**Gratomic Inc.**
**(Formerly CKR Carbon Corporation)**
**MANAGEMENT DISCUSSION AND ANALYSIS**
**(Form 51-102F1)**
**For the year ended December 31, 2018**

Gratomic

## This MD&A is dated April 30, 2019

On December 22, 2017, the Company changed its name to Gratomic Inc. (formerly CKR Carbon Corporation) (hereafter the "Company" or "Gratomic Inc."), which was incorporated under the Business Corporations Act (Ontario), R.S.O. 1990, on February 27, 2007 and is listed on the TSX Venture Exchange (TSX-V: GRAT). The Company's corporate office is located at 130 Spadina Avenue, Suite 401, Toronto ON, M5V 2L4. The Company is a junior exploration company primarily engaged in the acquisition and exploration of exploration and evaluation assets located in Canada and Namibia.

The following is the management discussion and analysis ("MD&A") of the financial condition, changes in financial condition and results of operations of Gratomic Inc.for the year ended December 31, 2018. The MD&A should be read in conjunction with the consolidated financial statements of the Company for the year ended December 31, 2018 (www.sedar.com) which have been prepared using accounting policies consistent with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The Company's ability to realize the costs it has incurred to date on its properties is dependent upon it being able to identify economically recoverable reserves; to finance their exploration and evaluation costs; to resolve any environmental, regulatory, or other constraints which may hinder the successful development of the reserves; and to attain profitable operations.

The business of mining and exploration for minerals involves a high degree of risk and there can be no assurance that current exploration programs will result in profitable mining operations. The recoverability of the carrying value of exploration and evaluation assets and the Company's continued existence is dependent upon the preservation of its interest in the underlying properties, the discovery of economically recoverable reserves, the achievement of profitable operations, or the ability of the Company to raise alternative financing, if necessary, or alternatively upon the Company's ability to dispose of its interests on an advantageous basis. These conditions indicate the existence of material uncertainties which cast significant doubt on the Company's ability to continue as a going concern. Changes in future conditions could require material write downs of the carrying values.

Although the Company has taken steps to verify title to the properties on which it is conducting exploration and in which it has an interest, in accordance with industry standards for the current stage of exploration of such properties, these procedures do not guarantee the Company's title. Property title may be subject to government licensing requirements or regulations, unregistered prior agreements, unregistered claims, aboriginal claims, and non-compliance with regulatory, environmental and social requirements.

These consolidated financial statements have been prepared on the basis of accounting principles applicable to a going concern. Accordingly, they do not give effect to adjustments that would be necessary should the Company be unable to continue as a going concern and therefore be required to realize its assets and liquidate its liabilities and commitments in other than the normal course of business and at amounts different from those in the accompanying consolidated financial statements. Such adjustments could be material. It is not possible to predict whether the Company will be able to raise adequate financing or to ultimately attain profitable levels of operations.

Unless otherwise specified, all dollar amounts herein are expressed in Canadian currency.

Additional information on the Company may be found on SEDAR on www.sedar.com

## Forward-Looking Information

In making and providing the forward-looking information included in this MD&A the Company's assumptions may include among other things: (i) assumptions about the price of metals; (ii) that there are no material delays in the optimisation of operations at the exploration and evaluation assets; (iii) assumptions about operating costs and expenditures; (iv) assumptions about future production and recovery; (v) that there is no unanticipated fluctuation in foreign exchange rates; and (vi) that there is no material deterioration in general economic conditions. Although management believes that the assumptions made and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate. By its nature, forward-looking information is based on assumptions and involves known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements, or results, to be materially different from future results, performance or achievements expressed or implied by such forward-looking information. Such risks, uncertainties and other factors include among other things the following: (i) decreases in the price of base metals; (ii) the risk that the Company will continue to have negative operating cash flow; (iii) the risk that additional financing will not be obtained as and when required; (iv) material increases in operating costs; (v) adverse fluctuations in foreign exchange rates; and (vi) environmental risks and changes in environmental legislation.

This MD&A (See "Risks and Uncertainties") contains information on risks, uncertainties and other factors relating to the forward-looking information. Although the Company has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in the forward-looking information, there may be other factors that cause actual results, performances, achievements or events not to be anticipated, estimated or intended. Also, many of the factors are beyond the Company's control. Accordingly, readers should not place undue reliance on forward-looking information. The Company undertakes no obligation to reissue or update forward looking information as a result of new information or events after the date of this MD&A except as may be required by law. All forward-looking information disclosed in this document is qualified by this cautionary statement.

### Annual Information

| | 2018<br>$ | 2017<br>$ | 2016<br>$ |
|---|---|---|---|
| Revenue | - | - | - |
| Loss and comprehensive loss for the year | (3,397,169) | (1,837,992) | (612,313) |
| Loss per common share | (0.03) | (0.03) | (0.02) |
| Working capital (deficit) | 3,041,563 | 2,206,886 | (15,945) |
| Total assets | 10,609,220 | 7,353,080 | 2,816,063 |
| Weighted average number of common shares | 125,149,387 | 70,112,442 | 32,858,114 |

## Oulook and Performance Highlights

Outlook

Gratomic Inc. is an advanced materials company focused on mine to market commercialization of graphite products most notably high value graphene based components for a range of mass market products. With its unique Aukam graphite asset the Company is poised to replace a large part of declining production capacity of vein graphite from Sri Lanka

Aukam graphite asset
Gratomic currently owns 63% of the historical Aukam graphite mine in Southern Namibia. Aukam graphite has been tested in several high value applications including nano engineered graphenes. The Aukam graphite when converted to graphenes have proven suitable for inks & pastes for the printed electronics industry, super hydrophobic graphene variants for architectural and marine coatings, elastomers for cycle, passenger vehicle tires and elements for resistive heaters. There is year round road access to the Aukam project from paved Highway B4 that runs between Luderitz and Keetmanshoop via district gravel roads south from the Highway. The infrastructure in the area is good with nearby power from the national grid, water from underground aquifers and a rail link to Luderitz and Keetmanshoop adjacent to Highway B4 approximately 70 km north of the project.

In addition to the underground workings on the Aukam property, there are five unprocessed stockpiles that remain from the historical mining. These stockpiles still contain significant graphite and assays of samples taken during detailed sampling on a 10m x 10m grid ranged between 3.98 and 57.07% Cg (carbon as graphite) and averaged 20.04% Cg. The stockpiles provide the company with a supply of high grade graphite that is ready to be processed in the near term.

<u>Performance highlights</u>

Subsequent to year end –

- On January 19, 2019, the Company announced the development of Gratomic's new Graphene Ultra Fuel Efficient Tires with certification and terrain testing targeted for completion in Q3, 2019.
- On February 5, 2019 the Company announced the submission of two additional Exclusive Prospecting License applications along the strike from its Aukam Graphite mine in Namibia.
- On March 4, 2019, company announced it had submitted a full mining license application to the Namibian Ministry of Mines and Energy.

During 2018 private placements of 48,425,000 units at a price of $0.10 per unit for aggregate gross proceeds of $4,842,500 were completed.

During 2018 operations have been focussed on:

1. Building a prototype graphite flotation processing line and testing its output to ensure quality graphite can be produced with the purity needed for the manufacture of graphene.
2. Building the infrastructure necessary to provide offices, lab facilities, warehousing, and housing facilities for staff at the mine.
3. Exploration activities to identify new resources

The Company and its joint venture partner, Perpetuus Carbon Technologies Limited ("Perpetuus"), a wholly owned subsidiary of Perpetuus Advanced Materials, are planning a development program primarily targeted towards elastomer and polymer tire markets.

Perpetuus and Gratomic executed a letter of collaboration pursuant to which Perpetuus undertook to build three specialized process tooling chambers ("Chambers") to be used solely for manufacturing Graphite from Gratomic's historical Aukam Graphite mine in Namibia. The Chambers have been financed by Gratomic Inc. The first one has passed the testing phase and is ready to process the Aukam sourced graphite. The second Chamber is built and the third is in the construction in progress stage.

## Exploration and Evaluation Expenditures

Exploration and evaluation expenditures for the years ended December 31, 2018 aand 2017 are summarized as follows:

Outlays by expenditure category, by project, for the years ended December 31, 2018 and 2017 are as follows:

| | Aukam Namibia project | | Montpellier Quebec project | | Buckingham Quebec project | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| | $ | $ | $ | $ | $ | $ | $ | $ |
| Drilling | 8,736 | 44,356 | - | - | - | 106,798 | 8,736 | 151,154 |
| Field work, supplies and other | 283,394 | 68,116 | - | 23,722 | - | 150,978 | 283,394 | 242,816 |
| Assays | - | 56,406 | - | - | - | - | - | 56,406 |
| Geological and other consulting | 149,128 | 289,282 | 4,159 | 1,159 | 230,500 | - | 383,788 | 290,441 |
| Transport | 89,565 | 28,021 | - | - | - | - | 89,565 | 28,021 |
| Travel and accomodation | 37,517 | 95,890 | - | - | - | - | 37,517 | 95,890 |
| | 568,340 | 582,071 | 4,159 | 24,881 | 546 | 257,776 | 802,999 | 864,728 |

## Results of Operations

The following table provides selected financial information for the three months and years ended December 31, 2018 and 2017.

| | For the three months ended December 31, | | For the years ended December 31, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| | $ | $ | $ | $ |
| Operating expenses | (1,870,426) | (842,041) | (3,397,169) | (1,837,992) |
| Net loss | (1,870,426) | (842,041) | (3,397,169) | (1,837,992) |
| Net loss per share | (0.008) | (0.010) | (0.027) | (0.026) |
| Mining interests | 5,003,062 | 4,200,063 | 5,003,062 | 4,200,063 |
| Total assets | 10,609,220 | 7,353,080 | 10,609,220 | 7,353,080 |

Comments on source and use of funds

During 2018

1. The Company raised $4,998,467 through the issuance of shares, and the exercise of options and wartants.
2. Cash used in operating activities amounted to $2,453,851 comprised of a loss of $3,397,169 of which $786,373 were non-cash items, and $66,945 generated from changes in working capital.
3. Investment in plant and equipment and exploration and evaluation assets amounted to $1,475,841 and $737,453 respectively.

The Company has cash of $2,558,544 at December 31, 2018 and will need to raise additional cash during 2019 to meet its operating plans for the year.

Revenues

None of the Company's properties have advanced to the point where a production decision can be made. As a consequence, the Company has no producing properties and no sales or revenues. From time to time the Company will earn interest from funds on deposit and other income.

The major expense items for the three months and years ended December 31, 2018 and 2017 are summarized as follows:

| | Three months ended December 31, $ | | Years ended December 31, $ | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Consulting | 102,060 | 7,000 | 123,920 | 49,000 |
| Filing fees and permits | 5,662 | 8,752 | 34,015 | 16,482 |
| Investor relations | (28,898) | 13,312 | 190,628 | 27,616 |
| Management fees | 377,200 | 152,000 | 621,500 | 249,323 |
| Marketing | 365,949 | 98,819 | 754,302 | 212,699 |
| Office and other | 171,063 | 48,420 | 329,828 | 59,409 |
| Professional fees | 56,800 | 56,216 | 190,983 | 152,196 |
| Share-based compensation | 628,055 | 453,000 | 795,782 | 1,041,000 |
| Travel, meals and accomodation | 192,536 | 17,494 | 381,620 | 59,191 |
| Other | - | (12,972) | (25,409) | (28,924) |
| | 1,870,426 | 842,041 | 3,397,169 | 1,837,992 |

## Exploration and Evaluation Assets

The technical content of the mineral property disclosure in this MD&A has been reviewed and approved by Steven Gray, B.Sc., P. Geo, Gratomic's QP and a qualified person as defined by National Instrument 43-101. Except where noted the property disclosure in this MD&A has not been the subject of a National Instrument 43-101 report.

**Aukam Graphite Project, Namibia**

The Aukam property is comprised of Exclusive Prospecting License (EPL) 3895 in respect of base and rare metals, industrial minerals, and precious metals. The license covers an area of 27,870 hectares on the farm Aukam104 and Harichab121 located in the district of Bethanie, Karas region of southern Namibia.

Under the terms of a Joint Venture Agreement dated June 8, 2015, and amended July 17, 2015, between the Company and Next Graphite Pty. Ltd. ("Next"), and a subsequent Farm-out Agreement dated September 12, 2016, between the Company, and Next, the Company acquired 63% of Gazania Investments Two Hundred and Forty Two (Pty) Ltd ("Gazania") from Next by spending USD $1,100,000 on the property (completed March 31, 2017) and making payments to Next totaling USD$180,000. Gazania holds an Exclusive Prospecting License (EPL) number 3895 (the "License") for the Aukam Graphite Project.

The agreements also require the Company to: (a) complete the plant and infrastructure set up for a 5000 tonne/yr operational processing plant (in progress), and (b) obtain government authorization to begin commercial operations (in progress), during the Farm-out period within 6 months following the granting of a mining licence.

The Company has the option to buy an incremental 10% of Next's remaining interest for a cash payment of USD$180,000 if mutually agreed by the parties.

Should the Farm-out period be extended beyond six months following receipt of a mining license, except in the case of delay by government authorization to start operations, Next will continue to be paid USD$25,000 per quarter until the plant and infrastructure set-up are complete and government authorization to begin commercial operations is obtained. In the case where the Farm-out period is extended as above and the revenue is less than USD$100,000 per month, the Company will loan Next US$25,000 per quarter. Interest on the loan will be compounded monthly at a rate equal to one-month term LIBOR plus one.

Should the Company fail to complete the plant infrastructure and obtain government authorization to begin commercial operations 6 months after receipt of the mining license, it will forfeit 2% of its interest for each 30-day delay.

Following conclusion of the Farm-out period, the Company will fund all operations to run all plant related activities and expenditures for the first five months. Thereafter, each party will contribute funding proportionate to their respective holdings, failing which, a party's interest will be diluted.

A 2% revenue royalty is payable to the individual who farms the property.

Under Namibian laws royalties are payable in connection with the Aukam Graphite Project as follows:

a) A 3% revenue royalty is payable the Namibian government.

b) A 6% net profit incentive, required under the Namibian Economic Empowerment Framework, is payable to employees working on the project.

**Exploration**

During 2018, Gratomic contracted Gregory Symons Geophysics (GSG) to perform Horizontal Loop Electromagnetics (HLEM) and magnetic surveys in continuation of previous geophysical surveys undertaken in 2016/2017. During the 2018 geophysical survey, ground electromagnetic and magnetic surveys were completed in two areas of identified as Grid 1 and Grid 2. (see Figure 1)

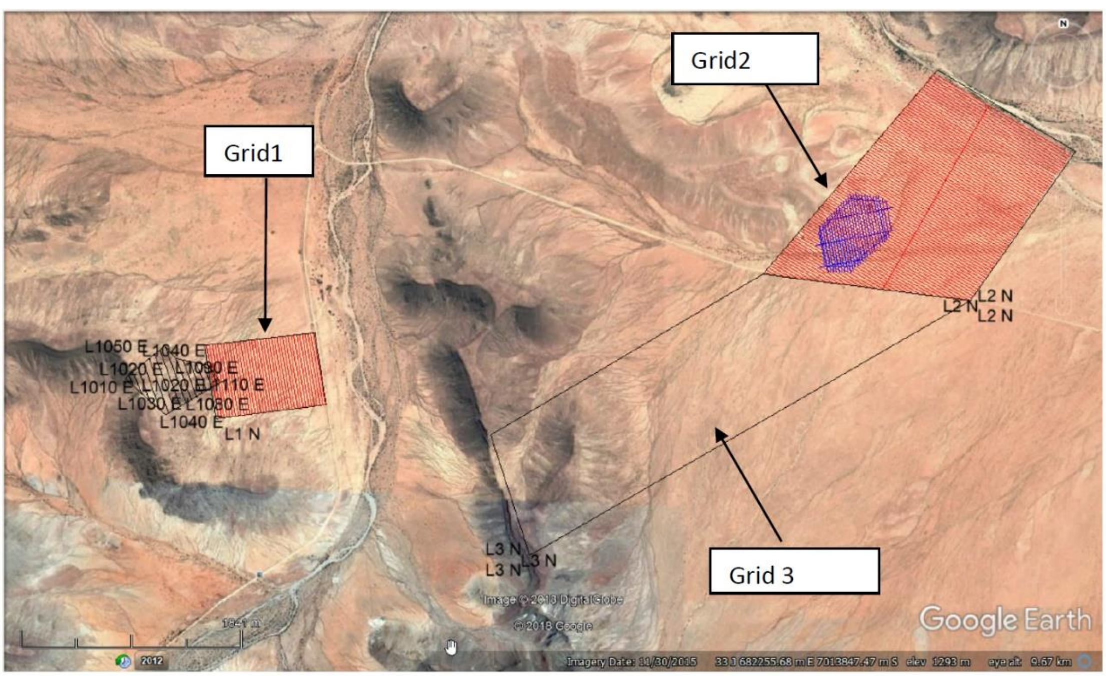


**Figure 1** showing 2016 survey in black, Grid 1 & Grid 2 completed in 2018, Grid 3 proposed for 2019

Grid 1 adjoins the previous survey over the mine area at Aukam and extends the strike length covered to 1.6 kilometres to the East. Significant interpretations pertaining to Grid 1 include:

- Graphite identified at surface occurs both as massive graphite veins and widespread disseminated graphite over an area of 550 metres east-west by 190 metres north- south,
- Surface graphite showings are located sub-parallel to known electromagnetic anomalies,
- Electromagnetic anomalies extend those depicted by the original survey by approximately 550 metres,
- Current strike length of anomaly now stands at 1.3 kilometres,
- Distinct drill targets have been identified along the trend,
- Surveyed area appears to be under rather shallow sand cover,
- Prospective areas identified are conducive to surface trenching.

Grid 2 of the completed geophysical survey covers the Snyman graphite occurrence in the northeastern portion of EPL3895. The Snyman graphite occurrence covers an area of 7.5 ha and lies approximately 6.5 kilometres east of the Aukam mine. Significant interpretations pertaining to Grid 2 include:

- Graphitic interpreted mineralization is depicted by a predominant EM anomaly in the northwest part of the grid extending over 150 metres,
- A second weaker EM further to the east extends over 600 metres is thought to be associated with graphite mineralization in the area
- The grid area appears to be covered with thin overburden,
- Areas have been identified as prospective areas conducive to surface trenching

During 2018 Gratomic was granted additional Exclusive Prospecting License, Number 6710 (EPL 6710) by the Namibian Ministry of Mines and Energy, with an initial exclusivity of three years. The license area is contiguous with EPL 3895, which covers the Aukam graphite deposit and the Snyman graphite (see Figure 2). The application for EPL 6710 was submitted in order to cover the potential strike extension of the Snyman graphite occurrence to the east. In addition, EPL 6710 covers an additional area considered prospective for graphite within the "Aukam window" where rocks hosting the Aukam and Snyman graphite are exposed beneath the regional unconformity at the base of the Nama Group sedimentary rocks. When the addition of the new EPL is approved it will increase the area of prospective geology covered from 27,870 hectares to 63,072 hectares (630 square kilometres) .

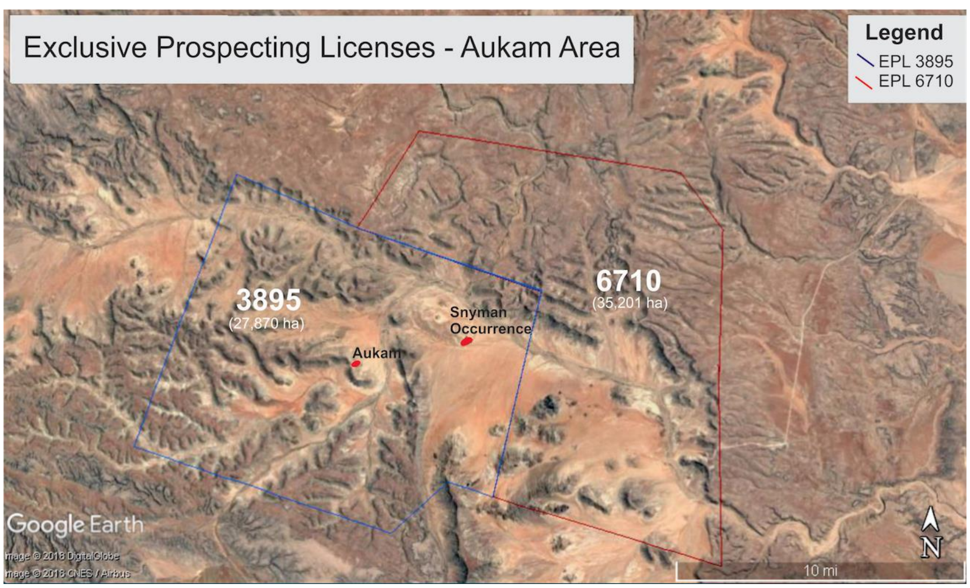


**Figure 2** showing Exclusive Prospecting License EPL 3895 & EPL 6710

Regional exploration in 2018 included mapping and sampling of graphite occurrences throughout the Company's license areas with emphasis on the 400 hectares encompassing both the Snyman occurrence and the area east of the Aukam Mine. Compilation, interpretation and presentation of all available geologic data allowed for subsequent diamond drill targeting with initial drilling planned for the area immediately east of the existing underground workings of the Aukam Mine.

**Processing Plant**

During 2018 Gratomic completed the construction and start-up of its prototype processing plant to test and refine the processes that will be used when commercial production commences. The Aukam processing plant uses a simple crushing, grinding and flotation system. Graphite feed for the prototype plant was obtained from screening and sorting of existing stockpiles from historical mining. The processing plant operated for 26 days during April and for all 31 days in May. While operational, data was collected at each phase of the process and test results from samples were sent to Gecko labs with the subsequent results used to optimize plant processes. The following tests and optimization were conducted:

- Liberation analysis
- Flake size distribution analysis
- Mixing velocity optimization
- Screen size analysis and optimization
- Air flow analysis in columns and optimization
- Drying analysis and optimization
- Silica dispersant ratio optimization
- Reagent optimization
- Product flow rate optimization
- Grade optimization
- Staff recruitment, training, and manhour analysis
- Economic sensitivity analysis on pilot processing facility
- Feed stock optimization and process

The Company continued to optimize the pilot plant processing stockpiled graphite mineralization throughout 2018. To date, the plant has processed 9 tonnes of the graphite mineralization with 5.5 tonnes of graphite concentrate grading between 88% and 96% Cg shipped to Perpetuus Carbon Technologies ("Perpetuus") for the manufacture of graphene to be used in the automobile and bicycle tire industry. Graphene made from Aukam graphite continues to be tested in Europe and Asia with good results.

Gratomic and Perpetuus are currently in collaboration to build on Perpetuus' capability to initially provide 500 tonnes of surfaced modified graphene per annum to support the volumes required by the tire manufacturing industry. Additional applications that have now been generated in a preproduction format include radiant heating membranes and super hydrophobic coatings with an addressable market that include; graphene inks, marine, oil & gas, power generation, industrial (repair & maintenance), infrastructure (new build) and automotive & transportation among others.

Plant expansion to increase capacity to 20,000 tonnes per annum began 2018. Initial activities included construction of a platform for drying graphite product and of a washing bay for equipment, complete with a containment system to collect impacted water. Steel drying pans, an oven, and two screens were also assembled and successfully tested. Continued upgrades involved the extension of the working area on the pilot plant by another 35 metres to the north-west to accommodate new crushing equipment and conveyer belts. Analysis of all plant processes continues to optimize efficiencies of each process such as rod mills, flotation columns, and reagent introduction. Four different tests were run with the first test being used as a base line. Samples were taken from the rod mill feed, mill discharge, and screen under-and-over size. Calculations were made to determine the amount of chemicals needed to be introduced into the mixers according to the density and volume of the mixer feed.

Recent upgrades to the processing plant continue with the arrival of additional commercial scale equipment including; industrial sized generator, screw conveyors, shaker screens, rod mill, conveyors, and boom truck.

**Photo 1** showing commercial scale rod mill, screeners and conveyance systems

Gratomic is continuing with its' systematic assembly of the commercial scale graphite processing plant. Next steps will include:

- Completion of the pilot acid wash. This circuit will be used to collect engineering data to design the industrial scale plant. This is an addition to the plant that will allow the company to produce upwards of 98.5% graphite based on its latest pilot testing results in the lab. All clients to the point of completion will take grades of between 88 %-92 %,
- Modifications are currently being made to the jaw crusher to allow it to more effectively crush graphite,
- Rod mill support systems such as maintenance cradles and cranes, rod loading equipment and control systems are currently being engineered,
- Flotation circuit mass balances are being explored using pilot plant data in order to size the pumps and flow lines of the flotation system,
- Dewatering circuit equipment are currently being specified,
- Water conditioning systems are currently being designed to allow close to 100% recycle of water. This includes pH control, removal of fine suspended solids and removal of dissolved iron,
- Control systems are being designed for each sub-circuit of the industrial scale plant.

## Camp Construction

Construction of the onsite Management Camp consisting of offices, laboratory, kitchen, and living quarters, is ongoing. Work began with two of the larger structures during Q4/2018.

**<u>Montpellier Graphite Property, Quebec</u>**

The Company has satisfied all requirements under a December 9, 2013 option agreement and has acquired certain claims located in the Hartwell Township, Casse Laurentides Region in Quebec. The vendors have been granted a 2% net smelter royalty ("NSR"). The Company has the right to repurchase a 1% NSR from the vendors for $1,000,000.

The vendors were granted a 2% Net Smelter Royalty ("NSR"). The Company has the right to repurchase a 1% NSR from the vendors for $1,000,000.

The property hosts graphite mineralization in a zone 15 meters wide, and has been delineated over a strike length of 250 meters by historical drilling and trenching. The historical drilling at Montpellier included one drill hole with a weighted average of 10.47% Cg (Carbon as graphite) over 44.97 meters and 12.33% Cg over 21.64 meters. (*1984, Ministere de l'Energie et de Ressources Quebec,Report Nos. GM42965, 80p; GM41744, 41p.*). Note that estimates of true thickness were not determined in the historical drilling. Two other graphite zones occur 575 meters east of the main zone of mineralization.

During 2016 an airborne electromagnetic and magnetic survey was carried out over the property to determine possible extensions to the graphite mineralization. Results of the survey indicate a single, wide, prospective area defined by electromagnetic conductors and associated magnetic anomalies that appear to be folded into a "C" shape about an east-west trending axis. The strike length of the folded conductors and associated magnetic anomalies is more than 2.2 kilometres.

During 2017, work carried out at Montpellier, included prospecting and searching for historical drill hole collars. The work was carried out in preparation for a drilling program, but ultimately it was decided to focus drilling on the Buckingham property (see below).

**Exploration 2018**

Minor work was carried out on the property during 2018.

**<u>Buckingham, Quebec</u>**

**Property Details**

The 100%-owned Buckingham Graphite Property is located 7 kilometres northwest of the town of Buckingham, Quebec, Canada and consists of eight claim blocks totaling 480 hectares. Well-maintained bush roads provide easy access to the property. The property lies within the Central Metasedimentary Belt of the Grenville Geologic Province 82 km south of Imerys Graphite & Carbon's operating Lac des Iles graphite mine. Graphite occurs disseminated in marble and paragneiss and within veins hosted in pegmatite, diopside skarn, marble and gneiss. Two graphitic zones, the Uncle Zone and the Case Zone have been discovered to date, with both zones showing high grade occurrences of disseminated flake and vein type graphite and yielding assay values as high as 81.1% Cg. Initial crushing and flotation of two samples from the Uncle Zone has achieved purity of up to 99.4% Cg from a single flotation test without process optimization (see news release dated February 17, 2015).

The Company has satisfied all requirements under a February 2013 option agreement and has acquired a 100% interest in the Buckingham. The vendor has been granted a 3% NSR. The Company has the right to repurchase a 1% NSR from the vendor for $1,000,000.

Airborne time domain electromagnetic (TDEM) survey flown over the Buckingham project in 2016 outlined several anomalies. The largest conductor stretches over 1.54 kilometres in a northeast-southwest direction. The northeastern portion of this conductor is coincident with graphite mineralization in the Case Zone from which 35 grab samples collected in 2015, yielded values ranging from 1.6% Cg to 28.7% Cg (See news releases dated May 22, 2015 and November 4, 2015). The length of the conductor suggests that the Case Zone may be longer than previously thought.

Trenching during Q4-2016 along the TDEM conductor uncovered zones of graphite mineralization hosted primarily by paragneiss. Highlights of the trench sampling include 8.33% Cg over 11.3 metres, 2.76% Cg over 15 metres, 2.23% Cg over 27 metres and 1.52% Cg over 65.5 metres. Individual samples assayed between 0.02% Cg and 17.3% Cg, with an average of 1.92% Cg for the 158 samples.

In 2017 additional trenching and diamond drilling were executed to follow up on the successful results of the 2016 trenching program. Highlights of the work included trench results of 15.0% Cg over 8.0 metres, and diamond drill results of 7.4% Cg over 12.0 metres, in hole CK17-01, and 6.1% Cg over 88.0 metres beginning at nine metres, included a higher-grade interval of 20.7% Cg over 8.0 metres in hole CK17-02

**2018 Exploration**

During 2018 diamond drilling continued at Buckingham with the completion of six additional holes. Highlights of the results received to date include grades of; 6.9% Cg over 62.0 metres in hole CK18-07 starting at a depth of 57 metres (including 12.8% Cg over 29.0 metres which includes a 16.6% Cg interval over 18.0 metres), 4.9% Cg was over 66.0 metres in Hole CK18-09 from six metres (includes 14.52% Cg over 4.0 metres and 13.52% Cg over 3.0 metres).

Hole CK-18-06 was drilled to the northwest to test the thickest portion of the 1.54 kilometre long northeast-southwest trending electromagnetic (EM) conductor and intersected low grade graphite mineralization associated with carbonate horizons in quartzo-feldspatic gneiss. Hole CK 18-07 was drilled to the southeast through the conductor and intersected three graphite zones between 30.0 and 146.0 metres, with the highest grades associated with marble zones within gneiss. It has been noted that several graphite horizons are present that are typically associated with carbonate horizons in the widespread quartzo-feldspatic gneiss. The highest graphite grades are generally found within marble zones in the gneiss.

Hole CK18-08 was collared approximately 50m north of hole CK18-06 and drilled to the southeast. It intersected two graphite zones from 46.0 to 63.0 metres and from 95.0 to 108.0 metres with higher grades again associated with marble horizons. Hole CK18-09 was drilled to the northwest across a narrowing of the EM anomaly and intersected three graphite zones between 6.0 metres and 157.0 metres. Graphite mineralization in the near surface zone is associated with intervals of marble within the gneiss. Holes CK18-10 and CK18-11 were drilled across conductors where both holes showed relatively narrow intervals of graphite associated with marble.

The Company is preparing an NI-43-101 technical report on the property, that is expected to be completed during 2019.

## Summary of Quarterly Results

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

| Three Months Ended | December 31 2018 $ | September 30 2018 $ | June 30 2018 $ | March 31 2018 $ |
|---|---|---|---|---|
| Interest Income | - | - | - | - |
| Exploration and evaluation assets | 5,003,062 | 5,577,891 | 4,643,188 | 4,683,366 |
| Deficit | 13,654,188 | 11,783,761 | 11,259,275 | 10,636,523 |
| Total Assets | 10,609,220 | 8,698,001 | 6,884,582 | 7,343,276 |
| Net and Comprehensive Loss | 1,870,427 | 524,486 | 622,752 | 379,504 |
| Basic and Diluted Loss Per Share | 0.018 | 0.006 | 0.006 | 0.000 |

| Three Months Ended | December 31 2017 $ | September 30 2017 $ | June 30 2017 $ | March 31 2017 $ |
|---|---|---|---|---|
| Interest Income | - | - | - | 34 |
| Exploration and evaluation assets | 4,200,063 | 2,850,842 | 2,407,074 | 2,228,463 |
| Deficit | 10,257,019 | 9,415,008 | 9,181,470 | 8,504,488 |
| Total Assets | 7,353,080 | 3,931,211 | 4,055,982 | 4,318,132 |
| Net and Comprehensive Loss | 841,914 | 233,634 | 676,983 | 85,461 |
| Basic and Diluted Loss Per Share | 0.010 | 0.003 | 0.010 | 0.000 |

Q4 2018
During the quarter the Company incurred a loss of $1,870,427 (2017 – $841,914). During the quarter expenditures on consulting fees amounted to $102,060 for graphene compound development fees (2017 - $7,000); management fees amounted to $377,200 (2017 - $152,000); indicative of the Company actively raising money during the quarter, expenditures on marketing fees amounted to $365,949 (2017 - $98,819) and travel meals and accomodation amounted to $192,536 (2017 – 17,494); share-based compensation amounted to $628,055 (2017 - $473,000).

Q3 2018
During the quarter the Company incurred a loss of $524,486 (2017 – 233,634). The loss is indicative of the Company's efforts to make investors more aware of the positive prospects it has with its Aukam graphite project. In addition the Company was actively raising money during the quarter which also increased costs in a number of areas. During the quarter expenditures on investor relations amounted to $140,755 (2017 - $33,910); management fees amounted to $93,800 (2017 - $33,910); expenditures on travel meals and accomodation amounted to $101,069 (2017 – Nil); office and other expenses amounted to $108,839 (2017 – a recovery of $1,181) which includes a foreign exchange loss of $59,000; stock based compensation amounted to Nil (2017 - $48,000).

Q2 2018
During the three months ended June 30, 2018, the Company incurred a loss and comprehensive loss of $655,020 (2017 - $676,983).

i) $808,159 was invested in exploration and evaluation and infrastructure at the Company's Aukam graphite project in Namibia to bring the total investment in the property to $3,349,003.
ii) $541,470 was invested in the purchase of three specialized process tooling chambers to be used solely for processing graphite from the Aukam property.
iii) Investor relations fees paid during the quarter were $42,076 compared to $3,137 paid during the second quarter of 2017.
iv) Marketing expenses of $230,200 were incurred during the quarter to develop markets and products for the Company's graphite. Marketing expenses incurred in the same period in 2017 totaled $2,000.

v) Management fees paid during the quarter totalled $81,500 compared to management fees of $30,413 incurred in the same three months of 2017.

vi) During the quarter the Company issued 1,150,000 stock options with a fair value $138,150 to purchase common shares of the Company at a weighted average exercise price of $0.145. The options vested immediately and have a term of five years.

Q1 2018

During the three months ended March 31, 2018, the Company incurred a loss and comprehensive loss of $379,504 (2017 - $85,461).

i) $330,095 was invested in exploration and evaluation and infrastructure at the Company's Aukam graphite project in Namibia to bring the total investment in the property to $4,107,091 at the end of the period.

ii) $225,921 was spent in exploration and evaluation activity at the Company's Buckingham property in Quebec.

iii) Marketing expenses, that were primarily related to the marketing and development of graphite derived graphenes hybrids for use in tire elastomers and other advanced materials totaling $120,764 were incurred during the period. Marketing expenses incurred in the same period in 2017 totaled $11,344.

iv) Management fees paid during the period totalled $69,000 compared to management fees of $33,000 incurred in the first quarter of 2017.

v) During the period the Company issued 250,000 stock options with a fair value $29,577 to purchase common shares of the Company to a director of the Company at an exercise price of $0.14. The options vested immediately and have a term of five years.

vi) $328,100 was received from the issue of 1,600,000 shares upon the exercise of warrants and $27,000 was received from the issuance of 390,000 shares upon the exercise of stock options.

## Liquidity

The Company has no significant revenues and no expectation of significant revenues in the near term. In order to manage this risk, the Company closely monitors its cash requirements and expenditures to maintain sufficient liquidity.

As at December 31, 2018, the Company had current assets of $2,904,232 (December 31, 2017 - $2,500,166) to settle current liabilities of $482,669 (December 31, 2017 - $293,280). All of the Company's accounts payable and accrued liabilities have contractual maturities that are subject to normal trade terms.

Future exploration programs will depend on the Company's ongoing ability to raise funds. Gratomic Inc. is an exploration stage company and continues to rely on equity offerings and other partnership arrangements to fund its exploration activities. There can be no assurance that funds will be available.

## Capital Resources

Other than the private placement as disclosed under Performance Highlights herein, during 2018 there were no unusual factors that affected the Company's capital resources.

## Off Balance Sheet Arrangements

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

## Transactions With Related Parties

The Company has determined that key management consists of the Company's Board of Directors and corporate officers, including the Company's Chief Executive Officer and Chief Financial Officer. The Company paid or accrued the following amounts to key management, and private corporations owned by them:

| | 2018<br>$ | 2017<br>$ |
|---|---|---|
| Consulting fees of key management expensed | 687,049 | 318,667 |
| Consulting fees of key management charged to exploration and evaluation assets and property and equipment | 160,000 | 67,746 |
| Consulting fees of key management charged to prepaid expenses (1) | 216,667 | - |
| Share-based payments | 637,720 | 824,243 |
| | 1,701,436 | 1,210,656 |

(1) All of 2019 fees for one of the co-CEO's, and one month for the other, were prepaid at December 31, 2018.

Legal fees in the amount of $84,418 (2017 – Nil) were paid or payable to a law firm whose partner is an officer of the Company.

Included in accounts payable and accrued liabilities at December 31, 2018 and 2017 was $81,639 (2017 – 133,745) owing to directors, and officers, companies owned by directors and officers, and a law firm whose partner is a director and an officer of the Company. These amounts are unsecured, non-interest bearing and due on demand.

During 2018 the Company paid office rent to ThreeD Capital Inc., a company of which one of the Company's co-CEO's is the CEO, an amount of $36,000.

Officers, directors, the wife and daughter of one of the co-CEO's, and a company of which one of the Company's co-CEO's is the CEO, participated in the private placements during the year in the amount of $1,160,700.

## Events Affecting the Company's Financial Condition

During 2018, other than the private placements discussed herein under Performance Highlights, there were no unusual factors that affected the Company's financial condition.

## Critical Accounting Judgements and Key Sources of Estimation Uncetrtainty

Critical judgements exercised in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements are as follows:

i) Determination of functional currency

The Company determines the functional currency through an analysis of several indicators such as expenses and cash flows, financing activities, retention of operating cash flows, and frequency of transactions with the reporting entity.

ii) Capitalization of deferred exploration costs

Minority interest and equity are adjusted to reflect the ownership interest of consolidated subsidiaries in which a minority interest shareholder has a carried interest.

Management is required to assess impairment of intangible exploration and evaluation assets and property and equipment. The triggering events are defined in IFRS 6 and IAS 36 respectively. In making the assessment, management is required to make judgments on the status of each project and the future plans toward finding commercial reserves to which the exploration and evaluation assets and property and equipment relate to.

Management has determined that there were no triggering events present as at December 31, 2018 and 2017, as defined in IFRS 6 and IAS 36, as such, no impairment test was performed.

Critical estimates exercised are as follows:

i) Valuation of share-based compensation

The Company uses the Black-Scholes Option Pricing Model for valuation of share-based compensation. Option pricing models require the input of subjective assumptions including expected price volatility, interest rates, and forfeiture rate. Changes in the input assumptions can materially affect the fair value estimate and the Company's earnings and equity settled benefits.

ii) Income taxes

In assessing the probability of realizing income tax assets, management makes estimates related to expectations of future taxable income, applicable tax 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.

Property and equipment

Management reviews the carrying value of long lived assets including plant and equipment and amortizable intangible assets for impairment to determine if the carrying value of an asset may not be recoverable due to changes in the current and expected future use of the asset, external valuations of the asset, and the obsolescence or physical damage to the asset. If such indicators of impairment exist, the asset's recoverable amount is estimated. An impairment loss is recognized if the carrying amount of an asset or its related cash generating unit exceeds its estimated recoverable amount.

Flow-through shares

Canadian Income Tax legislation permits an enterprise to issue securities, referred to as flow-through shares, whereby the investor can claim the tax deductions arising from the renunciation of the related resource expenditures. The Company accounts for flow-through shares whereby any premium paid for the flow through shares in excess of the market value of the shares without flow-through features at the time of issue is credited to flow-through premium liability and included in profit or loss at the same time the qualifying expenditures are made.

## Recent Accounting Pronouncements

### Adoption of new standards

The Company adopted all of the requirements of IFRS 9 Financial Instruments ("IFRS 9") as of January 1, 2018. IFRS 9 replaces IAS 39 Financial Instruments: Recognition and Measurement ("IAS 39"). IFRS 9 utilizes a revised model for recognition and measurement of financial instruments and a single, forward looking "expected loss" impairment model. As a result of the adoption of IFRS 9, management has changed its accounting policy for financial assets retrospectively, for assets that continued to be recognized at the date of initial application.

The table below summarizes the classification and carrying amount changes upon transition from IAS 39 to IFRS as at January 1, 2018.

| | Original under IAS 39 | | New under IFRS | |
|---|---|---|---|---|
| | Classification | Carrying amount | Classification | Carrying amount |
| Cash | FVTPL | 2,317,221 | FVTPL | 2,317,221 |
| Restricted cash | FVTPL | 16,329 | FVTPL | 16,329 |
| Amounts receivable | Loans and receivables | 166,616 | Amortized cost | 166,616 |
| Amounts payable | Other financial liability | 267,871 | Amortized cost | 267,871 |

As the standard permits on transition to IFRS 9, the Company has not restated prior periods with respect to the new amortized cost measurement for financial assets and impairment requirements.

The adoption of IFRS 9 resulted in no impact to the opening accumulated deficit or to the opening deficit on January 1, 2018.

On January 1, 2018, the Company adopted IFRS 15 Revenue from Contracts with Customers ("IFRS 15") which superseded IAS 18 Revenue. IFRS 15 establishes a single five-step model framework for determining the nature, amount, timing and uncertainty of revenue and cash flows arising from a contract with a customer. The standard is effective for annual period beginning on or after January 1, 2018. The Company adopted the standard on January 1, 2018 using the cumulative effect adjustment method without applying any practical expedients.

The adoption of IFRS 15 resulted in no impact to the opening accumulated deficit or to the opening deficit on January 1, 2018.

**New accounting pronouncements not yet adopted**

Certain standards were issued by the IASB or the IFRIC that are mandatory for accounting periods beginning on or after January 1, 2019 or later periods. The following has not yet been adopted and is being evaluated to determine its impact on the Company.

IFRS 16 is a new standard that sets out the principles for recognition, measurement, presentation, and disclosure of leases including guidance for both parties to a contract, the lessee and the lessor. The new standard eliminates the classification of leases as either operating or finance leases as is required by IAS 17 and instead introduces a single lessee accounting model. The Company is evaluating the effect that this standard will have on its financial statements.

## Financial Instruments

(i) Classification

The Company classifies its financial instruments in the following categories: at fair value through profit and loss ("FVTPL"), at fair value through other comprehensive income ("FVOCI") or at amortized cost. The Company determines the classification of financial assets at initial recognition. The classification of debt instruments is driven by the Company's business model for managing the financial assets and their contractual cash flow characteristics. Equity instruments that are held for trading are classified as FVTPL. For other equity instruments, on the day of acquisition the Company can make an irrevocable election (on an instrument-by-instrument basis) to designate them as at FVOCI. Financial liabilities are measured at amortized cost, unless they are required to be measured at FVTPL (such as instruments held for trading or derivatives) or if the Company has opted to measure them at FVTPL.

(ii) Measurement

Financial assets and liabilities at amortized cost are initially recognized at fair value plus or minus transaction costs, respectively, and subsequently carried at amortized cost less any impairment.

Financial assets and liabilities carried at FVTPL are initially recorded at fair value. Realized and unrealized gains and losses arising from changes in the fair value of the financial assets and liabilities held at FVTPL are included in profit or loss in the period in which they arise.

Financial assets and liabilities carried at FVOCI are initially recorded at fair value. Unrealized gains and losses arising from changes in the fair value of the financial assets and liabilities held at FVOCI are included in compressive income or loss in the period in which they arise.

(iii) Impairment of Financial Assets at Amortized Cost

The Company recognizes a loss allowance for expected credit losses on financial assets that are measured at amortized cost. At each reporting date, the Company measures the loss allowance for the financial asset at an amount equal to the lifetime expected credit losses if the credit risk on the financial asset has increased significantly since initial recognition. If at the reporting date, the financial asset has not increased significantly since initial recognition, the Company measures the loss allowance for the financial asset at an amount equal to the twelve month expected credit losses. Regardless of whether credit risk has increased significantly, the loss allowance for trade receivables without a significant financing component classified at amortized cost, are measured using the lifetime expected credit loss approach. The Company shall recognize in the statements of net (loss) income, as an impairment gain or loss, the amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date to the amount that is required to be recognized.

(iv) Derecognition

The Company derecognizes financial assets only when the contractual rights to cash flows from the financial assets expire, or when it transfers the financial assets and substantially all of the associated risks and rewards of ownership to another entity. Gains and losses on derecognition are generally recognized in the statements of net (loss) income.

Financial instruments that are measured at fair value, which are classified within a hierarchy that prioritizes their significance. The three levels of the fair value hierarchy are:
Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities;
Level 2 - Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly; and
Level 3 - Inputs that are not based on observable market data.

Credit Risk
The Company's credit risk is primarily attributable to amounts receivable. The Company has no significant concentration of credit risk arising from operations. Management believes that the credit risk concentration with respect to the financial instrument included in amounts receivable is remote.

Liquidity Risk
The Company's main source of liquidity is derived from its common stock issuances. As at December 31, 2018, the Company had current assets of $3,507,903 (December 31, 2017 $2,500,166) to settle current

liabilities of $466,340 (December 31, 2017 $293,280). The Company's financial liabilities generally have contractual maturities that are subject to normal trade terms.

Interest Rate Risk
Interest rate risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate due to changes in market interest rates. The Company has cash balances and no interest-bearing debt. The Company's current policy is to invest excess cash in investment grade short term deposit certificates issued by its banking institutions. The Company monitors its cash balances and is satisfied with the creditworthiness of its banks. As a result, the Company's exposure to interest rate risk is minimal.

Market Risk
Foreign Currency Risk
The Company's functional and reporting currency is the Canadian dollar and all expenditures are transacted in Canadian dollars. As a result, the Company's exposure to foreign currency risk is minimal.

Price Risk
The Company is exposed to price risk with respect to commodity prices. The Company closely monitors commodity prices to determine the appropriate course of action to be taken by the Company. As the Company's properties are in the exploration stage and to date do not contain any identified mineral resources or reserves, the Company does not hedge against commodity price risk.

Sensitivity Analysis
Based on management's knowledge and experience of the financial markets, the Company believes the following movements are reasonably possible over a twelve-month period:

(i) The Company receives low interest rates on its cash and cash equivalent balances and, as such, the Company does not have significant interest rate risk.

(ii) The Company holds balances in foreign currencies that give rise to exposure to foreign exchange risk, however at any point in time the balances are not significant. The Company estimates that a 10% increase or decrease in the foreign currency would give rise to a gain or loss of approximately $20,000 respectively.

## Subsequent Events

1,824,500 warrants to purchase common shares of the Company with a weighted average exercise price of $0.09 per share expired, and 993,000 warrants were exercised at a weighted average price of $0.099 per share.

## Other Disclosures

Share Capital
Common Shares -
As at December 31, 2018, and the date hereof, there were 168,678,739 and 169,671,739 common shares of the Company respectively outstanding (December 31, 2017 – 111,066,989).
Warrants -
At December 31, 2018 and the date hereof there were a total of 100,610,933 and 97,793,433 warrants respectively outstanding (December 31, 2017 – 59,028,783).
Options -
At December 31, 2018, and the date hereof, there were a total of 16,250,000 stock options outstanding (December 31, 2017 – 10,563,334).

Directors and officers of the Company -
Sheldon Inwentash, Co-Chief Executive Officer and Director
Arno Brand, Co-Chief Executive Officer and Director
Daniel Bloch, Director
Gerry Feldman, Director
Steven Gray, Director
Bill Johnstone, Corporate Secretary
Rodger Roden, Chief Financial Officer

Additional Information -
Additional information about the Company including the financial statements, press releases and other filings are available on the internet at www.sedar.com and additional supplemental information is available on the Company website at www.gratomic.ca .