

#### **MARKET STATISTICS**

Exchange / Symbol	TSXV: MN
Price (C\$):	\$0.19
Market Cap (C\$M):	\$25.1
Enterprise Value (C\$N	<b>4):</b> \$22.2
Shares Outstanding ( Float (%):	C <b>\$M):</b> 135.7 99.3%
Volume (3-month avg	<b>.):</b> 0.07M
52-week Range (C\$):	\$0.17-\$0.58
Industry:	Diversified Metals & Mining

## **CONDENSED BALANCE SHEET**

(C\$M, except per share data)	
Balance Sheet Date:	09/30/2022
Cash:	\$2.1
Cash/Share:	\$0.02
Debt:	-
Equity:	\$2.5
Equity/Share:	\$0.02

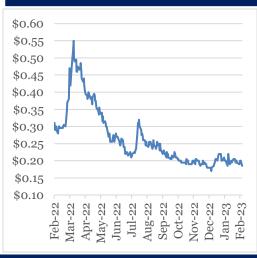
#### CONDENSED INCOME STATEMENTS

(C\$M, excep	t per share o	data)		
FY - 3/31	Revenue	Net Loss	EPS	
FY19	-	\$(1.2)	\$(0.01)	
FY20	-	\$(0.9)	\$(0.01)	
FY21	-	\$(4.9)	\$(0.05)	
FY22	-	\$(2.7)	\$(0.02)	
FY23	-	\$(4.1)	\$(0.03)	

# OWNERSHIP

Management & Insider	5%
HWI (High Worth Individuals)	21%
Retail	74%

## STOCK CHART



**STONEGATE** CAPITAL PARTNERS

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# **COMPANY DESCRIPTION**

Manganese X Energy's principal asset is the Battery Hill manganese project, with 55 claims totalling 1,228 hectares in Carlton County, west-central New Brunswick. The Company has published a positive Preliminary Economic Assessment (PEA) for the Battery Hill manganese deposit and recently initiated it's high-purity manganese pilot plant program. Manganese X aims to become the first publicly traded mining company that offers high-purity EV compliant manganese in Canada and the U.S.

## SUMMARY

- **Positive NPV** The Company's published PEA indicates a positive NPV and returns. The PEA report shows an after-tax NPV<sub>10%</sub> of US\$486 million and an IRR of 25%. The project's capital costs include US\$350 million with a payback of 2.8 years and an average gross annual revenue of US\$220 million over the first seven years.
- **Strategic Location** The Company's Battery Hill project is in one of the best mining jurisdictions in Canada, New Brunswick. The area is close to major shipping lanes to the United States and Europe and is well suited to cater to the top consumers of manganese in both regions. According to a thesis report, the area has one of the largest manganese resources in North America at approximately 194,000,000 tonnes.
- **Large Resource** The Battery Hills project consists of three main historic manganese zones and at least two showings identified in historical exploration. The project's mineral resources are estimated at 35.14 million tonnes of measured and indicated resources, grading at 6.39% manganese, plus another 27.72 million tonnes of inferred resources, grading at 6.46% manganese.
- Collaboration with Downstream Players Manganese X has entered into nondisclosure agreements with EV battery cathode material producers.
- **Innovative and Environmentally Friendly Process.** The Company's collaboration with Kemetco has resulted in a new process that eliminates selenium, a toxic pollutant in competitors' HPMSM products, thereby improving the quality of downstream products such as lithium-ion batteries.
- **Significant Market Opportunity** Lithium batteries offer many advantages compared to other battery types, such as better charge-discharge efficiency, improved battery life, higher energy density, maintenance, and durability. Manganese plays a critical role in stabilizing the structure of nickel, manganese, and cobalt (NMC) cathode materials, thereby improving the performance of Lithium-Ion batteries. LFP (Lithium-Iron-Phosphate) batteries are the most common batteries in China and the LMFP (Lithium-Manganese-Iron-Phosphate) batteries have shown great promise, which is likely to lead to higher demand for manganese in batteries.
- **Pilot Plant for EV Battery Project** The Company recently filed for a provisional patent pending on a groundbreaking metallurgical process for the battery grade high purity manganese MnSO4 (HPMSM). One of the primary goals of this pilot plant is to show that the Company's manganese feedstock from Battery Hill can produce HPMSM on a larger commercial scale. If the pilot run is successfully completed, Manganese X will become one of the very few companies in the world who can produce MnSO4 directly from their ore, a significant cost saving and carbon friendly measure, without having first to turn the product in to a metal called Electrolytic Manganese Metal (EMM).
- Valuation When we look at current manganese producers at a similar stage of development, we find that most are trading at a median of 0.05x EV/NPV per their most recent assessments. This is compared to Manganese X which is currently trading at 0.02x. Given that a larger percentage of Manganese X's resources are classified as indicated vs inferred we believe a range of 0.05x to 0.07x with a midpoint of 0.06x is reasonable, valuing MN at a slight premium to the comps. This leads to a current valuation range of \$0.48-\$0.66 with a midpoint of \$0.57 per share. [See Page 8]



# **BUSINESS OVERVIEW**

Manganese X aims to become the first publicly traded mining company that offers high-purity EV battery-grade manganese in North America. The Company seeks to address the growing demand for manganese, which is a critical material in lithium-ion batteries. Manganese acts as a stabilizer in the structure of cathode materials, supporting superior storage capacity, and bringing higher safety, and cost-effectiveness to lithium-ion batteries.

Exhibit 1: Manganese Battery and Energy Storage Applications

- Electric vehicles (EV) NMC- (Li-Ni-Mn-Co), LM FP- (Li-Mn-Fe-P) and LMO-type (Li-Mn oxide) batteries
- Household disposable batteries
  Alkaline Zn-Mn dioxide
- Grid energy storage NMC (Li-Ni-Mn-Co) and LMFP (Li-Mn-Fe-P)
- Low-voltage battery Zn-Mn dioxide

Source: Company Reports

Manganese is expected to help drive the widespread adoption of renewable clean energy and is witnessing an increasing demand from industries that manufacture consumer electronics, electric and hybrid vehicles, and battery storage systems for harvesting energy from solar, wind, and tidal sources.

The Company recognized that value-added products deliver a greater return on investment, and therefore, it intends to serve two distinct markets by refining its manganese into primarily HPMSM for the EV sector and a potential 98% purity sulphate product for agricultural purposes such fertilizer and livestock feed.

# BATTERY HILL PROJECT - MINERAL RESOURCES

The company intends to provide ethically sourced manganese by developing its manganese Battery Hill Project. The property consists of claims totalling 1,228 hectares located in Carlton County, New Brunswick, and consists of five manganese zones: Iron Ore Hill, Moody Hill, Sharpe Farm, Wakefield, and Maple Hill.

The deposit is strategically located in the northwest of Woodstock, New Brunswick, Canada. It is just 5 km away from Trans-Canada Highway and is located 12 kilometres from the US (Maine) border. The project is near existing powerlines, railway, and road infrastructure, with access to important shipping lanes on the Atlantic Ocean and Saint Lawrence. Exhibit 2: Battery Hill: Strategically Located near US-Canada Border



Source: Company Reports

The Battery Hills project consists of three main historic manganese zones and at least two showings identified in historical exploration. The project's mineral resources are estimated at 35.14 million tonnes of measured and indicated resources, grading at 6.39% manganese, plus another 27.72 million tonnes of inferred resources, grading at 646% manganese. The total operating costs offer opportunities for economic extraction at a 1.5% manganese cut-off grade.

Exhibit 3: Battery Hill Project Mineral Resource Estimate (Effective date: May 2022)

Cut-off (Mn %)	Category	Tonnes (Million)	Mn (%)	Fe (%)
	Measured	11.32	6.72	10.94
	Indicated	23.82	6.24	10.50
1.5	Measured Plus	25.14	c 20	10.64
	Indicated	35.14	6.39	10.64
	Inferred	27.72	6.46	10.73

#### Source: Company Reports

The Battery Hill project mineral resource estimate was prepared by Mr. Matthew Harrington, P. Geo., Mr. David Murray, P. Geo. and Mr. Michael Cullen, P. Geo., of Mercator Geological Services Limited. The mineral resource was defined within optimized pit shells developed using Hexagon Mine Plan 3D version 15.4, MineSight® Economic Planner version 4.00-11. Furthermore, pit



optimization parameters include metal pricing of US\$2900 per tonne for High Purity Manganese Sulphate Monohydrate - 32% Mn (HPMSM – 32%), an exchange rate of CDN\$1.25 to US\$ 1.00, mining at CDN \$7.43 per tonne, combined processing, and G&A at CDN \$126.31 per tonne processed, and a milling recovery to HPMSM of 78%.

The Company received a NI-43-101-compliant mineral resource estimate and technical report, which shows the sensitivity analysis of the Battery Hill deposit to cut-off grades results in 12.25 million tonnes of measured and indicated mineral resources at 8.77% manganese and 10.61 million tonnes of inferred mineral resources grading at 9.05% manganese using a cut-off of 7%. Iron has not been included in the pit optimization but will likely have future economic value and require further technical and financial assessment. The mineral resources are reported at a cut-off grade of 1.50%, reflecting total operating costs in-pit optimization.

Manganese X has a collaboration agreement with Kemetco Research Inc to develop a flowsheet for its ultra-high purity material. During the first phase, the battery hill project managed to produce manganese sulfate with a purity exceeding 99.95 % that was battery compliant with low base and alkali metals.

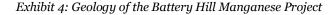
Work undertaken by Kemetco resulted in the elimination of a significant step in purification for high-purity manganese sulfate monohydrate (HPMSM) crystallization. It led to final crystal products with all contaminants below 100 parts per million (ppm) including calcium and magnesium, which is considered a "critical threshold level" for battery-grade HPMSM.

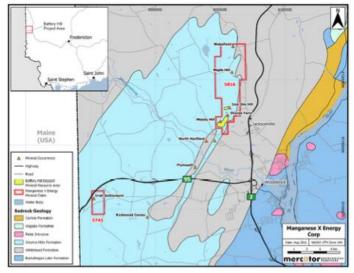
The overall recovery from implementing the new process is about 80%, with a substantial reduction in sulfuric acid and other reagents, as compared to previous test work. Another important outcome was the elimination of using selenium, a toxic element that will improve the overall quality of downstream products such as lithium-ion batteries.

# **BATTERY HILL PROJECT - GEOLOGY**

The Smyrna Mills Formation of the Silurian Perham Group hosts the sedimentary units that contain iron-manganese mineralization in the Woodstock area. These units are in contact with the Carboniferous Mabou Group to the east and the argillaceous limestone and calcareous shale units of the Late Ordovician to Silurian White Head Formation to the east (Smith and Fyffe, 2006). The iron and manganese rich Smyrna Mills Formation at the Battery Hill deposit consists of brick red and marron hematite-rich carbonate siltstones and weakly magnetic green siltstones. The highest manganese results are encountered in the brick red to maroon, hematite-bearing units containing the manganese carbonate mineral rhodochrosite.

The underlying Whitehead Formation is Silurian to Ordovician in age. It consists of dark grey to bluish-grey, massive to abundantly laminated, fine-grained argillaceous limestone interbedded with calcareous shale.



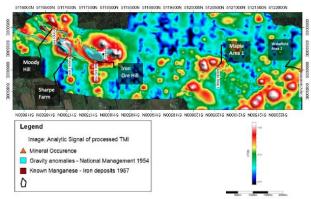


Source: Company Reports

The development of upright, tight folding that trend northeast across the Project area is attributed to the mid-Devonian Acadian Orogeny. A weaker, subsequent system of cross folds is present in the southeastern part of the area and may be attributed to later stages of the same orogeny. The folding has substantially thickened mineralized units in fold hinge zones, locally producing broad zones of near-surface mineralization particularly amenable to open pit development.

Manganese X optioned the Property in 2016 and acquired a 100% interest in December 2018. As of May 2022, the Company has completed gravity and magnetometer ground geophysical surveys, three programs of core drilling that total 53 holes (9,697 m) plus metallurgical investigation programs. Manganese X is presently completing a 4700 metre drilling program designed to upgrade and potentially expand the current resource that will be part of the upcoming PFS.

Exhibit 5: Ground Magnetometer Survey Results (taken from MacKinnon, 2020)



Source: Company Reports



# **POSITIVE PEA FOR BATTERY HILLS PROJECT**

The Company announced positive results from an independent Preliminary Economic Assessment (PEA), which showed an NPV<sub>10%</sub> of US\$486 million after-tax. The IRR is pegged at 25%, with a Capex of US\$350 million with a payback of 2.8 years.

The PEA utilized life of mine (LOM) mineral resources totalling 12.2 million tonnes of Measured and Indicated resources grading 7.45% Mn and 4.7 million tonnes of Inferred resources at 8.26% Mn.

The PEA projects an average annual gross revenue of US\$177 million per year over an estimated project life of 47 years, with an average annual gross revenue of US\$220 million over the first seven years.

The OPEX is estimated to be US\$122/t material processed, with a total life of mine production of 3.2 million tonnes of HPMSM. The average annual HPMSM production is estimated to be 68,000 tonnes over the life of the mine, with 84,000 tonnes produced in the first seven years of production.

Furthermore, Pit Optimization parameters include pricing of US \$2,900 (C\$3,625)/t for HPMSM (HPMSM = 32% Mn; C\$1.25 to US\$ 1.00 exchange rate), mining at C\$7.43/t, a 3% gross metal royalty, combined processing, and G&A (1,000 tpd process rate) at C\$126.31/t processed, an overall Mn recovery to HPMSM of 78%, and a selling cost of US \$65.00/t HPMSM.

Manganese X is now gearing up for the pilot project and a prefeasibility study and has initiated a drilling program to expand its resources.

Exhibit 6: Sensitivity Analysis

	HPMSM Price (\$/t)									
Metrics	\$1,400	\$1,900	\$2,400	\$2,900 <sup>1</sup> - Base Case	\$3,400	\$3,900	\$4,400	\$4,200 <sup>2</sup>		
Before-Tax Metrics										
Undiscounted Cashflow (\$M)	1,483	2,945	4,407	5,869	7,331	8,793	10,255	9,670		
NPV <sub>8</sub> (\$M)	168	527	886	1,245	1,604	1,963	2,322	2,178		
NPV <sub>10</sub> (\$M) <sup>3</sup>	77	363	648	933	1,218	1,503	1,789	1,675		
NPV <sub>12</sub> (\$M)	14	248	481	715	948	1,181	1,415	1,321		
IRR (%)	13%	21%	28%	35%	41%	47%	52%	50%		
Payback Period (years)	6.2	3.7	2.7	2.1	1.7	1.5	1.3	1.4		

After-Tax Metrics									
Undiscounted	849	1,702	2.552	3,403	4.254	5,104	5.955	5,614	
Cashflow (\$M)	649	1,702	2,552	5,405	4,254	5,104	5,955	5,014	
NPV <sub>8</sub> (\$M)	45	257	465	673	880	1,088	1,296	1,212	
NPV <sub>10</sub> (\$M) <sup>3</sup>	(13)	156	321	486	651	815	980	914	
NPV <sub>12</sub> (\$M)	(54)	85	220	355	489	624	759	705	
IRR (%)	10%	16%	21%	25%	30%	34%	37%	36%	
Payback Period	70	4.5	2.4	2.0	2.4	21	10	10	
(years)	7.2	4.5	3.4	2.8	2.4	2.1	1.9	1.9	

Source: Company Reports

The PEA is considering a risk-managed base case market price of US\$2,900/t for battery-grade high-purity manganese sulphate, which is well below the long-term forecast price of US\$4,200/t HPMSM estimated by CPM Group

Management believes the PEA reaffirms the project's potential to be the most impressive manganese property in North America due to its solid economics, short payback period, and relatively low capital investment.

Manganese X's proprietary extraction process aids in the production of superior quality manganese while eliminating selenium, a highly toxic element. The Company is in a compelling position to justify a premium to the market price.

# INITIATES PILOT PLANT FOR EV BATTERY PROJECT

On Oct 25, 2022, Manganese X Energy Corp. announced that it initiated its high-purity manganese sulphate monohydrate (HPMSM) pilot plant at Kemetco Research Inc. (Kemetco) in Richmond, BC, Canada. Kemetco also received a 1500-kilogram bulk sample from the Company's Battery Hill manganese property located in Woodstock, NB, Canada. Kemetco will prepare this sample for use in the pilot plant testing and already initiated the first phase of work to confirm and optimize the purification flowsheet.

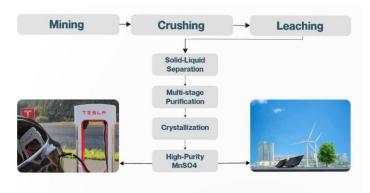
The Company aims to create high-purity manganese sulphate monohydrate (HPMSM) suited for Li-ion batteries used in electric vehicles. The Company has developed an inventive patent-pending technology that will be tested at the pilot plant. Through the engineering design and process flow sheet verification, this pilot project has the potential to confirm and de-risk the metallurgical process. Currently only HPMSM is being used to produce EV Liion batteries. The HPEMM production process requires excessive electrical costs for electroplating and electrowinning and is not environmentally friendly. In addition, it must be then converted to a HPMSM end-product before EV battery production.

One of the primary goals of this pilot plant is to show that the Company's manganese feedstock from Battery Hill can produce HPMSM on a larger commercial scale.

This pilot production will make Manganese X one of the very few companies in the world who can produce high grade MnSO4 directly from the ore without having first to turn the product in to a metal called EMM. This will reduce manufacturing time and manufacturing cost involved in the process. EMM is known for high start-up capitalisation costs (CAPEX) while utilising excessive production energy costs, affecting the environment negatively.



# Exhibit 7: Processing Steps



#### Source: Company Reports

Compared to other miners, Manganese X's Battery Hill deposit's metallurgical examinations have yielded a rating of 99.95% MnSO4 with all contaminants below 100 parts per million (ppm) including calcium and magnesium. This enhances the safety, effectiveness, and environmental friendliness of the production of all future lithium manganese backup storage energy units and electric vehicle (EV) batteries from its Battery Hill deposit.

Manganese X Energy and its future mining projects are positioned to extract Manganese for the manufacturing of NMC (Nickel Manganese Lithium) batteries that may soon become Cobalt free. Most importantly, selenium is not used in the process, producing a purer final product and considerably lowering processing costs.

Several companies in the EV and Li-ion battery supply chain have approached Manganese X for samples. To validate its HPMSM product, the Company is engaging end-users in the North American supply chain.

# **MANGANESE AND ELECTRIC VEHICLES**

China is home to over 90% of the global production capacity of high-purity manganese sulfate. Manganese has been designated as a strategic metal by the U.S because of its use in military hardware. However, there are no operating mines in North America, so the need for a stable supply source given geopolitical uncertainties should provide impetus to mining companies in the region.

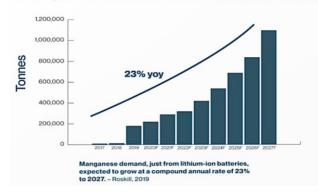
Manganese is steadily emerging as a preferred alternative to conventional cobalt-based lithium-ion batteries. Leading EV manufacturers are incorporating manganese lithium-ion batteries in their electric vehicles. Continuing research on manganese has led to positive results, such as the news from Tesla labs that show that it is possible to increase the percentage of Manganese in the Nickel Manganese lithium-ion from 10% to 33.3% by removing the tab. The resultant tabless cells (4860) can produce EV batteries with five times more energy capacity, are six times more powerful, and deliver a 16 percent range increase for Tesla's vehicles.

Manganese X's high-purity manganese sulfate monohydrate (HPMSM) is a vital component of the cathode used as an energy

source in lithium-ion batteries. Its manganese has a 99.95% purity, is selenium free, and has very few impurities. This compares to 98% of all high-purity manganese sulfate monohydrate contains selenium, affecting battery performance, safety, and price. Most importantly, the Company's manganese ore is much more environmentally friendly as it is a carbonate instead of a manganese oxide ore.

There are six types of lithium-ion batteries, two of which are emerging as potential leaders, which are the Lithium-ion manganese dioxide battery (LMO) and the Lithium manganese cobalt battery (LMC). Reasons for their preference are safety, customizable electrical output, longer battery life, shorter recharging times, and cost-effectiveness. Manganese is more affordable than cobalt at a trading value of USD 1,400 per tonne compared to cobalt's upwards of USD 61,000 per tonne, making for a more economical alternative.

Exhibit 8: Manganese Demand Forecast.



Manganese for Batteries Demand Forecast

Source: Company Reports

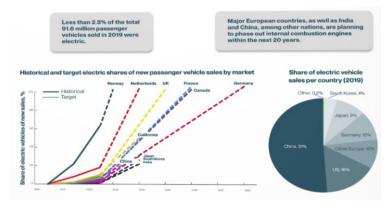
Currently, the estimated global production of HPMSM stands at 170,000 tons, but with the EV sector rapidly growing, there is likely to be a deficit and massive demand in the future.

According to a report by Statista, the Global Lithium Battery market size is poised to reach 100.4 billion U.S. dollars by 2025, growing from 30.2 billion U.S. dollars in 2017.

The International Energy Agency predicts that Electronic Vehicles which stand at 3 million today, will grow to 125 million by 2030.



# Exhibit 9: EV Market Trends



Source: Company Reports

# DISRUPTIVE BATTERY CORP

The Company's wholly owned subsidiary, Disruptive Battery Corp, and its joint venture partner in the U.S, PureBiotic Air Inc, are working on obtaining certification and regulatory registrations for its products. The Companies are developing a misting solution for tackling pathogens that cause deadly diseases, including coronavirus.

PureBiotic AIR received positive results from testing its misting solutions by the Virginia State University (VSU) on critical parameters such as risk reduction in a range of pathogens and biofilm on numerous surfaces and air.

Manganese X is using additional resources to speed up registrations and certifications, including FDA and EPA, besides expanding the Company's trademark registrations in the Americas, Europe, and China.

Concerning the Canadian market, the Company has recruited Dicentra Regulatory Consultants to help with approvals from Health Canada. In addition, Manganese X has obtained NSF approval and registrations, a mark that denotes that the product has undergone rigorous testing and complies with all standard requirements.



# RISKS

**Risks associated with mineral exploration** – There is considerable time and effort involved in finding mines that can be used for mineral exploration and exploitation. Not only properties that are considered initially can be converted into mines. Many factors affect the suitability of mines for explorations, such as unexpected formations, fires, floods, cave-ins outages, landslides, labor disputes, and the inability to acquire the required machinery or labor are some of the risks involved.

The Company also relies on third-party consultants and other experts and incurs substantial expenses for mining ore from mineral reserves. There is no guarantee that the funds expended will result in successful exploration activities as many factors beyond the Company's control affect mineral exploration.

**Intense competition** – The Company operates in a highly competitive industry that has many firms competing for the same resources, be it mining licenses, properties for explorations, equipment and machinery, experts, and consultants, to name a few. Manganese X is also competing with mining firms that have more significant financial and technical resources and expertise in mining for precious metals.

**Government regulations and permits**– Mining is subject to stringent government regulations, and companies are expected to comply with laws and regulations governing the acquisition of licenses, mine development and prospecting, production, safety, health and occupational hazards, labor agreements, waste, and toxic substance disposal and environmental protection among others. There could be a change in government rules and regulations. The company may fail to comply with them, attracting fines, penalties, civil and criminal fines, and penalties for failing to abide by the rules and regulations. The Company also requires permits to operate its mineral properties, which it may fail to obtain or renew, forcing it to halt its development and production activities.

**Limited operating history and history of losses** – The Company has not achieved revenue from mining operations and currently has no source of operating cash flow. Since its inception, the Company has incurred losses and will continue to incur substantial losses for the foreseeable future. It may fail to generate additional funds to explore further or develop its projects. Volatility in markets may make it difficult for the company to raise debt or obtain equity financing on terms favorable to the Manganese X.



# VALUATION

Manganese X's Battery Hill's 2022 PEA shows an average annual gross revenue of US\$177 million over the 47 years project life based on a base case market price of \$2,900/t for battery-grade high-purity manganese sulphate. This yielded an after-tax NPV, assuming a 10% discount rate of C\$586.9 (C\$5.0/share) with 25% IRR and a payback period of 2.8 years. This compares to Manganese X's market cap of C\$27.1M.

When we look at current manganese producers at a similar stage of development, we find that most comps are trading at a median of 0.05x EV/NPV per their most recent assessments. This is compared to Manganese X which is currently trading at 0.02x. Given that a larger percentage of Manganese X's resources are classified as indicated vs inferred we believe a range of 0.05x to 0.07x with a midpoint of 0.06x is reasonable, valuing MN at a slight premium to the comps. In addition, Manganese X has 18% of their resource in the measured category. The Company is also near the end of an infill drill program designed to upgrade the resource into the measured and indicated categories. This leads to a current valuation range of \$0.48-\$0.66 with a midpoint of \$0.57 per share.

#### **Comparative Analysis**

**Comparative Analysis** 

(all figures in C\$Ms, expect per share information)

							Indicated Resour	ceInferred Resource	Total Implied	/In		
Company Name	Symbol	Pri	ce (1)	Mr	kt Cap	EV	(M tons)	(M tons)	(M tons)	Pre	e Tax NPV	EV/NPV
Miners												
Element 25 Limited	ASX:E25	\$	0.64	\$	122.6	\$ 107.9	57.0	206.0	26.1	\$	648.20	0.17x
Euro Manganese Inc.	TSXV:EMN	\$	0.28	\$	112.7	\$ 94.7	26.5	0.5	2.0	\$	782.00	0.12x
Giyani Metals Corp.	TSXV:EMM	\$	0.20	\$	43.7	\$ 27.6	2.1	3.1	1.0	\$	481.00	0.06x
Firebird Metals Limited	ASX:FRB	\$	0.16	\$	11.2	\$ 10.8	58.7	171.1	24.0	\$	230.30	0.05x
								Average	13	.3 \$	535.38	0.10x
								Median	13	.0 \$	564.60	0.09x
Manganese X Energy Corp.	TSXV:MN	\$	0.19	\$	25.1	\$ 22.2	35.1	27.7	4.0	\$	1,245.00	0.02x

(1) Previous day's closing price

(2) Company reports and presentations

Source: Company reports, CapitalIQ, Stonegate Capital Partners

	Sen	sitivity Anal	ysis
EV/NAV	0.05x	0.06x	0.07x
Pre-Tax NPV	1,245.0	1,245.0	1,245.0
EV	62.3	74.7	87.2
Cash and Cash Equivelan	4.1	4.1	4.1
Debt & Leases	-	-	-
Market Value	66.4	78.8	91.3
S/O	138.5	138.5	138.5
Price	C\$ 0.48	C\$ 0.57	C\$ 0.66

Source: Stonegate Research



# **BALANCE SHEET**

ASSETS	FY2020	FY2021	Q3 Dec-21
Assets			
Cash and Cash Equivalents	0.5	5.6	4.1
Prepaid Expenses and Other Current Assets	-	0.1	0.2
Sales Tax Receivables	0.0	0.2	0.1
Total Current Assets	0.6	5.8	4.4
US Patents	-	0.1	0.1
Investment in Mountain Spring Oil & Gas Ltd	0.5	-	-
Total Assets	1.1	6.0	4.5
<b>LIA BILITIES AND SHAREHOLDERS' EQUITY</b> <b>Current Liabilities</b> Accounts Payable and Accrued Liabilities	0.1	0.2	0.1
Accounts Payable and Accrued Liabilities	0.1	0.2	0.1
Total Current Liabilities	0.1	0.2	0.1
Long Term Liabilities	-	-	-
Total Long Term Liabilities	-	-	-
Shareholders' Equity			
Share Capital	10.4	17.3	17.3
Reserves	3.8	6.5	7.1
Deficit	(13.2)	(18.0)	(20.1
Shareholders' Equity	0.9	5.7	4.4
Total Liabilities and Shareholders' Equity	1.1	6.0	4.5

Source: Company Reports, Stonegate Capital Partners



# **INCOME STATEMENT**

# Manganese X Energy Corp.

Consolidated Statements of Comprehensive Income (in C\$Ms, except per share amounts) Fiscal Year: March

	FY 2019	FY 2020	FY 2021	FY 2022E
Revenue:				
Revenue	-			
Total Revenues	-	-	-	-
Cash Expenses:				
Exploration Expenses	0.7	0.2	0.8	0.6
Research Cost	-	-	0.1	0.1
Other Operating Expenses	0.1	0.1	0.6	0.1
Management Fees	-	-	0.2	0.2
Professional And Consulting Fees	0.3	0.4	1.2	0.4
Printing, Postage and Mailing Expenses	-	-	-	0.2
Advertising And Marketing	-	-	-	0.3
Foreign Exchange Loss	0.0	0.0	0.0	0.0
	(1.2)	(0.7)	(2.8)	(1.8)
Non-Cash Expenses:				
Stock-based Com pensation	0.0	0.2	1.6	0.9
Amortisation	-	-	0.0	0.0
Provision for Loss on Investment	-	-	0.5	-
Profit on Sale of Property	-	-	-	(0.0)
Earnings before Taxes	(1.2)	(0.9)	(4.9)	(2.7)
Provision for Income Tax				
Net Inc (Loss) & Comprehensive Profit (Loss)	(1.2)	(0.9)	(4.9)	(2.7)
Minority Interest (After Tax)	-	-	-	-
Earnings of Discontinued Operations				
Net Income (Loss)	(1.2)	(0.9)	(4.9)	(2.7)
Basic EPS - Continuing Operations	(0.02)	(0.01)	(0.05)	(0.02)
Basic EPS - Discontinued Operations	-	-	-	-
Basic EPS – Total	\$ (0.02)	\$ (0.01)	\$ (0.05)	\$ (0.02)
Diluted EPS	\$ (0.02)	\$ (0.01)	\$ (0.05)	\$ (0.02)
Basic Wtd Avg Shares Outstanding	56.1	63.5	92.4	124.6
Diluted Wtd Avg Shares Outstanding	56.1	63.5	92.4	124.6
EBITDA	(1.2)	(0.7)	(2.8)	(1.0)

Source: Company Reports, Stonegate Capital Partners estimates



# IN THE NEWS

**Feb 21<sup>st</sup>, 2023** – Manganese X Energy Joins World-Renowned International <u>Manganese Institute</u>

Jan 25<sup>th</sup>, 2023 - Manganese X Completes 16 Drill Holes at Battery Hill

Jan 10<sup>th</sup>, 2023 - Manganese X looks Back at 2022, Looks Forward to 2023

**Dec 8<sup>th</sup>, 2022 -** Manganese X Energy Corp. Announces Closing of Private Placement Financing

**Oct 25, 2022-** Manganese X Energy Kicks Off Pilot Plant for EV Battery Project

**Oct 11, 2022-** Manganese X Energy Announces Fall Drill Program – Key to Pre-Feasibility Study at Battery Hill Manganese Project

**Oct 4, 2022-** Manganese X Energy Files a Provisional Patent for the Processing and Purification of Manganese Sulphates

**Sep 9, 2022-** Check out Martin's latest interview on the current situation and the upcoming pilot project

*June 27, 2022-* Manganese X Energy Releases Technical Report of Final Preliminary Economic Assessment

*May 17, 2022* – Manganese X Energy Pursues Pilot Plant Program

*May 12, 2022* – Manganese X Announces Positive PEA for its Battery Hill Project

*April 11, 2022 -* CEO Martin Kepman: New Engineering Confirms the Future Need and Demand for Manganese

Apr 11, 2022- Our CEO Martin Kepman speaks from his heart about current events

*Mar* 25, 2022- CEO Interview: Manganese X Energy Corp. with BETWEENPLAYS

*Mar* 24, 2022 - Manganese X Achieves Milestones in Scalable and Cost-Effective Production of High-Grade Battery Material

*Jan 19, 2022-* Manganese X Releases New Investors Presentation

Jan 13, 2022- PureBiotic AIR® Provide Year-End Update on the Progress of Regulatory and Certification Registrations

Dec 30, 2021 - Manganese X Energy Reviews 2021 and looks forward to 2022

# CORPORATE GOVERNANCE

#### **MARTIN KEPMAN, CEO & DIRECTOR**

Martin Kepman and Associates Inc, founded in 1982, is a business development and management consulting firm owned and operated by its president Martin Kepman.

Martin, in his **40** years of consulting experience, has consulted on a wide range of projects, in multiple industries ranging from software, soft goods, printing, food to mining. Martin is highly skilled at planning, organization as well as assisting Corporations in financing He has successfully implemented a variety of installations for a significant number of major corporations and because of his practical approach, has been recognized as an expert in identifying the strengths and weaknesses of Corporations for strategic business plans; recognized within various industries as a successful specialist in turnarounds.

# JAY RICHARDSON, CHIEF FINANCIAL OFFICER

James A. (Jay) Richardson is a Canadian Chartered Accountant, a Singapore Certified Public Accountant, and a Fellow of the Insolvency Practitioners' Association of the United Kingdom. He has practiced as a Partner of Clarkson Gordon Arthur Young (now Ernst & Young, Canada and Singapore) and a Partner of KPMG (UK) prior to establishing his own practice as a company doctor in Toronto, Canada in 1993. Specializing in interim management in troubled situations, he has served as the CEO or Chairman of listed public companies on five occasions and in many other CFO and private company situations.

#### **ROGER DAHN, CHAIRMAN - DIRECTOR**

Mr. Dahn has over 30 years' experience in the mining and exploration industry. His experience includes over 16 years with Noranda Inc. and Hemlo Gold Mines Inc., Exploration Manager-Eastern Canada for Battle Mountain Gold Company, and Vice President-Exploration with Olympus Pacific Minerals Inc. and most recently Tri-Star Resources plc.

#### PERRY MACKINNON, VICE-PRESIDENT OF EXPLORATION

Perry MacKinnon, PGeo, graduated in 1982 from Acadia University in Wolfville, N.S. (BSc, geology), and is an accredited professional geologist with the respective professional associations in Nova Scotia and New Brunswick. Mr. MacKinnon has over 30 years' experience in the mining industry, having worked continent-wide on a variety of projects from the Alaskan Cordillera, the greenstone belts of Northern Manitoba and Quebec, and an array of mineralizing environments in Atlantic Canada, as well as porphyry-style projects in Mexico. He has worked as an independent consultant since 2005, with a significant focus on Canada's east coast. Mr. MacKinnon is a registered professional geologist and a qualified person as defined by National Instrument 43-101.

#### LUISA MORENO, DIRECTOR

Dr. Luisa Moreno, Ph.D., has over 12 years of experience in technical and economic research, with unparalleled expertise in strategic minerals and related processes. Dr. Moreno is currently Co-founder and Managing Partner at Tahuti Global. Prior to this, she spent 7 years as a Financial and Senior Equity Analyst at Canadian Financial Research and Investment Banking firms, including 4 years covering the specialized field of industrial minerals within the metals and mining sector of these firms. Dr. Moreno possesses strong insight into materials processing and metallurgy of industrial and precious metals and an astute understanding of supply and demand dynamics.

#### **ROBERT TJANDRA, DIRECTOR**

Mr. Tjandra brings with him a unique blend of professional management, leadership, and entrepreneurial skills, and has over 25 years of combined experience, working, consulting, and developing businesses in construction, trading, oil and gas, fintech, and cleantech. He is passionate about the development of EV and energy storage, including sustainable mining development. Mr. Tjandra has served on various listed companies. He served as the President, Chief Operating Officer, and director of Canbud Distribution Corporation (CSE: CBDX). He currently serves as a Director of Florence Wealth Management Inc. (a registered Exempt Market Dealer in Canada), and as CEO and Chairman of Mineto Power Corp., a private company in EV materials and Tech space.



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# **CONTACT INFORMATION**

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