



## **Geomega Resources Inc.**

Management's Discussion and Analysis  
Quarterly Highlights

Three months ended August 31, 2017

# Geomega Resources Inc.

## Management Discussion & Analysis – Quarterly Highlights

Three months ended August 31, 2017

The following quarterly highlights management discussion and analysis (the “MD&A Highlights”) of the financial condition and results of the operations of GéoMégA Resources Inc. (the “Company” or “GéoMégA”) constitutes management’s review of the factors that affected the Corporation’s financial and operating performance for Q1-18. This MD&A Highlights should be read in conjunction with the Corporation’s unaudited condensed interim financial statements as at August 31, 2017 prepared in accordance with the International Financial Reporting Standards (“IFRS”), as well as with the management discussion and analysis for the year ended May 31, 2017. All figures are in Canadian dollars unless otherwise noted.

Further information regarding the Corporation and its operations are filed electronically on the System for Electronic Document Analysis and Retrieval (SEDAR) in Canada and can be found on [www.sedar.com](http://www.sedar.com).

Abbreviation	Period
Q1-17	June 1, 2016 to August 31, 2016
Q2-17	September 1, 2016 to November 30, 2016
Q3-17	December 1, 2016 to February 28, 2017
Q4-17	March 1, 2017 to May 31, 2017
Fiscal 17	June 1, 2016 to May 31, 2017
Q1-18	June 1, 2017 to August 31, 2017
Q2-18	September 1, 2017 to November 30, 2017
Q3-18	December 1, 2017 to February 28, 2018
Q4-18	March 1, 2018 to May 31, 2018
Fiscal 18	June 1, 2017 to May 31, 2018

## 1. NATURE OF ACTIVITIES

GéoMégA is a mineral exploration and evaluation company focused on the discovery and sustainable development of economic deposits of metals in Quebec. GéoMégA is committed to meeting the Canadian mining industry standards and distinguishing itself with innovative engineering, high stakeholder engagement and dedication to local transformation benefits. On the Exchange, common shares of the Corporation are trading under the symbol GMA.

As society moves from consumption of fossil fuels to more sustainable energy sources, GéoMégA believes that the future of clean energy resides in one of the rare earth elements (“REE”) called neodymium. Neodymium is vital for the production of high-performance permanent magnets used in a wide variety of electrical motors. Such motors are in increasing demand with the growth of sustainable-energy initiatives such as hybrid and electric vehicles and direct-drive wind turbines.

Innord Inc. (“Innord”) is the innovation arm of GéoMégA and was created in March 2015 to optimize the value of the separation technology by facilitating its development through direct investments of key financial partners. Innord is a subsidiary of GéoMégA that holds all the separation rights and laboratory equipment previously held by GéoMégA. The primary goal of Innord is to successfully scale-up its proprietary REE separation process. From now on, all research and development initiatives of GéoMégA are conducted by Innord.

## 2. CORPORATE UPDATE

### 2.1 Private placement

On August 11, 2017, the Corporation closed a first tranche of \$235,000 of a non-brokered private placement of units, each unit is comprised of one unsecured convertible debenture in the principal amount of \$1,000 and 5,000 warrants. The convertible debentures have a two-year maturity date and bear an interest of 10% per annum, compounded quarterly and payable quarterly in arrears. The Corporation has the option to pay such interest by delivering such number of common shares as may be required, at an issue price per share based upon the 20-day volume weighted average price (“VWAP”) of the Corporation’s common shares on the Exchange on the due date of the quarterly interest payment. Any such interest payment in common shares shall be subject to the approval of the TSXV.

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### 2. CORPORATE UPDATE (CONT'D)

Each warrant will entitle the holder to purchase one common share at a price of \$0.10 per share for a period of twelve months from the closing and thereafter at a price of \$0.12 per share until the date which is twenty-four months from the closing.

The convertible debentures will be convertible into common shares at the option of the holder at any time prior to the maturity date based on the following conversion price, subject to adjustment in certain events: (i) at a price of \$0.10 per common share if converted during the period of twelve months from the closing of the Offering; and (ii) at a price of \$0.12 per common share if converted during period following the twelve month anniversary of the closing until the date which is twenty-four months from the closing.

The convertible debentures will be subject to redemption, in whole or in part, by the Corporation should the Corporation realize gross proceeds from a subsequent private placement of securities or as a result of the exercise of the warrants in an amount equal to the gross proceeds of the Offering at any time following the closing of the Offering upon giving the holders of the Convertible Debentures not less than 30 and not more than 60 days' prior written notice, at a price equal to the then outstanding principal amount of the convertible debentures plus all accrued and unpaid interest up to and including the redemption date plus a redemption premium as follows: (i) 10% during the first six months following the closing of the Offering; (ii) 5% from the six month anniversary of the closing to the twelve month anniversary following the closing; (iii) 3% following the twelve month anniversary following the closing until the Maturity Date. A holder of convertible debentures may elect to convert its convertible debentures by providing the Corporation with a written notice to that effect within five business days of the receipt by the holder of the redemption notice.

Certain members of the board and executive management of the Corporation have participated in this first closing in the aggregate amount of \$60,000.

#### 2.2 Patent ownership and royalty agreement

On August 11, 2017, the Corporation and Innord entered into a patent ownership and royalty agreement ("Agreement") with its Chief Technology Officer ("CTO") to insure the long-term development and commercialization of the Corporation's proprietary rare earths extraction and separation technologies. The Agreement will replace the 2013 agreement that granted the CTO 1,000,000 warrants in exchange for the transfer by the CTO of certain intellectual property rights to the Corporation, and with the being cancelled pursuant to the Agreement. On October 19, 2017, the Agreement was approved by the shareholders of the Corporation at the annual meeting of the shareholders and is subject to the final Exchange approval.

The Extraction Royalty and the Separation Royalty (the "Royalties") to be granted to the CTO on commercialization under the Agreement may be summarized as follows:

- Extraction Royalty of 1.5% of the Net Profits for the extraction products. The royalty will increase to 2% if the gross profit margin of the operation ("GPM"), before subtracting the Royalties, is greater than 40% and it will be reduced to 1% if the GPM, before subtracting the Royalties, is less than 15%.
- Separation Royalty of 3% of the Net Sales Revenue for the separation products. The royalty will increase to 4% if the GPM, before subtracting the Royalties, is greater than 40% and it will be reduced to 2.5% if the GPM, before subtracting the Royalties, is less than 15%.

Pursuant to the Agreement, commercialization is deemed to occur at the earliest of:

- Oxide separation at a rate of 50 kg/day of Separation Products in oxide form for at least (i) 10 consecutive business days or (ii) 20 business days during any 2 month period, and the receipt by the Corporation of the full payment of a first order relating to such production.
- Montviel production – if the Corporation's Montviel project has reached 100% of nameplate capacity or 12 months after reaching 60% capacity or after reaching 60% of capacity and no longer ramping up to 100%.

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### 2. CORPORATE UPDATE (CONT'D)

In addition, and in order to secure the long term commitment of the CTO, the Agreement provides that development work not currently covered by the patents that the Corporation has already filed, will be jointly owned by the CTO and the Corporation (for the extraction work) and Innord (for the separation work) until commercialization at which point such rights shall be assigned to the Corporation and Innord, as the case may be. Notwithstanding the CTO's joint ownership rights in respect of new development work described above, the CTO shall not have any right to make, use, sell, dispose, offer for sale, grant licenses, import, export or otherwise distribute products or practice processes covered by one or more claims of the patents or any intellectual property without the prior written consent of the Corporation and/or Innord, which may be withheld in their sole discretion. Nevertheless, if there is a change of control or if there is no commercialization, the CTO would be granted a non-exclusive commercialization licence.

### 2.3 Financial Highlights

GéoMégA has \$280,659 of cash and cash equivalent as at August 31, 2017. The Corporation has a working capital of \$483,518 as of August 31, 2017 (\$521,205 as of May 31, 2017). The Company is constantly seeking financing or business opportunities.

The Corporation reported a net loss of \$299,363 in Q1-18 compared to \$343,581 for Q1-17. The main variation are as follow:

- Salaries, employee benefits, severance pay and share-based compensation \$34,080 (\$72,128 in Q1-17. Since January 1, 2017, the CEO share his time between the Corporation and Kintavar Exploration Inc. ("Kintavar") (the Corporation and Kintavar share the same CEO);
- Directors fees, net of adjustment for a settlement in shares, negative \$36,250 (\$18,750 in Q1-17). In Q1-18, two directors waived their directors fees for a total of \$52,500.
- Exploration and evaluation expenses, net of tax credits \$68,263 (176,006 in Q1-17). See analysis of work on the Montviel property in Section 3.1;
- Share of loss of associate \$83,312 (nil in Q1-17). Kintavar is the Corporation's only associate and this investment is accounted for under the equity method;
- Net income – discontinued operations \$25,962 in Q1-17 (nil in Q1-18). On March 24, 2017, the Corporation sold its gold assets to Kintavar and consequently the net income relating to these assets was segregated from the continuing operations.
- Unrealized loss due to change in value of marketable securities \$22,500 in Q1-17 (nil in Q1-18). On April 6, 2016, the Corporation sold the Buckingham property to Saint Jean Carbon Inc. (listed on the Exchange) in exchange of shares.

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### 3. MONTVIEL PROPERTY (REE – 187 CLAIMS – 100% INTEREST)

#### 3.1 Expense summary - Montviel property

	Q1-18	Q1-17
	\$	\$
<b>Acquisition and maintenance</b>	<b>898</b>	<b>2,029</b>
<b>Exploration</b>		
Salaries and benefits	-	53,009
Share-based compensation	4,405	2,485
Geology	-	2,401
Assays and drilling	-	3,152
Transport and lodging	353	21,190
Geophysics and Geochemistry	13,272	9,750
Depreciation of property and equipment	2,809	6,493
Taxes, permits and insurances	1,276	448
Billing - rental	(15,495)	-
<b>Total exploration</b>	<b>6,620</b>	<b>98,928</b>
<b>Evaluation</b>		
Metallurgy and processing	-	8,595
Salaries and benefits - Metallurgy and processing	71,829	63,416
Separation process	11,034	(260)
Depreciation of property and equipment	12,885	10,134
<b>Total Evaluation</b>	<b>95,748</b>	<b>81,885</b>
Gross Exploration and Evaluation expenses	103,266	182,842
Government grants	(35,003)	(23,884)
<b>Total Exploration and Evaluation expenses</b>	<b>68,263</b>	<b>158,958</b>

Alain Cayer, P. Geo., M.Sc., Vice-President Exploration of GéoMégA, a qualified person as defined in NI 43-101 supervised the preparation of the technical information in this section.

There was no surface exploration activity on the Montviel property during the Q1-18.

#### 3.2 Preliminary Economic Assessment (“PEA”)

The corporate commitment to sustainable development dictated the following operational parameters for the Montviel project: i) underground mining scenario with paste backfill, ii) reduction in reagents to be transported by road and iii) electrical operations with a low voltage power line. It has taken more than three and a half years of metallurgical work and optimization to meet these three parameters.

In 2015, Montviel's flow sheet was greatly simplified. All of the acid required for hydrometallurgy will be generated on site with the insertion of a closed loop acid regeneration unit. In addition, two physical adjustments at the beneficiation step significantly decrease the ore mass moving to hydrometallurgy.

To complete the PEA, the primary remaining work is the evaluation of the cost of the plant and infrastructure based on the May 2015 flow sheet (see press release dated May 20, 2015). The Company is focussing on the separation technology and will pursue the remaining work for the PEA subsequently.

#### 3.3 Environmental Geochemistry

There are four (4) environmental studies that are ongoing on Montviel.. Sampling for the leachates study (in collaboration with Dr. Benoît Plante (URSTM) and the bioavailability of rare earths to microorganisms study (in collaboration with University of Lorraine and Dr. Laure Giamberini) took place in September 2017. These are long term studies with repetitive sampling.

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#### **3. MONTVIEL PROPERTY (CONT'D)**

##### **3.4 Separation of rare earths through electrophoresis (patent pending) INNORD**

Dr. Pouya Hajjani, process inventor and engineer and CTO of GéoMégA supervised and approved the technical information of this section.

Rare earth separation through electrophoresis has the potential to reduce the capital required to build separation plants compared with the construction of plants based on conventional techniques (i.e. fractional precipitation, ion exchange and solvent extraction), to optimize the recovery of REE and improve the environmental performance of operations. This new process does not use any organic solvent which should have a positive impact on environmental risks in addition to reducing operating costs.

Electrophoresis is the migration of charged species (ions, proteins, particles) in a solution in the presence of an electric field. Each ion moves toward the opposite electrical polarity electrode. For a given set of solution conditions and electric field intensity, the rate of migration depends on a characteristic number known as the electrophoretic mobility. The electrophoretic mobility is directly proportional to the ratio of the load and the size of the ion.

The Corporation announced positive separation results on September 19, 2017 and the highlights are as follow:

- An industrial residue was processed to produce a high purity REE concentrate (99% TREO) and 99.8% cobalt hydroxide;
- Nd and Dy oxides separated with purity of up to 95% REE and recovery of up to 90% in a single run prior to recirculation and reprocessing;
- REE concentration per unit volume 1,250 times higher than that in 2016;
- Total capacity of prototypes approximately 1 kg of REO per run.

In detail, the Corporation successfully processed an industrial residue and produced a high purity REE concentrate, a high purity cobalt product and is advancing separation of Neodymium and Dysprosium using its proprietary technology based on electrophoresis which has reached to date 95% purity for each oxide.

The industrial residue that has been successfully processed, has been identified to date in North America, Europe and Asia and is running on average, depending on the source, at grades between 40% and 50% TREO and between 1% and 2% cobalt. The residues typically contain up to 4 different REE, the main ones being Neodymium (Nd) and Dysprosium (Dy), which are critical in the production of permanent magnets. The Corporation is continuing to search for additional sources of this industrial residue and other residues for continued testing of its technology.

The REE concentrate produced achieved high purities of 99% TREO. Cobalt by-product was isolated in the form of cobalt hydroxide (Co(OH)<sub>2</sub>) with a purity of 99.8%, typical market grade cobalt material. The Corporation will be contacting several end-users to validate whether the cobalt by-product could be qualified as battery grade purity.

Separation of Nd and Dy oxides from the REE concentrate and scale up of the technology has been just as successful. Currently, the grade achieved for each oxide is in the 95% range with a single run recovery of up to 90%. Work is ongoing to reach 99% purity and ultimately the Corporation hopes to achieve commercial grades in the near future. If commercial grades are achieved, samples will be submitted for validation with end users that the Corporation has been in discussions with. In terms of scale up, the progress relative to the June 21, 2016 press release has been exponential. The process has been significantly simplified, which management believes will allow for a more cost-effective scaling to pilot size in the future. The concentration of REE per unit volume increased significantly and is now at least 1,250 times higher than that reported in 2016 which may result in further reduction in costs and footprint. All these process modifications resulted in the total capacity of the prototypes reaching approximately 1kg of REO per run.

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### 3. MONTVIEL PROPERTY (CONT'D)

The process has been tested on commercial mine concentrate containing all the 14 elements (the same concentrate that was used for tests in spring of 2014) for the purpose of initial group separation. Initial trials have been successful and further tests will be conducted to produce high purity individual oxides.

The following table presents the comparison and the progress from 2014 to 2017:

	Winter 2014	Summer 2016	Fall 2017
<b>Number of separation units</b>	1 in Germany	3, in-house	3, in-house
<b>Total Capacity of prototypes, gREO/run</b>	< 1	≈ 10	≈ 1,000
<b>Approx. Cost of the prototypes (\$)</b>	150,000	15,000	15,000
<b>Type of sample separated</b>	Synthetic	Synthetic	Industrial Residue*
<b>Purity (% in solution) of separated REE</b>	94 to 98	85 to 90	<b>85 to 95</b>
<b>Single run recovery (%)**</b>	70 to 90	40 to 55	<b>60 to 90</b>

\*Due to higher capacity, synthetic samples may become expensive and are less representative

\*\*No recirculation of the output has been considered in this information. Please note that the data has been provided for the sake of comparison only and does not reflect the recovery or the purity limit of the technology. The recirculation and reprocessing of the unreacted material is an important part of many chemical processes to maintain high recovery rates and will be used here, if needed, to increase recovery and purity.

Industrial residues are the ideal feed for developing, calibrating and optimizing our proprietary technology and to prepare it for the mining industry all the while potentially producing cash flow for the company and helping recycle valuable natural resources which are going today to waste piles. Our technology addresses all the environmental concerns that rare earths separation entails today – flexible that it can process various rare earth feeds, sustainable and most importantly no organic solvents used. Having found rare earth residues that contained an interesting quantity of cobalt was an unexpected yet very welcome bonus. Cobalt is a highly sought after element today with high demand for lithium ion batteries which are used together with permanent-magnet AC (PMAC) motors in electric vehicles. Establishing a market presence through a product range of Nd, Dy and Co from industrial residues is a perfect fit for the Montviel project which will be primarily focused on the Nd market as well.

On June 21, 2016, the Company announced that Innord has successfully completed separation of a synthetic mixture of three rare earth elements, using its own initial prototype in the lab facility in Boucherville. Innord now has two operational electrophoreses prototypes with all the knowhow in-house.

Two years ago, we knew what the main challenges were and we tackled them one by one. The high concentration conditions that we operate in today give us an enormous flexibility for scale up. We used off the shelf equipment that we adapted to our process and as a result we have what we believe to be an easily scalable technology that we will be demonstrating one module at a time. Our next objective is to reach 99% grade for Nd and Dy oxides from this residue and then move on to separation from other residues that are enriched in other REE including neighbor elements. All this data will be then used to complete an engineering study for the initial industrial / pilot unit which will provide reliable capital and operating cost estimates.

All the sample analyses have been performed internally by Innord Inc. using ICP-OES.

### 4. SUBSEQUENT EVENTS

#### 4.1 Distribution of Kintavar's shares

Following the Kintavar sell of gold mining properties, the shareholders of the Corporation approved on October 19, 2017 at the annual meeting of shareholders, the distribution, in the form of a return of capital, of a portion of the 17,857,143 Kintavar shares to the Corporation's shareholders.

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### 4. SUBSEQUENT EVENTS (CONT'D)

#### 4.2 Shares for debt

On October 19, 2017, the Corporation's Board of Directors approved the issuance of 948,299 common shares at a deemed price of \$0.09 per share, for the settlement of a combined debt of \$85,347, of which \$65,347 represents the amount due to the current and previous directors for their fees and \$20,000 due to the CFO for professional fees. The settlement is subject to the Exchange approval. The Corporation will issue the shares pursuant to the settlement once the issuance has been approved by the Exchange.

#### 4.3 Stock Options Grants

On October 19, 2017, the Corporation granted to its directors, officers, employees and consultants 945,000 options exercisable at \$0.09, valid for 5 years. Those options were granted at an exercise price equal to the closing market value of the shares the day of the grant.

October 19, 2017

*(s) Kiril Mugerma*

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Kiril Mugerma  
President and CEO

*(s) Ingrid Martin*

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Ingrid Martin  
CFO