

# **CANADA CARBON INC.**

## **Management Discussion and Analysis For The Six Months Ended June 30, 2017**

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**August 28, 2017**

The following discussion and analysis should be read in conjunction with the unaudited condensed interim financial statements for the three and six months ended June 30, 2017 and 2016 and audited financial statements for the years ended December 31, 2016 and 2015 and related notes included therein. All monetary amounts, unless otherwise indicated, are expressed in Canadian dollars. Additional regulatory filings for the Company can be found on the SEDAR website at [www.sedar.com](http://www.sedar.com). The Company's website can be found at [www.canadacarbon.com](http://www.canadacarbon.com).

### **Forward-Looking Statements**

Certain statements contained in this document constitute "forward-looking statements". When used in this document, the words "may", "would", "could", "will", "intend", "plan", "propose", "anticipate", "believe", "forecast", "estimate", "expect" and similar expressions, as they relate to the Company or its management, are intended to identify forward-looking statements. Such statements reflect the Company's current views with respect to future events and are subject to certain risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. The Company does not intend, and does not assume any obligation, to update any such factors or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or

### **Overview**

Canada Carbon Inc. (the "Company" or "Canada Carbon") was a junior natural resource company focused on the acquisition and exploration of natural resource properties. The Company was incorporated under the British Columbia Company Act on August 13, 1985, and was continued under the laws of the Province of Ontario on September 19, 2007. The Company is a reporting issuer in British Columbia, Alberta and Ontario and was listed on the TSX Venture Exchange under the symbol "BRU." The Company is also listed on the Pink Sheets as BRUZF and the Frankfurt Exchange under the symbol "U7N".

During fiscal 2012, with the acquisition of graphite claims, the Company created a new business model and redesigned website. The Company began the process of positioning itself as a company focused on the exploration and sale of graphite.

On September 17, 2012, the Company's shareholders approved a name change to Canada Carbon Inc. to better reflect the Company's new focus. The name change became effective on October 5, 2012. The Company is currently traded on the TSX Venture Exchange under the symbol "CCB".

## Overall Performance

The Company incurred a net loss of \$423,333 for the six months ended June 30, 2017 compared with a net loss of \$317,045 for the same period in the prior year. While the loss before other items for the six months ended June 30, 2017 was slightly lower than in the prior year, net loss was higher primarily due to changes in the flow-through premium and restoration, rehabilitation and environmental obligations.

In December 2016, the Company received unanimous support from the Grenville-sur-la-Rouge (GSLR) Municipal Council for its application to the CPTAQ to remove the Miller Project lands from provincial agricultural reserves. In February 2017, GSLR Municipal Council informed the Company that it would hold off on its support until public consultations in GSLR could be held to address questions raised by residents. Two public meetings were held in February 2017 to consult local citizens and to discuss the regulatory and technical aspects of the development proposal. In March 2017, the GSLR Municipal Council reconfirmed its support for the CPTAQ application for the Miller Project. The Company's application to the CPTAQ is currently being reviewed.

While the Company holds a claim package consisting of 180 claims on the Miller Property, a number of those claims were pending since their acquisition because they overlaid, completely or in part, areas which were restricted in 2014 by Regional County Municipalities in order to protect certain lands from mineral exploration. This temporary restriction was to be revised once new guidelines to define such territories were passed into law by the province of Quebec. Those guidelines were released in January 2017 and since new mining incompatible territories cannot be retroactively applied to existing or pending claims, the pending claims status was removed and active claims were issued to Canada Carbon. The Company is conducting a review of the newly granted claims to ensure that the Company's activities are in line with the Municipality's development plan to the greatest extent possible. The Company has already identified a number of areas where they will not conduct exploration work.

In March 2017, the Company announced that it met the stringent qualifications specifications of a well-known international graphite products supplier for a category of high-technology applications in which they are a world leader. The Company has been asked to provide material for a full-scale production trial.

The Village of Grenville has made public an independent hydrogeological report on the Miller Project's potential for any impact on the Village of Grenville's drinking water supply for its 1,700 residents, sourced from wells which are located 2.2 km southeast of the Miller Project. The report's conclusion is that the Project, as proposed, will pose zero risk to either the quantity or quality of the drinking water supply for Grenville Village.

The Company is conducting a summer 2017 drill program to increase management's confidence in the resource modelling beyond the boundaries of the existing indicated resources. One of the key goals of the drill program is to enhance the near-surface graphite resource category which may allow the Company to maintain or improve its current economic projections within a smaller and shallower open pit operating plan. The drill program is being carried out in selected areas away from wetlands and environmentally sensitive zones identified in our environmental assessments, to ensure that any further discoveries will also have a minimal impact on the environment as we continue to assess options for mine optimization. Another goal of the drill program is to increase the knowledge of the continuity and quality of the white marble zones which is expected to be quarried to yield blocks and slabs of architectural stone. The priority drill targets have been completed

In April 2017, the Company closed a non-brokered private placement whereby the Company issued 1,650,000 flow-through shares at \$0.30 per share and 5,930,000 non-flow-through units at \$0.23 per unit. Each unit consisted of one common share and one warrant exercisable at \$0.30 for three years. Gross proceeds were \$1,858,900.

## **Operating Activities- Exploration Properties**

### **Asbury Graphite Property, Quebec, Canada**

In August 2012, the Company entered into an agreement with Uragold Bay Resources Inc. (“Uragold” or “UBR”) for the purchase of UBR’s Asbury mining claims. The past producing Asbury Graphite Mine property consists of two claims and is located approximately 10 km northeast of Notre-Dame-du-Laus and about 120 km north of the Ottawa-Gatineau area.

The Asbury Graphite Mine property is accessible by a good road and a power transmission line runs to the property. Some of the old mill structure still exists.

In December 2012, the Company announced the completion of a NI 43-101 report on the Asbury Graphite Mine. This report describes the exploration potential related to the Asbury Graphite Mine. The data in the report was mostly obtained from historical assessment exploration reports. The report can be found on the Company’s website.

The NI 43-101 report noted that historical exploration by various companies and subsequent resource evaluations lead to an historical production by Asbury Graphex from 1974 to 1988. Open pit mining allowed the extraction of 875,000 metric tons of graphite ore at a cut off grade of 6% on the current property. Historical geophysics (EM) over the property reveals three conductive zones, named A to C, striking north-south and thus conforming to the local bedding. Anomaly A is 825 m long and 30 m wide and is located west of the open pit. Anomaly B is 530 m long and 35 m wide and is located southwest of the open pit. This anomaly was drilled by one diamond drill hole and 40.5m of graphitic rock grading 2.30% C total was encountered, including 4.07% C total over 11.7 m. Anomaly C is 230 m long and 10 m wide and is in the open pit, going toward south. Four less important conductor axes are also present, along with a small part of another EM anomaly.

The presence of distinct graphitic rock units is compatible with the skarn deposit model, which may imply several mineralized lenses of comparable quality. In addition, significant graphite mineralization can also be present along the extensions to the south and at depth from the open pit.

The NI 43-101 report recommended follow up activities including: (1) an exhaustive map compilation of historic drilling and geophysical survey on the property (2) a detailed Max-Min geophysical ground survey to confirm and complete historical data, and, finally (3) a drilling program testing the best targets revealed by the geophysical compilation and the geophysical survey. The report recommended that particular attention should also be applied to the immediate area of the mine pit to test its southern and downward extensions. The Company has not conducted any exploration work on the Asbury property since 2012 as it has focused its attention on exploring the Miller property.

In early 2015, the Company began the process of re-permitting the graphite processing mill on the Asbury property. The permits under which the historic mining and milling were conducted on the Asbury Project expired in the year 2000. The Municipality of Notre-Dame-Du-Laus, which is also the owner of the land upon which the mill and its associated tailings ponds are located, has officially approved Canada Carbon’s intention to proceed with the redevelopment of the mill complex on the Asbury site.

The Company has completed humid area delimitation on the Asbury property and has also completed the summer season study of flora and fauna. The flora and fauna study was completed during the Autumn season of 2016. Baseline hydrogeological data was also acquired. Further work on the Asbury project is currently postponed as the Company believes that capital in its treasury would be better spent at this time on studies of thermal treatment of graphite at the Miller property rather than additional studies at Asbury

As of June 30, 2017, the Company has incurred \$654,379 of acquisition costs and \$547,609 of exploration and evaluation expenditures on the Asbury claims, net of recoveries. No expenditures were incurred in the first half of 2017.

## Operating Activities- Exploration Properties (Continued)

### Miller, Walker and Dun Raven Properties, Quebec, Canada

In December 2012, the Company entered into a term sheet with 9228-6202 Quebec Inc. to acquire certain mining claims in relation to three properties: the Miller, Dun Raven and Walker mines located in Quebec, Canada. A purchase and transfer agreement for each property was signed on January 7, 2013. The terms of the agreements are disclosed in the notes to the year-end financial statements.

#### Miller

The Miller Graphite Mine, located in Grenville Township is a past graphite and mica producer. This mine was worked around 1845 and was probably the first graphite operation in Canada. The quantity of produced graphite is unknown but it is reported that 25 rail cars of lump graphite was shipped from this mine in the year 1900 and sent to the Globe Refining Company of Jersey City, N.J. This yielded thirty-two tons of clean crucible graphite. The Morgan Crucible Company of London and also J.H. Gauthier and Company, Jersey City, used some of this graphite in their crucibles and pronounced it equal to the best graphite known to come from Ceylon (now Sri Lanka).

The property acquired from 9228-6202 Quebec Inc. consisted of nine (9) claims covering the past mine and a similar geologic context for more graphite mineralization around the mine site. The property acquired covers 5.4 km<sup>2</sup> of land and is located 80 km west of Montreal. Main roads connect up to 800 m away from the mine site and travel all around the property. A powerline also crosses the property 500 m south of the site, and a bush road goes directly to it, which allows for very easy access.

In April 2013, the Company purchased another 3 claims from a third party covering 1.8 km<sup>2</sup> of land contiguous to the Miller Mine. An additional five contiguous claims were acquired in July 2013.

A sampling program conducted by Canada Carbon in February and March 2013 identified grades as high as 80.1% Cg and assessed the visible graphite veins through a series of new samples taken directly along and into the vein with a chisel and hammer and went to a depth of approximately 30-50mm. The samples were removed directly from the vein. The purpose of this program was to further confirm the grades encountered within the graphitic zone. Based on subsequent lab analysis conducted by Activation Laboratories ("Actlabs") of Ancaster, Ontario immediately after collecting the samples using the IR process (Leco), the results confirmed the presence of high quality lump/vein graphite.

Based on the encouraging results of the February and March 2013 sampling, the Company focused its exploration efforts on a work program on the Miller property. A Phase I program consisting of geological mapping of the Miller Graphite Mine pit along with a geophysical survey of the surroundings for the detection of other veins was completed in June 2013.

Multiple electro-magnetic survey methods were applied by Géosig Inc. to compare the conductive response of known graphite veins through an orientation study, including those at the historical Miller Graphite Mine site. The results of the geophysical surveys assisted in establishing high priority drill targets and helped to characterize the known graphite occurrences. Only 1.3 km<sup>2</sup> of the Miller property land package was surveyed at that time.

Instruments used in the Phase I exploration program included the MaxMin II-5, an IMAGEM prototype #2, a Beep-Mat 4+, a TxII 1800W transmitter with ELREC-6 receiver, and an Induced Polarization ("IP") survey. The MaxMin survey covered a total of 4.3 line-km with readings every 12.5 metres. The IMAGEM survey totalled 2.5 line-kilometres over lines adjacent to the historic Miller pit, and 20 readings per metre. The IP survey was done over 1.3 line-kilometres as a follow-up on IMAGEM anomalies. Within the Miller pit, the main vein at the southeast corner was delineated with the Beep Mat and was found to curve east into a brecciated zone comprising several conductive veins.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

The IMAGEM survey identified seventeen new anomalies. The two strongest anomalies occur 100 m west and 20 m east of the mine pit, with weaker but well-defined anomalous peaks to the southeast of the mine pit. The weaker anomalies are found southeast of the pit, and can be correlated from line to line to form a NW-SE trending conductive axis 320 m in length. The axis passes north through the historic pit for

90 m and to the southeast for 230 m, and corresponds to the contact between marble and quartzite mapped in 1991, which is still open to the north. The Beep Mat 4+ tracked the known graphite vein extending southeast from the mine pit, which continues southeast for 25 m, then curves east into an area that generates a broad positive Beep Mat response. The broad response is perpendicular to the IMAGEM conductive axis, and is of particular interest as it is a brecciated zone with several intersecting graphite veins.

The IP survey included three lines as a test of the method over IMAGEM anomalies generated west and east of the Miller pit. Normalized chargeability was used to compensate for background variations linked to overburden thickness. Accordingly, ten IP anomalies were detected and numbered IP-1 to IP-10. Some anomalies are correlated between lines, with IP-1 extending over 145 m in a north-south direction, 100 m west of the mine pit and following a geological contact between marble and quartzite. At one station, the IP-1 conductor is coincident with IMAGEM and Beep Mat anomalies, confirming the presence of a conductive body under shallow overburden. IP-1 appears to follow the southwestern contact of the marble unit with quartzite, and is still open in both directions. IP-4 and IP-5 anomalies are found immediately east of the Miller Pit, where a large graphite vein and brecciated zone are known to occur and where the three other methods also returned conductive signals. IP-7, IP-8 and IP-9 are located over a known geological contact between the marble unit and the paragneiss unit on the eastern part of the survey. The IP survey covered only 0.11 km<sup>2</sup> of the Miller property.

The discovery of a new graphite occurrence resulted from trenching on IP-1, one of the geophysical EM anomalies that were identified. This new occurrence ("VN1") is an irregular vein of semi massive coarse graphite. The graphite vein is exposed along a 12.8 m strike length, having a NW-SE (148°) orientation and sub vertical dip. From SE to NW the vein varies in width between 1 m and 1.7 m for up to 7.9 m. Within that length, the vein maintains a 1.6 m thickness over 2.5 m. Toward the NW, the vein continues beneath a more competent zone in the host rocks for a length of 1.2 m. The vein re-appears on the other side of the competent rock and reaches a thickness ranging from 10 cm to 1 m over a strike length of 3.7 m. Other graphite veins of smaller size can be observed on both sides of the main vein, on available exposures. Finer grained graphite can be locally observed within the surrounding carbonate host rocks. The occurrence is exposed below 1 to 3 m of glacial till.

Samples taken from the property during the Phase I work program were sent for analysis. All carbon analyses were performed by SGS and are reported as total carbon ("Ct") by Leco or graphitic carbon ("Cg") employing a roast, followed by a leach and Leco assay of the leach residue.

In July 2013, the results from the first series of beneficiation tests conducted at SGS were released. The results are detailed below:

- 1) Initial Flotation Test - A 2 kilogram (kg) surface sample taken from an exposed vein with a grade of 61.2% Cg (65.1% Ct) was concentrated by grinding and flotation to 79.2% Cg (84.1% Ct). The +48 mesh size (jumbo size) fraction represented 34.3% of the flotation concentrate and was assayed at 93.5% Cg (94.4% Ct). This represents 40.5% of the graphitic carbon in the concentrate. The result was obtained in a single flotation test without process optimization.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

2) Leach Test - The +48 mesh fraction of the concentrate was subjected to two different hydrometallurgical purification processes. A traditional leach process yielded a concentrate that assayed 99.2% Cg (100 % Ct).

SGS conducted a second two-stage hydrometallurgical purification process. The alternative purification process treated the +48 mesh concentrate with an alkaline roast followed by a conventional acid leach.

The alkaline roast stage increased the purity from 93.5% Cg (94.4% Ct) to 99.1% Cg (100% Ct). The acid leach stage resulted in an exceptional product grade of 100% Cg (100% Ct). A Loss on Ignition (LOI) test was also performed resulting in 100% loss. The presence of impurities in the graphite would have resulted in some ash residue however, according to SGS there was a complete burn.

Further process development commenced at the end of July 2013 to determine the effects of repeated grind and flotation in order to achieve a higher graphitic carbon grade in the concentrate prior to purification. Upgrading the ore through conventional mineral processing technologies including grinding and flotation constitutes a well-established and low-cost upgrading approach. In August 2013, the Company announced the results from the additional milling and flotation test conducted by SGS. The modified protocol yielded a +48 mesh flotation concentrate of 99.1% Cg and 100% Ct. The process subjected a -6 mesh sample to various grinding times and media, each one followed by three to four stages of cleaner flotation. The final cleaner concentrate represented 70.0% of the original feed and contained 93.2% Ct, which is a substantial improvement from the previous test at 84.1% Ct. The concentrate grade of the +200 mesh size fractions was exceptionally high at 98.1% Ct and increased further to 98.7% Ct in the +100 mesh size fractions. The carbon recovery into the final flotation concentrate was increased from 73.4% to 97.2%. A particle size distribution was conducted on this final cleaner concentrate and sieve fractions assayed for Ct and Cg.

In July 2013, the Company contracted Geotech Ltd. ("Geotech") of Aurora, Ontario to complete a helicopter airborne Versatile Time Domain Electromagnetic (VTEM Plus) and Horizontal Magnetic Gradiometer Geophysical Survey. The VTEM Plus System is excellent for locating discrete conductive anomalies as well as mapping lateral and vertical variations in resistivity. The system offers penetration through conductive covers, spotting of drill targets from the results, excellent resistivity discrimination and detection of weak anomalies. The airborne survey was flown at 100 m line spacing on the property with 50 m line spacing surrounding the 2.3 km<sup>2</sup> of the Miller Mine pit area. The equipment and crew began mobilizing to the historic Miller Graphite mine project in mid-July 2013. Geotech was contracted to generate anomaly picking maps, resistivity depth sections, EM Plate Modeling using EMIT Maxwell and 3D resistivity depth voxels on a detailed grid. Those products would be used to facilitate a detailed interpretation of the results of the survey. In September 2013, the Company received the preliminary VTEM airborne survey results from Geotech. The preliminary results identified multiple anomalies over the 20.7 square km Miller property.

In September 2013, further trenching in the VN1 discovery area revealed a new graphite occurrence (VN2) that is 25 m from VN1. The VN2 discovery is up to 1.5 m thick and can be followed for over 3 m in length at surface. Multiple secondary graphite veins were also identified and are associated with a total of six mineralized pods of metric to pluri-metric size. Samples from each of the six pods were sent for assaying. The veins and pods of high grade graphite mineralization are aligned in a NE-SW orientation and follow the contact between marble and paragneiss. The total trench length for the mineralized corridor is 52 m and is open on all sides.

## Operating Activities- Exploration Properties (Continued)

Trenching was conducted to further extend the VN2 discovery, which occurs within a large 300 m long EM anomaly identified from the preliminary VTEM airborne survey results. Trenching began on the east flank of this EM anomaly that is also elongated toward the east, and the VN2 graphite discovery may explain the asymmetry of the EM anomaly.

George Downing Estate Drilling Ltd. of Grenville-sur-la-Rouge, Quebec was contracted to complete at least 350 m of NQ sized diamond drill holes on the Miller property. Drilling was conducted over late July 2013 and early August 2013, with the objective of testing the depth and lateral extent of the various veins. The assay results from trenching and drilling programs collectively demonstrated that the graphite and wollastonite mineralization exposed at surface extends to a depth of 39 m.

A total of 595.5 m of core in 12 holes was drilled in the Summer of 2013 at the Miller Mine Project, of which 33.5 m with higher visible graphite content from 7 drill holes have been assayed for graphite. Channel samples were sent to Actlabs. Core samples were half split and also sent to Actlabs. Quarter splits of richer intersections were sent to SGS and quarter splits of the graphite veins were sent to Actlabs for additional assaying of the richest intersections. Actlabs results are reported using protocol 5D-C in which the samples underwent drying, crushing with up to 90% passing through a #10 square-mesh screen, riffle splitting (250 gram) and pulverizing to 95% passing a 105 micron square-mesh screen. Graphitic carbon (Cg) was determined by multistage furnace treatment and infrared absorption, with a 0.05% detection limit. SGS prepared the samples by crushing to 75% passing 2 millimetre, splitting (250 gram) and pulverizing to 85% passing 75 micron square-mesh screen. Graphitic carbon was determined by difference from the carbon assay (after ashing) by tube furnace/coulometer minus the carbonate carbon (after ashing) by coulometry.

Results from the drilling and trenching are reported in the tables below (All holes are NQ):

Drillhole	Azimuth, degrees	Inclination, degrees	From, m	To, m	Interval, m*	%Cg
<b>VN1-02</b>	--	-90	0.00	1.35	1.35	<b>7.22</b>
<b>VN2-01</b>	--	-90	1.00	3.00	2.00	<b>32.45</b>
		<i>including</i>	1.00	1.30	0.30	<b>53.60</b>
		<i>and</i>	1.70	2.60	0.90	<b>51.70</b>
			3.00	7.50	4.50	<b>2.51</b>
			7.50	9.60	2.10	<b>9.65</b>
		<i>including</i>	8.50	8.90	0.40	<b>11.50</b>
<b>VN2-02</b>	060	-45	0.00	4.00	4.00	<b>2.32</b>
<b>DDH13-03</b>	240	-55	0.00	2.00	2.00	<b>1.61</b>
		<i>including</i>	0.80	1.10	0.30	<b>6.33</b>
			46.70	48.70	2.00	<b>6.14</b>
		<i>including</i>	47.50	48.40	0.90	<b>15.14</b>
Drillhole	Azimuth, degrees	Inclination, degrees	From, m	To, m	Interval, m*	%Cg
<b>DDH13-04</b>	240	-55	27.00	28.00	1.00	<b>4.70</b>
		<i>including</i>	27.60	27.75	0.15	<b>11.90</b>
			39.50	42.00	2.50	<b>8.12</b>
		<i>including</i>	41.30	41.80	0.50	<b>14.50</b>
			48.00	49.50	1.50	<b>4.20</b>
		<i>including</i>	48.05	48.20	0.15	<b>8.59</b>
<b>DDH13-05</b>	250	-55	2.30	2.60	0.30	<b>22.70</b>
<b>DDH13-07</b>	060	-55	47.00	48.00	1.00	<b>6.51</b>

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

#### Trench Sample Results for the Miller Graphite Project

Sample material	Channel width, cm	Channel length, m	%Cg
<b>VN2</b>	2.5	1.3	<b>28.2</b>
	<i>including</i>	<i>0.25</i>	<b>49.7</b>
<b>Pod #1</b>	2.5	0.6	<b>10.1</b>
<b>Pod #2</b>	2.5	1.0	<b>18.6</b>
<b>Pod #3</b>	2.5	1.3	<b>22.2</b>
<b>Pod #3</b>	2.5	0.58	<b>6.57</b>
<b>Pod #4</b>	2.5	0.44	<b>42.0</b>
<b>Pod #5</b>	2.5	0.5	<b>24.4</b>
<b>Pod #5</b>	2.5	0.65	<b>12.5</b>
<b>Pod #5</b>	2.5	0.5	<b>17.7</b>
<b>Pod #6</b>	2.5	0.5	<b>33.0</b>

**NOTES:** Only core samples with high visible graphite content were assayed. \*Data are insufficient at this time to estimate true thicknesses.

The most significant results were from the VN2 surface showing, where the mineralization is located at the contact between marble and paragneiss, with local folding often acting as a focus of mineralization. Assays confirm 28.2% Cg over 1.3 m in a channel sample, including 49.7% Cg over 0.25 m. Associated with the mineralization is a graphite-wollastonite pod that assayed 24.4% Cg over 0.5 m and 17.7% Cg over 0.5 m in channel samples. Drilling intersected the graphite-wollastonite pod at 39.3 m (vertically) beneath the VN2 showing in hole DDH13-03, returning assays similar to the surface results, with 15.14% Cg over 0.9 m. Drill hole DDH13-04 laterally extended the graphite-wollastonite mineralization 14 m toward the east, and intersected 14.5% Cg over 0.5 m at 33.8 m (vertically) underground.

Some drill holes also tested the VN2 at near surface. Drill hole VN02-01 resulted in 32.45% Cg over 2 m from 1 to 3 m down, including two veins assaying 53.6% Cg over 0.3 m and 51.7% Cg over 0.9 m. The Company believes that a mineralized zone is present along the depth extension of the VN2 showing, as demonstrated by the graphite-wollastonite mineralisation found at surface and depth. Drill holes DDH13-03 and DDH13-04 were the only holes that tested the showing at depth.

Channel samples were also collected from other graphite-wollastonite pods found during trenching. All channel samples were taken perpendicular to the orientation of the pods. The pods are of meter-scale and consist of calcite, diopside, feldspar, wollastonite and graphite. They have a pegmatitic texture and are primarily located along the contact between marble and paragneiss. From the trench trending northeast to the southwest over 55 m, six graphite pods were sampled. Assays returned values up to: 10.1% Cg over 0.6 m, 18.6% Cg over 1 m, 22.2% Cg over 1.3 m (VN1 showing), 42% Cg over 0.44 m, 24.4% over 0.5 m (Pod near the VN2 showing) and 33% Cg over 0.5 m. The table above shows more results of sampling over the pods. The Company's ore genesis model suggests that high grade mineralization was deposited as graphite-rich pods and lump veins along permeable channels utilized by the fluids and gases as they moved toward lower pressure zones.

In September 2013, the Company announced that it had secured surface access rights for its Miller graphite property with two landholders who are affiliated with each other. The agreement allows the Company to carry out regular graphite prospecting and exploration for an initial period of five years. The Company has the exclusive and irrevocable option to acquire or lease all or part of the property from the



## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

landholders. If the Company exercises the option prior to the expiry of the five year term, the term of the agreement will be extended through the period of commercial production.

The Company purchased 0.5% of the net production royalty ("NPR") in relation to the initial Miller property purchase and transfer agreement thereby reducing that NPR to 1.5%.

Additional mining claims were acquired in October 2013, with the purchase of 14 mining claims and 10 pending claims contiguous to the Company's historic Miller Graphite Mine. During fiscal 2013, the Company staked an additional 145 claims contiguous to the Miller graphite claims of which 90 were pending government approval.

In October 2013, the final results of the VTEM airborne survey conducted by Geotech Ltd. were reported. Five high priority targets were identified, two of which are known to correspond with marble rocks that host the graphite elsewhere on the property. Additionally, the calculated time constant processing (or 'Tau' constant) identified 86 clusters of smaller-sized EM anomalies on the property which show a strong relationship in signal between each other.

The VTEM survey entirely covered two claim blocks (named East and West) that constitute the Miller property. Principal sensors for the survey included a Time Domain EM system and two magnetometers to measure horizontal gradient. The total surveyed area was 25 km<sup>2</sup> and the total line coverage was 336 line-km. Signals due to known cultural sources such as power lines and houses were removed from the EM data. On the East block, survey lines were flown in a northeast to southwest direction, with a line spacing of 100 m. A spacing of 50 m was implemented in the central part of the block where historic mining took place, and where graphite veins and pods were being tested through trenching and drilling. Two major anomalies (E1 and E2) are present on the East block, occurring respectively at 100 m depth and 80-100 m depths. Anomaly E1 is located 800 m north of the mine pit, with an approximate diameter of 400 m. Magnetic maps show that E1 is located between two magnetic anomalies that could correspond to the contact of two geological units with a similar geological context to the known Miller mineralization. Anomaly E2 is located next to the trench work area. Anomaly E1 is positioned where Canada Carbon obtained a surface access rights agreement for exploration work, with E2 partly included along its north extension.

The West block was flown in a northwest to southeast direction with line spacing of 100 m. The West block hosts three major anomalies (W1 to W3). Anomaly W1 is located in marble and is sub-vertical at 100 m depth, and W2 is also located on a contact zone of a marble with intrusive rocks. Both W2 and W3 are close to the surface according to the survey results. The anomalies were later modeled to give drill targets to Canada Carbon.

Five main conductive targets were selected for their high amplitude conductivity, along with their significant extent (hundreds of metres) and detailed morphology. Additional conductive anomalies of lesser amplitude form dense clusters on both claim blocks. These clusters were selected on the basis of their spatial distribution and by the nature of the EM signal in between them as depicted on time constant image generated by Geotech.

On the East block, 40 EM clusters consisting of one or more EM anomalies are present, with the clusters having a mean diameter of approximately 100 m. Among these anomalies, a 500 m along-strike anomaly with a depth of at least 100 m is present in the vicinity of the Miller mine pit. Southeast of the Miller mine pit, an anomaly is also present that shows along-strike continuity with the mine pit anomaly. Many small historic trenches are found along these anomalies at surface.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

The West block hosts 46 clusters with a mean size of approximately 200 m, and is scheduled to be tested through prospecting and beep-mat surveys to prioritize their potential.

Previous EM methods used on the property resulted in the discovery of many graphite veins. The many historic graphite pits and trenches on the property indicate that graphite is distributed widely and the Company expects that many of the clusters will be correlated with graphite mineralization. Each of the anomaly clusters has the requisite size and EM response to represent potential new individual graphite discoveries. On-ground prospecting and beep mat surveys are planned over the main anomalies as well as over several of the clusters.

In October 2013, the Company submitted a sample of graphite concentrate that was purified by SGS, for glow discharge mass spectrometer (GDMS) analysis by EAG. The primary advantages of GDMS are its ability to quantify impurities at trace concentrations in high-purity inorganic solids, and to quantify concentrations of up to 73 contaminant chemical elements in a single analysis. The majority of the contaminant elements in the purified Miller graphite concentrate yielded concentrations that were below the analytical detection limit for each element. The sum of the concentrations of all elements yielded a concentration of less than 350 ppm (or g/t), which by difference translates to an exceptional concentrate grade of 99.965% total carbon.

Environmental assessment activities commenced on the property in 2013. Geostar Inc. (Brownsburg-Chatham, QC) was engaged to perform an evaluation of the property for bog land and humid vegetation areas. The report shows that such land is present in the work area of airborne anomaly E3, which limits the quantity of tree cutting on that anomaly. The Company performed sampling of the river 150 m north of the Miller Mine to evaluate if contamination was present and to evaluate the impact of any future mine development. The analysis that is usually required when requesting a Mining Permit was performed, except for the hydrocarbon evaluation which would be taken in a future sampling phase. Sampling will be performed on the same area on a bi-annual basis to see if any yearly variations are present.

The Company has multiple stockpiles of graphite bearing material some of which were discovered near the historic Miller Mine pit as well as graphite material collected as it is displaced from trenching during current exploration activities. The stockpiles were discovered during beep-mat surveying and prospecting. The total stock piled material contains 640 tonnes of graphite vein mineralization in marble, paragneiss and wollastonite, as well as five tonnes of high-grade lump graphite. Wollastonite is present in the stockpiled material and in the area currently being trenched, and occurs with graphite as acicular crystals up to ten centimetres in size. Wollastonite has a wide variety of uses in the automotive industry, and the Company is considering the recovery of wollastonite as a by-product of graphite mining at the Miller mine.

In November 2013, the Company received the final modeling results from the Geotech VTEM airborne survey performed over the East claim block of the Miller graphite property. Geotech Ltd performed an EMIT Maxwell Plate Modeling on the East block over three electro-magnetic anomalies that were selected for their size, shape and amplitude. The plate model allows the prediction of specific parameters for a rock body, such that it explains the observed anomaly's characteristics. Parameters of the modeled plate include location, depth to surface of the body, dip, rotation, length, depth extent and conductivity-thickness. These parameters allow the selection of drill collar parameters to optimally test the inferred source of the electro-magnetic anomaly.

Target E1 is located 800 m north of the Miller Mine pit and has been modeled as a 130 m by 120 m plate, dipping towards the south-west at 20 degrees. The top of the plate is located at about 140 m from surface. A confident estimation of thickness cannot be done on horizontal plates. Magnetic maps show

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

that target E1 is located between two magnetic anomalies that could correspond to the contact of two geological units with a similar geological context to that of the known Miller mineralization.

Target E2 is located adjacent to the trench work area. This target is near horizontal, striking northwest for about 250 m, and has a width of about 45 m. Similar to target E1, a proper evaluation of thickness cannot be done, since the modeled target is also a horizontal plate. The top surface of the conductor is approximately 90 m from surface.

Target E3 is located south-east of the Miller Mine pit and shows along-strike continuity with the mine pit electro-magnetic anomaly. This target is very conductive and is steeply dipping. The top of the target is 40 m from surface. The target body has estimated dimensions of 110 m by 40 m width, along its depth extension, and an estimated thickness of 7 m. Prospecting and beep-mat surveying allowed for the discovery of many closely spaced graphite veins and historical exploration pits in that area.

All of the proposed targets fit well with the deposit model developed by the Company. The model proposes hydrothermal and pneumatolytic processes that result in graphite and wollastonite mineralization associated with intrusive bodies cutting into marble units. Target E1 and E2 are modeled as horizontal conductors that could correspond to altered rock units located over an intrusive body while the sub-vertical target E3 would correlate well with graphite veins arising from a deeper source.

A planned 1,000 m drill campaign conducted by George Downing Estate Drilling Ltd. commenced in December 2013 to test these three targets.

Ground prospecting and beep mat surveying was conducted over some of the remaining EM anomalies on the East block, resulting in the discovery of many graphite veins southeast of the Miller Mine pit, 114 m from high priority anomaly E3. Selected grab samples collected from these veins returned assays of 29.9% Cg, 23.4% Cg, 29.8% Cg, 29.9% Cg, 24.5% Cg and 33.3% Cg. Further exploration later revealed the showings named VN4 and VN6.

Anomaly picking and modeling was conducted by Geotech on the West claim block, which was surveyed by VTEM airborne survey simultaneously with the East block.

In December 2013, the Company announced results from additional chemical characterization testing of purified graphite concentrate from the Miller property. A sample of the Miller vein graphite was subjected to a two stage caustic roast/acid leaching process, by SGS, which was then submitted to EAG for full survey chemical analysis by glow discharge mass spectrometry (GDMS). The sample was analyzed both as received, and also subsequent to rapid high temperature heat treatment in an inert atmosphere, to provide comparison of the total contaminants before and after heat treatment. Total measured elemental impurities before heat treatment were greater than 246 ppm by weight. Total measured impurities after heat treatment were less than 23 ppm. Thus, more than 90% of the contaminants were removed from this graphite by rapid thermal upgrading, yielding graphite of 99.9978% purity. It should be noted that industry standard assay methods used by graphite exploration companies are unable to determine graphite purity beyond 99.9%. The techniques used here make possible a much more precise measurement of overall purity.

Specific elements which were found in the pre-treated sample, but no longer detectable after thermal treatment include: chromium, copper, iron, lead, magnesium, manganese, phosphorus, strontium, titanium, yttrium, zinc, and zirconium. In addition, aluminum, boron, calcium, chlorine, silicon, sodium, and sulphur were also reduced significantly (decreased by 50% or more). Heat treatment conditions were: flowing helium atmosphere (100 mL/min); temperature 2000-2200 C.; duration 10 minutes.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

The thermally upgraded graphite (99.9978% Cg) easily exceeds the overall purity threshold for nuclear grade graphite (99.97% Cg). Another nuclear grade purity criterion is the Equivalent Boron Content (EBC), a measure of the neutron capture potential of the elemental contaminants in the graphite. Based on only the three detected elements (boron, chlorine, and nickel) among the list of sixteen elements typically considered for the calculation of the EBC of this graphite sample was 0.164 ppm. When the detection limits for the other 13 elements were included (as per ASTM methods), the EBC was not more than 0.966 ppm, well below the strictest standard typically applied to nuclear graphite purity specifications.

The Company also reported the results of crystallinity and exfoliative behaviour tests conducted by EAG. The crystallinity results were obtained using Raman spectroscopy, which definitively determines the degree of crystallinity of certain materials, including graphite. Raman spectroscopy is the collection of light inelastically scattered by a material or compound. When a light of known wavelength strikes a material, the light is shifted according to the chemical functionalities of the material. The intensity of this shifted light depends on both molecular structure and macrostructure. As a result of these phenomena, the collection of the shifted light gives a Raman spectrum that can provide direct information regarding the molecular vibrations of the compound or material. This information is then interpreted to determine chemical structure, organization, and in some cases, non-covalent intermolecular interactions. The Raman spectrum of graphite is very well characterized, which permits clear interpretations of the Raman spectra of graphite test materials, based on the component peak intensities and positions of the spectral features.

A sample of the Miller high-purity graphite was submitted to a "LabRam" J-Y Spectrometer. An Ar<sup>+</sup> ion laser (514.5 nm wavelength) with an 1800 gr/mm grating was used for the measurements. The EAG laboratory report summarizes the results, as follows: "The Raman spectrum was that of a single crystal of graphite. The crystalline quality of the graphite was better than any other industrial graphite sample we at EAG have analyzed to date."

Currently, most producers intent on separating natural graphite into individual sheets (graphene) or low-multiple sheet graphene use variations on Hummer's Method, which involves some very harsh chemicals that can oxidize the graphene sheets. Those defects can be partially repaired by chemical reduction, yielding reduced graphene oxide. The quality of the graphene produced by this method is not only variable, it can be quite poor when compared to graphene produced by synthetic methods. Synthetic graphene, although often of very high quality, is much more expensive to produce.

The last step in the exfoliation of graphene from natural graphite by Hummer's method (the actual separation of the individual graphene layers) is by immersion in a polar solvent, in combination with sonication (high-frequency vibrations induced by ultra-sound emitters). Dr. Karol Putyera, working at EAG, dispersed a sample of the high-purity Miller graphite in the non-polar solvent carbon disulphide, and without sonication, the sample partially exfoliated. Dr. Putyera of EAG remarked, "In combination with the exceptional high purity and highly crystalline nature of the Miller graphite, this dispersion behavior could lead to solution-based processing of this material for producing graphene, which opens up a wide range of potential applications."

Other characterization procedures, including X-Ray Diffraction Spectroscopy (XRD), to provide greater insight into the crystalline nature of the Miller graphite, and Scanning Electron Microscopy (SEM), to provide visual images of the crystals, are also being conducted.

In December 2013, the Company acquired a 100% interest in eight claim units referred to as the Calumet Claims from Caribou King Resources Ltd. The claims are contiguous to the historic Miller Graphite Mine.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

The Company accompanied by technical and legal advisors, met in Ottawa with a number of federal government officials from various agencies, to ensure that the Company is in full compliance with import/export controls, licensing, and documentation required by domestic and international law with respect to production and shipments of nuclear and military grade graphite.

In February 2014, the Company provided an update on the advancement of its winter exploration program which commenced in December 2013. Drill hole DDH13-09 confirmed that the E2 anomaly is associated with a sulfide-rich intersection with minor disseminated graphite. Drill hole DDH13-10 targeted the E3 anomaly and encountered a wide intersection of minor and disseminated graphite in marble. During movement of the drill to the E3 drill site, a graphite-rich vein (VN3) was exposed over 2 m in width and along strike for 5 m before pinching out. The VN3 discovery was subjected to drilling with six shallow drill holes targeting the vein at depth and along its projected extension on strike and at depth. The winter campaign encountered bad weather, which slowed down the overall drilling production. A total of 547 m in nine holes was completed in this phase of the program.

Half splits of the drill core were delivered to Actlabs (Ancaster, ON) for gold, base metal and graphite assays. The results are reported using protocol 4F-C graphitic in which the samples underwent drying, crushing with up to 90% passing through a #10 square-mesh screen, riffle splitting (250 gram) and pulverizing to 95% passing a 105 micron square-mesh screen. Graphitic carbon (Cg) was determined by multistage furnace treatment and infrared absorption, with a 0.05% detection limit. Quality control and assurance performed by Actlabs on in-house standards and blanks produced acceptable results.

Highlights of the drilling results are presented below.

Drillhole	Azimuth, degrees	Inclination, degrees	From, m	To, m	Interval, m*	%Cg
DDH13-15	275	50	6.00	7.80	1.80	<b>48.60</b>
		<i>including</i>	6.00	6.50	0.50	<b>63.20</b>
DDH13-14	275	45	4.00	7.50	3.50	<b>6.80</b>
		<i>including</i>	4.00	4.30	0.30	<b>50.50</b>
DDH13-11	240	55	10.00	12.30	2.30	<b>8.10</b>
		<i>including</i>	10.00	10.90	0.90	<b>11.00</b>
DDH13-12	245	45	11.50	22.00	10.50	<b>2.00</b>
		<i>including</i>	16.50	21.00	4.50	<b>3.50</b>
DDH13-17	280	45	2.00	15.00	13.00	<b>1.00</b>
		<i>including</i>	4.80	9.10	4.30	<b>1.60</b>

**NOTES:** Only core samples with visible graphite content were assayed. \*Data are insufficient at this time to estimate true thicknesses.

The most significant results are from the new vein discovery VN3 where drilling in core hole DDH13-15 encountered 48.60% C graphite (Cg) over 1.8 m, including 63.20% Cg over 0.5 m. This intersection of graphite occurs 4.6 m (vertically) beneath the VN3 showing. DDH13-14 intersected a graphite vein grading 50.50% over 0.30 m in 3.50 interval m interval grading 6.80% Cg between the surface and the DDH13-15 graphite mineralization. The vertical extension of the VN3 showing was closed in a subsequent drill phase.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

The other hole of interest is hole DDH13-11, which targeted a wollastonite-graphite pod located 22.5 m southeast of the VN2 showing in the trench area. The hole was successful in extending the mineralization hosting the pod to a depth of 8.19 m (vertically) beneath the surface showing. Grades were similar to other graphite pods, specifically 8.10% Cg over 2.3 m including 11.00% Cg over 0.90 m. The pod southeast of the VN2 showing is suspected to be within the same mineralized corridor that extends to at least 39.3 m (vertically) beneath the VN2 showing. The mineralized corridor also remains open at depth.

Many lower grade intersections were also sampled during drilling. Some of the lower grade mineralization includes graphitic marble grading 2.00% over 10.50 m including 4.50 m at 3.50% Cg and 1.00% over 13.00 m including 4.30 m at 1.6% Cg. Isolated values range between trace amounts of graphite and 4.00% Cg. No significant gold or base metal assays were obtained. The geochemistry information will be used to determine alterations patterns and to better interpret the encountered rock units.

The VN3 discovery triggered the Company to halt the drill campaign and perform a ground electromagnetic survey over the large VTEM anomaly surrounding target E3 to find the best targets before drilling resumed. Dubé & Desaulniers Geoscience Ltd. (Ottawa) was engaged to perform a ground electromagnetic survey using the PhiSpy system. This portable time-domain EM system enables the detection of conductive rocks at optimum depths of 10 to 20 m, with the results seen in real time on a display screen. This allows for the strongest anomalies to be immediately identified for further testing.

The PhiSpy survey was performed over a 0.11 square km area centered on VN3 with line spacing between 10-20 m for a total of 12.7 line km. The survey identified 14 anomalies ranging between 5 and 54 m in maximum dimension. The widest anomaly was discovered in the vicinity of the E3 target identified previously by Geotech, and the Company worked with Geotech to re-interpret their results to include the PhiSpy data. Additional data from the core and surface showings were incorporated to identify drill targets in this area.

A second PhiSpy survey was performed to cover the area between VN2 and the Miller Mine pit as well as covering IP anomalies from previous surveys. The survey showed many local anomalies along with two bigger anomalies of similar size to the VN2 anomalies. Winter field work included trenching, beep-mat and TDEM surveys, and prospecting on the new PhiSpy anomalies in the VN3 area and the Miller Mine area. Existing targets include the new VN3 showing, the trench area where the VN2 surface mineralization is established to a depth of 39.3 m, and the E1 anomaly, along with the many PhiSpy anomalies.

In March 2014, the Company announced that it received a bulk sampling permit which gives permission to collect and ship up to 480 tons of graphite-bearing material from its Miller Mine graphite property in Quebec. According to the authorization delivered by the Ministry of Natural Resources of Quebec, up to 480 tons of material may be extracted for mineralogical testing as well as for distribution to potential purchasers. The sample must be collected between March 15<sup>th</sup> and September 15<sup>th</sup>, 2014, and the results of the treatment must be reported to the Ministry by September 15<sup>th</sup>, 2015. The bulk sample was requested to test the historically mined trench area of the property, along with multiple veins of graphite mineralization found over the area during field exploration by the Company. The stockpiles of graphitic material from historical production that have been found in various areas around the former mine can also be sent out for the purpose of bulk sampling. The removal of surface material in the trench will also help the Company to understand the distribution of graphite pods and veins along the mineralized corridor it has discovered. Due to delays in sourcing equipment by SGS, the Company obtained a written extension of the bulk sample treatment deadline to February 15<sup>th</sup>, 2015, from the Quebec Ministry of Natural Resources.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

In April 2014, the Company also signed an agreement with a local quarry operator for the crushing of graphite mineralization before shipping it for purification. Securing crushing capacity within such close proximity to the Miller property is expected to make the economics of the operation cost effective as the Company will be able to take advantage of infrastructure already in place, save on capital costs, and minimize operational risks.

The initial purification process testing of the Miller Mine graphite material commenced in April 2014. The Company sent approximately 50 kg of graphite material to SGS to develop a flotation concentration flowsheet which would optimize the preservation of the crystalline graphite structure as well as its particle sizes, in order to maximize the potential economic value of this high-purity graphite. This work led to the design criteria for the flotation pilot plant.

On May 5, 2014, SGS provided preliminary results obtained in a single batch cleaner test from the 50 kg sample testing. A first exploratory batch cleaner flotation test confirmed an excellent metallurgical response. Initial test results showed:

- The reconstituted head grade of the sample was 43.8% C(t)
- The carbon recovery into a preliminary flotation concentrate was 98.2%. The grade of this concentrate was 94.1% C(t) based on the reconstituted head grade from the size fraction analysis.
- The results of the size fraction analysis are presented in the table below:

Produce	Weight %	Assays, % C(t)	%Distribution C(t)
+32 mesh	4.0	98.4	4.2
+48 mesh	14.4	97.8	15.0
+65 mesh	12.3	99.5	13.0
+80 mesh	7.4	98.7	7.8
+100 mesh	7.7	97.6	8.0
+150 mesh	12	95.5	12.2
+200 mesh	9.9	92.8	9.8
+325 mesh	12.7	85.1	11.5
+400 mesh	3.9	92.0	3.8
-400 mesh	15.7	88.8	14.8
Head (calc.)	100.0	94.1	100.0

(All reported results have an associated measurement uncertainty based on the expected precision and accuracy relating to the method and sample concentration).

- 38.1% of the mass reported to the +80 mesh size fractions at a combined (weighted average) concentrate grade of 98.6% C(t)
- All size fractions larger than 150 mesh yielded grades of at least 95.5% C(t)

On May 22, 2014, an update on the SGS flotation concentration tests was provided and can be found on the Company's website. The test results indicate a reproducible high yield of large (+65 mesh) graphite

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

crystals at a grade of 99.7% C(t) can be achieved, with the application of the simple flotation and polishing techniques already commonly employed in the natural graphite industry.

The Company engaged Inlandsis Consultants to produce a NI 43-101 compliant Technical Report for the Miller Mine Property. The 43-101 was filed on SEDAR in May 2014. The comprehensive report details the exploration programs conducted on the Miller property, as well as a summary of the graphite characterization work reported to date. The authors of the report recommend systematic IP surveying over the known VTEM anomalies and local PhiSpy surveys over anomalous areas in order to detect additional large conductors and generate high-quality targets for prospecting, trenching and drilling. The report recommends that an IP survey and trenching program be carried out in the trench area to extend known mineralization laterally and at depth.

As of early May 2014, the Company had completed a compilation of all of its available technical data on the Miller property and had identified a list of 11 priority targets and 82 secondary targets of significance. The exploration program would be carried out in four phases.

In May 2014, the Company announced that Dubé & Desaulniers Geoscience Inc. would proceed with a 320 m by 320 m geophysics survey over priority target E1, first identified by aerial geophysics (VTEM) conducted in 2013. The area surveyed is centered over a 180 m by 100 m strongly conductive VTEM anomaly that lies at the heart of the 400 m (radius) E1 VTEM target previously reported. Trenching would be done over each anomaly generated by the ground EM survey. The ground EM survey would consist of a PhiSpy grid with line spacing of 20 m.

Target E1 is easily accessible by bush road, and is located 750 m north of the Miller mine pit. E1 corresponds with a large conductive anomaly that is located on the edge of a 1.3 km long fold structure, at the hinge zone of the fold. The magnetic maps also indicate a contact between two geological units in the zone to be surveyed. The area's geological maps show a succession of paragneiss, marble and skarn rocks, and that the target would reside in the continuity of the marble and skarn units. This anomaly was previously selected for modelling by Geotech which interpreted it as a horizontal plate that is 130 m long by 120 m wide which dips at -20 degrees. The dip direction is parallel to the hinge of the interpreted folded structure, with the modeled plate parallel to the fold. The top of the modelled plate is located at about 140 m from surface.

The PhiSpy survey was completed in June 2014 and resulted in the identification of anomalies ranging in size from a few meters up to 25 m. The near-surface anomalies are primarily located on the southwest part of the grid, whereas the structural features and airborne anomalies are located toward the northeast part of the grid.

The IP survey consisted of four 480 m lines oriented in a SW-NE direction that covered an area of 500 by 150 m. The spacing between the grid lines was 50 m and the distance between pole and dipole was 12.5 m to obtain optimal resolution and depth of penetration. The survey results show interpreted models of conductivity and chargeability. A total of 8 IP anomalies located in close proximity to the interpreted structural features were identified, of which 4 are of particular interest (E1-4, E1-6, E1-7 and E1-8). Anomaly E1-4 is centered over the airborne VTEM anomaly, suggesting that its source could be common to both anomalies. Both the VTEM and the IP anomaly are located within a marble unit which is of interest since both the historic Miller Mine and the VN3 showing are hosted in marble. This anomaly connects at depth, with other anomalies present, and extends for the width of the entire grid (150 m) in a NW-SE direction. Initial trenching has revealed small graphite veins in the exposed bedrock surface. Anomaly E1-6 seems to come close to surface on line L150. This anomaly lies on the contact between marble and paragneiss units. This anomaly follows the structural feature over the width of the whole grid (150 m). Both anomaly E1-7 and E1-8 are located in paragneiss outcrops, where graphite exposures



## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

were observed. Anomaly E1-7 is strong on lines L0 and L100, and seems to be subcropping on line 100, but appears to lie at greater depth on line L0. Anomaly E1-8 is also of interest, but is only poorly defined since it is at the edge of the surveyed grid and its size is currently undefined.

A trenching program commenced on June 18, 2014 to work on the defined PhiSpy and IP anomalies. Trenching was done over the four main IP anomalies. Disseminated graphite was found in most of the exposures. The most interesting results were provided by a trench over anomaly E1-6 on Line 0, where multiple graphite veins were found over a 1 m width within a graphitic skarn. The skarn can be followed over the trench length of 15 m, extending towards the south-east, and beyond the geophysical grid. Twenty metres on-strike from the southeast extension of the skarn, and also outside of the initial IP grid, a former exploration pit was discovered which showed graphite vein mineralization. It does not appear as if any of this graphitic material was removed from the area, as the pit is surrounded by piles of graphite-containing blocks. Additionally, a 20 centimetre block of lump graphite was discovered south of the initial geophysical grid. In the immediate area of the block, a subcrop of marble, pegmatite and graphitic skarn was discovered, which is similar to the mineralization of the historic Miller Mine.

IP anomaly E1-6, on Line 0, was modelled as laying at 20 to 30 m depth. For that reason, the bedrock graphite vein discoveries revealed by trenching there were somewhat unanticipated. These veins of graphite would strongly suggest that a graphite rich body is the source of the anomaly at depth. Because the modelled chargeability axis E1-6 crossed the entire 150 m width of the original IP grid, and remained strong at the boundaries, the Company decided to extend the geophysical grid towards the NW and SE to gather further data on the open extensions of the targets. Additional survey lines were also placed at the NE extension of each previous IP line to better define the strong anomaly E1-8.

Trenching was carried out over the new anomalies to quickly find surface indicators that can be associated with the anomaly sources. The trenching program primarily targeted extensions to anomalies E1-4, E1-6, E1-7 and E1-8 that are continuous over most of the grid area. On the southeast portion of the second IP survey, the E1-4 and E1-6 anomalies connect together to form a large anomaly. Graphite mineralization was subject to channel sampling and assaying. The Company selected collar locations for a 2014 Phase 1 drill program to test the most significant anomalies generated by both of the IP surveys. Seven different drill holes were selected based on the IP and trenching results.

The initial drill campaign, to test IP geophysical conductors identified in a ground survey in the vicinity of the VTEM airborne survey anomaly E1, began in mid-August. Initially estimated at 400 m, the actual campaign resulted in 441.5 m of diamond drill core recovered from 8 holes. Although some graphitic intersections were identified visually, the conductive anomalies were generally better explained by recovered intersections of sulphide mineralization, primarily pyrrhotite. Recovered core did not provide an explanation for the conductive anomalies in some instances. There were no samples from this initial drill campaign sent for assay in 2014; however, in 2016, the company re-logged and sampled the whole drill cores from that campaign.

In June 2014, the Company reported that SGS had completed a metallurgical test program on a 50-kilogram composite of the Miller hydrothermal lump vein graphite. SGS provided the Company with exceptional flotation concentration optimization results, including: a) three different large-crystal fractions assaying at 100.0% C(t), representing more than 30% (by weight) of the total graphite concentrate; b) an improvement in the combined concentrate grade to 98.4% C(t); and, c) more than 70% (by weight) of the concentrate fractions grading >98% C(t). Even the smallest size fraction of less than 400 mesh graded in excess of 95% C(t). These results were obtained through conventional flotation only without chemical treatment, i.e. without the use of strong bases or acids. SGS has identified an opportunity that may increase the carbon content of the +48 mesh and +32 mesh size fractions further through an adjustment of the flotation circuit and conditions.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

The Company submitted a sample of the 100.0% C(t) graphite concentrate from SGS to EAG for impurity analysis by Glow-Discharge Mass-Spectrometry (GDMS). The objective of the GDMS analysis on the sample was to provide a measurement of the concentrations of impurities that can be achieved using conventional mineral processing technologies consisting of grinding, size classification, and flotation only. Results of the GDMS analysis indicated that following Rapid Thermal Upgrading (“RTU”), calculated purities of the treated samples ranged up to 99.98% C(t). A total of six separate GDMS analyses were conducted and Equivalent Boron Content (“EBC”) concentrations were determined for each, in accordance with established methods (range 1.18-2.61 ppm). In every case, the EBC values were well below the international standard for nuclear graphite, set at 5 ppm.

RTU had inconsistent effects on the three graphite samples. This variability was primarily with respect to Silicon, so the effect of RTU was calculated both including Silicon, and excluding it. For each of the samples, the Silicon concentration represented the majority of the total impurity burden (range 150-2000 ppm, by weight; 0.015 to 0.20%, by weight, of the samples). As Silicon is commonly seen in hydrothermal systems as its oxide, SiO<sub>2</sub> (silica), it is possible that the graphite particles were incompletely liberated from their hydrothermal matrix by flotation concentration alone. Although chemically inert, silica can be substantially removed using the caustic roast process. There are therefore opportunities to further upgrade the flotation concentrate without any requirement for acid leaching, with its attendant environmental concerns.

In August 2014, the Company provided another update of its Miller graphite characterization research activities. The data was the result of analysis and testing of an approximately 250 g flotation concentrate that was generated by SGS by processing of a representative sub-sample of the 50 kg bulk sample, selected for large particle sizes (+65 mesh, >210 microns). The sample was submitted to EAG and was analyzed for chemical purity by GDMS. The total graphite purity was calculated by difference, both before and after brief thermal upgrading by helium outgassing. The EAG results confirm that several properties of the Miller natural crystalline graphite obtained by flotation only match or even exceed those of synthetic graphite. According to Dr. Karol Putyera, VP for GDMS for EAG, the Miller samples exhibit high crystallinity, are easily upgraded to very high purity, have low surface area, with high density and low porosity all in one package. To-date all samples submitted for GDMS analysis at EAG have demonstrated nuclear grade purity as defined by Equivalent Boron Content.

The Company contracted with SGS to scale up the highly successful bench-scale flotation concentration process to pilot plant scale. Mechanical and metallurgical commissioning of the 500 kilogram per hour (“kg/h”) flotation plant at the SGS Lakefield site commenced on September 8, 2014. The primary objectives of the pilot plant operation were to generate larger quantities of graphite flotation concentrate for downstream evaluation, and to provide process data to facilitate future engineering studies and process design criteria for a full scale graphite mill.

Under the guidance of Mr. Oliver Peters, M.Sc., P.Eng, MBA, (Consulting Metallurgist for SGS and Principal Metallurgist of Metpro Management Inc.), the decision was made to submit a large sample of lower grade graphitic material from the Miller site to determine if the results previously obtained in bench scale testing of the 50 kg sample of higher grade material could be replicated with the lower grade material. This decision was made to investigate the possibility of employing a bulk mining method to include the disseminated graphite mineralization rather than just mining the graphite veins selectively.

An initial 25 tonne composite was shipped to SGS Lakefield in mid-August 2014 for commissioning purposes. An additional 102 tonnes of material from the Miller graphite mineralization was received by SGS on September 9, 2014. The bulk sample processed included material from all known significant surface exposures of graphite and is therefore fully representative of the lower grade Miller hydrothermal graphite mineralization.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

During Phase 1 of the plant commissioning, process grab samples were collected intermittently to facilitate the optimization of the metallurgical performance. The +48 mesh, +65 mesh, and +80 mesh product sizes of a pilot plant grab sample were submitted for a GDMS analysis by EAG. The results of both the total carbon analysis by Leco and GDMS analyses were reported and indicate that the flotation concentration samples were better than 99.8% C(t) graphite purity.

In Phase 2 of commissioning, adjustments to the operating conditions of the pilot plant were made to optimize the purity of all graphite particle sizes. In Phase 2, the full suite of +200 mesh (75 microns) size fractions of a 30 minute concentrate composite, which was collected during steady circuit operation, were submitted for GDMS analysis by EAG. The results of both the total carbon analysis by Leco and GDMS analyses for each size fraction were provided in a press release on October 3, 2014. The pilot plant flotation concentrate delivered greater than 99.0% C(t) purity by GDMS for particle sizes larger than 200 mesh. The results confirm that the very high graphite concentrate grades obtained with the 50 kg bulk sample can be replicated on a pilot plant scale processing 500 kg/h. The Phase 2 results were obtained using flotation alone with no additional chemical processing, leaching, baking or other thermal techniques being employed. All size fractions exceeded nuclear purity threshold as defined by EBC. As was the case for Phase I, the bulk sample processed in Phase 2 included material from all known significant surface exposures of graphite and is therefore fully representative of the lower grade Miller hydrothermal graphite mineralization.

One 2 kilogram ("kg") flotation concentrate sample was randomly selected from the pilot plant concentrate products and was assessed for carbon purity by Glow Discharge Mass Spectrometry ("GDMS"), both before and after the graphite concentrate was upgraded using the SGS standard caustic bake process. The pre- and post-treatment sample was fractionated into five particle size classes, representing 100% of the sampled flotation concentrate. Carbon purity as high as 99.9942% was reported by Evans Analytical (Liverpool, NY) for specific size fractions of the caustic baked material, using the GDMS method. The mass-weighted average carbon purity for the entire sample was 99.9925%. The Equivalent Boron Content ("EBC") was calculated using the GDMS results, with individual size fractions delivering EBC as low as 0.720 parts per million ("ppm").

SGS issued their final report on the pilot plant metallurgical testing on a 125 tonne composite sample collected from all of the known Miller graphite occurrences, consisting of vein and disseminated graphite mineralized material. The plant operated for 200 hours, with an average throughput of 625 kg/hour. The average total carbon head grade of the pilot plant feed was 7.63% C(t), by LECO furnace. The final report indicates that the pilot plant campaign was able to achieve stable graphite concentrate grades, which did not noticeably deteriorate as carbon recovery increased within the tested range of 74.5% to 92.5% carbon recovery. The average final concentrate, including -200 mesh material, graded 95.6% C(t).

Prior to commissioning the pilot plant equipment, a representative sub-sample of the bulk sample material was processed at bench-scale. The results of the laboratory-processed sample were later compared to the average pilot plant results. The laboratory test produced a final concentrate with a coarser particle size distribution than did the pilot plant, with 24% more mass reporting to the +80 mesh fraction. However, the grades of each size fraction were similar, as were the final composite sample grades. The report addresses these results by suggesting that the polishing conditions in the pilot plant operation may have been too aggressive, and that a reduced media charge could have yielded a coarser concentrate with comparable grades.

The final results from pilot plant mass balance surveys indicate that the product concentrate grade was not noticeably affected by the carbon recovery within the tested range of 74.5% to 92.5% carbon recovery. For most projects and commodities, the recovery decreases as the concentrate grade increases. However, in the case of the Miller sample carbon recovery of >90% was achieved while

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

maintaining a combined concentrate grade of at least 95% total carbon. All size fractions of 200 mesh and coarser consistently produced concentrate grades of 96% total carbon or higher, with few exceptions.

Immediately following the E1 drill campaign, the Company focused its attention on conductive targets identified using the man-portable PhiSpy Time-Domain Electromagnetic (“TDEM”) ground geophysical system, in the vicinity of VTEM anomaly E3, and the VN3 showing. Trenching and stripping of the PhiSpy anomalies revealed the VN4, VN5, and VN6 showings, and 9 diamond-drill holes totalling 408 m were completed on these new discoveries. Visual examination of the recovered core confirmed numerous graphitic intersections, and this discovery led the Company to perform an IP survey in the southern area of the Miller Property’s East block, which identified a 700 m long conductive anomaly stretching from the historic Miller Mine in the northwest to VTEM anomaly E3 in the southeast, and open along strike in both directions. The VN6 graphite exposure was found to be largely coincident with the IP conductive anomaly.

The IP survey consisted of 14 grid lines that varied in length between 225 and 450 m, which covered a total area of 0.2 km<sup>2</sup> between the E3 anomaly and the VN1 and VN2 showings, and included the historic Miller Mine pit. Computer modeling of the IP data generated a total of 25 chargeability anomalies, along with many conductive anomalies. Trenching on VN6 has uncovered marble and graphite-rich skarn bands with widths over 7 m, which can be followed in the newly exposed bedrock surfaces for over 40 m. Similar mineralization is found in the VN6 Extension trench located 45 m along strike, suggesting that the skarn unit is continuous for at least 90 m. The VN6 showing remains open laterally but is not visible at surface.

The VN6 showing is associated with other previously reported graphite mineralization, identified as VN4, VN5 and VN6 Extension. All of these showings are inside a 155 m long corridor. The 155 m long corridor aligns perfectly with a 250 m long conductive IP anomaly modelled at 5m depth. When combined with conductive zones identified at 20 and 40 m depths, the conductive anomaly extends for over 700 m, reaching the historic Miller Mine Pit to the north and the E3 airborne anomaly to the south. This conductive anomaly is open to the northwest and to the southeast, at the boundaries of the IP grid.

The Company commenced a 400 m drill program in August 2014, however, due to follow-up of the VN6 discovery, the drill program was extended. By the time drilling was suspended in mid-December, over 2,000 m of core had been recovered from 42 holes. Visual examination of the core samples provided sufficient evidence of graphitic intersections that an efficient exploration program could be conducted, without delaying field work for laboratory confirmation of graphite content by assay. A total of 133 core samples were submitted to Actlabs for precise determination of their graphite content, along with a further 23 assays based on channel and grab sampling.

Two subsequent drill campaigns totaling 1,159 m in 25 diamond drill holes, primarily in the vicinity of the VN6 showing, were completed in mid-December 2014. Other targets included the VN7 showing, in the vicinity of the Miller Mine, and PhiSpy conductive anomalies not yet exposed by stripping or trenching. All drill cores from these four drill campaigns have now been logged, sampled when indicated, and submitted for assay. In February and March 2015, additional assays were prepared to close mineralized intersections.

The results of the various sampling programs would be compiled with the available geophysical data to develop a model of the graphitic mineralization. This model would provide guidance for further exploration activities, as well as serving as the template for a NI 43-101 compliant Resource Estimate.

The Company completed a PhiSpy survey over the northern extension of the 700m long IP conductive anomaly. The survey generated 9 shallow conductors that will be subject to trenching. The most

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

interesting target is a conductive anomaly 20 m by 13 m in size, similar to the PhiSpy anomaly generated by VN6. This anomaly is also coincident with an airborne VTEM anomaly.

During field exploration activities in the vicinity of the 700 m long IP conductive anomaly, numerous historical mineral stockpiles were discovered, varying in size from only a few tonnes to many thousands of tonnes.

In January 2015, the Company announced that it has begun the qualification process for obtaining off-take agreements with specialty graphite processors. The Company is participating in a number of off-take qualification processes with various high-tech graphite processors, each at a different stage of progression.

In an effort to better understand the processes leading to the deposition of the Miller graphite mineralization and to better select targets during small and large scale exploration work, the Company initiated cooperative academic research and development programs, partnering with two leading academic institutions in Quebec. Planned mineralogical work includes thin section petrology to be done at the University of Quebec at Montreal. Isotopic aging of various rocks and minerals on the property, modeling of the spatial dispersion of wollastonite, and isotopic analysis of oxygen is also planned at McGill University, to develop a model of the hydrothermal fluid flows responsible for the graphitic mineralization. The McGill research uncovered a previously unknown report entitled "Report on the Pointe aux Chenes Plumbago Mines Situated in Grenville, Canada East", dated November 10<sup>th</sup>, 1867. The author, Charles Bobb, a Mining Engineer, quotes from a site inspection report by Sir William Logan (Director of the Geological Survey of Canada), who had written, "A bed of pure graphite occurs in the Augmentation of Grenville, and has been traced at intervals for a distance of about three miles, running a little east of north." This historical document references specific claim holdings, and includes maps locating the reported graphite occurrences. These same occurrences lie entirely within the Canada Carbon claims. To-date, exploration activities have not focused on the area identified in the Charles Bobb report, however, the Company plans to conduct extensive exploration in the area in the near future. Historical documents such as the Charles Bobb report cannot be relied upon for either content or accuracy of reporting and there are no assurances that the planned exploration activity will result in the discovery of graphite mineralization.

A ground geophysical survey, employing the TDEM geophysical system, was conducted in the vicinity of the West Block VTEM airborne survey anomaly W3, located approximately 10 kilometers west of the Miller Mine. The PhiSpy results included 21 smaller conductive anomalies, and 3 much larger ones. The large anomalies are, respectively: 120 m by 70 m, 90 m by 49 m, and 43 m by 26 m. Preliminary prospecting using Beepmat technology led to the discovery of graphite blocks in the overburden in the vicinity of the PhiSpy anomalies, including disseminated graphite in marble, and vein graphite, similar to that seen on the East Block. Graphitic marble has also been observed in bedrock exposures. All of the West Block anomalies are at the contact between a marble unit and a paragneiss unit, which is consistent with the East Block graphitic mineralization discovered to date.

In February 2015, the Company announced that it had begun its first diamond drill campaign for 2015 with the objectives of expanding the currently identified VN6 graphite mineralization, and providing resource delineation data to define a Resource Estimate for both marble and graphite on the Miller Property. SGS Geostats of Blainville, Québec was contracted to provide technical advice on the drill program, and to produce a Technical Report which would provide marble and graphite resource estimates based on their findings.

During drilling in the vicinity of the VN3 graphite showing in 2014, wide intersections of white marble were encountered, including 60 m in hole DDH13-10 and 20 m in hole DDH13-13. Each of these holes ended

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

in white marble, with the white marble unit open both at depth and on strike. Consultations with dimensional stone industry representatives revealed that the white marble intersections were continuous enough to warrant further evaluation of the quality and size of the marble unit. The drill campaign was modified to include approximately 1,100 m in a large grid with spacing of 60 m between holes. The Company's objective is to determine the potential economic value of the marble found in association with the graphite mineralization on the Miller property.

As of early May 2015, the Company completed two drill campaigns; totaling 1668.50 metres in 27 holes, to both define the marble units for resource estimation purposes, and to expand the graphite mineralized zones, which remain open on strike and to depth. 432 metres of additional drilling were completed on the northwest extension of the VN6 graphite zone, coincident with the 700m induced polarization conductive anomaly discussed above.

Additional IP geophysical surveys were completed on both the East and West Blocks. The Company proceeded with additional drilling on the generated anomalies on the East blocks and trenched over anomalies on the West blocks.

The Company contracted engineering and technical consulting firm Tetra Tech WEI Inc. to complete a Preliminary Economic Assessment on its Miller graphite project, which would incorporate the pilot plant scale flotation concentration flow sheet developed for the Company by SGS (Lakefield) and the resource estimate for graphite and marble by SGS Geostats of Blainville, Québec.

In May 2015, the Company announced that a random sample of its flotation concentrate was directly upgraded to 99.9998% C(t) purity through thermal treatment alone. A randomly selected 10 kilogram ("kg") sample of Miller flotation concentrate was withdrawn from stockpiled material stored at SGS. The sample was dried in an oven, homogenized to ensure uniformity, and then split into four sub-samples of approximately 2.5 kg each. The first of the sub-samples was subjected to a preliminary test using the proprietary thermal upgrading process employed by a commercial processor of synthetic nuclear graphite. This processor has been producing ultra-high purity synthetic graphite for use in the nuclear industry, utilizing customized high temperature furnaces. Their proprietary processes vary to target specific elements and compounds. Contaminant-specific process optimization trials were applied to the remaining three sub-samples.

This thermal process eliminates the use of harsh chemical treatments commonly used to upgrade graphite, such as caustic bake or acid leach, which not only involve strong acids or bases that can chemically damage the graphite crystals, but which also inevitably create hazardous wastes. In addition, most hydrometallurgical processes also involve numerous physical processing steps which can mechanically damage the graphite crystals.

A GDMS assay was conducted on the thermally treated sub-sample by Evans Analytical at their facilities in Liverpool, NY. Ultra-trace amounts of six elemental contaminants were detected: boron 100 parts per billion ("ppb"), sodium 400 ppb, copper 100 ppb, zinc 80 ppb, iron 90 ppb, and silicon 1700 ppb.

In May 2015, the Company reported that Oak Ridge National Laboratory ("Oak Ridge"), along with Idaho National Laboratory and other government agencies were working toward the design and development of high-temperature, gas-cooled, graphite-moderated nuclear reactors, under a program supervised by the U.S. Department of Energy's Office of Nuclear Energy. A series of tests are currently underway to determine the optimal composition of nuclear fuel assemblies for this new generation of nuclear reactors. Decades of research to develop a suitable graphite matrix for the fuel compacts has settled on a mixture composed of natural graphite, synthetic graphite, and binding resin. The specific elemental impurity

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

content in each of these components is a critical criterion. Tests conducted by Idaho National Laboratory have determined that nine elemental contaminants are of special concern, which have been defined in AGR-2 Specification SPC-923. Oak Ridge National Laboratory is charged with determining the best available graphite products to address the specification and accordingly have tested numerous commercial and experimental graphite products (12 synthetic graphite samples and 7 natural graphite samples). Canada Carbon compared the GDMS results from its thermally treated graphite against the data for the purest graphite samples of the 19 submitted, derived from an Oak Ridge report. The results of the comparison indicated that Canada Carbon's thermally treated graphite contained only a small fraction of the Specification SPC-923 elemental contaminants when compared to the best natural graphite assessed by Oak Ridge in 2011 and in fact, the Company's sample had substantially lower contaminant levels than the best synthetic graphite samples tested.

In September 2015, the Company reported that its Miller hydrothermal lump/vein graphite was selected to be fully characterized as a Standard Reference Material for the chemical analysis of nuclear grade graphites and manufactured carbons by the Subcommittee D02.F0 on Manufactured Carbon and Graphite Products of ASTM International, which has a current primary focus on developing internationally recognized test methods for comprehensive characterization of graphite and manufactured carbon materials used in nuclear and other high-technology applications.

The Subcommittee, composed of international experts in specialty graphite and manufactured carbon materials research and development, includes leading scientists, representatives of other international governments and academic institutions, graphite end-users, and producers of specialty carbon products.

The Subcommittee last met in Ft. Lauderdale, Florida in June 2015, at which time it approved changes to the purity threshold for high-purity nuclear graphite, limiting ash content to 50 ppm (total), and an Equivalent Boron Content of 2 ppm, as detailed in ASTM Standard D7219-15: "Standard Specification for Isotropic and Near-isotropic Nuclear Graphites."

The very high degree of structural uniformity and extremely low levels of elemental impurities of the Miller graphite prompted the Subcommittee to select it for use during the development of a test method for the chemical analysis of nuclear grade graphites and manufactured carbon materials. Chemical analyses were performed at a number of international laboratories simultaneously. The scientific work to develop a new analytical standard for high-purity nuclear graphite has been completed. The drafting of the required documentation is an exacting and intensive process, and it is well underway. It is anticipated that the Subcommittee may approve the designation of the thermally purified Miller hydrothermal lump/vein graphite as Standard Reference Material ("SRM") for survey chemical analysis of high purity graphites and manufactured carbon materials.

As part of the process for completing a PEA, the Company was attempting to get third party verification for the selling prices in various market segments for graphite with the purity and quality of Canada Carbon's graphite. An experienced third party graphite processor has provided a letter to the Company indicating the selling price for 99.9998% graphite that can be sold in the high-technology electronic device sector. This application of high purity graphite is estimated to require 250 to 350 tonnes per month. The Company is continuing its efforts to obtain pricing for additional market segments.

In October 2015, the Company provided an update on its exploration and market development activities in support of its PEA. Since January 1, 2015, 4,840 drill core samples were submitted for assay. These samples were collected from 84 new diamond drill holes dating back to August 2014, comprising 4,096 metres ("m") total, and also include additional drill core samples collected from drill holes previously reported. Another 174 channel samples were collected and assayed from 68 channels cut into bedrock exposures of graphitic material.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

Trenching over exploration targets and excavation associated with preparing drill pads has frequently uncovered graphitic material from historic workings. The excavation process itself also often disturbs bedrock-hosted graphitic material, or exposes graphitic boulders in the overburden. These graphitic materials are being continuously collected, sorted by apparent grade (visually determined), and stockpiled.

During definition drilling for the marble and graphite, extensive zones of disseminated graphite in a white marble host were encountered. In order to provide accurate metallurgical data for the PEA, a composite sample of this material was prepared, and submitted to SGS Canada (Lakefield), for bench scale flotation trials under the optimized conditions developed during the Company's pilot plant scale flotation concentration program. The results of two flotation trials were very similar: Trial 1, 54.6% of the concentrate reported to the +80 mesh (large flake) category, with 34.1% in the +48 mesh category; and, Trial 2, 55.9% of the concentrate was +80 mesh, with 35.3% in the +48 mesh category. The graphite concentrate from both trials was recombined to represent "run of mill" material, and was thermally upgraded by a commercial nuclear graphite processor, using the method previously reported. This yielded graphite of 99.9995% (Ct) purity, with an EBC of 0.917 ppm, as determined by GDMS analysis conducted by Evans Analytical, of Liverpool NY. The GDMS analysis revealed values comparable to those reported for the "run of mill" graphite concentrate from the pilot plant flotation program, which was also thermally upgraded by a commercial processor of nuclear graphite materials. The disseminated graphite in the marble sample processed by SGS at bench scale was composed of quarter-split drill core (NQ size) obtained from 14 diamond drill holes. Up to five samples were collected from each hole, for a total of 45 samples, with a total mass of 38 kg. The samples were collected from widely separated occurrences of disseminated graphite in marble mineralization, with the goal of providing a metallurgical sample with 0.5% graphite content. The 38 kg of material was crushed and homogenized at SGS. The calculated head grade obtained from these low-grade flotation trials was 0.53% graphite. As the post-purification results of the disseminated graphite were similar to those obtained from the pilot plant flotation material with a calculated head grade of 7.63%, the Company is confident that thermal upgrading can yield ultra-high purity graphite over a variety of potential head grade scenarios.

A block of marble weighing approximately one tonne was shipped to an architectural stone processor located in Quebec, for cutting, polishing and assessment. The processor reported that the Miller marble was whiter, less brittle, easier to cut, and polished to a luster not seen in the imported white marble that they currently process. Following a site visit to the Miller Project, the processor requested a further 50 tonnes of marble blocks, to prepare cut and polished samples, and make them available to his clients for their own assessments.

Subsequent to an independent market assessment of architectural blocks of the Miller marble, the Company has signed a comprehensive agreement to sell 75,000 tonnes of architectural-quality marble material from its Miller high purity graphite project to the processor. The agreed base price for marble blocks or slabs is \$14 per cubic foot, which is approximately \$184 per tonne. There are additional provisions for price increases above this base price, as well as royalties to be paid on the sale of all value-added marble products. The term of the contract is to run for one year from the date of the acquisition of the required environmental approvals and quarry extraction permit, and is renewable.

A detailed chemical analysis of Miller flotation tailings, composed entirely of crushed marble, has demonstrated that the tailings have calcium, iron, silica, and aluminum levels suitable as feedstock for cement manufacturers. The Miller marble contains low levels of magnesium, which makes it well-suited for certain specific value-added products distributed by the two international cement companies now in discussions with the Company.



## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

On March 4, 2016, the Company announced the results of a positive PEA for its Miller hydrothermal disseminated and lump vein graphite and architectural marble project (the "Project"). The PEA shows a 100.2% pre-tax IRR and 85% post-tax IRR. The Project contemplates the extraction of graphite and marble from three open pits and the planned production of a maximum of 1,500 tonnes of high-purity graphite and 150,000 tonnes of marble blocks per annum. The estimated mineral resources comprise 952,000 tonnes of inferred graphite resources at an average grade of 2.0% Cg within the two proposed graphite pit shells and 1.2 million tonnes of inferred graphite resources at an average grade of 0.53% Cg within the marble pit limits. In addition, the marble mineral resource comprises 1.52 million tonnes of inferred marble with an average probability factor of 0.82. Graphite will be mined for 10 years and marble will be mined for 8 years. Production will begin with marble extraction with the extraction of graphite commencing one year later. The PEA costs assume that the mining and flotation will be conducted at the Miller site while thermal treatment processing will occur at the Asbury site. Initial capital costs are \$44.4 million with a payback period of 1.9 years pre-tax and 2.0 years post-tax. The PEA recommended that the Project be immediately advanced to the pre-feasibility stage of development.

The portion of the Miller property which is the subject of the PEA and resource estimate occupies only 0.22km<sup>2</sup> of the Company's approximately 100 km<sup>2</sup> claims package. The Company plans to adopt a rolling resource approach to manage its deposit and accordingly, would continue to explore while in the resources definition and production stages.

The economic analysis contained in the technical report is based on inferred resources (as defined in NI 43-101) and is preliminary in nature. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There is no guarantee that all of any part of the mineral resource will be converted into a mineral reserve. Inferred resources are considered too geologically speculative to have mining and economic considerations applied to them and to be categorized as mineral reserves (as defined by NI 43-101). Additional trenching and/or drilling will be required to convert inferred mineral resources to measured or indicated. There is no certainty that the reserve's development, production and economic forecasts on which the PEA is based will be realized.

On March 7, 2016, the Company announced that it has begun a Pre-Feasibility Study as recommended in the PEA. The Company completed a 47 hole, 3,380 metre in-fill drill program to provide additional assay data required to upgrade the inferred graphite and marble resources to measured or indicated resources. The assay results were sent to Actlabs for analysis and were included in the Company's database for the resource calculation.

The Company obtained the results of a test of the acid generation/metal leaching potential of the waste rock, graphite feedstock, and mill tailings. The results indicate that there are no environmental concerns of any kind, and as a result, it is anticipated that the Company will not be required to collect water from the various mineral storage pads, greatly reducing the need for water treatment and associated infrastructure.

In May 2016, the Company performed field exploration activities on the contiguous claims known as the West block, which are centered approximately 10 kilometres ("km") west of the Miller Phase 1 mine development activities. Two grab samples (sample A and sample B) of approximately 20 kg each were extracted from bedrock sites 3.5 km apart, for the purpose of testing the metallurgical performance of the graphite mineralization found on the Miller West property and to compare the results with those from the graphite deposit found at Phase 1 of the Miller Project.

The two samples were transported to SGS (Lakefield) where they were processed under the supervision and technical guidance of Mr. Oliver Peters to produce a flotation concentrate using the flowsheet and conditions that were developed for the Miller Project in previous laboratory and pilot plant programs. The

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

concentrates produced yielded the coarsest particle distributions of any yet reported, with both samples containing greater than 40% jumbo flake (+48 mesh) graphite crystals.

Both concentrate samples were assessed at Evans Analytical by GDMS before and after thermal treatment. The results are provided in the table below.

Sample	Head Grade (Cg%)	Flotation Concentrate (Ct%)	Post-Treatment (Ct%)
A	0.57	99.3	<b>99.9992</b>
B	2.56	99.7	<b>99.9997</b>

The Company used the same metallurgical processing parameters developed for the processing of graphite mineralization at Phase I, in order to allow for meaningful comparisons of the analytical results from different sampling locations, based on standardized sample treatments. The results from Sample A and B are substantially equivalent to the results obtained from the thermal upgrading of flotation concentrate from the Company's pilot plant program. The substantial equivalence of the metallurgical upgrading results from these widely separated locations strongly supports the Company's hypothesis for a district-scale marble-hosted hydrothermal graphite depositional event.

Sample A was collected on VTEM target W3, from a bedrock skarn zone at the contact between marble and paragneiss units, similar to the geologic environment and mineralization occurring at VN8 on the Miller East block claims.

Sample B was collected from a pegmatitic skarn in outcrop found during field exploration on the strike extension of the historic Cameron showing, identified from a review of historic documents, approximately 3.5 km SSW of W3. A number of small historic pits can still be seen at Cameron, which lies at the southern end of a 3 mile (5 km) long graphite trend described in the historical record. The northern extremity of this 3 mile long alignment corresponds with the historical McArthur showing, and also to VTEM anomaly W2, which have not yet been the subject of prospecting activities.

The geological modeling for the Miller Project (Phase 1) resource estimate has provided the Company with a validated database suitable for high-level interpretation of geophysical data. When combined with field sampling and prospecting activities, as well as Quebec government geological models, the Company's 2013 VTEM program database can now be used to identify significant structural features as well as rock types. Based on this modelling, the Company has potentially identified a marble unit exceeding 12 km in length, and open on strike in both directions, on the West Block. Marble is the host for the high-purity hydrothermal lump-vein graphite resource defined for the Miller Phase 1 mine development. The historical 3 mile graphitic trend corresponds very well with the Company's model of the marble unit, as do the VTEM anomalies already identified.

A large VTEM anomaly is coincident with a graphitic paragneiss unit on the W3 anomaly. At the contact of the paragneiss is a marble unit that extends to the west, with a skarn unit between the paragneiss and the marble, which is the source of Sample A. The previously completed trenching program at target W3 focused on the large anomalies generated by the paragneiss unit. A seven meter channel sample was collected from the exposed marble unit during the second week of July 2016, to evaluate the marble-hosted graphite found in those trenches. Additional trenching will be conducted to further expose the marble and skarn unit in the W3 target area. The Cameron showing (the source of Sample B) and the adjacent marble unit will be the first new target investigated by prospecting and beep-mat geophysics, with other targets to follow.

## **Operating Activities- Exploration Properties (Continued)**

### Miller (Continued)

In December 2016, the Company reported the results of an updated Mineral Resource Estimate for the Miller Project. The Estimate was prepared by SGS Canada Inc. of Blainville, Quebec. The updated resource estimate includes an indicated resource of 2.65 million tonnes with an average grade of 0.80% graphite and an inferred resource of 7.56 million tonnes with an average grade of 0.77% graphite, within the boundaries of an optimized open pit mine model. The Company has thus far completed sufficient diamond drilling and bedrock channel sampling to result in a resource calculation that would confirm adequate indicated graphite resources to support a minimum 10 year mine life with a maximal depth of a pit at 126 vertical meters. Geological modeling based on the drill results and surface trenching and mapping indicates that the deposit remains open at depth and on both strike extensions. The geological model also provides multiple exploration targets with the potential to further expand the graphite mineral resources.

During 2015 and 2016, the Company advanced its permitting activities. Canada Carbon hired a land surveyor that is familiar with mining permits to perform a land survey of the lots and of our proposed mining permit limits. The ground survey work that is necessary to obtain the quarry lease and mining permit will be completed in the Spring of 2017.

Prior to production of marble, the Company must obtain authorization from the "Commission de la Protection du Territoire Agricole du Quebec" ("CPTAQ") and Certificates of Authorization from the Ministry of Sustainable Development, Environment and the Fight against Climate Change ("MSDEFCC"). The CPTAQ is an organization that protects farm land. The Company has contracted a number of consultants to confirm the unsuitable nature of the Miller land for agriculture. The consultants have produced the necessary reports to request the authorization from the CPTAQ.

Environmental assessments, including hydrology, hydrogeology, and floral and faunal assessments for the Miller property will be completed in 2017 for the quarry operation while the same assessments for the graphite operation will be completed in 2018. Applications will then be submitted to the MSDEFCC, to obtain Certificates of Authorization to operate a marble quarry as part of Phase 1 of the Miller Project.

In December 2016, the Company received unanimous support from the Grenville-sur-la-Rouge (GSLR) Municipal Council for its application to the CPTAQ to remove the Miller Project lands from provincial agricultural reserves. In February 2017, GSLR Municipal Council informed the Company that it would hold off on its support until board public consultations in GSLR could be held to address questions raised by residents. Two public meetings were held in February 2017 to consult local citizens and to discuss the regulatory and technical aspects of the development proposal. In March 2017, the GSLR Municipal Council reconfirmed its support for the CPTAQ application for the Miller Project.

While the Company holds a claim package consisting of 180 claims on the Miller Property, a number of those claims were pending since their acquisition because they overlaid, completely or in part, areas which were restricted in 2014 by Regional County Municipalities in order to protect certain lands from mineral exploration. This temporary restriction was to be revised once new guidelines to define such territories were passed into law by the province of Quebec. Those guidelines were released in January 2017 and since new mining incompatible territories cannot be retroactively applied to existing or pending claims, the pending claims status was removed and active claims were issued to Canada Carbon. The Company will conduct a review of the newly granted claims to ensure that the Company's activities are in line with the Municipality's development plan to the greatest extent possible. The Company has already identified a number of areas where they will not conduct exploration work.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

The Company is continuing its market development activities. In June 2016, it reported that it was in the final stages of qualifying its high purity thermally treated graphite as potential feed stock for the production of non-oxide graphene nano-platelets, in partnership with Celtig LLC (“Celtig”), a producer of mechanically exfoliated, high quality graphene products. Celtig employs a high efficiency, low temperature process using only benign chemicals that can be almost entirely recycled for further use. Celtig, LLC is a Tennessee limited liability company founded to produce high quality graphene nano-sheets and flakes and to distribute commercial quantities of this line of products at affordable prices to markets worldwide. Production of this high quality graphene, marketed under the trade name Cicarbo™, has been achieved through new technology and manufacturing processes designed and developed by company founders. Celtig has successfully implemented these new patent-pending processes in its East Tennessee production facility using especially designed equipment that was also developed and patented by company principals. Whereas two company founders are faculty members of the College of Engineering at the University of Tennessee-Knoxville, a natural partnership has arisen between Celtig and the University with respect to research and development as well as commercialization opportunities. Celtig testing is underway.

Canada Carbon held discussions with X-Energy, LLC (“X-Energy”) to submit samples of its thermally upgraded graphite for qualification testing as a component of nuclear fuel compacts (“pebbles”) to be used in their high-temperature gas-cooled nuclear reactor development program. On July 5<sup>th</sup>, 2016, X-Energy signed a five-year US\$53 million dollar Advanced Reactor Concept Cooperative Agreement with the US Department of Energy (“DOE”). The DOE Agreement provides funding for reactor design, fuel development, and initial licensing activities for X-Energy’s Xe-100 pebble bed nuclear reactor. Each Xe-100 reactor will be fueled by approximately 170,000 pebbles. Each pebble is composed of a central sphere of uranium pellets embedded in a graphite matrix, which is then coated with a durable hard shell. The graphite matrix is comprised of ultra-high purity materials, specifically a blend of 64% natural graphite, 16% synthetic graphite, and 20% graphitizable resin binder. Canada Carbon prepared approximately 12 kg of its thermally upgraded Miller graphite in accordance with X-Energy’s specifications, which will then be made into pebbles for testing.

In March 2017, the Company announced that it met the stringent qualifications specifications of a well-known international graphite products supplier for a category of high-technology applications in which they are a world leader. The Company has been asked to provide material for a full-scale production trial.

The Village of Grenville made public an independent hydrogeological report on the Miller Project’s potential for any impact on the Village of Grenville’s drinking water supply for its 1,700 residents, sourced from wells which are located 2.2 km southeast of the Miller Project. The report’s conclusion is that the Project, as proposed, will pose zero risk to either the quantity or quality of the drinking water supply for Grenville Village.

The report was prepared by Julie Gauthier, ing., M.Sc.A. (Hydrogeologist) and Karl Lechat, Ph.D., from Laforest Nova Aqua Inc. (“LNA”), which is dated May 26<sup>th</sup> 2017. It includes both a hydrogeological study and an evaluation of the impacts of Canada Carbon’s proposed Miller Project on the Village’s community drinking water supply. In addition, the report also updated the protection areas in the aquifer surrounding the Village’s wells.

## Operating Activities- Exploration Properties (Continued)

### Miller (Continued)

The independent report includes the following information:

- The water gradient in the vicinity of the Miller Project goes towards the SW, within the Calumet River watershed. This means that both surface and groundwater are flowing away from the McGillivray Lake area towards the Miller Project. This also indicates that the water from the Project is flowing away from the houses located on Scotch road. This virtually eliminates any risks of water quality impacts on neighboring private water wells because the Miller Project is downstream from them.
- The wells from which the Village of Grenville sources its drinking water are within the Kingham River watershed, which flows in a NE direction from the Village's community wells, in the opposite direction from the water flow at the Miller Project.
- The report concludes that there is no potential for impact of the Miller Project on the Village of Grenville's water supply.

Canada Carbon has recently mandated BluMetric Environmental ("BluMetric") to complete the final surveys needed to obtain a Certificate of Authorisation for its Miller Project marble quarry. The work to be performed during the coming month includes pumping tests to determine any potential effects of mine dewatering on the other water wells in the area. This work phase will complete the hydrogeology database on underground water gradients, and allow a final report to be prepared by BluMetric. Canada Carbon's project manager and the BluMetric team will consult with the Ministry of Environment, Sustainable Development and Fight Against Climate Change to ensure that its proposed work program is adequate to complete its application for the marble quarry Certificate of Authorisation.

Another significant aspect of water quality impact assessment is the possibility of water contamination. BluMetric Environmental has concluded that the results of the Company's acid generation tests (acid/base analysis, modified Sobek method) and lixiviation tests (metal leaching) were sufficient to meet the standards required to obtain the quarry and mine Certificates of Authorisation, in accordance with Directive 19 on the Mining Industry (MDDELCC, 2012). The complete test results have been available on the Company's website since February 2017. The results show that no acid mine drainage can be generated from the waste rock, graphite mineralization and tailings produced over the life of the Project, due to the very high lime content in the host rock. Directive 19 defines non-acid generating materials as those with acid neutralizing potential three times that of the acid generating potential (PN/PA > 3). The average PN/PA ratios for Miller waste rock, mineralization and tailings are 254, 160, and 67, respectively, far in excess of the threshold criterion to be defined as non-acid generating rock. Furthermore, the metal leach test results indicate that the same rocks will not leach any metals since the initial metal content is very low, and there will be no acid generated to dissolve the trace amounts that are present.

The Company is conducting a summer 2017 drill program to increase management's confidence in the resource modelling beyond the boundaries of the existing indicated resources. One of the key goals of the drill program is to enhance the near-surface graphite resource category which may allow the Company to maintain or improve its current economic projections within a smaller and shallower open pit operating plan. The drill program is being carried out in selected areas away from wetlands and environmentally sensitive zones identified in our environmental assessments, to ensure that any further discoveries will also have a minimal impact on the environment as we continue to assess options for mine optimization. Another goal of the drill program is to increase the knowledge of the continuity and quality of the white marble zones which is expected to be quarried to yield blocks and slabs of architectural stone. Drilling of the priority targets has been completed and the resource model is currently being reviewed.

Rémi Charbonneau, Ph.D., P. Geo, an Associate of Inlandsis Consultants s.e.n.c. is the Independent Qualified Person under National Instrument 43-101 for the Company.

## **Operating Activities- Exploration Properties (Continued)**

### Miller (Continued)

As of June 30, 2017, the Company incurred \$369,414 of acquisition costs and \$4,081,426 of exploration and evaluation expenditures on the Miller property, net of write-offs and recoveries. Exploration expenditures of \$115,796 were incurred in the first quarter of 2017 while exploration expenditures of \$87,877 were incurred in the second quarter of 2017. The nature of expenditures incurred is provided in Note 10 of the financial statements.

### Dun Raven

The Dun Raven acquisition includes: Dun Raven A, Dun Raven G and Dun Raven A Extension. Dun Raven A is a graphite deposit with historic reserves of 571,532 tons at 4.72% graphite. The property is easily accessible, 3.5 hours west of Montreal, in the Thorne Township.

The historic reserves come from drilling over a geophysical (self-potential) anomaly. The reserves are only from the drilled part of the anomaly (200 feet max depth of holes) and there is still 75% more of the anomaly left to drill. It is also possible that the tonnage or the grade will vary and the overall deposit could be richer. Numerous high grade samples were found at surface.

The only available description from the Ministry of Natural Resources of Quebec of the graphite quality is from 1955 (GM11478). A flotation process was able to produce a 77.60% C concentrate. It is said that no problems were expected to produce a 80-85% C concentrate. The mesh size of the concentrate was 32.97% +100 mesh. Another test included more grinding and produced 24.43% +100 mesh, 38.38% +200 mesh and 23.57% -200 mesh. The same report tells us that the produced concentrate (76% C) contained low iron content.

During fiscal 2014, the Company staked three additional claims continuous with and connecting the Dun Raven A and Dun Raven G claims and allowed the Dun Raven A Extension claims to expire.

The Company has only conducted minimal exploratory work on the Dun Raven claims as it is currently focused on its Miller property.

As of June 30, 2017, the Company incurred \$34,476 of acquisition costs and \$203,304 of exploration and evaluation expenditures on the Dun Raven property, net of write-offs and recoveries. Acquisition costs of \$375 and exploration expenditures of \$217 were incurred in the first quarter of 2017. No acquisition or exploration expenditures were incurred in the second quarter of 2017. The nature of expenditures incurred is provided in Note 10 of the financial statements.

### Walker

In March 2013, the Company decided to terminate its interest in the Walker property and all capitalized costs were written off.

## **Operating Activities- Exploration Properties (Continued)**

### **White Gold District Claims, Yukon, Canada**

In September 2010, the Company acquired a 100% interest in 128 mineral claims, covering over 6,500 acres, in two separate claim blocks in the White Gold District/Stewart River Area of the Yukon. The claims were underlain by the same quartz-muscovite and chlorite-muscovite schist of the Nasina Assemblage that hosts the deposits on the White Gold property.

In September 2010, Equity Exploration Consultants Ltd. was engaged to carry out a comprehensive work program. The objective of the work program was to assist in establishing drill targets and areas of high priority for further exploration. As a result of sampling conducted by Equity Exploration Consultants Ltd., a significant multi-element soil anomaly was discovered on one of Canada Carbon's claim blocks. Follow up soil sampling was conducted in 2011.

In 2012, given the Company's focus on graphite, interest in one of its two claim blocks was written off. The remaining claim block was written off in 2014. All claims expire in July 2017 and the Company does not intend on renewing these claims.

### **Carbonatite Syndicate Rare Earth Claims, British Columbia, Canada**

In March 2010, the Company entered into an option agreement to acquire 100% interest in the Carbonatite Syndicate Rare Earth Claim Group, surrounding Spectrum Mining Corporation's reported "Wicheeda" rare earth discovery. The Carbonatite Syndicate Claim Group is 80 km northeast of Prince George, BC and comprises 43 mineral claims covering approximately 39,715.5 acres (16,045 hectares).

During 2010, the Company acquired interests in additional claims surrounding its original March 2010 optioned claims. These additional acquisitions resulted in the Company holding 211 claims covering 222,414.3 acres.

Multiple work programs were conducted on the property. In 2010, work programs consisted of visual reconnaissance, silt and soil sampling, geological mapping and scintillometer surveys. State-of-the-art AeroTEM and Radiometric airborne geophysical surveys were undertaken on the claims.

In 2011, the Company conducted a seven core hole drill program. Late in the season, exposures of carbonatites and other intrusives south of the drilled area were located however, given the permitting process, it was too late in the season to drill this area. In addition, approximately 4,000 km of airborne Total Magnetic Intensity, eTH and eU survey were conducted.

Given the Company's limited cash position and its focus on graphite, further work on the claims was deferred indefinitely so the deferred costs were written off accordingly in 2012.

### **Arcadia**

In 2007, the Company entered into an agreement to acquire a 50% interest in the Arcadia property, a 1,280 hectare area of Inuit-owned land located in Canada's Nunavut territory from Alix Resources Corp. While the assays from a drill program in 2008 were encouraging, the Company did not anticipate doing any additional work on the property and accordingly wrote off the capitalized costs in 2009. The Company dropped its interest in the property in 2013. Reclamation on the Arcadia property will begin in the third quarter of 2017.

## Results of Operations

The results of operations reflect the overhead costs incurred for mineral property acquisitions and exploration expenses incurred by the Company to maintain good standing with the various regulatory authorities and to provide an administrative infrastructure to manage the acquisition, exploration and financing activities of the Company. General and administrative costs can be expected to increase or decrease in relation to the changes in property acquisition, exploration and sales activities. As at June 30, 2017, the Company had not recorded any significant revenues.

The Company incurred a net loss of \$246,650 for the three months ended June 30, 2017 compared with a loss of \$173,571 in the same period in the prior year. The significant variances are explained below:

- A \$32,775 increase in consulting fees relates to corporate advisory fees and fees related to the evaluation of a business opportunity.
- A \$26,265 increase in professional fees relates to legal and due diligence costs related to financing activities and legal fees related to the CPTAQ review and road access review;
- A \$9,131 increase in office, rent and miscellaneous relates to increases in Part X11.6 tax for flow-through, telephone, computer support, supplies and payroll tax.
- A \$6,696 decrease in shareholder communication and promotions is attributable to decreased activities as a result of limited cash resources during part of the quarter;
- A \$35,135 decrease in share-based compensation as the expense in 2017 relates to the black scholes value of 1,000,000 options granted in October 2015 while the expense in 2016 relates to the black scholes value of 500,000 options granted in October 2014 and 1,000,000 options granted in October 2015;
- A \$5,454 decrease in flow-through premium relates to the difference in the size of the premiums from flow-through financings and the timing of flow-through expenditures; and
- A \$43,269 increase in restoration, rehabilitation and environmental related to an adjustment of the estimate for the rehabilitation of the Arcadia property.

The Company incurred a net loss of \$423,333 for the six months ended June 30, 2017 compared with a loss of \$317,045 in the same period in the prior year. The explanations for the significant variances are the same as identified above.



## Summary of Quarterly Results

The following table sets out selected quarterly information for the last eight quarters.

<b>Three Months Ended</b>	<b>June 30, 2017</b>	<b>March 31, 2017</b>	<b>December 31, 2016</b>	<b>September 30, 2016</b>
	\$	\$	\$	\$
Revenue (investment income)	2,291	409	797	1,262
Net Income (Loss)	(246,650)	(176,683)	(296,098)	(149,895)
Net Income (Loss) per common share	(0.00)	(0.00)	(0.01)	(0.00)
<b>Three Months Ended</b>	<b>June 30, 2016</b>	<b>March 31, 2016</b>	<b>December 31, 2016</b>	<b>September 30, 2015</b>
	\$	\$	\$	\$
Revenue	989	2,586	4,015	5,148
Net Income (Loss)	(173,571)	(143,474)	(218,257)	(67,417)
Net Income (Loss) per common share	(0.00)	(0.00)	(0.01)	(0.00)

## Liquidity and Capital Resources

The Company's cash and cash equivalent position at June 30, 2017 was \$1,642,751 compared with a cash and cash equivalent position of \$410,743 at December 31, 2016. At June 30, 2017, the Company had working capital of \$1,108,046 compared to working capital of \$136,029 at December 31, 2016.

For the six months ended June 30, 2017, the Company utilized \$328,115 for operating activities and \$198,663 for mineral property expenditures. The Company obtained \$1,758,770 from the proceeds of private placements net of issue costs.

In April 2017, the Company closed a non-brokered private placement whereby the Company issued 1,650,000 flow-through shares at \$0.30 per share and 5,930,000 non-flow-through units at \$0.23 per unit. Each unit consisted of one common share and one warrant exercisable at \$0.30 for three years. Gross proceeds were \$1,858,900.

The Company will require additional funding for the anticipated costs to bring the Miller project through the feasibility stage. Management believes it will be successful in raising the required funding.

There were no material credit facilities in place as at June 30, 2017.

Any commitments to pay cash or issue shares are disclosed in the notes to the financial statements.

## **Related Party Transactions**

During the six months ended June 30, 2017, the Company entered into the following transactions with related parties:

- a) Incurred management fees of \$125,000 (2016 - \$125,000) to R. Bruce Duncan, CEO and Chairman of the Board. As at June 30, 2017, \$111,250 (2016 - \$Nil) was included in accounts payable.
- b) Incurred Director fees of \$18,000 (2016 - \$18,000) for independent Board members. As at June 30, 2017, \$9,000 (2016 - \$Nil) was included in accounts payable.
- c) Incurred professional fees of \$60,000 (2016 - \$60,000) to Olga Nikitovic (CFO). As at June 30, 2017, \$54,000 (2016 - \$Nil) was included in accounts payable.
- d) Incurred legal fees of \$11,194 (2016 - \$5,118) from Aird & Berlis LLP which are included in professional fees and \$5,333 (2016 - \$Nil) which are included in share issue costs. Tom Fenton, Corporate Secretary for the Company is a partner with Aird & Berlis, LLP. As at June 30, 2017, \$Nil (2016 - \$4,768) was included in accounts payable.

The compensation for key management personnel is identified above in (a), (b) and (c). The Company does not pay any health or post employment benefits. Share-based payments to officers and directors were valued at \$14,095 (2016 - \$95,147).

## **Off Balance Sheet Arrangements**

The Company is not a party to any off balance sheet arrangements or transactions.

## **Changes in Accounting Policies**

### **Current Accounting Changes**

Please refer to Note 4 of the financial statements for a complete description of accounting policy changes.

### **Adoption of new and amended IFRS pronouncements**

The Company has adopted the following new standard, along with any consequential amendments, effective January 1, 2017. These changes were made in accordance with the applicable transitional provisions. The adoption of these standards has not had a material impact on the Company's financial statements.

IAS 7 – Statement of Cash Flows (“IAS 7”) was amended in January 2016 to clarify that disclosures shall be provided that enable users of financial statements to evaluate changes in liabilities arising from financing activities.

## **Changes in Accounting Policies (Continued)**

### **Future accounting changes**

Certain pronouncements were issued by the IASB or the IFRIC that are mandatory for accounting periods after January 1, 2017. Many are not applicable or do not have a significant impact to the Company and have been excluded. The following have not yet been adopted and are being evaluated to determine their impact on the Company.

IFRS 9 – Financial Instruments (“IFRS 9”) was issued by the IASB in November 2009 with additions in October 2010 and May 2013 and will replace IAS 39 Financial Instruments: Recognition and Measurement (“IAS 39”). IFRS 9 uses a single approach to determine whether a financial asset is measured at amortized cost or fair value, replacing the multiple rules in IAS 39. The approach in IFRS 9 is based on how an entity manages its financial instruments in the context of its business model and the contractual cash flow characteristics of the financial assets. Most of the requirements in IAS 39 for classification and measurement of financial liabilities were carried forward unchanged to IFRS 9, except that an entity choosing to measure a financial liability at fair value will present the portion of any change in its fair value due to changes in the entity’s own credit risk in other comprehensive income, rather than within profit or loss. The new standard also requires a single impairment method to be used, replacing the multiple impairment methods in IAS 39. IFRS 9 is effective for annual periods beginning on or after January 1, 2018. Earlier adoption is permitted.

### **Critical Accounting Estimates**

The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amount of the assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amount of revenues and expenses during the year. The impact of these estimates are pervasive throughout the financial statements and may require accounting adjustments based on future occurrences. Revisions to accounting estimates are recognized in the period in which the estimate is revised and future periods if the revision affects both current and future periods. Estimates are based on historical experience, current and future economic conditions and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Significant estimates made by the Company include factors affecting the recoverability of exploration and evaluation expenditures, valuation of restoration, rehabilitation and environmental obligations, inputs used for share based payment transactions, inputs used for valuation of warrants and deferred tax assets and liabilities. Actual results could differ from those estimates.

The areas which require management to make significant judgments, estimates and assumptions in determining carrying values include, but are not limited to:

#### **Assets’ carrying values and impairment charges**

In the determination of carrying values and impairment charges, management looks at the higher of recoverable amount or fair value less costs to sell in the case of assets and at objective evidence, significant or prolonged decline of fair value on financial assets indicating impairment. These determinations and their individual assumptions require that management make a decision based on the best available information at each reporting period.

#### **Capitalization of exploration and evaluation costs**

Management has determined that exploration and evaluation costs incurred during the year have future economic benefits and are economically recoverable. In making this judgement, management has assessed various sources of information including but not limited to the geologic and metallurgic information, proximity of operating facilities, operating management expertise and existing permits.

## **Critical Accounting Estimates (Continued)**

### **Impairment of exploration and evaluation assets**

While assessing whether any indications of impairment exist for exploration and evaluation assets, consideration is given to both external and internal sources of information. Information the Company considers includes changes in the market, economic and legal environment in which the Company operates that are not within its control that could affect the recoverable amount of exploration and evaluation assets. Internal sources of information include the manner in which exploration and evaluation assets are being used or are expected to be used and indications of expected economic performance of the assets. Estimates include but are not limited to estimates of the discounted future after-tax cash flows expected to be derived from the Company's mining properties, costs to sell the properties and the appropriate discount rate. Reductions in metal price forecasts, increases in estimated future costs of production, increases in estimated future capital costs, reductions in the amount of recoverable mineral reserves and mineral resources and/or adverse current economics can result in a write-down of the carrying amounts of the Company's exploration and evaluation assets.

### **Estimation of decommissioning and restoration costs and the timing of expenditure**

The cost estimates are updated annually to reflect known developments, (e.g. revisions to cost estimates and to the estimated lives of operations), and are subject to review at regular intervals. Decommissioning, restoration and similar liabilities are estimated based on the Company's interpretation of current regulatory requirements, contractual and constructive obligations and are measured at fair value. Fair value is determined based on the net present value of estimated future cash expenditures for the settlement of decommissioning, restoration or similar liabilities that may occur upon decommissioning of the mine. Such estimates are subject to change based on changes in laws and regulations and negotiations with regulatory authorities.

### **Income taxes and recoverability of potential deferred tax assets**

In assessing the probability of realizing income tax assets recognized, management makes estimates related to expectations of future taxable income, applicable tax planning opportunities, expected timing of reversals of existing temporary differences and the likelihood that tax positions taken will be sustained upon examination by applicable tax authorities. In making its assessments, management gives additional weight to positive and negative evidence that can be objectively verified. Estimates of future taxable income are based on forecasted cash flows from operations and the application of existing tax laws in each jurisdiction. Where applicable tax laws and regulations are either unclear or subject to ongoing varying interpretations, it is reasonably possible that changes in these estimates can occur that materially affect the amounts of income tax assets recognized. Also, future changes in tax laws could limit the Company from realizing the tax benefits from the deferred tax assets. The Company reassesses unrecognized income tax assets at each reporting period.

### **Share-based payments**

Management determines costs for share-based payments using market-based valuation techniques. The fair value of the market-based and performance-based share awards are determined at the date of grant using generally accepted valuation techniques. Assumptions are made and judgment used in applying valuation techniques. These assumptions and judgments include estimating the future volatility of the stock price, expected dividend yield, future employee turnover rates and future employee stock option exercise behaviors and corporate performance. Such judgments and assumptions are inherently uncertain. Changes in these assumptions affect the fair value estimates.

## **Financial Instruments**

Canadian generally accepted accounting principles require that the Company disclose information about the fair value of its financial assets and liabilities. Fair value estimates are made at the statement of financial position date, based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties in significant matters of judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect these estimates.

## Financial Instruments (Continued)

The carrying amounts of cash, receivables and accounts payable and accrued liabilities on the statement of financial position approximate fair market value because of the limited term of these instruments. The Company's cash equivalents classified as held-for trading are carried at fair value. The fair value of its cash equivalents is determined by inputs other than quoted prices that are observable either directly or indirectly.

The Company does not believe it is exposed to significant interest, currency or credit risk arising from these financial instruments. The Company's risk exposures and the impact on the Company's financial instruments are summarized below:

### Credit risk

Credit risk is the risk of loss associated with a counterparty's inability to fulfil its payment obligations. The Company's credit risk is primarily attributable to receivables. The receivables relate to sales tax and refunds due from the Federal and Provincial governments. The Company has no significant concentration of credit risk arising from operations.

### Liquidity risk

Liquidity risk is the risk that the Company will not have sufficient cash resources to meet its financial obligations when they come due. The Company generates cash flow through its private placements in the equity markets. All of the Company's financial liabilities have contractual maturities of less than 30 days and are subject to normal trade terms. The Company will require additional funding to bring the Miller project through the feasibility stage. The Company believes it will be successful in raising additional funding.

### Market risk

#### (a) Interest rate risk

The Company has cash balances and no interest-bearing debt therefore, interest rate risk is minimal.

#### (b) Foreign currency risk

The Company's functional and presentation currency is the Canadian dollar. Certain expenditures are transacted in foreign currencies. As a result, the Company is exposed to fluctuations in these foreign currencies relative to the Canadian dollar. Management does not hedge its foreign exchange risk. A 1% change in foreign exchange rates between the Canadian and US dollar at June 30, 2017 would not have a significant impact on the Company's financial statements.

#### (c) Commodity and equity price risk

The Company is exposed to price risk with respect to commodity prices and equity prices. Commodity price risk is the potential adverse impact on the Company's earnings and value due to volatility in commodity price movements. Equity price risk is the potential adverse effect on the Company due to movements in individual equity prices or the stock market in general. The Company closely monitors commodity prices, individual equity movements and the stock market volatility to determine the appropriate course of action to be taken by the Company.

Commodity prices could adversely affect the Company's future profitability. Even though the Company is not currently a producer and is not expected to be for a number of years, commodity prices may affect the completion of future equity financings and therefore, the Company's liquidity and its ability to meet its ongoing obligations.

#### (d) Sensitivity analysis

Based on management's knowledge and experience of the financial markets, the Company does not expect material movements in the underlying market risk variables over the next three month period.

## **Proposed Transactions**

The Company continues to review and assess possible transactions.

## **Contingencies**

The Company does not have any contingencies or commitments other than those disclosed in the notes to the financial statements.

## **Subsequent Events**

There are no material subsequent events other than those disclosed in the notes to the financial statements.

## **Management's Responsibility for Financial Statements**

The information provided in this report, including the financial statements, is the responsibility of management. In the preparation of these statements, estimates are sometimes necessary to make a determination of future values for certain assets or liabilities. Management believes such estimates have been based on careful judgements and have been properly reflected in the financial statements.

## **Risks and Uncertainties**

The Company's financial condition, results of operation and business are subject to risks. The following are identified as the main risk factors:

### **Financing**

The Company is reliant upon equity financing in order to continue its operations because it is in the business of mineral exploration and does not derive any income from its mineral assets. There is no guarantee that future sources of funding will be available to the Company. If the Company is not able to raise additional funding in the future, it will be unable to carry out its operations and may lose its interests in its mineral properties.

### **General Resource Exploration Risks and Competitive Conditions**

The resource exploration industry is an inherently risky business with large capital expenditures and volatile commodity markets. The marketability of any resource discovered may be affected by numerous factors that are beyond the Company's control and which cannot be predicted, such as market fluctuations, costs to develop, infrastructure and processing equipment, and changes to government regulations, including those relating to royalties, allowable production, importing and exporting of minerals, and environmental protection. This industry is intensely competitive and there is no guarantee that, even if commercial quantities are discovered, a profitable market will exist for their sale. The Company competes with other junior exploration companies for the acquisition of mineral properties as well as for the engagement of qualified contractors. Commodity prices can fluctuate widely, and they are determined in markets over which the Company has no influence.

### **Governmental Regulation**

Regulatory standards continue to change, making the review process longer, more complex and therefore more expensive. Exploration and development on the Company's properties is affected by government regulations relating to such matters as environmental protection, health, safety and labour, mining law reform, water use, land use, land claims of local people, restrictions on production, price control, tax increases, maintenance of claims and tenure. There is no assurance that future changes in such regulations couldn't result in additional expenses and capital expenditures, decreasing availability of capital, competition, reserve uncertainty, title risks, and delays in operations. The Company relies on the expertise and commitment of its management team, advisors, and contractors to ensure compliance with current laws.

## Risks and Uncertainties (Continued)

### Permits and Licenses

The operations of the Company are subject to a numerous laws and regulations governing protection of the environment, waste disposal and other matters. The Company is required to have a number of licenses and permits from various governmental authorities to carry out its activities. These permits relate to virtually every aspect of the Company's exploration activities. Obtaining permits can be a complex, time-consuming process. There can be no assurance that the Company will be able to obtain the necessary permits on acceptable terms, in a timely manner or at all. The cost of delays associated with obtaining permits or complying with the permits could halt, materially delay or restrict the Company from continuing or proceeding with existing or future operations.

## Disclosure Controls and Procedures

TSX Venture listed companies are not required to provide representations in the annual filings relating to the establishment and maintenance of Disclosure controls and procedures ("DC&P") and Internal controls over financial reporting ("ICFR"), as defined in National Instrument 52-109. In particular, the CEO and CFO certifying officers do not make any representations relating to the establishment and maintenance of (a) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation, and (b) a process to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's IFRS. The issuer's certifying officers are responsible for ensuring that processes are in place to provide them with sufficient knowledge to support the representations they are making in their certificates regarding the absence of misrepresentations and fair disclosure of financial information. Investors should be aware that inherent limitation on the ability of certifying officers of a venture issuer to design and implement on a cost effective basis DC&P and ICFR as defined in National Instrument 52-109 may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.

## Other MD&A Requirements

As at the date of this MD&A, the Company had 103,309,074 common shares issued and outstanding.

Stock options of the Company outstanding at the date of this MD&A were as follows:

Options	Exercise Price \$	Expiry Date
1,450,000	0.10	April 17, 2018
675,000	0.25	October 18, 2018
1,200,000	0.20	July 15, 2019
500,000	0.22	October 30, 2019
1,000,000	0.245	October 30, 2020
2,100,000	0.19	August 4, 2022
6,925,000		

### Other MD&A Requirements (Continued)

Warrants of the Company outstanding at the date of this MD&A were as follows:

Warrants	Exercise Price \$	Expiry Date
2,500,000	0.30	April 12, 2020
3,430,000	0.30	April 26, 2020



**CANADA CARBON INC.**

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**CORPORATE DATA**

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**August 28, 2017**

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**DIRECTORS AND OFFICERS**

R. Bruce Duncan	Executive Chairman of the Board & CEO
Bruce Coventry	Director
Greg Lipton	Director
Pieter Barnard	Director
Olga Nikitovic	CFO
Thomas A. Fenton	Corporate Secretary

**CAPITALIZATION**

Authorized:	Unlimited
Issued:	103,309,074
Escrow:	Nil

**SOLICITORS**

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**LISTINGS**

TSX Venture Exchange  
Trading Symbol: CCB

Frankfurt Exchange  
Trading Symbol: U7N