

## FORM 7

### MONTHLY PROGRESS REPORT

Name of Listed Issuer: MGX Minerals Inc. (the "Issuer")

Trading Symbol: XMG

Number of Outstanding Listed Securities: 140,385,960

Date: February 5, 2021

This Monthly Progress Report must be posted before the opening of trading on the fifth trading day of each month. This report is not intended to replace the Issuer's obligation to separately report material information forthwith upon the information becoming known to management or to post the forms required by Exchange Policies. If material information became known and was reported during the preceding month to which this report relates, this report should refer to the material information, the news release date and the posting date on the Exchange website.

This report is intended to keep investors and the market informed of the Issuer's ongoing business and management activities that occurred during the preceding month. Do not discuss goals or future plans unless they have crystallized to the point that they are "material information" as defined in the Policies. The discussion in this report must be factual, balanced and non-promotional.

#### **General Instructions**

- (a) Prepare this Monthly Progress Report using the format set out below. The sequence of questions must not be altered nor should questions be omitted or left unanswered. The answers to the items must be in narrative form. State when the answer to any item is negative or not applicable to the Issuer. The title to each item must precede the answer.
- (b) The term "Issuer" includes the Issuer and any of its subsidiaries.
- (c) Terms used and not defined in this form are defined or interpreted in Policy 1 – Interpretation and General Provisions.

#### **Report on Business**

1. Provide a general overview and discussion of the development of the Issuer's business and operations over the previous month. Where the Issuer was inactive disclose this fact.

**MGX Minerals Announces Development of Novel Surface Coating for Si Anode in Next-Generation Lithium Ion Batteries** through its collaborative research partnership with the University of British Columbia ("UBC") has developed a new multifunctional surface coating, aluminium oxynitride, by an advanced atomic layer deposition technique. With this thin surface coating, the Si anode exhibited dramatically improved specific capacity of 1,200 mAh g<sup>-1</sup> for 100 cycles at 0.1C, in comparison to 500 mAh g<sup>-1</sup> for bare Si anode. This research represents advancement in the design of artificial solid electrolyte interphase for Si anode. The team is further integrating this novel coating in their existing graphite/silicon anode to make it commercially viable.

The MGX/UBC partnership is targeting to develop highly efficient, long-lasting silicon anode that will aid in the development of next generation lithium-ion batteries capable of increasing energy density from the current standard of ~ 200 Wh/kg up to 400 Wh/kg for use in long-range electric vehicles and grid-scale energy storage. The project will utilize low-cost MGX metallurgical-grade silicon as a feedstock to fabricate nanostructured silicon. The Company plans to build a laboratory in the Province of British Columbia and is actively seeking licensing and electric vehicle manufacturing partners.

The overall objective of the two-year research program is to develop a low-cost and scalable method that will fabricate a silicon-based anode to improve the energy density of Li-ion batteries. Dr. Jian Liu, Assistant Professor in the School of Engineering at UBC Okanagan, is leading a research group focused on advanced materials for energy storage. Dr. Liu was previously the technical lead for development of surface coating materials by atomic and molecular layer deposition, and their applications in surface and interface engineering on the anode and cathode of Li-ion batteries and beyond, at Western University and Pacific Northwest National Laboratory.

MGX operates three silicon projects in south-eastern British Columbia- Koot, Wonah and Gibraltar. A one-ton sample of quartzite from the Company's Gibraltar project was previously shipped to the independent lab Dorfner Anzaplan ("Dorfner") in Germany for mineralogical analyses. Dorfner conducted X-ray diffraction analysis, chemical analyses through X-ray fluorescence spectroscopy, grain size distribution, and mineral processing analysis, automated optical sorting and thermal stability testing. Results indicated that the material, after comminution and classification fraction, is of high initial purity (99.5 wt.-%), making the fraction chemically suitable as medium quality feedstock material for metallurgical-grade silicon production.

**MGX Minerals Announces Development of Highly Stable Zinc Metal Anodes Enabled by Atomic Layer Deposited Al<sub>2</sub>O<sub>3</sub> Coating for Aqueous Zinc-Ion Batteries** through its collaborative research partnership with the University of British Columbia ("UBC") has developed a new dendrite free Zinc-Ion battery under US Provisional Patent #62/993,177. As published in the *Royal Journal of Chemistry: Journal of Material Chemistry A*: "Rechargeable aqueous zinc-ion batteries (ZIBs) have attracted increasing attention as an energy storage technology for large-scale applications, due to their high capacity (820 mA h g<sup>-1</sup> and 5854 A h L<sup>-1</sup>), inherently high safety, and their low cost. However, the overall performance of ZIBs has been seriously hindered by the poor rechargeability of Zn anodes, because of the dendrite growth, passivation, and hydrogen evolution problems associated with Zn anodes. Herein, Al<sub>2</sub>O<sub>3</sub> coating by an atomic layer deposition (ALD) technique was developed to address the aforementioned problems and improve the rechargeability of Zn anodes for ZIBs. By coating the Zn plate with an ultrathin Al<sub>2</sub>O<sub>3</sub> layer, the wettability of Zn was improved and corrosion was inhibited. As a result, the formation of Zn dendrites was effectively suppressed, with a significantly improved lifetime in the Zn-Zn symmetric cells. With the optimized coating thickness of 100 cycles, 100Al<sub>2</sub>O<sub>3</sub>@Zn symmetric cells showed a reduced overpotential (36.5 mV) and a prolonged life span (over 500 h) at 1 mA cm<sup>2</sup>.

In addition, the 100Al<sub>2</sub>O<sub>3</sub>@Zn has been verified in Zn-MnO<sub>2</sub> batteries using layered d-MnO<sub>2</sub> as the cathode and consequently exhibits superior electrochemical performance with a high capacity retention of 89.4% after over 1000 cycles at a current density of 1 mA cm<sup>2</sup> (3.33C for MnO<sub>2</sub>) was demonstrated. It is expected that the novel design of Al<sub>2</sub>O<sub>3</sub> modified Zn anodes may pave the way towards high performance aqueous ZIBs and shed light on the development of other metal anode-based battery systems.

Nonaqueous lithium-ion batteries (LIBs) have dominated the global energy storage market over the past few decades, due to their high energy density, high power density, and long cycle life. However, the increasing concerns over limited lithium resources, high cost, and safety issues limit their future applications in large-scale energy storage. Sodium-ion batteries (SIBs) and potassium-ion batteries (KIBs) have been developed as alternatives to LIBs, because of their relatively abundant sodium (or potassium) resources in the Earth's crust. However, they still suffer from low energy density, the use of highly toxic and amiable organic electrolytes, high manufacturing cost and safety issues. The drawbacks of these nonaqueous-based systems motivate us to explore alternative battery chemistry with lower cost, higher safety, and longer cycle life.

The improved electrochemical performance was ascribed to the robust Zn metal anode enabled by nanoscale Al<sub>2</sub>O<sub>3</sub> coating, which improved the surface wettability, enhanced the corrosion resistance of Zn metal, and effectively suppressed the formation of less conductive Zn dendrites. It is expected that this work will provide new insight into interfacial engineering for metal anodes and into the fundamental understanding of interfacial phenomena for high performance metal-based batteries.”

**MGX Minerals Announces Exploration Results up to 75 Ounces per Tonne Silver at Silver Queen Deposit and 0.4 Ounces Per Tonne Gold at Grizzly Deposit, Tillicum Claims,** British Columbia geochemical analysis results of rock chip samples taken from the Grizzly, Silver Queen (*Photo 1*), Arnie Flats, East Ridge, Jennie and Road Zones.

**Grizzly-** Located 0.6 kilometres east and southeast of Tillicum Mountain, shear-related calc-silicate-quartz skarn zones host sulphide mineralization consists primarily of massive pyrrhotite, pyrite-marcasite, sphalerite, chalcopyrite, galena, and traces of free gold hosted in conformable bands to pods within pelitic schist (shale protolith), tuffaceous basalt and feldspar porphyry (hybrid diorite) intrusion. The Grizzly mineralization closely resembles the Heino-Money & East Ridge Zones. In 1989, diamond drilling Grizzly Zone yielded values up to 10.4 grams per tonne gold over 1.2 metres in hole G89-214; 19.9 grams per tonne gold over 0.9 metre in hole G89-213 and 2.6 grams per tonne gold with 15.3 grams per tonne silver over 14.4 metres in hole G89-220, including 3.3 metres yielding 5.1 grams per tonne gold and 15.8 grams per tonne silver. Rock chip sampling from a roadcut near the 1989 drilling obtained gold values of 14.52 g/t Au (0.424 ounces/ton Au) across a sample interval of 0.35 meters (1.15 feet). This area in the southern portion of the Grizzly Zone, and several drill holes are planned to intersect extensions of the southern (higher elevation) gold-bearing portions of the Grizzly Zone.

**Silver Queen-** Locally tuffs and limy/sandy sediments strike east to northeast, dipping steeply south, have been intruded by numerous dikes. The gold and silver mineralization is related to hornfelsing associated with various dykes and sills and the mid-Jurassic Goat canyon granitic stock. Mineralization is stratiform and hosted in limy and garnetiferous greenstone. Mineralization has been traced over a strike length of 950 metres. Drilling on the zone has identified several 20- metre thick mineralized skarn zones hosted in a 30- metre wide sequence of impure calcareous quartzites, siltstones and thin marble beds marginal to feldspar porphyry sills. Sulphide mineralization consisted of pyrite, pyrrhotite, tetrahedrite, sphalerite, galena, pyrargyrite and arsenopyrite. Alteration minerals include quartz, tremolite, actinolite and anhedral garnet. Grab sample 20SQ-7, located near the north portion of the NE trending Silver Queen trend, consisted of massive sphalerite-galena, and returned assay values of 2,590 grams/tonne Ag (75.54 ounces/ton Ag), 11.05% Pb, 18.0% Zn.

**Arnie Flats-** Locally, tuffaceous and meta-basaltic andesites near a hybrid diorite sill host two sub-parallel calc-silicate skarn zones. The zones trend east to northeast with moderate dip to southwest, and have been traced for 120 metres along strike. Sulphide mineralization consists

---

## FORM 7 – MONTHLY PROGRESS REPORT

of disseminated and stringer pyrite with pyrrhotite and trace argentite or tetrahedrite. Alteration minerals include epidote, quartz and chlorite. Rock chip samples 20AF-1 & 2 returned assay values of 4.17 & 3.47 g/t Au (0.122 & 0.101 ounces/ton Au), and 430 & 421 g/t Ag (12.54 & 12.3 ounces/ton Ag).

The Grizzly, Silver Queen and Arnie Flats Zones qualify as extension and exploration targets for further drill testing where drilling is planned for Grizzly in 2021. The Jennie and Road Zones also have good exploration potential, and they align as north extensions of the high-grade gold Heino-Money Zone.

As announced July 24th, 2020, six 0.5kg to 1kg, samples were taken at the 2030 Portal of the Heino-Money Pit Zone at the Heino Gold Deposit during the SRK Consulting (Canada) Site Visit July 8th, 2020. Samples were shipped under direct chain of custody to ALS Canada Ltd. in Kamloops, British Columbia, crushed and pulverized, with further shipment to ALS Canada Ltd, North Vancouver, BC under custody of ALS Canada Ltd. The samples have undergone gold analysis by fire assay and gravimetric finish up to 6 ounces per tonne Au are reported. Previous silver, lead, and zinc assays from press release issued July 20 are included. Small-scale production occurred in 1981, 1984, and 1993 from the Heino-Money Zone. Table 6- 4 from the SRK Report summarizes tonnages and metal content recovered per year of extraction. Provide a general overview and discussion of the activities of management.

- 2. Describe and provide details of any new products or services developed or offered. For resource companies, provide details of new drilling, exploration or production programs and acquisitions of any new properties and attach any mineral or oil and gas or other reports required under Ontario securities law.

The Company announced the development of novel surface coating for Si Anode in Next-Generation Lithium Ion Batteries through its collaborative research partnership with the University of British Columbia (“UBC”) as described above.

- 3. Describe and provide details of any products or services that were discontinued. For resource companies, provide details of any drilling, exploration or production programs that have been amended or abandoned.

**N/A**

- 4. Describe any new business relationships entered into between the Issuer, the Issuer’s affiliates or third parties including contracts to supply products or services, joint venture agreements and licensing agreements etc. State whether the relationship is with a Related Person of the Issuer and provide details of the relationship.

**N/A**

- 5. Describe the expiry or termination of any contracts or agreements between the Issuer, the Issuer’s affiliates or third parties or cancellation of any financing arrangements that have been previously announced.

**N/A**

- 6. Describe any acquisitions by the Issuer or dispositions of the Issuer’s assets that occurred during the preceding month. Provide details of the nature of the assets acquired or disposed of and provide details of the consideration paid or payable together with a schedule of payments if applicable, and of any valuation. State how the consideration was determined and whether the acquisition was from or the disposition was to a Related Person of the Issuer and provide details of the relationship.

**N/A**

---

**FORM 7 – MONTHLY PROGRESS REPORT**

7. Describe the acquisition of new customers or loss of customers.  
**N/A**
8. Describe any new developments or effects on intangible products such as brand names, circulation lists, copyrights, franchises, licenses, patents, software, subscription lists and trademarks.  
**N/A**
9. Report on any employee hirings, terminations or lay-offs with details of anticipated length of lay-offs.  
**N/A**
10. Report on any labour disputes and resolutions of those disputes if applicable.  
**N/A**
11. Describe and provide details of legal proceedings to which the Issuer became a party, including the name of the court or agency, the date instituted, the principal parties to the proceedings, the nature of the claim, the amount claimed, if any, if the proceedings are being contested, and the present status of the proceedings.  
**N/A**
12. Provide details of any indebtedness incurred or repaid by the Issuer together with the terms of such indebtedness.  
**N/A**
13. Provide details of any securities issued and options or warrants granted.  
**N/A**
14. Provide details of any loans to or by Related Persons.  
**N/A**
15. Provide details of any changes in directors, officers or committee members.  
**N/A**
16. Discuss any trends which are likely to impact the Issuer including trends in the Issuer's market(s) or political/regulatory trends.  
**N/A**

## Certificate Of Compliance

The undersigned hereby certifies that:

1. The undersigned is a director and/or senior officer of the Issuer and has been duly authorized by a resolution of the board of directors of the Issuer to sign this Certificate of Compliance.
2. As of the date hereof there were is no material information concerning the Issuer which has not been publicly disclosed.
3. The undersigned hereby certifies to the Exchange that the Issuer is in compliance with the requirements of applicable securities legislation (as such term is defined in National Instrument 14-101) and all Exchange Requirements (as defined in CNSX Policy 1).
4. All of the information in this Form 7 Monthly Progress Report is true.

Dated February 5, 2021

Neil Foran

Name of Director or Senior Officer



Signature

Chief Financial Officer

Official Capacity

<b>Issuer Details</b>		For Month End	Date of Report
Name of Issuer			YY/MM/D
<b>MGX Minerals Inc.</b>		<b>August 2021</b>	<b>2021/01/01</b>
Issuer Address			
<b>303 – 1040 Hamilton Street (Registered and Records Address)</b>			
City/Province/Postal Code		Issuer Fax No. ( )	Issuer Telephone No.
<b>Vancouver, BC, V6B 2R9</b>			<b>604-681-7735</b>
Contact Name		Contact Position	Contact Telephone No.
<b>Neil Foran</b>		<b>CFO</b>	<b>778-321-4638</b>
Contact Email Address		Web Site Address	
<b>neil@mgxminerals.com</b>		<b>www.mgxminerals.com</b>	