

# IBC ADVANCED ALLOYS CORP.

# MANAGEMENT'S DISCUSSION AND ANALYSIS

NINE MONTHS ENDED MARCH 31, 2022

FISCAL THIRD QUARTER OF 2022

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The following is management's discussion and analysis ("MD&A") of IBC Advanced Alloys Corp. and its subsidiaries, prepared as of May 27, 2022. This MD&A should be read together with the audited consolidated financial statements and related notes for the fiscal year ended June 30, 2021. Financial amounts, other than amounts per share or per pound, are presented in United States dollars ("\$") unless indicated otherwise. Canadian dollar amounts are denoted by "C\$". The terms "IBC", "we", "us", and "our" refer to IBC Advanced Alloys Corp. and its subsidiaries, unless the context otherwise requires.

This MD&A contains "forward-looking information" or "forward-looking statements" within the meaning of applicable securities legislation, concerning future financial or operating performance of IBC and its business and operations. Forward-looking statements consist of statements that are not purely historical, including any statements regarding beliefs, plans, expectations, or intentions regarding the future. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or variations (including negative and grammatical variations) of such words and phrases or statements that certain actions, events, or results "may", "could", "would", "should", "might" or "will" be taken, occur, or be achieved. No assurance can be given that any of the events anticipated by the forward-looking statements will occur or, if they do occur, what benefits we will obtain from them. These forward-looking statements reflect management's current views and are based on certain assumptions and are effective only as of the date of this MD&A. These assumptions, which include management's current expectations, estimates, and assumptions about certain projects and the markets we operate in, the global economic environment, interest rates, exchange rates and, our business strategy, plans, outlook and shareholder value, projections, targets and expectations and our ability to manage our assets and operating costs, may prove to be incorrect.

Forward-looking statements are subject to known and unknown risks, uncertainties, and other factors that may cause our actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward-looking statements, including: our estimates regarding capital requirements; future production, future cash, and total costs of production for our manufacturing operations; our expectations with respect to transactions with third parties; changes in general economic conditions; the financial markets; commercial demand for our products; changes in, and the effects of, the laws, regulations, and government policies affecting operations; uncertainties in the market price for minerals and metals, such as copper, beryllium and other inputs we consume, and currency exchange rate fluctuations. Although we have attempted to identify factors that would cause actual actions, events, or results to differ materially from those disclosed in the forward-looking statements or information, there may be other factors that cause actual results, performances, achievements, or events not to be as anticipated, estimated, or intended. Other factors that could cause actual results to differ materially include, but are not limited to, those set forth in our most recent Annual Information Form under "Risk Factors". Also, many factors are beyond our control.

Accordingly, readers should not place undue reliance on forward-looking statements or information. We undertake no obligation to reissue or update forward-looking statements or information as a result of new information or events after the date hereof, except as may be required by applicable securities laws. All forward-looking information and statements made in this MD&A are qualified by this cautionary statement.

Certain information in this MD&A may be considered a "financial outlook" within the meaning of applicable securities legislation. Any financial outlook set out in this MD&A is based on a number of significant assumptions. The purpose of this financial outlook is to provide readers with disclosure regarding our reasonable expectations as to the anticipated results of its proposed business activities for the periods indicated. Readers are cautioned that the financial outlook may not be appropriate for other purposes.

The Company's financial statements for the period ended March 31, 2022 have been prepared in accordance with IAS 34 – Interim Financial Reporting using accounting policies consistent with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"), using accounting policies consistent with IFRS as issued by the IASB and interpretations of the International Financial Reporting Interpretations Committee. Additional information relating to us, including our most recent Annual Information Form, is available for view on SEDAR at www.sedar.com.

#### **EXECUTIVE SUMMARY**

Except as noted, all financial amounts are determined in accordance with IFRS.

- Company Remained Profitable in the Quarter: We booked comprehensive income of \$287,000 in the quarter, or \$0.00 per share, which compared to income of \$139,000 (\$0.00/share) in the prior-year period, and income of \$344,000 (\$0.00/share) in the quarter ended December 31, 2021. We recorded consolidated comprehensive income of \$50,000 in the nine-month period ended March 31, 2022, compared to a comprehensive loss of \$1,119,000 for the prior-year period.
- **Double-Digit Sales Increases**: Consolidated sales increased 16.0% in the quarter over the prior-year period and were higher in the nine months ended March 31, 2022 by 38.8% over the comparable prior-year period.
- Beryllium-Aluminum Alloy Sales Up 37.7% Year over Year: Engineered Materials ("EM") division sales of beryllium-aluminum ("BeAl") alloy products rose by 37.7% in the quarter as

compared to the comparable prior-year period and were higher by 91.4% in the nine months ended March 31, 2022, as compared to the comparable prior-year period.

- **Copper Alloy Division Sales Also Higher:** Copper Alloys division sales rose by 1.7% in the quarter as compared to the prior-year period, and by 8.0% in the nine-month period ended March 31, 2022, over the prior-year period, in spite of production inefficiencies experienced during the commencement of operations at our newly consolidated foundry in Franklin, Indiana.
- **Comprehensive Gross Margin:** Consolidated gross margin decreased in the quarter to 28.3% from 30.5% in the prior-year period. In the nine-month period ended March 31, 2022, gross margin increased to 22.9% from 20.6%. Gross margin for the EM division increased to 34.1% from 32.8% in the nine-month ended March 31, 2022. Copper Alloy's gross margin decreased to 11.4% from 13.5% in the nine-month period ended March 31, 2022, largely due to higher material costs experienced during construction of the new casting facility.
- Consolidated Adjusted EBITDA¹ Sharply Higher: Our Consolidated adjusted earnings before interest, taxes, depreciation, and amortization ("Adjusted EBITDA") for the quarter ended March 31, 2022 was \$854,000, a 24.5% increase from \$686,000 in the comparable prior-year period. In the nine-month period ended March 31, 2022, Adjusted EBITDA jumped 157.4% to \$2,157,000, from \$838,000 in the prior-year period, primarily due to higher sales at our EM division.

### **OUR BUSINESS**

We are primarily engaged in developing and manufacturing advanced alloys, such as BeAl alloys and specialty copper alloys, for a variety of customers in the defense and non-defense sectors, including those in aerospace, automotive, marine defense, electronics, industrial equipment, oil and gas, among others. Headquartered in Franklin, Indiana, we currently operate two plants in the United States ("U.S.") that manufacture, heat-treat, machine, or market copper-beryllium, beryllium-aluminum ("BeAl") alloys, copper-based master alloys, and similar specialty alloy products including BeAl castings.

We report non-IFRS measures such as "Adjusted EBITDA" and "Operating Income". Please see information on this and other non-IFRS measures in the "Non-IFRS Measures" section of this MD&A.

Our manufacturing operations currently employ 85 people and comprise two divisions: Copper Alloys and Engineered Materials.

- Copper Alloys manufactures and distributes a wide variety of copper alloys as castings and
  forgings: beryllium copper; chrome copper; oxygen-free high conductivity copper and
  aluminum bronze as plate, block, bar, rings; and specialty copper alloy forgings. The
  industries we serve with these products include the industrial welding, oil and gas, plastic
  mold, metal melting, marine defense, electronic and industrial equipment markets.
- Engineered Materials manufactures and supplies high-performance, precision-cast BeAl components to the aerospace and high-tech manufacturing sectors.

We were formed by an amalgamation under the laws of British Columbia on November 23, 2007, and our common shares are listed on the TSX Venture Exchange (the "TSX-V") under the symbol "IB" and on the OTCQB market under "IAALF".

## RECENT CORPORATE DEVELOPMENTS, BUSINESS INITIATIVES, AND SUBSEQUENT EVENTS

- On January 24, 2022 we completed the payments on the \$1,700,000 term loan with BMO Harris Bank, fully satisfying the obligations on this mortgage.
- On April 14, 2022, we entered into an amendment and extended our credit and security
  agreement with Iron Horse Credit, LLC through July 28, 2023. Additionally, we entered into
  an amendment and extended the accounts sale and purchase agreement with Sallyport
  Commercial Finance, LLC. The inter creditor facility between Sallyport Commercial Finance
  LLC and Iron Horse Credit, LLC continues.
- On April 30, 2022, we satisfied the principal obligations with Lind Global Macro Fund per the second funding under the definitive convertible security funding agreement with the issuance of shares upon Lind Global Macro Fund 's conversion with an issue date value of C\$513,000.

# COVID-19

While the global pandemic continues to impact certain supply chains and shipment logistics, all of our U.S. facilities have remained in operation since the start of the pandemic. We believe that the negative effects of the pandemic will continue to diminish through calendar year 2022.

We are still subject to material COVID-19-related risks such as the following, although we believe that risks have diminished significantly in 2022 compared to 2021:

- State or local governments may require that our facilities close or they may impose
  operating restrictions, such as physical distancing, that make opening our operations
  uneconomic.
- Our employees may contract COVID-19 and make it difficult or impossible for us to operate normally.
- The effect of COVID-19 on the economy as a whole and on our customers may lead to a reduction in order intake.
- Supply chain disruptions resulting from the pandemic and its impact on the global economy may continue to impact our operations.
- Customers may continue to pay amounts due to us behind schedule, adversely affecting our liquidity.
- General economic concerns may make it difficult to obtain or renew debt facilities or raise equity funding on acceptable terms or at all.

#### MANUFACTURING OPERATIONS

We currently operate two manufacturing operations in the U.S. that, in total, employ 85 people. These facilities are located in Franklin, Indiana and Wilmington, Massachusetts. Most of our management and administration are based at the Franklin, Indiana facility, which also serves as our corporate headquarters.

#### COPPER ALLOYS

We manufacture and distribute a wide variety of copper alloys as castings and forgings, including beryllium copper, chrome copper, oxygen-free high conductivity copper, and aluminum bronze as plate, block, bar, rings and specialty copper alloy forgings for various markets and applications. We sell directly to end users and serve various markets through a network of established dealers and distributors. Our Copper Alloys division's operations are based in Franklin, Indiana, where we maintain forging (hammer, press and ring rolling), heat-treating, and machining operations. Our metal foundry operations were temporarily shut down during construction of the new facility. In March 2022 our Franklin, Indiana plant started casting billets that were previously cast in Royersford, Pennsylvania.

We source copper alloys as cast billet, slab, or ingot from mills in North America, Europe, and Asia, and we convert these into usable industrial products serving the industrial welding, oil and gas, plastic mold, metal melting, marine defense, electronic, and industrial equipment markets. We also

provide tooling components for the North American automotive industry, the European and North American consumer plastic tooling producers, the global oil and gas service industry, the prime North American submarine and aircraft carrier producers and repair facilities including the U.S. Navy, electronics industries, and general equipment manufacturers.

We produce material and we also buy other billets and slabs from independent third-party foundries and mills. We have expertise in melting and casting beryllium-copper and other beryllium-containing alloys. Our casting operations are a primary producer/supplier of beryllium copper casting and master alloy ingot products in North America and markets around the world. We offer customers a full range of manufacturing and support services, including casting and master alloy products, cast and forged billet products, semi-continuous cast input billets, and wrought products. We also manufacture beryllium alloys utilizing certified beryllium-copper master alloy.

Our foundry has furnaces and associated equipment that have been adapted to meet the specialized requirements of copper alloy manufacturing. We have strong technical and manufacturing engineering resources in the highly specialized copper alloy industry, including in the production of beryllium copper alloys. This gives us the capability of manufacturing large 21-inch diameter copper alloy billets weighing up to two tons. These furnaces and associated equipment have been relocated to our expanded and modernized Copper Alloys facility in Franklin, Indiana. We expect that once the casting production operations are fully ramped up, we will realize operating cost savings and reduce production lead times.

#### **ENGINEERED MATERIALS**

Our EM division supplies high-performance BeAl components to defense, aerospace, high-tech manufacturing, and other sectors. It currently manufactures the Beralcast® family of metal matrices that are used in commercial and defense applications that require complex, lightweight, and high-stiffness parts. The division has additional, higher-performance products in development. Using our proprietary manufacturing techniques, our EM division's objective is to make precision-cast BeAl components more accessible and cost-effective for a wide range of industries and applications.

In general, Beralcast® alloys serve as a higher-performance or lower-cost replacement materials for cast aluminum, magnesium, titanium, metal matrix composites, non-metallic composites, and pure beryllium or powder metallurgy BeAl. Some of their varied applications include automotive braking and structural components and aerospace and satellite system components.

The principal Beralcast® metal matrix is more than three times stiffer than aluminum, with 22% less weight, and it can be precision cast to both simple and complex configurations. This material is very lightweight, can be precision cast for three-dimensional stability, and delivers a high modulus

of elasticity. As such, Beralcast® is ideally suited for certain demanding semiconductor manufacturing equipment, computer components, and other commercial and aerospace applications. Our ability to cast Beralcast® products in a near-net shape allows for manufacturing cost efficiencies.

Binary BeAl composites were developed by a U.S. corporation, which was originally a metallurgical laboratory affiliated with the Massachusetts Institute of Technology (MIT), in cooperation with Lockheed Martin. We own the intellectual property relating to the more advanced development of this technology, which is a proprietary castable metal matrix composite BeAl alloy now manufactured as Beralcast®. We believe that a competitor has sought to develop an alternative cast BeAl product, which, if commercially viable, would be a direct competitor to Beralcast®.

#### FINANCIAL RESULTS AND OUTLOOK

Selected Quarterly Information

During the most recent eight quarters, we have not incurred any loss from discontinued operations.

Quarter Ended	Revenue	Income (loss)	Basic and
		for the period	diluted loss per
		(net of tax)	share <sup>1</sup>
	(\$000s)	(\$000s)	\$
June 30, 2020	5,056	27	0.00
September 30, 2020	4,427	(955)	(0.02)
December 31, 2020	4,929	(304)	(0.00)
March 31, 2021	5,412	139	0.00
June 30, 2021	7,042	(402)	(0.01)
September 30, 2021	7,090	(581)	(0.01)
December 31, 2021	7,124	344	0.00
March 31, 2022	6,279	287	0.00

<sup>&</sup>lt;sup>1</sup> The sum of quarterly loss per share may not add to year-to-date totals due to rounding

Quarterly operating results are affected by trends in the various sectors that we serve. Frequently, weak performance in one sector is offset by strength in another, but this is not always the case. Most operating costs other than materials, supplies, and energy are largely fixed, so small changes in sales volume can have a big effect on operating income or loss. Generally, EM division sales are slower in the second and third fiscal quarters when demand for non-aerospace components falls. In prior years we have seen a general trend of increasing margins as sales increased and we installed new machinery allowing it to manufacture more efficiently.

# **IBC Advanced Alloys Corp. Management's Discussion and Analysis**Nine Months Ended March 31, 2022

In addition to these general trends the following factors have caused variation over the quarters presented:

- State or local governments may require that our facilities close or they may impose operating restrictions, such as physical distancing, that make opening our plants uneconomic.
- Our employees may contract COVID-19 and make it difficult or impossible for us to operate normally.
- The effect of COVID-19 on the economy as a whole and on our customers may lead to a reduction in order intake.
- Customers may pay amounts due to us behind schedule, adversely affecting our liquidity.
- General economic concerns may make it difficult to obtain or renew debt facilities or raise equity funding on acceptable terms or at all.

Results of Operations: Fiscal 2022 Q3

We incurred comprehensive income of \$287,000 for the three months ended March 31, 2022, compared to comprehensive income of \$139,000 in the prior-year period. A summary of results of operations, and a reconciliation of income (loss) to Adjusted EBITDA, follows:

		Т	hree Mont	hs Ended		Т	hree Mont	hs Ended
			March	31, 2022			March	31, 2021
	Copper	Eng.	Corp.	Consol-	Copper	Eng.	Corp.	Consol-
	Alloys	Mat.		idated	Alloys	Mat.		idated
	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
Revenue	3,317	2,962	-	6,279	3,260	2,151	-	5,411
Cost of revenue								
Materials	1,330	938	-	2,268	1,711	696	-	2,407
Labor	355	676	-	1,031	544	482	-	1,026
Subcontract	27	23	-	50	53	19	-	72
Overhead	520	530	-	1,050	361	441	-	802
Depreciation	87	230	-	317	(93)	190	-	97
Change in								
finished goods	307	(521)	-	(214)	14	(657)	-	(643)
	2,626	1,876	-	4,502	2,590	1,171	-	3,761
Gross profit	691	1,086	-	1,777	670	980	-	1,650
Gross margin	20.8%	36.7%		28.3%	20.6%	45.6%		30.5%
SG&A expenses	602	479	145	1,226	439	375	358	1,172
Income (loss) before other items	89	607	(145)	551	231	605	(358)	478
Other income (expense)	134	(53)	(345)	(264)	(26)	(115)	(198)	(339)
Income (loss) for the period, net of tax	223	554	(490)	287	205	490	(556)	139
Adjusted EBITDA:								
Add back (deduct):								
Tax expense (recovery)	1	-	-	1	-	-	-	-
Interest expense Depreciation,	(237)	39	347	149	25	121	207	353
amortization, & impairment	92	267	_	359	(85)	221	_	136
Stock-based compensation					( - /			
expense (non-cash)	6	7	45	58	5	3	50	58
Adjusted EBITDA	85	867	(98)	854	150	835	(299)	686

Results of Operations: Fiscal 2022 Year-to-Date

We incurred income, net of tax, of \$50,000 for the nine months ended March 31, 2022, compared to a loss, net of tax, of \$1,119,000 in the prior-year period. A summary of results of operations, and a reconciliation of income (loss) to Adjusted EBITDA, follows:

			Nine Mont	hs Ended		ı	Nine Montl	hs Ended
			March	31, 2022			March	31, 2021
	Copper	Eng.	Corp.	Consol-	Copper	Eng.	Corp.	Consol-
	Alloys	Mat.		idated	Alloys	Mat.		idated
	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
Revenue	10,074	10,419	-	20,493	9,324	5,443	-	14,767
Cost of revenue								
Materials	5,460	3,217	-	8,677	5,017	1,476	-	6,493
Labor	1,504	2,029	-	3,533	1,698	1,189	-	2,887
Subcontract	98	76	-	174	127	96	-	223
Overhead	1,334	1,672	-	3,006	1,223	1,036	-	2,259
Depreciation	314	692	-	1,006	156	541	-	697
Change in	-	-	-		-	-	-	
finished goods	217	(817)	-	(600)	(160)	(681)	-	(841)
	8,927	6,869	-	15,796	8,061	3,657	-	11,718
Gross profit	1,147	3,550	-	4,697	1,263	1,786	-	3,049
Gross margin	11.4%	34.1%		22.9%	13.5%	32.8%		20.6%
SG&A expenses	1,754	1,548	476	3,778	1,362	1,037	891	3,290
Income (loss) before other items	(607)	2,002	(476)	919	(99)	749	(891)	(241)
Other income (expense)	328	(166)	(1,031)	(869)	(202)	(168)	(508)	(878)
Income (loss) for the period, net of tax	(279)	1,836	(1,507)	50	(301)	581	(1,399)	(1,119)
Adjusted EBITDA:								
Add back (deduct):								
Tax expense (recovery)	8	-	17	25	3	-	17	20
Interest expense Depreciation,	(375)	121	1,001	747	207	186	531	924
amortization, & impairment Stock-based compensation	337	803	-	1,140	179	610	-	789
expense (non-cash)	23	25	147	195	18	11	195	224
Adjusted EBITDA	(286)	2,785	(342)	2,157	106	1,388	(656)	838

Segment Analysis: Three and Nine months ended March 31, 2022

Factors affecting our financial performance in the three- and nine-month periods ended March 31, 2022, include the following:

# **Copper Alloys Sales Division Results:**

Sales	In the quarter and nine months ended March 31, 2022, sales of our Copper Alloys product lines increased mostly due to increased demand from customers in the electronics sector who are manufacturing products related to the rapidly growing network connectivity of consumer goods and the transition to 5G networks.
Gross profit	We recorded a gross margin of 20.8% in the quarter compared to 20.6% in the prior-year period, and 11.4% in the nine-month period ended March 31, 2022 compared to 13.5% in the prior-year period. As sales increased, gross margin decreased largely due to higher material costs experienced during construction of the new casting facility and production ramp-up of the casting operations and \$75,000 in retention bonuses to foundry operators, partially offset by lower variable and fixed costs we have gained, such as lower utility costs and factory rent, from consolidating our Royersford, Pennsylvania and New Madrid, Missouri copper casting operations to our Franklin, Indiana facility.
SG&A expenses	SG&A expenses increased in the quarter and nine-month period ended March 31, 2022, over the prior-year periods, primarily due to information technology upgrades necessary to maintain compliance with federal regulations. Expenses also increased as a result of higher legal and other fees related to the financing of our Copper Alloys division consolidation and expansion of operations in Franklin, Indiana.
Other income (expense)	Other income (expense) in the quarter and nine months ended March 31, 2022 primarily comprised interest expense, which decreased due largely to capitalization of interest incurred on the borrowings related to the Copper Alloys consolidation and expansion.

# **Engineered Materials Division Results:**

Sales	Sales increased in the quarter and nine months ended March 31, 2022 due largely to higher demand for BeAl products in commercial markets used to manufacture semiconductor chips that are increasingly used in the rapidly growing Internet of Things ("IoT") and for the transition to 5G networks.
	Production of our BeAl products used in defense applications is expected to remain strong due to the increasing use of BeAl alloys in a variety of defense systems, and the defense industry's interest in utilizing near-net-shape cast BeAl alloy components, which we manufacture, where possible.
	We continue to pursue additional contracts for high-performance BeAl products in both defense and commercial sector platforms.
Gross profit	Gross margin of 36.7% in the quarter reduced from 45.6% in the prior-year period, and gross margin of 34.1% in the nine-month period ended March 31, 2022, increased from 32.8% in the prior-year period, mostly due to fixed costs being a lower proportion of sales. Material costs increased in the nine-month period ended March 31, 2022, primarily due to higher raw material costs. Labor costs also increased in the quarter and the nine-month period ended March 31, 2022, due to increased pay rates and an expansion of our workforce in Massachusetts, driven by higher customer demand for our products.
SG&A expenses	SG&A expenses increased in the quarter and nine-month period ended March 31, 2022, compared to the prior-year periods, mostly due to an increase in information technology consulting costs to maintain compliance with federal regulations.
Other income (loss)	Other income (expense) is primarily comprised of imputed interest expense under IFRS 16, which increased due to higher factory rental payments pursuant to the factory lease extension effective February 1, 2021.

# **Corporate**

SG&A expenses	SG&A expenses decreased in the quarter and nine months ended March 31, 2022, over the prior-year periods, primarily due to the fact that share-based compensation was higher in the prior-year period due to the amortization of the options awarded in July and October 2020.
Other income (expense)	The main components of other income (expense) are typically interest expense and foreign exchange gain (loss).  Other income (expense) was higher in the quarter and nine-month period ended March 31, 2022, than in the prior-year period due largely to the higher recognized foreign exchange expense in the quarter and nine-month period ended March 31, 2022. Additionally, interest expense increased due to higher debt with the closing of the third Lind funding in October 2021.

#### CHANGES IN FINANCIAL CONDITION

Changes in our financial condition since June 30, 2021, are related to operations in the normal course of business and:

- In conjunction with the consolidation of our foundry facilities including plant and equipment, we have made purchases of approximately \$3,800,000.
- In October 2021, we raised cash from the second convertible security funding agreement from Lind Global Macro Fund LP for the issuance of a convertible security in the principal amount of \$1,500,000 closing of a loan with Lind that provided cash of \$1.5 million.

#### COMMODITY PRICING FOR COPPER

We aim to pass the cost of copper through to our customers, and we do not hold large inventories of copper. Accordingly, profitability should not be affected by the price of copper in the long term, except to the extent that high copper prices discourage consumption or that competitors lower their margins to obtain business. In the short term, price fluctuations can have a bearing on our profitability as we realize gains or losses on inventories. Since copper is a significant component of products that we sell, the price of copper does materially affect revenues.

Recent indicative copper prices per pound are shown below:

	2022	2021
March 31	\$4.74	\$4.00
	2021	2020
December 31	\$4.39	\$3.54
September 30	\$4.09	\$3.03
June 30	\$4.28	\$2.73

Source: COMEX

# LIQUIDITY AND CAPITAL RESOURCES

On March 31, 2022, we had working capital deficit of \$2,205,000, including cash of \$423,000, as compared to working capital deficit of \$23,000, including cash of \$2,359,000 on June 30, 2021. Factors affecting liquidity include:

- We have not yet achieved sustained profitable operations over three or more quarters.
- We have the option of settling interest on convertible debentures through the issuance of common shares. In fiscal 2021, doing so benefited our cash flow by \$242,000. In the nine months ended March 31, 2022, settling interest on convertible debentures through the issuance of common shares has benefitted our cash flow by \$122,000.
- Under the terms of our loan agreement with Lind Partners, we must make monthly payments of C\$84,000 commencing March 31, 2021, according to the second funding. Lind has the option to require the issuance of common shares in lieu of cash. In fiscal 2021 Lind accepted shares in lieu of principal and interest payments benefitting our cash flow by \$274,000 via Lind's conversion notices. In the nine months ended March 31, 2022, Lind has accepted shares in lieu of cash for prepaid accrued interest benefitting our cash flow by \$40,000.
- In fiscal 2022 no holders of the 8.25% convertible debentures have requested any conversions. Holders of C\$25,000 8.25% convertible debentures requested conversions of the convertible debentures to shares benefitting our cash flow by \$19,000 in fiscal 2021
- Changes in resource prices can have a short-term impact on our manufacturing costs, selling prices, and profitability.
- We may be obliged to incur material expenditures on purchases of and repairs to property, plant and equipment to maintain productive capacity or to service customers.
- We manage liquidity risk associated with trade receivables by trading with recognized creditworthy third parties and insuring trade receivables. All sales are conducted in U.S.

dollars. In addition, receivable balances are monitored on an on-going basis with the result that our exposure to impaired receivables is not significant.

- We also manage liquidity risk by investing our cash only in obligations of Canada or the U.S. or their respective agencies or obligations of enterprises sponsored by any of the above governments; bankers' acceptances purchased in the secondary market and having received the highest credit rating from a recognized rating agency in Canada or the U.S., with a term of less than 180 days; and bank term deposits and bearer deposit notes, with a term of less than 180 days.
- We are contractually committed to purchase, at March 31, 2022 prices, an aggregate of \$5,552,000 in raw materials prior to June 30, 2023.
- We have entered into commercial property and equipment leases. These leases have a
  weighted average remaining life of 3.8 years, with a certain lease having a renewal option at
  95% of fair market value. The future minimum rental payments under non-cancellable
  operating leases are \$208,000 in the next 12 months and \$3.1 million in subsequent
  periods.
- There are signs that some customers may delay payment of trade receivables due to us as a result of their liquidity problems caused by the COVID-19 pandemic. We are unable to determine the magnitude or extent, if any, of such delays.

We may need to raise additional funds in the short-term to finance working capital and additional growth initiatives. We may be able to generate additional cash flow through the use of equity markets for raising capital, in addition to adjusting spending, disposing of assets and obtaining other non-equity sources of financing. However, there can be no assurance that we will be successful in obtaining such funds.

### RELATED PARTY TRANSACTIONS

Except as described below, we do not have any contractual relationships with directors or officers other than employment contracts in the ordinary course of business. The employment contracts are not financially material to our business.

Non-executive directors are each paid \$36,000 per year but the directors have agreed to receive the bulk of this amount in common shares. In fiscal 2021, we issued 813,615 common shares for services to the non-executive directors and 12,364 common shares to a consultant. For the period ended March 31, 2022, non-executive directors' compensation of \$184,000 was not paid but has been accrued. In November 2021, we issued 600,000 common shares for services to directors.

For additional information on related party transactions among us and certain of our directors, see *Shareholders' Equity* below.

#### FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

Our activities expose us to a variety of financial risks, including foreign exchange risk, interest rate risk, commodity price risk, and credit risk. We do not have a practice of trading derivatives, and we attempt to employ a natural hedge for foreign currency by holding funds in the currency in which it expects to spend the monies.

# Foreign Exchange Risk

While the majority of our administrative and manufacturing activities occur in the U.S., we incur some corporate administration costs in Canada and raise equity proceeds in Canadian dollars. We manage exchange risk on equity capital by converting expected U.S. expenditures to U.S. dollars at the time the money is raised.

#### Interest Rate Risk

Our interest rate risk arises from interest expense on the Accounts Sale and Purchase Agreement with Sallyport Commercial Finance LLC and our subsidiaries. Our interest rate risk also results from interest expense on term loan payable with Utica and our subsidiaries.

# Commodity Price Risk

Our profitability and long-term viability depend, in some measure, on the market prices of copper, aluminium, and beryllium. The prices for metals can be volatile and are affected by factors beyond our control, including the following: global or regional consumption patterns; the supply of, and demand for, these metals; speculative activities; the availability and costs of metal substitutes; expectations for inflation; and political and economic conditions, including interest rates and currency values. We cannot predict the effect of these factors on metal prices. We do not engage in hedging but, where possible, structure selling arrangements in a way that passes commodity price risk through to our customer.

#### Credit Risk

We manage credit risk by trading with recognized creditworthy third parties and by insuring all trade receivables. In addition, we monitor receivable balances with the result that our exposure to impaired receivables is generally not significant.

Adoption of New Accounting Pronouncements and Recent Developments

Certain pronouncements, issued by the IASB or the IFRS Interpretations Committee, were adopted during the year, or were mandatory for our fiscal years beginning on or after July 1, 2021, or are required to be adopted in future periods. There were no pronouncements relevant to the consolidated financial statements.

There are no pending IFRSs or IFRIC interpretations that are expected to be relevant to our financial statements.

#### **NON-IFRS MEASURES**

To supplement our consolidated financial statements, which are prepared and presented in accordance with IFRS, we use "operating income (loss)" and "Adjusted EBITDA", which are a non-IFRS financial measure.

We believe that operating income (loss) help identify underlying trends in our business that could otherwise be distorted by the effect of certain income or expenses that we include in loss for the period. We further believe that operating income (loss) provides useful information about core operating results, enhances the overall understanding of our past performance and future prospects, and allows for greater visibility with respect to key metrics used by management in our financial and operational decision-making.

We believe that Adjusted EBITDA is a useful indicator for cash flow generated by our business that is independent of our capital structure.

Operating income (loss) and Adjusted EBITDA should not be considered in isolation or construed as an alternative to loss for the period or any other measure of performance or as an indicator of our operating performance. Operating income (loss) and Adjusted EBITDA presented here may not be comparable to similarly titled measures presented by other companies. Other companies may calculate similarly titled measures differently, limiting their usefulness as comparative measures to our data.

# Operating Income (Loss)

Operating income (loss) represents loss for the period, excluding foreign exchange loss, interest expense, interest income, other income (expense) and income taxes that we do not believe are reflective of our core operating performance during the periods presented. A reconciliation of our third fiscal quarter and nine-month period ended March 31, 2022, Income (loss) to Operating income (loss) follows:

Quarter ended March 31	2022	2021
	(\$000s)	(\$000s)
Income for the period	287	139
Foreign exchange (gain) loss	4	1
Interest expense	149	353
Loss on disposal of assets	129	-
Other income	(19)	(15)
Income tax expense (recovery)	1	=
Operating income	551	478

Nine months ended March 31	2022	2021
	(\$000s)	(\$000s)
Loss for the period	50	(1,119)
Foreign exchange (gain) loss	6	(24)
Interest expense	747	924
Loss on disposal of assets	108	(3)
Other income	(17)	(39)
Income tax expense (recovery)	25	20
Operating income (loss)	919	(241)

# Adjusted EBITDA

Adjusted EBITDA represents our income (loss) for the period before interest, income taxes, depreciation, amortization, and share-based compensation. A reconciliation of our third fiscal quarter and nine-month period ended March 31, 2022 loss to Adjusted EBITDA follows:

Quarter ended March 31	2022	2021
	(\$000s)	(\$000s)
Income for the period	287	139
Income tax expense (recovery)	1	-
Interest expense	149	353
Depreciation, & amortization,	359	136
Stock-based compensation expense (non-cash)	58	58
Adjusted EBITDA	<u> </u>	686
Nino months and ad March 21		
Nine months ended March 31		
	2022	2021
	2022 (\$000s)	2021 (\$000s)
Loss for the period		
·	(\$000s)	(\$000s)
Income tax expense (recovery)	(\$000s) 50	(\$000s)
Income tax expense (recovery) Interest expense	(\$000s) 50 25	(\$000s) (1,119) 20
Loss for the period  Income tax expense (recovery)  Interest expense  Depreciation, & amortization,  Stock-based compensation expense (non-cash)	(\$000s) 50 25 747	(\$000s) (1,119) 20 924

#### **BUSINESS RISKS**

Some of the risks that we face, which are specific to our operations, include the following:

Dependence on Ulba Metallurgical Plant and Sole-source Suppliers

Our proprietary Beralcast® castings and many of our copper alloys use beryllium, which is a specialty metal that produced by a limited number of companies globally. We are able to purchase beryllium from a U.S. producer, from the U.S. National Defense Stockpile, and from Ulba Metallurgical Plant ("Ulba"), owned by Kazatomprom of Kazakhstan. We currently source our vacuum-cast beryllium and beryllium copper master alloy from Ulba, and we have entered into

long-term beryllium and beryllium copper master alloy supply agreements with Ulba lasting through 2022. Ulba's ability to honor its supply obligations will depend on its ability to source raw materials. We understand that production uses long-term stockpiles; however, any disruptions in Ulba's ability to manufacture beryllium or CTMA (Carbothermic Master Alloy) to our specifications would have a materially adverse effect on our business. Our ability to purchase those supplies also is contingent upon a continuation of current U.S. laws and regulation governing such purchases.

We are dependent upon several suppliers of base materials and alloying agents as sole-source suppliers. Approximately 80% of materials purchased, including those from Ulba, as described above, are primarily from these sole-source suppliers. Any disruptions in these suppliers' ability to manufacture base materials and alloying agents needed by us could have a materially adverse effect on short-term revenue, while we seek to engage alternative sources.

# Disruptions of Manufacturing Operations

From time to time, our operations are adversely affected by disruptions caused by such things as water line failures, power outages, labor turnover, equipment failures, and adverse weather. These issues normally only cause short-term interruptions but can affect our ability to meet quarterly revenue and profitability objectives.

## Problems Restarting Foundry Operations

Our Royersford, Pennsylvania lease expired at the end of January 2022 and we have vacated the premises. We have constructed a new casting plant in Franklin, Indiana and have relocated our Royersford, Pennsylvania equipment to our Franklin, Indiana facility. We recommenced casting operations in March 2022. If we are not able to increase production in Franklin to satisfactorily levels, and/or if we experience difficulty in optimizing production it will have a material adverse impact on our ability to produce sufficient material to meet customer demand and/or we may experience lower profitability than planned.

## Need to Meet Product Specifications

Most of the products that we manufacture are required to conform to a specification. Some of these specifications are very exacting. Small variations in process can cause our products to fall short of the required standards. In addition, customer requirements can change from time to time. If we are unable to address these specification issues in a timely manner, we are at risk of losing short-term revenue and even long-term production contracts.

#### **LEGAL MATTERS**

In the normal course of business operations, we and our subsidiaries are parties, from time to time, to various civil and administrative proceedings. These may include product liability claims, health and safety claims, environmental claims and employee-related matters.

As more fully discussed below, we are from time to time involved in a variety of claims, lawsuits, investigations and proceedings concerning securities law, intellectual property law, environmental law, employment law and the Employee Retirement Income Security Act ("ERISA"). We determine whether an estimated loss from a contingency should be accrued by assessing whether a loss is deemed probable and can be reasonably estimated. We assess our potential liability by analyzing our litigation and regulatory matters using available information. We develop our views on estimated losses in consultation with outside counsel handling our defense in these matters, which involves an analysis of potential results, assuming a combination of litigation and settlement strategies. Should developments in any of these matters cause a change in our determination as to an unfavorable outcome and result in the need to recognize a material accrual or should any of these matters result in a final adverse judgment or be settled for significant amounts, they could have a material adverse effect on our results of operations, cash flows and financial position in the period or periods in which such change in determination, judgment or settlement occurs.

- On September 8, 2017, an award was issued in favor of claimant Gerald Hoolahan against IBC Advanced Alloys Corp. The award, in the amount of \$1.2 million plus attorney's fees, costs, and expenses in the amount of \$155,000 was granted by the American Arbitration Association's International Centre for Dispute Resolution. The amount has been accrued and the arbitration award was appealed. On March 27, 2019, we received notice of the U.S. District Court for the District Massachusetts affirming the September 8, 2017, arbitration award made in favor of Gerald Hoolahan. We appealed this decision. Subsequently, on January 22, 2020, the U.S. Court of Appeals for the First Circuit affirmed the judgment of the U.S. District Court for the District of Massachusetts, which found in favor of Mr. Hoolahan. We are evaluating its payment options with respect to the award granted to Mr. Hoolahan.
- On January 21, 2014, a subsidiary in the Copper Alloys division, Nonferrous Products, Inc. ("Nonferrous Products") received a "Special Notice Letter of Potential Liability" from the U.S. Environmental Protection Agency ("EPA"). The letter references the EPA's determination that a release of hazardous materials had occurred at the Chemetco Superfund Site located in Hartford, Illinois. Chemetco, Inc. ("Chemetco") operated a secondary smelting operation for recycling and after-market processing of copper-bearing scrap and manufacturing by-products. The EPA has identified Nonferrous Products as a potentially responsible party ("PRP") under the Comprehensive Environmental Response,

Compensation, and Liability Act ("CERCLA"). Nonferrous Product was identified as PRP due to the EPA's review of Chemetco's records indicating that Nonferrous Products shipped more than 150,000 pounds of material to the Superfund Site. Nonferrous Products has joined a defense group of other PRPs ("Chemetco PRP Group"). The presumed amount of shipped material from Nonferrous Products classifies it as a Tier 3 Group member of four tiers, with Tier 1 consisting of PRPs that shipped the highest volume of material to Chemetco. By joining the PRP Group, Nonferrous Products entered into an Amended Cost Sharing Agreement which requires certain assessments based on an interim allocation according to the Tier Group. To date, Nonferrous Products has paid immaterial amounts related to these assessments and member fees. These assessments will be used to fund further site investigation to determine the amount of materials sent to Chemetco by each party and the best clean-up method. On September 27, 2017, it was brought to the attention of IBC Counsel that the EPA Special Notice Letter was delivered to our subsidiary, Specialloy Copper, LLC, identifying Specialloy Metals Company as a Potentially Responsible Party to the Chemetco Superfund Site. The entity noticed (Specialloy Metals Company) sold assets to Company's subsidiary and was subsequently dissolved. Company's subsidiary is covered under Nonferrous' Insurance policies, and other than the asset purchase transaction has no connection to the entity that was noticed. We are evaluating its options regarding notifying its insurers of potentially increased liability should the EPA and/or Chemetco PRP Group contribution lawsuit's attempt to name our subsidiary, Nonferrous Products as a defendant. Specialloy Metals Company was allocated with over 4 million pounds of material shipped to the Chemetco site, or more than ten times the amount allocated to Nonferrous Products. Should the EPA and/or Chemetco PRP Group contribution lawsuit pursue alter ego theories and name our subsidiary Company, Nonferrous Products, as a defendant, then IBC potentially faces significantly more liability requiring further defensive action.

#### **ENVIRONMENTAL AND OCCUPATIONAL SAFETY ISSUES**

We melt and machine materials that have the potential, if not controlled and handled appropriately, to have a negative effect on an individual's health and the environment. In addition, our operations use materials such as cutting and hydraulic fluids, which have the capacity to cause environmental contamination if left uncontained.

To mitigate these potential risks, we:

- employ a full-time health and safety manager to administer and monitor our safety programs;
- employ manufacturing practices to minimize and eliminate dispersal of fumes and dust;

- use trap basins and fluid reservoirs to capture and retrieve possible overages;
- use active exhaust vents and hoods located in equipment areas to capture and filter air;
- regularly schedule assessments and maintenance of in-house ventilation systems;
- require our employees to use appropriate personal protective equipment (such as respirators, outer garments, gloves, etc.) selected to limit and protect them from any potential exposures;
- conduct beryllium lymphocyte proliferation tests (BeLPT) to determine employees' potential for sensitivity to beryllium prior to possible exposure;
- undertake ongoing air quality monitoring and perform periodic employee health exams as per occupational health guidelines; and
- limit access to areas that may have a potential exposure to beryllium dust particles.

Despite these procedures, we remain subject to risk in this regard.

As with all industry, we are subject to periodic inspection by state and local safety, health, and environmental authorities. If during an inspection a failing was noted in our systems, the potential for the temporary or permanent closure of the facilities could exist. If during the periodic employee health screening, an employee displays elevated exposure to metals, it could require us to place the employee on sick leave, which would have the potential to impact both direct and indirect costs and cause a disruption of production. There is also the potential that an inherent safety or environmental exposure, if uncontrolled, could initialize legal action by employees, neighbors or those who visit our facilities.

To minimize the risks arising from pre-acquisition activities, we commissioned phase one environmental reviews prior to acquiring our copper alloys businesses. It is possible that environmental problems remain at our facilities that these phase-one assessments did not uncover.

## SHAREHOLDERS' EQUITY

SHARE ISSUANCES

In November 2021, we issued 600,000 common shares for services to directors.

In December 2021, 771,043 common shares were issued to debenture holders with an issue date value of C\$154,000 in satisfaction of the December 31, 2021, interest payment in lieu of cash.

In February 2022, 68,226 common shares were issued to Lind Global Macro Fund with an issuedate value of C\$12,000 in satisfaction of prepaid accrued interest obligations due per the second Lind Funding.

In February 2022, 234,201 common shares were issued to Lind Global Fund II with an issue-date value of C\$40,000 in satisfaction of prepaid accrued interest obligations due per the first Lind Funding.

In March 2022, 75,000 common shares were issued upon the exercise of options.

**OUTSTANDING SHARE DATA** 

As at the date of this MD&A, we have issued:

- A total of 80,173,511 common shares.
- Warrants to purchase 36,200,986 common shares.
- Share options to purchase 5,203,250 common shares.

The maximum number of shares potentially issuable together with the issued shares is therefore 121,577,747.