AQUA METALS

LEADING A REVOLUTION

In Lead and Lithium Battery Recycling

NASDAQ: AQMS

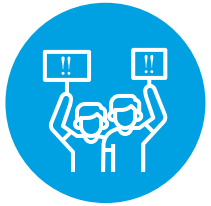
October 2022

Disclaimer

This presentation contains forward-looking statements concerning Aqua Metals, Inc. Forward-looking statements include, but are not limited to, our plans, objectives, expectations and intentions and other statements that contain words such as "expects," "contemplates," "anticipates," "plans," "intends," "believes", "estimates", "potential" and variations of such words or similar expressions that convey the uncertainty of future events or outcomes, or that do not relate to historical matters. The forward-looking statements in this press release include our expectations for our Aqua Metals Innovation Center, our ability to develop our AquaRefining technologies for the recycling of lithium-ion batteries and the expected benefits of our Innovation Center, the recycling of lithium-ion batteries and our deployment of AquaRefining technology and equipment to our Taiwan partner's facility. Those forward-looking statements involve known and unknown risks, uncertainties, and other factors that could cause actual results to differ materially. Among those factors are: (1) the risk that we may not derive the expected benefits from our Aqua Metals Innovation Center; (2) the risk we may not be able to recycle lithium-ion batteries using our AquaRefining process or, if we do, derive the expected benefits from such recycling; (3) the risk that we may experience COVID-19 related delays in deploying equipment and technology to our Taiwan partner; (4) the risk that licensees may refuse or be slow to adopt our AquaRefining process as an alternative to smelting in spite of the perceived benefits of AquaRefining; (5) the risk that we may not realize the expected economic benefits from any licenses we may enter into; (6) the risk that we may not be able to access additional capital, through the sale of our TRIC facilities and equipment or otherwise, as and when needed and (7) those other risks disclosed in the section "Risk Factors" included in our Annual Report on Form 10-K filed on February 24, 2022. Aqua Metals cautions readers not to place undue reliance on any forward-looking statements. The Company does not undertake and specifically disclaims any obligation to update or revise such statements to reflect new circumstances or unanticipated events as they occur, except as required by law.

Investor Highlights

Patented recycling solution that has the potential to deliver the best economics and the lowest environmental impact



Surging demand

EVs, mobile devices, solar storage, everything uses batteries and demand is only growing.

Component deficit

The minerals for making modern batteries are rare, expensive, and frequently mined in unfriendly regions. The US does not have a domestic supply chain and China is increasingly creating a monopoly.

Environmental disaster

Legacy recycling methods are dirty, hazardous, and inefficient. Current Lithium Ion (Li-Ion) recycling methods don't recover Lithium, which costs $17,000/MT

Innovative solution, proven in testing, moving toward pilot programs and ultimately commercial scale

Massive and growing global addressable market

Greenfield opportunity for partnerships and strategic alliances

Strong IP protection:
73 global patents; 43 patents pending

Sufficient cash to reach revenue

Only recycling method that promises carbon neutral and zero emission

AquaRefining recovers pure minerals, including Lithium and Manganese, which are not recovered by competing methods

The World Is Powered By Batteries

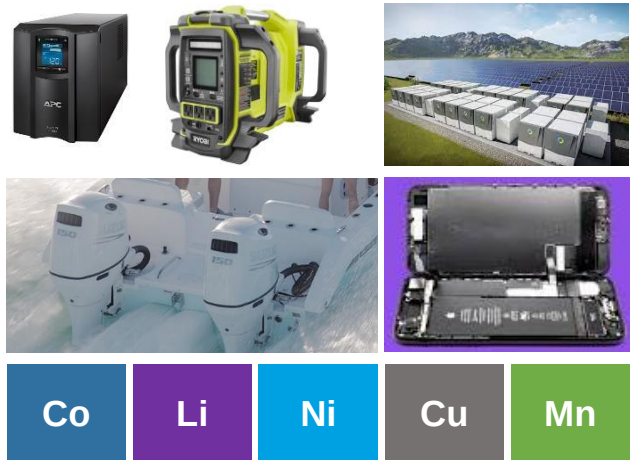
Lead-Acid Batteries (LAB)

- Most of LABs are used in EVs/cars, forklifts, cranes, data centers and e-bikes
- LAB market is about $65B globally
- 95% of LABs are recycled, but at massive environmental cost through smelting, one of the top polluting industries in the world
- LAB market expected to rise at 5.2% CAGR from 2021-2031 [1]

Pb | PbO_2 | $PbSO_4$ | H_2SO_4

Lithium-ion Batteries (LiB)

- Solar storage, mobile electronics, and EVs driving use-cases
- LiBs are powering new energy era with storage grids for sustainable energy and EVs
- 145M EVs predicted to be on the roads globally by 2030
- Typical 10-year LiB life span, with estimated 15M tons estimated to be retired by 2030
- Legacy recycling processes generate polluting emissions and chemical waste streams
- Legacy process do NOT recover most expensive components
- Demand for LiB expected to grow from $44B to $94B by 2025 [2]
- Global battery demand for lithium and nickel will be 12-13x of the current size, 2x of the current size for cobalt by 2040E. [3]



Co | Li | Ni | Cu | Mn

1 Future Market Insights; 2 CNBC, March 2022; 3 - Goldman Sachs

Expensive, Scarce Components in Li-ion Batteries

As demand for EV batteries grows, countries are racing to build domestic supply chains
99% of raw and component materials for LiBs are produced outside the U.S.

Mineral	Pricing and demand growth	Supply shortfall risks	Geopolitical challenges
COBALT Co	• Currently $33,000/MT • $44,000/MT estimated pricing up to 2025 • 9.26% CAGR 2021-2025	• Cobalt market to move into deficit by 2024	• US sees cobalt a strategic and critical to U.S. security • More than 2/3s mined cobalt comes from politically sensitive DRC
NICKEL Ni	• Currently at $26,000/MT • Nickel usage in EV battery sector predicted to increase 62% in 2022; 26% in 2023 • 7.3% CAGR 2021-2028	• Forecasted 196,000 tonne deficit of Class 1 material (Goldman Sachs) in 2022	• Indonesia a major supplier; converts low-grade ore with high-carbon footprint to LiB quality • Russia accounts for ~17% of production capacity
MANGANESE Mn	• $2,060/MT avg. • High purity manganese needed for EVs. • Predicted 43% CAGR in next 5 years	• Manganese is a critical link in the LiB supply chain that is driving EV adoption • Many battery producers shifting to NMC vs. NCA batteries	• US is 100% dependent on manganese imports • China #1 miner and dominates manganese ore and concentrate imports, with 75% of imports
COPPER Cu	• $7,500/MT • Estimated 53% CAGR to 2040, driven by the electrification of transport and infrastructure. (BNEF)	• By 2027, nearly 600,000 MT of additional copper needed to match EV demand (IDTechEx) • Forecasted deficit of 9M mt by 2030 (BMO Capital markets), and 14M mt by 2040 (BNEF)	• Supply chain issues at key copper Latin American countries, dearth of new mines
LITHIUM Li	• $17,000/MT avg. • 20.6% CAGR 2020-2025 • Lithium use up 4x since 2010 (BNEF)	• Global LI market predicted to move into deficit in 2025	• China dominates lithium refining. 96% of Australia's exports go to China; largest importer of Chile's lithium carbonate

The Next Generation Recycling Process

Replaces furnaces and heavy chemical use with 100% renewable electricity, creating fundamentally non-polluting, cost-efficient solution that generates minimal waste

Proven for LABs and expanding to LiBs

Strong IP protection:

73 global patents

43 patents pending

Recovers the high-value metals lost in smelting, and produces high purity products

Safer work environment

The only recycling process that:

Can provide an end-to-end closed loop process entirely in the U.S., providing geostrategic benefits and lower carbon footprint

Is becoming net-zero and can help partners achieve their net-zero goals

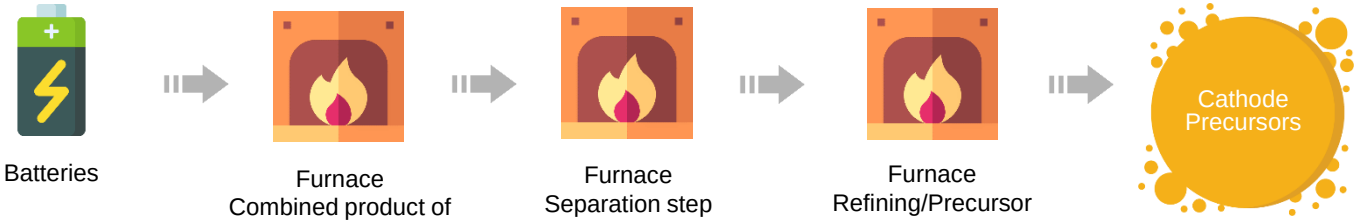
Dangerous and Polluting Recycling

Improved recycling will be REQUIRED to meet rapidly growing demand

	PYRO	HYDRO	LI AQUAREFINING
Kg CO_2 per Metric Ton	4,214	2,960	**65**
	Kg CO_2/MT black mass processed*	Kg CO_2/MT black mass processed*	**Kg CO_2/MT black mass processed**
Techcrunch forecast: 15MT spent LiB batteries produced by 2030	31,605,000	22,200,000	**487,500**
	MT CO_2	MT CO_2	**MT CO_2**
Est. Sodium Sulfate Waste Stream for 15M MT spent LiB Batteries Produced by 2030	4,500,000	12,150,000	**<375,000**
	MT in landfill	MT in landfill	**MT in landfill**

PYRO

Smelting approach is currently a multistep pyro approach to get back into supply chain. Emissions will be unsustainable long term as recycling volume increases.

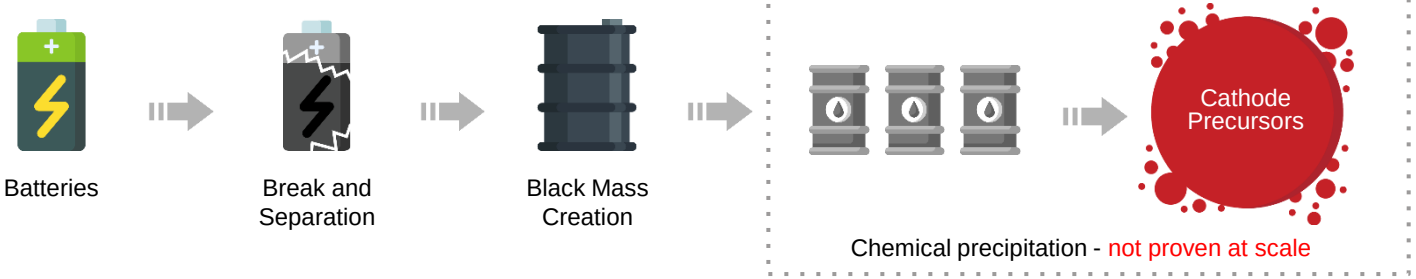


Co	X	Ni	Cu	X

High environmental impact – not viable long term. **Does not recover** lithium or manganese

HYDRO

Not commercially proven. High waste streams may prove economically inviable



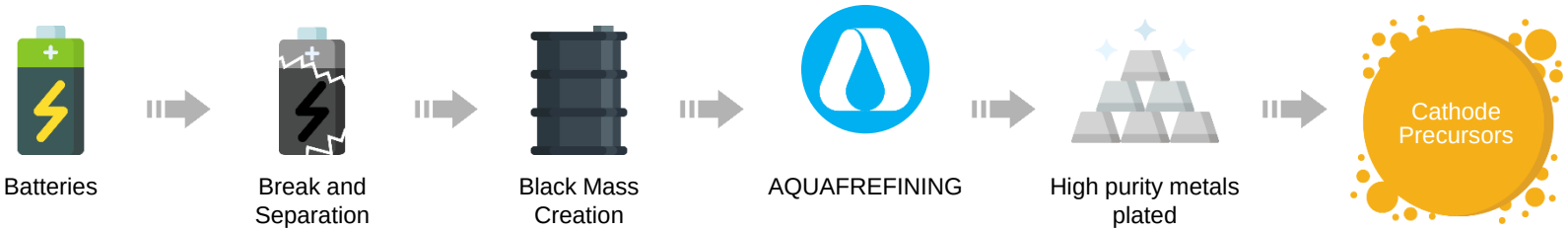
Co	Li	Ni	Cu	Mn
?	?	?	?	?

Expected to produce battery grade precursors **(High risk)**

Uses 200X the chemicals that AquaRefining uses

AQUAREFINING

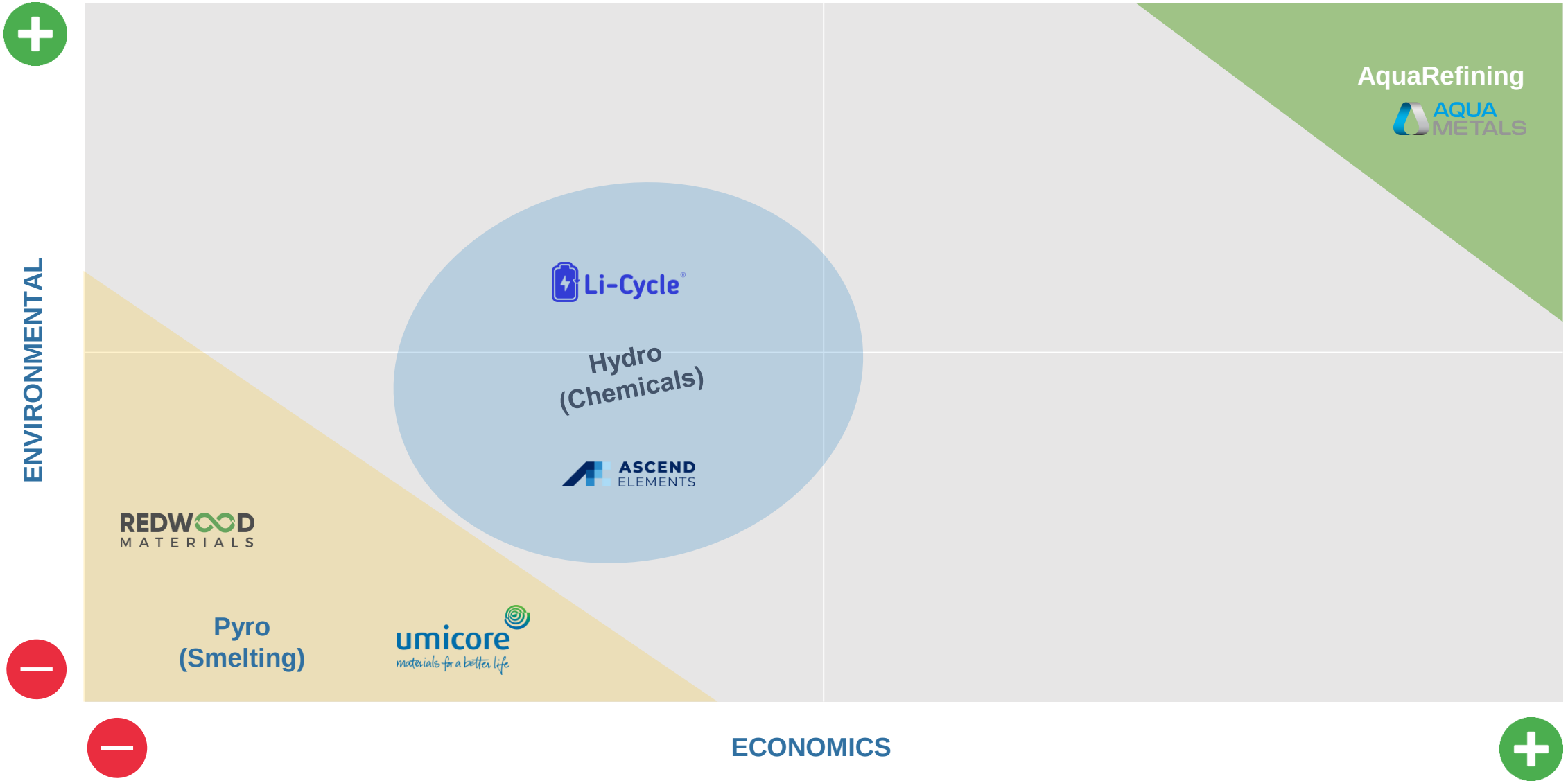
Expected to be Economically and environmentally superior, producing higher quality product with better yield.



Co	Li	Ni	Cu	Mn

Flexibility to produce any cathode material from **high purity metals**

Competitive Landscape Lithium Recycling

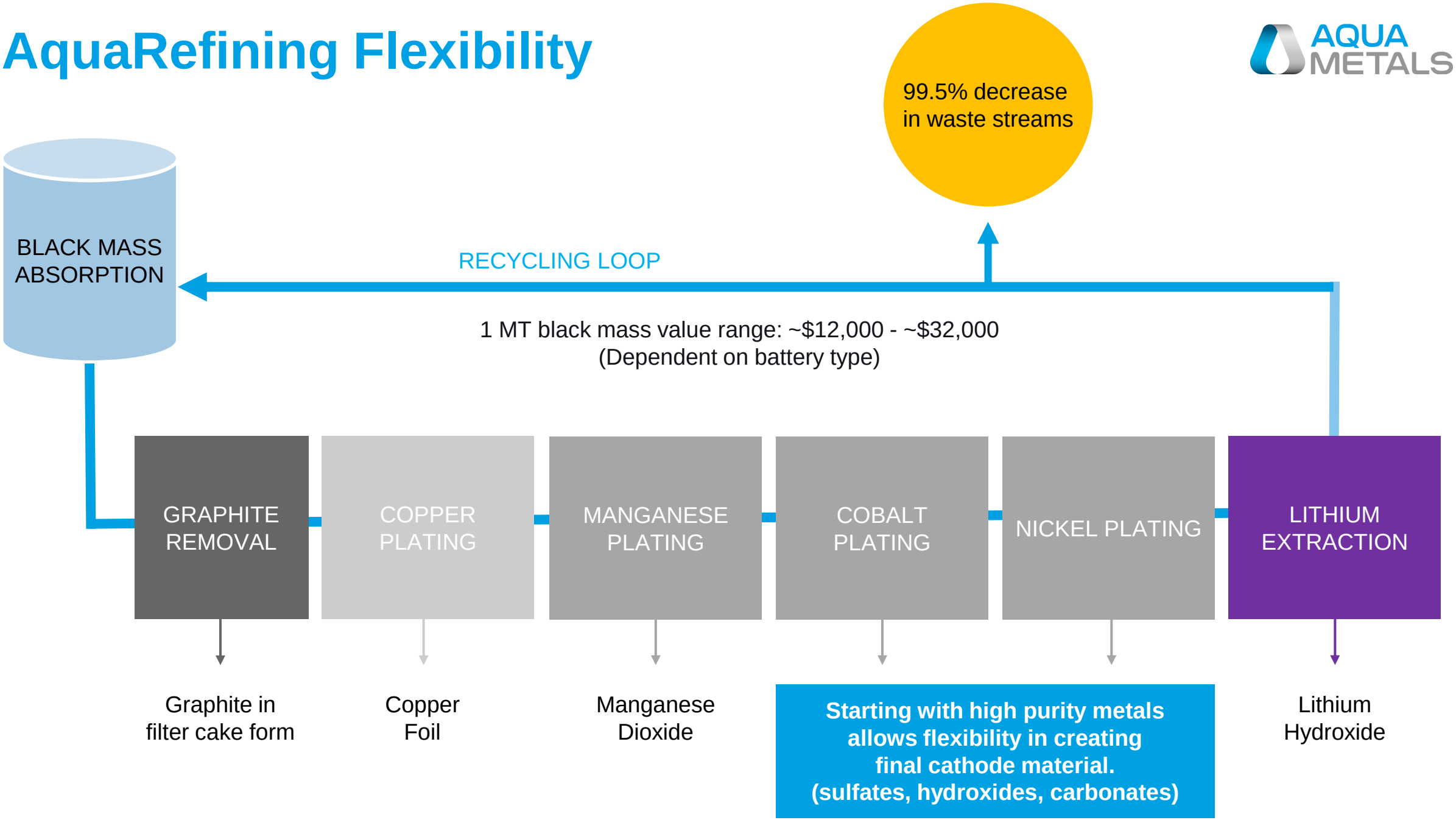


Competitor Landscape

Unproven processes, higher cost structure, worse environmental footprint

COMPANY	Redwood Materials	Li-Cycle	Hydrovolt/ Northvolt	Volkswagen Group Components	Renault/Veolia/ Solvay	ABTC
TECHNOLOGY	Fully verticalized ambition - feedstock to CAM	Shredding & hydrometallurgy	Shredding & hydrometallurgy	Shredding & hydrometallurgy	Shredding & hydrometallurgy	De-manufacturing & hydrometallurgy
DETAILS	• Phase 1 smelting • Phase 2 hydromet for copper • Loose strategic LOI's with Ford, VWGoA, and Toyota	• SPAC in 2021 • Spoke and Hub model: 7 spokes, 1 Hub • Hub is hydromet with expected start-up in 2023 (2 years behind schedule) • Plan to go direct to sulfates (pre-cam)	• Powered by renewable electricity • Currently just making 6,000 MT black mass annually • Hydromet facility running in 2023	• Pilot plant up and running (small - 750 MT black mass a year throughput) • Not making pre cam yet	• Renault to supply feedstock • Veolia supplies logistics, dismantling, and recycling (black mass) • Solvay provides hydromet process	• Strategic de-manufacturing • Pre commercial – plant start up in 2023 • Unknown hydrometallurgical process
ISSUES	• Smelting and Hydromet combo has enormous environmental impact in CO_2 and sodium sulfate waste stream. • Process will likely not be profitable until full verticalization is complete – over a decade	Hydromet: • Large environmental footprint • Very expensive due to chemicals and $NaSO_4$ waste stream • (90K gallons chem railed in a day, 250K gallons stored on site) • Plan to go to pre-cam at risk due to purity challenges & economics may not work due to waste disposal and chem costs • Not proven at scale				• No evidence of R&D progress as of yet, • Hydromet process will likely have waste stream and CO_2 challenges of the others under development

AquaRefining Flexibility



AQUA METALS: The Only Company To Recover All These Critical Minerals From Black Mass

AquaRefining's superior advantages

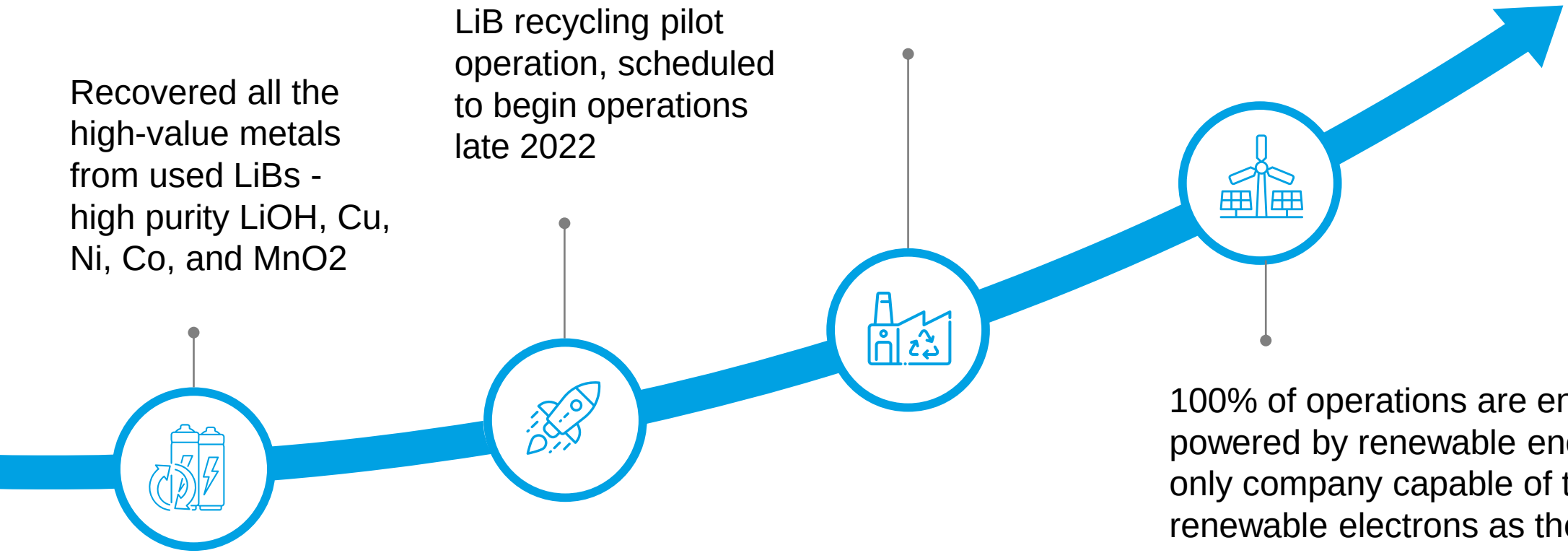
- ✓ **~95% reduction** in chemical waste streams compared to standard hydro processes
- ✓ **~96% reduction** in carbon reduction compared to standard hydro processes
- ✓ **~99%** carbon reduction over pyro
- ✓ **Negligible** greenhouse gas emissions that we cost effectively offset
- ✓ Produces **high purity, high value metals** that can be sold into the battery supply chain or metals industry
- ✓ **Recovers a higher percentage of the metals** from used lithium-ion batteries (cobalt, nickel, copper, lithium & manganese)

Recent Achievements

Recovered all the high-value metals from used LiBs - high purity LiOH, Cu, Ni, Co, and MnO2

Deployment of first LiB recycling pilot operation, scheduled to begin operations late 2022

Pilot plant expected to recycle 6-10 tons of recycled LiB black mass per month, scaling to approx. 70 tons of recycled black mass per month in 2023



100% of operations are entirely powered by renewable energy - the only company capable of this by using renewable electrons as the reagent

Aqua Metals' Timeline

October 2022

Pilot installation & commissioning 6-10 MT/Month throughput

January 2023

Pilot phase completion scaling to 840 MT/year commences

December 2023

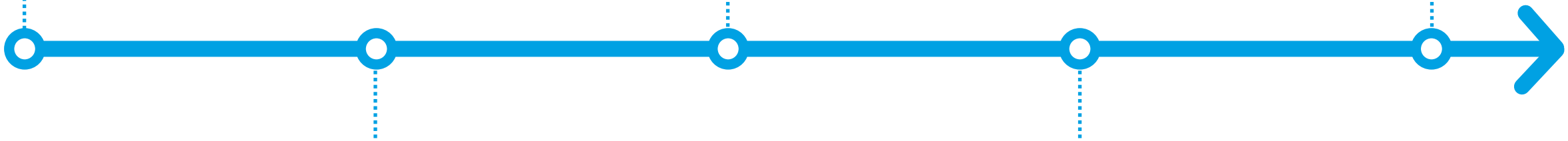
Completion of demonstration phase 840 MT/year throughput

July 2025

Commissioning of 10,000 MT/year facility begins

July 2026

10,000 MT/year fully scaled commercial operation



November Opening of Pilot Plant

Will be the first recycler to produce pure cobalt and nickel from LiB black mass

Will be the world's first to produce these metals from non-mined sources in North America

Black mass secured for operations through 2023

Carbon footprint will be <10% of hydro process

Aqua Metals Converting Black Mass into Revenue

TAM: $165B based on 7.5M/MT of black mass x $22,000 of extracted value

LiB Recycling – An Exponentially Growing Market Opportunity

- LIB recycling predicted to hit $6.55B by 2028 with 18.5% CAGR vs. $1.7B in 2020 (Fortune Business Insights)
- By 2030 an estimated 15M tons of LiBs will reach end of life and need to be recycled
- Battery recycling attracting major investments - Redwood, Li-Cycle, Ascend
- Upcoming DOE grant status, awards between $10M (applied for) - $100M (applying now through 2Q2023)

Strategic Partnerships

- Currently in discussions with 10+ EV manufacturers, cell component manufacturers, CAM manufacturers for additional partnerships
- LOI with Dragonfly Energy Corporation to qualify Aqua Metals' lithium hydroxide for use in Dragonfly batteries for its planned solid state LiB Gigafactory

ACME Partnership Phase 1 Deployment

- TAM $350M annual licensing based on ~3.5M MT of lead paste x $100/MT licensing
- 1st licensee in Taiwan operational
- Pursuing expansion & new licensees

Financials

Working Capital strength positioning for growth into 2023	
Cash and cash equivalents (as of June 30, 2022)	**$6.4M**
Secured loan with Alpen Mortgage	**$6.0M**
Second non-refundable LINICO deposit (November 2022)	**$2.0M**
Plant sell (close on March 2023)	**$12.0M (payoff Alpen for net ~$6.0M)**

Management

Steve Cotton
Chief Executive Officer, President

Rejoined Aqua Metals in, 2018; Previously served as Chief Commercial Officer

Co-founded Canara, Inc. (formerly Data Power Monitoring and IntelliBatt) in 2001; served as CEO through its sale to a private equity firm in 2012; Then served as Founder and Executive Chairman until 2014.

Led a team to commercialize Sendmail; began his career at Octel Communications through its $1.1B exit to Lucent in 1997

Judd Merrill
Chief Financial Officer

Joined Aqua Metals in 2018 from Klondex Mines Ltd., an international mining company where he was Director of Finance/Accounting, responsible for overseeing the SEC compliance and the management of the Company's $200+ million budget over five subsidiaries.

Spent five years as CFO of Comstock Mining Inc., a publicly traded gold company where he was instrumental in establishing financial modeling and analytics.

Controller at Fronteer Gold Inc. as an assistant controller at Newmont Mining Corp. Began his career at Deloitte & Touche

Ben Taecker
Chief Engineering and Operating Officer

20+ years of experience in manufacturing and operations leadership

Spent six years in progressive leadership roles at the Johnson Controls Inc. Lead Acid Battery Recycling Center

Experience in startups, environmental regulation compliance, process development and operational excellence.

Dave McMurtry
Chief Business Officer

Experienced Silicon Valley high-tech executive; expertise in renewable energy and international markets development

Responsible for leading the team in exploring and strategically pursuing multiple paths to scalable growth for LI AquaRefining.

Global experience includes working in more than 80 countries on five continents.

Previously CEO of the Global Stars Foundation at the Al Dabbagh Group. For the last 25 years, Dave has held multiple executive positions, including with Habitat for Humanity International and Kiva.org

The future is bright for Aqua Metals

Strong competitive advantages with environmentally friendly and cost effective recycling process that creates high quality metals

$18 Billion addressable market in 2025 for both Pb and Li battery recycling for AquaRefining

Expanding opportunities through partnerships and government grants, e.g. bipartisan Infrastructure Law with $3.1 billion in funding for battery manufacturing and recycling

Ability to sell into all markets and work with any recyclers worldwide

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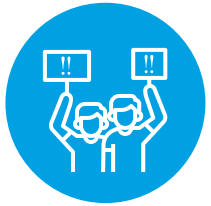

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WWW.AQUAMETALS.COM

Appendix


AQUA METALS
FINANCIAL OVERVIEW

AQUA METALS

Consolidated
Balance Sheets

AQUA METALS, INC.
Condensed Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	June 30, 2022 (unaudited)	December 31, 2021 (Note 2)
ASSETS		
Current assets		
Cash and cash equivalents	$ 6,425	$ 8,137
Accounts receivable	234	269
Lease receivable, current portion	16,037	920
Inventory	28	123
Assets held for sale	1,100	2,633
Prepaid expenses and other current assets	310	356
Total current assets	24,134	12,438
Non-current assets		
Property and equipment, net	3,308	2,367
Intellectual property, net	550	640
Investment in LINICO	2,000	1,500
Lease receivable, non-current portion	—	15,528
Other assets	893	796
Total non-current assets	6,751	20,831
Total assets	$ 30,885	$ 33,269
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 898	$ 685
Accrued expenses	2,331	3,005
Lease liability, current portion	288	388
Total current liabilities	3,517	4,078
Building purchase deposit	1,250	1,328
Lease liability, non-current portion	434	330
Total liabilities	5,201	5,736
Commitments and contingencies		
Stockholders' equity		
Common stock; $0.001 par value; 200,000,000 shares authorized; 75,772,815 and 70,416,552 shares issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	76	70
Additional paid-in capital	217,030	211,309
Accumulated deficit	(191,422)	(183,846)
Total stockholders' equity	25,684	27,533
Total liabilities and stockholders' equity	$ 30,885	$ 33,269

Consolidated
Statement of Operations

AQUA METALS, INC.
Condensed Consolidated Statements of Operations
(in thousands, except share and per share amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Product sales	$ 4	$ —	$ 4	$ —
Operating cost and expense				
Cost of product sales	1,048	2,138	2,043	3,749
Research and development cost	521	176	1,072	465
General and administrative expense	2,390	2,129	5,154	4,428
Total operating expense	3,959	4,443	8,269	8,642
Loss from operations	(3,955)	(4,443)	(8,265)	(8,642)
Other income and (expense)				
Insurance proceeds net of related expenses	—	460	—	448
PPP loan forgiveness	—	201	—	332
Gain (loss) on disposal of property and equipment	739	(4,254)	590	(4,254)
Interest expense	(12)	(4)	(12)	(9)
Interest and other income	62	24	113	25
Total other income (expense), net	789	(3,573)	691	(3,458)
Loss before income tax expense	(3,166)	(8,016)	(7,574)	(12,100)
Income tax expense	—	—	(2)	(2)
Net loss	$ (3,166)	$ (8,016)	$ (7,576)	$ (12,102)
Weighted average shares outstanding, basic and diluted	75,215,009	68,152,296	73,584,761	67,518,650
Basic and diluted net loss per share	$ (0.04)	$ (0.12)	$ (0.10)	$ (0.18)

Consolidated
Statement of Cash Flows

AQUA METALS, INC.
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	Six Months Ended June 30, 2022	2021
Cash flows from operating activities:		
Net loss	$ (7,576)	$ (12,102)
Reconciliation of net loss to net cash used in operating activities		
Depreciation	548	724
Amortization of intellectual property	90	90
Fair value of RSUs issued for consulting services	—	34
Stock-based compensation	1,139	1,299
Inventory NRV adjustment	—	146
Loss (gain) on disposal of property and equipment	(590)	4,254
PPP loan forgiveness	—	(332)
Changes in operating assets and liabilities		
Accounts receivable	273	(258)
Inventory	95	283
Prepaid expenses and other current assets	45	320
Accounts payable	(5)	222
Accrued expenses	(11)	680
Other assets and liabilities	(357)	(300)
Net cash used in operating activities	(6,349)	(4,940)
Cash flows from investing activities:		
Purchases of property and equipment	(973)	(1,217)
Proceeds from sale of equipment	1,145	275
Equipment deposits and other assets	(33)	43
Investment in LINICO	(500)	(232)
Net cash used in investing activities	(361)	(1,131)
Cash flows from financing activities:		
Lease of building	410	184
Proceeds from exercise of stock options	—	727
Proceeds from ATM, net	4,588	9,331
Net cash provided by financing activities	4,998	10,242
Net increase (decrease) in cash and cash equivalents	(1,712)	4,171
Cash and cash equivalents at beginning of period	8,137	6,533
Cash and cash equivalents at end of period	$ 6,425	$ 10,704