

**Form 51-102F3**  
**MATERIAL CHANGE REPORT**

**Item 1: Name and Address of Company**

MGX Minerals Inc. (the "Issuer")  
#303, 1080 Howe Street  
Vancouver, BC V6Z 2T1

**Item 2: Date of Material Change**

November 6, 2017

**Item 3: News Release**

A news release was issued and disseminated on November 6, 2017 and filed on SEDAR (www.sedar.com). A copy of the news release is attached as Schedule "A" hereto.

**Item 4: Summary of Material Changes**

On November 6, 2017, the Issuer reported that its engineering partner, PurLucid Treatment Solutions ("PurLucid") has been awarded a non-repayable contribution totaling up to C\$8.2 million in government funding to support the commercialization of a low energy water treatment system for the oil and gas industry.

The Issuer currently owns a 34% interest in PurLucid and has the right to acquire 100% through successive future investments. Working with MGX, PurLucid invented and filed patent applications for apparatus and methods for brine treatment and selective lithium recovery that integrates with the MGX Petrolithium Recovery Process, reducing the cost of recovery and enhancing the quality across the complex range of brines received from oil and gas wells.

**Item 5: Full Description of Material Change**

See the news release attached as Schedule "A".

**Item 6: Reliance on subsection 7.1(2) of National Instrument 51-102**

Not applicable

**Item 7: Omitted Information**

None

**Item 8: Executive Officer**

Jared Lazerson, Chief Executive Officer  
Telephone: 604 681 7735

**Item 9: Date of Report**

November 7, 2017

**Schedule "A"**



## **MGX Minerals Engineering Partner PurLucid Awarded C\$8.2M to Manufacture and Deploy Wastewater Treatment Systems Central to MGXs Petrolithium Recovery Process**

**VANCOUVER, BRITISH COLUMBIA** / November 6, 2017 / [MGX Minerals Inc.](#) ("MGX" or the "Company") ([CSE: XMG](#) / [FKT: 1MG](#) / [OTCQB: MGXMF](#)) is pleased to report that engineering partner PurLucid Treatment Solutions ("PurLucid") has been awarded a non-repayable contribution totaling up to C\$8.2 million in government funding to support the commercialization of a low energy water treatment system for the oil and gas industry. Specifically, Sustainable Development Technology Canada ("SDTC") and Emissions Reduction Alberta ("ERA") have agreed to fund up to \$3.2 million and \$5 million, respectively. MGX currently owns a 34% interest in PurLucid and has the right to acquire 100% through successive future investments. Working with MGX, PurLucid invented and filed patent applications for apparatus and methods for brine treatment and selective lithium recovery that integrates with the MGX Petrolithium Recovery Process, greatly reducing the cost of recovery and enhancing the quality across the complex range of brines received from oil and gas wells.

Utilizing its exclusively licensed pretreatment technology, PurLucid will fabricate and deploy a commercial-scale unit within an operating steam-assisted gravity drainage (SAGD) facility in Alberta. The project includes participants from oil production companies, a University and a global information technology company. The treatment system, proven in other applications, will be capable of operating at high temperatures and pressures to reduce energy loss while removing oil and mineral contaminants from oilfield wastewater. Several process units in existing boiler feed water treatment plants can be replaced with this single unit, not just in oil production but across thermal industries. Utilizing MGX resources, PurLucid will implement the lithium recovery process as a separate but associated project as early as January 2018.

*"Treatment of wastewater has always been a challenge and significant cost to oil and gas producers; it is also essential to implement petrolithium recovery." said Dr. Preston McEachern, CEO and Founder of PurLucid. "We're grateful to receive support from SDTC and ERA in the form of development contributions, to build the first commercial system at an operating oil production facility in Alberta and to demonstrate the large cost and energy savings that can be achieved with these systems. It is exciting, as this opens the door to further processing of the treated water for petrolithium recovery."*

The system will utilize a highly charged Replaceable Skin Layer (RSL™) membrane and High Intensity Froth Flotation (HiFF) system, known as Nanoflotation, which collectively have demonstrated performance superiority over other processes typically used to remove contaminants. The technology allows high temperature water treatment at 10-30 times the efficiency of existing ultrafiltration systems and offers numerous environmental benefits,



including contaminant removal, mineral recovery, reduced energy demand, smaller footprints and lower capital costs. The system is integral to the highly efficient processing of petrolithium brines for lithium recovery. The technology was a 2017 finalist for the Most Disruptive Technology in the World award by Katerva.

Extending from success achieved with the Purlucid pilot petrolithium recovery system deployed in August 2017, fabrication of the first small commercial Purlucid lithium recovery system will be completed in December 2017 and ready for use in 2018 on the treated brines from the grant supported project and other MGX brines successfully trialed with the bench-scale and pilot systems.

### **About PurLucid**

Purlucid is a water and wastewater treatment services company comprised of seasoned professional staff from existing large oil and gas service companies. Purlucid's distinct advantage over its competitors is its expertise in the industry and its knowledge of the changing market demand towards water reuse in addition to its technology portfolio that reduces costs and energy consumption while delivering high quality treated water. Purlucid has an active research and development program and its CEO holds academic positions at multiple Canadian universities where he promotes advanced research in water treatment and environmental engineering. Purlucid's technology development is supported by contract CTO David Bromley, globally renowned for his expertise in water treatment and contributor to several books on the topic. The strong research-driven team at Purlucid developed a low energy lithium recovery process and continues its innovation platform to further advance mineral recovery as part of a water treatment approach.

### **About SDTC**

SDTC is an arm's-length foundation created by the Government of Canada to promote sustainable development and support projects that develop and demonstrate new technologies to address issues related to climate change, air quality, and clean water and soil. SDTC invests in Canadian companies that, through their innovative technologies, contribute positively to Canada by creating quality jobs, driving economic growth and protecting the environment. For more information, please visit [sdtc.ca](http://sdtc.ca).

### **About ERA**

ERA works with industry, government and the innovation community to invest in and advance the solutions Alberta needs to reduce greenhouse gas emissions and build a stronger, more diversified economy. To date, ERA has committed to more than \$340 million in funding to over 120 projects with a total value of over \$2.3 billion.

### **About MGX Minerals**



MGX Minerals is a diversified Canadian resource company with interests in lithium, magnesium and silicon assets throughout North America. Learn more at [www.mgxminerals.com](http://www.mgxminerals.com).

**Contact Information**

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President and CEO

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Neither the Canadian Securities Exchange nor its Regulation Services Provider (as that term is defined in the policies of the Canadian Securities Exchange) accepts responsibility for the adequacy or accuracy of this release.

**Forward-Looking Statements**

*This press release contains forward-looking information or forward-looking statements (collectively "forward-looking information") within the meaning of applicable securities laws. Forward-looking information is typically identified by words such as: "believe", "expect", "anticipate", "intend", "estimate", "potentially" and similar expressions, or are those, which, by their nature, refer to future events. The Company cautions investors that any forward-looking information provided by the Company is not a guarantee of future results or performance, and that actual results may differ materially from those in forward-looking information as a result of various factors. The reader is referred to the Company's public filings for a more complete discussion of such risk factors and their potential effects which may be accessed through the Company's profile on SEDAR at [www.sedar.com](http://www.sedar.com).*