



Geomega Resources Inc.

Management's Discussion and Analysis
Quarterly Highlights

Nine months ended February 29, 2024

Geomega Resources Inc.

Management Discussion & Analysis – Quarterly Highlights

Nine months ended February 29, 2024

The following management discussion and analysis - quarterly highlights (the “MD&A Highlights”) of the financial condition and results of the operations of Geomega Resources Inc. (the “Corporation”, “Company” or “Geomega”) constitutes management’s review of the factors that affected the Corporation’s financial and operating performance for Q3-24 YTD. This MD&A Highlights should be read in conjunction with the Corporation’s unaudited condensed interim financial statements as of February 29, 2024 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, 2023. 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.

Abbreviation	Period
Q1-24	June 1, 2023 to August 31, 2023
Q2-24	September 1, 2023 to November 30, 2023
Q3-24	December 1, 2023 to February 29, 2024
Q3-24 YTD	June 1, 2023 to February 29, 2024
Q4-24	March 1, 2024 to May 31, 2024
Fiscal 24	June 1, 2023 to May 31, 2024
Q1-23	June 1, 2022 to August 31, 2022
Q2-23	September 1, 2022 to November 30, 2022
Q3-23	December 1, 2022 to February 28, 2023
Q3-23 YTD	June 1, 2022 to February 28, 2023
Q4-23	March 1, 2023 to May 31, 2023
Fiscal 23	June 1, 2022 to May 31, 2023

1. NATURE OF ACTIVITIES

Geomega is a mineral exploration and evaluation Corporation focused on the discovery and sustainable development of economic deposits of metals in Quebec. Geomega is committed to meeting the Canadian mining industry standards and distinguishing itself with innovative engineering, high stakeholder engagement and dedication to local transformation benefits. The common shares of the Corporation are trading under the symbol GMA on the TSX Venture Exchange (the “Exchange”) and under the symbol GOMRF on the OTCQB market.

As society moves from consumption of fossil fuels to more sustainable energy sources, Geomega 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 Geomega 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 wholly owned subsidiary of Geomega that holds all the separation rights and laboratory equipment. The primary goal of Innord is to successfully develop and scale-up its proprietary technologies. All research and development initiatives of Geomega are conducted by Innord.

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2. CORPORATE UPDATE

2.1 Corporate Overview

Geomega develops innovative technologies for extraction and separation of rare earth elements and other critical metals essential for a sustainable future. It has a diversified portfolio of projects and technologies at various readiness levels such as rare earths magnet recycling, bauxite residues valorization, the Montviel rare earths project hydrometallurgy, hydrochloric acid recycling and several others.

During the Q3-24 period, the Corporation announced design change for its rare earth magnet recycling demonstration plant from batch to continuous process to adjust to municipal permitting requirements. Geomega as well began site preparation activities at the Saint-Hubert facility. Engineering activities focused on design change and selection of new equipment and vendors while procurement activities focused on selling the equipment that was no longer needed for the continuous operation.

The bauxite residues valorization technology pilot plant continued commissioning and testing. As material is being produced and data is collected, various modifications are implemented to adjust the process and equipment. Step by step commissioning and testing will continue until the entire pilot plant is ready for continuous operation. Product samples are collected as needed for end user and overall technology validation.

2.2 Financial Highlights

Geomega has \$2,900,637 in cash and cash equivalents (\$2,922,637 including the short-term investments) as of February 29, 2024 and a working capital of \$2,995,636 (working capital of \$3,714,856 as at May 31, 2023).

For the Q3-24 YTD, the Corporation recorded a net loss of \$1,376,276 compared to a net loss of \$961,516 in Q3-23 YTD. Excluding the effects of fluctuations from the investment in an associate, a net loss of \$870,561 was realized in Q3-24 YTD compared to a net loss of \$600,898 in Q3-23 YTD. The main variations are as follows:

- Research fees (revenues) of \$401,323 (\$381,314 in Q3-23 YTD). Innord is performing a research project to apply its technology to the extraction of critical metals by processing bauxite residues. Part of the funding for this project comes from a partner in the aluminum sector. Research revenues are recorded as the Corporation spends money and resources on this project. As the process advances and more equipment is received, the workforce associated to this project has significantly increased. Refer to section 2.5 for more information.
- Salaries, employee benefits and share-based compensation of \$364,416 (\$200,538 in Q3-23 YTD). Share-based compensation attributed to administration has dropped from \$68,418 in Q3-23 YTD to \$41,062 in Q3-24 YTD since no options were issued during Fiscal 23. This expense is expected to increase in the last quarter considering that new share-based compensation was issued in January 2024. New employees were also added to the accounting and administration department to support the growth and the increased number of projects.
- Exploration and evaluation expenses, net of tax credits of \$1,856,890 (\$977,587 in Q3-23 YTD). The detailed engineering of the demonstration plant was progressing and coming close to readiness for construction before they had to be stopped in order to modify the process to continuous instead of batch due to permitting issues, as described in section 2.4. The Corporation is also working on different research projects with the objective of adapting its technology to new streams, which require more staff and generate more expenses. Engineering increased to \$569,324 compared to \$23,699 in Q3-23 YTD while salaries were up to \$945,499 from \$618,277 in Q3-23 YTD.
- Professional fees of \$126,033 (\$50,485 during Q3-23 YTD). In Q3-24 YTD, the main drivers were the costs of \$36,941 (\$4,738 in Q3-23 YTD) in legal fees for intellectual properties and \$69,015 in audit fees (\$56,710 in Q3-23 YTD) which takes place during the summer.

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2. CORPORATE UPDATE (CONT'D)

- Depreciation of right-of-use assets of \$142,835 (\$60,219 during Q3-23 YTD). The Corporation has received in the past years various grants for its ongoing research projects. Refer to section 2.3 for more information on the grants received and recorded in the financial statements. In April 2023, the Corporation signed a new lease agreement in Saint-Hubert, Quebec. Following IFRS 16 guidelines, a right-of-use asset and a lease liability were created based on the actual market interest rates. This lease has a bigger footprint, higher cost and longer duration, which explains the increase in depreciation of the right-of-use assets as well as the increase in finance costs (\$223,865 in Q3-24 YTD from \$38,249 in Q3-23 YTD).
- Government grants on operating expenses of \$1,284,106 (\$480,395 during Q3-23 YTD). This increase is directly linked to the increase in the evaluation expenses. The Corporation has secured different grants to help develop its technologies and the projects have been progressing, explaining the increase in those two categories. More details are showed in section 2.3.
- Investment income of \$92,476 (\$73,874 in Q3-23 YTD). As the Corporation invests its cash surplus in low-risk, fixed-return investments, it was able to benefit from the increase in prime rates, which enabled a rise in rates on GICs and high interest saving accounts.
- Gain on disposal of exploration and evaluation assets of \$239,687 (\$136,833 in Q3-23 YTD). On August 31, 2023, the Corporation has optioned out the Montviel-Sud Property in exchange of a cash and share-based considerations. Refer to section 2.6 for more information on this transaction. The corporation also received an option payment on forits Pomme property, as described in section 4.2.
- Net gain on settlement of a lease agreement of \$171,242 (nil in Q3-23 YTD). On October 2, 2023, the Corporation signed an agreement with the owner of the premises at 1123 Marie-Victorin in St-Bruno-de-Montarville to vacate the premises in exchange for a lump sum amount of \$175,000. Since the signature of a binding term sheet for the Saint-Hubert facility in April 2023 and a lease agreement in August 2023, the premises in St-Bruno-de-Montarville served no purpose for the Corporation. The right-of-use asset and the underlying lease were reversed, and the difference was recorded against the statement of loss and comprehensive loss.
- Impairment of an investment in an associate of \$464,493 (\$170,229 in Q3-23 YTD). With the decline observed on the financial markets, the fair value of the investment in Kintavar Exploration Inc. continued to fall during Q3-24 YTD, even considering a reversal of impairment during the 3rd quarter. Since the fair market value is lower than the cost of the investment, an impairment expense is booked in the financial statements.

2.3 Sources of financing

During Q3-24 YTD, 1,575,000 options were exercised for total proceeds of \$163,375.

Options payments on its Pomme and Montviel-Sud properties totalling \$113,000 in cash and \$143,000 in shares of MTM were received during Q3-24 YTD, as described in section 2.6 and 4.2.

On November 27, 2023, the Corporation announced that it obtained a \$2.04M grant from Next Generation Manufacturing Canada (NGen) for the construction of Geomega's rare earths recycling demonstration plant in Saint-Hubert, Quebec. The funding is part of a total envelope of \$2.96 million awarded to Geomega and a private Quebec based R&D company to perform the project titled "Recycling and Production of Rare-Earth Oxides from Permanent Magnet Scrap".

	\$
Payment received (net of financing fees)	10,728
Accrued as at February 29, 2024	251,154

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2. CORPORATE UPDATE (CONT'D)

On the previously announced grants, the following were recorded in the financial statements:

For the \$493K grant from the Program to Support Research and Development for the Extraction, Transformation and Recycling of Critical and Strategic metals, administered by Consortium de recherche et d'innovation en transformation métallique (CRITM), towards the development of a process for recycling of hydrochloric acid (HCl) from several metal chlorides which can be used for rare earth elements (REE) and scandium (Sc) recovery from multiple sources the following has been recorded to the financial statements so far:

	\$
Payment received	69,085
Accrued as at February 29, 2024	115,020

For the \$3M in funding from the Government of Canada's Critical Minerals Research, Development and Demonstration (CMRDD) Program, administered by Natural Resources Canada (NRCan), towards the construction of the magnet recycling demonstration plant, the following has been recorded to the financial statements so far:

	\$
Payment received	1,620,344
Accrued as at February 29, 2024	886,965

For the \$3M grant from the Technoclimat Program, administered by the Ministry of the Environment and the Fight Against Climate Change, Wildlife and Parks (MELCCFP) towards the construction of the magnet recycling demonstration plant, the following has been recorded to the financial statements so far:

	\$
Payment received	750,000
Accrued as at February 29, 2024	863,805

For the \$1.691M grants from the Sustainable Development Technology Canada (SDTC) and the Quebec Ministry of Economy and Innovation – Innovation Program, towards the development of a technology to reduce the bauxite residues:

	\$
Payment received	868,200
Accrued as at February 29, 2024	900,260

For the \$400K grant from the Ministry of Energy and Natural resources of Quebec (MERN) towards the development of bench scale technology for the treatment of Montviel REE deposit.

	\$
Payment received	160,000
Accrued as at February 29, 2024	159,530

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3. CORPORATE UPDATE (CONT'D)

2.4 Demonstration Plant

As of September 2023 the team has been dedicated to bringing engineering to a sufficient level of completion that it could be tendered to the construction contractors for execution and completion of the rare earths recycling demonstration project. Procurement also progressed and various items were ordered while others were received at the Saint Hubert facility during this period. In parallel, permitting activities have been ongoing at both the municipal and provincial levels. The objective was to be able to start the construction activities in February 2024. As a result of providing all the requested data to the governmental authorities, Geomega was notified by the municipality of Saint-Hubert, that the sewer system capacity is not currently able to accommodate the water discharges from the cooling tower that was to be installed for the demonstration plant. After reviewing various potential solutions, Geomega had to undertake a design change from batch process to continuous 24 hours operation with smaller equipment and lower demand for utilities, most importantly in regard to the cooling requirements. Despite the design change, the demonstration plant throughput capacity is planned to remain unchanged at 1.5 tonnes of feed material per day. More details on the design change, including the advantages and the risks are presented in the [March 19, 2024 press release](#).

Following a thorough review of the required construction activities and the ongoing design change, the engineering team was able to select several items that are not being impacted by the design change to continuous operation. Geomega has secured the services of a local construction company that started executing the required work in March 2024. The site preparation activities that have begun at the Saint Hubert facility include some of the civil work that is not being affected by the design change, electrical work, installation of the required fire protection system and the HVAC system for the rare earths recycling demonstration plant. The majority of that work is expected to be completed by end of June 2024. Engineering and procurement work continued in parallel to these site preparation activities.

Several permitting activities continue as well. Data continues to be collected on Geomega's process and plant design before a final submission for environmental permitting with the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP) is done. Documentation for the various municipal permits continues to be prepared by engineering and the construction contractors.

2.5 Bauxite Residues Processing

The bauxite residues valorization technology pilot plant continued commissioning and testing. As material is being produced and data is collected, various modifications are implemented to adjust the process and equipment in order to reach the required product specifications and process economics. Step by step commissioning and testing will continue until the entire pilot plant is ready for continuous operation. Product samples are collected as needed for end user and overall technology validation. The majority of the analytical equipment required for the operation of the pilot plant has now been received while some remaining items will be received later in 2024. More information will be provided as piloting is progressing and milestones are achieved.

2.6 Option agreement on Montviel-Sud Property

On August 31, 2023, the Corporation concluded an agreement with MTM Critical Metals Limited (ASX:MTM, "MTM"), the same company that optioned the Pomme property on February 22, 2023, to option out the Montviel-Sud property. Refer to section 4.3 for more information on the property.

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2. CORPORATE UPDATE (CONT'D)

The terms of the option agreement with MTM for Montviel-Sud are as followed:

	Cash Payments	Issuance of common shares	Work
	\$ CAD	\$ AUD	\$ CAD
Option to earn 100%			
At the signature of the final agreement (completed)	25,000	25,000	Nil
On or before August 31, 2024	50,000	50,000	50,000
On or before August 31, 2025	75,000	75,000	200,000
On or before August 31, 2026	Nil	Nil	450,000
Total for a maximum participation of 100%	150,000	150,000	700,000

Pursuant to the agreement, MTM will grant the Corporation a 2% NSR on the property and the Corporation will grant MTM the right to buy back at any time 1% for AUD \$1,000,000.

The Corporation received 457,033 shares of MTM during the quarter and total option payments resulted in a gain on disposal of exploration and evaluation assets of \$44,492.

2.7 Various

On October 2, 2023, the Corporation signed an agreement with the owner of the premises at 1123 Marie-Victorin in St-Bruno-de-Montarville to vacate the premises in exchange for a lump sum of \$175,000. Since the signature binding LOI in Saint-Hubert in April 2023 (lease agreement in August 2023), the premises in St-Bruno-de-Montarville served no purpose for the Corporation. The right-of-use asset and the underlying lease were reversed, and the difference was recorded against the gain in the statement of profit and loss.

At the Annual General and Special Meeting (the “AGSM”) that took place on October 25, 2023, Karine Emond was named to the Board of Directors of the Corporation. As a seasoned commercial lawyer specializing in manufacturing and supply chain, Mrs. Emond helps her clients enhance their business models through optimal commercial agreements, giving the tools required to management teams in the deployment of strategies and concrete action plans. She is a business enabler, always keeping in mind the business risks and objectives versus the legal perspective of things. She is known for developing synergies with stakeholders towards a common vision by strengthening links and collaborating on common goals.

On the same day at the AGSM, a new omnibus equity incentive plan (the “Omnibus Plan”) was implemented to replace the previous stock option plan (the “Legacy Option Plan”). The Omnibus Plan offers a wider range of incentive awards, including stock options (“Options”), restricted share units (“RSUs”), performance share units (“PSUs”), and deferred share units (“DSUs”) (collectively, the “Awards”) with the objective to attract, retain and motivate employees, directors, executive officers and consultants of the Corporation. The options issued under the Legacy Option Plan are still eligible and are governed by the Legacy Option Plan. The aggregate number of common shares reserved for issuance pursuant to awards of Options granted under the Omnibus Plan (including the options currently outstanding under the Legacy Option Plan) shall not exceed 8% of the Corporation’s total issued and outstanding common shares from time to time. In respect of DSUs, RSUs or PSUs, the aggregate number of common shares reserved for issuance pursuant to Awards other than for Options granted under the Omnibus Plan shall not exceed 5,000,000 common shares.

On February 29, 2024, the VP of Exploration, Alain Cayer, has resigned from his role.

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3. OUTLOOK ON THE UPCOMING MONTHS

Geomega's objectives are to develop processing technologies and to apply them to rare earth elements and other critical and strategic metals where the existing technologies have poor environmental performance such as large footprints, high consumption of acids, low recoveries, large amounts of waste or loss of valuable metals. The various projects of the Corporation are in different phases of development but since many of these technologies and applications have synergies, the rate of progress in some of the projects can change significantly. Ultimately, Geomega is looking to apply its technologies to high value opportunities and deploy them through building and operating the plants, licensing to major companies around the world or a combination of both, depending on the project.

The Corporation's intended activities are presented here and are divided by major ongoing projects.

Rare Earths Recycling Demonstration plant

- Continue engineering of the continuous design
- Continue procurement activities:
 - Selling non required equipment from the batch design
 - Place orders for equipment for the continuous design
- Continue environmental and municipal permitting
- Continue site preparation activities at Saint-Hubert facility
- Receive equipment for continuous design and begin plant assembly
- Various complimentary tests on process, final products, by products (as needed)
- Feed sourcing (regular ongoing activity)
- Discussions with potential oxide buyers

Bauxite Residue Sustainable Processing

- Continue bench scale testwork, modeling, process design and optimization
- Commissioning of pilot plant and perform modifications as required
- Pilot testing of the core of the transformation process
- Produce kilograms of material of the main product streams for testing by end users

Montviel REE Deposit – Bench Scale

- Bench scale testwork, modeling, process design and optimization required to complete the current ongoing R&D project

Other Sources & Other Metals (REE, Lithium, Graphite, Hydrogen and other metals)

- HCl recycling process – Continue bench scale testwork as per the ongoing R&D project
- R&D on different feeds (mining and industrial waste)

Corporate

- Continue hiring for select key positions as needed.

4. EXPLORATION AND VALIDATION OF PROCESSING TECHNOLOGIES ACTIVITIES

Pierre-Luc Lalonde, P. Geo., a qualified person as defined by NI 43-101, supervised and approved the preparation of the technical information in sections 4.1, 4.2 and 4.3.

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4. EXPLORATION AND VALIDATION OF PROCESSING TECHNOLOGIES ACTIVITIES (CONT'D)

4.1 Expense summary - Montviel property

The Corporation owns 100% of the Montviel property, located approximately 100 km north of Lebel-sur-Quévillon and 45 km west of the Cree First Nation of Waswanipi. The Montviel property comprises 96 mining claims totalling 5,333 hectares as at February 29, 2024.

Montviel	Three months ended		Nine months ended	
	February 29, 2024	February 28, 2023	February 29, 2024	February 28, 2023
	\$	\$	\$	\$
Acquisition and maintenance	-	413	-	1,926
Exploration				
Share-based compensation	-	1,314	727	6,094
Geology	654	654	2,616	1,962
Taxes, permits and insurances	-	-	-	360
Total Exploration	654	1,968	3,343	8,416
Evaluation				
Salaries and benefits	345,305	239,129	945,499	618,277
Share-based compensation	10,616	9,021	16,132	8,496
Separation process	146,472	97,226	288,984	189,179
Depreciation of property and equipment	39,172	25,342	87,264	128,608
Engineering	213,055	10,329	569,324	23,699
Total Evaluation	754,620	381,047	1,907,203	968,258
Gross E&E expenses	755,274	383,428	1,910,546	978,600
Tax credits	(274)	(285)	(53,656)	(1,013)
Net E&E expenses - Montviel	755,000	383,143	1,856,890	977,587

4.2 Pomme (under option agreement)

The Pomme REE project (“Pomme”), also known as Montviel-Nord, is located adjacent to the north of the Montviel REE-Nb deposit that was discovered by Geomega in 2011. In the past years, the Pomme property and the Montviel property were considered as one property. During the year 2023, the 2 projects were divided in order to option Pomme. The Pomme property comprises 43 mining claims totalling 2,386 hectares as at February 29, 2024.

On February 22, 2023, the Corporation concluded an agreement with MTM Critical Metals Limited (ASX:MTM, “MTM”) to option out the Pomme property.

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4. EXPLORATION AND VALIDATION OF PROCESSING TECHNOLOGIES ACTIVITIES (CONT'D)

The terms of the option agreement with MTM for Pomme are as followed:

All amounts are in AUD	Cash	Issuance of	Work
	Payments	common shares	
	\$	\$	\$
Option to earn 100%			
At the signature of the LOI (completed)	20,000	Nil	Nil
At the signature of the final agreement (completed)	50,000	50,000	Nil
On or before February 22, 2024 (completed)	100,000	100,000	300,000
On or before February 22, 2025	100,000	100,000	700,000
On or before February 22, 2026	Nil	Nil	1,000,000
Total for a maximum participation of 100%	270,000	250,000	2,000,000

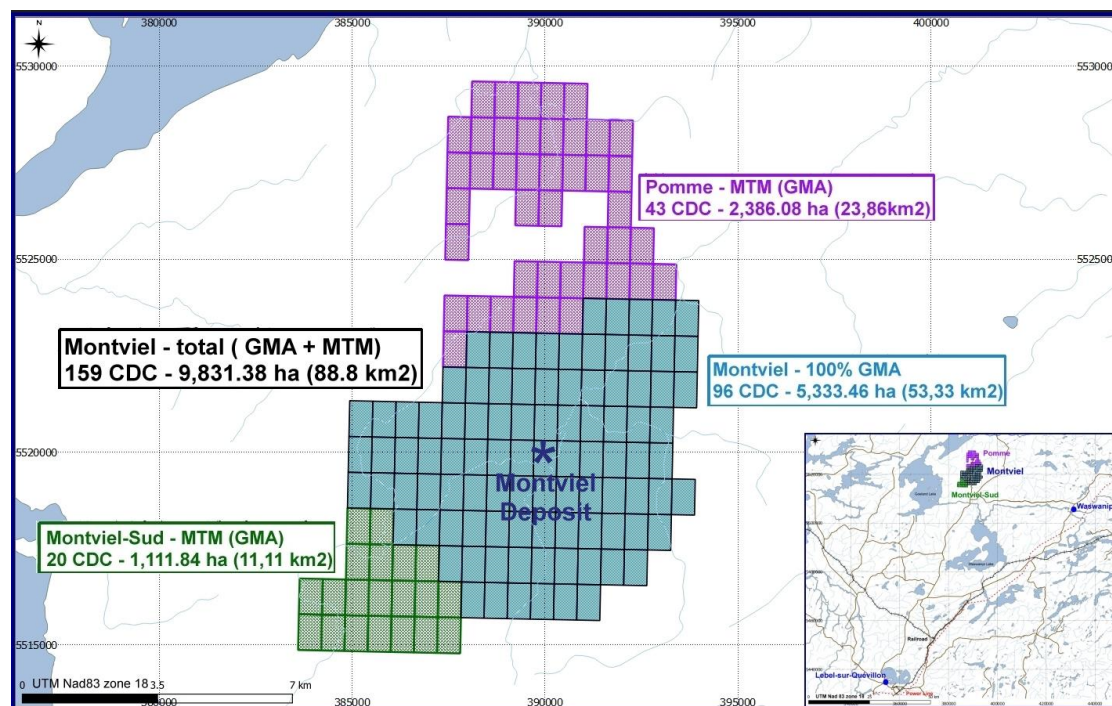
Pursuant to the agreement MTM will grant to the Corporation a 2% NSR on the property and the Corporation will grant MTM the right to buy-back at any time 1% for AUD \$1,000,000.

4.3 Montviel-Sud (under option agreement)

The Montviel-Sud REE project is located adjacent to the south of the Montviel deposit. In the past years, the Montviel-Sud and the Montviel property were considered as one property. In August 2023, 10 claims at the southwestern limits of Montviel property were acquired by map designation and combined with 10 existing claims to form the Montviel-Sud. This second split-out property, totalling 20 claims and 1111 hectares, just like Pomme, was optioned out to MTM for its REE-Nb mineralization potential.

Le 31 août 2023, la Société a conclu une entente avec MTM afin d'optionner la propriété Montviel-Sud. Refer to section 2.6 for more information on this transaction.

The following figure shows the different properties in the Montviel area:



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4. EXPLORATION AND VALIDATION OF PROCESSING TECHNOLOGIES ACTIVITIES (CONT'D)

4.4 Rare Earths Recycling Technology Development

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

Geomega develops innovative technologies for extraction and separation of rare earth elements and other critical metals essential for a sustainable future. With a focus on renewable energies, vehicle electrification, automation, reduction in greenhouse gas emissions and energy usage, rare earth magnets or neo-magnets (NdFeB) are at the center of all these technologies. Geomega's strategy revolves around gradually de-risking its innovative technologies while working directly with the main players in these industries to recycle the magnets that power all those technologies.

Geomega has been advancing engineering towards the construction of the demonstration plant that will be using its technology to recycle rare earth magnets and produce rare earth oxides. On October 1st, 2019, the Corporation published the results of the Front-End Engineering & Design ("FEED") study. The updated design has been scaled up in order to operate on a single work shift of 8 to 10 hours. As a result of this sizing increase and process optimization by Geomega, the demonstration plant could reach a throughput capacity of 1.5 ton per shift, a 50% increase over the initial design. On a per hour basis, this demonstrated a 4.5X increase.

The engineering work to date confirmed that the processing technology that was developed by Innord, a subsidiary of Geomega, is technically feasible and uses off the shelf equipment thereby making it easier to scale up.

In September 2020, the Corporation provided updated capital costs (including working capital) for the demonstration plant which increased from \$3.2M to \$4.8M. Although the equipment cost remained the same as what was presented in the FEED study, the Corporation revised upwards the estimate for plant construction and for the remaining cost of engineering.

The Corporation published the positive results of the pilot tests in January 2021 and an engineering update was provided in July 2021. Work was progressing by both external and inhouse engineers on detailed engineering. In fall 2021, the Corporation began hiring additional senior engineers in various disciplines to accelerate the work and to become fully independent of external engineering firms for process engineering.

In March 2022, the Corporation published the initial layout of the rare earths recycling demonstration plant to be located in Saint-Bruno-de-Montarville, Quebec. Following the decision in April 2023 to move the demonstration plant to Saint-Hubert, a layout redesign was initiated. A baseline environmental study has been performed at the Saint-Hubert facility including the installation of 3 monitoring water wells around the site.

With an expanded team of engineers since the end of 2021, Geomega advanced on many aspects of the engineering such as process design for the batch process plant, equipment and packages, auxiliary items, layout and more. Equipment ordering began in May 2022 while the external engineering firm BBA was engaged in December 2022 to complete the final phase of detailed engineering and pre-construction activities. From May 2023 to January 2024, work focused on process and layout adjustments for the Saint-Hubert facility. The updated plant 3D layout reached around 80% completion. Various equipment were purchased and received and several Factory Acceptance Tests (FAT) performed. That work was stopped in January 2024 due to the need to modify the process to continuous from batch to adjust to the municipal sewer system capacity. The most recent update can be found in section 2.4 above.

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4. EXPLORATION AND VALIDATION OF PROCESSING TECHNOLOGIES ACTIVITIES (CONT'D)

4.5 Environmental Geochemistry

Several environmental studies on Montviel were launched between 2012 and 2015. Various data has been collected until 2017 by various research groups. No sampling is being done at the moment. Results of these studies could be used in the future for environmental permitting and baseline studies.

4.6 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 was to be generated on site with the insertion of a closed loop acid regeneration unit. In addition, two physical processes at the beneficiation step significantly decreased the ore mass moving to hydrometallurgy.

The Corporation continues to evaluate the rare earth market and believes that the Montviel deposit, with the largest bastnaesite type mineralization 43-101 resource estimate in North America, could demonstrate solid economics based on its proprietary technology even at current market pricing.

The Corporation continues to gradually optimize and improve the flow sheet. With the additional funding from the MERN and the private placement announced on February 9, 2022, a project was started to improve on the technology that was developed and patented in 2015 (see news releases from April 29, 2015, May 20, 2015 and June 11, 2020) by incorporating the knowledge and experience gained from developing the rare earth recycling project and the bauxite residues project since then.

The main technical objectives to be investigated in this project are:

- Eliminating the flotation circuit
- Valorization of the iron by-product
- Recycling of the main leaching reagents

The successful implementation of these objectives would simplify the process of extracting rare earths and niobium and could significantly reduce its operating costs. The economic benefits of this project include:

- Cost reduction of the chemical reagents
- Energy savings by avoiding very fine grinding that is required for flotation, solid heat recovery and other adjustments
- Improving total REE recovery through whole ore leaching
- Reduction of mining waste and tailings management costs
- Increase of potential revenues through various by-products

Furthermore, the social and environmental impacts of the project are similarly important and will help obtain the required permits in the future and support of the local communities and the Waswanipi CREE First Nation. The environmental benefits of this project include:

- Reduction of water consumption
- Reduction of liquid effluents
- Reduction of solid mining waste volumes
- Reduction of overall energy consumption and greenhouse gas emissions for REE production compared to previous flowsheet
- Further evaluation of the possibility of paste-backfill

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4. EXPLORATION AND VALIDATION OF PROCESSING TECHNOLOGIES ACTIVITIES (CONT'D)

These modifications keep improving the process and making the Montviel project more economically robust, less sensitive to REO price fluctuations and more environmentally friendly by closing the processing loop.

The results of the project will be used to complete a Preliminary Economic Assessment (PEA) on the Montviel deposit.

4.7 Treatment of bauxite residues

Large quantities of this caustic red mud are generated worldwide every year, posing environmental and safety challenges. Storage of bauxite residues is a challenge for alumina refineries with over 80 plants across the world currently producing alumina from bauxite ore. It is estimated that over 1.5 million tonnes of bauxite residues are generated every year and as the demand for aluminum metal increases so does the production of bauxite residues. As a result of population growth, many of these plants are now located inside urban areas resulting in storage space limitations and increasing environmental regulations that threaten these operations. Closure of these alumina refineries could result in the loss of thousands of jobs and millions of dollars of economic benefits for these regions. With over 4 billion tonnes of BR stored in tailings globally, this feed material represents potential \$400B in metal value that could be unlocked using Innord's technology.

Geomega believes that BR is a perfect fit to expand Innord's extraction technology. Drawing from the strengths and versatility of its technology, Innord had been seeking to identify large industrial and mining waste challenges with the following characteristics:

- High iron (Fe) content – in BR >40% Fe₂O₃
- Loss of critical and strategic metals in the tailings (rare earth elements, scandium, titanium and vanadium)
- Need for reagents recycling and tailings volume reduction

Ownership of the Intellectual Property developed by Innord through this research work will remain with the Corporation. With BR representing a global challenge, Innord is developing the technology with the objective to make it available globally through a licensing / royalty structure once the technology has demonstrated its economical and environmental feasibility on a larger scale.

Bench scale testwork on the BR technology began in 2020. Funding from industrial partners and governmental grants in 2021 helped complete the initial bench scale work and bring the project towards piloting. On March 31, 2021, Geomega announced a \$4M funding for a 24-month pilot plant and feasibility study of its sustainable & complete valorization of BR processing technology. The project was funded by Rio Tinto, SDTC, Quebec Government and Geomega. The pilot project is to demonstrate the scalability of the technology while testing and validating various technical parameters before completing a feasibility study.

On April 25, 2022, in parallel to the BR technology, Rio Tinto and Innord have agreed to begin evaluating various opportunities to monetize the iron compounds produced by Innord's Bauxite Residues Technology (IBRT). As part of the 12 months project, Innord has committed to develop and test an extension technology to IBRT to produce the desired product that will then be evaluated by Rio Tinto. The Intellectual property developed only from this project extension will be owned by Rio Tinto who is fully funding the project. Innord will receive a royalty payment for the underlying base technology (IBRT) upon commercialization of the technology and any production of commercial products. Details of the agreement between Geomega and Rio Tinto, including the royalty level, will remain confidential.

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4. EXPLORATION AND VALIDATION OF PROCESSING TECHNOLOGIES ACTIVITIES (CONT'D)

Relative to existing methods (less than 5% of global BR is being used today) and contrary to previously developed metallurgical approaches that either only displace the environmental impact towards effluents and/or other residues, provide insufficient volume reduction or have limited economic viability, Innord's process potential offers the following benefits:

- Significant tailings volume reduction (>80%)
- Minimize effluents by recycling the main reagents, which would in turn reduce operating costs and avoid creating other waste streams
- Value maximization of the available metals, thereby enhancing the economics of the process, which include:
 - Bulk traditional metals such as Al and Fe
 - Strategic metal concentrates (REE, Sc, Ti, V)

Bench scale lab work continued to investigate more paths to monetize diverse streams of products throughout 2022 and 2023. Layout and equipment selection for the initial phase of the pilot plant covering the core of the transformation process was performed in late 2022 and in 2023. Installation began in January 2023 and commissioning began in August 2023 with Figure 1 and 2 showing the pilot plant at the Boucherville facility.

The continuous pilot plant is expected to deliver kilograms of material of the main product streams which will be used for testing by end users. The most recent update can be found in section 2.5 above.



Figure 1: [Pilot plant setup at the Boucherville facility](#)

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4. EXPLORATION AND VALIDATION OF PROCESSING TECHNOLOGIES ACTIVITIES (CONT'D)



Figure 2: [Pilot plant setup at the Boucherville facility](#)

April 24, 2024

(s) Kiril Mugeran

Kiril Mugeran
President and CEO

(s) Mathieu Bourdeau

Mathieu Bourdeau
CFO

Geomega Resources Inc.

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Mathieu Bourdeau, CFO
Pouya Hajiani, CTO

Board of directors

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Kosta Kostic ²⁾
Matt Silvestro, President of the Governance Committee ²⁾
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Karine Emond ¹⁾
Kiril Mugerma

Notes:

- 1) Member of the Audit Committee*
- 2) Member of Corporate Governance, Nomination and Compensation Committee*

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