.50	0.623	0.509	< 0.50	< 0.50	0.547
Uranium	µg/g		0.50	0.69	<0.50	<0.50	0.77	<0.50	<0.50	<0.50	<0.50
Vanadium	µg/g		1	55	37	25	50	25	21	17	30
Yttrium	µg/g		0.05	9.13	3.58	4.58	9.02	5.64	4.78	2.99	5.00
Zinc	µg/g		5	2860	3670	3410	3290	4910	3260	2930	4680
Zirconium	µg/g		0.5	3.8	3.2	2.7	2.6	3.4	3.1	2.9	2.1

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

8823874-8823919 Samples were ashed in a muffle furnace at 550oC. The ashed material was digested with concentrated HNO3/HCl and digestates analysed using ICP/MS and ICP/OES. The results reported are concentrations of the elements in the ashed material.

Elevated RDLs indicate the degree of sample dilutions prior to analysis in order to keep the analytes within the calibration range of the instruments and to reduce matrix interferences.

Certified By:

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
AGAT WORK ORDER: 17T271851
PROJECT: West Gabbro
ATTENTION TO: Dan MacIntyre
SAMPLING SITE:
SAMPLED BY:

Miscellaneous Analysis

RPT Date: Nov 29, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Metals (Ash) - Oakridge

Aluminum	8823874	8823874	18700	17900	4.4%	< 5	93%	70%	130%	102%	80%	120%	106%	70%	130%
Antimony	8823874	8823874	1.5	1.1	NA	< 0.8	104%	70%	130%	104%	80%	120%	101%	70%	130%
Arsenic	8823874	8823874	3	3	NA	< 1	87%	70%	130%	100%	80%	120%	100%	70%	130%
Barium	8823874	8823874	783	786	0.4%	< 20	102%	70%	130%	103%	80%	120%	109%	70%	130%
Beryllium	8823874	8823874	< 0.5	< 0.5	NA	< 0.5	100%	70%	130%	109%	80%	120%	107%	70%	130%
Bismuth	8823874	8823874	0.6	0.6	0.0%	< 0.1	99%	70%	130%	96%	80%	120%	95%	70%	130%
Boron	8823874	8823874	131	153	NA	< 50	88%	70%	130%	106%	80%	120%	106%	70%	130%
Cadmium	8823874	8823874	26.8	25.7	4.2%	< 0.5	100%	70%	130%	112%	80%	120%	103%	70%	130%
Calcium	8823874	8823874	296000	291000	1.7%	< 10	96%	70%	130%	94%	80%	120%	NA	70%	130%
Cerium	8823874	8823874	10.2	11.5	12.0%	< 0.01	102%	70%	130%	99%	80%	120%	109%	70%	130%
Cesium	8823874	8823874	6.17	6.60	6.7%	< 0.01	104%	70%	130%	101%	80%	120%	110%	70%	130%
Cobalt	8823874	8823874	10.1	10.3	NA	< 5.0	89%	70%	130%	105%	80%	120%	98%	70%	130%
Chromium	8823874	8823874	92	96	4.3%	< 2	101%	70%	130%	107%	80%	120%	108%	70%	130%
Copper	8823874	8823874	204	252	21.1%	< 10	90%	70%	130%	108%	80%	120%	100%	70%	130%
Gallium	8823874	8823874	2.32	2.54	NA	< 0.50	101%	70%	130%	101%	80%	120%	110%	70%	130%
Germanium	8823874	8823874	1.27	1.40	9.7%	< 0.05	106%	70%	130%	105%	80%	120%	117%	70%	130%
Gold	8823874	8823874	0.02	0.02	NA	< 0.01	97%	70%	130%	99%	80%	120%	99%	70%	130%
Hafnium	8823874	8823874	0.09	0.07	NA	< 0.02	104%	70%	130%	100%	80%	120%	104%	70%	130%
Indium	8823874	8823874	0.027	0.028	3.6%	< 0.005	102%	70%	130%	98%	80%	120%	110%	70%	130%
Iron	8823874	8823874	5340	5920	10.3%	< 50	90%	70%	130%	111%	80%	120%	100%	70%	130%
Lanthanum	8823874	8823874	5.3	6.1	14.0%	< 0.1	99%	70%	130%	98%	80%	120%	109%	70%	130%
Lead	8823874	8823874	108	131	19.2%	< 10	102%	70%	130%	101%	80%	120%	101%	70%	130%
Lithium	8823874	8823874	3.3	4.4	28.6%	< 0.5	98%	70%	130%	111%	80%	120%	109%	70%	130%
Magnesium	8823874	8823874	20500	21300	3.8%	< 10	95%	70%	130%	95%	80%	120%	94%	70%	130%
Manganese	8823874	8823874	7060	6960	1.4%	< 5	99%	70%	130%	108%	80%	120%	97%	70%	130%
Mercury	8823874	8823874	< 0.10	< 0.10	NA	< 0.10	100%	70%	130%	105%	80%	120%	105%	70%	130%
Molybdenum	8823874	8823874	6.9	3.7	NA	< 5.0	88%	70%	130%	112%	80%	120%	110%	70%	130%
Nickel	8823874	8823874	71	39	NA	< 10	97%	70%	130%	107%	80%	120%	98%	70%	130%
Niobium	8823874	8823874	0.26	0.21	NA	< 0.05	97%	70%	130%	94%	80%	120%	104%	70%	130%
Phosphorus	8823874	8823874	12100	14300	16.7%	< 5	100%	70%	130%	109%	80%	120%	120%	70%	130%
Potassium	8823874	8823874	23100	27500	17.4%	< 10	89%	70%	130%	99%	80%	120%	102%	70%	130%
Sodium	8823874	8823874	827	1040	22.8%	< 10	108%	70%	130%	99%	80%	120%	100%	70%	130%
Rhenium	8823874	8823874	0.001	0.002	NA	< 0.001	98%	70%	130%	99%	80%	120%	98%	70%	130%
Rubidium	8823874	8823874	115	138	18.2%	< 0.1	103%	70%	130%	99%	80%	120%	119%	70%	130%
Scandium	8823874	8823874	0.80	0.94	NA	< 0.50	106%	70%	130%	104%	80%	120%	114%	70%	130%
Selenium	8823874	8823874	4.7	4.8	2.1%	< 0.8	82%	70%	130%	102%	80%	120%	100%	70%	130%
Silver	8823874	8823874	0.6	0.5	NA	< 0.4	81%	70%	130%	112%	80%	120%	108%	70%	130%
Strontium	8823874	8823874	660	629	4.8%	< 50	91%	70%	130%	109%	80%	120%	106%	70%	130%
Sulfur	8823874	8823874	23500	26300	11.2%	< 20	106%	70%	130%	104%	80%	120%	113%	70%	130%

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
AGAT WORK ORDER: 17T271851
PROJECT: West Gabbro
ATTENTION TO: Dan MacIntyre
SAMPLING SITE:
SAMPLED BY:

Miscellaneous Analysis (Continued)																
RPT Date: Nov 29, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits			Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper	Lower		Upper	Lower		Upper	
Tantalum	8823874	8823874	0.03	0.03	NA	< 0.01	105%	70%	130%	104%	80%	120%	95%	70%	130%	
Tellurium	8823874	8823874	< 0.01	< 0.01	NA	< 0.01	101%	70%	130%	103%	80%	120%	110%	70%	130%	
Thallium	8823874	8823874	1.3	1.0	NA	< 0.4	96%	70%	130%	101%	80%	120%	107%	70%	130%	
Thorium	8823874	8823874	0.5	0.5	NA	< 0.4	102%	70%	130%	94%	80%	120%	97%	70%	130%	
Tin	8823874	8823874	3	3	NA	< 1	92%	70%	130%	103%	80%	120%	102%	70%	130%	
Titanium	8823874	8823874	135	148	9.2%	< 5	71%	70%	130%	103%	80%	120%	106%	70%	130%	
Tungsten	8823874	8823874	< 0.50	< 0.50	NA	< 0.50	100%	70%	130%	100%	80%	120%	103%	70%	130%	
Uranium	8823874	8823874	< 0.50	< 0.50	NA	< 0.50	108%	70%	130%	105%	80%	120%	103%	70%	130%	
Vanadium	8823874	8823874	23	23	NA	< 10	82%	70%	130%	104%	80%	120%	104%	70%	130%	
Yttrium	8823874	8823874	6.02	8.09	29.3%	< 0.05	96%	70%	130%	96%	80%	120%	103%	70%	130%	
Zinc	8823874	8823874	3930	3740	5.0%	< 5	90%	70%	130%	116%	80%	120%	104%	70%	130%	
Zirconium	8823874	8823874	2.5	2.4	NA	< 0.5	97%	70%	130%	103%	80%	120%	109%	70%	130%	
Metals (Ash) - Oakridge																
Aluminum	8823900	8823900	40700	36100	12.0%	< 5	110%	70%	130%	94%	80%	120%	115%	70%	130%	
Antimony	8823900	8823900	5.1	5.1	0.0%	< 0.8	105%	70%	130%	98%	80%	120%	105%	70%	130%	
Arsenic	8823900	8823900	14	12	15.4%	< 1	101%	70%	130%	99%	80%	120%	118%	70%	130%	
Barium	8823900	8823900	877	806	8.4%	< 2	111%	70%	130%	94%	80%	120%	104%	70%	130%	
Beryllium	8823900	8823900	< 0.5	< 0.5	NA	< 0.5	93%	70%	130%	99%	80%	120%	97%	70%	130%	
Bismuth	8823900	8823900	2.2	1.7	25.6%	< 0.1	106%	70%	130%	96%	80%	120%	97%	70%	130%	
Boron	8823900	8823900	256	214	17.9%	< 5	92%	70%	130%	99%	80%	120%	94%	70%	130%	
Cadmium	8823900	8823900	15.6	13.8	12.2%	< 0.5	91%	70%	130%	106%	80%	120%	97%	70%	130%	
Calcium	8823900	8823900	240000	273000	12.9%	< 10	99%	70%	130%	95%	80%	120%	NA	70%	130%	
Cerium	8823900	8823900	33.0	26.7	21.1%	< 0.01	100%	70%	130%	92%	80%	120%	101%	70%	130%	
Cesium	8823900	8823900	2.20	2.30	4.4%	< 0.01	104%	70%	130%	104%	80%	120%	104%	70%	130%	
Cobalt	8823900	8823900	13.5	11.8	13.4%	< 0.5	97%	70%	130%	99%	80%	120%	100%	70%	130%	
Chromium	8823900	8823900	126	119	5.7%	< 2	99%	70%	130%	97%	80%	120%	102%	70%	130%	
Copper	8823900	8823900	393	347	12.4%	< 1	101%	70%	130%	101%	80%	120%	108%	70%	130%	
Gallium	8823900	8823900	7.63	5.92	25.2%	< 0.50	95%	70%	130%	93%	80%	120%	93%	70%	130%	
Germanium	8823900	8823900	4.27	2.91	37.9%	< 0.05	100%	70%	130%	101%	80%	120%	101%	70%	130%	
Gold	8823900	8823900	0.03	0.04	NA	< 0.01	96%	70%	130%	100%	80%	120%	100%	70%	130%	
Hafnium	8823900	8823900	0.17	0.12	34.5%	< 0.02	100%	70%	130%	103%	80%	120%	101%	70%	130%	
Indium	8823900	8823900	0.115	0.100	14.0%	< 0.005	98%	70%	130%	99%	80%	120%	103%	70%	130%	
Iron	8823900	8823900	15100	11800	24.5%	< 50	95%	70%	130%	101%	80%	120%	120%	70%	130%	
Lanthanum	8823900	8823900	15.7	13.0	18.8%	< 0.1	102%	70%	130%	103%	80%	120%	103%	70%	130%	
Lead	8823900	8823900	1690	1190	34.7%	< 1	109%	70%	130%	102%	80%	120%	105%	70%	130%	
Lithium	8823900	8823900	12.2	13	6.3%	< 0.5	92%	70%	130%	97%	80%	120%	93%	70%	130%	
Magnesium	8823900	8823900	17800	20100	12.1%	< 10	102%	70%	130%	96%	80%	120%	95%	70%	130%	
Manganese	8823900	8823900	2440	2280	6.8%	< 5	91%	70%	130%	94%	80%	120%	98%	70%	130%	

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
PROJECT: West Gabbro
SAMPLING SITE:

AGAT WORK ORDER: 17T271851
ATTENTION TO: Dan MacIntyre
SAMPLED BY:

Miscellaneous Analysis (Continued)																
RPT Date: Nov 29, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Mercury	8823900	8823900	< 0.10	< 0.10	NA	< 0.10	108%	70%	130%	112%	80%	120%	108%	70%	130%	
Molybdenum	8823900	8823900	12.3	14.0	12.9%	< 0.5	107%	70%	130%	96%	80%	120%	108%	70%	130%	
Nickel	8823900	8823900	89	90	1.1%	< 1	97%	70%	130%	97%	80%	120%	101%	70%	130%	
Niobium	8823900	8823900	0.49	0.35	33.3%	< 0.05	95%	70%	130%	97%	80%	120%	97%	70%	130%	
Phosphorus	8823900	8823900	21000	20400	2.9%	< 5	105%	70%	130%	98%	80%	120%	121%	70%	130%	
Potassium	8823900	8823900	78200	82000	4.7%	< 10	86%	70%	130%	100%	80%	120%	101%	70%	130%	
Sodium	8823900	8823900	6110	7350	18.4%	< 10	100%	70%	130%	98%	80%	120%	102%	70%	130%	
Rhenium	8823900	8823900	0.011	0.015	30.8%	< 0.001	98%	70%	130%	99%	80%	120%	100%	70%	130%	
Rubidium	8823900	8823900	164	156	5.0%	< 0.1	100%	70%	130%	99%	80%	120%	99%	70%	130%	
Scandium	8823900	8823900	2.66	1.86	NA	< 0.50	101%	70%	130%	101%	80%	120%	101%	70%	130%	
Selenium	8823900	8823900	13.0	11.9	8.8%	< 0.8	105%	70%	130%	99%	80%	120%	113%	70%	130%	
Silver	8823900	8823900	0.9	0.72	NA	< 0.4	95%	70%	130%	101%	80%	120%	105%	70%	130%	
Strontium	8823900	8823900	685	633	7.9%	< 5	97%	70%	130%	89%	80%	120%	100%	70%	130%	
Sulfur	8823900	8823900	34100	38100	11.1%	< 20	110%	70%	130%	104%	80%	120%	105%	70%	130%	
Tantalum	8823900	8823900	0.06	0.04	NA	< 0.01	102%	70%	130%	103%	80%	120%	103%	70%	130%	
Tellurium	8823900	8823900	< 0.01	< 0.01	NA	< 0.01	100%	70%	130%	103%	80%	120%	103%	70%	130%	
Thallium	8823900	8823900	< 0.4	< 0.4	NA	< 0.4	104%	70%	130%	96%	80%	120%	101%	70%	130%	
Thorium	8823900	8823900	1.2	0.9	NA	< 0.4	92%	70%	130%	94%	80%	120%	94%	70%	130%	
Tin	8823900	8823900	8	5	46.2%	< 1	98%	70%	130%	98%	80%	120%	103%	70%	130%	
Titanium	8823900	8823900	312	290	7.3%	< 5	100%	70%	130%	94%	80%	120%	103%	70%	130%	
Tungsten	8823900	8823900	1.26	0.9	NA	< 0.50	100%	70%	130%	100%	80%	120%	99%	70%	130%	
Uranium	8823900	8823900	0.94	0.77	NA	< 0.50	98%	70%	130%	89%	80%	120%	89%	70%	130%	
Vanadium	8823900	8823900	115	86	28.9%	< 1	99%	70%	130%	96%	80%	120%	102%	70%	130%	
Yttrium	8823900	8823900	13.2	10.9	19.1%	< 0.05	95%	70%	130%	93%	80%	120%	93%	70%	130%	
Zinc	8823900	8823900	2350	2340	0.4%	< 5	103%	70%	130%	112%	80%	120%	113%	70%	130%	
Zirconium	8823900	8823900	4.0	3.4	16.2%	< 0.5	104%	70%	130%	95%	80%	120%	107%	70%	130%	

Comments: NA signifies Not Applicable.

Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

High RPD for sample and duplicate is due to the matrix and heterogeneity of the sample.

Certified By: _____





Method Summary

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Miscellaneous Analysis			
Aluminum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Bismuth	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Calcium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Cerium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cesium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Gallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Germanium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Gold	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Hafnium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Indium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Iron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lanthanum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lithium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Magnesium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Manganese	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Niobium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Phosphorus	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Potassium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Sodium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Rhenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Rubidium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Scandium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Strontium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Sulfur	MET-93-6105	EPA SW-846-3050B & 6010C	ICP/OES
Tantalum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tellurium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thorium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tin	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Titanium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tungsten	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Yttrium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS



Method Summary

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

AGAT WORK ORDER: 17T271851

PROJECT: West Gabbro

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zirconium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS



AGAT Laboratories

Lg Box

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Laboratory Use Only

Work Order #: 17T271851

Cooler Quantity: _____

Arrival Temperatures: _____

Custody Seal Intact: Yes No N/A

Notes: _____

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: Oakridge Environmental Ltd
Contact: Dan MacIntyre
Address: 647 Neal Drive
Suite #3
Phone: 7057451181 Fax: 7057454163
Reports to be sent to: dan@oakridgeenvironmental.com
1. Email: _____
2. Email: ore@oakridgeenvironmental.com

Regulatory Requirements: No Regulatory Requirement

(Please check all applicable boxes)

- Regulation 153/04
- Sewer Use
- Regulation 558
- Table _____ Indicate One
 - Ind/Com
 - Res/Park
 - Agriculture
- Sanitary
- CCME
- Storm
- Prov. Water Quality Objectives (PWQO)
- Other
- Soil Texture (Check One)
 - Coarse
 - Fine
- Region _____ Indicate One
 - MISA

Is this submission for a Record of Site Condition?

Yes No

Report Guideline on Certificate of Analysis

Yes No

Project Information:

Project: West Gabbro
Site Location: Havelock-Belmont-Methuen, Ontario
Sampled By: Dan MacIntyre, Brad Pettersone, Matthew Dimitroff
AGAT Quote #: 182363 PO: 17-2357

Please note: if quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes No

Company: _____
Contact: _____
Address: _____
Email: _____

Sample Matrix Legend

- B Biota
- GW Ground Water
- O Oil
- P Paint
- S Soil
- SD Sediment
- SW Surface Water

Field Filtered - Metals, Hg, CrVI	0. Reg 153	Metals and Inorganics	Regulation/Custom Metals	Nutrients	Volatiles	PHCS F1 - F4	ABNS	PAHs	PCBs	Organochlorine Pesticides	TCLP	Sewer Use	ICP-MS of ash
	<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides)	<input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN	<input type="checkbox"/> TP <input type="checkbox"/> NH ₄ <input type="checkbox"/> TKN	<input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM	<input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> B(e)P <input type="checkbox"/> PCBs								<input checked="" type="checkbox"/>
	<input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (Incl. Hydrides)	<input type="checkbox"/> Cr <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg	<input type="checkbox"/> NO ₃ <input type="checkbox"/> NO ₂ <input type="checkbox"/> NO _x + NO ₂										
		<input type="checkbox"/> pH <input type="checkbox"/> SAR											
		Full Metals Scan											

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N
White Pine Bark (to be ashed)	various	various	106	n/a		
<u>S-1-17 to S-106-17</u>	Sept 25/17					
	to					
	Oct. 10/17					

Samples Relinquished By (Print Name and Sign): <u>Dan MacIntyre</u>	Date: <u>Oct 12/17</u>	Time: <u>4:00 pm</u>	Samples Received By (Print Name and Sign): <u>Sima</u>	Date: <u>17/10/17</u>	Time: <u>10:40</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:

Page 1 of _____

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
380 Armour Road, Suite 127
Peterborough, ON K9J6Z3
(705) 745-1181

ATTENTION TO: Dan MacIntyre

PROJECT: West Gabbro

AGAT WORK ORDER: 17T272468

MISCELLANEOUS ANALYSIS REVIEWED BY: Mike Muneswar, BSc (Chem), Senior Inorganic Analyst

DATE REPORTED: Nov 30, 2017

PAGES (INCLUDING COVER): 17

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-41-17	S-42-17	S-43-17	S-44-17	S-45-17	S-46-17	S-47-17	S-48-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824146	8824154	8824155	8824156	8824157	8824158	8824159	8824160
Aluminum	µg/g	5	39000	16400	26000	31400	16700	19200	22200	15300	
Antimony	µg/g	0.8	2.2	1.6	2.0	2.7	1.3	1.5	2.2	1.8	
Arsenic	µg/g	1	4	2	3	5	2	2	3	3	
Barium	µg/g	2	641	419	483	714	438	547	608	281	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	0.9	0.6	0.8	1.5	0.6	0.8	1.4	0.6	
Boron	µg/g	5	242	101	144	164	125	99	145	186	
Cadmium	µg/g	0.5	44.0	28.0	33.5	35.4	19.7	24.6	23.1	16.4	
Calcium	µg/g	100	296000	314000	254000	247000	275000	326000	312000	275000	
Cerium	µg/g	0.01	14.7	9.17	11.9	26.5	10.6	11.8	17.5	10.0	
Cesium	µg/g	0.01	23.1	0.82	1.57	6.78	11.2	0.70	0.72	7.44	
Cobalt	µg/g	0.5	14.5	6.2	6.6	11.5	9.3	5.6	7.8	9.7	
Chromium	µg/g	2	15	8	13	20	17	10	13	13	
Copper	µg/g	1	581	228	281	384	257	161	296	217	
Gallium	µg/g	0.50	3.56	2.30	3.13	4.96	2.11	2.49	3.92	2.25	
Germanium	µg/g	0.05	1.69	1.31	1.44	2.25	1.50	1.49	2.02	1.57	
Gold	µg/g	0.01	0.08	0.03	0.03	0.03	0.02	0.02	0.03	0.10	
Hafnium	µg/g	0.02	0.10	0.09	0.12	0.18	0.09	0.09	0.14	0.08	
Indium	µg/g	0.005	0.048	0.028	0.037	0.072	0.028	0.031	0.054	0.028	
Iron	µg/g	50	7560	4840	6210	11800	5190	5320	6570	5090	
Lanthanum	µg/g	0.1	7.8	5.1	6.4	13.4	5.8	6.2	9.2	6.0	
Lead	µg/g	1	638	239	338	1280	347	481	717	465	
Lithium	µg/g	0.5	6.5	3.1	4.8	8.3	3.5	2.3	3.8	4.9	
Magnesium	µg/g	100	38500	18500	26500	22500	15700	15100	21700	21300	
Manganese	µg/g	5	7910	5820	6210	4650	3450	5540	3180	1500	
Mercury	µg/g	0.10	<0.10	0.12	0.12	0.15	<0.10	<0.10	<0.10	0.10	
Molybdenum	µg/g	0.5	4.6	2.7	3.1	5.5	3.0	2.8	4.2	3.3	
Nickel	µg/g	1	45	27	35	41	24	32	32	21	
Niobium	µg/g	0.05	0.45	0.26	0.28	0.37	0.20	0.20	0.30	0.21	
Phosphorus	µg/g	5	22300	12700	17200	18400	12200	10700	14800	11700	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-41-17	S-42-17	S-43-17	S-44-17	S-45-17	S-46-17	S-47-17	S-48-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824146	8824154	8824155	8824156	8824157	8824158	8824159	8824160
Potassium	µg/g	100	58600	23800	39700	51300	28300	19500	32800	83100	
Sodium	µg/g	100	3640	833	1400	2720	1520	749	8260	1160	
Rhenium	µg/g	0.001	0.009	0.002	0.002	0.007	0.006	0.001	0.004	0.002	
Rubidium	µg/g	0.1	370	65.5	150	198	123	45.5	54.1	296	
Scandium	ug/g	0.50	<0.50	<0.50	<0.50	1.05	0.69	0.94	1.52	1.22	
Selenium	µg/g	0.8	7.6	4.4	6.6	6.9	3.5	4.1	6.1	3.3	
Silver	µg/g	0.4	1.0	0.5	1.4	1.2	0.8	0.8	1.2	0.9	
Strontium	µg/g	5	733	474	384	520	426	461	496	380	
Sulfur	µg/g	200	30200	23000	22700	25800	20400	18400	26400	19500	
Tantalum	µg/g	0.01	0.04	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	3.2	0.5	1.6	4.1	1.7	1.2	0.6	1.4	
Thorium	µg/g	0.4	0.6	0.4	0.6	1.3	0.5	0.6	0.8	0.4	
Tin	µg/g	1	4	2	3	5	2	3	4	2	
Titanium	µg/g	5	194	124	180	230	146	118	157	116	
Tungsten	ug/g	0.50	0.60	<0.5	<0.5	0.754	<0.5	<0.5	0.508	<0.5	
Uranium	µg/g	0.50	0.55	<0.50	0.53	0.81	<0.50	<0.50	0.68	<0.50	
Vanadium	µg/g	1	34	19	28	64	20	28	40	23	
Yttrium	µg/g	0.05	6.36	3.88	4.78	11.2	4.31	4.77	6.68	4.19	
Zinc	µg/g	5	4270	2600	3120	3410	3000	2710	2530	1970	
Zirconium	µg/g	0.5	2.9	2.8	3.4	4.0	2.4	3.0	3.9	2.7	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-49-17	S-50-17	S-51-17	S-52-17	S-53-17	S-54-17	S-55-17	S-56-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824161	8824162	8824163	8824164	8824165	8824166	8824167	8824168
Aluminum	µg/g	5	22700	34000	17500	15600	21500	25000	28700	20800	
Antimony	µg/g	0.8	2.5	2.3	2.1	1.6	1.7	1.5	2.5	2.5	
Arsenic	µg/g	1	3	5	3	2	2	3	4	3	
Barium	µg/g	2	457	502	467	285	473	684	711	619	
Beryllium	µg/g	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	0.6	1.4	0.8	0.6	0.6	0.5	1.2	0.9	
Boron	µg/g	5	138	140	90	124	112	407	116	103	
Cadmium	µg/g	0.5	31.6	33.7	18.8	17.2	40.2	40.4	20.6	19.3	
Calcium	µg/g	100	293000	245000	304000	329000	302000	285000	290000	302000	
Cerium	µg/g	0.01	15.3	29.3	14.1	10.2	15.0	8.83	20.5	12.7	
Cesium	µg/g	0.01	18.4	9.59	10.8	3.27	16.5	7.09	0.84	1.07	
Cobalt	µg/g	0.5	22.0	12.0	11.3	9.9	8.1	8.2	7.1	13.1	
Chromium	µg/g	2	14	21	12	13	14	10	16	11	
Copper	µg/g	1	350	288	237	172	275	248	299	265	
Gallium	µg/g	0.50	2.75	5.67	2.81	2.27	3.61	2.20	4.05	2.91	
Germanium	µg/g	0.05	2.04	2.78	2.12	1.79	2.40	1.79	2.23	1.85	
Gold	µg/g	0.01	0.02	0.02	0.02	<0.01	0.01	0.02	0.01	<0.01	
Hafnium	µg/g	0.02	0.11	0.13	0.10	0.09	0.10	0.08	0.11	0.09	
Indium	µg/g	0.005	0.027	0.076	0.042	0.030	0.039	0.023	0.056	0.037	
Iron	µg/g	50	7840	12800	6050	5290	6980	4590	8300	5250	
Lanthanum	µg/g	0.1	7.8	16.3	7.5	5.9	8.1	6.4	10.5	6.5	
Lead	µg/g	1	178	966	543	297	424	192	1160	602	
Lithium	µg/g	0.5	5.5	6.4	2.6	3.2	3.2	8.4	3.4	2.9	
Magnesium	µg/g	100	24800	18800	18500	15700	22300	28200	16400	21800	
Manganese	µg/g	5	2890	2860	2210	2020	8270	6170	3390	2080	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	3.5	5.2	3.1	2.3	2.6	1.7	4.7	3.8	
Nickel	µg/g	1	25	36	25	37	49	42	38	30	
Niobium	µg/g	0.05	0.26	0.25	0.26	0.22	0.24	0.23	0.23	0.22	
Phosphorus	µg/g	5	16800	15500	9940	10100	13400	17100	14300	10500	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
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<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-49-17	S-50-17	S-51-17	S-52-17	S-53-17	S-54-17	S-55-17	S-56-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824161	8824162	8824163	8824164	8824165	8824166	8824167	8824168
Potassium	µg/g	100	41700	35100	24000	21500	29000	76100	38300	31100	
Sodium	µg/g	100	2020	1880	1250	744	1380	2850	1900	1570	
Rhenium	µg/g	0.001	0.006	0.004	0.004	0.001	0.002	0.009	0.001	0.001	
Rubidium	µg/g	0.1	271	169	128	67.3	143	310	90.3	84.4	
Scandium	ug/g	0.50	1.68	2.24	2.32	2.27	2.75	2.04	1.91	1.83	
Selenium	µg/g	0.8	3.6	6.1	3.8	2.8	3.0	3.6	6.5	4.2	
Silver	µg/g	0.4	0.9	1.7	0.6	0.9	0.9	1.6	0.6	0.4	
Strontium	µg/g	5	550	473	438	443	585	722	515	552	
Sulfur	µg/g	200	21800	23800	20600	19300	20000	25100	26000	22100	
Tantalum	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	4.5	9.1	3.1	2.1	4.9	2.5	1.1	0.9	
Thorium	µg/g	0.4	0.6	1.3	0.7	0.5	0.6	0.4	0.8	0.5	
Tin	µg/g	1	2	4	3	2	4	3	5	3	
Titanium	µg/g	5	184	245	120	128	170	121	176	121	
Tungsten	ug/g	0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.516	<0.5	
Uranium	µg/g	0.50	<0.50	0.85	<0.50	<0.50	<0.50	<0.50	0.76	<0.50	
Vanadium	µg/g	1	24	49	28	20	26	16	54	30	
Yttrium	µg/g	0.05	5.67	12.7	5.85	4.31	6.00	3.48	8.22	5.16	
Zinc	µg/g	5	2630	2650	2210	2660	3440	2700	3170	3110	
Zirconium	µg/g	0.5	3.9	4.9	3.4	2.9	2.9	2.4	3.6	3.0	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-57-17	S-58-17	S-59-17	S-60-17	S-61-17	S-62-17	S-63-17	S-64-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824169	8824170	8824171	8824172	8824173	8824174	8824175	8824176
Aluminum	µg/g	5	35800	30400	19000	28600	16100	12100	16500	20000	
Antimony	µg/g	0.8	2.1	2.0	1.1	3.0	1.5	1.5	2.6	1.7	
Arsenic	µg/g	1	3	4	2	6	2	2	3	3	
Barium	µg/g	2	531	630	410	627	474	617	652	479	
Beryllium	µg/g	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	1.0	1.6	0.6	1.8	0.7	0.6	0.9	0.7	
Boron	µg/g	5	155	143	94	208	140	152	113	123	
Cadmium	µg/g	0.5	20.6	23.3	13.8	16.3	30.6	50.3	22.3	12.2	
Calcium	µg/g	100	292000	274000	326000	242000	317000	294000	330000	236000	
Cerium	µg/g	0.01	19.0	18.9	10.3	35.7	12.3	8.62	10.7	13.9	
Cesium	µg/g	0.01	3.65	2.40	2.92	1.94	1.35	2.37	1.49	7.58	
Cobalt	µg/g	0.5	11.8	12.8	12.1	7.6	6.0	6.2	6.3	12.1	
Chromium	µg/g	2	20	21	9	28	9	10	10	11	
Copper	µg/g	1	236	332	194	675	173	147	198	275	
Gallium	µg/g	0.50	4.04	4.40	2.24	6.85	2.31	2.17	2.26	2.85	
Germanium	µg/g	0.05	2.41	2.61	1.95	3.88	1.73	1.73	1.91	1.79	
Gold	µg/g	0.01	0.01	0.01	<0.01	<0.01	0.03	0.02	0.02	0.03	
Hafnium	µg/g	0.02	0.12	0.18	0.08	0.18	0.08	0.10	0.09	0.08	
Indium	µg/g	0.005	0.047	0.056	0.026	0.093	0.033	0.019	0.038	0.034	
Iron	µg/g	50	7650	9460	4280	18500	4850	5320	4870	6860	
Lanthanum	µg/g	0.1	10.5	10.9	5.4	17.9	5.8	4.3	5.1	6.2	
Lead	µg/g	1	811	523	345	1340	424	112	845	519	
Lithium	µg/g	0.5	4.2	5.5	2.1	7.3	3.3	5.1	3.1	4.0	
Magnesium	µg/g	100	22400	24000	17200	17300	18100	18700	16900	15300	
Manganese	µg/g	5	3700	4030	2570	2100	4840	5620	3750	3070	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	3.7	5.8	2.7	6.5	2.3	1.8	2.6	3.3	
Nickel	µg/g	1	31	53	17	37	23	45	59	22	
Niobium	µg/g	0.05	0.23	0.30	0.20	0.35	0.24	0.22	0.21	0.19	
Phosphorus	µg/g	5	15200	15000	10100	20700	8090	11800	9640	13300	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
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<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-57-17	S-58-17	S-59-17	S-60-17	S-61-17	S-62-17	S-63-17	S-64-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824169	8824170	8824171	8824172	8824173	8824174	8824175	8824176
Potassium	µg/g	100	29800	38000	23200	62200	21400	26300	22100	29700	
Sodium	µg/g	100	1060	1610	964	2420	887	772	1370	2110	
Rhenium	µg/g	0.001	0.004	0.005	0.001	0.001	0.002	0.001	0.002	<0.001	
Rubidium	µg/g	0.1	92.7	114	92.2	144	72.5	82.2	93.2	183	
Scandium	ug/g	0.50	2.46	3.59	2.38	4.17	1.18	1.24	0.97	1.24	
Selenium	µg/g	0.8	4.8	5.8	3.5	8.3	1.7	2.2	4.1	3.2	
Silver	µg/g	0.4	1.1	0.7	0.5	1.0	0.6	0.8	0.5	0.7	
Strontium	µg/g	5	639	568	426	582	435	526	554	477	
Sulfur	µg/g	200	23600	21300	20200	30000	20700	17500	21000	21600	
Tantalum	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	3.2	3.1	2.4	1.5	0.6	1.3	<0.4	2.4	
Thorium	µg/g	0.4	0.7	1.0	0.5	1.7	0.6	0.7	0.5	0.6	
Tin	µg/g	1	3	4	3	7	3	3	3	2	
Titanium	µg/g	5	195	234	96	312	93	131	104	154	
Tungsten	ug/g	0.50	<0.5	0.588	<0.5	0.575	<0.5	<0.5	<0.5	<0.5	
Uranium	µg/g	0.50	0.56	0.79	<0.50	1.08	<0.50	<0.50	<0.50	<0.50	
Vanadium	µg/g	1	36	50	21	72	23	19	36	31	
Yttrium	µg/g	0.05	7.18	7.14	4.27	11.9	4.76	3.16	4.87	5.93	
Zinc	µg/g	5	2600	2750	2030	2800	2100	3190	2460	2250	
Zirconium	µg/g	0.5	3.9	5.4	2.5	5.7	2.4	3.2	2.8	2.4	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:									
		SAMPLE TYPE:		S-65-17	S-66-17	S-67-17	S-68-17	S-69-17	S-70-17	S-71-17	S-72-17
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824177	8824178	8824179	8824180	8824181	8824182	8824183	8824184
Aluminum	µg/g	5	11400	15300	20200	21500	17100	26600	22900	22200	
Antimony	µg/g	0.8	1.4	2.1	2.1	1.5	2.0	2.9	2.8	1.4	
Arsenic	µg/g	1	1	2	5	3	3	7	3	3	
Barium	µg/g	2	793	416	784	693	645	816	610	697	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	0.4	0.8	0.8	0.7	0.9	1.6	1.3	0.8	
Boron	µg/g	5	149	209	139	175	184	212	165	124	
Cadmium	µg/g	0.5	39.3	19.0	32.9	18.3	41.4	16.0	25.0	25.3	
Calcium	µg/g	100	328000	288000	306000	295000	310000	267000	318000	333000	
Cerium	µg/g	0.01	5.85	9.65	13.4	15.0	13.5	25.5	22.0	12.8	
Cesium	µg/g	0.01	8.83	4.53	9.08	4.36	1.02	2.63	4.06	6.43	
Cobalt	µg/g	0.5	4.0	13.6	15.0	14.0	8.5	6.9	16.0	9.7	
Chromium	µg/g	2	7	10	13	11	12	22	15	14	
Copper	µg/g	1	120	182	252	218	334	306	298	266	
Gallium	µg/g	0.50	1.53	2.38	3.13	2.66	2.70	5.75	3.65	2.94	
Germanium	µg/g	0.05	1.24	1.90	1.97	2.19	2.15	3.09	2.29	2.14	
Gold	µg/g	0.01	0.04	0.01	0.06	0.01	<0.01	<0.01	0.01	<0.01	
Hafnium	µg/g	0.02	0.06	0.09	0.09	0.09	0.13	0.14	0.15	0.11	
Indium	µg/g	0.005	0.015	0.035	0.039	0.029	0.035	0.101	0.056	0.035	
Iron	µg/g	50	3340	5290	6980	7400	6540	12300	9340	8290	
Lanthanum	µg/g	0.1	2.9	5.2	6.6	7.0	6.9	11.9	10.1	6.0	
Lead	µg/g	1	73	397	735	349	368	931	534	547	
Lithium	µg/g	0.5	3.1	13.5	7.0	4.1	3.7	7.5	5.1	4.0	
Magnesium	µg/g	100	10000	28900	25600	23000	20500	13400	20600	16500	
Manganese	µg/g	5	8170	2380	4180	4130	3850	2090	2990	4380	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	1.1	2.6	3.1	2.8	3.5	5.9	4.4	3.0	
Nickel	µg/g	1	26	21	59	34	42	36	31	36	
Niobium	µg/g	0.05	0.14	0.19	0.22	0.21	0.23	0.29	0.26	0.21	
Phosphorus	µg/g	5	8950	14000	12900	16300	15300	15600	16400	15600	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:									
		G / S		S-65-17	S-66-17	S-67-17	S-68-17	S-69-17	S-70-17	S-71-17	S-72-17
		RDL	8824177	8824178	8824179	8824180	8824181	8824182	8824183	8824184	
Potassium	µg/g	100	16100	56900	39300	32200	33800	38000	30700	29300	
Sodium	µg/g	100	856	2060	2150	1290	1880	1960	1230	1690	
Rhenium	µg/g	0.001	<0.001	<0.001	0.001	<0.001	0.001	0.002	0.002	0.001	
Rubidium	µg/g	0.1	79.4	178	171	104	83.1	138	108	130	
Scandium	ug/g	0.50	0.92	1.45	1.26	1.55	1.61	1.80	2.06	1.32	
Selenium	µg/g	0.8	1.3	3.8	3.4	2.6	2.9	6.5	4.1	3.9	
Silver	µg/g	0.4	0.9	1.0	0.5	0.7	0.5	0.9	1.1	1.3	
Strontium	µg/g	5	787	539	728	577	563	585	455	652	
Sulfur	µg/g	200	13300	23200	24900	23300	22300	23900	25100	23400	
Tantalum	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	1.0	<0.4	<0.4	0.5	<0.4	1.1	0.7	1.5	
Thorium	µg/g	0.4	0.5	0.5	0.6	0.6	0.9	1.3	1.1	0.6	
Tin	µg/g	1	2	3	3	3	3	4	21	3	
Titanium	µg/g	5	78	131	141	163	134	210	187	167	
Tungsten	ug/g	0.50	<0.5	<0.5	<0.5	<0.5	<0.5	0.747	<0.5	<0.5	
Uranium	µg/g	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.82	0.64	<0.50	
Vanadium	µg/g	1	10	24	34	24	30	73	39	32	
Yttrium	µg/g	0.05	2.32	3.43	5.43	5.87	5.00	11.0	8.57	4.66	
Zinc	µg/g	5	3040	1610	2410	3430	3610	1960	3200	2540	
Zirconium	µg/g	0.5	2.0	2.9	2.9	3.1	3.3	3.8	4.3	3.2	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-73-17	S-74-17	S-75-17	S-76-17	S-77-17	S-78-17	S-79-17	S-80-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824185	8824186	8824187	8824188	8824189	8824190	8824191	8824192
Aluminum	µg/g	5	17100	19400	22800	29800	25000	30200	22500	30100	
Antimony	µg/g	0.8	1.8	1.9	1.6	2.1	2.2	2.5	2.9	2.7	
Arsenic	µg/g	1	2	3	3	5	7	4	5	7	
Barium	µg/g	2	460	584	571	549	494	505	561	591	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	0.5	
Bismuth	µg/g	0.1	0.6	0.7	0.9	1.1	1.7	1.0	1.3	1.6	
Boron	µg/g	5	97	144	121	127	174	102	118	159	
Cadmium	µg/g	0.5	28.8	26.6	24.5	21.1	14.9	29.1	24.6	20.2	
Calcium	µg/g	100	328000	329000	294000	275000	278000	296000	277000	309000	
Cerium	µg/g	0.01	11.8	12.1	15.3	21.3	29.4	19.3	22.4	22.8	
Cesium	µg/g	0.01	3.99	4.13	5.93	4.36	4.97	6.73	5.36	5.45	
Cobalt	µg/g	0.5	9.8	9.2	9.3	10.8	8.8	8.7	9.0	8.9	
Chromium	µg/g	2	8	11	12	17	23	16	18	21	
Copper	µg/g	1	267	330	241	315	289	296	311	357	
Gallium	µg/g	0.50	2.03	2.76	2.85	3.98	5.55	3.52	4.23	5.31	
Germanium	µg/g	0.05	1.83	1.81	1.97	2.24	2.93	1.90	2.37	2.70	
Gold	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Hafnium	µg/g	0.02	0.07	0.09	0.09	0.13	0.14	0.12	0.15	0.11	
Indium	µg/g	0.005	0.026	0.029	0.040	0.058	0.092	0.054	0.055	0.082	
Iron	µg/g	50	5160	6790	6570	9030	10900	9080	11300	12200	
Lanthanum	µg/g	0.1	5.4	5.9	7.4	9.5	13.7	8.8	10.1	10.5	
Lead	µg/g	1	311	181	716	876	1840	754	755	883	
Lithium	µg/g	0.5	2.1	4.0	3.8	3.7	5.4	3.9	6.1	9.8	
Magnesium	µg/g	100	16600	22500	20900	17400	19400	17500	15300	17200	
Manganese	µg/g	5	2940	5710	3810	3480	2170	4360	3080	2690	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	2.5	2.8	2.8	3.8	7.3	3.7	4.8	6.4	
Nickel	µg/g	1	27	44	81	33	43	40	44	46	
Niobium	µg/g	0.05	0.15	0.19	0.16	0.26	0.27	0.20	0.26	0.24	
Phosphorus	µg/g	5	11300	18800	12400	16300	17000	16000	15400	17100	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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TEL (905)712-5100
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<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:									
		SAMPLE TYPE:		S-73-17	S-74-17	S-75-17	S-76-17	S-77-17	S-78-17	S-79-17	S-80-17
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
	G / S	RDL	8824185	8824186	8824187	8824188	8824189	8824190	8824191	8824192	
Potassium	µg/g	100	23000	22100	19600	29000	30000	23200	31200	38800	
Sodium	µg/g	100	1400	1110	914	1770	2490	1990	2160	3170	
Rhenium	µg/g	0.001	<0.001	<0.001	<0.001	0.002	0.002	0.002	<0.001	0.001	
Rubidium	µg/g	0.1	103	92.9	88.5	157	135	122	162	180	
Scandium	ug/g	0.50	0.97	1.23	1.03	1.77	2.21	1.67	1.86	2.21	
Selenium	µg/g	0.8	1.9	4.0	4.3	5.4	6.4	4.6	6.4	6.6	
Silver	µg/g	0.4	1.0	1.1	0.6	1.3	0.7	1.4	0.7	0.8	
Strontium	µg/g	5	469	517	566	563	562	460	480	471	
Sulfur	µg/g	200	20200	24200	22300	23800	23200	21300	24800	25500	
Tantalum	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	0.9	1.8	0.8	1.0	1.5	2.1	1.5	0.6	
Thorium	µg/g	0.4	0.5	0.6	0.7	1.0	1.4	1.0	1.2	1.0	
Tin	µg/g	1	3	3	3	4	5	3	4	4	
Titanium	µg/g	5	96	131	124	203	183	162	207	197	
Tungsten	ug/g	0.50	<0.5	<0.5	<0.5	0.530	0.849	<0.5	0.522	0.561	
Uranium	µg/g	0.50	<0.50	<0.50	<0.50	0.68	1.20	0.62	0.76	1.08	
Vanadium	µg/g	1	25	24	34	44	79	40	49	68	
Yttrium	µg/g	0.05	5.13	5.04	6.35	8.36	12.8	8.30	9.88	9.46	
Zinc	µg/g	5	3600	4360	2980	3200	2420	3420	2580	2680	
Zirconium	µg/g	0.5	2.4	3.6	3.1	3.6	4.7	3.9	4.6	6.1	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

8824146-8824192 Samples were ashed in a muffle furnace at 550oC. The ashed material was digested with concentrated HNO3/HCl and digestates analysed using ICP/MS and ICP/OES. The results reported are concentrations of the elements in the ashed material.

Elevated RDLs indicate the degree of sample dilutions prior to analysis in order to keep the analytes within the calibration range of the instruments and to reduce matrix interferences.

Certified By:

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
 PROJECT: West Gabbro
 SAMPLING SITE:

AGAT WORK ORDER: 17T272468
 ATTENTION TO: Dan MacIntyre
 SAMPLED BY:

Miscellaneous Analysis

RPT Date: Nov 30, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Metals (Ash) - Oakridge															
Aluminum	8824146	8824146	39000	36400	6.9%	< 5	102%	70%	130%	89%	80%	120%	102%	70%	130%
Antimony	8824146	8824146	2.2	2.9	NA	< 0.8	94%	70%	130%	102%	80%	120%	98%	70%	130%
Arsenic	8824146	8824146	4	5	NA	< 1	78%	70%	130%	98%	80%	120%	97%	70%	130%
Barium	8824146	8824146	641	612	4.6%	< 2	103%	70%	130%	105%	80%	120%	101%	70%	130%
Beryllium	8824146	8824146	< 0.5	< 0.5	NA	< 0.5	101%	70%	130%	96%	80%	120%	107%	70%	130%
Bismuth	8824146	8824146	0.9	1.0	10.5%	< 0.1	99%	70%	130%	96%	80%	120%	96%	70%	130%
Boron	8824146	8824146	242	216	11.4%	< 5	97%	70%	130%	92%	80%	120%	102%	70%	130%
Cadmium	8824146	8824146	44.0	37.4	16.2%	< 0.5	88%	70%	130%	106%	80%	120%	108%	70%	130%
Calcium	8824146	8824146	296000	296000	0.0%	< 10	91%	70%	130%	94%	80%	120%	79%	70%	130%
Cerium	8824146	8824146	14.7	12.9	13.0%	< 0.01	101%	70%	130%	90%	80%	120%	100%	70%	130%
Cesium	8824146	8824146	23.1	17.5	27.6%	< 0.01	102%	70%	130%	101%	80%	120%	100%	70%	130%
Cobalt	8824146	8824146	14.5	13.0	10.9%	< 0.5	86%	70%	130%	99%	80%	120%	123%	70%	130%
Chromium	8824146	8824146	15	17	12.5%	< 2	130%	70%	130%	98%	80%	120%	97%	70%	130%
Copper	8824146	8824146	581	624	7.1%	< 1	79%	70%	130%	107%	80%	120%	98%	70%	130%
Gallium	8824146	8824146	3.56	3.18	11.3%	< 0.50	101%	70%	130%	103%	80%	120%	101%	70%	130%
Germanium	8824146	8824146	1.69	1.11	41.4%	< 0.05	107%	70%	130%	106%	80%	120%	106%	70%	130%
Gold	8824146	8824146	0.08	0.10	22.2%	< 0.01	100%	70%	130%	100%	80%	120%	96%	70%	130%
Hafnium	8824146	8824146	0.10	0.09	NA	< 0.02	100%	70%	130%	104%	80%	120%	104%	70%	130%
Indium	8824146	8824146	0.048	0.046	4.3%	< 0.005	98%	70%	130%	97%	80%	120%	97%	70%	130%
Iron	8824146	8824146	7560	7300	3.5%	< 50	79%	70%	130%	107%	80%	120%	123%	70%	130%
Lanthanum	8824146	8824146	7.8	6.5	18.2%	< 0.1	105%	70%	130%	103%	80%	120%	103%	70%	130%
Lead	8824146	8824146	638	666	4.3%	< 1	95%	70%	130%	101%	80%	120%	104%	70%	130%
Lithium	8824146	8824146	6.5	6.5	0.0%	< 0.5	74%	70%	130%	98%	80%	120%	107%	70%	130%
Magnesium	8824146	8824146	38500	29100	27.8%	< 10	91%	70%	130%	95%	80%	120%	92%	70%	130%
Manganese	8824146	8824146	7910	6060	26.5%	< 5	95%	70%	130%	104%	80%	120%	129%	70%	130%
Mercury	8824146	8824146	< 0.10	< 0.10	NA	< 0.10	105%	70%	130%	107%	80%	120%	114%	70%	130%
Molybdenum	8824146	8824146	4.6	4.6	0.0%	< 0.5	101%	70%	130%	100%	80%	120%	110%	70%	130%
Nickel	8824146	8824146	45	40	11.8%	< 1	91%	70%	130%	101%	80%	120%	94%	70%	130%
Niobium	8824146	8824146	0.45	0.32	33.8%	< 0.05	100%	70%	130%	100%	80%	120%	100%	70%	130%
Phosphorus	8824146	8824146	22300	21600	3.2%	< 5	92%	70%	130%	101%	80%	120%	109%	70%	130%
Potassium	8824146	8824146	58600	66700	12.9%	< 10	88%	70%	130%	102%	80%	120%	101%	70%	130%
Sodium	8824146	8824146	3640	4140	12.9%	< 10	98%	70%	130%	102%	80%	120%	99%	70%	130%
Rhenium	8824146	8824146	0.009	0.008	11.8%	< 0.001	97%	70%	130%	97%	80%	120%	96%	70%	130%
Rubidium	8824146	8824146	370	339	8.7%	< 0.1	101%	70%	130%	100%	80%	120%	100%	70%	130%
Scandium	8824146	8824146	< 0.50	< 0.50	NA	< 0.50	101%	70%	130%	102%	80%	120%	103%	70%	130%
Selenium	8824146	8824146	7.6	7.7	1.3%	< 0.8	83%	70%	130%	103%	80%	120%	100%	70%	130%
Silver	8824146	8824146	1.0	1.2	NA	< 0.4	96%	70%	130%	107%	80%	120%	109%	70%	130%
Strontium	8824146	8824146	733	631	15.0%	< 5	97%	70%	130%	106%	80%	120%	100%	70%	130%
Sulfur	8824146	8824146	30200	35700	16.6%	< 20	101%	70%	130%	101%	80%	120%	94%	70%	130%

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
 PROJECT: West Gabbro
 SAMPLING SITE:

AGAT WORK ORDER: 17T272468
 ATTENTION TO: Dan MacIntyre
 SAMPLED BY:

Miscellaneous Analysis (Continued)																
RPT Date: Nov 30, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Tantalum	8824146	8824146	0.04	0.03	NA	< 0.01	104%	70%	130%	103%	80%	120%	103%	70%	130%	
Tellurium	8824146	8824146	< 0.01	< 0.01	NA	< 0.01	101%	70%	130%	108%	80%	120%	108%	70%	130%	
Thallium	8824146	8824146	3.2	2.2	37.0%	< 0.4	99%	70%	130%	105%	80%	120%	100%	70%	130%	
Thorium	8824146	8824146	0.6	0.5	NA	< 0.4	96%	70%	130%	94%	80%	120%	94%	70%	130%	
Tin	8824146	8824146	4	4	NA	< 1	92%	70%	130%	106%	80%	120%	101%	70%	130%	
Titanium	8824146	8824146	194	163	17.4%	< 5	99%	70%	130%	94%	80%	120%	97%	70%	130%	
Tungsten	8824146	8824146	0.60	0.58	NA	< 0.50	100%	70%	130%	103%	80%	120%	108%	70%	130%	
Uranium	8824146	8824146	0.55	0.59	NA	< 0.50	95%	70%	130%	101%	80%	120%	100%	70%	130%	
Vanadium	8824146	8824146	34	39	13.7%	< 1	90%	70%	130%	97%	80%	120%	97%	70%	130%	
Yttrium	8824146	8824146	6.36	5.78	9.6%	< 0.05	97%	70%	130%	95%	80%	120%	105%	70%	130%	
Zinc	8824146	8824146	4270	3960	7.5%	< 5	86%	70%	130%	107%	80%	120%	94%	70%	130%	
Zirconium	8824146	8824146	2.9	2.9	0.0%	< 0.5	94%	70%	130%	98%	80%	120%	97%	70%	130%	
Metals (Ash) - Oakridge																
Aluminum	1882417	8824173	16100	20300	23.1%	< 5	99%	70%	130%	105%	80%	120%	117%	70%	130%	
Antimony	1882417	8824173	1.5	1.7	NA	< 0.8	104%	70%	130%	100%	80%	120%	102%	70%	130%	
Arsenic	1882417	8824173	2	3	NA	< 1	101%	70%	130%	104%	80%	120%	104%	70%	130%	
Barium	1882417	8824173	474	455	4.1%	< 2	96%	70%	130%	95%	80%	120%	102%	70%	130%	
Beryllium	1882417	8824173	< 0.5	< 0.5	NA	< 0.5	105%	70%	130%	119%	80%	120%	120%	70%	130%	
Bismuth	1882417	8824173	0.7	0.81	14.6%	< 0.1	100%	70%	130%	87%	80%	120%	95%	70%	130%	
Boron	1882417	8824173	140	180	25.0%	< 5	103%	70%	130%	118%	80%	120%	120%	70%	130%	
Cadmium	1882417	8824173	30.6	33.2	8.2%	< 0.5	100%	70%	130%	112%	80%	120%	105%	70%	130%	
Calcium	1882417	8824173	317000	319000	0.6%	< 10	97%	70%	130%	94%	80%	120%	78%	70%	130%	
Cerium	1882417	8824173	12.3	13.8	11.5%	< 0.01	104%	70%	130%	97%	80%	120%	94%	70%	130%	
Cesium	1882417	8824173	1.35	1.68	21.8%	< 0.01	101%	70%	130%	99%	80%	120%	101%	70%	130%	
Cobalt	1882417	8824173	6.0	6.7	11.0%	< 0.5	96%	70%	130%	105%	80%	120%	98%	70%	130%	
Chromium	1882417	8824173	9	11	NA	< 2	102%	70%	130%	108%	80%	120%	106%	70%	130%	
Copper	1882417	8824173	173	196	12.5%	< 1	101%	70%	130%	108%	80%	120%	102%	70%	130%	
Gallium	1882417	8824173	2.31	2.63	NA	< 0.50	101%	70%	130%	99%	80%	120%	100%	70%	130%	
Germanium	1882417	8824173	1.73	1.94	11.4%	< 0.05	105%	70%	130%	104%	80%	120%	108%	70%	130%	
Gold	1882417	8824173	0.03	0.03	NA	< 0.01	100%	70%	130%	97%	80%	120%	95%	70%	130%	
Hafnium	1882417	8824173	0.08	0.08	NA	< 0.02	108%	70%	130%	95%	80%	120%	107%	70%	130%	
Indium	1882417	8824173	0.033	0.029	12.9%	< 0.005	101%	70%	130%	98%	80%	120%	98%	70%	130%	
Iron	1882417	8824173	4850	5930	20.0%	< 50	91%	70%	130%	108%	80%	120%	122%	70%	130%	
Lanthanum	1882417	8824173	5.8	6.6	12.9%	< 0.1	96%	70%	130%	94%	80%	120%	93%	70%	130%	
Lead	1882417	8824173	424	455	7.1%	< 1	97%	70%	130%	100%	80%	120%	102%	70%	130%	
Lithium	1882417	8824173	3.3	4.4	28.6%	< 0.5	99%	70%	130%	115%	80%	120%	119%	70%	130%	
Magnesium	1882417	8824173	18100	19900	9.5%	< 10	95%	70%	130%	95%	80%	120%	93%	70%	130%	
Manganese	1882417	8824173	4840	5150	6.2%	< 5	96%	70%	130%	102%	80%	120%	104%	70%	130%	

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
 PROJECT: West Gabbro
 SAMPLING SITE:

AGAT WORK ORDER: 17T272468
 ATTENTION TO: Dan MacIntyre
 SAMPLED BY:

Miscellaneous Analysis (Continued)																
RPT Date: Nov 30, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Mercury	1882417	8824173	< 0.10	< 0.10	NA	< 0.10	90%	70%	130%	106%	80%	120%	115%	70%	130%	
Molybdenum	1882417	8824173	2.3	2.8	NA	< 0.5	104%	70%	130%	108%	80%	120%	111%	70%	130%	
Nickel	1882417	8824173	23	26	12.2%	< 1	105%	70%	130%	109%	80%	120%	101%	70%	130%	
Niobium	1882417	8824173	0.24	0.23	NA	< 0.05	106%	70%	130%	104%	80%	120%	112%	70%	130%	
Phosphorus	1882417	8824173	8090	10100	22.1%	< 5	105%	70%	130%	114%	80%	120%	121%	70%	130%	
Potassium	1882417	8824173	21400	25000	15.5%	< 10	88%	70%	130%	102%	80%	120%	104%	70%	130%	
Sodium	1882417	8824173	887	1140	25.0%	< 10	101%	70%	130%	100%	80%	120%	100%	70%	130%	
Rhenium	1882417	8824173	0.002	0.004	NA	< 0.001	97%	70%	130%	96%	80%	120%	96%	70%	130%	
Rubidium	1882417	8824173	72.5	85.6	16.6%	< 0.1	103%	70%	130%	102%	80%	120%	104%	70%	130%	
Scandium	1882417	8824173	1.18	1.33	NA	< 0.50	102%	70%	130%	101%	80%	120%	104%	70%	130%	
Selenium	1882417	8824173	1.7	4.6	NA	< 0.8	95%	70%	130%	104%	80%	120%	103%	70%	130%	
Silver	1882417	8824173	0.6	0.7	NA	< 0.4	98%	70%	130%	113%	80%	120%	110%	70%	130%	
Strontium	1882417	8824173	435	477	9.2%	< 5	96%	70%	130%	99%	80%	120%	102%	70%	130%	
Sulfur	1882417	8824173	20700	21200	2.4%	< 20	108%	70%	130%	105%	80%	120%	103%	70%	130%	
Tantalum	1882417	8824173	< 0.01	< 0.01	NA	< 0.01	98%	70%	130%	94%	80%	120%	104%	70%	130%	
Tellurium	1882417	8824173	< 0.01	< 0.01	NA	< 0.01	100%	70%	130%	107%	80%	120%	98%	70%	130%	
Thallium	1882417	8824173	0.6	0.75	NA	< 0.4	103%	70%	130%	108%	80%	120%	106%	70%	130%	
Thorium	1882417	8824173	0.6	0.67	NA	< 0.4	108%	70%	130%	95%	80%	120%	103%	70%	130%	
Tin	1882417	8824173	3	3	NA	< 1	94%	70%	130%	104%	80%	120%	105%	70%	130%	
Titanium	1882417	8824173	93	124	28.6%	< 5	96%	70%	130%	99%	80%	120%	98%	70%	130%	
Tungsten	1882417	8824173	< 0.5	< 0.5	NA	< 0.50	100%	70%	130%	101%	80%	120%	109%	70%	130%	
Uranium	1882417	8824173	< 0.50	< 0.50	NA	< 0.50	106%	70%	130%	102%	80%	120%	106%	70%	130%	
Vanadium	1882417	8824173	23	28	19.6%	< 1	96%	70%	130%	98%	80%	120%	97%	70%	130%	
Yttrium	1882417	8824173	4.76	5.29	10.5%	< 0.05	98%	70%	130%	97%	80%	120%	97%	70%	130%	
Zinc	1882417	8824173	2100	2400	13.3%	< 5	95%	70%	130%	112%	80%	120%	119%	70%	130%	
Zirconium	1882417	8824173	2.4	3.1	NA	< 0.5	100%	70%	130%	108%	80%	120%	106%	70%	130%	

Comments: NA signifies Not Applicable.

Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

High RPD for sample and duplicate is due to the matrix and heterogeneity of the sample.

Certified By: _____



Method Summary

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Miscellaneous Analysis			
Aluminum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Bismuth	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Calcium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Cerium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cesium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Gallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Germanium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Gold	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Hafnium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Indium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Iron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lanthanum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lithium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Magnesium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Manganese	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Niobium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Phosphorus	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Potassium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Sodium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Rhenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Rubidium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Scandium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Strontium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Sulfur	MET-93-6105	EPA SW-846-3050B & 6010C	ICP/OES
Tantalum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tellurium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thorium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tin	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Titanium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tungsten	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Yttrium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS

Method Summary

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

AGAT WORK ORDER: 17T272468

PROJECT: West Gabbro

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zirconium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS



Lg Box

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
web@earth.agatlabs.com

Laboratory Use Only 17T272468

Work Order #: _____
Cooler Quantity: _____
Arrival Temperatures: _____
Custody Seal Intact: Yes No N/A
Notes: _____

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:
Company: Oakridge Environmental Ltd
Contact: Dan MacIntyre
Address: 647 Neal Drive
Suite #3
Phone: 7057451181 Fax: 7057454163
Reports to be sent to: dan@oakridgeenvironmental.com
1. Email: _____
2. Email: ore@oakridgeenvironmental.com

Regulatory Requirements: No Regulatory Requirement
(Please check all applicable boxes)

Regulation 153/04 Sewer Use Regulation 558
 Ind/Com Sanitary CCME
 Res/Park Storm Prov. Water Quality Objectives (PWQO)
 Agriculture Other
Soil Texture (Check One) Coarse Fine MISA
Region _____
Is this submission for a Record of Site Condition? Yes No
Report Guideline on Certificate of Analysis Yes No

Project Information:
Project: West Gabbro
Site Location: Havelock-Belmont-Methuen, Ontario
Sampled By: Dan MacIntyre, Brad Pettersone, Matthew Dimitroff
AGAT Quote #: 182363 PO: 17-2357
Please note: if quotation number is not provided, client will be billed full price for analysis.

Turnaround Time (TAT) Required:
Regular TAT 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply) 3 Business Days 2 Business Days Next Business Day
OR Date Required (Rush Surcharges May Apply):
November 20, 2017
*Please provide prior notification for rush TAT
TAT is exclusive of weekends and statutory holidays
For 'Same Day' analysis, please contact your AGAT CPM

Invoice Information: Bill To Same: Yes No
Company: _____
Contact: _____
Address: _____
Email: _____

Sample Matrix Legend
B Biota
GW Ground Water
O Oil
P Paint
S Soil
SD Sediment
SW Surface Water

Field Filtered - Metals, Hg, CrVI	O. Reg 153	Metals and Inorganics	Full Metals Scan	Regulatory/Custom Metals	Nutrients: TP, NH ₃ , TKN, NO ₂ , NO ₃ , NO ₂ +NO ₃	Volatiles: VOC, BTEX, THM	PHCS F1 - F4	ABNS	PAHs	PCBs: Total, Aroclors	Organochlorine Pesticides	TCLP: M&I, VOCs, ABNS, Bi/a/P, PCBs	Sewer Use	ICP-MS of ash
		<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (excl. Hydrides) <input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydrides)	ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN <input type="checkbox"/> Cr ⁶⁺ <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg <input type="checkbox"/> pH <input type="checkbox"/> SAR		<input type="checkbox"/> TP <input type="checkbox"/> NH ₃ <input type="checkbox"/> TKN <input type="checkbox"/> NO ₂ <input type="checkbox"/> NO ₃ <input type="checkbox"/> NO ₂ +NO ₃	<input type="checkbox"/> VOC <input type="checkbox"/> BTEX <input type="checkbox"/> THM				<input type="checkbox"/> Total <input type="checkbox"/> Aroclors		<input type="checkbox"/> M&I <input type="checkbox"/> VOCs <input type="checkbox"/> ABNS <input type="checkbox"/> Bi/a/P <input type="checkbox"/> PCBs		<input checked="" type="checkbox"/>

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N
White Pine Bark (to be ashed)	various	various	106	n/a		
S-1-17 to S-106-17	Sept. 25/17					
	to					
	Oct. 10/17					

Samples Relinquished By (Print Name and Sign): <u>Dan MacIntyre</u>	Date: <u>Oct 12/17</u>	Time: <u>4:00 pm</u>	Samples Received By (Print Name and Sign): <u>Sima</u>	Date: <u>11/10/17</u>	Time: <u>10:40</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
380 Armour Road, Suite 127
Peterborough, ON K9J6Z3
(705) 745-1181

ATTENTION TO: Dan MacIntyre

PROJECT: West Gabbro

AGAT WORK ORDER: 17T272471

MISCELLANEOUS ANALYSIS REVIEWED BY: Mike Muneswar, BSc (Chem), Senior Inorganic Analyst

DATE REPORTED: Nov 30, 2017

PAGES (INCLUDING COVER): 15

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



Certificate of Analysis

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-81-17	S-82-17	S-83-17	S-84-17	S-85-17	S-86-17	S-87-17	S-88-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824221	8824222	8824223	8824224	8824225	8824226	8824227	8824228
Aluminum	µg/g	5	28400	20400	26300	23200	19700	15000	26000	25000	
Antimony	µg/g	0.8	2.2	2.1	2.0	3.4	2.5	1.9	1.9	2.2	
Arsenic	µg/g	1	5	3	3	5	3	2	8	3	
Barium	µg/g	2	447	472	714	636	881	491	599	646	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	1.2	0.7	0.7	1.2	1.0	0.7	0.9	0.8	
Boron	µg/g	5	200	127	220	155	170	168	128	127	
Cadmium	µg/g	0.5	24.2	27.6	22.5	31.8	30.4	36.8	26.1	29.3	
Calcium	µg/g	100	274000	307000	258000	278000	273000	305000	292000	303000	
Cerium	µg/g	0.01	25.7	13.6	17.9	24.2	17.6	11.5	15.0	14.1	
Cesium	µg/g	0.01	7.16	5.10	1.23	0.86	0.91	0.84	3.05	2.97	
Cobalt	µg/g	0.5	7.1	12.8	16.1	7.6	9.0	7.0	7.6	5.9	
Chromium	µg/g	2	36	11	13	17	14	9	19	11	
Copper	µg/g	1	315	254	343	293	285	233	235	230	
Gallium	µg/g	0.50	4.35	2.27	3.09	4.43	3.56	2.26	3.53	2.86	
Germanium	µg/g	0.05	1.93	1.39	1.66	2.39	1.97	1.58	1.58	1.68	
Gold	µg/g	0.01	0.05	0.03	0.03	0.02	0.01	<0.01	<0.01	<0.01	
Hafnium	µg/g	0.02	0.03	<0.02	<0.02	0.03	0.05	0.03	<0.02	0.07	
Indium	µg/g	0.005	0.056	0.026	0.032	0.072	0.054	0.025	0.049	0.029	
Iron	µg/g	50	11600	5880	10200	9020	9340	6440	7690	6360	
Lanthanum	µg/g	0.1	12.7	6.3	8.0	10.9	8.3	5.4	7.1	6.6	
Lead	µg/g	1	549	266	468	1010	762	149	355	321	
Lithium	µg/g	0.5	7.8	3.9	10.2	5.1	9.2	4.6	7.9	3.4	
Magnesium	µg/g	100	15500	17900	22300	24400	19000	13900	12700	19100	
Manganese	µg/g	5	2500	3160	2610	5440	2890	3280	4360	5030	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	5.4	3.0	4.4	4.5	4.2	2.4	4.3	2.6	
Nickel	µg/g	1	43	33	46	41	52	23	42	38	
Niobium	µg/g	0.05	0.35	0.24	0.28	0.25	0.25	0.24	0.18	0.21	
Phosphorus	µg/g	5	16300	11800	16400	14900	14600	18500	10700	13400	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-81-17	S-82-17	S-83-17	S-84-17	S-85-17	S-86-17	S-87-17	S-88-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824221	8824222	8824223	8824224	8824225	8824226	8824227	8824228
Potassium	µg/g	100	33700	20900	45900	34200	42400	28200	28400	19500	
Sodium	µg/g	100	3730	1860	2370	2190	3460	1250	3210	1370	
Rhenium	µg/g	0.001	0.003	0.001	0.002	<0.001	0.001	<0.001	<0.001	0.001	
Rubidium	µg/g	0.1	150	91.2	103	75.4	58.1	69.8	120	83.7	
Scandium	ug/g	0.50	1.84	1.27	1.43	1.69	1.77	1.43	1.40	1.19	
Selenium	µg/g	0.8	3.4	3.0	4.0	2.6	3.8	1.8	3.4	2.7	
Silver	µg/g	0.4	0.9	0.9	0.9	0.7	0.5	0.6	1.1	1.1	
Strontium	µg/g	5	420	371	594	510	525	500	603	554	
Sulfur	µg/g	200	23600	19900	21800	25600	21500	19300	16700	20500	
Tantalum	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	1.2	0.9	
Thorium	µg/g	0.4	0.9	0.4	0.5	0.7	0.6	0.5	0.6	0.5	
Tin	µg/g	1	4	2	2	3	3	3	3	3	
Titanium	µg/g	5	209	108	203	165	201	127	154	139	
Tungsten	ug/g	0.50	0.54	<0.5	<0.50	0.55	0.50	<0.5	<0.5	<0.5	
Uranium	µg/g	0.50	0.85	<0.50	0.50	0.73	0.59	<0.50	0.61	<0.50	
Vanadium	µg/g	1	45	26	33	64	42	17	48	27	
Yttrium	µg/g	0.05	9.02	5.09	5.94	8.38	5.98	4.13	6.06	5.46	
Zinc	µg/g	5	2680	3010	3420	3560	3570	3120	2490	3070	
Zirconium	µg/g	0.5	3.0	2.0	1.0	2.5	2.9	2.9	2.3	2.8	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-89-17	S-90-17	S-91-17	S-92-17	S-93-17	S-94-17 A	S-95-17	S-94-17 B
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824229	8824230	8824231	8824232	8824233	8824234	8824236	8824237
Aluminum	µg/g	5	23100	21200	22400	38700	21300	21800	22200	21900	
Antimony	µg/g	0.8	1.4	1.3	1.8	2.7	2.2	1.8	1.6	1.1	
Arsenic	µg/g	1	2	3	2	9	2	2	3	3	
Barium	µg/g	2	828	720	674	916	346	490	486	429	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	0.6	0.8	0.7	1.6	0.8	0.7	0.9	0.7	
Boron	µg/g	5	131	133	153	242	119	95	134	165	
Cadmium	µg/g	0.5	28.1	27.6	35.3	30.3	21.1	21.8	34.8	21.9	
Calcium	µg/g	100	286000	271000	282000	249000	324000	283000	267000	292000	
Cerium	µg/g	0.01	11.9	15.1	11.8	27.4	13.4	11.4	16.2	13.4	
Cesium	µg/g	0.01	1.67	1.31	2.68	1.76	2.12	1.58	7.67	5.85	
Cobalt	µg/g	0.5	6.0	4.8	7.2	10.6	8.3	6.2	10.3	6.4	
Chromium	µg/g	2	11	14	13	24	11	11	18	19	
Copper	µg/g	1	353	208	252	377	283	196	323	257	
Gallium	µg/g	0.50	2.71	3.35	2.81	6.06	2.80	2.22	3.45	2.65	
Germanium	µg/g	0.05	1.52	1.70	1.59	2.55	1.49	1.20	1.81	1.35	
Gold	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Hafnium	µg/g	0.02	0.03	0.04	<0.02	0.04	0.04	0.03	0.04	0.05	
Indium	µg/g	0.005	0.023	0.033	0.026	0.095	0.039	0.025	0.039	0.029	
Iron	µg/g	50	6500	7980	7460	13400	6030	4870	9240	6930	
Lanthanum	µg/g	0.1	5.9	7.2	5.8	13.0	6.1	5.6	7.7	6.5	
Lead	µg/g	1	228	361	111	682	513	550	73	79	
Lithium	µg/g	0.5	4.2	5.2	6.1	9.9	3.0	2.3	4.3	4.0	
Magnesium	µg/g	100	14900	16600	22700	16800	18100	16800	20100	16100	
Manganese	µg/g	5	5830	4130	7330	4010	3210	3470	5410	3570	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	1.7	2.4	2.7	7.4	2.8	2.5	3.6	2.8	
Nickel	µg/g	1	45	47	42	67	41	27	100	44	
Niobium	µg/g	0.05	0.20	0.18	0.20	0.26	0.18	0.16	0.20	0.16	
Phosphorus	µg/g	5	13800	14800	16800	14900	12500	10500	22200	14600	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
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<http://www.agatlabs.com>

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:									
		G / S		S-89-17	S-90-17	S-91-17	S-92-17	S-93-17	S-94-17 A	S-95-17	S-94-17 B
		RDL	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
Potassium	µg/g	100	22500	24100	28300	45000	21300	14500	33800	20800	
Sodium	µg/g	100	1270	1430	1820	3520	1140	769	1300	1090	
Rhenium	µg/g	0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	
Rubidium	µg/g	0.1	103	77.8	134	161	88.8	64.9	144	103	
Scandium	ug/g	0.50	1.25	1.36	1.29	2.06	1.14	0.78	1.58	1.01	
Selenium	µg/g	0.8	2.7	3.0	3.0	3.2	1.5	2.5	1.8	2.6	
Silver	µg/g	0.4	1.7	0.9	1.1	1.0	0.7	0.6	0.9	1.3	
Strontium	µg/g	5	410	412	493	549	371	481	376	543	
Sulfur	µg/g	200	20600	20200	19300	20100	19700	15800	17700	15500	
Tantalum	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Tellurium	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Thallium	µg/g	0.4	0.6	0.5	0.4	0.9	<0.4	0.5	0.8	0.8	
Thorium	µg/g	0.4	0.5	0.6	0.5	1.0	0.5	0.5	0.8	0.6	
Tin	µg/g	1	2	3	3	5	3	3	4	2	
Titanium	µg/g	5	130	148	171	254	122	127	185	136	
Tungsten	ug/g	0.50	<0.5	<0.5	<0.5	0.71	<0.5	<0.5	<0.5	<0.5	
Uranium	µg/g	0.50	<0.50	<0.50	<0.50	1.17	<0.50	<0.50	<0.50	<0.50	
Vanadium	µg/g	1	21	25	23	86	29	22	28	24	
Yttrium	µg/g	0.05	4.52	5.02	3.92	10.8	5.43	4.15	5.31	5.10	
Zinc	µg/g	5	3830	3320	4350	3710	2560	2390	3880	2950	
Zirconium	µg/g	0.5	2.6	3.4	2.8	3.4	2.4	2.6	3.5	2.9	

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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:									
		SAMPLE TYPE:		S-97-17	S-98-17	S-99-17	S-100-17	S-101-17	S-102-17	S-103-17	S-104-17
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824238	8824239	8824240	8824241	8824242	8824243	8824244	8824245
Aluminum	µg/g	5	21300	14300	16600	25600	24600	18500	16800	34100	
Antimony	µg/g	0.8	1.6	1.3	1.7	3.3	1.9	2.1	1.9	2.9	
Arsenic	µg/g	1	2	2	3	4	4	3	2	4	
Barium	µg/g	2	608	601	598	681	674	932	550	2220	
Beryllium	µg/g	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bismuth	µg/g	0.1	0.5	0.4	0.8	1.3	1.2	0.7	0.5	1.2	
Boron	µg/g	5	152	444	189	206	123	136	103	108	
Cadmium	µg/g	0.5	35.6	46.7	11.7	13.3	24.7	38.2	19.1	30.0	
Calcium	µg/g	100	293000	276000	275000	270000	283000	272000	298000	270000	
Cerium	µg/g	0.01	10.9	8.76	15.1	2.44	25.0	16.7	9.71	20.3	
Cesium	µg/g	0.01	6.79	21.9	1.21	0.22	2.96	3.61	0.56	1.63	
Cobalt	µg/g	0.5	7.2	10.1	5.4	7.3	9.9	18.8	8.8	10.5	
Chromium	µg/g	2	11	11	14	20	19	14	9	20	
Copper	µg/g	1	329	264	246	301	309	362	206	297	
Gallium	µg/g	0.50	2.02	2.08	2.84	<0.50	3.85	2.94	2.02	4.17	
Germanium	µg/g	0.05	1.23	1.01	1.70	0.24	2.42	2.04	1.52	1.72	
Gold	µg/g	0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.04	0.01	<0.01	
Hafnium	µg/g	0.02	0.03	<0.02	0.03	<0.02	0.14	0.06	0.06	0.06	
Indium	µg/g	0.005	0.016	0.011	0.033	0.006	0.056	0.026	0.022	0.055	
Iron	µg/g	50	5740	5510	8620	11500	11900	9530	6100	9260	
Lanthanum	µg/g	0.1	5.2	4.3	7.4	1.2	11.3	7.4	4.4	9.8	
Lead	µg/g	1	59	32	131	596	738	252	217	954	
Lithium	µg/g	0.5	6.5	5.4	6.8	7.9	4.9	9.3	4.7	3.5	
Magnesium	µg/g	100	14900	45400	19900	18600	17900	22200	17200	21500	
Manganese	µg/g	5	4170	13700	1740	2360	2530	3200	2320	6260	
Mercury	µg/g	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	µg/g	0.5	2.2	3.2	3.8	5.7	5.4	3.1	2.4	4.3	
Nickel	µg/g	1	38	64	30	40	47	33	48	47	
Niobium	µg/g	0.05	0.19	0.19	0.19	<0.05	0.36	0.28	0.21	0.26	
Phosphorus	µg/g	5	15900	39700	16500	14900	14400	16000	12300	14500	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-97-17	S-98-17	S-99-17	S-100-17	S-101-17	S-102-17	S-103-17	S-104-17
		SAMPLE TYPE:		Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25	2017-09-25
		G / S	RDL	8824238	8824239	8824240	8824241	8824242	8824243	8824244	8824245
Potassium	µg/g		100	47000	30700	34000	37200	31000	46300	35700	36500
Sodium	µg/g		100	2580	1620	2430	3050	1490	2390	1390	1810
Rhenium	µg/g		0.001	<0.001	0.002	<0.001	<0.001	0.004	<0.001	0.001	<0.001
Rubidium	µg/g		0.1	334	221	94.1	13.2	135	195	53.0	130
Scandium	ug/g		0.50	0.84	0.63	1.01	<0.50	1.71	1.55	0.96	1.39
Selenium	µg/g		0.8	2.3	1.5	2.9	4.0	4.6	1.3	2.9	4.2
Silver	µg/g		0.4	1.3	1.0	0.6	0.6	0.9	1.2	0.7	0.7
Strontium	µg/g		5	543	513	580	590	484	576	455	718
Sulfur	µg/g		200	14800	23600	19300	22300	22300	22200	16600	22600
Tantalum	µg/g		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tellurium	µg/g		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	µg/g		0.4	0.4	0.8	<0.4	<0.4	0.9	0.5	<0.4	1.1
Thorium	µg/g		0.4	0.5	0.6	0.8	<0.4	0.9	0.6	0.4	0.9
Tin	µg/g		1	2	3	3	4	4	3	2	4
Titanium	µg/g		5	130	121	164	271	212	169	110	190
Tungsten	ug/g		0.50	<0.5	<0.5	<0.5	<0.5	0.57	<0.5	<0.5	<0.5
Uranium	µg/g		0.50	<0.50	<0.50	<0.50	0.76	0.70	<0.50	<0.50	0.69
Vanadium	µg/g		1	19	13	27	54	51	26	20	48
Yttrium	µg/g		0.05	3.98	2.96	5.34	0.86	8.91	6.21	3.92	7.29
Zinc	µg/g		5	4000	5190	1720	2600	2390	3490	3030	3710
Zirconium	µg/g		0.5	2.3	2.7	3.2	3.6	4.2	3.0	2.6	3.6

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ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-105-17	S-106-17
		G / S	RDL	8824246	8824247
Aluminum	µg/g		5	19200	25400
Antimony	µg/g		0.8	1.3	1.3
Arsenic	µg/g		1	2	3
Barium	µg/g		2	557	544
Beryllium	µg/g		0.5	<0.5	<0.5
Bismuth	µg/g		0.1	0.5	0.7
Boron	µg/g		5	162	144
Cadmium	µg/g		0.5	32.8	31.6
Calcium	µg/g		100	276000	285000
Cerium	µg/g		0.01	9.42	18.7
Cesium	µg/g		0.01	1.41	2.14
Cobalt	µg/g		0.5	9.5	9.8
Chromium	µg/g		2	11	11
Copper	µg/g		1	292	225
Gallium	µg/g		0.50	2.48	3.12
Germanium	µg/g		0.05	1.33	1.94
Gold	µg/g		0.01	0.01	0.02
Hafnium	µg/g		0.02	0.07	0.11
Indium	µg/g		0.005	0.021	0.040
Iron	µg/g		50	6430	8660
Lanthanum	µg/g		0.1	4.7	8.4
Lead	µg/g		1	140	573
Lithium	µg/g		0.5	4.3	4.6
Magnesium	µg/g		100	28100	18700
Manganese	µg/g		5	7720	4730
Mercury	µg/g		0.10	<0.10	<0.10
Molybdenum	µg/g		0.5	2.2	2.5
Nickel	µg/g		1	43	38
Niobium	µg/g		0.05	0.24	0.20
Phosphorus	µg/g		5	15600	11900

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

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CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Metals (Ash) - Oakridge

DATE RECEIVED: 2017-10-13

DATE REPORTED: 2017-11-30

Parameter	Unit	SAMPLE DESCRIPTION:		S-105-17	S-106-17
		SAMPLE TYPE:		Wood	Wood
		DATE SAMPLED:		2017-09-25	2017-09-25
		G / S	RDL	8824246	8824247
Potassium	µg/g		100	38800	29000
Sodium	µg/g		100	1730	1370
Rhenium	µg/g		0.001	<0.001	<0.001
Rubidium	µg/g		0.1	118	139
Scandium	ug/g		0.50	1.11	1.39
Selenium	µg/g		0.8	1.8	<0.8
Silver	µg/g		0.4	1.1	<0.4
Strontium	µg/g		5	463	589
Sulfur	µg/g		200	20500	19700
Tantalum	µg/g		0.01	<0.01	<0.01
Tellurium	µg/g		0.01	<0.01	<0.01
Thallium	µg/g		0.4	1.0	1.7
Thorium	µg/g		0.4	0.5	0.6
Tin	µg/g		1	2	2
Titanium	µg/g		5	150	157
Tungsten	ug/g		0.50	<0.5	<0.5
Uranium	µg/g		0.50	<0.50	<0.50
Vanadium	µg/g		1	19	38
Yttrium	µg/g		0.05	3.18	7.52
Zinc	µg/g		5	3640	2710
Zirconium	µg/g		0.5	2.6	3.0

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

8824221-8824247 Samples were ashed in a muffle furnace at 550oC. The ashed material was digested with concentrated HNO3/HCl and digestates analysed using ICP/MS and ICP/OES. The results reported are concentrations of the elements in the ashed material.

Elevated RDLs indicate the degree of sample dilutions prior to analysis in order to keep the analytes within the calibration range of the instruments and to reduce matrix interferences.

Certified By:

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

Miscellaneous Analysis

RPT Date: Nov 30, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Metals (Ash) - Oakridge															
Aluminum	8824221	8824221	28400	30000	5.5%	< 5	102%	70%	130%	94%	80%	120%	97%	70%	130%
Antimony	8824221	8824221	2.2	2.40	NA	< 0.8	102%	70%	130%	107%	80%	120%	112%	70%	130%
Arsenic	8824221	8824221	5	5	0.0%	< 1	102%	70%	130%	102%	80%	120%	106%	70%	130%
Barium	8824221	8824221	447	486	8.4%	< 2	103%	70%	130%	100%	80%	120%	107%	70%	130%
Beryllium	8824221	8824221	< 0.5	< 0.5	NA	< 0.5	96%	70%	130%	93%	80%	120%	106%	70%	130%
Bismuth	8824221	8824221	1.2	1.1	8.7%	< 0.1	101%	70%	130%	95%	80%	120%	95%	70%	130%
Boron	8824221	8824221	200	220	9.5%	< 5	99%	70%	130%	95%	80%	120%	105%	70%	130%
Cadmium	8824221	8824221	24.2	27.6	13.1%	< 0.5	97%	70%	130%	113%	80%	120%	114%	70%	130%
Calcium	8824221	8824221	274000	278000	1.4%	< 10	93%	70%	130%	95%	80%	120%	95%	70%	130%
Cerium	8824221	8824221	25.7	26.7	3.8%	< 0.01	103%	70%	130%	102%	80%	120%	108%	70%	130%
Cesium	8824221	8824221	7.16	6.86	4.3%	< 0.01	105%	70%	130%	106%	80%	120%	111%	70%	130%
Cobalt	8824221	8824221	7.1	7.56	6.3%	< 0.5	100%	70%	130%	100%	80%	120%	100%	70%	130%
Chromium	8824221	8824221	36	37	2.7%	< 2	98%	70%	130%	109%	80%	120%	107%	70%	130%
Copper	8824221	8824221	315	336	6.5%	< 1	102%	70%	130%	106%	80%	120%	106%	70%	130%
Gallium	8824221	8824221	4.35	4.05	7.1%	< 0.50	102%	70%	130%	101%	80%	120%	104%	70%	130%
Germanium	8824221	8824221	1.93	1.76	9.2%	< 0.05	109%	70%	130%	107%	80%	120%	109%	70%	130%
Gold	8824221	8824221	0.05	0.041	NA	< 0.01	101%	70%	130%	100%	80%	120%	96%	70%	130%
Hafnium	8824221	8824221	0.03	0.07	NA	< 0.02	106%	70%	130%	108%	80%	120%	111%	70%	130%
Indium	8824221	8824221	0.056	0.057	1.8%	< 0.005	100%	70%	130%	97%	80%	120%	100%	70%	130%
Iron	8824221	8824221	11600	12200	5.0%	< 50	88%	70%	130%	113%	80%	120%	115%	70%	130%
Lanthanum	8824221	8824221	12.7	13.1	3.1%	< 0.1	103%	70%	130%	101%	80%	120%	109%	70%	130%
Lead	8824221	8824221	549	503	8.7%	< 1	93%	70%	130%	99%	80%	120%	104%	70%	130%
Lithium	8824221	8824221	7.8	11.1	34.9%	< 0.5	94%	70%	130%	93%	80%	120%	107%	70%	130%
Magnesium	8824221	8824221	15500	15400	0.6%	< 10	90%	70%	130%	96%	80%	120%	94%	70%	130%
Manganese	8824221	8824221	2500	2770	10.2%	< 5	100%	70%	130%	104%	80%	120%	126%	70%	130%
Mercury	8824221	8824221	< 0.10	< 0.10	NA	< 0.10	92%	70%	130%	106%	80%	120%	105%	70%	130%
Molybdenum	8824221	8824221	5.4	5.1	5.7%	< 0.5	101%	70%	130%	106%	80%	120%	107%	70%	130%
Nickel	8824221	8824221	43	37	15.0%	< 1	105%	70%	130%	104%	80%	120%	104%	70%	130%
Niobium	8824221	8824221	0.35	0.320	9.0%	< 0.05	105%	70%	130%	104%	80%	120%	106%	70%	130%
Phosphorus	8824221	8824221	16300	17000	4.2%	< 5	106%	70%	130%	105%	80%	120%	110%	70%	130%
Potassium	8824221	8824221	33700	34300	1.8%	< 10	75%	70%	130%	99%	80%	120%	100%	70%	130%
Sodium	8824221	8824221	3730	3560	4.7%	< 10	87%	70%	130%	97%	80%	120%	98%	70%	130%
Rhenium	8824221	8824221	0.003	0.003	NA	< 0.001	99%	70%	130%	98%	80%	120%	99%	70%	130%
Rubidium	8824221	8824221	150	164	8.9%	< 0.1	100%	70%	130%	100%	80%	120%	95%	70%	130%
Scandium	8824221	8824221	1.84	1.78	NA	< 0.50	102%	70%	130%	99%	80%	120%	103%	70%	130%
Selenium	8824221	8824221	3.4	4.36	NA	< 0.8	96%	70%	130%	98%	80%	120%	104%	70%	130%
Silver	8824221	8824221	0.9	0.9	NA	< 0.4	97%	70%	130%	109%	80%	120%	109%	70%	130%
Strontium	8824221	8824221	420	457	8.4%	< 5	95%	70%	130%	97%	80%	120%	104%	70%	130%
Sulfur	8824221	8824221	23600	22800	3.4%	< 20	106%	70%	130%	107%	80%	120%	107%	70%	130%

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
 PROJECT: West Gabbro
 SAMPLING SITE:

AGAT WORK ORDER: 17T272471
 ATTENTION TO: Dan MacIntyre
 SAMPLED BY:

Miscellaneous Analysis (Continued)																
RPT Date: Nov 30, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Tantalum	8824221	8824221	< 0.01	< 0.01	NA	< 0.01	101%	70%	130%	100%	80%	120%	98%	70%	130%	
Tellurium	8824221	8824221	< 0.01	< 0.01	NA	< 0.01	102%	70%	130%	106%	80%	120%	107%	70%	130%	
Thallium	8824221	8824221	< 0.4	< 0.4	NA	< 0.4	100%	70%	130%	104%	80%	120%	105%	70%	130%	
Thorium	8824221	8824221	0.9	0.9	NA	< 0.4	87%	70%	130%	84%	80%	120%	76%	70%	130%	
Tin	8824221	8824221	4	4	NA	< 1	93%	70%	130%	101%	80%	120%	108%	70%	130%	
Titanium	8824221	8824221	209	204	2.4%	< 5	97%	70%	130%	102%	80%	120%	103%	70%	130%	
Tungsten	8824221	8824221	0.54	0.53	NA	< 0.50	100%	70%	130%	106%	80%	120%	109%	70%	130%	
Uranium	8824221	8824221	0.85	0.83	NA	< 0.50	101%	70%	130%	100%	80%	120%	104%	70%	130%	
Vanadium	8824221	8824221	45	43	4.5%	< 1	94%	70%	130%	106%	80%	120%	102%	70%	130%	
Yttrium	8824221	8824221	9.02	8.78	2.7%	< 0.05	97%	70%	130%	97%	80%	120%	97%	70%	130%	
Zinc	8824221	8824221	2680	2980	10.6%	< 5	94%	70%	130%	97%	80%	120%	114%	70%	130%	
Zirconium	8824221	8824221	3.0	4.0	28.6%	< 0.5	98%	70%	130%	105%	80%	120%	109%	70%	130%	
Metals (Ash) - Oakridge																
Aluminum	8824242	8824242	24600	22300	9.8%	< 5	88%	70%	130%	104%	80%	120%	107%	70%	130%	
Antimony	8824242	8824242	1.9	4.8	NA	< 0.8	101%	70%	130%	103%	80%	120%	106%	70%	130%	
Arsenic	8824242	8824242	4	4	NA	< 1	96%	70%	130%	99%	80%	120%	103%	70%	130%	
Barium	8824242	8824242	674	642	4.9%	< 2	106%	70%	130%	101%	80%	120%	108%	70%	130%	
Beryllium	8824242	8824242	< 0.5	< 0.5	NA	< 0.5	98%	70%	130%	93%	80%	120%	98%	70%	130%	
Bismuth	8824242	8824242	1.2	1.1	8.7%	< 0.1	99%	70%	130%	89%	80%	120%	87%	70%	130%	
Boron	8824242	8824242	123	112	9.4%	< 5	99%	70%	130%	94%	80%	120%	97%	70%	130%	
Cadmium	8824242	8824242	24.7	22.4	9.8%	< 0.5	79%	70%	130%	120%	80%	120%	108%	70%	130%	
Calcium	8824242	8824242	283000	277000	2.1%	< 10	99%	70%	130%	94%	80%	120%	88%	70%	130%	
Cerium	8824242	8824242	25.0	23.7	5.3%	< 0.01	97%	70%	130%	102%	80%	120%	99%	70%	130%	
Cesium	8824242	8824242	2.96	3.41	14.1%	< 0.01	104%	70%	130%	106%	80%	120%	107%	70%	130%	
Cobalt	8824242	8824242	9.9	9.1	8.4%	< 0.5	89%	70%	130%	101%	80%	120%	95%	70%	130%	
Chromium	8824242	8824242	19	17	11.1%	< 2	126%	70%	130%	104%	80%	120%	106%	70%	130%	
Copper	8824242	8824242	309	291	6.0%	< 1	92%	70%	130%	106%	80%	120%	102%	70%	130%	
Gallium	8824242	8824242	3.85	3.73	3.2%	< 0.50	102%	70%	130%	103%	80%	120%	107%	70%	130%	
Germanium	8824242	8824242	2.42	2.41	0.4%	< 0.05	111%	70%	130%	111%	80%	120%	114%	70%	130%	
Gold	8824242	8824242	0.03	0.07	NA	< 0.01	106%	70%	130%	104%	80%	120%	99%	70%	130%	
Hafnium	8824242	8824242	0.14	0.15	6.9%	< 0.02	107%	70%	130%	113%	80%	120%	104%	70%	130%	
Indium	8824242	8824242	0.056	0.056	0.0%	< 0.005	102%	70%	130%	100%	80%	120%	104%	70%	130%	
Iron	8824242	8824242	11900	10300	14.4%	< 50	98%	70%	130%	111%	80%	120%	97%	70%	130%	
Lanthanum	8824242	8824242	11.3	10.8	4.5%	< 0.1	97%	70%	130%	99%	80%	120%	100%	70%	130%	
Lead	8824242	8824242	738	700	5.3%	< 1	108%	70%	130%	95%	80%	120%	93%	70%	130%	
Lithium	8824242	8824242	4.9	3.8	25.3%	< 0.5	97%	70%	130%	95%	80%	120%	95%	70%	130%	
Magnesium	8824242	8824242	17900	18200	1.7%	< 10	98%	70%	130%	95%	80%	120%	95%	70%	130%	
Manganese	8824242	8824242	2530	2290	10.0%	< 5	97%	70%	130%	99%	80%	120%	116%	70%	130%	

Quality Assurance

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.
 PROJECT: West Gabbro
 SAMPLING SITE:

AGAT WORK ORDER: 17T272471
 ATTENTION TO: Dan MacIntyre
 SAMPLED BY:

Miscellaneous Analysis (Continued)																
RPT Date: Nov 30, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Mercury	8824242	8824242	< 0.10	< 0.10	NA	< 0.10	95%	70%	130%	93%	80%	120%	98%	70%	130%	
Molybdenum	8824242	8824242	5.4	4.8	11.8%	< 0.5	91%	70%	130%	101%	80%	120%	104%	70%	130%	
Nickel	8824242	8824242	47	43	8.9%	< 1	101%	70%	130%	102%	80%	120%	98%	70%	130%	
Niobium	8824242	8824242	0.36	0.35	2.8%	< 0.05	109%	70%	130%	109%	80%	120%	113%	70%	130%	
Phosphorus	8824242	8824242	14400	13200	8.7%	< 5	88%	70%	130%	99%	80%	120%	102%	70%	130%	
Potassium	8824242	8824242	31000	33900	8.9%	< 10	94%	70%	130%	98%	80%	120%	99%	70%	130%	
Sodium	8824242	8824242	1490	1540	3.3%	< 10	103%	70%	130%	95%	80%	120%	97%	70%	130%	
Rhenium	8824242	8824242	0.004	0.006	NA	< 0.001	102%	70%	130%	99%	80%	120%	99%	70%	130%	
Rubidium	8824242	8824242	135	145	7.1%	< 0.1	101%	70%	130%	103%	80%	120%	103%	70%	130%	
Scandium	8824242	8824242	1.71	1.69	NA	< 0.50	103%	70%	130%	103%	80%	120%	107%	70%	130%	
Selenium	8824242	8824242	4.6	1.3	NA	< 0.8	82%	70%	130%	97%	80%	120%	101%	70%	130%	
Silver	8824242	8824242	0.9	0.8	NA	< 0.4	89%	70%	130%	111%	80%	120%	106%	70%	130%	
Strontium	8824242	8824242	484	430	11.8%	< 5	90%	70%	130%	95%	80%	120%	98%	70%	130%	
Sulfur	8824242	8824242	22300	21200	5.1%	< 20	112%	70%	130%	104%	80%	120%	107%	70%	130%	
Tantalum	8824242	8824242	< 0.01	< 0.01	NA	< 0.01	99%	70%	130%	102%	80%	120%	99%	70%	130%	
Tellurium	8824242	8824242	< 0.01	< 0.01	NA	< 0.01	100%	70%	130%	106%	80%	120%	102%	70%	130%	
Thallium	8824242	8824242	0.9	1.3	NA	< 0.4	99%	70%	130%	99%	80%	120%	101%	70%	130%	
Thorium	8824242	8824242	0.9	0.9	NA	< 0.4	99%	70%	130%	95%	80%	120%	96%	70%	130%	
Tin	8824242	8824242	4	4	NA	< 1	75%	70%	130%	104%	80%	120%	103%	70%	130%	
Titanium	8824242	8824242	212	178	17.4%	< 5	101%	70%	130%	98%	80%	120%	97%	70%	130%	
Tungsten	8824242	8824242	0.57	0.78	NA	< 0.50	100%	70%	130%	108%	80%	120%	107%	70%	130%	
Uranium	8824242	8824242	0.70	0.66	NA	< 0.50	104%	70%	130%	94%	80%	120%	101%	70%	130%	
Vanadium	8824242	8824242	51	44	14.7%	< 1	86%	70%	130%	98%	80%	120%	99%	70%	130%	
Yttrium	8824242	8824242	8.91	8.40	5.9%	< 0.05	101%	70%	130%	101%	80%	120%	102%	70%	130%	
Zinc	8824242	8824242	2390	2330	2.5%	< 5	97%	70%	130%	107%	80%	120%	114%	70%	130%	
Zirconium	8824242	8824242	4.2	4.0	4.9%	< 0.5	103%	70%	130%	99%	80%	120%	106%	70%	130%	

Comments: NA signifies Not Applicable.

Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

High RPD for sample and duplicate is due to the matrix and heterogeneity of the sample.

Certified By: _____





Method Summary

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Miscellaneous Analysis			
Aluminum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Bismuth	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Calcium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Cerium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cesium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Gallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Germanium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Gold	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Hafnium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Indium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Iron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lanthanum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lithium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Magnesium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Manganese	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Niobium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Phosphorus	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Potassium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Sodium	MET-93-6105	EPA SW-846 3050B & 6010C	ICP/OES
Rhenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Rubidium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Scandium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Strontium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Sulfur	MET-93-6105	EPA SW-846-3050B & 6010C	ICP/OES
Tantalum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tellurium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thorium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tin	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Titanium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tungsten	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Yttrium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS

Method Summary

CLIENT NAME: OAKRIDGE ENVIRONMENTAL LTD.

AGAT WORK ORDER: 17T272471

PROJECT: West Gabbro

ATTENTION TO: Dan MacIntyre

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zirconium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS



AGAT Laboratories

Lg Box

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
web@earth.agatlabs.com

Laboratory Use Only 17T272471

Work Order #: _____

Cooler Quantity: _____

Arrival Temperatures: _____

Custody Seal Intact: Yes No N/A

Notes: _____

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:
 Company: Oakridge Environmental Ltd.
 Contact: Dan MacIntyre
 Address: 647 Neal Drive
Suite #3
 Phone: 7057451181 Fax: 7057454163
 Reports to be sent to: dan@oakridgeenvironmental.com
 1. Email: _____
 2. Email: ore@oakridgeenvironmental.com

Regulatory Requirements: No Regulatory Requirement
(Please check all applicable boxes)

Regulation 153/04 Sewer Use Regulation 558
Table Indicate One
 Ind/Com Sanitary CCME
 Res/Park Storm Prov. Water Quality Objectives (PWQO)
 Agriculture Other
 Soil Texture (Check One) Coarse Fine MISA _____
Region Indicate One

Is this submission for a Record of Site Condition? Yes No

Report Guideline on Certificate of Analysis Yes No

Project Information:
 Project: West Gabbro
 Site Location: Havelock-Belmont-Methuen, Ontario
 Sampled By: Dan MacIntyre, Brad Pettersone, Matthew Dimitroff
 AGAT Quote #: 182363 PO: 17-2357
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information: Bill To Same: Yes No

Company: _____
 Contact: _____
 Address: _____
 Email: _____

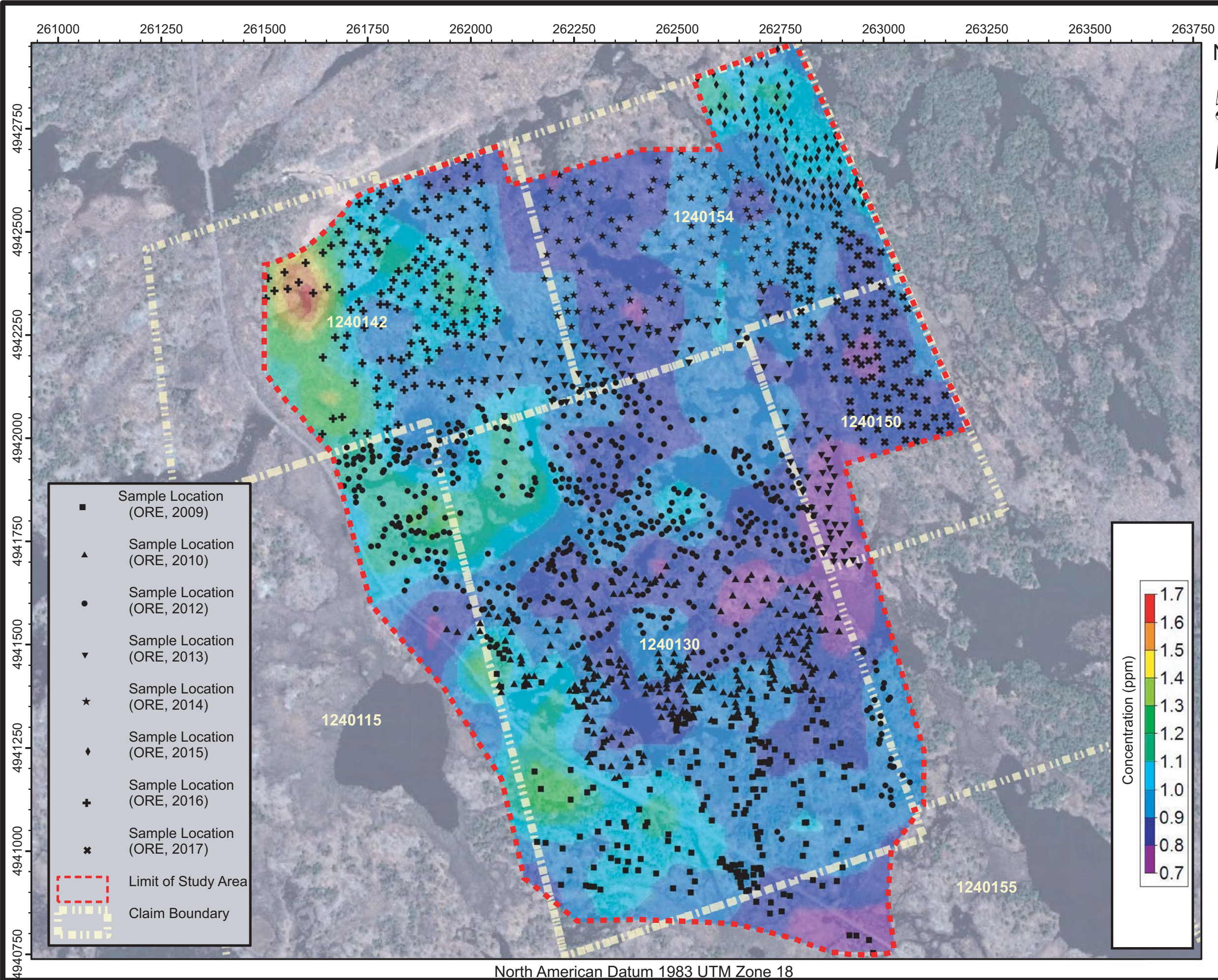
Sample Matrix Legend	Field Filtered - Metals, Hg, CrVI	O. Reg 153	Metals and Inorganics	Regulation/Custom Metals	Nutrients: TP, NH ₃ , TKN, NO ₂ , NO ₃ , NO ₃ +NO ₂	Volatiles: VOC, BTEX, THM	PHCs F1 - F4	ABNs	PAHs	PCBs: Total, Aroclors	Organochlorine Pesticides	TCLP: MBI, VOCs, ABNs, BAP, PCBs	Sewer Use	ICP-MS of ash
B Biota			<input type="checkbox"/> All Metals <input type="checkbox"/> 153 Metals (exc. Hydroides)											
GW Ground Water			<input type="checkbox"/> Hydride Metals <input type="checkbox"/> 153 Metals (incl. Hydroides)											
O Oil			ORPs: <input type="checkbox"/> B-HWS <input type="checkbox"/> Cl <input type="checkbox"/> CN											
P Paint			<input type="checkbox"/> Cr ⁶⁺ <input type="checkbox"/> EC <input type="checkbox"/> FOC <input type="checkbox"/> Hg											
S Soil			<input type="checkbox"/> pH <input type="checkbox"/> SAR											
SD Sediment			Full Metals Scan											
SW Surface Water														

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N
White Pine Bark (to be ashed)	various	various	106	n/a		
S-1-17 to S-106-17	Sept. 25/17					
	to					
	Oct. 10/17					

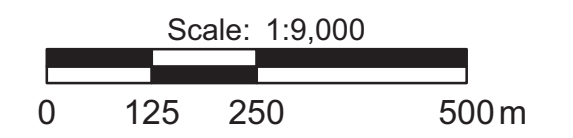
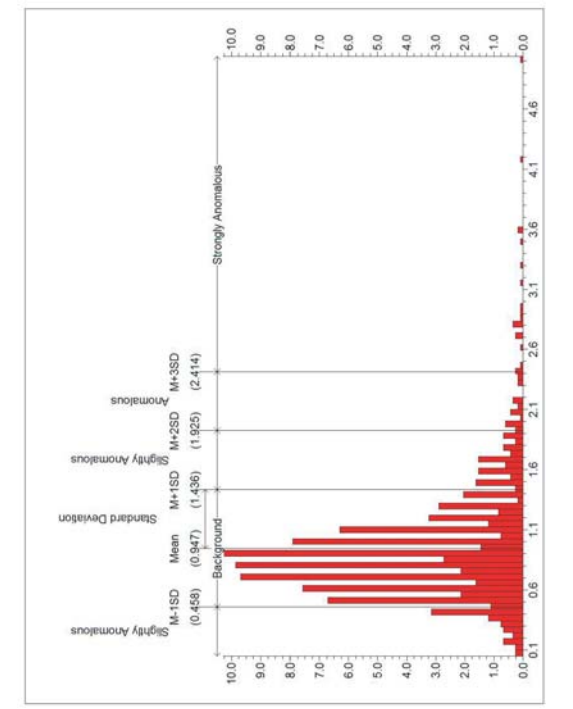
Samples Relinquished By (Print Name and Sign): Dan MacIntyre	Date: Oct 12/17	Time: 4:00 pm	Samples Received By (Print Name and Sign): Sima F	Date: 17/10/17	Time: 10:40
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:

APPENDIX B

Compiled Element Plots



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Ag (ppm)
WHITE PINE BARK BY ICP-MS

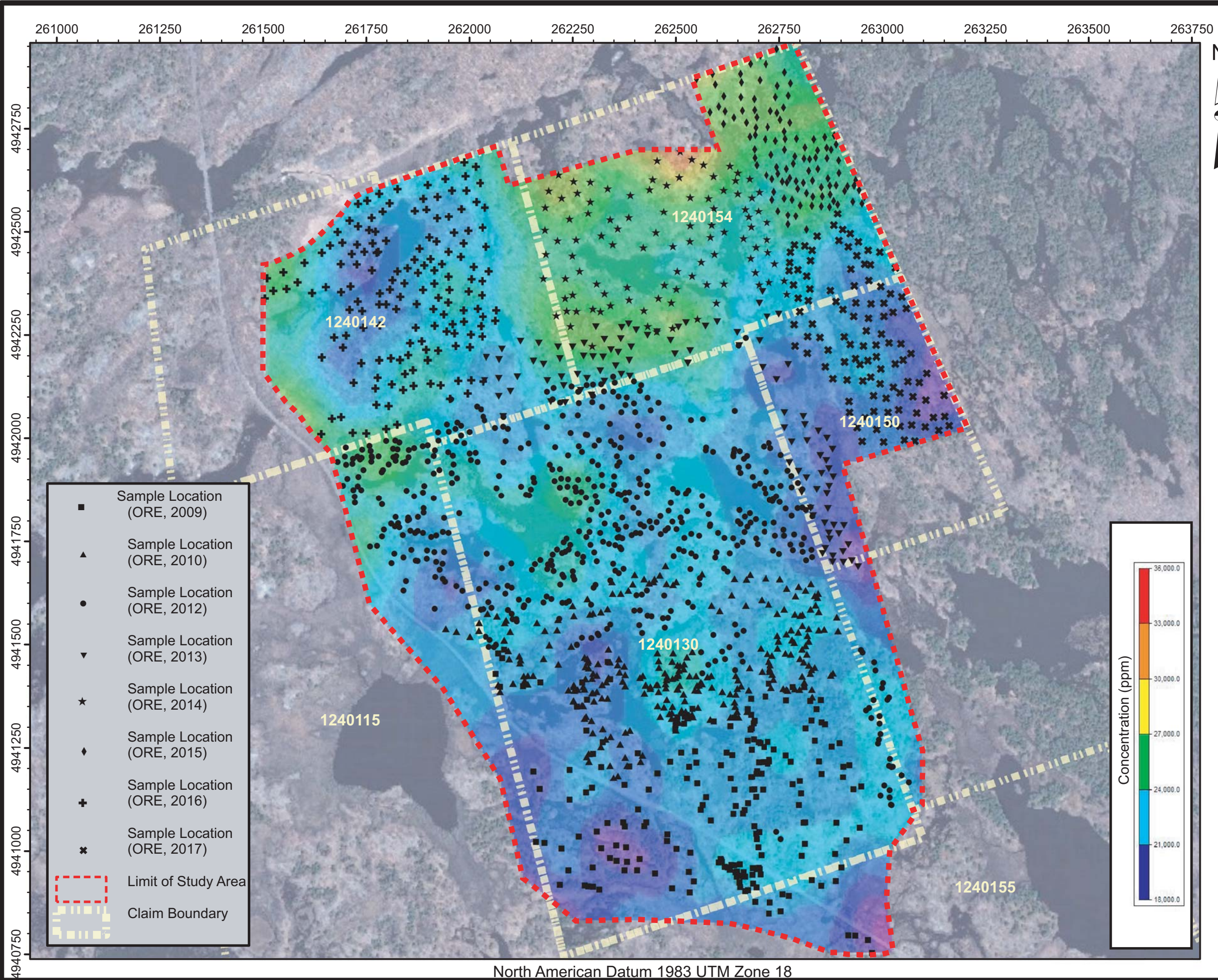


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17-2357

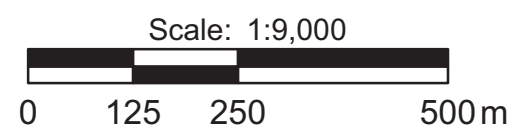
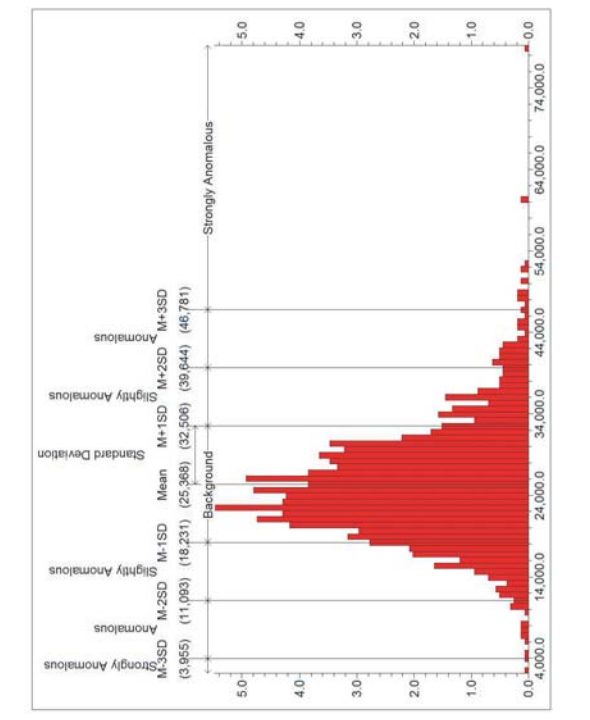
DATE
January 2018

FIGURE NO.
B1

North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



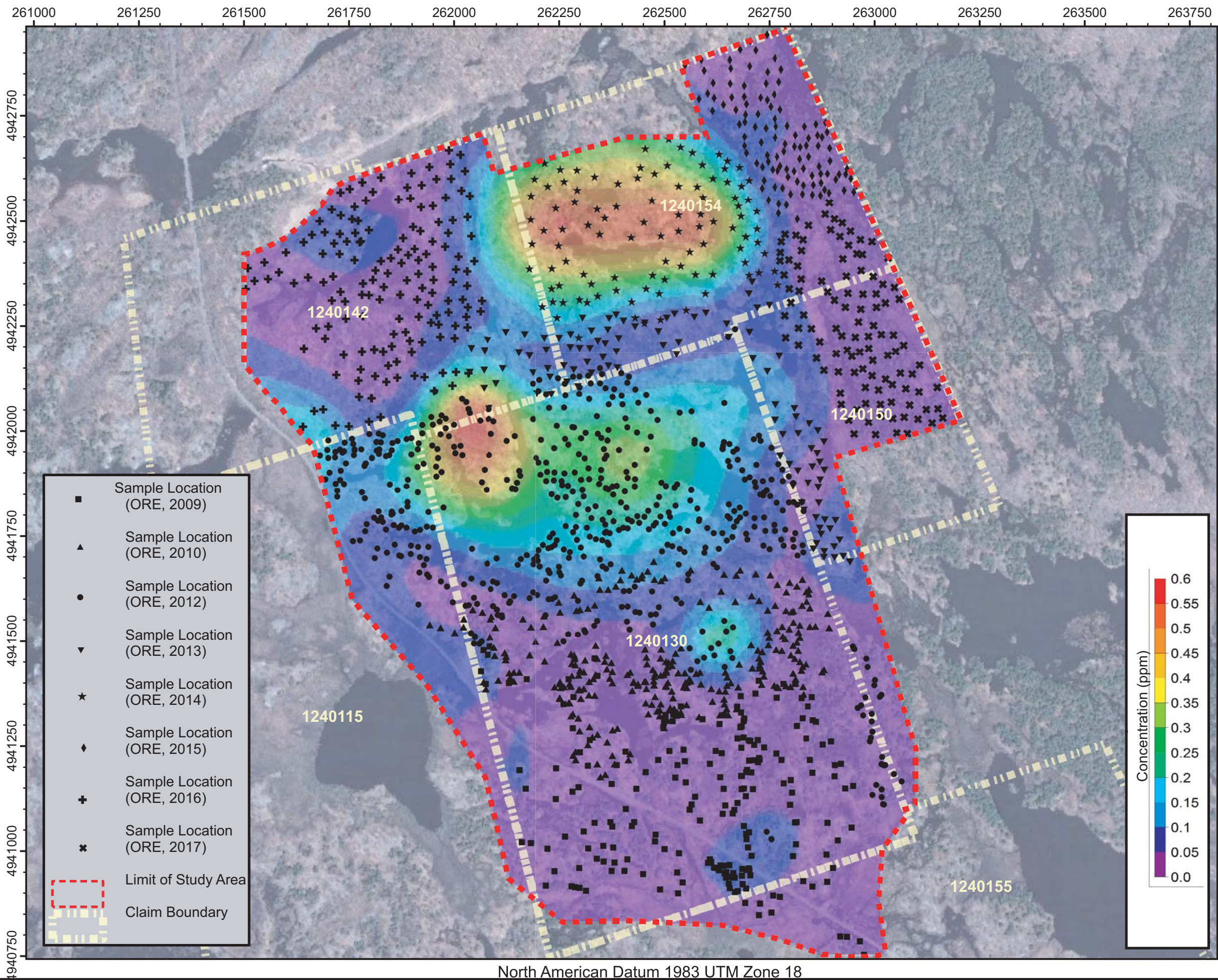
Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - AI (ppm)
WHITE PINE BARK BY ICP-MS

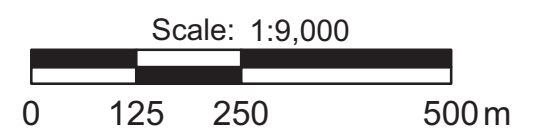
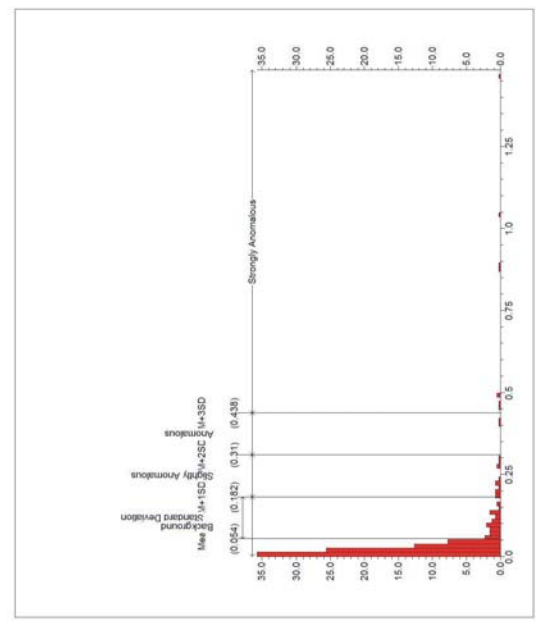


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 DATE
 January 2018

FIGURE NO.
B2



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Au (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT #
 17-2357

FIGURE NO.
B3

DATE
 January 2018

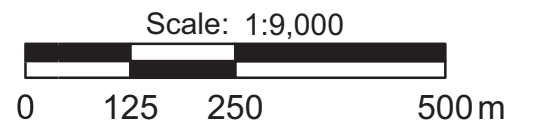
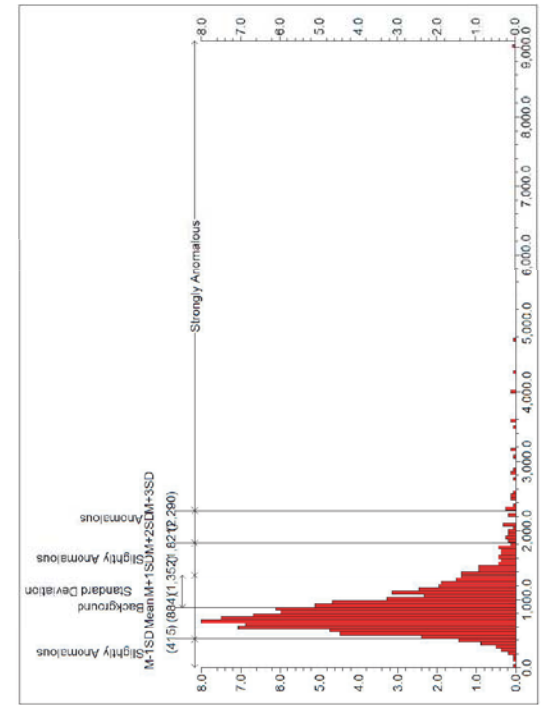
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

4942750
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TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Ba (ppm)
WHITE PINE BARK BY ICP-MS

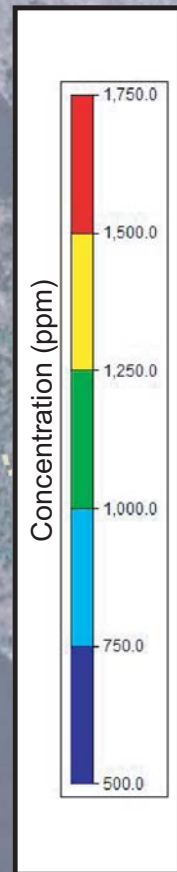
ORE
 Oakridge Environmental Ltd.
 Environmental and Hydrogeological Services

PROJECT #
 17-2357

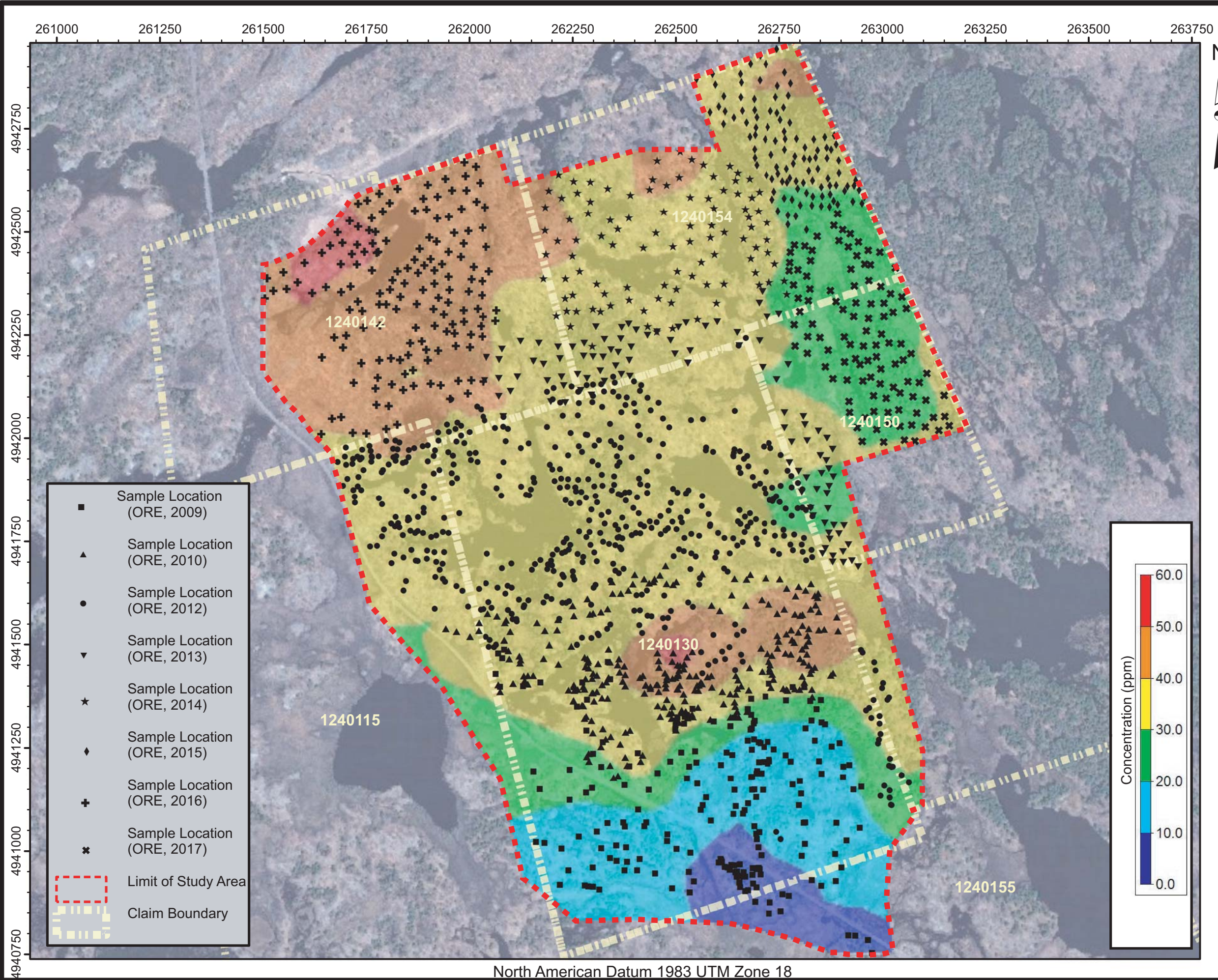
FIGURE NO.
B4

DATE
 January 2018

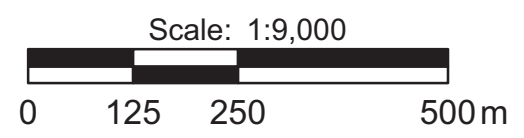
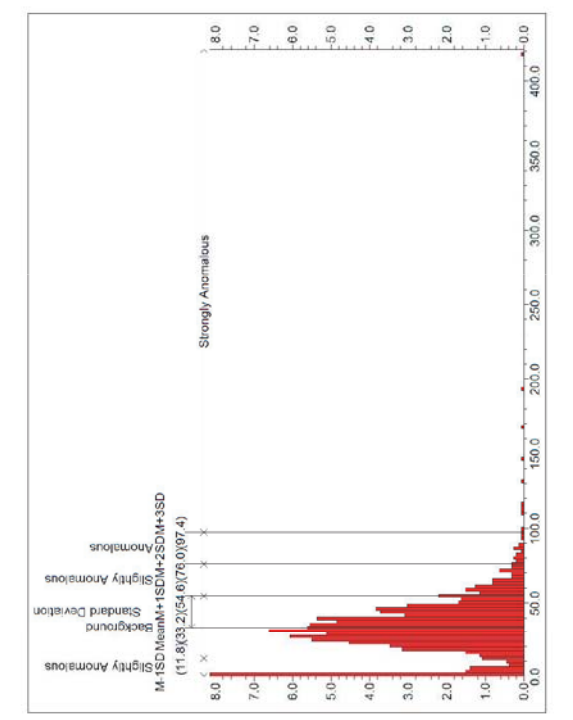
- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- Limit of Study Area
- - - Claim Boundary



North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

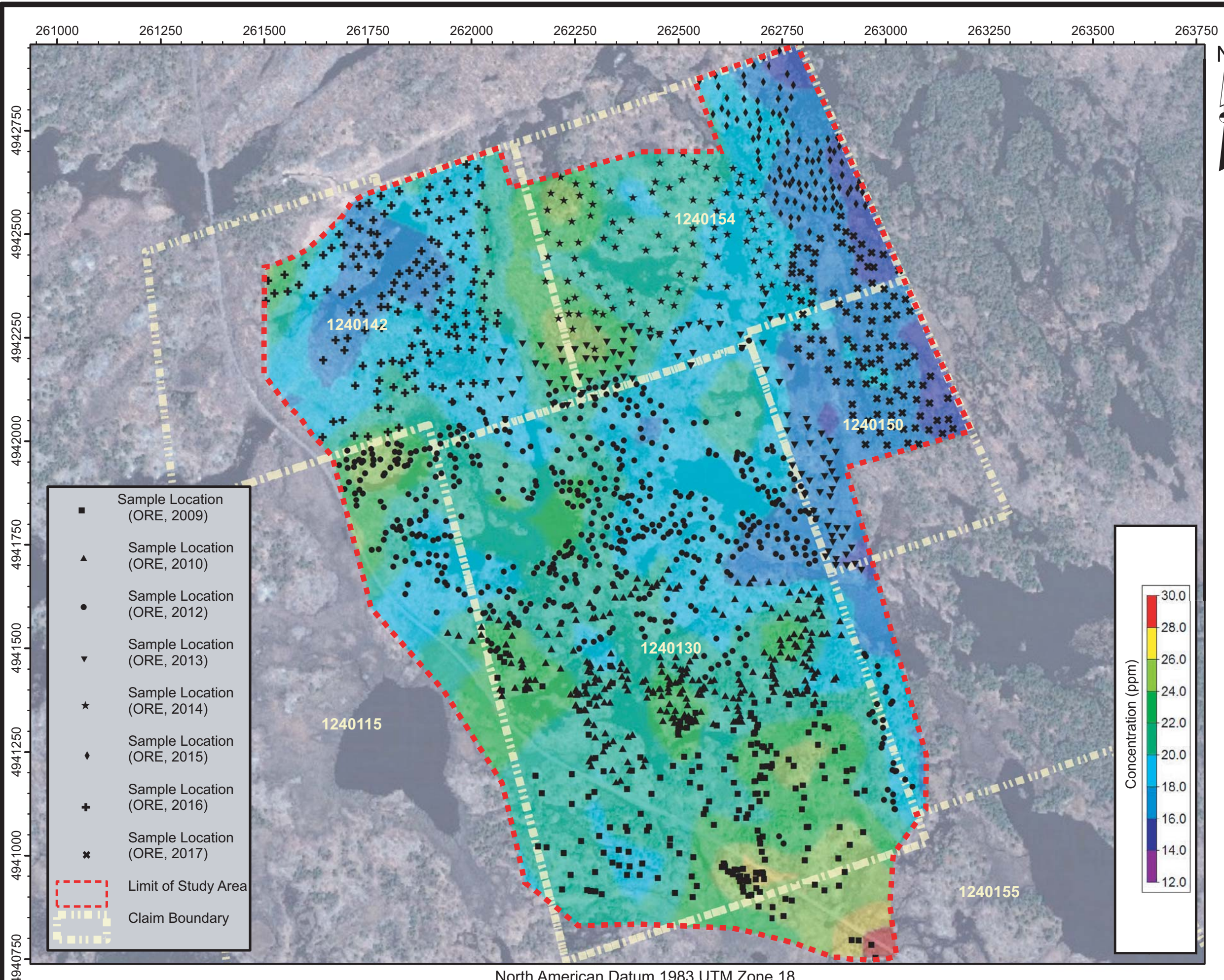
TITLE
CONCENTRATION - Cd (ppm)
WHITE PINE BARK BY ICP-MS



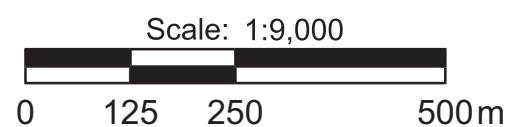
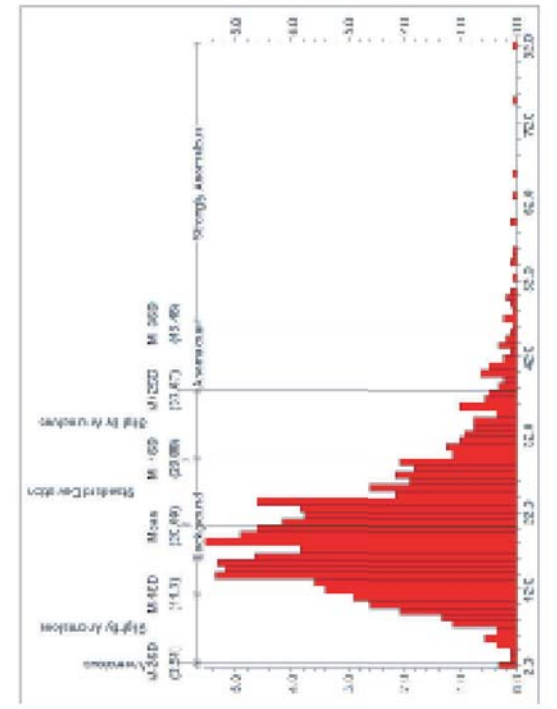
PROJECT #
 17-2357
 DATE
 January 2018

FIGURE NO.
B5

North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Ce (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT #
 17-2357
 DATE
 January 2018

FIGURE NO.
B6

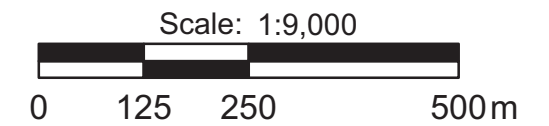
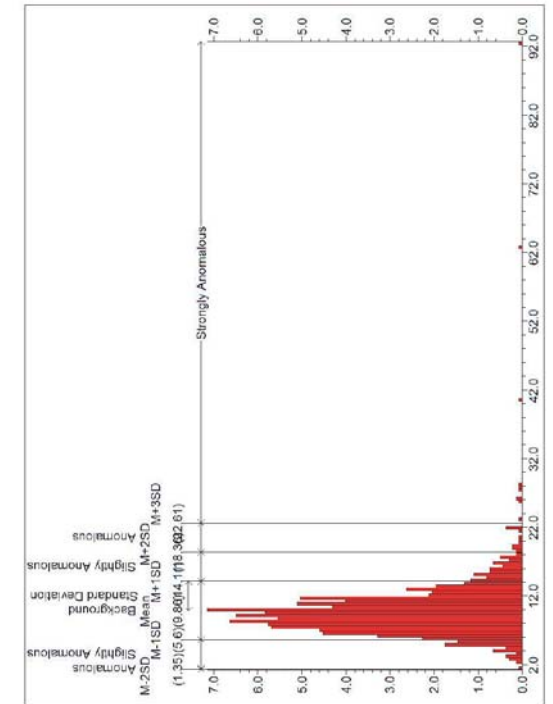
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

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TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)

2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)

2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)

Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)

Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Co (ppm)
WHITE PINE BARK BY ICP-MS



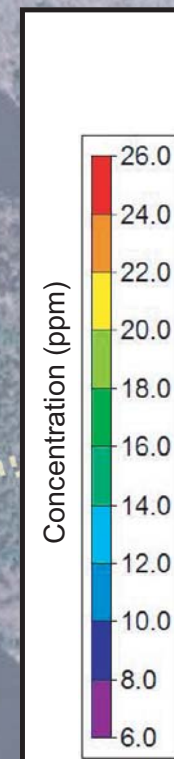
PROJECT #
 17-2357

FIGURE NO.

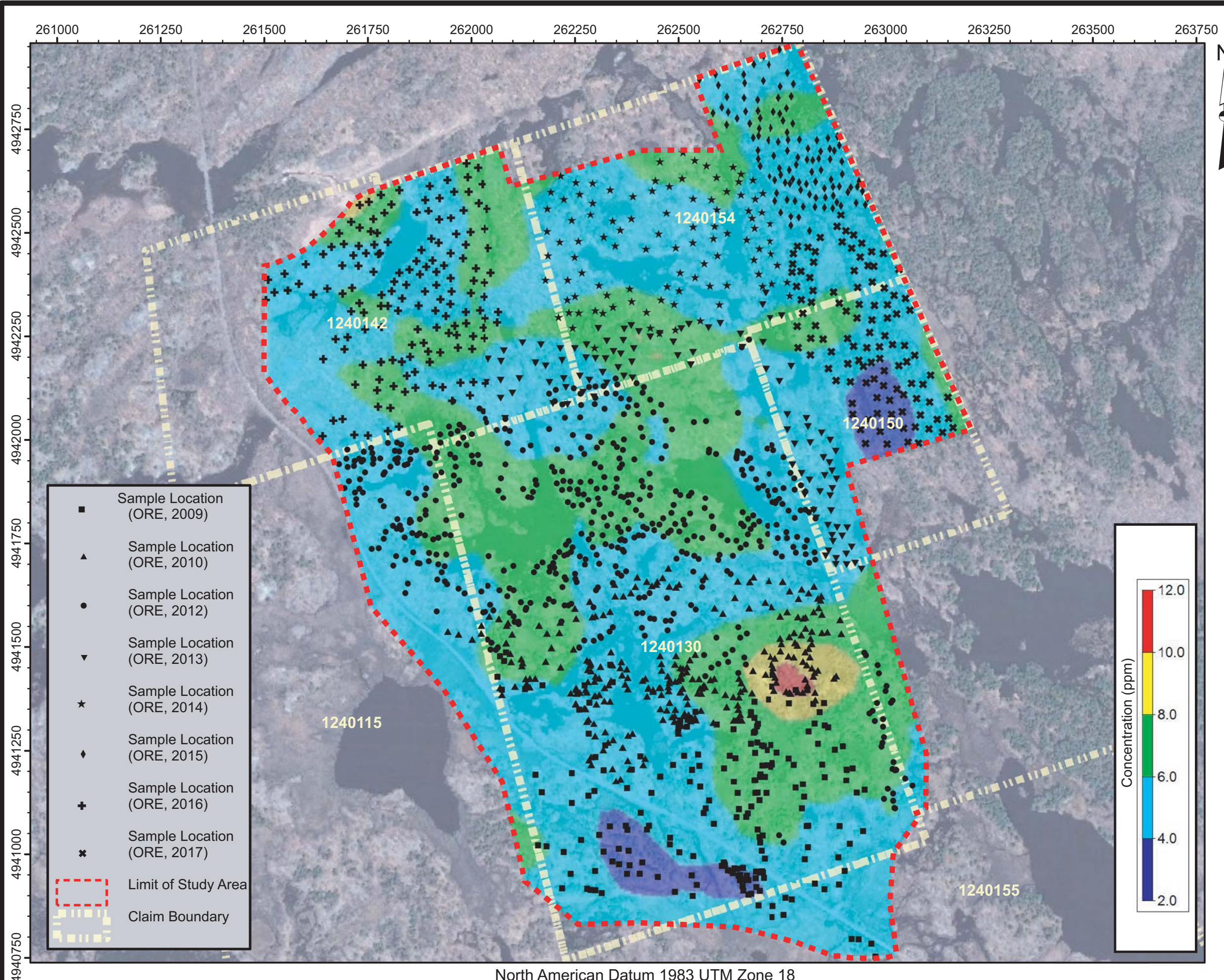
B7

DATE
 January 2018

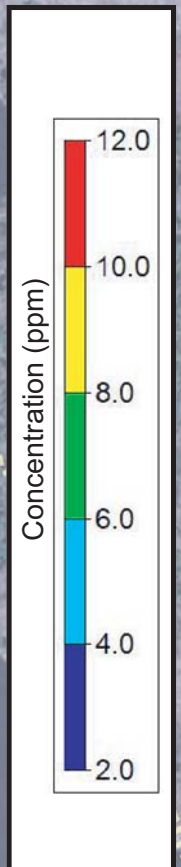
- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- Limit of Study Area
- - - Claim Boundary



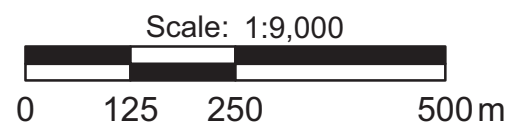
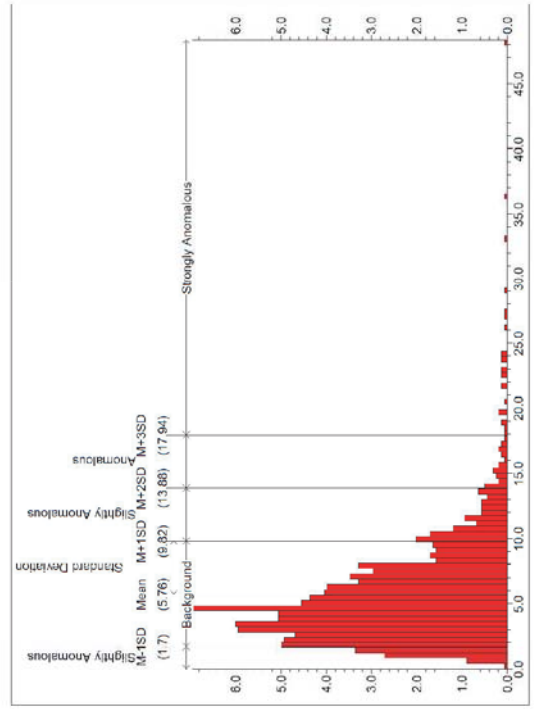
North American Datum 1983 UTM Zone 18



- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- - - Limit of Study Area
- - - Claim Boundary



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



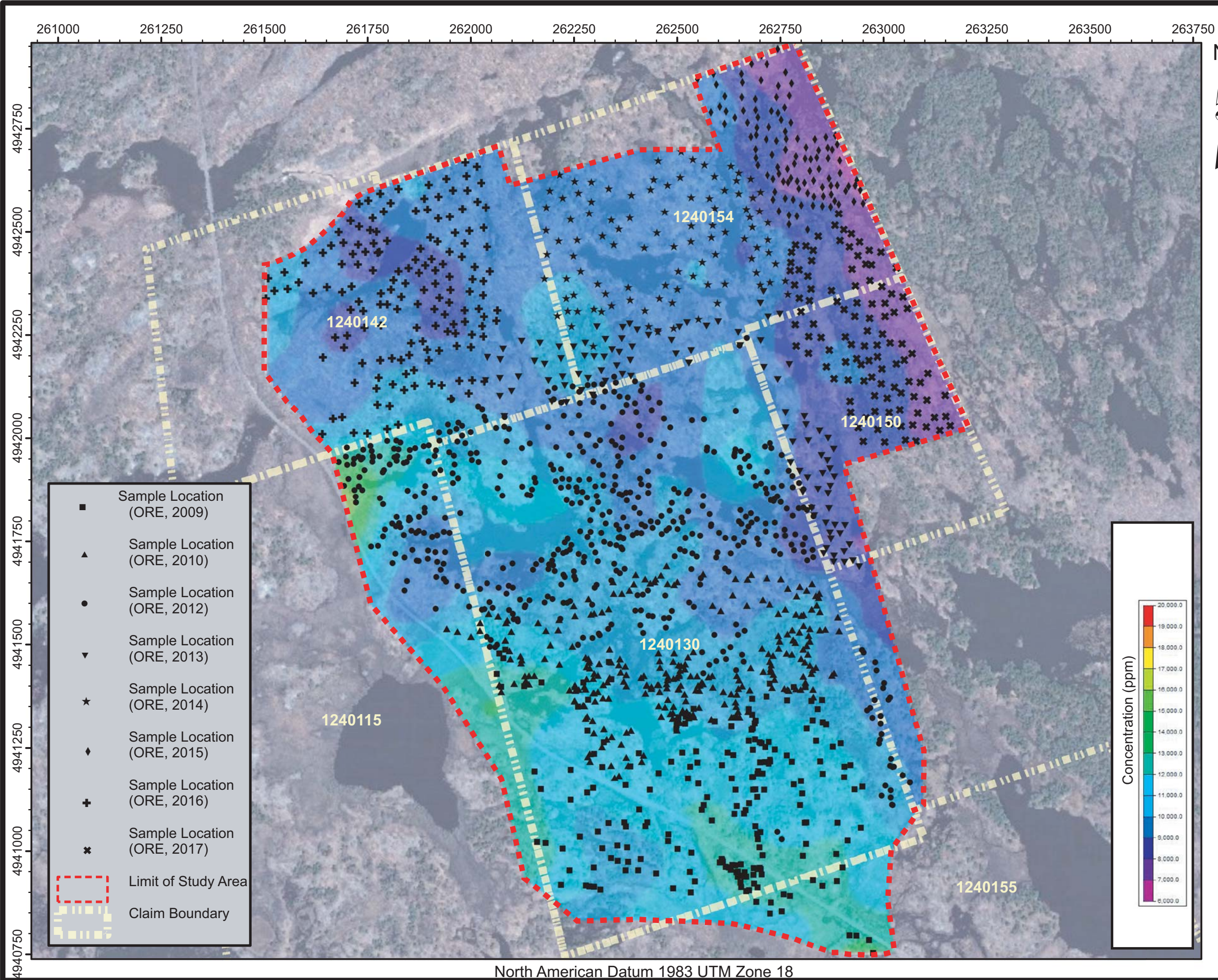
Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Cs (ppm)
WHITE PINE BARK BY ICP-MS

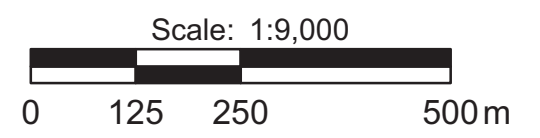
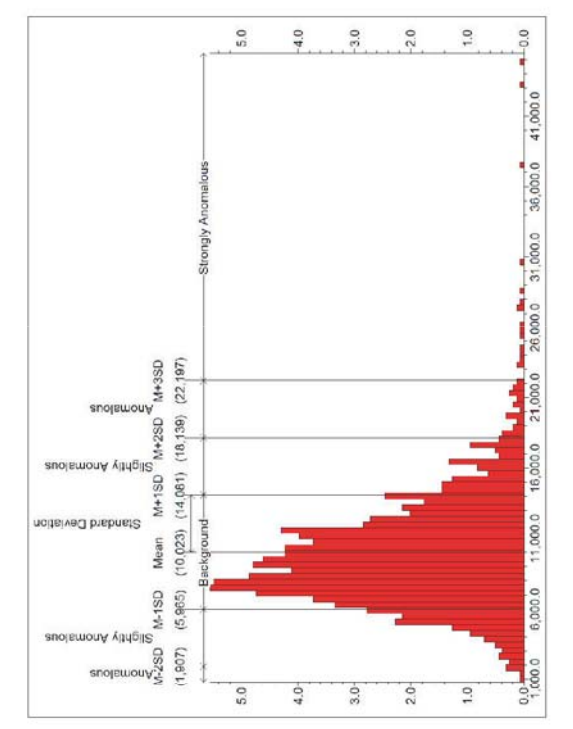


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 17-2357
 DATE
 January 2018

FIGURE NO.
B8



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Fe (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT #
 17-2357
 DATE
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FIGURE NO.
B9

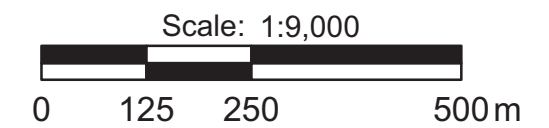
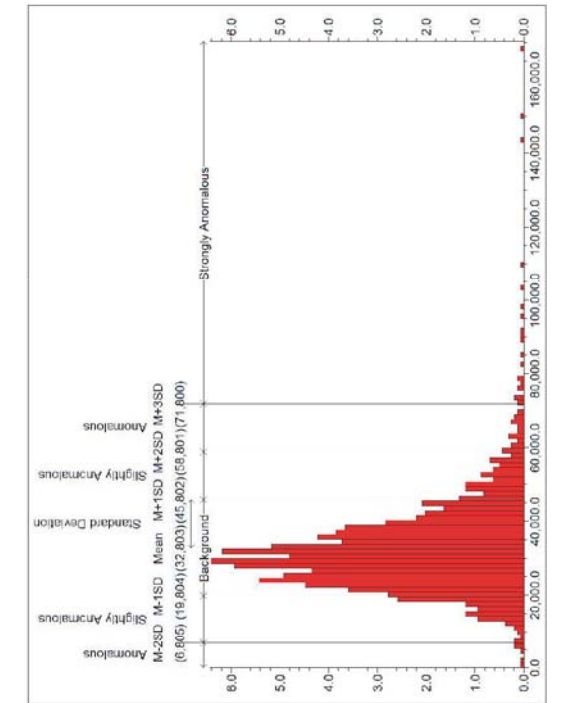
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

4942750
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4941750
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TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



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2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)

2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)

Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)

Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - K (ppm)
WHITE PINE BARK BY ICP-MS



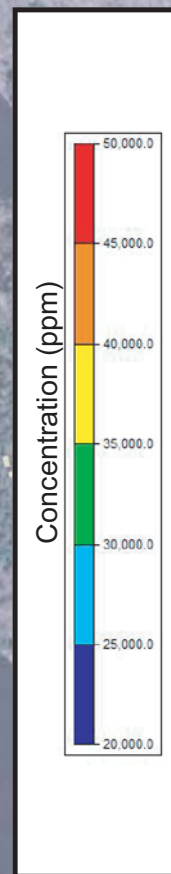
PROJECT #
 17-2357

FIGURE NO.

B10

DATE
 January 2018

- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- ⋯ Limit of Study Area
- ⋯ Claim Boundary



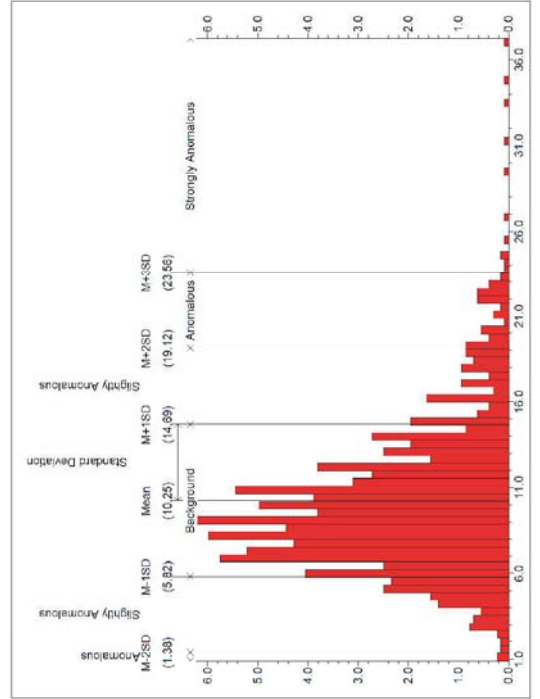
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

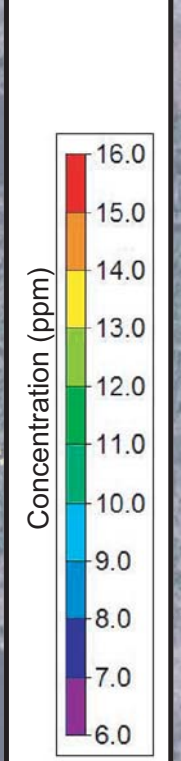
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TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- - - Limit of Study Area
- - - Claim Boundary



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

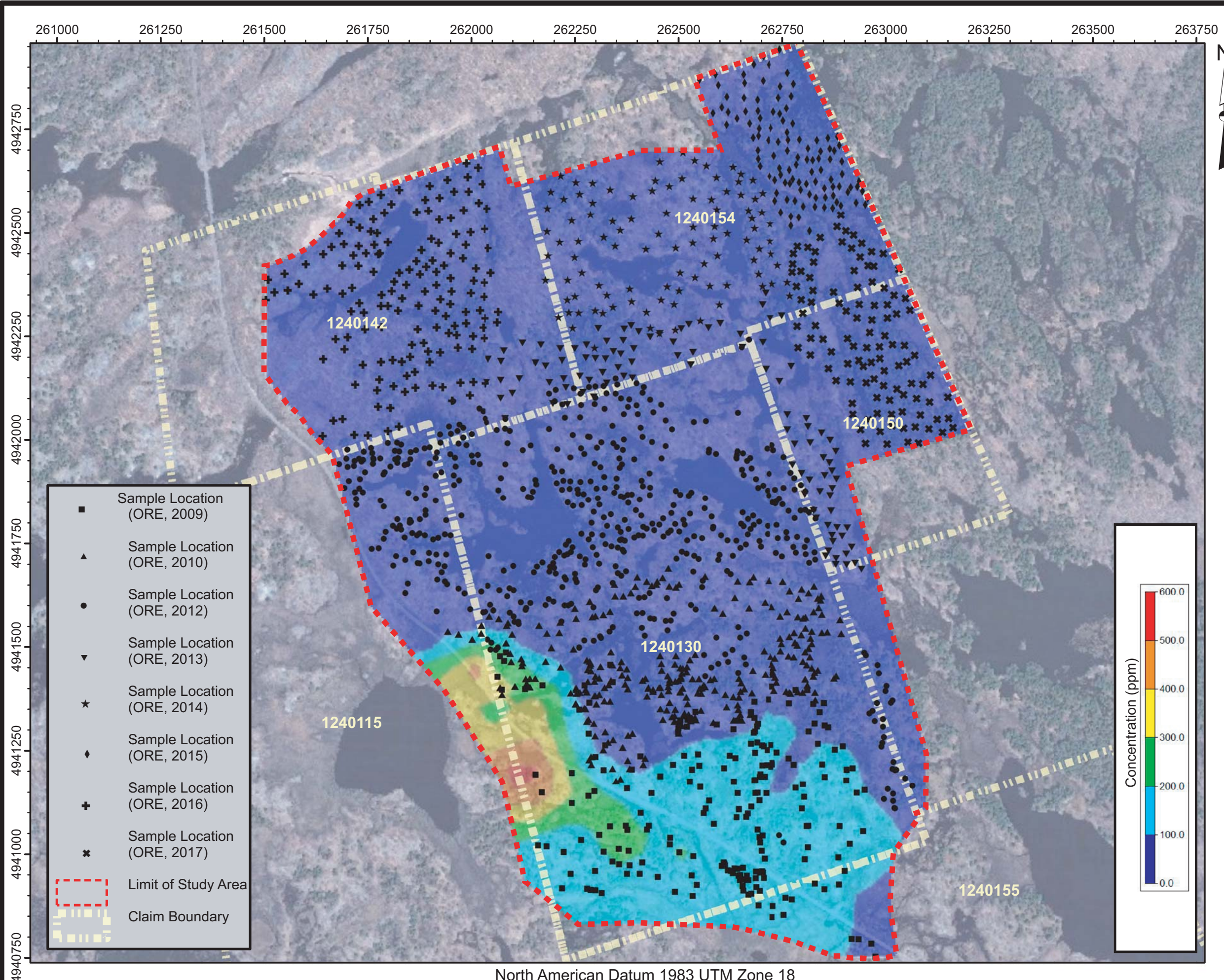
TITLE
CONCENTRATION - La (ppm)
WHITE PINE BARK BY ICP-MS



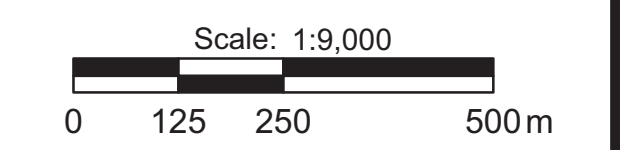
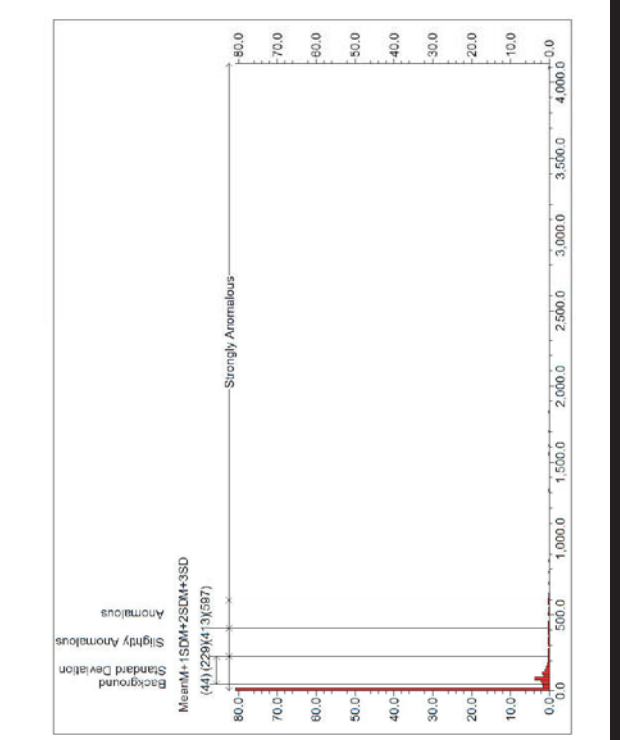
PROJECT #
 17-2357
 DATE
 January 2018

FIGURE NO.
B11

North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



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 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Li (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT # 17-2357	FIGURE NO. B12
DATE January 2018	

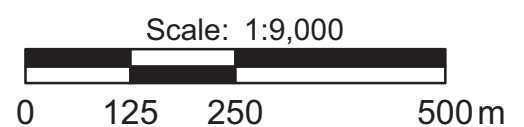
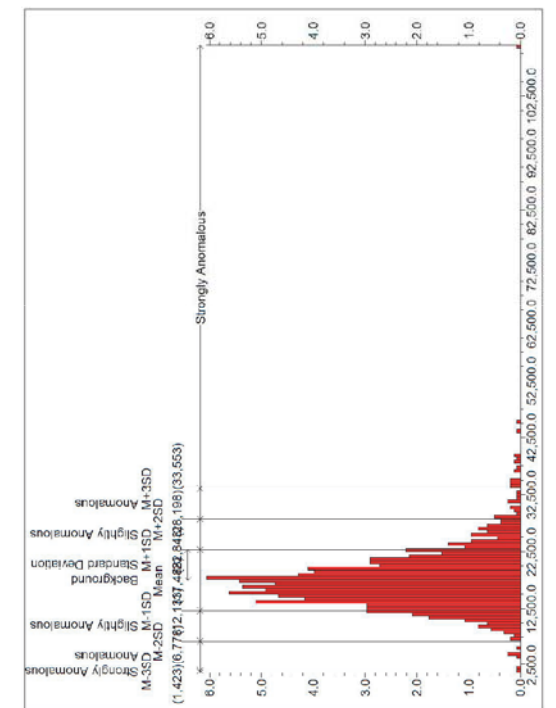
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

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TRIGAN RESOURCES INC.
WEST GABPRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



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 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

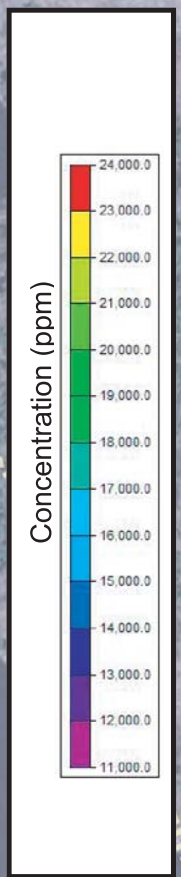
TITLE
CONCENTRATION - Mg (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT #
 17-2357
 DATE
 January 2018

FIGURE NO.
B13

- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- Limit of Study Area
- - - Claim Boundary



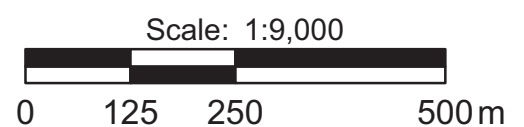
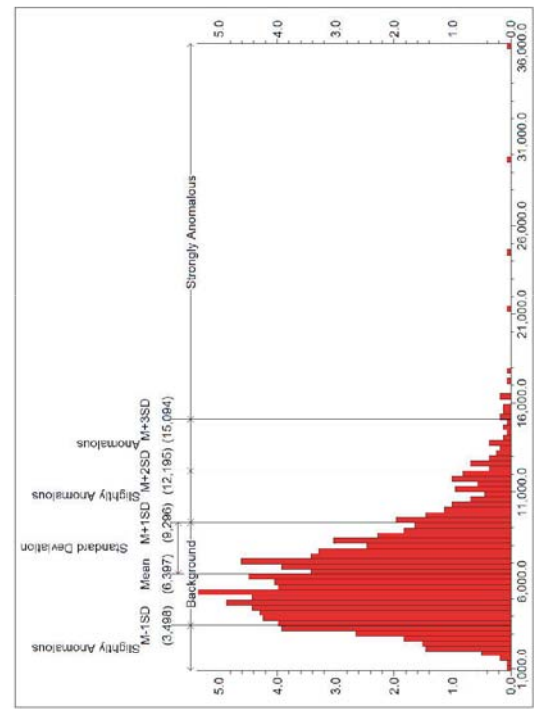
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

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TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
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 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

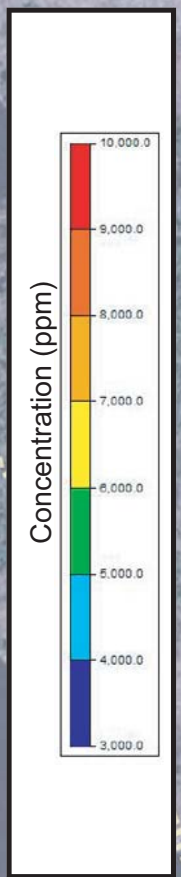
TITLE
CONCENTRATION - Mn (ppm)
WHITE PINE BARK BY ICP-MS



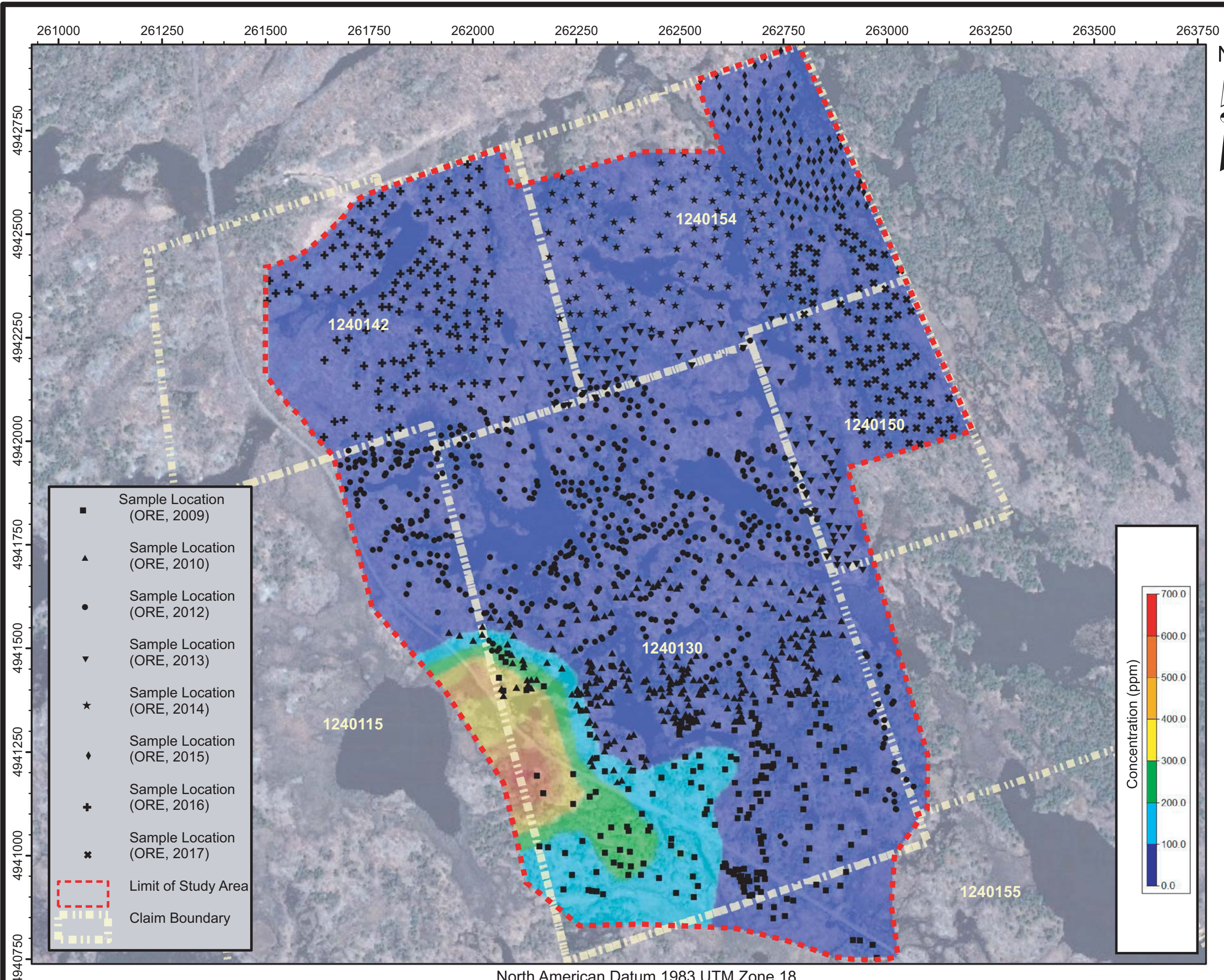
PROJECT #
 17-2357
 DATE
 January 2018

FIGURE NO.
B14

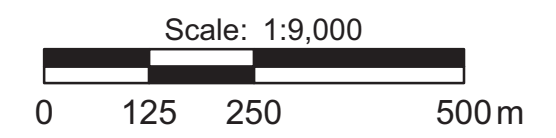
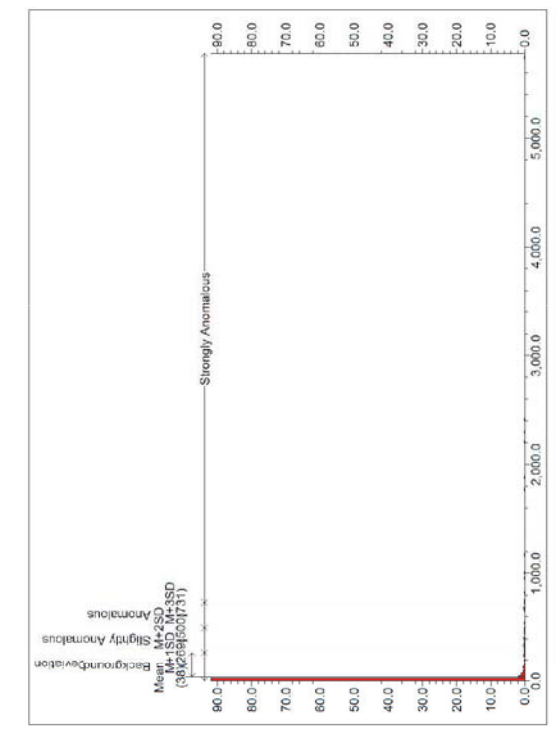
- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- Limit of Study Area
- - - Claim Boundary



North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Mo (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT #
 17-2357
 DATE
 January 2018

FIGURE NO.
B15

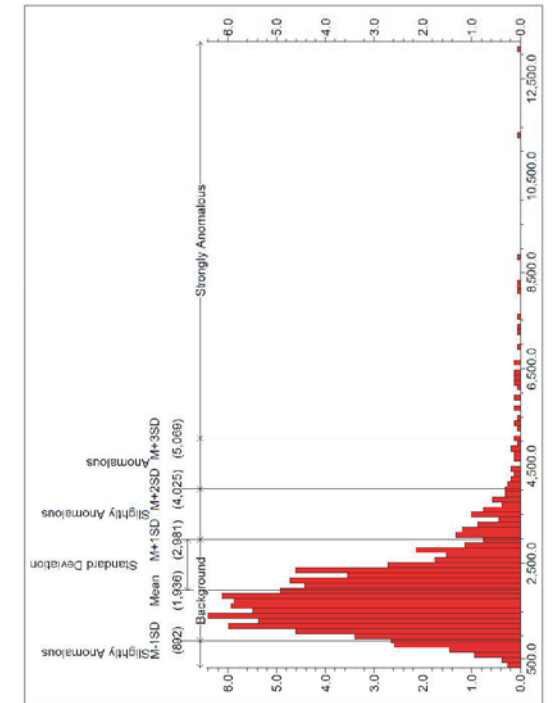
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

4942750
4942500
4942250
4942000
4941750
4941500
4941250
4941000
4940750



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Scale: 1:9,000



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)

2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)

2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)

Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)

Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Na (ppm)
WHITE PINE BARK BY ICP-MS



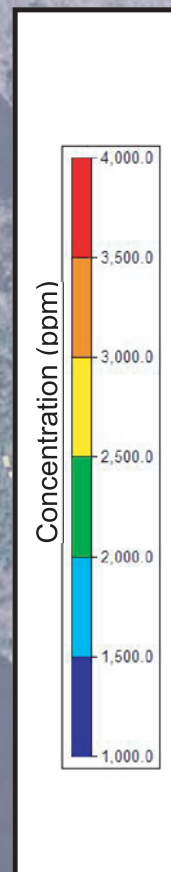
PROJECT #
 17-2357

FIGURE NO.

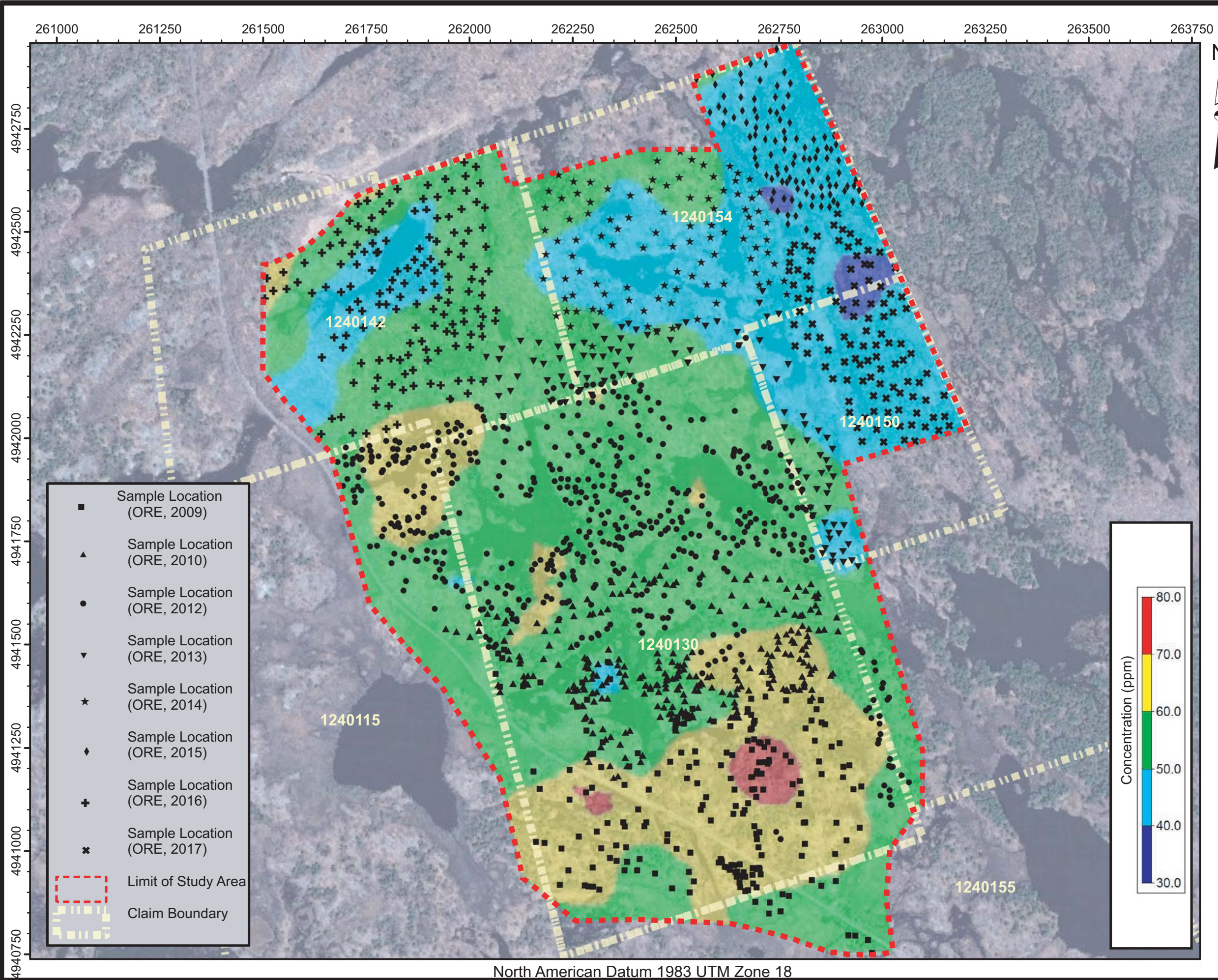
B16

DATE
 January 2018

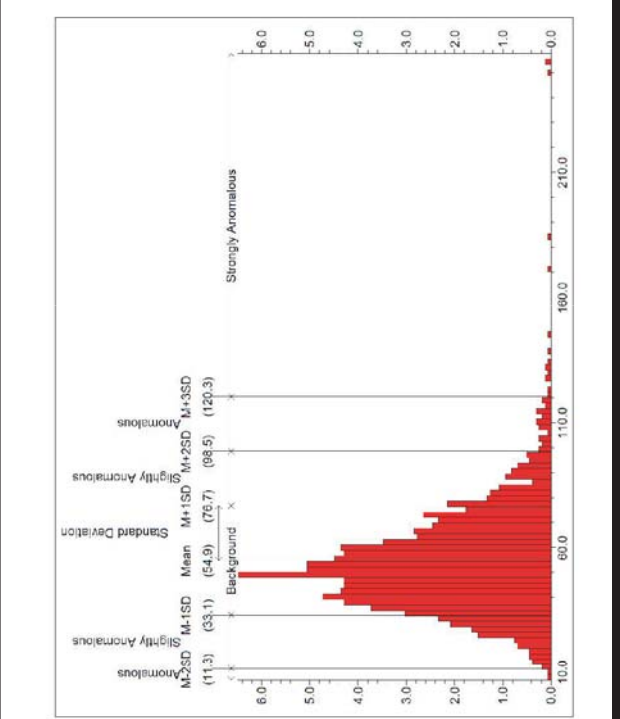
- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- +
- × Sample Location (ORE, 2017)
- - - Limit of Study Area
- - - Claim Boundary



North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



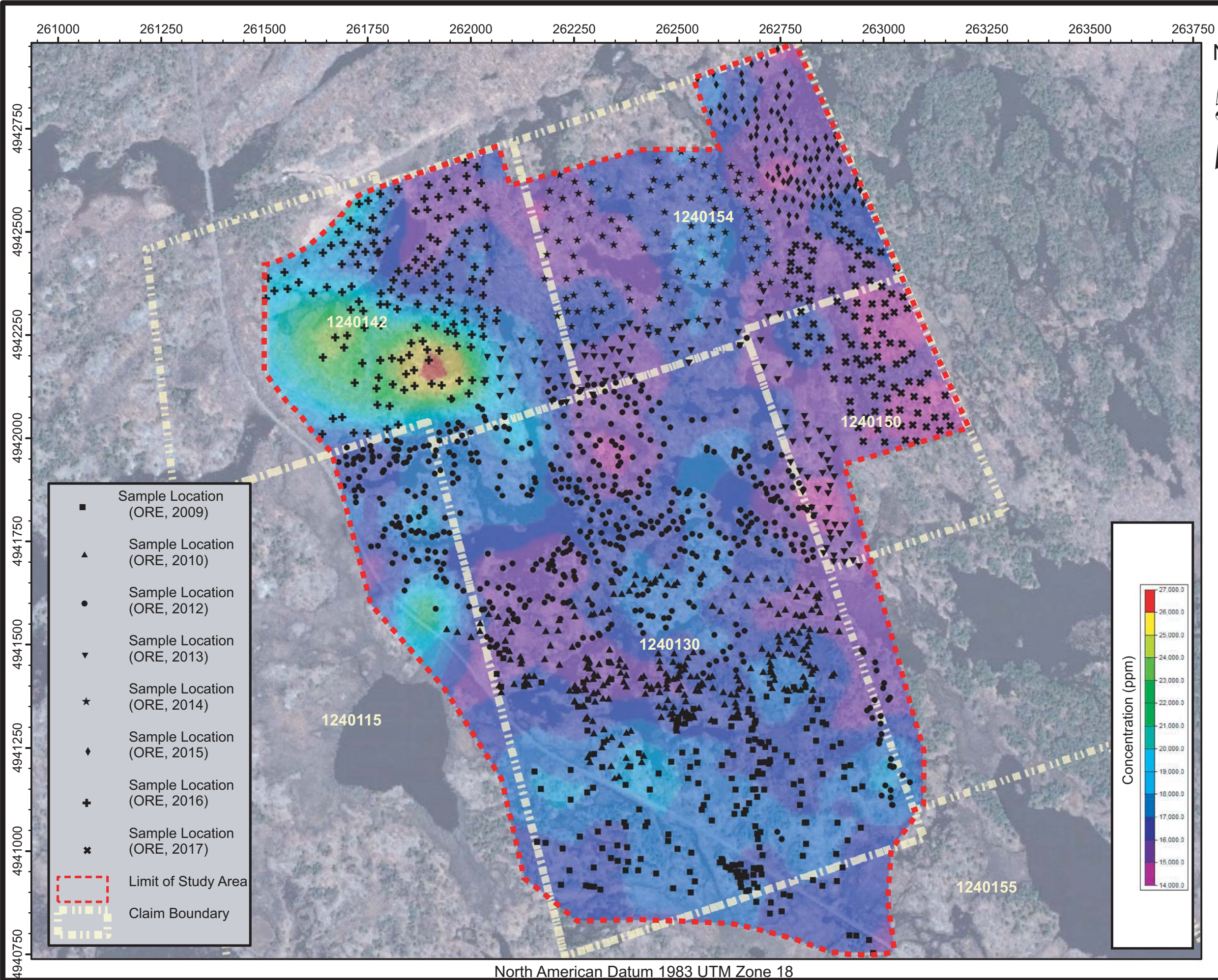
Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Ni (ppm)
WHITE PINE BARK BY ICP-MS



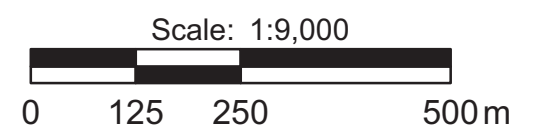
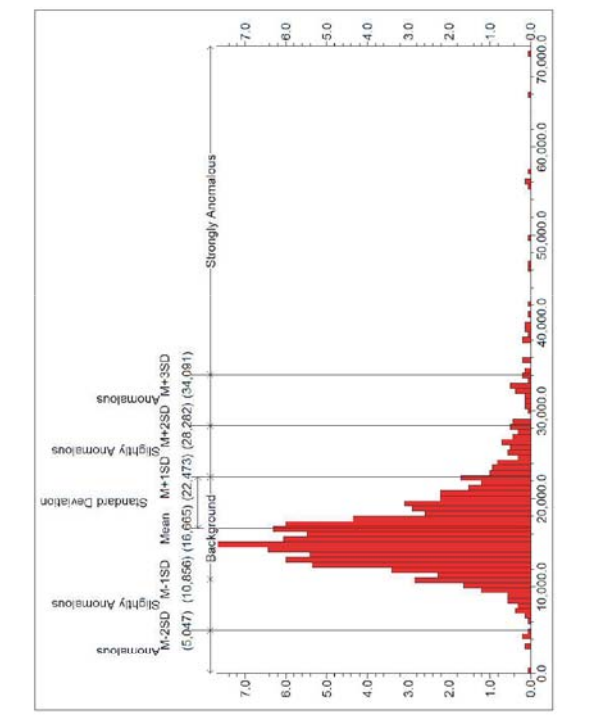
PROJECT # 17-2357	FIGURE NO. B17
DATE January 2018	

North American Datum 1983 UTM Zone 18



North American Datum 1983 UTM Zone 18

TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



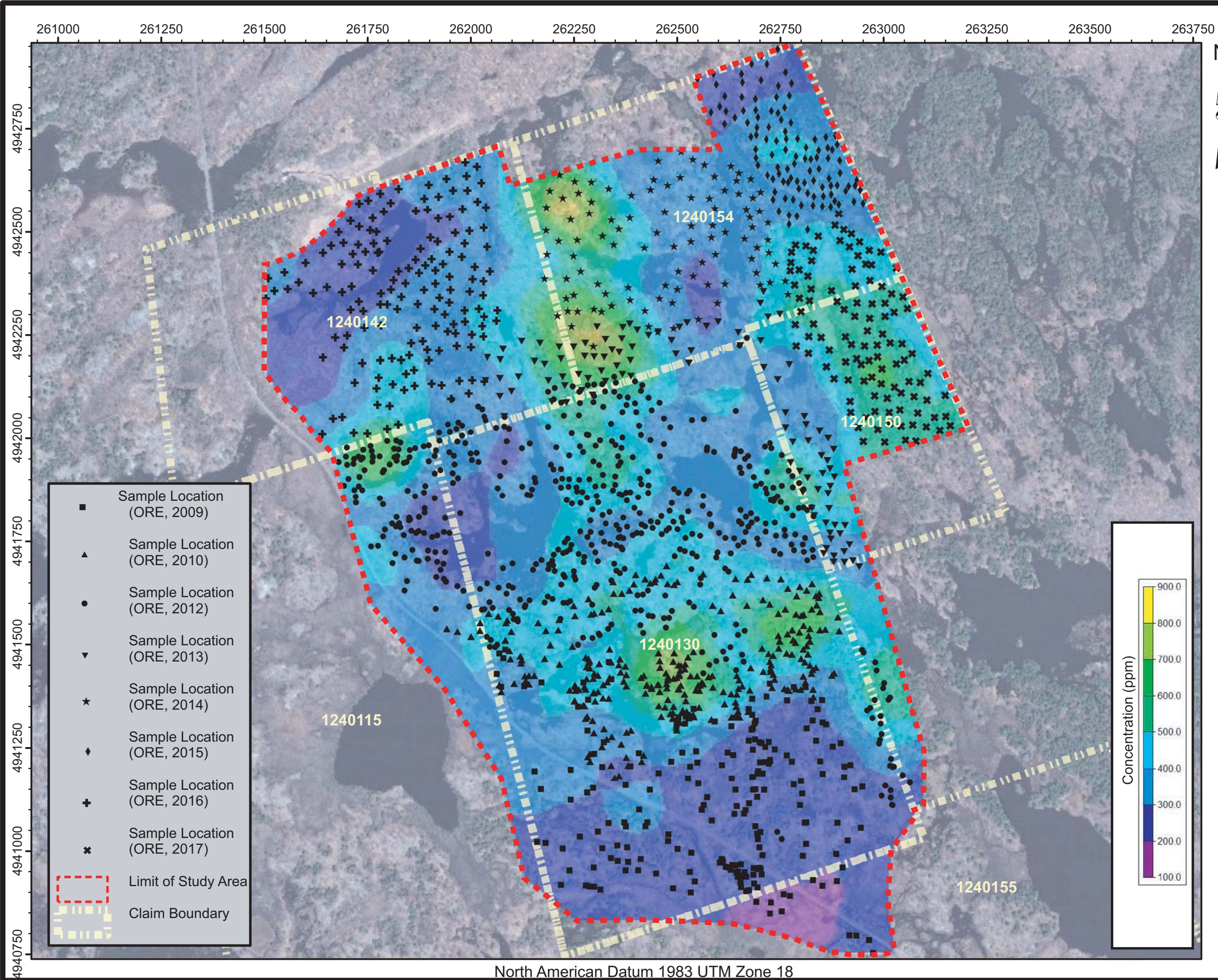
Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - P (ppm)
WHITE PINE BARK BY ICP-MS

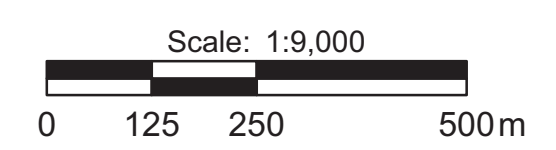
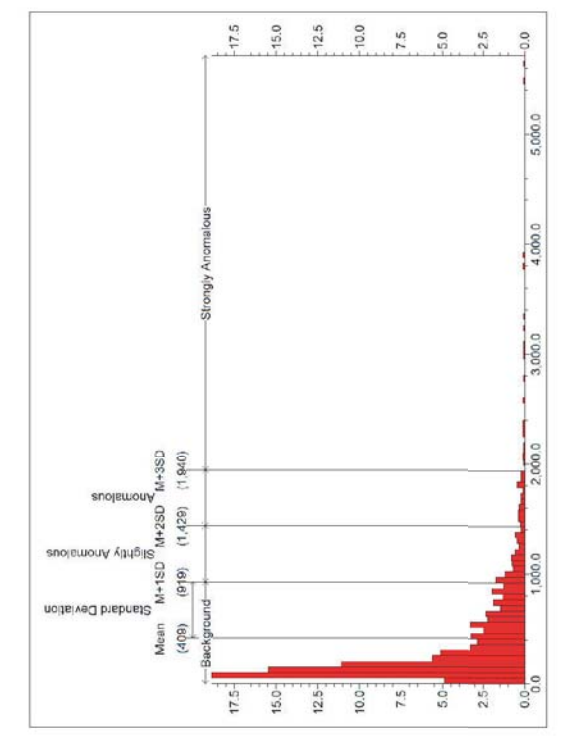


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FIGURE NO.
B18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

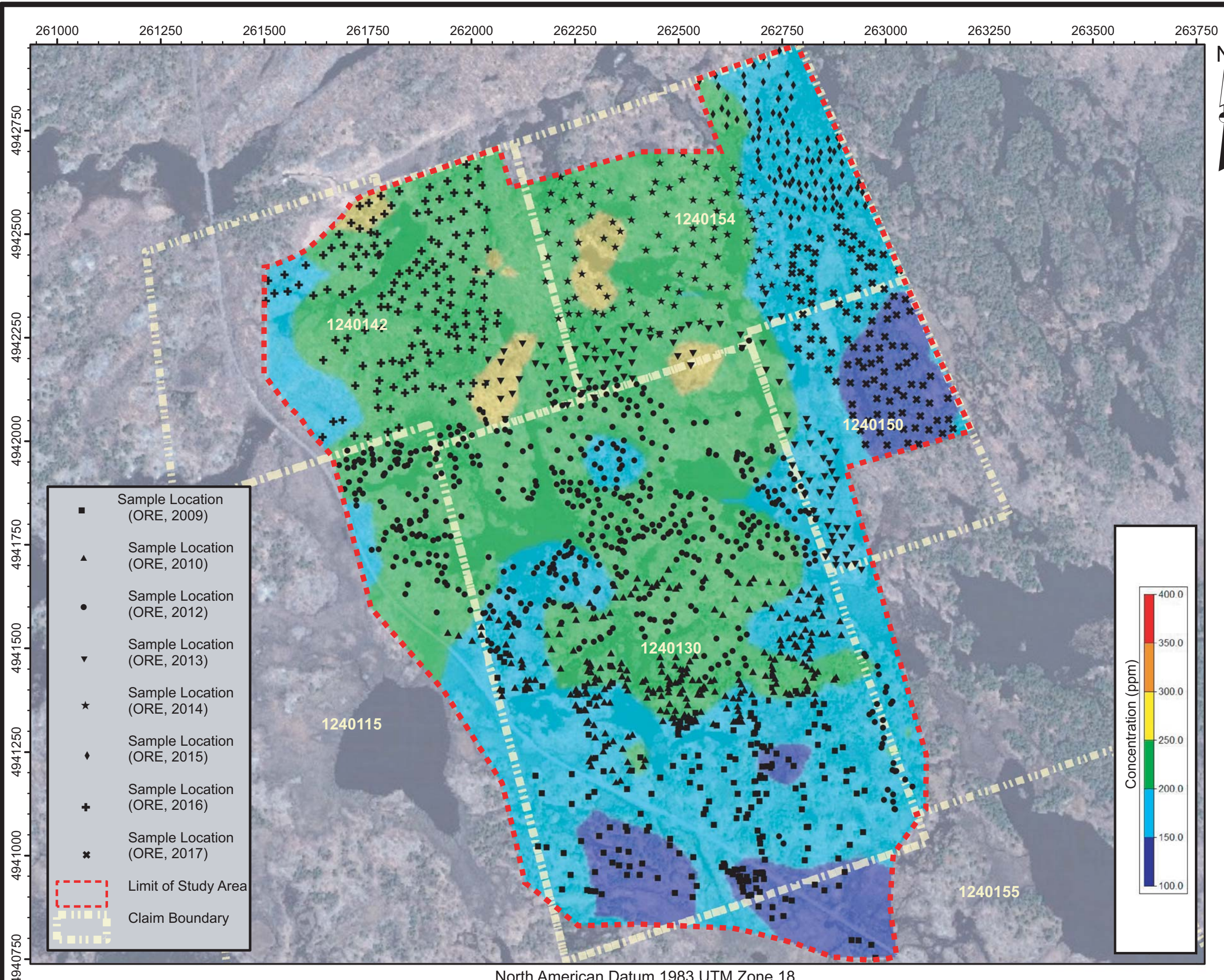
TITLE
CONCENTRATION - Pb (ppm)
WHITE PINE BARK BY ICP-MS



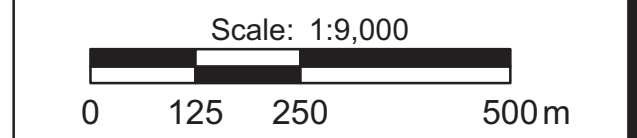
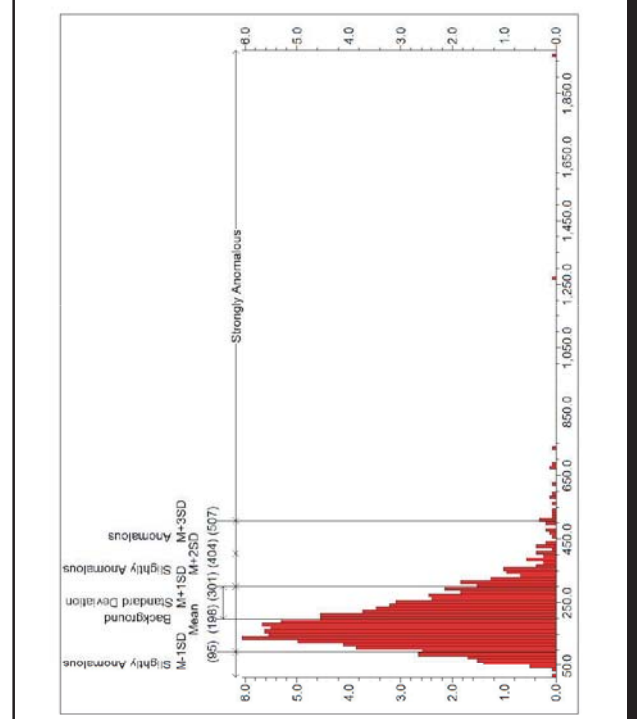
PROJECT #
 17-2357
 DATE
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FIGURE NO.
B19

North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Rb (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT # 17-2357	FIGURE NO. B20
DATE January 2018	

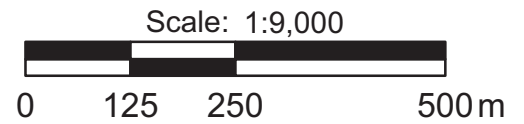
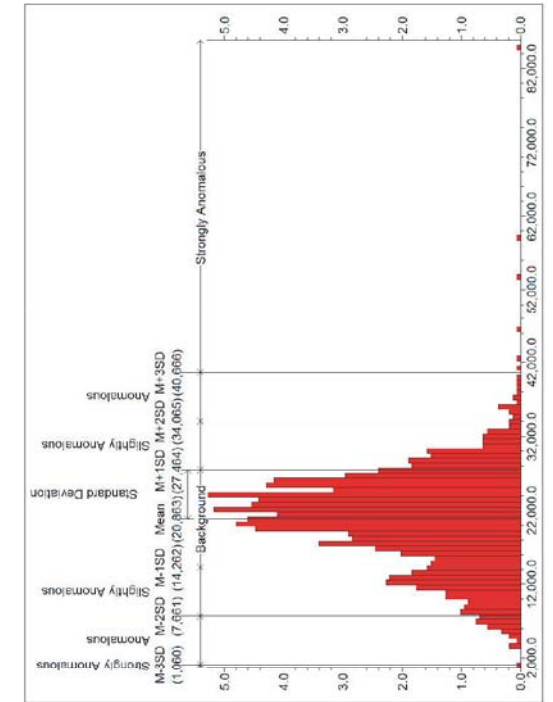
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

4942750
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4941750
4941500
4941250
4941000
4940750



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)

2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)

2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)

Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)

Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - S (ppm)
WHITE PINE BARK BY ICP-MS



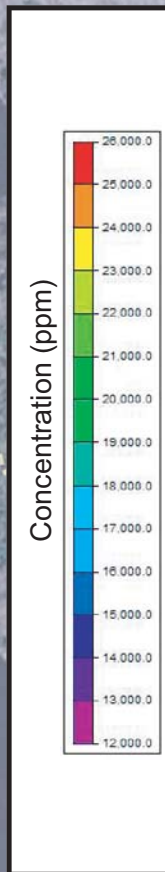
PROJECT #
17-2357

DATE
January 2018

FIGURE NO.

B21

- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- +
- × Sample Location (ORE, 2017)
- Limit of Study Area
- - - Claim Boundary



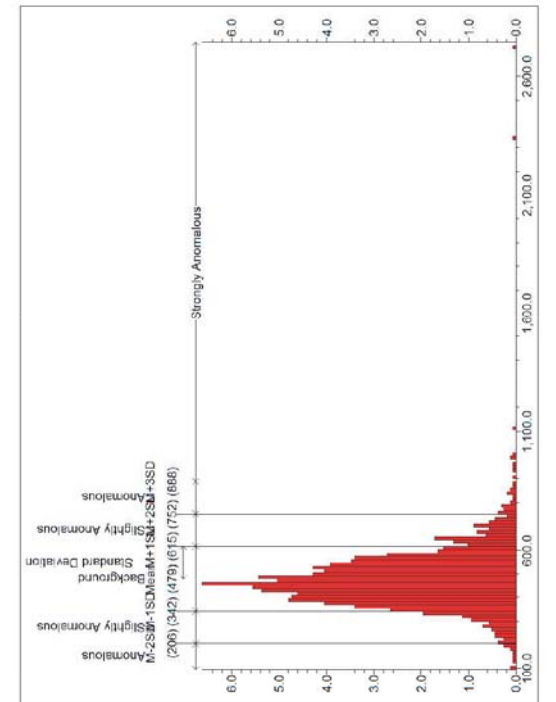
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

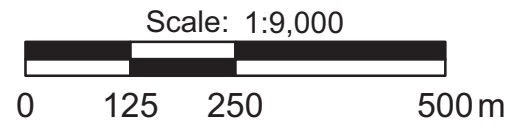
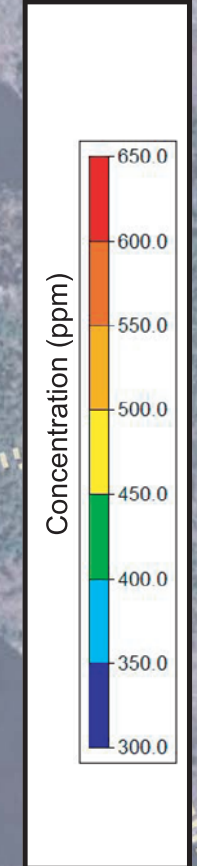
4942750
4942500
4942250
4942000
4941750
4941500
4941250
4941000
4940750



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- ⋯ Limit of Study Area
- ⋯ Claim Boundary



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Sr (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT #
 17-2357
 DATE
 January 2018

FIGURE NO.
B22

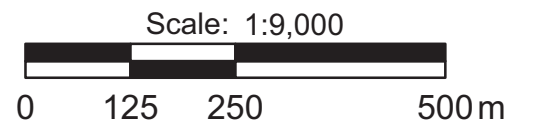
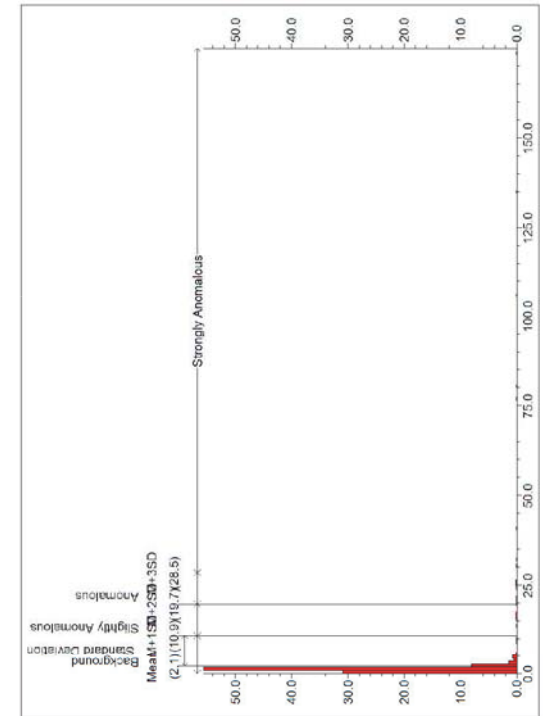
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

4942750
4942500
4942250
4942000
4941750
4941500
4941250
4941000
4940750



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)

2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)

2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)

Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)

Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Th (ppm)
WHITE PINE BARK BY ICP-MS



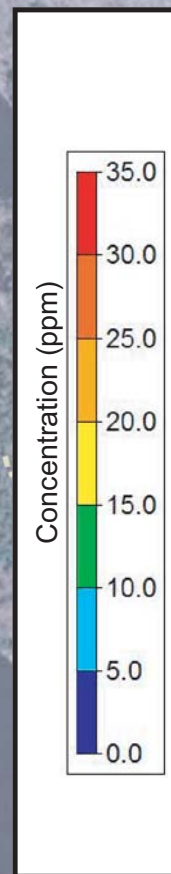
PROJECT #
17-2357

FIGURE NO.

B23

DATE
January 2018

- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- ⋯ Limit of Study Area
- ⋯ Claim Boundary



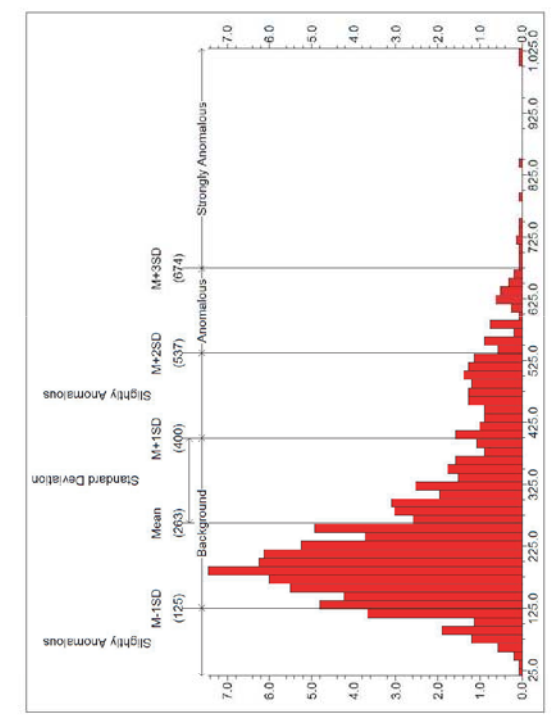
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

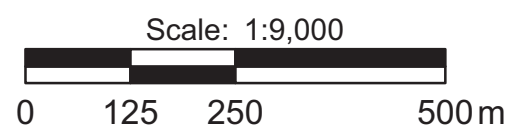
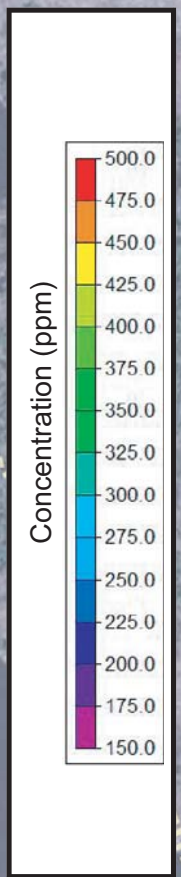
4942750
4942500
4942250
4942000
4941750
4941500
4941250
4941000
4940750



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- Limit of Study Area
- - - Claim Boundary



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 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Ti (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT #
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 January 2018

FIGURE NO.
B24

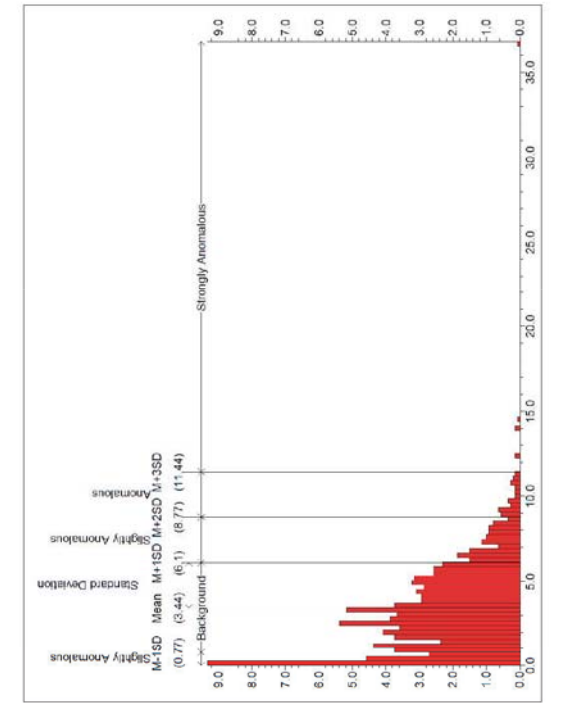
North American Datum 1983 UTM Zone 18

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

4942750
4942500
4942250
4942000
4941750
4941500
4941250
4941000
4940750



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



Scale: 1:9,000



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)

2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)

2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)

Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)

Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - TI (ppm)
WHITE PINE BARK BY ICP-MS



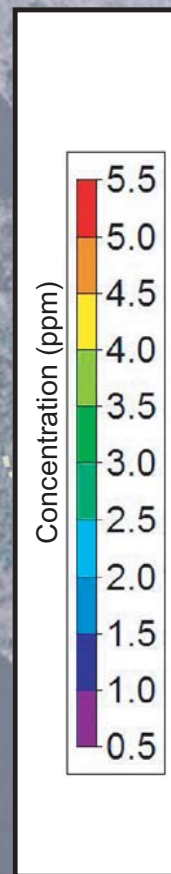
PROJECT #
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FIGURE NO.

B25

DATE
January 2018

- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- +
- × Sample Location (ORE, 2017)
- Limit of Study Area
- - - Claim Boundary



1240142

1240154

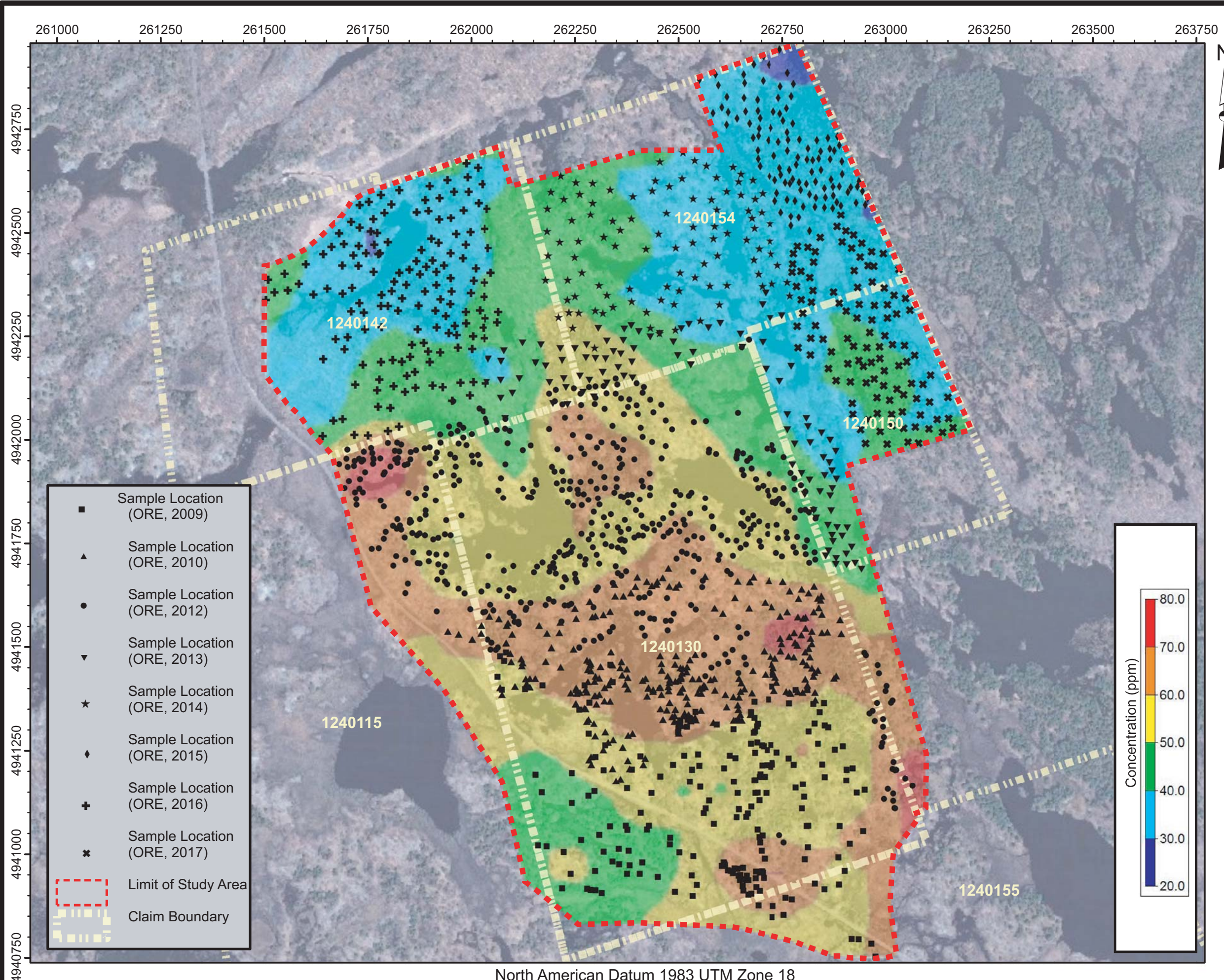
1240150

1240130

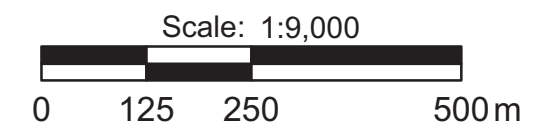
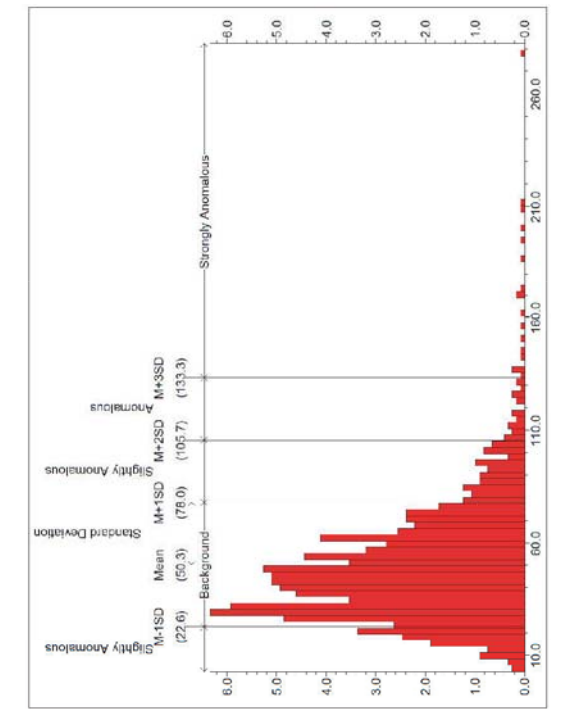
1240115

1240155

North American Datum 1983 UTM Zone 18



TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



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 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - V (ppm)
WHITE PINE BARK BY ICP-MS



PROJECT #
 17-2357
 DATE
 January 2018

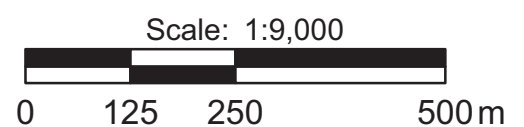
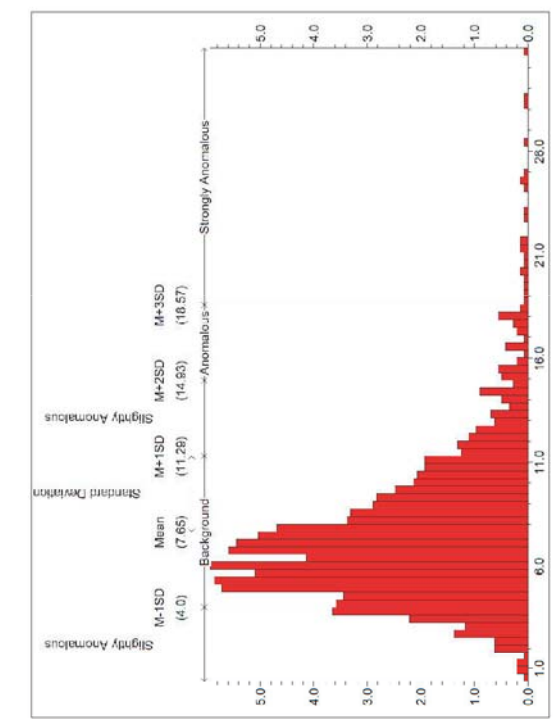
FIGURE NO.
B26

261000 261250 261500 261750 262000 262250 262500 262750 263000 263250 263500 263750

4942750
4942500
4942250
4942000
4941750
4941500
4941250
4941000
4940750



TRIGAN RESOURCES INC.
WEST GABRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



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 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

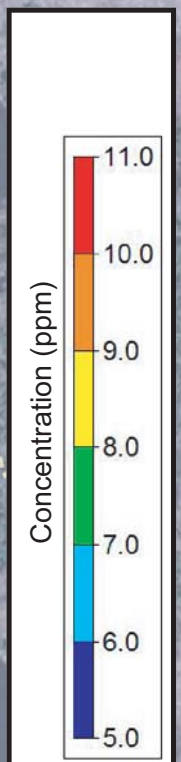
TITLE
CONCENTRATION - Y (ppm)
WHITE PINE BARK BY ICP-MS



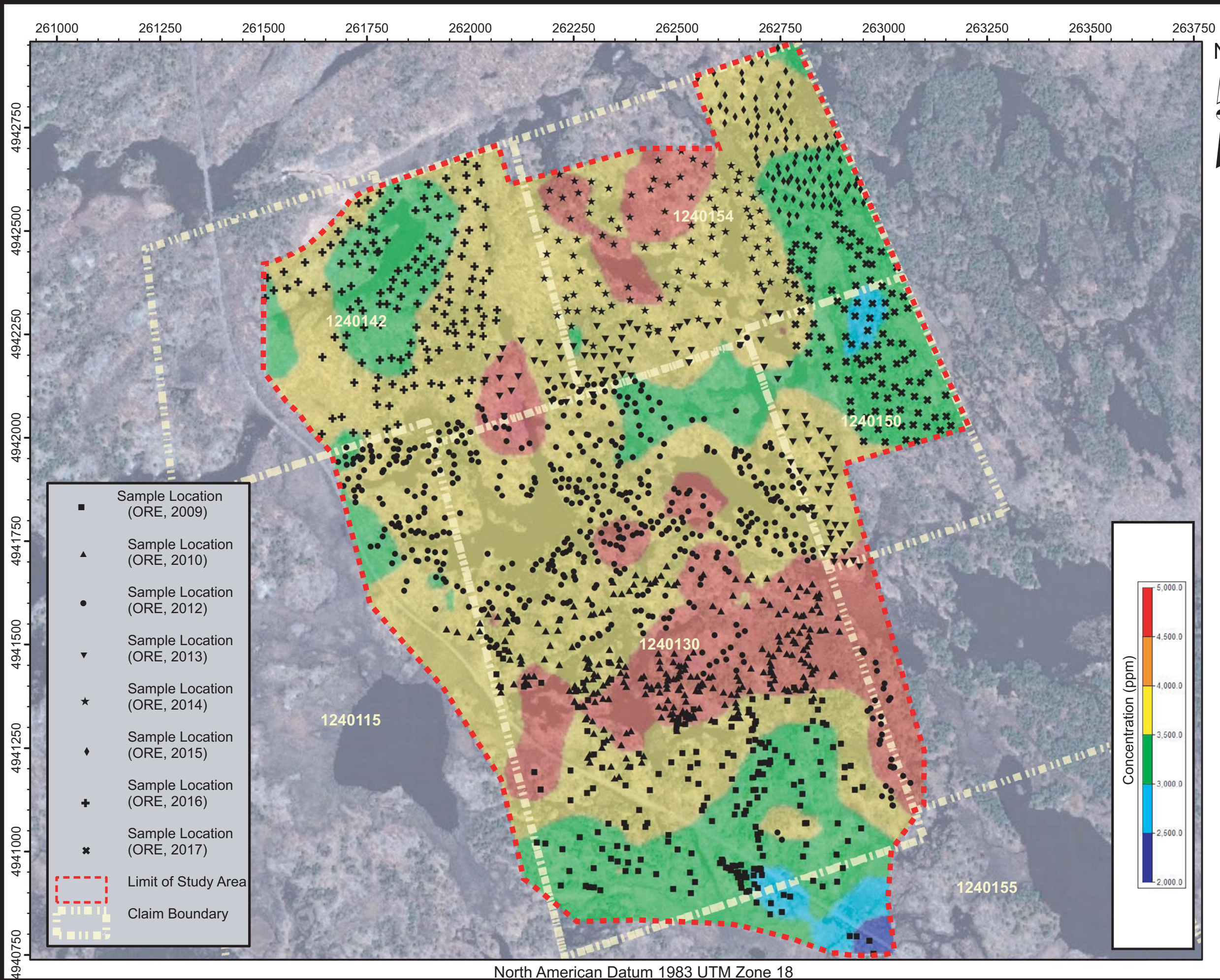
PROJECT #
 17-2357
 DATE
 January 2018

FIGURE NO.
B27

- Sample Location (ORE, 2009)
- ▲ Sample Location (ORE, 2010)
- Sample Location (ORE, 2012)
- ▼ Sample Location (ORE, 2013)
- ★ Sample Location (ORE, 2014)
- ◆ Sample Location (ORE, 2015)
- ⊕ Sample Location (ORE, 2016)
- ✱ Sample Location (ORE, 2017)
- - - Limit of Study Area
- - - Claim Boundary

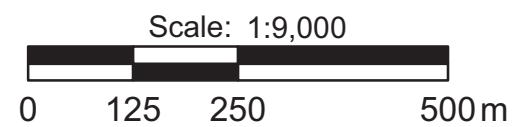
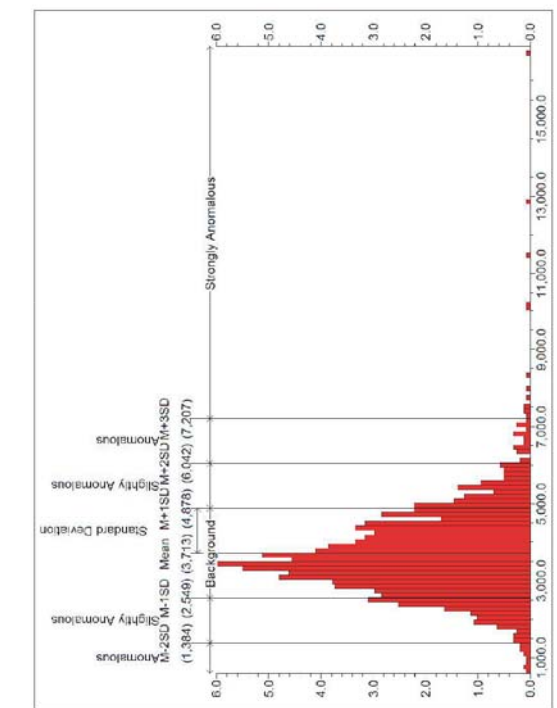


North American Datum 1983 UTM Zone 18



North American Datum 1983 UTM Zone 18

TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY
 Claim No. 1240115, 1240130, 1240142, 1240150,
 1240154 and 1240155
 Township of Havelock-Belmont-Methuen



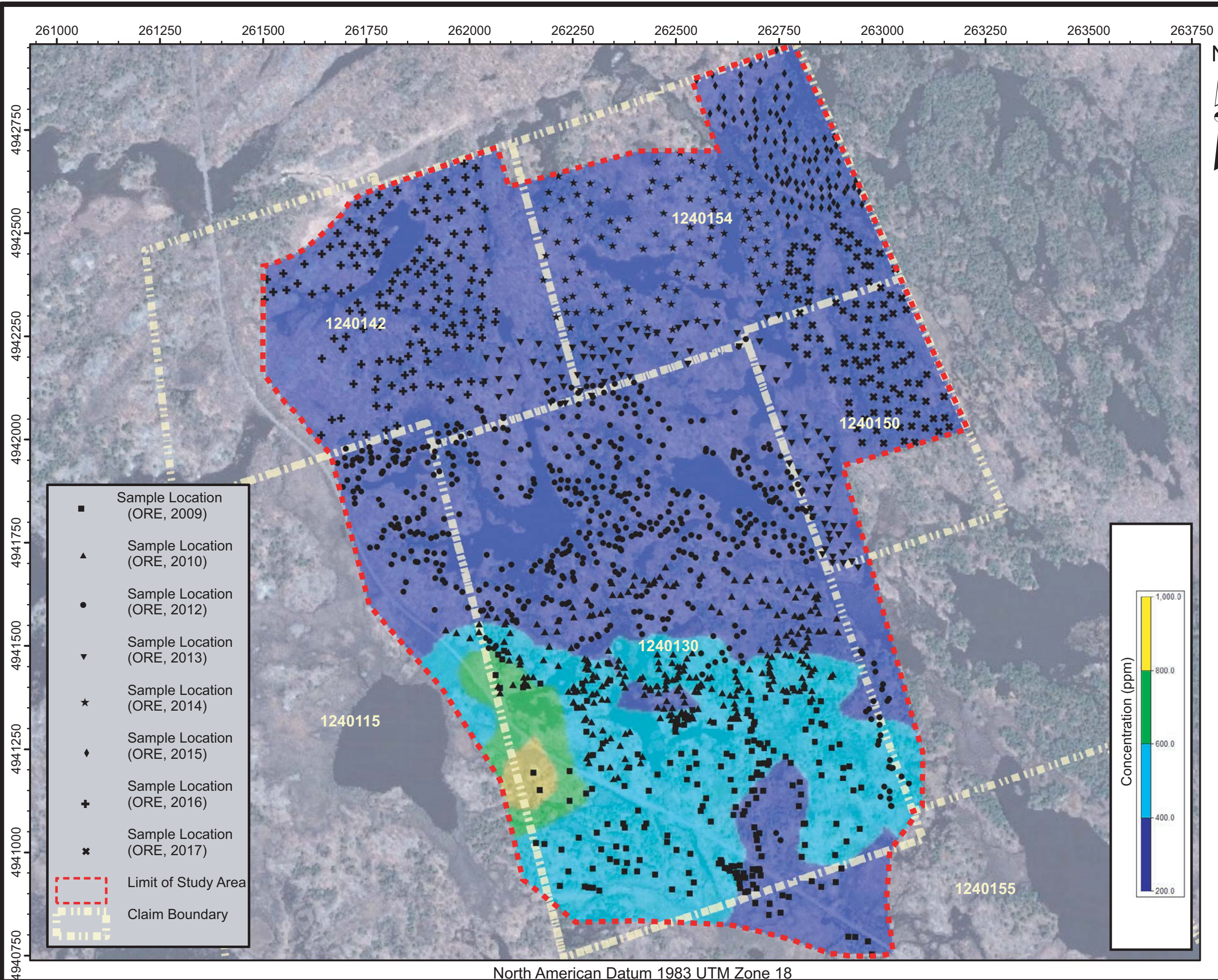
Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
 2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
 2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
 Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
 Colour contours generated using a simple kriging algorithm

TITLE
CONCENTRATION - Zn (ppm)
WHITE PINE BARK BY ICP-MS

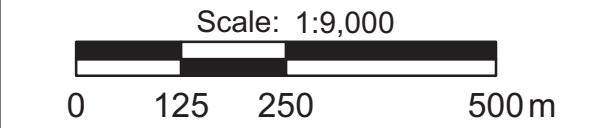
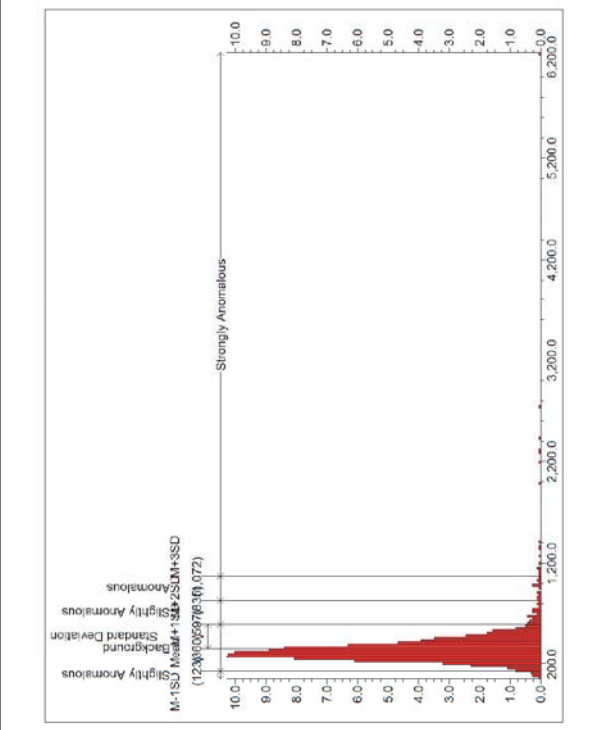


PROJECT #
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FIGURE NO.
B28



**TRIGAN RESOURCES INC.
WEST GABBRO PROPERTY
BIOGEOCHEMICAL SURVEY**
Claim No. 1240115, 1240130, 1240142, 1240150,
1240154 and 1240155
Township of Havelock-Belmont-Methuen



Notes: Air photo provided by First Base Solutions Inc. (DRAPE, 2008)
2009 & 2010 sample locations determined by differential Global Positioning System (dGPS, +/- 3.0 m)
2012 - 2017 sample locations determined by mapping-grade differential Global Positioning System (dGPS, +/- 2.0 m)
Claim boundary provided by the Ministry of Northern Development and Mines (ClaimMaps, 2012)
Colour contours generated using a simple kriging algorithm

TITLE
**CONCENTRATION - Cu (ppm)
WHITE PINE BARK BY ICP-MS**



PROJECT # 17-2357	FIGURE NO. B29
DATE January 2018	

North American Datum 1983 UTM Zone 18