

# Fundamental Research Corp.

Investment Analysis for Intelligent Investors

March 28, 2019

## MGX Minerals Inc. (CSE: XMG / FKT: 1MG / OTCQB: MGXMF) – Diversified Portfolio of Clean Energy and Mining Technology - Initiating Coverage

Sector/Industry: Junior Resource

[www.mgxminerals.com](http://www.mgxminerals.com)

### Market Data (as of March 28, 2019)

Current Price	C\$0.30
Fair Value	C\$0.75
Rating*	BUY
Risk*	5
52 Week Range	C\$0.30 - C\$1.39
Shares O/S	139,069,193
Market Cap	C\$41.72 mm
Current Yield	N/A
P/E (forward)	N/A
P/B	1.1x
YoY Return	-68.8%
YoY TSXV	-20.8%

\*see back of report for rating and risk definitions.

\* All figures in C\$ unless otherwise specified.



### Investment Highlights

- MGX Minerals Inc. (“MGX”, “company”) is building a diversified clean energy and mining technology company, advancing multiple investments and projects simultaneously.
- Its core asset is a 60% interest in privately held PurLucid Treatment Solutions Inc., with an option to increase ownership to 100%. PurLucid’s core asset is a **patented nanofiltration technology** that has potential applications in wastewater treatment, and petrolithium. In January 2019, the company announced that PurLucid processed 1,000 m3 of wastewater brine for its first oilsands client. PurLucid has an aggressive growth strategy planned for 2019.
- The company’s **second core technology** asset is a zinc-air energy storage system, held by a wholly owned subsidiary, MGX Renewables. In November 2018, the company announced its **plans to spin-out** a 40% interest in MGX Renewables into a newly listed public company.
- MGX also holds interests in a number of lithium projects, and other projects focused on gold, silicon and magnesium. The magnesium project, located in B.C., is the most advanced project. A 2018 Preliminary Economic Assessment (PEA) showed an **after-tax Net Present Value @ 5% of \$317 million**. The company also received positive results from a recent drill program at its Fran Gold project in B.C.
- **We are initiating coverage on MGX with a BUY rating and a fair value estimate of \$0.75 per share.**

### Risks

- The value of the company is highly dependent on commodity prices.
- The rapid lithium extraction technology and the zinc-air storage system are in early stages.
- As the company has a number of projects, it may be challenging to advance all of the projects simultaneously.
- Exploration and Development risks.

Key Financial Data (FYE - July 31)	2017	2018	Q1-2019
Cash	\$2,897,448	\$6,613,350	\$3,347,600
Working Capital	\$2,370,658	\$5,676,527	\$361,314
Mineral Assets	\$4,850,186	\$10,276,950	\$11,181,446
Total Assets	\$11,563,110	\$38,055,472	\$35,771,842
Net Income (Loss)	-\$13,916,691	-\$25,378,273	-\$5,986,271
EPS	-\$0.24	-\$0.27	-\$0.05

- Subsequent to Q1-FY2019, the company raised \$6.81 million.

**Background**

MGX Minerals, founded in 2012, is building a diversified clean energy and mining technology company with investments and projects focused on battery-related commodities and extraction processes.

**Overview of Lithium Deposits**

The company’s core technology is focused on lithium extraction from brine. Lithium is primarily extracted from two sources: hard-rock (spodumene) deposits and brine-based deposits. Lithium hard rock deposits are commonly found in spodumene bearing pegmatite mineral deposits. The below map outlines notable hard rock lithium deposits around the world.

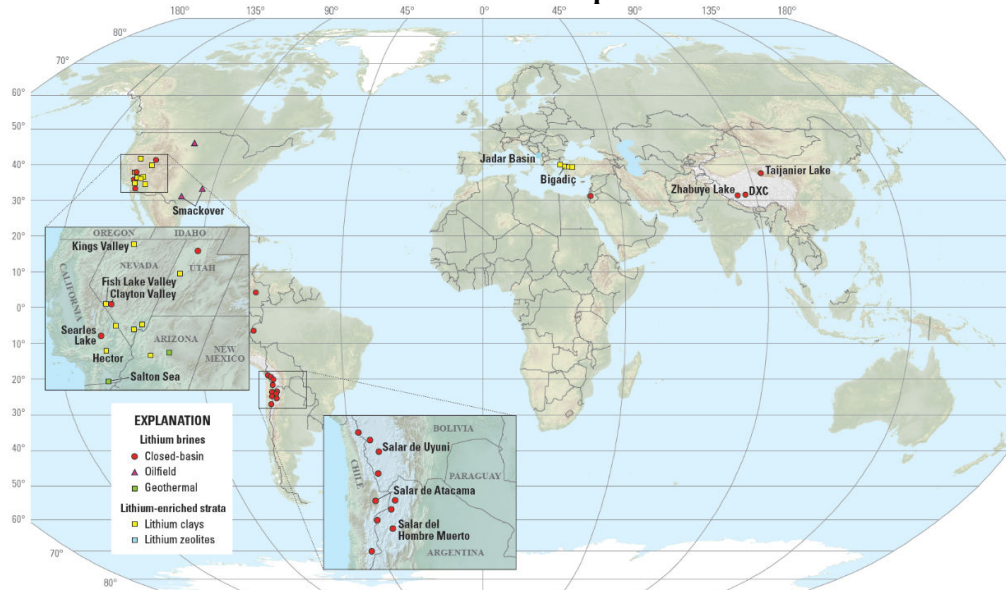
**Notable Hard Rock Lithium Deposits**



Source: USGS

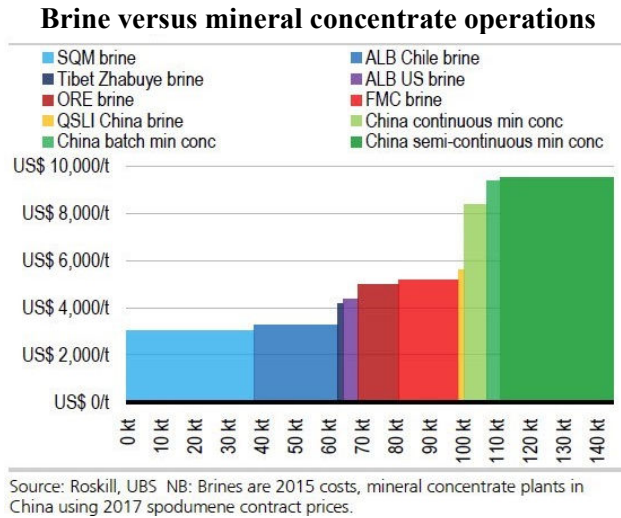
Lithium brines are accumulations of saline groundwater that contain dissolved lithium. The below map outlines notable lithium brine deposits.

**Notable Brine Deposits**



Source: USGS

Although brine deposits are typically of lower grade, brine mining is a significantly cheaper alternative to hard rock mining. The chart below shows the cost of brines versus hard rock deposits around the world.



*PurLucid and Rapid Lithium Extraction Technology*

**In November 2016, MGX entered into a definitive agreement to acquire up to 100% of Calgary based wastewater treatment service company, PurLucid Treatment Solutions Inc.** The company has so far acquired a 60% interest in PurLucid by making total payments of approximately \$7 million, including \$5 million cash and \$2 million shares (valued at \$1 per share). The remaining interest can be acquired for an additional \$2.5 million for 10%, with the balance to be negotiated.

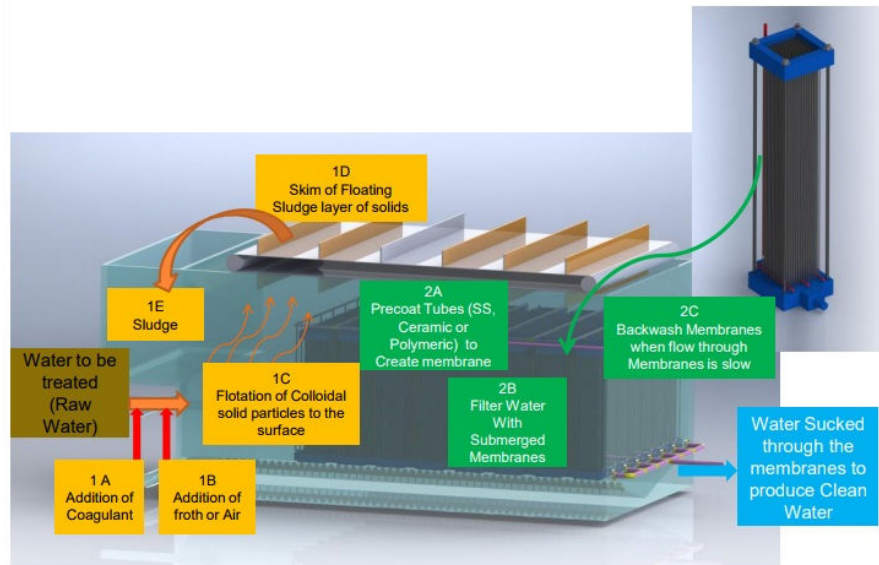
PurLucid’s core asset is its **exclusive global right** (for an undisclosed number of years) to a patented nano-flotation / nano-filtration technology that can filter pollutants, and extract lithium from brine. The core technology was developed in 2008 by David Bromley, who is a partner and CTO of PurLucid. The company has not disclosed whether the technology’s owner, David Bromley, has any royalty or profit share arrangement with PurLucid.

PurLucid had originally designed the technology for the oil and gas sector to separate impurities from wastewater. The technology received a \$8.2 million grant from Sustainable Development Technology Canada (SDTC) and Emissions Reduction Alberta (ERA) for commercialization in water treatment systems. Wastewater treatment is a very cost intensive step, especially for oilfield and oilsands operations. To put things in perspective, typically, one barrel of oil produces seven barrels of wastewater, which includes metals, salts, toxic processing chemicals, etc. The contaminated water is either treated onsite and reused, or trucked / transported by pipeline to other sites for treatment or for deep underground injection. The process not only involves significant cost, but also environmental risks.

PurLucid’s technology uses a combination of flotation technology and filtration. A highly charged Replaceable Skin Layer (RSL™) membrane is used to attract colloidal solids and oil in the water. A major advantage of this process is that, unlike conventional systems, cooling is not required for filtration to occur. According to the company, the technology allows for ultra-high temperature water treatment (up to 700°C) at 10x - 30x the efficiency of

conventional ultrafiltration systems. Benefits include reduced energy demand (by 90%), smaller footprint, and lower capital costs (by 25% to 40%). The final product (high purity water) can be reused for oilfield operations or safely disposed.

### Nanofloatation Technology



Source: David Bromley

### Raw water on the left and final water on the right



Source: Company

The technology has received the following awards / recognitions:

- Independently confirmed by the Saskatchewan Research Council.
- Base & Specialty Metals Industry Leadership Award at the 2018 Platts Global Metals Awards in London
- Finalist in the 2018 Global Platts Energy Awards in New York for Rising Star



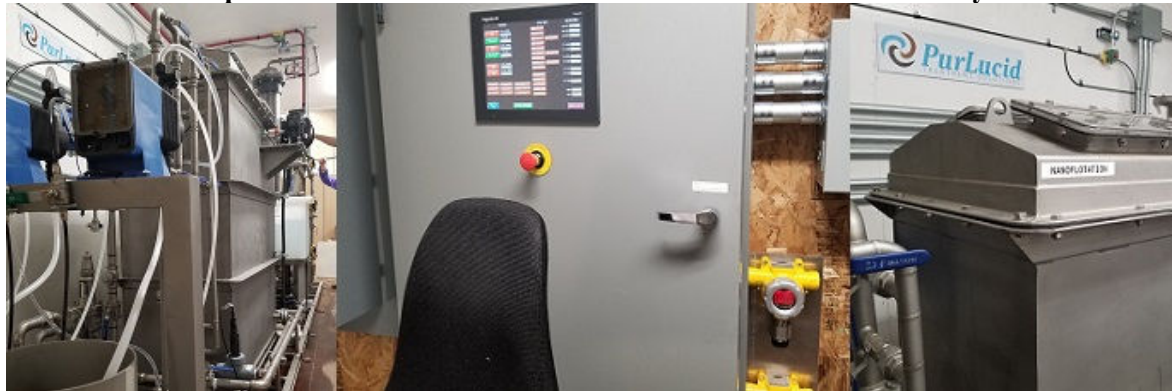
Company and Emerging Technology

- Finalist in the 2017 California based Katerva awards as the most disruptive sustainable technology in the world.

In addition to water treatment, the technology is considered to have the potential to recover lithium from a wide range of brines. PurLucid and MGX are initially focused on evaluating the technology on petrolithium, which is the extraction of lithium from the brine of oil and gas operations. The companies successfully produced lithium carbonate from MGX’s Sturgeon Lake oilfield.

MGX and PurLucid entered into an agreement with an oilsands company to treat its wastewater. PurLucid built a 5 m<sup>3</sup> per hour (with a capacity of 750 barrel per day) petrolithium and wastewater treatment system at its manufacturing facility in Calgary, Alberta at a cost of \$0.75 million.

**5m<sup>3</sup> Rapid Lithium Extraction Oil & Gas Wastewater Treatment System**



Source: Company

The system was moved to a test site near Edmonton, Alberta, and in November 2018, began processing water. Our discussions with management indicated that PurLucid is expected to receive revenues of \$35 per m<sup>3</sup>, with an operating cost of \$12 per m<sup>3</sup>. **Preliminary tests showed encouraging results**, including removal of silica, calcium and magnesium by 99.7%, 88% and 72%, respectively. In addition, suspended solids were not detected in the treated water.

PurLucid subsequently installed a second 10 m<sup>3</sup> system at the customer’s site (for a cost of \$2 million) in February 2019, with additional 10 m<sup>3</sup> systems to be installed thereafter. **Based on the above numbers, we estimate potential revenues of up to \$1.75 million per year from the three systems totaling 25 m<sup>3</sup>.**

**The potential market size is large. To put things in perspective, it is estimated that approximately 4 billion m<sup>3</sup> of wastewater is generated by oil and gas operations in the U.S. and Canada every year. A 1% market share for MGX and PurLucid implies potential revenues of \$1.4 billion a year.**

**Lithium Projects**

In addition to wastewater treatment revenue, MGX estimates that lithium extraction will also take place at the sites where lithium is present. MGX believes that its technology will likely breakeven at a lithium grade of approximately 100 ppm Li. In addition to oil and gas fields, the company is also targeting geothermal brines for lithium exploration in California and other states.

In March 2019, the company entered into a LOI with U.S. based wastewater company, Eureka Resources, to form an exclusive JV to recover lithium from water produced at non-conventional oil and gas sites.

The following tables summarize MGX’s lithium projects.

	Utah Petrolithium Project (100%)	Alberta Petrolithium (100%)	Case Lake Lithium+Four Other Hard Rock Lithium Properties
Location	Paradox Basin	Alberta	Ontario
Size	110,000 acres	1.7 million acres	5,968 ha
	In one of the largest undeveloped oil and gas fields in the U.S. Close to the Lisbon Valley oilfield, with historic values of up to 730 ppm lithium in brine	Located within and around past producing oilfields / covers a majority of the province's highest reported lithium brine levels	Pegmatite property
		contracts in place with major oil and gas operators to conduct well sampling	five dykes measuring up to 1,200 metres in strike length and up to 35 metres wide
		Primary asset is the 132,000 ha Sturgeon Lake Oilfield, located in west-central AB / grades of up to 140 mg/L lithium reported	holds a 20% working interest in properties controlled by Power Metals Corp (TSX.V: PWM)
			MGX has the right to acquire an additional 15% working interest by making a one-time payment of \$10 million prior to August 2020.
	Kibby Basin lithium project	Chilean Projects	Argentina
Location	Located in the Great Basin in Nevada / Esmeralda County, Nevada	Three prospective lithium exploration projects located in Chile, including the Francisco Basin, Laguna Brava and Laguna Escondida projects	Lithium triangle at the Salar de Salinas Grandes, in the Province of Salta - Puna region of northwest Argentina
Size	2,560 acres	12,900 ha	4,308 ha
	JV with Belmont Resources Inc / Plans to conduct up to 4,800 feet of drilling across four diamond drill holes / currently earning a 50% interest	JV with Chilean Lithium Salars / MGX is earning a 50% interest / MGX has agreed to make Option Payments totaling US\$1.5 million, incur exploration expenditures totaling US\$2 million, and complete an NI 43-101 resource estimate on at least one of the Projects within 20 months.	JV with A.I.S. Resources
	One hole returned 415 ppm between 1,100 to 1,210-foot, with the highest sample reaching 580ppm lithium	Francisco Basin project is located 30 kilometres south of the Salar de Maricunga.	Commenced drilling at the Salinitas lithium project
		Samples (May 2018) averaged 694mg/L Lithium	MGX is earning an 80% interest by incurring total exploration expenditures of US\$1.2 million and by making payments totaling US\$3.2 million by May 31, 2020.

Source: Company

**Other Projects**

The following table summarizes MGX’s other key projects.

	Fran Gold (100%)	B.C. Silicon Portfolio (100%)	Driftwood Creek Magnesium Project (90%)
Location	Omineca mining division of central B.C. - just 30 kilometers southwest of the	Three high-grade silicon projects in southeast B.C. - Koot, Wonah and	Driftwood mining district 164 kilometers north of Cranbrook, B.C.
Size	10,227 hectares	N/A	835 ha
	Recent deep drilling has uncovered a potentially new high-grade gold system at depth.	Longworth - Mineralization to date has been traced across a 7 kilometer strike length and outcrop sampling has shown consistent high grades of ~99% SiO <sub>2</sub>	2018 PEA outlines 19-year mine life, 3.5 year payback and C\$529.8 million pre-tax NPV
	Prior to 2018, the project has had 87 holes totaling 15,575 metres of diamond drilling, which identified three areas along the northwest trending 1.5km strike with up to three lateral zones	Koot - Mineralization at Koot consist of high-purity silicon dioxide (SiO <sub>2</sub> ) occurring along a 400 meter strike zone that remains open in all directions	Potentially amenable to open-pit mining and established beneficiation methods
	No significant drilling below 150m occurred prior to 2018.	Quartzite mineralization is high purity and similar to other producing silica mines	Mineralization traced over 2,000 meters; remains open along strike and at depth
	Mineralization is generally classified as auriferous quartz-sulfide veins	Potentially amenable to open-pit mining and established beneficiation methods	
		Funding a research consortium with the UBC to develop a low-cost and scalable method for fabricating Silicon based anode to improve the energy	

Source: Company

The Magnesium project is the most advanced, with a completed PEA in 2018. Key highlights of the PEA, followed by the project’s resource estimate, are presented below.

- A 1,200 tpd operation showed an after-tax NPV @ 5% of \$317 million (NPV @ 10% of \$143 million), IRR of 19.3% with a 4 year payback
- Average annual MgO production of 169,700 tonnes over a 19 year mine life / average head grades of 43.27% MgO / MgO recoveries of 90%
- Initial CAPEX of \$235.9 million
- Cash costs of \$350/tonne MgO

**NI 43-101 Resource Estimate**

CLASS	TONNES x1000	MgO %	Al <sub>2</sub> O <sub>3</sub> %	CaO %	Fe <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	LI0 %
Measured	4,702.7	43.31	1.01	0.95	1.29	5.06	47.83
Indicated	3,144.4	43.22	1.00	1.05	1.42	4.67	47.99
M&I	7,847.1	43.27	1.00	0.99	1.35	4.90	47.89
Inferred	55.8	42.95	0.93	0.66	1.43	6.07	47.46

Source: Company

We believe the relatively low CAPEX, and an attractive operating cost estimate, are the project’s key positives.

**MGX  
Renewables**

A drill program in 2018, at the Fran gold project, returned promising results, including a high-grade intercept from 136.00 to 142.35 meters of 6.55 g/t gold and 0.1% copper, and 38.7 g/t gold and 0.6% copper from 140.35 to 140.90 meters. A winter drill program is currently underway.

In November 2018, the company announced its plans to spin-out a 40% interest in its subsidiary, MGX Renewables, into a newly listed public company. Jared Lazerson will also be the CEO of MGX Renewables. Shareholders of MGX, as of June 2018, will receive one share of MGX Renewable for each 12.4163 shares of MGX. Shareholders of MGX, as of October 2018, will receive one share of MGX Renewable for each 59.8186 shares of MGX. Concurrently, MGX Renewables will also complete a \$3 million private placement by issuing 12 million units at \$0.25 per unit. Each unit will consist of a common share and half warrant (exercise price of \$0.35 per share until November 2020). Shares of MGX Renewables are expected to start trading shortly.

MGX had acquired MGX Renewables Inc. (formerly ZincNyx Energy Solutions Inc.) in 2017, from Teck Resources (TSX: TECK), for \$0.25 million cash and 4.78 million shares, which were then valued at \$4.78 million.

MGXR’s key asset is its ZRM-4500, which is a zinc regeneration system that uses electricity to extract zinc particles from a potassium zincate solution. ZRM-4500 is part of MGXR’s patented zinc-air energy storage system, wherein energy is stored in the form of zinc particles. According to the company, the storage system is designed to deliver power in the range of 20 kW – 50MW, with a capacity in the range of 120Kwh – 1GWh over extended periods of time.

**MGXR modular Energy Storage System (ESS)**



*Source: Company*

Relative to LIBs, the zinc-air storage system is cheaper, and allows for scalable power. LIBs have a fixed energy/power ratio, while MGXR’s technology offers flexible energy storage to power ratios and scalability. Another major advantage of the zinc-air flow battery is the



*Upcoming Catalysts*

*Outlook on Lithium*

ability to charge and discharge simultaneously, and at different rates, since the charge and discharge circuits are independent and separate.

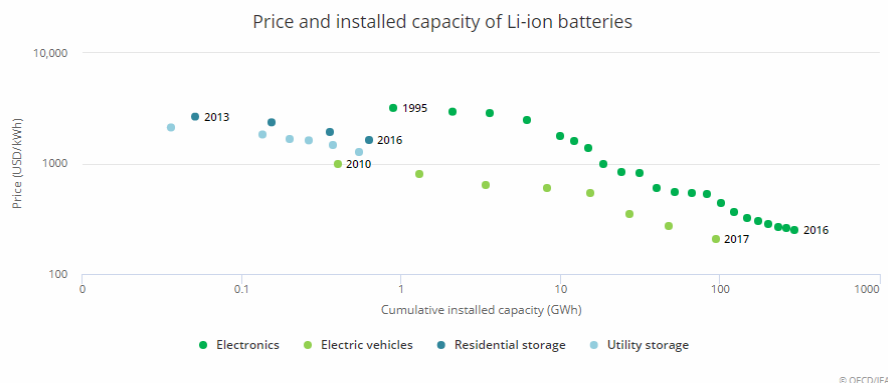
In October 2018, MGXR entered into an agreement with Braingrid Corporation to co-develop and market a packaged energy management product offering for the cannabis cultivation market. The partnership intends to combine Braingrid’s software and technology, using proprietary sensing and control hardware, and MGXR’s energy storage systems, to provide renewable solutions for cultivation to cannabis cultivators. The company has not provided a timeline on when a definitive agreement will be signed.

MGX’s immediate plans are listed below:

- Completion of a Pre-Feasibility Study for the Driftwood Creek magnesium project.
- Drill programs for lithium brine projects
- Deployment of rapid lithium recovery systems in Chile.
- Deployment of rapid lithium recovery and wastewater treatment systems throughout Alberta.
- Partnership with UBC to develop metallurgical silicon based anode for high-energy lithium-ion batteries
- Additional drill program at the Fran gold project
- Entry into California geothermal market

We expect Lithium-ion Batteries (LIBs) to be the primary demand driver of lithium. LIB is the most common rechargeable battery in the market today. In a LIB, lithium is used as the electrolyte, graphite as the anode (negative electrode) and cobalt typically as the cathode (positive electrode). LIBs are used in a wide range of electronic equipment, such as mobile phones, laptops, and digital cameras to name a few. However, the biggest growth driver is the use of LIBs in electric vehicles (“EV”)

Declining technology costs are also expected to drive demand for LIBs.

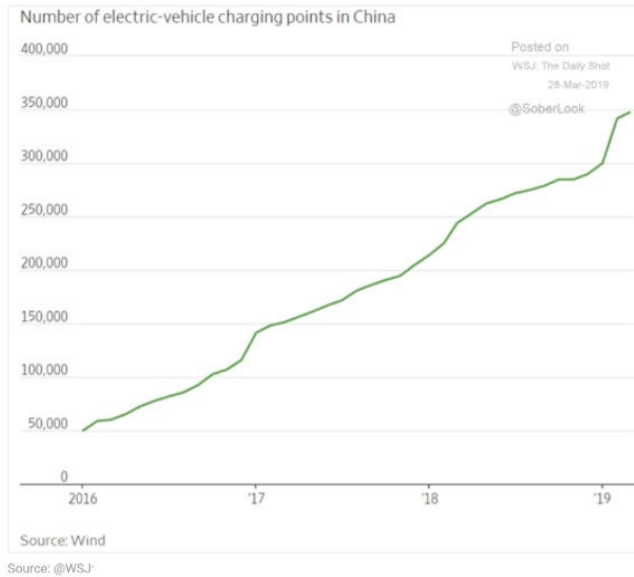


The following points highlight a few key projections related to EVs.

- EVs grew by 54% to 3.1 million in 2017, and are expected to grow to 125 million by 2030 (Source: International Energy Agency / IEA).

- 55% of all new car sales, and 33% of the global fleet will be electric, by 2040 (Source: Bloomberg New Energy Finance).
- The upfront cost of EVs will become competitive starting 2024 (Source: Bloomberg New Energy Finance).

According to Zion Market Research, The global electric vehicle charging station market, which accounted for US\$4.2 billion in 2017, is estimated to grow to US\$26.8 billion by 2024, reflecting growth of 30% p.a. The following chart shows the growth in charging points in China alone.



Lithium carbonate prices have dropped significantly in recent months, but are trading well above historical levels, as shown in the chart below.

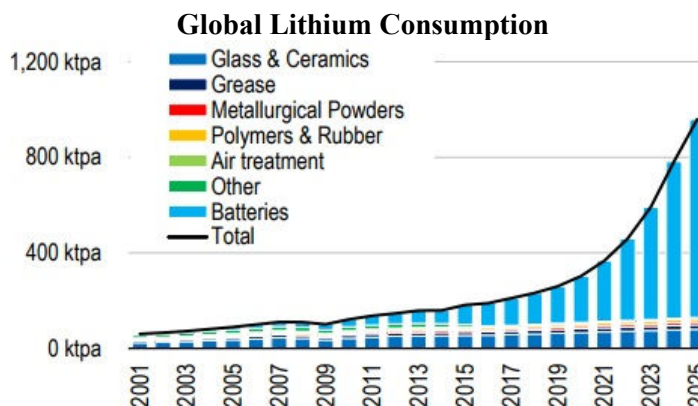


The following table shows our estimate of the expected global demand for LCE from EVs.

Required LCE (kg)	in millions	2015	2020	2025
1.5	Hybrid	2.9	6.9	9
11.8	Plug-in Hybrid	0.4	1.6	3.9
19.0	Full EV	0.4	1.6	2.6
	Full EV (commercial)	0.1	0.3	0.4
	<b>Total</b>	<b>3.7</b>	<b>9.5</b>	<b>16</b>
<b>Required LCE (tonnes)</b>		<b>16,662</b>	<b>59,598</b>	<b>108,842</b>

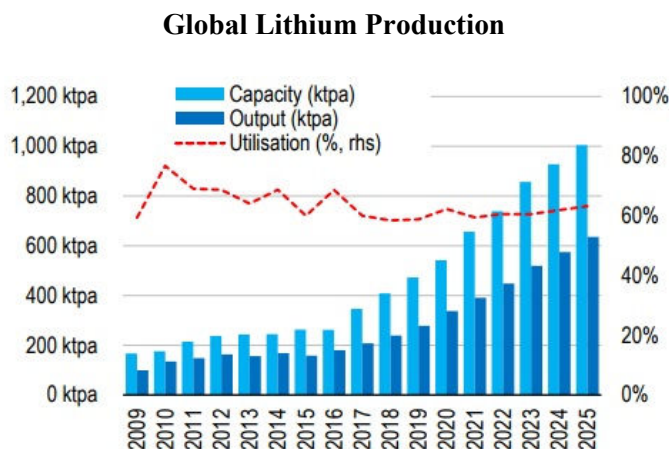
Source: FRC and Multiple Sources

Current global annual consumption is approximately 217,000 tonnes, and EVs account for under 20,000 tonnes. As shown in the above table, an expected increase in demand to 108,800 tonnes from EVs implies that the global LCE market will significantly increase over the next decade. According to Roskill, the global consumption of LCEs will reach 785,000 tonnes by 2025, and that the market will be in a deficit by 26,000 tonnes. UBS estimates global consumption could reach approximately 1 Mt per year by 2025.



Source: UBS

The above demand projections imply that production has to reach capacity to meet demand.



Source: UBS

**Management**

**MGX’s CEO and President, Jared Lazerson, is the single largest individual shareholder with 4.2% of the total outstanding shares.** Management and board members combined hold 9% of the total.

Management	Shares	% of Total
Jared Lazerson, President / CEO / Director	5,850,647	4.2%
Michael Reimann, CFO and Director	1,000,000	0.7%
Andris Kikauka, VP Exploration and Director	593,000	0.4%
Lyndon Patrick, Independent Director	5,059,174	3.6%
Christopher Wolfenberg, Independent Director	30,554	0.0%
<b>Total</b>	<b>12,533,375</b>	<b>9.0%</b>

*Source: Management Information Circular*

Brief biographies of the management team and board members, as provided by the company, follow:

**Jared Lazerson / President, CEO and Director**

Mr. Lazerson has worked in the mining and technology industries since 1994 with companies including Osprey Systems (GPS and Digital Mapping), United Helicopters, Copper Island Mines and Manto Resources. He holds a BA in International Relations from the University of Pennsylvania.

**Michael Reimann (Ph.D) / CFO and Director**

Dr. Reimann graduated in Engineering Physics from the Royal Military College of Canada, and obtained a Ph.D. in Physics from the University of British Columbia. He has over 45 years of experience in senior corporate management in both public and private companies. Most recently Mr. Reimann served as CFO of Skana Capital (TSX.V: SKN) and PNG Gold (TSX.V: PNG).

**Randall Keller / VP of Business Development**

Mr. Keller is a highly accomplished executive with over 35 years of global experience in the energy sector. He is formerly the Director of Business Development, Transmission and Land Assets, for Berkshire Hathaway Energy Renewables (“Berkshire”), a holding company controlled by Berkshire Hathaway Inc. At Berkshire, Mr. Keller was responsible for the development of large-scale renewable energy projects within the Berkshire holdings platform in southern California and managed a large team of engineers, geologists, chemists and scientists, overseeing budgets in excess of \$1 billion.

**Andris Kikauka (P. Geo) / VP of Exploration and Director**

Mr. Kikauka is a geologist with over 30 year of experience. From 1996 to 2012 he was Project Geologist overseeing exploration programs at Goldrea Resources. Mr. Kikauka is Project Geologist for Rio Minerals as well as a director of American Manganese Inc. (TSX.V: AMY), which is focused on mineral properties and commodities used in the steel

industry. He holds a B.Sc. in Structural Geology, Mineralogy & Petrology from Brock University.

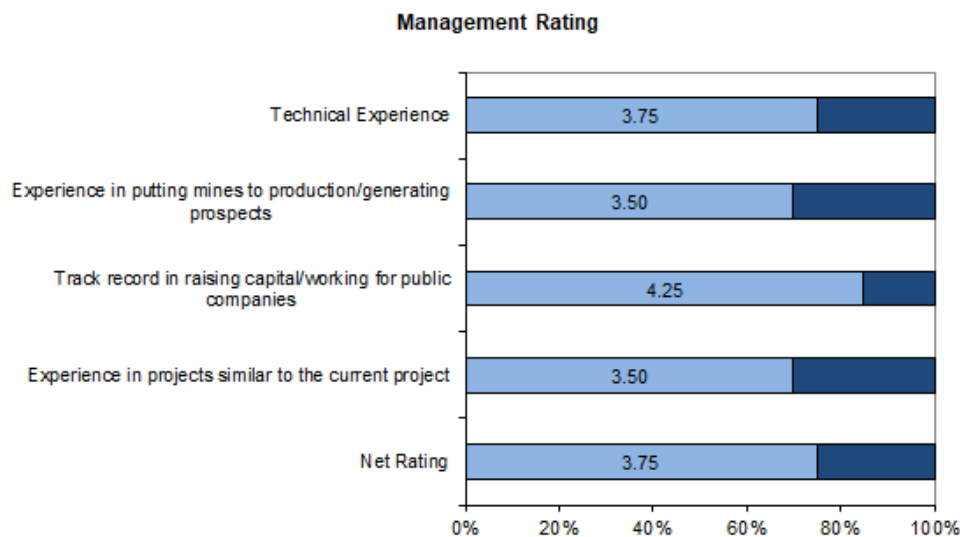
**Christopher Wolfenberg / Director**

Mr. Wolfenberg is a Partner with the law firm of Fasken Martineau LLP. Prior to his current position he was a Partner with Norton Rose Fullbright. He provides practical advice to select clients active in the mining, technology and energy sectors and has acted as an officer and director of numerous public, private and non-profit entities. Mr. Wolfenberg holds a Bachelor of Social Sciences from the University of Ottawa, a Bachelor of Laws from Queen's University and a Master of Laws from Cornell Law School.

**Lyndon Patrick (LLB) / Director**

Mr. Patrick is a Vancouver-based, independently practicing lawyer. He has practiced in British Columbia since 2001 in the areas of litigation and real estate. He holds an LLB from the University of Alberta, and an MA and BA from the University of British Columbia. Mr. Patrick is an independent director of the Company.

**Our net rating on MGX’s management team is 3.75 out of 5.00 (see below).**



Source: FRC

**The company’s board has five members, of which, two are independent.** The following table shows our analysis on the strength of MGX’s board.



	Poor	Average	Good
Two out of five directors are independent	X		
All five directors hold significant shares of the company			X
The Audit committee is composed of two board members, one is independent		X	
The Compensation committee is composed of three board members, two are independent		X	

Source: FRC

*Financials*

At the end of Q1-FY2019 (ended October 31, 2018) the company had cash and working capital of **\$3.35 million** and \$0.36 million, respectively. We estimate the company had a burn rate (cash spent on G&A expenses) of \$0.69 million per month in the first three months of 2019 – which, we estimate, is on the higher end of juniors of similar size. The following table summarizes the company’s liquidity position:

(in CS)	2017	2018	Q1-2019
Cash	\$2,897,448	\$6,613,350	\$3,347,600
Working Capital	\$2,370,658	\$5,676,527	\$361,314
Current Ratio	2.98	2.78	1.07
LT Debt / Assets	-	-	-
Monthly Burn Rate (incl. G&A)	-\$299,948	-\$1,253,640	-\$689,903
Monthly Burn Rate (incl. exploration)	-\$114,604	-\$341,098	-\$736,987
Cash on Investing	-\$3,276,436	-\$5,897,034	-\$951,702
Cash from Financings	\$10,602,485	\$29,343,424	\$683,296

Source: FRC

Subsequent to quarter-end, the company completed a \$6.81 million private placement by issuing:

- 2.59 million non-flow through units at \$0.60 per unit. Each unit consisted of a share and one full warrant (exercise price of \$0.67 for 36 months).
- 8.08 million flow-through units at \$0.65 per unit. Each unit consisted of a share and half warrant (exercise price of \$0.70 for 36 months).

*Stock Options and Warrants*

The company currently has 11.86 million options (weighted average exercise price of \$0.92 per share) and 37.61 million warrants (weighted average exercise price of \$1.09 per share) outstanding. At this time, none of the options or warrants are ‘in-the-money’.

*Valuation and Rating*

Although the company’s core focus is on its wastewater treatment and rapid lithium extraction technology, we believe it is too early for us to assign a valuation based on

projected cash flows. Also, the company has not disclosed details regarding any outstanding royalties / profit share agreement with the technology’s owner.

A summary of our valuation on MGX’s shares is shown below. Due to the early stage nature of its technologies and the mineral portfolio (except the Drift Creek Magnesium project), we are valuing these assets at their book values. We are valuing the magnesium project at 50% of its after-tax NAV at 10%.

Valuation Summary	
60% Interest in PurLucid + Equipment (book value)	\$14,016,929
60% Interest in MGXR (book value)	\$4,950,134
Lithium Projects, Fran Gold and Silicon Projects (book value)	\$10,654,446
Drift Creek Magnesium Project (50% of AT-NAV10)	\$71,427,000
Working Capital	\$3,381,301
<b>Fair Value</b>	<b>\$104,429,810</b>
<b>Fair Value per Share</b>	<b>\$0.75</b>

Source: FRC

**We are initiating coverage on MGX’s shares with a BUY rating and a fair value estimate of \$0.75 per share.**

*Risks*

We believe the company is exposed to the following key risks (not exhaustive):

- The value of the company is highly dependent on commodity prices.
- The rapid lithium extraction technology and the zinc-air storage system are in early stages.
- As the company has a number of projects, it may be challenging to advance all of the projects simultaneously.
- Exploration and development risks.

We rate MGX’s shares a risk of 5 (Highly Speculative).

**Fundamental Research Corp. Equity Rating Scale:**

**Buy** – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

**Hold** – Annual expected rate of return is between 5% and 12%

**Sell** – Annual expected rate of return is below 5% or the expected return is not commensurate with risk

**Suspended or Rating N/A**— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

**Fundamental Research Corp. Risk Rating Scale:**

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**3 (Average Risk)** - The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

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