

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)
For the six months ended June 30, 2019



This MD&A is dated August 28, 2019

Gratomic Inc. (hereafter the “Company” or “Gratomic Inc.”), 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 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 six months ended June 30, 2019. The MD&A should be read in conjunction with the interim unaudited condensed consolidated financial statements of the Company for the six months ended June 30, 2019 (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.

The interim consolidated statements have been prepared using accounting policies applicable to a going concern, which contemplates the realization of assets and settlement of liabilities in the normal course of business as they become due. The Company has incurred a loss for the six months ended June 30, 2019 of \$1,972,130 and has an accumulated deficit of \$15,626,318. The Company is a junior mining company and is subject to risks and challenges similar to other companies in a comparable stage. These risks include, but are not limited to, dependence on key individuals, investment risks, market risks, and the ability to maintain adequate cash flows, and continuing as a going concern. Cash on hand is currently not adequate to cover expected expenditures for the 12-month period ended June 30, 2020 and therefore the Company will be

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

required to secure additional funding. These challenges and the continued cumulative operating losses cast significant doubt on the Company's ability to continue as a going concern. These consolidated statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts nor to the amounts or classification of liabilities that might be necessary should the Company not be able to continue as a going concern. Such adjustments can be material.

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	2017	2016
	\$	\$	\$
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

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

Outlook 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 and 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 with 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 (see Technical Report on the Aukam Graphite Deposit, Bethanie District, Karas Region, Namibia - September 12, 2016, gratomic.ca). The stockpiles provide the company with a supply of high grade graphite that is ready to be processed.

Performance highlights

During the six months ended June 30, 2019 –

- 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 1, 2019 a renewal application for EPL 3895 was prepared and submitted to the Ministry of Mines and Energy (MME) together with all supporting documentations. The application has now been approved.
- 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, which have now been approved.
- February 14, 2019 the new rod mill arrived at site. Once installed the rod mill will have an annual capacity of 50,000 tonnes.
- February 15, 2019 the large flotation columns were completed for Aukam mine site and installation of the columns is currently in process.
- On March 4, 2019, company announced it had submitted a full mining license application to the Namibian Ministry of Mines and Energy.
- On May 3, 2019 the Company provided an update on the following –
 - Details of, and progress made on construction of the Company's commercial scale graphite processing plant.
 - The Company reported on its 2018 exploration activities at its Aukam mine in Namibia.
 - The Company advised "that two Company drills had been deployed to Aukam in March 2019 with diamond drilling commencing in April. The Company is currently operating a Longyear 38 with a 2-cylinder XY-1 drill for a backup. Initial targets being drilled are proximal to the Aukam Mine and are spaced at 25 metres with infill drill planned to follow based on results. Five holes have been completed at the time of this release". See the May 3, 2019 news release on www.sedar.com .

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

- On May 14, 2019 the Company announced it had signed an agreement with Phu Sumika to be its exclusive marketing agent, in continental Europe, for the sale of graphite concentrate to the refractory, lubricant and battery markets. Pursuant to the agreement, which is conditional on Gratomic being able to bring the Aukam into a production phase, and for any graphite being produced to meet certain technical and mineralization requirements, Phu Samika will purchase up to 7,500 dry metric tonnes annually, for a period of five years from the date commercial production commences at Aukam. The contract contemplates the sales of graphitic product ranging from 80% carbon to 99.9% carbon at prices ranging between US\$500-US\$2800 per metric tonne, the price depending on grade, moisture content and industry use. See the May 14, 2019 news release on www.sedar.com.
- On May 23, 2019 the Company launched its first Graphene from Gratomic Graphite derived product. The “Gratink” product is formulated specifically to meet the needs of the printed flexible electronics and EMI (electromagnetic interference) shielding markets. To the best of the Company’s knowledge, the “Gratink” product is amongst the most conductive carbon inks and pastes currently available within the global market place.

Exploration and Evaluation Expenditures

Exploration and evaluation expenditures for the six months ended June 30, 2019 are summarized as follows:

Outlays by expenditure category, by project, for the six months ended June 30, 2019 are as follows:

	Aukam Namibia project		Montpellier Quebec project		Buckingham Quebec project		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
	\$	\$	\$	\$	\$	\$	\$	\$
Drilling	1,704	-	-	-	-	-	1,704	-
Field work, supplies and other	190,964	32,908	-	4,160	-	225,921	190,964	262,989
Geological and other consulting	234,624	79,202	-	-	-	-	234,624	79,202
Transport	-	29,042	-	-	-	-	-	29,042
Travel and accomodation	56,307	71,892	-	-	-	-	56,307	71,892
	483,599	213,044	-	4,160	-	225,921	483,599	443,125

Results of Operations

The following table provides selected financial information for the three and six months ended June 30, 2019 and 2018.

	For the three months ended		For the six months ended	
	June 30,	June 30,	June 30,	June 30,
	2019	2018	2019	2018
	\$	\$	\$	\$
Operating expenses	(647,764)	(655,020)	(2,042,095)	(1,002,256)
Net loss	(635,267)	(655,020)	(1,972,130)	(1,002,256)
Net loss per share	(0.00)	(0.01)	(0.01)	(0.01)
Exploration and evaluation assets	5,486,661	4,643,188	5,486,661	4,643,188
Total assets	8,874,783	6,884,582	8,874,783	6,884,582

Comments on source and use of funds

During the six months ended June 30, 2019

1. During the quarter \$178,130 was raised as a result of warrants exercised (\$98,130) and loans from a director (\$80,000).
2. Cash used in operating activities amounted to \$1,596,296 comprised of a loss of \$1,972,130 of which \$34,424 was a non-cash item, and \$410,258 generated from working capital.
3. Investment in plant and equipment, exploration and evaluation assets and marketable securities amounted to \$960,407 (\$490,025, \$370,387 and \$99,995 respectively).

The Company has cash of \$179,971 at June 30, 2019 and will need to raise additional cash during 2019 to meet its operating plans for the year.

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)
For the six months ended June 30, 2019

Revenues

At this time, the Company has 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 and six months ended June 30, 2019 and 2018 are summarized as follows:

	For the three months ended		For the six months ended	
	June 30,		June 30,	
	\$	\$	\$	\$
	2019	2018	2019	2018
Consulting	174,220	-	372,735	-
Filing fees and permits	1,027	5,311	31,336	19,990
Investor relations	7,856	42,076	22,856	78,771
Management fees	87,000	81,500	529,000	150,500
Marketing	129,543	230,200	500,785	350,964
Office and other	81,544	40,437	228,855	62,582
Professional fees	42,819	40,770	73,744	106,714
Share-based compensation	-	138,150	35,541	167,727
Travel, meals and accomodation	123,756	76,576	247,243	88,016
Other	-	-	-	(23,008)
	647,764	655,020	2,042,095	1,002,256

Operating expenses for 2019 are higher than 2018 due to Gratomic developing its business model, progressing with its mining activities and making the market aware of its progress. Explanations of significant line items driving increased costs during the six month period are as follows –

- Consulting includes fees for business consultants, marketing consultants, and graphene product consulting as a result of further developing the Company’s business model.
- Management fees include a bonus in of \$350k in recognition of progress made by the business and the success of private placements.
- Marketing includes fees for; advertising services; marketing services for email data base generation; on-line and social media marketing, email and website services; European marketing services; advertising campaign services; marketing campaign services in line with making the market aware of the Company’s progress.
- Travel meals and accommodation, and office and other expenses reflect higher activity levels during 2019 as a result of progressing with mining activities and developing market awareness.

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.

Description of properties:

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.

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

The Aukam Graphite project is a property located in Namibia's Karas Region in Africa. The rights to explore and develop parts of the property, which are of primary interest, are owned by Gazania Investments Two Hundred and Forty Two (Pty) Ltd ("Gazania"). The Company purchased a 63% interest in Gazania. Under certain terms of the purchase agreements, the Company is required to complete the plant and infrastructure set up (which in progress) necessary to process 5,000 tonnes of graphite per year, and obtain government authorization to begin commercial operations (in progress); the timeline for these activities is referred to herein as the Farm-Out period.

Should completion of the plant and infrastructure set up necessary to process 5,000 tonnes of graphite per year extend six months beyond receipt of the mining license, the vendor will be paid USD\$25,000, per quarter that it is so extended, until the plant and infrastructure set-up are complete. In the event that the necessary plant and infrastructure set up is extended, and the revenue is less than USD\$100,000 per month, the Company will loan the vendor 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 make any required payments until the Farm-Out period is complete or fail to complete the plant infrastructure 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, the Company and the vendor will contribute funding proportionate to their respective holdings.

The Company has the option to buy an incremental 10% of the vendor's remaining interest for a cash payment of USD\$180,000.

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.

Montpellier Graphite Property, Quebec

The Montpellier property consists of 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. No exploration activities were undertaken during 2019.

Buckingham Property, Quebec

The 100%-owned Buckingham Graphite Property consists of eight claim blocks totaling 480 hectares. 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. No exploration activities were undertaken during 2019.

Activities during 2019

Gratomic has been developing Graphene capability and products. The significant accomplishments during 2019 were as follows:

Graphene Reactors

Gratomic continued to work with Perpetuus Advanced Material to build and commission three new triple chain reactors to enable annual graphene capacity to exceed 2000 tpa.

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)
For the six months ended June 30, 2019



Triple chamber reactor – 500 tpa capacity

Perpetuus Vittoria Deal

On February 28, 2019 Perpetuus Advanced Material announced a long-term supply agreement with Vittoria Tires to supply nano surface engineered graphenes utilizing Gratomic’s Aukam Mine sourced graphite.

Gratomic Ultra Fuel Efficient Tires

Jan 16, 2019 Gratomic announced the development of Gratomic’s new Graphene Ultra Fuel Efficient Tires (GUET) from graphite sourced from Gratomic’s Aukam Graphite Deposit. Certification and terrain testing is targeted for completion in Q3, 2019. Cycle and car tires enhanced with Perpetuus graphenes are currently and simultaneously being road tested on bikes, light commercial vehicles and taxis in Asia and Europe and are used on a daily basis.

GratInk

May 23, 2019 Gratomic the launching of its first Graphene from Gratomic Graphite derived product. The Gratink product is formulated specifically to meet the needs of the printed flexible electronics and EMI shielding markets. Electromagnetic interference (EMI), sometimes referred to as radio-frequency interference (RFI) is a disturbance generated by an external source that affects an electrical circuit by electromagnetic induction, electrostatic coupling, or conduction.

Licensing, Exploration, Processing and Camp Construction Activities

Licensing update

During 2019 an 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).

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)
For the six months ended June 30, 2019

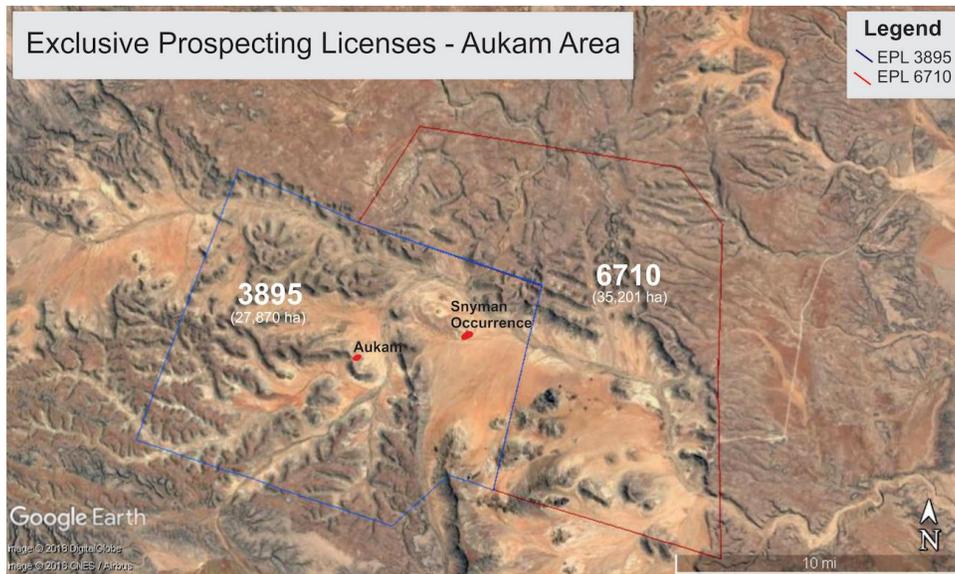


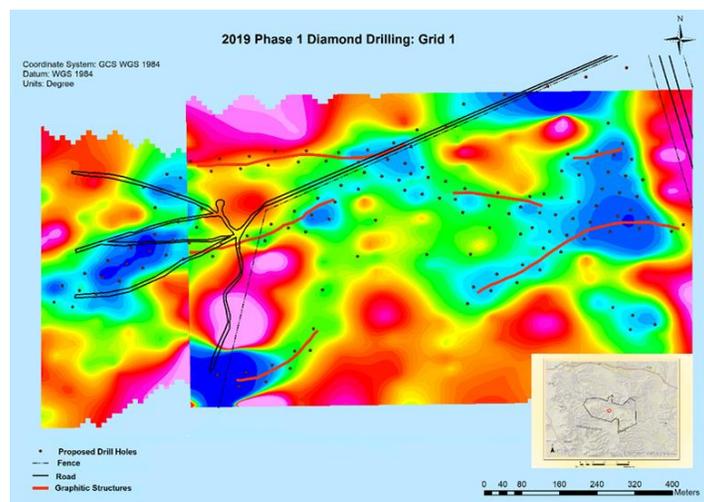
Figure 2 showing Exclusive Prospecting License EPL 3895 & EPL 6710

During 2019 a renewal application for EPL 3895 was prepared and submitted to the Ministry of Mines and Energy (MME) together with all supporting documentations.

Exploration update

Regional exploration during 2019 continued with mapping and sampling of graphite occurrences throughout the Company’s license areas with emphasis on the recently submitted EPL 6710 license area. The additional data combined with existing geologic interpretations assist in the optimization process for drill targeting.

Two surface company drills were deployed to Aukam in March 2019 with diamond drilling commencing in April. The company is currently operating a Longyear 38 with a 2-cylinder XY-1 drill for a back up. Initial targets to be drilled are proximal to the Aukam Mine and spaced initially at 25 metres apart. Infill drilling will follow based on results. Five holes have been completed at the time of this release.



Phase 1 Diamond Drilling – East of Aukam Mine

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)
For the six months ended June 30, 2019



One Bullion's Longyear-38 Diamond Drill



One Bullion's XY-1 Diamond Drill

Processing Plant update

During 2019 upgrades to the processing plant continued with the arrival of additional commercial scale equipment including; industrial sized generator, screw conveyors, shaker screens, rod mill, conveyors, and boom truck.

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.
- The Company has recently been produced N-90 material at 99.9% Cg for battery products. The Company is currently doing a cost analysis to include circuit modifications on the Aukam Processing facility to be able to produce battery graphite in Bulk.

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)
For the six months ended June 30, 2019



Aukum Plant commercial scale rod mill, screeners and conveyance systems

Camp Construction Update

Construction of the onsite Management Camp consisting of offices, laboratory, kitchen, and living quarters, continued throughout 2019.

Summary of Quarterly Results

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

Six months Ended	June 30 2019 \$	March 31 2019 \$	December 31 2018 \$	September 30 2018 \$
Exploration and evaluation assets	5,486,661	5,274,462	5,003,062	5,577,891
Deficit	15,626,318	14,991,051	13,654,188	11,783,761
Total Assets	8,874,783	9,106,428	10,609,220	8,698,001
Net and Comprehensive Loss	635,267	1,336,863	1,870,427	524,486
Basic and Diluted Loss Per Share	0.004	0.008	0.018	0.006

Six months Ended	June 30 2018 \$	March 31 2018 \$	December 31 2017 \$	September 30 2017 \$
Exploration and evaluation assets	4,643,188	4,683,366	4,200,063	2,850,842
Deficit	11,259,275	10,636,523	10,257,019	9,415,008
Total Assets	6,884,582	7,343,276	7,353,080	3,931,211
Net and Comprehensive Loss	655,020	347,236	841,914	233,634
Basic and Diluted Loss Per Share	0.006	0.000	0.010	0.003

Q2 2019

During the quarter the Company incurred a loss of \$635,267 (2018 – \$655,020). Major differences are explained as follows; expenditures on consulting fees amounted to \$174,020 (2018 - nil); expenditures on

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

marketing fees amounted to \$129,543 (2018 - \$230,200); share based compensation amounted to Nil (2018 - \$138,150); and travel meals and accomodation amounted to \$123,755 (2018 – \$76,576).

Q1 2019

During the quarter the Company incurred a loss of \$1,336,853 (2018 – \$379,504). Major differences are explained as follows; expenditures on consulting fees amounted to \$198,515 (2018 - \$600); management fees amounted to \$442,000 (2018 - \$69,000); expenditures on marketing fees amounted to \$371,242 (2018 - \$120,764) and travel meals and accomodation amounted to \$123,488 (2018 – \$11,440).

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).

Liquidity

The Company has no significant revenues at this time. In order to manage this risk, the Company closely monitors its cash requirements and expenditures to maintain sufficient liquidity.

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, 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.

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

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:

	June 30,	
	2019	2018
	\$	\$
Fees charged to management fees	529,000	150,500
Fees charged to professional and other expenses	50,840	-
Fees charged to exploration and evaluation assets	50,000	-
Fees charged to prepaid expenses	100,000	-
Share-based payments	-	167,727
	<u>729,840</u>	<u>318,227</u>

During the six months ended June 30, 2019, legal fees in the amount of \$26,992 (2018 – 53,357) were paid or payable to a law firm whose partner is an officer of the Company and are included in professional fees totaling \$73,744.

Included in accounts payable and accrued liabilities at June 30, 2019 was \$232,560 (2018 – Nil) owing for services 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.

The Company agreed to prepay the 2019 salary of one of its Co-CEO's. The prepaid amount was treated as a prepaid expense and it is being expensed as services are provided. The remaining prepaid balance at June 30, 2019 amounts to \$100,000.

During the six months ended June 30, 2019 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 (2018 - \$18,000).

During the six months ended June 30, 2019 the Company received loans from a director totaling \$80,000 which amounts are non-interest bearing and payable on demand.

Events Affecting the Company's Financial Condition

During 2019, there were no unusual factors that affected the Company's financial condition.

Critical Accounting Judgements and Key Sources of Estimation Uncertainty

Critical judgements exercised in applying accounting policies that have the most significant effect on the amounts recognized in the interim unaudited condensed 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

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

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 June 30, 2019 and 2018, 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

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)
For the six months ended June 30, 2019

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.

	<u>Original under IAS 39</u>		<u>New under IFRS</u>	
	<u>Classification</u>	<u>Carrying amount</u>	<u>Classification</u>	<u>Carrying amount</u>
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.

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

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

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 common stock issuances. As at June 30, 2019, the Company had current assets of \$913,055 (December 31, 2018 - \$3,507,903) to settle current liabilities of \$570,362 (December 31, 2018 - \$466,340). All of the Company's accounts payable and accrued liabilities 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

Gratomic Inc.
MANAGEMENT DISCUSSION AND ANALYSIS
(Form 51-102F1)

For the six months ended June 30, 2019

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.

Other Disclosures

Share Capital

Common Shares -

As at June 30, 2019, and the date hereof, there were 169,671,739 common shares of the Company outstanding (December 31, 2018 – 168,678,739).

Warrants -

At June 30, 2019 and the date hereof there were a total of 97,793,433 warrants outstanding (December 31, 2018 – 100,610,933).

Options -

At June 30, 2019, and the date hereof, there were a total of 16,650,000 and 16,225,000 stock options respectively outstanding (December 31, 2018 – 16,250,000).

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.