UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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	1	For the fiscal year ended December 3	31, 2022
	TRANSITION REPORT PURSUANT TO SEC	TION 13 OR 15(d) OF THE SEC	CURITIES EXCHANGE ACT OF 1934
	For the transition period fi	romto	
		Commission File Number: 1-094	147
		ER ALUMINUM CORP (Exact name of registrant as specified in its	
	Delaware		94-3030279
	(State or other jurisdiction of		(I.R.S. Employer
	incorporation or organization) 1550 West McEwen Drive, Suite 500		Identification No.)
	Franklin, Tennessee		37067
	(Address of principal executive offices)		(Zip Code)
	(F	(629) 252-7040 Registrant's telephone number, including a	area code)
	Securi	ities Registered Pursuant to Section 12((b) of the Act:
	Title of each class	Trading symbol	Name of each exchange on which registered
	Common stock, par value \$0.01 per share	KALU	Nasdaq Global Select Market
		es Registered Pursuant to Section 12(g)	of the Act: None
Indicate	e by check mark if the registrant is a well-known seasoned issuer, as define	ed in Rule 405 of the Securities Act. Yes \boxtimes No \square	
	e by check mark if the registrant is not required to file reports pursuant to S	* *	
	e by check mark whether the registrant (1) has filed all reports required to nt was required to file such reports), and (2) has been subject to such filing		xchange Act of 1934 during the preceding 12 months (or for such shorter period that the
	e by check mark whether the registrant has submitted electronically every to for such shorter period that the registrant was required to submit such		suant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12
	e by check mark whether the registrant is a large accelerated filer, an accele accelerated filer," "smaller reporting company" and "emerging growth cor		rting company, or an emerging growth company. See the definitions of "large accelerated
Large	accelerated filer		Accelerated filer
Laige a	iccelerated filer		
Non-ac	celerated filer		Smaller reporting company
			Emerging growth company
	nerging growth company, indicate by check mark if the registrant has elect $13(a)$ of the Exchange Act. \Box	ted not to use the extended transition period for con	mplying with any new or revised financial accounting standards provided pursuant to
Indicate	.,,		ess of its internal control over financial reporting under Section 404(b) of the Sarbanes-
	ities are registered pursuant to Section 12(b) of the Act, indicate by check	*	strant included in the filing reflect the correction of an error to previously issued financial
	by check mark whether any of those error corrections are restatements the y period pursuant to §240.10D-1(b). \Box	at required a recovery analysis of incentive-based	compensation received by any of the registrant's executive officers during the relevant
Indicate	e by check mark whether the registrant is a shell company (as defined in R	tule 12b-2 of the Exchange Act). Yes □ No ⊠	
	gregate market value of the registrant's common stock held by non-affiliate mately \$1.2 billion.	es of the registrant as of the last business day of the	e registrant's most recently completed second fiscal quarter (June 30, 2022) was
As of F	ebruary 20, 2023, there were 15,940,756 shares of the Common Stock of t	the registrant outstanding.	
	ents Incorporated by Reference. Certain portions of the registrant's definition Form $10\text{-}\mathrm{K}.$	ive proxy statement related to the registrant's 2023	3 annual meeting of stockholders are incorporated by reference into Part III of this Annual

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PART I

Forward-Looking Statements

This Annual Report on Form 10-K (this "Report") contains statements which constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as applicable. These statements appear throughout this Report, including Item 1. "Business – Business Operations," Item 1A. "Risk Factors" and Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations." These forward-looking statements can be identified by the use of forward-looking terminology such as "believes," "expects," "may," "estimates," "will," "should," "plans" or "anticipates," or the negative of the foregoing or other variations or comparable terminology, or by discussions of strategy.

Readers are cautioned that any such forward-looking statements are not guarantees of future performance and involve significant risks and uncertainties and that actual results may vary from those in the forward-looking statements as a result of various factors. These factors include: (i) the effectiveness of management's strategies and decisions, including strategic investments, capital spending strategies, processes and countermeasures implemented to address operational and supply chain challenges and the execution of those strategies; (ii) general economic and business conditions, including the impact of geopolitical factors and governmental and other actions taken in response, cyclicality, reshoring, labor challenges, supply interruptions, such as the most recent disruptions experienced with our molten metal and magnesium supply chain, and other conditions that impact demand drivers in the aerospace/high strength, aluminum beverage and food packaging, general engineering, automotive and other end markets we serve; (iii) our ability to participate in mature and anticipated new automotive programs expected to launch in the future and successfully launch new automotive programs; (iv) changes or shifts in defense spending due to competing national priorities; (v) pricing, market conditions and our ability to effectively execute commercial and labor strategies, pass through cost increases, including the institution of surcharges, and flex costs in response to changing economic conditions, volatile commodity costs and inflation; (vi) developments in technology; (vii) the impact of our future earnings, cash flows, financial condition, capital requirements and other factors on our financial strength and flexibility; (viii) new or modified statutory or regulatory requirements; (ix) the successful integration of acquired operations and technologies; (x) stakeholder's, including regulator's, views regarding our environmental, social and governance ("ESG") goals and initiatives, and the impact of factors outside of our control on such goals and initiatives; and (xi) other factors discussed in Item 1A. "Risk Factors" and elsewhere in this Report. No assurance can be given that these are all of the factors that could cause actual results to vary materially from the forward-looking statements.

Readers are urged to consider these factors carefully in evaluating any forward-looking statements and are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements included herein are made only as of the date of this Report and we undertake no obligation to update or revise any information contained in this Report or to publicly release any revisions to any forward-looking statements that may be made to reflect events or circumstances that occur, or that we become aware of, after the date of this Report except as required by law.

Item 1. Business

Availability of Information

We file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements, any amendments to those reports and statements and other information with the Securities and Exchange Commission ("SEC"). You may obtain the documents that we file electronically from the SEC's website at http://www.sec.gov. Our filings with the SEC are made available free of charge on our website at http://www.kaiseraluminum.com as soon as reasonably practicable after we file or furnish the materials with the SEC. News releases, announcements of upcoming earnings calls and events in which our management participates or hosts with members of the investment community and an archive of webcasts of such earnings calls and investor events and related investor presentations, are also available on our website. Information on our website is not incorporated into this Report unless expressly noted.

Business Overview

Kaiser Aluminum Corporation, a Delaware corporation, manufactures and sells semi-fabricated specialty aluminum mill products for the following end market applications: (i) aerospace and high strength ("Aero/HS products"); (ii) beverage and food packaging products ("Packaging"); (iii) general engineering ("GE products"); (iv) automotive ("Automotive Extrusions"); and (v) other industrial ("Other products"). Our fabricated aluminum mill products include flat-rolled (plate, sheet and coil), extruded (rod, bar, hollows and shapes), drawn (rod, bar, pipe, tube and wire) and certain cast aluminum products. The sophistication of our products is due to the metallurgy and physical properties of the metal and the special characteristics that are required for particular end uses. We strategically choose to serve technically challenging applications for which we can deploy our core metallurgical and process technology capabilities to produce highly engineered mill products with differentiated characteristics that present opportunities for us

to receive premium pricing and to create long-term profitable growth. A fundamental part of our business model is to remain neutral to the impact from fluctuations in the market price for aluminum and certain alloys, thereby earning profit predominately from the conversion of aluminum into semi-fabricated mill products. We refer to this as "metal price neutrality." See "Pricing, Metal Price Risk Management and Hedging" section below for more details.

With respect to the global market for flat-rolled aluminum mill products, our focus is on heat treat plate and sheet for applications that require higher strength and other desired product attributes that cannot be achieved by common alloy rolled products. The primary end market applications of flat-rolled heat treat plate and sheet are Aero/HS products (which we sell globally) and GE products (which we predominantly sell within North America). On March 31, 2021, with the completion of our acquisition of Alcoa Warrick LLC and certain assets comprising the aluminum casting and rolling mill facility located in Warrick County, Indiana (collectively, "Warrick"), we expanded our flat-rolled aluminum products to include bare and coated aluminum coil for can stock applications in the beverage and food packaging industry in North America. Our Packaging products require demanding attributes and can be further processed to include coating and slitting depending on customer specifications.

Similarly, in the areas of extruded and drawn aluminum mill products, our focus is on Aero/HS products, GE products and Automotive Extrusions for demanding applications that require high strength, machinability or other specific properties where we can create and maintain a defensible competitive position because of our technical expertise, strong production capability and high product quality. We primarily serve North American demand for extruded and drawn aluminum mill products.

Our rolling mill in Spokane, Washington ("Trentwood") produces heat treat plate and sheet for aerospace and general engineering end market applications and our Warrick facility produces bare and coated aluminum coil used for can stock applications in the beverage and food packaging industry. Our 11 extrusion/drawing facilities, 10 of which are in the United States and one of which is in Canada, serve aerospace, general engineering or automotive applications. Our facility located in Columbia, New Jersey focuses on multi-material advanced manufacturing methods and techniques which include multi-axis computer numerical control ("CNC") machining, additive manufacturing ("3D Printing"), welding and fabrication for demanding aerospace and defense, high tech and general industrial and automotive applications. In 2022, our consolidated Net sales totaled \$3,427.9 million on 1,254.2 million pounds shipped from our facilities.

We purchase primary, rolling ingot and scrap, or recycled, aluminum, our main raw material, and alloys at prices that fluctuate on a monthly basis, and our pricing policies generally allow us to pass the underlying index cost (see "Raw Materials" section below) of aluminum and certain alloys through to our customers so that we remain neutral to metal pricing. However, for some of our higher margin products sold on a spot basis, competitive dynamics may limit the amount and/or delay the timing of selling price increases to recover our increased aluminum and alloy costs, resulting in a lag up to several months during which we may be exposed to metal price risk. As a result, we can experience an adverse impact when aluminum and alloy prices increase and a favorable impact to us when aluminum and alloy prices decline, as we and our competitors tend to defer adjusting pricing unless market dynamics require such in a declining metal cost environment. We may also enter into firm-price customer sales agreements that specify a firm underlying metal price plus a conversion price. Spot sales with lagged aluminum and alloy price pass through and firm-price sales agreements create price exposure for us, which we mitigate through hedging and related programs with an objective to remain metal price neutral. Additionally, we have certain contracts that may adjust certain alloy prices for a forward period based on an average prior period cost for such alloys. As a result, until the selling price resets, we can experience an adverse impact when alloy prices increase and a favorable impact when alloy prices decrease.

We further strive to enhance our margins through the efficient use of scrap or recycled aluminum. As scrap aluminum is usually purchased at a discount to the index price of aluminum at which we sell at, we can generate additional margins by increasing our utilization of scrap. However, as scrap aluminum availability and the discount to the index price at which it is sold is subject to market dynamics, in periods of lower availability, we may experience adverse impacts to our results and favorable impacts when scrap is more readily available. Furthermore, due to manufacturing requirements, supply chain disruptions or rapid changes in market demands for our products, we may not be able to utilize scrap efficiently, thereby causing an adverse impact to our margins, which we refer to as an inventory imbalance.

We have long-standing relationships with our customers, which consist primarily of blue-chip companies, including leading aerospace and automotive manufacturers, tier one aerospace and automotive suppliers, beverage and food packaging manufacturers and metal service centers. Approximately 73% of our shipments is sold direct to manufacturers or tier one suppliers and approximately 27% is sold to metal service centers. In our served markets, we seek to be the supplier of choice by pursuing "Best in Class" customer satisfaction driven by quality, availability, service and delivery performance. We believe we differentiate our product portfolio through our broad product offering and our KaiserSelect® products, which are engineered and manufactured to deliver enhanced product characteristics with improved consistency, so as to result in better performance, lower waste and, in many cases, lower production cost for our customers.

We further strive to enhance the efficiency of product flow to our customers and our status as a supplier of choice by tightly integrating the management of our operations across multiple production facilities, product lines and target markets. Additionally, our strategy to be the supplier of choice and a low cost producer is enabled by a culture of continuous improvement that is facilitated by the Kaiser Production System ("KPS"), an integrated application of tools such as Lean Manufacturing, Six Sigma and Total Productive Manufacturing. Using KPS, we seek to continuously reduce our own manufacturing costs and eliminate waste throughout the value chain.

A key component of our business model is to maintain financial strength and flexibility through the business and economic cycles. We manage and monitor our financial strength through routine analysis of our liquidity position under scenarios of varying business and economic cycles. We also prioritize our capital allocation toward organic growth, such as efficiencies and quality in each of our end markets, while maintaining a strong balance sheet for inorganic opportunities and market growth potential and providing return to shareholders. Details of these capital projects are discussed in Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Report under the caption, "Liquidity and Capital Resources."

Products

Overview

Our business focuses on producing rolled, extruded and drawn aluminum products used principally for aerospace and defense, aluminum beverage and food packaging, general engineering and automotive products that include consumer durables, electronics and products for electrical and machinery and equipment applications. Our engineers, metallurgists and sales personnel work collaboratively with our customers to help our customers design products for challenging applications where product performance is critical. Furthermore, our Centers for Excellence, dedicated research and development centers devoted to product performance enhancement and process development within our production operations, are focused on: (i) controlling the manufacturing process; (ii) maximizing the use of recycled aluminum; (iii) improving product quality; and (iv) ensuring consistency and enhanced product attributes. See "Selected Operational and Financial Information" within Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Report for selected shipment and sales information for our fabricated aluminum products by end market application.

We believe aluminum is highly sustainable because it is infinitely recyclable and the recycling process requires significantly less energy compared with the original mining and refining process. Our highly engineered solutions contribute to reduced carbon emissions by enabling improved performance of consumer products, light-weighting in applications such as aircraft and transportation for fuel efficiency and increasing the use of recyclable aluminum beverage and food packaging. Overall, we remain focused on providing products that meet the needs of our customers for demanding applications while being part of the carbon solution for "Best in Class" customer satisfaction.

Aero/HS Products. Our Aero/HS products include heat treat plate and sheet, hard alloy extruded shapes, cold finish rod and bar, seamless drawn tube and billet used for a wide variety of end uses in the global aerospace and defense industries. Typical applications are structural aircraft components that must perform consistently under extreme variations in temperature and pressure due to frequent take-offs, landings and changes in altitude. Required physical properties include high tensile strength, superior fatigue resistance and exceptional durability even in harsh environments. We use high-strength 2000- and 7000-series alloys and apply a variety of thermal practices to manufacture our Aero/HS products to meet the demanding specifications required for such safety-critical applications. While competing materials such as titanium and composites have displaced aluminum for certain applications on several newer aircraft designs, aluminum continues to be the material used most extensively for structural aerospace and defense applications because it is light weight, can meet demanding performance requirements and is cost effective relative to other materials.

Packaging. Our Packaging products consist of bare and coated 3000- and 5000-series alloy aluminum coil used in the beverage and food packaging industry, with applications that include coated food stock, coated end and tab stock, body stock and bottle stock. Our Warrick rolling mill is one of four major aluminum rolling mills currently dedicated to the packaging industry in North America, with one of the world's largest ingot casting facilities, hot and cold rolling, coated finishing and slitting capacity. The Warrick rolling mill has a unique capability to produce high-margin coated packaging products representing approximately 64% of our total Packaging shipments.

GE Products. Our broad portfolio of GE products consists primarily of 6000-series alloy plate, sheet, rod, bar, tube, wire and standard extruded shapes. The 6000-series alloy is an extremely versatile, medium-strength, heat treatable alloy that can be both extruded and rolled. Our GE products have a wide range of uses and applications, many of which involve further fabrication for numerous transportation and other industrial end market applications where machining of plate, rod and bar is intensive. For example, our GE products are used to produce armor for military vehicles, ordnances, manufacturing cells for semiconductor production,

numerous electronic devices, after-market motor sport parts, tooling plate, parts for machinery and equipment, bolts, screws, nails and rivets.

Automotive Extrusions. Automotive Extrusions consist of extruded aluminum products for many North American automotive applications. Examples of the variety of extruded products that we supply to the automotive industry include extruded products for the body-in-white structural components, crash management systems, anti-lock braking systems and drawn tube for drive shafts. For some Automotive Extrusions, we perform limited fabrication, including sawing and cutting to length. In recent years, automotive original equipment manufacturers ("OEMs") and their suppliers have, at an increasing pace, been converting many automotive components that historically were made of steel to aluminum to decrease weight without sacrificing structural integrity and safety performance and thereby achieve greater fuel efficiency standards mandated by stringent United States' Corporate Average Fuel Economy ("CAFE") or equivalent state regulations. Our Automotive Extrusions are designed and produced to provide specific mechanical properties and performance attributes required in automotive applications across a broad mix of North American OEMs and automotive platforms. We believe that these attributes are not easily replicated by our competitors and are important to our customers, who are typically tier one automotive suppliers.

Other Products. Other products consist of rerolled, extruded, drawn and cast billet aluminum products for a variety of North American industrial end uses. We continue to exit these non-core applications and focus our resources and production capacity on strategic Aero/HS products, Packaging, GE products and Automotive Extrusions.

Markets

Sales, Marketing and Distribution

Industry sales for fabricated products fluctuate in response to competitive and market dynamics. Sales are made directly to customers by our sales personnel located in the United States, Canada, Western Europe and China and by independent sales agents in other regions of Asia, Latin America and the Middle East. Our sales and marketing efforts are focused on the markets for Aero/HS products, Packaging, GE products and Automotive Extrusions.

Aero/HS Products. We sell our Aero/HS products to metal service centers, as well as directly to aerospace manufacturers and tier one suppliers. Sales are made primarily under long-term agreements, but also on an order-by-order basis. We serve this market with a North American sales force focused on Aero/HS products and GE products and our sales personnel in Western Europe and China. Growth in demand for aerospace plate has exceeded demand growth for other forms of Aero/HS products, as aircraft manufacturers have migrated to monolithic component design, where a single piece of aluminum, usually a plate, is heavily machined to form a desired part rather than creating the same part by assembling sub-components made of aluminum sheet, extrusions or forgings that are affixed to one another using rivets, bolts or welds. Demand for our Aero/HS products is heavily impacted by commercial airframe build rates and, to a lesser degree, by defense related airframes and other products. In addition, unanticipated changes in build rates and mix of aircraft models being built can trigger restocking or destocking throughout the long aerospace supply chain, temporarily impacting demand. While commercial airframe build rates can be subject to certain short-terms events (see Part I, Item 1A. "Risk Factors" included in this Report), we believe the long-term demand for air travel and fuel efficiency will continue to drive long-term growth for our products.

Packaging. Our Packaging products are sold primarily to North American beverage can manufacturers and fillers and food packaging manufacturers. Sales are made primarily under long-term agreements by a North American direct sales force. Aluminum can stock demand is driven by the packaging industry's shift towards environmentally sustainable materials due to the fact that aluminum is infinitely recyclable and has the highest consumer recycling rate among beverage containers. Major players have already transitioned some plastic bottled water and carbonated soft drink production to aluminum. We anticipate further growth will be underpinned by sustainability trends, the secular shift from plastic to aluminum and the fact that North American packaging capacity has been reallocated towards other end markets, including automotive and industrial.

GE Products. A majority of our GE products are sold to large metal service centers in North America on an order-by-order basis, with orders primarily consisting of standard catalog type items shipped with a relatively short lead-time. We service this market with a North American sales force focused on GE products and Aero/HS products. Demand for our GE products is closely related to the North America general industrial growth and the recent desire of many companies to lessen their risk of supply chain disruptions by reshoring suppliers and shortening the supply chain. Demand is also impacted by the destocking and restocking of inventory throughout the supply chain.

Automotive Extrusions. Our Automotive Extrusions are sold primarily to tier one automotive suppliers. Almost all sales are made under long-term agreements entered through direct channels using a North American direct sales force that works closely with our technical sales support organization. Demand for Automotive Extrusions is determined based upon automotive build rates in North

America and aluminum content. We believe fuel efficiency standards, along with consumer preference for larger vehicles and the growing conversion to electric vehicles, will continue to drive growth in demand for aluminum extruded components in passenger vehicles as a replacement for the heavier weight of steel components.

Customers

In 2022, we had approximately 570 customers, including key customers such as Reliance Steel & Aluminum Co. ("Reliance") and Silgan Containers Corporation ("Silgan"). While the loss of either of these customers could have a material adverse effect on us, we believe that our long-standing relationship with each is good and that the risk of losing either customer is remote. See Note 17 of Notes to Consolidated Financial Statements included in this Report for information about our significant concentrations.

Competition

The fabricated aluminum industry is highly competitive. We seek to further differentiate ourselves from our competitors through our ongoing investments to continuously improve the quality and machinability of our products, manufacture and deliver unique product attributes (KaiserSelect®) and provide a broad product offering while maintaining a strong customer focus to achieve "Best in Class" status in our markets.

Our primary competitors in the global market for Aero/HS products are Arconic, Inc., Constellium N.V. and Novelis Inc. In North America, our primary competitors for Packaging are Arconic, Inc., Constellium N.V., Novelis, Inc. and Tri-Arrows Aluminum, Inc. In serving our North American customers for both GE products and Automotive Extrusions, our primary competitors are Arconic, Inc. and Norsk Hydro ASA, and for certain of these products, we also compete with smaller, regional participants. In North America, we also compete with general engineering heat treat plate products imported from South Africa, Europe and China. Some of our competitors are substantially larger, have greater financial resources and may have other strategic advantages.

Because many of our products are used in safety critical applications, our customers have demanding standards for product quality and consistency that make it difficult to become a qualified supplier. Suppliers must pass a rigorous qualification process to sell to both airframe and automotive manufacturers and must also make significant investments in infrastructure and specialized equipment to supply products for these high strength applications. Further, sophisticated manufacturing processes make it difficult to become a qualified supplier, even with proper equipment. For example, producing heat treat plate and sheet products, particularly for aerospace applications, requires technological expertise that only a few companies have developed through significant investment in research and development and decades of operating experience. To be a supplier in the packaging market, demanding standards are also required. Producing coated end, tab and body stock for the can market requires the development of alloys and application of coatings that must pass stringent customer qualifications and be compliant with Food and Drug Administration ("FDA") regulations. Our experienced and dedicated research and development team, combined with our Customer Service group, coordinate with coating suppliers, manufacturing operations and our customers to create these alloy and coating systems.

Research and Development

Our products are differentiated based on the metallurgy and physical properties of the metal and special characteristics that are required for particular end uses. A significant amount of our research and development is devoted to product and process development within our production operations, and is largely focused on controlling the manufacturing process to improve product quality, ensure consistency and enhance one or more specific product attributes. This has resulted in the creation and delivery of our highly differentiated KaiserSelect® products.

We operate four research and development centers. Our Rolling and Heat Treat Center and our Metallurgical Analysis Center are both located at our Trentwood facility. The Rolling and Heat Treat Center has complete hot rolling, cold rolling and heat treat capabilities to simulate, in small lots, processing of flat-rolled products for process and product development on an experimental scale. The Metallurgical Analysis Center consists of a full metallographic laboratory and a scanning electron microscope to support research and development programs as well as respond to plant technical service requests. The third center, our Solidification and Casting Center, is located in Newark, Ohio ("Newark"), and has a developmental casting unit capable of casting billets and ingots for extrusion and rolling experiments. The casting unit is also capable of casting full size billets and ingots for processing on the production extrusion presses and rolling mills. Our fourth center, located in New Kensington, Pennsylvania, is focused on the forming and coating of our packaging products and has the capability on laboratory-scaled equipment to produce beverage end and food cans enabling the evaluation of new coatings and processes for packaging products. In addition, our packaging research and development center utilizes a scanning electron microscope along with FDA analytical tools to provide technical expertise to our Warrick facility and our packaging customers.

Our Imperial Machine & Tool Co. ("IMT") subsidiary, located in Columbia, New Jersey, provides us with significant technology and intellectual property that complements our metallurgical and application engineering expertise to further advance our capability to deliver highly engineered solutions for our customers. IMT's multi-material expertise in aluminum, titanium, tantalum, molybdenum, nickel alloys, tungsten, cobalt chromium and stainless steel offers a differentiated approach by combining traditional machining know-how and related technical capabilities with additive manufacturing expertise to drive innovative solutions over the longer term.

We hold numerous patents, trademarks, trade secrets and copyrights that relate to the design, use and marketing of products. We consider this intellectual property to be important, but no single property is material to the overall conduct of our business.

Resources

Manufacturing Processes

We use two main processes, flat rolling and extrusion/drawing, to produce our fabricated products using a cast of alloyed prime and recycled aluminum in the desired forms and dimensions and with the desired physical properties. Both processes start by heating an aluminum rolling ingot or extrusion billet to an elevated temperature at which the metal is malleable and then applying pressure in a manner that both forces the metal into a desired shape and begins the "working" of the metal to enhance its strength and related properties.

Flat Rolling. Our manufacturing process for aluminum flat-rolled products uses ingot, a large rectangular slab of aluminum, as the starter material. The ingot is processed through a series of rolling operations that can be done at elevated (hot) or room (cold) temperatures. Finishing steps may include heat treatment, annealing, stretching, leveling, coating and slitting to achieve the desired metallurgical, dimensional and/or performance characteristics. Aluminum flat-rolled products are manufactured in a variety of alloys, a range of tempers (hardness), gauges (thickness) and widths and various finishes. Flat-rolled aluminum semi-finished products are classified as plate (0.250 inches or greater in thickness), sheet (0.249 inches down to 0.008 inches in thickness) or coil (0.249 inches down to 0.001 inches in thickness).

Extrusion/Drawing. Our extrusion process begins with a cast billet, which is an aluminum cylinder of varying length and diameter cut from a cast log. After heating the billet to make the metal malleable, it is placed into an extrusion press and squeezed (extruded) through a die that gives the material the desired two-dimensional cross section. The material can be quenched as it leaves the press, or processed through a post-extrusion heat treatment cycle, to control the material's physical properties. The extrusion is straightened, typically by stretching, and then cut to length before being hardened in aging ovens. Drawing is a fabrication operation in which extruded tubes and rods are pulled through a die, or drawn. The primary purpose of drawing is to reduce the diameter and wall thickness while improving physical properties and dimensions. Material may go through multiple drawing steps to achieve the final dimensional specifications. Extruded and drawn semi-fabricated products are manufactured in a variety of alloys and a range of tempers.

Additionally, some of our locations have remelt and casting operations to produce the ingot or log for flat rolling or extrusion. To produce the ingot or log, we purchase primary aluminum, recycled scrap aluminum segregated by alloys and other metals (including, but not limited to, copper, zinc and magnesium) that are necessary to create various aluminum alloys. We also recycle internally generated scrap from our own manufacturing processes. Initially in solid form, aluminum is heated in a vessel to a temperature at which it melts. While in molten form, additional metals (aluminum alloyed scrap, alloy metals, primary aluminum or high purity aluminum) are introduced to achieve the proper mixture of chemical elements for a particular alloy. When the desired chemical composition of the molten metal has been achieved, it is poured through a mold in which the molten metal cools in a controlled manner and solidifies into a rolling ingot or extrusion log. The size of the mold determines the dimensions of the rolling ingot or extrusion log. Our casting operations at our facilities in Kalamazoo, Michigan; London, Ontario; Los Angeles, California; Newark, Ohio and Sherman, Texas produce extrusion log and cut billet for their operations and for our other facilities that do not have casting operations. Our Trentwood and Warrick facilities cast rolling ingot for their own consumption.

IMT is a leader in advanced manufacturing methods and techniques, which include multi-axis CNC machining, 3D Printing, welding and fabrication for aerospace and defense, high tech and general industrial and automotive applications.

Many of our facilities employ the same basic manufacturing process and produce the same types of products. We make a significant effort to tightly integrate the management of our multiple manufacturing locations, product lines and end market applications to most efficiently and effectively serve the needs of our customers. We centralize purchasing of our primary, rolling ingot and scrap, or recycled, aluminum requirements and related alloying agents in order to better manage price, credit and other benefits. We believe that integration of our operations allows us to capture efficiencies while allowing our facilities to remain highly focused on their specific processes and end market applications.

Raw Materials

To make our fabricated products, we purchase primary aluminum and scrap, or recycled, aluminum from third-party suppliers in varying percentages depending on various market factors, including price and availability. The price we pay for primary aluminum is typically based on the average Midwest Transaction Price ("Midwest Price"), which reflects the primary aluminum supply/demand dynamics in North America. The average Midwest Price is comprised of the average London Metal Exchange ("LME") plus average Midwest premium. The average LME and the average Midwest premium for 2022, 2021 and 2020 were \$1.23 + \$0.30, \$1.12 + \$0.26 and \$0.77 + \$0.12, respectively. Scrap aluminum is typically purchased at a discount to the Midwest Price but can require additional processing.

In addition to selling fabricated aluminum products to third parties, certain of our production facilities supply log, billet or other intermediate material to certain of our other facilities for further value added conversion processing. As examples, our London, Ontario facility supplies billet to our Richmond, Virginia facility, and our Newark facility supplies log and billet to our Jackson, Tennessee facility.

Suppliers

We purchase raw materials from a wide array of vendors. In most instances, we have multiple vendors of raw materials to mitigate the risk of an interruption of supply should one of them underperform or discontinue operations. A number of our input materials are commodities, which are subject to market price fluctuations, which we strive to mitigate with our metal price neutrality and hedging programs. See Note 17 of Notes to Consolidated Financial Statements included in this Report for information about our significant concentrations.

Pricing, Metal Price Risk Management and Hedging

As noted above, we purchase primary, rolling ingot and scrap, or recycled, aluminum, our principal raw material, on a floating price basis typically based on the average Midwest Price. Our pricing of fabricated aluminum products is generally intended to lock in a conversion margin (representing the value added from the fabrication process) and to pass aluminum and certain alloy price fluctuations through to our customers. In order to meet our objective to be metal price neutral, we manage the risk of fluctuations in the price of aluminum through our pricing policies and use of financial derivatives. Our three principal pricing mechanisms are as follows:

- Spot price. Some of our customers for Aero/HS products and a majority of our customers for GE products pay a product price that incorporates the spot price of primary aluminum (Midwest Price) in effect at the time of shipment to a customer. Spot prices for these products change regularly based on competitive dynamics. Fluctuation in the underlying aluminum price is a significant factor influencing changes in competitive spot prices. Through spot pricing, we generally can pass aluminum price risk through to customers. For some of our higher margin products sold on a spot basis, however, the pass through of aluminum price movements can lag by several months (the timing of which depends in part on market conditions), with a favorable impact to us when aluminum prices decline and an adverse impact to us when aluminum prices increase. We, from time to time, enter into hedging transactions with third parties to minimize the impact to us of aluminum price swings for these higher margin products.
- Index-based price. The pricing structure of our typical aerospace and automotive contracts calls for our customer to pay a product price that incorporates a monthly index-based price for primary aluminum, such as the average Midwest Price for primary aluminum. Index-based pricing typically allows us to pass aluminum price risk through to the customer and applies to the majority of our Aero/HS products and Packaging sales and virtually all of our Automotive Extrusions sales.
 - *Firm-price*. Some of our customers who commit to volumes and timing of delivery pay a firm-price, creating aluminum price risk that we must hedge. We are able to limit exposure to aluminum price risks created by firm-price customer sales contracts by using third-party hedging instruments. Total fabricated product shipments for which we were subject to price risk were, in millions of pounds, 271.9, 187.2 and 127.6 during 2022, 2021 and 2020, respectively. The growth in firm price contracts was primarily driven by the inclusion of Packaging beginning with our Warrick acquisition on March 31, 2021.

In addition to the aluminum pricing mechanisms described above, we also strive to pass through the cost of certain alloys through either pricing adders or surcharge mechanisms. In some cases, the passing through of this alloy cost can lag the actual alloy cost, the timing of which is dependent on market conditions and customer agreements, with a favorable impact to us when alloy price declines and an adverse impact to us when alloy price increases. As with aluminum, we, from time to time, enter into either hedging transactions with third parties or firm price physical contracts to minimize the impact to us of alloy price fluctuations.

All metal procurement and hedging activities are managed centrally to minimize transaction costs, monitor consolidated net exposures and respond promptly to changes in market factors. Hedging activities are conducted in compliance with a policy approved by our Board of Directors and administered by our hedging committee (members of which include our principal executive officer, principal financial officer and principal accounting officer).

Seasonality

Under normal operating and economic conditions, we generally have immaterial fluctuations in our overall portfolio quarter-over-quarter results. Within our individual end markets, our Packaging shipments are generally weighted towards the second half of the year as compared to the first half while our Aero/HS products, GE products and Automotive Extrusions shipments are generally weighted slightly more toward the first half of the year as compared to the second half. This fluctuation in shipments is usually driven by lower demand during summer vacation and year-end holiday shut downs and year-end inventory rebalancing by our end customers. During these periods of lower demand we generally perform planned major maintenance at our facilities, which can affect cost and operating results.

Government Regulation

Our operations are subject to numerous federal, state and local employment, import/export, reporting, environmental, health and safety laws and regulations. While we are subject to a wide variety of government regulations, generally those most impactful to our results of operations and capital expenditures are the environmental laws and regulations that impose limitations on the discharge of hazardous materials and pollutants and establish standards for the handling, transportation, distribution, treatment, storage and disposal of hazardous materials and solid and hazardous wastes. These regulations may require the investigation, assessment, cleanup or monitoring of, or compensation for, environmental impacts, including natural resource damages. We continually monitor our operations with respect to potential environmental issues, including changes in legal requirements and remediation technologies. We have established procedures for regularly evaluating environmental loss contingencies. Our environmental accruals represent our undiscounted estimate of costs reasonably expected to be incurred based on presently enacted laws and regulations, existing requirements, currently available facts, existing technology and our assessment of the likely remediation actions to be taken. See Note 10 of Notes to Consolidated Financial Statements included in this Report.

The U.S. Environmental Protection Agency ("USEPA") issued an Endangerment Finding under the Clean Air Act, determining that emissions of carbon dioxide, methane and four other greenhouse gases ("GHGs") threaten the public health and welfare of current and future generations. We have invested and continue to invest in our manufacturing operations in order to reduce our GHG emissions. The GHG intensity of our products is reduced through: (i) increasing manufacturing efficiencies; (ii) using clean and reliable energy; (iii) using recycled and run-around scrap; and (iv) purchasing low carbon prime.

Government Contracts

We are one of the few remaining United States based aluminum semi-fabricated producers that supply the American defense industry. Although our products are used in a wide variety of military applications, including military aircraft, armored vehicles and ordnance, these products are typically sourced from us by a number of service centers and machine shops that are suppliers to the defense industry. As we generally sell to the chain of suppliers who either subcontract with direct contractors or directly contract with the government, we do not have significant direct government agreements.

Human Capital

At December 31, 2022, we employed approximately 4,000 people, of which approximately 3,920 were employed in our manufacturing, sales and support office locations and approximately 80 were employed in a corporate capacity.

Governance and Culture

Our talented workforce is a key factor underlying our success. We strive to be the employer of choice by providing equal employment and a non-discriminatory workplace, protecting the health and safety of our employees, providing training programs and maintaining a positive and constructive relationship with labor unions of which our employees are members. Our values support and serve as the foundation for our strategic initiatives and are intended to reflect the company's "tone at the top" which we believe sustains our culture; a culture that continues to drive our behavior. Additionally, the goal of being a valued corporate citizen guides our environmental, social and governance decisions. We are, as a result, committed to being socially responsible and active members of our industry and the communities in which we operate and our employees and their families live.

Consistent with our corporate values, we promote fair business practices and a culture of accountability, responsibility and ethical behavior through:

- strong emphasis on the importance of integrity and competence;
- conducting annual governance surveys to assess our culture and the effectiveness of our training;
- adopting and enforcing our policies, including Corporate Governance Guidelines, Code of Business Conduct and Ethics, Human Rights Policy and Diversity, Equity and Inclusion Policy and compliance with applicable laws and regulations; and
- · encouraging the reporting of illegal or unethical behavior, including the use of In-Touch, a third party compliance feedback program.

We believe respecting human rights is a fundamental part of our values and corporate responsibility. We strive to respect and promote human rights in our relationships with our employees, suppliers, customers and stakeholders and are guided by the principles of the International Bill of Human Rights (the Universal Declaration of Human Rights and the two international covenants) and the International Labor Organization's Declaration on the Fundamental Principles and Rights at Work. Our Human Rights Policy is communicated to our employees as part of their annual code of conduct training, and we expect our employees to uphold this policy.

Diversity, Equity, Inclusion and Belonging

We are committed to diversity, equity, inclusion and belonging and strive to be the preferred employer by, among other things: (i) attracting, developing and retaining the best people from all cultures and segments of the population based on ability; (ii) treating all employees with dignity and respect; (iii) providing an environment of diversity, inclusion, belonging, empowerment, responsibility and accountability; and (iv) offering competitive and equal pay and benefits that attract and retain employees. We focus on: (i) continuing to consider ethnic and gender diversity as we identify training cohorts and opportunities; (ii) leveraging the views and perspectives of our diverse employees and leaders; (iii) developing meaningful metrics and benchmarks by location and job function to measure the effectiveness of our efforts; (iv) fostering relationships with educational institutions, employment agencies and professional groups to expand the pool of potential candidates and employees to achieve a more diverse workforce; (v) focusing on diverse candidates for internships, entry-level positions and scholarships; and (vi) actively recruiting from military bases for military and veteran hiring. Our Human Rights Policy and Diversity, Equity and Inclusion Policy, which align with our corporate values and Code of Business Conduct and Ethics, are overseen by our Board of Directors and senior leadership team.

Labor Practices and Policies

Safety. We believe employee safety begins with a strong and consistent tone at the top through our executive leadership with oversight provided by our Corporate Health and Safety team, led by our Chief Administrative Officer and General Counsel. To help us achieve and maintain a strong safety culture, we have robust compliance and assessment programs such as annual safety planning, monthly safety calls, routine performance reviews against targets and routine audits. Additionally, we partner with the United Steelworkers and various industry groups, including the Aluminum Association, to share and identify best practices. We use both internal and external resources, including the American National Standards Institute ("ANSI") and International Organization for Standardization ("ISO"), to assess our compliance with regulatory and internal standards, providing training, performing risk assessments, audits and loss control inspections and developing mitigation strategies with particular emphasis on risks with a greater potential for severe injury. We stress risk awareness and job safe practices and engage our employees in conversations about safety and safety training using a variety of communication channels, including one-on-one communications.

We also believe that having a culture of health and safety involves every employee at every level throughout the organization assuming responsibility to guard against workplace injuries by recognizing risks and taking other actions to minimize injury risk and severity. Risk reduction is a key initiative at each of our facilities and part of our annual planning process and we are committed to nurturing a culture consistent with being a preferred employer. We monitor our progress through routine reviews of our safety process and performance. We utilize both leading and trailing indicators to monitor our progress. While trailing indicators, such as total case incident rate ("TCIR"), lost-time case incident rate ("LTIR") and days away, restricted and transfer ("DART") rate, help us monitor our safety performance, leading indicators, such as significant injury and fatality ("SIF") potential and actual incident rate, near-misses, timely correction action of internal and external audit findings, on-time safety plan execution information and safety culture risk, help us monitor and assess risks and the effectiveness of our safety plans and processes. Plant safety metrics are integrated into our monthly quality, production and financial reports and are reviewed by the senior leadership team every month. In addition, TCIR and LTIR safety modifiers are included in each of our short-term incentive compensation plans, including the corporate plan applicable to each of our executive officers and members of senior management.

Health. Over the years, we have implemented programs on a Company-wide basis to increase awareness of the importance of employee wellness. We have continued to introduce programs to educate and assist employees to make healthy lifestyle choices and have offered incentives and discounts to encourage participation across the organization, including:

- · annual onsite health biometric screenings;
- on-site flu shots and the Coronavirus Disease 2019 ("COVID-19") vaccination;
- an employee assistance program, providing confidential assistance with healthcare issues and the healthcare system, including crisis and emergency help;
- a smoking/tobacco cessation program;
- · internal, as well as third-party, online wellness workshops, including workshops on nutrition and fitness; and
- wellness coaching.

Labor Union Affiliations. We believe in freedom of association and respect our employees' choice to be represented or not represented, by a union in accordance with the laws of the states and countries where we operate, without fear of reprisal, intimidation or harassment. Approximately 66% of our employees are represented by labor unions under labor contracts with varying durations and expiration dates. The following table shows each manufacturing location, the primary union affiliation, if any, and the expiration date for the current union contracts as of December 31, 2022. As indicated in the table, our union affiliations are with the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL-CIO, CLC ("USW"), International Association of Machinists ("IAM") and International Brotherhood of Teamsters ("Teamsters"). See Note 17 of Notes to Consolidated Financial Statements included in this Report for additional information about concentration of labor subject to collective bargaining agreements.

Location	Union	Contract Expiration Date
Chandler, Arizona (Extrusion)	Non-union	_
Chandler, Arizona (Tube)	USW	Apr 2024
Columbia, New Jersey	Non-union	_
Florence, Alabama	USW	Mar 2026
Jackson, Tennessee	Non-union	_
Kalamazoo, Michigan	USW	Feb 2026
London, Ontario (Canada)	USW Canada	Feb 2026
Los Angeles, California	Teamsters	Apr 2026
Newark, Ohio	USW	Sep 2025
Newburgh, Indiana (Warrick)	USW	May 2023
Richland, Washington	Non-union	_
Richmond, Virginia (Bellwood)	USW/IAM	Nov 2026/Nov 2026
Sherman, Texas	IAM	May 2027
Spokane, Washington (Trentwood)	USW	Sep 2025

Recruiting, Training, Development and Retention

Recruiting. We are committed to recruiting a workforce that reflects people from all cultures and segments of the population based on ability. Our initiatives, which go beyond legal compliance, include: (i) identifying and recruiting diverse talent, including military veterans; (ii) fostering relationships with universities, employment agencies and professional groups that work with more diverse populations; (iii) leveraging inclusive job-posting sites; and (iv) concentrating on diverse candidates for internships, entry-level positions and scholarships. We have a well-established talent review process that includes operations and functional leaders that are key in the early identification of high performing and high potential employees. We also track and review the gender and ethnic diversity of job applicants and new hires to evaluate our efforts to continue to increase the diversity of our organization. The ESG committee of our board oversees, among other things, the succession planning for our executive officers and the leadership, progression and development of key employees.

Training, Development and Retention. Kaiser Aluminum is committed to the development of our employees through a broad mix of internal and external program resources incorporating on-the-job training and development through the Kaiser Leadership Program, the Front Line Leader Development Program, the Kaiser Aluminum Women's Leadership Program, Kaiser University, the Tuition Assistance Program and the Metallurgy Excellence and Technical Strength Program. We continue to expand our talent management initiatives to pursue the significant long-term potential for our continued success. Our success is dependent on the knowledge, skills and abilities of our current and future leaders and employees.

The Kaiser Leadership Program is a full year program that accelerates the readiness of key talent and combines personalized leadership development and Kaiser-management system focused curriculum with a unique opportunity to build relationships with an internal network of leaders across locations and functions. The mission of the Kaiser Leadership Program is to strengthen performance, develop bench strength and accelerate the readiness of key talent across our company. The program blends classroom, online modules and live web events using a cohort model to deliver a flexible, convenient learning environment and includes training and coaching conducted by Thayer Leadership at West Point.

The Front Line Leader Development Program is a six-month program that strengthens organizational performance through ethical, effective and sustaining tactical leadership for both new and experienced frontline supervisors. The program uses a cohort model to encourage collaboration and teambuilding and to ensure accountability, facilitated group discussions and effective best practice sharing.

The Kaiser Aluminum Women's Leadership Program ("KWLP") was launched in June 2022 and provides a female-focused professional development curriculum, mentorship and networking opportunities designed to elevate the visibility of women at Kaiser Aluminum, to increase female representation in all levels of leadership and to enhance the inclusion and sense of belonging for current and potential female leaders. Similar to the Kaiser Leadership Program, the KWLP uses in-person events, program meetings, self-directed learning and assignments, mentoring meetings and cohort collective meetings.

Kaiser University is our web-based learning and development platform offering a catalog of thousands of on-demand courses to employees across a broad range of topics including compliance, maintenance, health and safety, Lean Six Sigma, communication skills, business skills, computer skills, cybersecurity, discrimination and harassment prevention and our processes and policies.

The Tuition Assistance Program provides tuition reimbursement for salaried employees and certain represented employees as stipulated by the collective bargaining agreement. The mission of this program is to support our workforce in completing a degree that benefits both our employees and our company.

The Metallurgy Excellence and Technical Strength Program provides professional development for our talented metallurgical professionals in order to facilitate their ability to develop and implement process control systems and identify new technologies that can benefit the company. This program provides mentorship opportunities with company leaders and experts as well as participation in career enhancing training to ensure our competitive advantage.

Rewards

All of our employees, including hourly and salaried employees at our production facilities, participate in short-term incentive compensation plans, which are based on attainment of performance metrics that drive and support our "Best in Class" commitment. We also provide stock-based compensation to executive officers, members of senior management throughout the company and other key employees, as well as a deferred compensation plan for certain employees. All of our U.S. employees have access to 401(k) savings plans, depending on the terms of their employment, and salaried employees at our London, Ontario facility have access to a defined benefit pension plan with annual contributions based on each salaried employee's age and years of service. Through the collective bargaining process, we contribute to four multi-employer pension plans under the terms of certain collective bargaining agreements for a majority of our union-represented employees and certain union employees at our Warrick facility participate in a defined benefit pension plan, as well as a postretirement benefit plan relating to retiree medical and life insurance benefits. Additionally, certain hourly and salaried employees are also able to receive defined post-retirement health and welfare benefits through Voluntary Employee Beneficiary Associations.

Information Security

We employ information systems to support our business. As is the case for other manufacturing companies of comparable size and scope, we, from time to time, experience attempted cyber-attacks on our information system. We also face risks associated with other potential significant failures or disruptions of our information technology networks. We utilize a risk-based, multi-layered information security approach following the National Institute of Standards and Technology Cybersecurity Framework and have adopted and implemented an approach to identify and mitigate information security risks that we believe is commercially reasonable for manufacturing companies of our size and scope, including many of the best practices of the National Institute of Standards and Technology Cybersecurity Framework.

Our information security performance and recent cybersecurity industry trends are reviewed by management, including our Chief Information Officer at least monthly and are reported to and reviewed by each of the audit committee and the full Board of Directors throughout the year (but no less than once a year). Our entire Board of Directors is responsible for overseeing management's

risk assessment and risk management processes designed to monitor and mitigate information security risks, including cyber risk and related insurance policies.

We regularly engage independent third parties to test our information security processes and systems as part of our overall enterprise risk management. We also conduct annual information security training to ensure employees are aware of information security risks and to enable them to take steps to mitigate those risks. As part of this program, we also take reasonable steps to ensure our executive management and employees, including any employee who may come into possession of confidential financial information, receive appropriate information security awareness training.

To date, no attempted cyber-attack or other attempted intrusion on our information technology networks has resulted in a material adverse impact on our operations or financial results, or in any penalties or settlements. In the event an attack or other intrusion were to be successful, we have a response team of internal and external resources engaged and prepared to respond.

Item 1A. Risk Factors

In addition to the factors discussed elsewhere in this Report, the risks described below are those that we believe are material to our company. The occurrence of any of the events discussed below could significantly and adversely affect our business, prospects, financial position, results of operations and cash flows as well as the trading price of our securities.

RISKS RELATED TO CHANGES IN DEMAND FOR OUR PRODUCTS.

Recent macroeconomic factors including labor shortages, supply chain disruptions, inflation, recession risks and the COVID-19 pandemic have caused downturns in the commercial aerospace industry and other commercial disruptions, which have adversely affected our business, and could cause additional downturns in the automotive and ground transportation industries, which would further adversely affect our business.

We derive a significant portion of our revenue from products sold to the aerospace and automotive and ground transportation industries. Macroeconomic factors including, but not limited to: (i) labor shortages; (ii) disruptions to supply chains, such as the recent disruptions with our molten metal and magnesium supply chains; (iii) other interruptions of international and regional commerce; (iv) inflation; (v) higher interest rates; (vi) recession risks; and (vii) concerns regarding and measures implemented in response to pandemics of infectious disease, such as the COVID-19 pandemic, have and could further cause changes in global travel and shipping patterns, negatively influencing demand for new commercial aircraft and other vehicles, resulting in cancellations or deferrals of orders and/or decreases in new deliveries. Moreover, because new automotive vehicle demand is tied closely to overall economic strength, economic uncertainty, increasing interest rates and/or increased unemployment could lead to weak demand for, or lower production of, new cars, light trucks, SUVs and heavy duty vehicles and trailers, which, in turn, could adversely affect demand for our products. Despite existing backlogs, additional adverse macroeconomic developments may lead to reduced demand for our products, which could adversely affect our financial position, results of operations and cash flows.

We operate in a highly competitive industry.

We compete with others in the fabricated products segment of the aluminum industry based upon quality, availability, price, customer service and delivery performance. Some of our competitors are substantially larger than we are, have greater financial resources than we do, operate more facilities than we do, are geographically closer to our customers than we are, employ more efficient or advanced technologies than we do or have other strategic advantages. Additionally, new parties may become capable of manufacturing similar products and qualifying them with our customers, which could lead to further competitive pressure. Competitors' facilities located in certain other countries may have a manufacturing cost advantage compared to our facilities, which are located in the United States and Canada. Such foreign competitors may sell products similar to our products at lower prices as a result of having lower manufacturing costs or due to currency exchange rates that periodically favor foreign competition. Some foreign competitors may also dump their products in the United States and Canada in violation of existing trade laws. We may not be able to compete by differentiating ourselves based on the quality, availability and delivery of our products or our customer service. Additionally, we may not be able to reduce our cost structure and our selling prices to be competitive with others, and tariffs introduced to protect manufacturers in the United States and Canada from foreign price competition may not be fully effective. Increased competition could cause a reduction in demand for our products and our shipment volumes, our product pricing or both

shipment volumes and product pricing, which could have an adverse effect on our financial position, results of operations and cash flows.

Reductions in demand for our products may be more severe than, and may occur prior to, reductions in demand for our customers' products.

Most of our products undergo further fabrication by other parties before being deployed in their end uses. In particular, our Aero/HS products undergo numerous stages of further fabrication or assembly by a number of parties in the supply chain, often over the course of many months. The lead time from when we sell our Aero/HS product to when the finished product is installed on an aircraft often exceeds a year. Due to this long lead time, demand for our products may increase prior to demand for our customers' products or may decrease when our customers experience or anticipate softening demand for their products. Our customers typically respond to reduced demand for their products by depleting their inventory until their inventory falls to a new desired level. This causes a greater reduction in demand for our products than our customers experience for their products. Further, the reduction in demand for our products can be exacerbated if our customers' inventory levels had been higher than normal, if production is delayed for specific commercial airframe models, if our customers previously had purchased products from us at committed sales contract volumes that exceeded their actual need or for other reasons. The amplified reduction in demand for our products while our customers consume their inventory to meet their business needs (destocking) may adversely affect our financial position, results of operations and cash flows.

Our customers may reduce their demand for aluminum products in favor of alternative materials.

Our products compete with other materials for use in various customer applications. For instance, the commercial aerospace industry has used and continues to evaluate the further use of titanium, composites and carbon fiber materials as alternatives to aluminum to reduce aircraft weight and increase fuel efficiency. Additionally, while the automotive industry has continued to increase use of aluminum in vehicle production to reduce vehicle weight and increase fuel efficiency, manufacturers may revert to steel or other materials for certain applications and rely on improved drivetrain technology, more efficient engines, aerodynamics or other measures to achieve fuel efficiency goals. Finally, the packaging industry has used and continues to use steel, tin, plastics, glass and paperboard as alternatives to aluminum for packaging and delivery of food and beverages. The packaging industry is heavily influenced by cost and recyclability of the packaging material. The willingness of customers to use materials other than aluminum could adversely affect the demand for our products, particularly our Aero/HS products, Packaging and Automotive Extrusions, and thus could adversely affect our financial position, results of operations and cash flows.

Our customers may reduce their demand for our products if the government relaxes fuel efficiency standards or if oil prices remain low for a protracted period of time.

Efficient use of fossil fuels partially drives demand for aluminum in transportation applications. The USEPA, other federal regulatory agencies and regulatory agencies of certain states have generally sought to limit growth of fossil fuel usage by establishing stricter fuel efficiency standards. In addition, newly elected and/or changing administrations could accelerate efforts to not only limit, but reduce, fossil fuel usage and carbon emissions beyond what may be technologically possible for certain products and manufacturing processes and revisit or reverse the environmental agendas of previous administrations with respect to previously established fuel efficiency standards. Additionally, in periods of lower oil prices, the economic benefits of replacing older aircraft and automobiles with more fuel-efficient models are less compelling. A relaxation of fuel efficiency standards by the regulatory agencies or an extended period of moderate oil prices could reduce demand for new more efficient aircraft and automobiles, which could adversely affect the demand for our products and have an adverse effect on our financial position, results of operations and cash flows.

The commercial aerospace industry is cyclical and downturns in the commercial aerospace industry could adversely affect our business.

We derive a significant portion of our revenue from products sold to the aerospace industry. Notwithstanding a secular growth trend spanning nearly two decades, the aerospace industry is highly cyclical. Numerous factors that influence demand for new commercial aircraft could result in cancellations or deferrals of aircraft orders and a global decrease in new commercial aircraft deliveries. These factors have included the impacts of the COVID-19 pandemic on global travel and supply chains, but also include but are not limited to: (i) declines or reduced growth trends in global travel and airline passenger traffic; (ii) the rate of replacement of older aircraft with more fuel efficient aircraft; (iii) changing airline strategies affecting preferences for single-aisle aircraft models as opposed to twin-aisle or jumbo aircraft models; (iv) airline industry profitability; (v) the state of regional and global economies; (vi) concerns regarding terrorism or the threat of terrorism; (vii) concerns regarding new pandemics of infectious disease; and (viii) safety concerns with newly introduced and existing aircraft. Despite existing backlogs, adverse developments in any one or more of these influencing factors may lead to reduced demand for new aircraft that utilize our products, which could adversely affect our financial position, results of operations and cash flows.

Reductions in defense spending for aerospace and non-aerospace military applications could adversely affect demand for our products.

Our products are used in a wide variety of military applications, including military aircraft, armored vehicles and ordnance. Certain military programs are used by the U.S. armed forces, as well as by the defense forces of our allied foreign powers. Military programs that currently use or in the future could use our products may be subject to changes in military strategy and government priorities. Further, while many of the U.S. government programs span several years, they are often funded annually, and funding is generally subject to congressional appropriations. When U.S. and foreign allied governments are faced with competing national priorities, such as addressing financial or spending crises or public health emergencies, there can be significant pressure to reduce defense spending, which could reduce the demand for our products and adversely affect our financial position, results of operations and cash flows.

Downturns in the automotive and ground transportation industries could adversely affect our business.

The demand for our Automotive Extrusions and many of our general engineering and other industrial products is dependent on the production of cars, light trucks, SUVs and heavy duty vehicles and trailers in North America. The automotive industry is highly cyclical, as new vehicle demand is dependent on consumer spending and is tied closely to the overall strength of the North American economy. Even with the automotive industry's growing use of aluminum to reduce vehicle weight, weak demand for, or lower production of, new cars, light trucks, SUVs and heavy duty vehicles and trailers could adversely affect the demand for our products and have an adverse effect on our financial position, results of operations and cash flows.

Changes in consumer demand for particular motor vehicles could adversely affect our business.

Sensitivity to fuel prices, an increased preference for environmentally friendly alternatives and other consumer preferences can influence consumer demand for motor vehicles that have a higher content of the aluminum Automotive Extrusions that we supply. The loss of business with respect to, or a lack of commercial success of, one or more particular vehicle models for which we are a significant supplier could have an adverse impact on our financial position, results of operations and cash flows.

Aluminum beverage and food packaging products are subject to competition from substitute products and decreases in demand, which could result in lower profits and reduced cash flows.

Aluminum coil produced for demanding end market applications in the beverage and food packaging industry in North America are subject to substantial competition from producers of alternative packaging made from glass, paper, flexible materials, plastic and organic or compostable materials, which may compare favorably to aluminum with respect to preservation of food and beverage quality and/or sustainability. Changes in the volume of sales by our customers in the food and beverage markets and preferences for products and packaging by consumers of prepackaged food and beverage cans may significantly influence our sales. Changes in packaging preferences by our customers may require us to re-tool manufacturing operations, which could require material expenditures. In addition, a decrease in the costs of, or a further increase in consumer demand for, alternative packaging could result in lower profits and reduced cash flows for us. For example, increases in the price of aluminum and decreases in the price of plastic resin, which is a petrochemical product and may fluctuate with prices in the oil and gas market, may increase substitution of plastic food and beverage containers for metal containers. Moreover, due to associated high percentage of fixed costs, we may be unable to maintain the gross margin of aluminum packaging products at past levels if we are not able to achieve high capacity utilization rates for our production equipment. In periods of low demand for aluminum packaging products or in situations where industry expansion created excess capacity, we may experience relatively low capacity utilization rates, which can lead to reduced margins during that period and can have an adverse effect on our business.

RISKS RELATED TO SALES.

We depend on a core group of significant customers.

In 2022, our five largest customers in total accounted for approximately 52% of our 2022 net sales. Most of these customers have one or more sizable sales agreements with us. If one or more of these customers experienced a prolonged period of adverse demand, depressed business activity or financial distress, if any of these customers breached or sought relief from its contractual obligations under its sales agreements with us or if any of these customer relationships otherwise ended or materially deteriorated and such lost business was not successfully replaced, our financial position, results of operations and cash flows could be adversely affected.

We experience fluctuation in certain costs that we cannot pass through to our customers and face pressure from our customers on pricing.

We are unable to pass fluctuations of certain costs through to our customers, including the cost of energy, certain raw materials, operating supplies and freight. Further, cost cutting initiatives that many of our customers have adopted generally result in downward pressure on pricing. If we are unable to generate sufficient productivity improvements and cost savings in the future to offset reductions in our selling prices and increases in our costs that we cannot pass through to our customers, our financial position, results of operations and cash flows could be adversely affected.

We are exposed to risks related to our receivables supply chain financing arrangements.

We are party to several supply chain financing arrangements, in which we may sell certain of our customers' trade accounts receivable without recourse to such customers' financial institutions. To the extent that these arrangements are terminated, our financial condition, results of operations, cash flows and liquidity could be adversely affected by extended payment terms, delays or failures in collecting trade accounts receivables. The utility of certain supply chain financing arrangements also depends upon the Term Secured Overnight Financing Rate ("Term SOFR"), as it is a component of the discount rate applicable to certain arrangements. If the Term SOFR rate increases significantly or remains at an elevated level for a prolonged period of time, we may be negatively impacted as we may not be able to pass these added costs on to our customers, which could have a material and adverse effect upon our financial condition, results of operations and cash flows.

RISKS RELATED TO GEO-POLITICAL FACTORS.

Our industry is very sensitive to foreign economic, regulatory and political factors that may adversely affect our business.

We import primary aluminum and certain alloy metals from, and manufacture fabricated products used in, foreign countries. Our financial position, results of operations and cash flows could be adversely affected by numerous factors in the politically and economically diverse jurisdictions: (i) from which our input materials are sourced; (ii) in which we operate; (iii) in which our customers operate; or (iv) in which our products are consumed or further fabricated. Such factors include but are not limited to:

- the adoption of tariffs, duties and other forms of taxation;
- trade disputes;
- the implementation of controls on prices, exports and/or imports, including quotas;
- the implementation of other restrictions on supply chains in connection with global health pandemics;
- the imposition of currency restrictions;
- inflation relative to the United States and related fluctuations in currency and interest rates;
- government regulation in the countries in which we operate, service customers or purchase raw materials;
- acts or threats of war or terrorism;
- sanctions, including those in response to acts or threats of war or terrorism;
- civil unrest and labor problems; and
- the nationalization or appropriation of rights or other assets.

RISKS RELATED TO PRODUCT AND MANUFACTURING.

We may experience difficulties in the launch or production ramp-up of new products which could adversely affect our business.

As we ramp up manufacturing processes for newly introduced products, we may experience difficulties, including manufacturing disruptions, delays or other complications, which could adversely impact our ability to serve our customers, our reputation, our costs of production and, ultimately, our financial position, results of operations and cash flows.

$Unplanned\ events\ may\ interrupt\ our\ production\ operations,\ which\ may\ adversely\ affect\ our\ business.$

The production of fabricated aluminum products is subject to unplanned events such as explosions, fires, inclement weather, natural disasters, accidents, equipment failures, labor disruptions, transportation interruptions, public utilities interruptions and supply interruptions. Operational interruptions could significantly curtail the production capacity of a facility for a period of time. We have redundant capacity and capability to produce many of our extruded products within our manufacturing platform to mitigate our

business risk from such interruptions, but interruptions at our Trentwood facility where our production of plate and sheet is concentrated or at our Warrick facility where our production of packaging material is concentrated, could significantly compromise our ability to meet our customers' needs. Delayed delivery of our products to customers who require on-time delivery from us may cause customers to purchase alternative products at a higher cost, reschedule their own production or incur other incremental costs. Customers may be able to pursue financial claims against us for their incremental costs, and we may incur costs to correct such problems in addition to any liability resulting from such claims. Interruptions may also harm our reputation among actual and potential customers, potentially resulting in a loss of business. To the extent these losses are not covered by insurance, our financial position, results of operations and cash flows could be adversely affected by such events.

We may face challenges to our intellectual property rights which could adversely affect our reputation, business and competitive position.

Our intellectual property plays an important role in maintaining our competitive position in a number of the markets that we serve. Our competitors may develop technologies that are similar or superior to our proprietary technologies or design around the patents we own or license. Despite our controls and safeguards, our technology may be misappropriated by our employees, our competitors or other third parties. The pursuit of remedies for any misappropriation of our intellectual property is expensive and the ultimate remedies may be deemed insufficient. Developments or assertions by or against us relating to intellectual property rights, and any inability to protect or enforce our rights sufficiently, could adversely affect our business and competitive position.

RISKS RELATED TO OUR STRATEGIC TRANSACTIONS AND INITIATIVES.

We may not be able to successfully implement our productivity enhancement and cost reduction initiatives that are necessary to offset competitive price pressure.

Over time, we have experienced pricing pressure on many of our products and anticipate continued pricing pressure in the future. Ongoing and heightened competitive price pressure makes it increasingly important for us to be a low cost producer. Although we have undertaken and expect to continue to undertake productivity enhancement and cost reduction initiatives, including significant investments in our facilities to improve our manufacturing efficiency, cost and product quality, we cannot make assurances that we will complete all of these initiatives, that we will fully realize the estimated cost savings from such activities, that short-to-medium term improvements from new efficiencies and lower cost structure achieved will become permanent or that we will be able to continue to reduce cost and increase productivity over the long term.

Our investment and other expansion projects may not be completed, start up as scheduled or deliver the expected capacity and other benefits.

Our ability to complete our investment and expansion projects and the timing and costs of doing so are subject to various risks associated with all major construction projects, many of which are beyond our control, including technical or mechanical problems and economic conditions. Additionally, the start-up of operations after such projects have been completed can be complicated and costly. If we are unable to fully complete these projects, if the actual costs for these projects exceed our expectations, if the start-up phase after completion is more complicated than anticipated or if the capacity and other benefits of these projects are less than anticipated, our financial position, results of operations and cash flows could be adversely affected.

We may not realize the benefits of the Warrick rolling mill acquisition.

Our acquisition of Warrick rolling mill in 2021 could disrupt our business and/or dilute or adversely affect the price of our common stock. Risks associated with the Warrick rolling mill acquisition may include:

- diversion of management's time and attention from our existing business;
- challenges in managing the increased scope, geographic diversity and complexity of operations;
- difficulties integrating the financial, technological and management standards, processes, procedures and controls of the acquired business with those of our existing operations;
- liability for known or unknown environmental conditions or other contingent liabilities not covered by indemnification or insurance;
- greater than anticipated expenditures required for compliance with environmental or other regulatory standards or for investments to improve operating results;
- ability to renegotiate acquired customer contracts to pass through inflationary costs;
- difficulties achieving anticipated operational improvements; and

incurrence of indebtedness to finance other acquisitions or capital expenditures relating to acquired assets in the future.

If we fail to successfully integrate the Warrick rolling mill, we may not realize the benefits expected from the transaction and/or it may have adverse effects on our financial position, results of operations and cash flows.

We are dependent upon Alcoa Corporation ("Alcoa") for certain resources essential to the day-to-day operation of our business at Warrick.

We are dependent upon Alcoa for certain resources required for the day-to-day operation of our business at Warrick, which include molten aluminum and "support services" such as the provision of potable water, compressed air, laboratory services, electricity, steam and hot water. In order to transition Warrick from dependence upon the support services to independence as a facility with its own self-sufficient infrastructure, Alcoa has agreed to provide "transition services," including providing infrastructure and equipment for the production of steam, hot water and compressed air and conveying the filtration plant currently utilized for the supply of potable water. In addition, Alcoa has agreed to pay for the development of infrastructure necessary for Warrick to obtain electricity from a third party power supplier, subject to certain conditions no later than June 30, 2024. A failure by Alcoa to provide molten aluminum and support services or transition services within the time frames and upon the terms agreed to, including quality and performance standards, could cause us to incur substantial costs to keep the Warrick rolling mill operational or result in the temporary or permanent shutdown of Warrick's operations. In the event that production of Warrick is negatively impacted by Alcoa's failure to provide molten aluminum, support or transition services, our operations, business, financial condition and results of operations could be adversely affected.

RISKS RELATED TO COMMODITY-RELATED PRICE FLUCTUATIONS.

Our business could be adversely affected by pricing and availability of primary aluminum.

Our largest inputs to produce fabricated aluminum products are primary aluminum and recycled scrap aluminum. Primary aluminum pricing fluctuates in response to global supply and demand and also reflects the impact of duties and tariffs imposed by the United States and certain other countries. The timing and magnitude of changes in market pricing for primary aluminum are largely unpredictable. Our pricing structures for fabricated aluminum products generally allow us to pass fluctuations in the price of primary aluminum through to our customers so that we can minimize our exposure to metal price risk. However, competitive dynamics for certain of our high margin products may limit the amount or delay the timing of selling price increases on our products to recover our increased aluminum costs, resulting in a time lag during which we may be partially exposed to metal price risk. If these events were to occur, they could have an adverse effect on our financial position, results of operations and cash flows. In addition, if the market price for primary aluminum were to remain high for an extended period of time, the corresponding increase in our selling price for our fabricated products may cause some of our customers to switch to other materials in lieu of our products, causing sales of our fabricated aluminum products to decrease, which could adversely affect our financial position, results of operations and cash flows.

Our business could be adversely affected by the pricing and availability of recycled scrap aluminum.

We can efficiently use certain forms of recycled scrap aluminum in lieu of primary aluminum and alloying metals in our operations because recycled scrap aluminum trades at a discount to primary aluminum. The size of the discount to primary aluminum depends on regional scrap aluminum supply and demand dynamics. Larger discounts, generally available in periods of ample regional scrap aluminum supply relative to demand, enhance the economic advantage to us of using recycled scrap aluminum in lieu of primary aluminum and alloying metals. The timing and magnitude of changes in scrap discounts relative to primary aluminum are largely unpredictable. If the availability of recycled scrap aluminum in our regional markets were to tighten, scrap discounts relative to primary aluminum could decline and the amount of recycled scrap aluminum we could procure for use in our operations could decline, either of which could have an adverse effect on our financial position, results of operations and cash flows.

Our business could be adversely affected by the pricing and availability of alloying metals.

We use certain alloying metals, such as copper, zinc, magnesium and silicon, in our operations in order to achieve required performance properties in our products. The availability of these alloys in some cases has been and in the future may be restricted due to limited suppliers, government regulations, energy and supply chain disruptions and/or general demand dynamics. When sudden restrictions of these materials occur we have been and in the future may be subject to rapid price increases and limited supplies, either of which could have an adverse effect on our financial position, results of operations and cash flows.

Reduced pricing for aluminum can reduce our borrowing availability and cause our liquidity to decline.

Lower aluminum prices reduce the market value of our inventory and generally cause a reduction in our accounts receivable as we pass through a lower underlying aluminum price to our customers. Because the amount we can borrow under our revolving credit

facility with Wells Fargo Bank, National Association, as administrative agent, and the other financial institutions party thereto ("Revolving Credit Facility") is determined by the value of our receivables and inventory, which serve as collateral for the facility, a reduction in aluminum prices can reduce our borrowing availability and our liquidity, which could have an adverse effect on our financial position, results of operations and cash flows.

Our hedging programs have been and could continue to be adversely impacted by fluctuations as a result of the impacts of supply chain disruptions, geopolitical activity and general economic conditions.

We use forward contracts to protect against fluctuations in commodity price and currency exchange rate risks. The effectiveness of these hedges depends, in part, on our ability to accurately forecast future product demand and related cash flow. Due to the impacts of supply chain disruptions, geopolitical activity, general economic conditions and other factors, our customers' businesses are subject to many uncertainties and, as a result, we have experienced, and may continue to experience, unanticipated volatility in product demand and related cash flows. When we experience such volatility or are otherwise unable to make accurate predictions with respect to our forward swaps designated as cash flow or fair value hedges, such hedging activities may become ineffective. The early settlement, reclassification of cumulative losses and/or the periodic adjustment to fair value through Net (loss) income associated with ineffective hedging activities could have a material negative impact on our financial position, results of operations and cash flows.

Our hedging programs may limit the income and cash flows we would otherwise expect to receive if our hedging programs were not in place and may otherwise affect our business.

In the ordinary course of business, we enter into hedging transactions to limit our exposure to risks relating to changes in the market prices of primary aluminum, certain alloying metals, natural gas and electricity, as well as fluctuations in foreign currency exchange rates. To the extent that market prices or exchange rates at the expiration of these hedging transactions would have been more favorable to us than the fixed prices or rates established by these hedging transactions, our income and cash flows will be lower than they otherwise would have been. Our liquidity could also be adversely affected to the extent we incur margin calls from our hedging counterparties due to the market price of the underlying commodity or the foreign currency exchange rates deviating adversely from fixed, floor or ceiling prices or rates established by our outstanding hedging transactions. Our failure to satisfy certain covenants in the underlying hedging documents or the occurrence of an event of default thereunder could also trigger margin calls that could adversely impact our liquidity, financial position, results of operations and cash flows. Our hedging programs also expose us to the creditworthiness of our hedging counterparties, which is inherently difficult to assess and can change quickly and dramatically. Non-performance by a hedging counterparty could have an adverse effect on our financial position, results of operations and cash flows.

RISKS RELATED TO OUR INDEBTEDNESS.

Covenants and events of default in our debt instruments could limit our ability to undertake certain types of transactions and adversely affect our liquidity.

Our Revolving Credit Facility and the indentures governing our 4.625% Senior Notes due 2028 ("4.625% Senior Notes") and 4.50% Senior Notes due 2031 ("4.50% Senior Notes") contain a number of restrictive covenants that impose operating and financial restrictions on us and may limit our ability to engage in acts that may be in our long-term best interest, including restrictions on our ability to:

- incur additional indebtedness and guarantee indebtedness;
- pay dividends or make other distributions or repurchase or redeem capital stock;
- prepay, redeem or repurchase certain debt;
- issue certain preferred stock or similar equity securities;
- make loans and investments;
- sell assets:
- incur liens;
- enter into transactions with affiliates;
- alter the businesses we conduct;
- enter into agreements restricting our subsidiaries' ability to pay dividends; and
- consolidate, merge or sell all or substantially all of our assets.

In addition, restrictive covenants in our Revolving Credit Facility require us in certain circumstances to maintain specified financial ratios and satisfy other financial condition tests. Our ability to meet those financial ratios and tests can be affected by events beyond our control and we may be unable to meet them.

A breach of the covenants or restrictions under our Revolving Credit Facility or under the indentures governing the 4.625% Senior Notes and 4.50% Senior Notes could result in an event of default under the applicable indebtedness. Such a default may allow the creditors to accelerate the related debt. A payment default or an acceleration following an event of default under our Revolving Credit Facility or our indentures for our 4.625% Senior Notes and 4.50% Senior Notes could trigger an event of default under the other indebtedness obligation, as well as any other debt to which a cross-acceleration or cross-default provision applies, which could result in the principal of and the accrued and unpaid interest on all such debt becoming due and payable. In addition, an event of default under our Revolving Credit Facility could permit the lenders under our Revolving Credit Facility to terminate all commitments to extend further credit under that facility. Furthermore, if we were unable to repay any amounts due and payable under our Revolving Credit Facility, those lenders could proceed against the collateral granted to them to secure that indebtedness. In the event our lenders or noteholders accelerate the repayment of our borrowings, we and our subsidiaries may not have sufficient assets to repay that indebtedness.

As a result of these restrictions, we may be:

- limited in how we conduct our business and grow in accordance with our strategy;
- unable to raise additional debt or equity financing to operate during general economic or business downturns; or
- unable to compete effectively or to take advantage of new business opportunities.

In addition, our financial results, our level of indebtedness and our credit ratings could adversely affect the availability and terms of any additional or replacement financing.

More detailed descriptions of our Revolving Credit Facility and the indentures governing our 4.625% Senior Notes and 4.50% Senior Notes are included in filings made by us with the SEC, along with the documents themselves, which provide the full text of these covenants.

Restrictive covenants in our debt instruments contain significant qualifications and exceptions.

While our Revolving Credit Facility and the indentures governing the 4.625% Senior Notes and 4.50% Senior Notes place limitations on our ability to pay dividends or make other distributions, repurchase or redeem capital stock, make loans and investments and incur additional indebtedness, investors should be aware that these limitations are subject to significant qualifications and exceptions. The aggregate amount of payments made or incremental debt incurred in compliance with these limitations could be substantial.

As indicated above, more detailed descriptions of our Revolving Credit Facility and the indentures governing our 4.625% Senior Notes and 4.50% Senior Notes are included in filings made by us with the SEC, along with the documents themselves, which provide the full text of these covenants.

Servicing our debt requires a significant amount of cash and we may not have sufficient cash flow from our business to pay our debt.

Our ability to make scheduled interest and principal payments on our debt obligations or to refinance such obligations depends on our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory and other factors beyond our control. We may be unable to maintain a level of cash flows from operating activities sufficient to permit us to pay the interest, principal and premium, if any, on our indebtedness.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we could face substantial liquidity problems and could be forced to reduce or delay investments and capital expenditures, dispose of material assets or operations, restructure or refinance our indebtedness or seek additional debt or equity capital. We may not be able to effect any such alternative measures, if necessary, on commercially reasonable terms or at all and, even if successful, those alternative actions may not allow us to meet our scheduled debt service obligations. Our Revolving Credit Facility and the indentures governing the 4.625% Senior Notes and 4.50% Senior Notes restrict our ability to dispose of assets and use the proceeds from those dispositions and may also restrict our ability to raise debt or certain forms of equity capital to be used to repay other indebtedness when it becomes due. We may not be able to consummate asset dispositions or to obtain proceeds in an amount sufficient to meet any debt service obligations then due.

If we cannot make scheduled payments on our debt, we will be in default and holders of the 4.625% Senior Notes and 4.50% Senior Notes could declare all outstanding principal and interest to be due and payable, the lenders under our Revolving Credit Facility could terminate their commitments to loan money, the lenders could foreclose against the assets securing their borrowings and we could be forced into bankruptcy or liquidation.

We are a holding company and depend on our subsidiaries for cash to meet our obligations and pay any dividends.

We are a holding company and conduct all of our operations through our subsidiaries, certain of which are not guarantors of our 4.625% Senior Notes, 4.50% Senior Notes or our Revolving Credit Facility. Accordingly, repayments of our 4.625% Senior Notes, 4.50% Senior Notes and amounts due under our Revolving Credit Facility are dependent on the generation of cash flow by our subsidiaries and their ability to make such cash available to us by dividend, loan, debt repayment or otherwise. Our subsidiaries that are not guarantors of our 4.625% Senior Notes, 4.50% Senior Notes or the Revolving Credit Facility have no obligation to pay amounts due on the 4.625% Senior Notes, 4.50% Senior Notes or the Revolving Credit Facility or to make funds available for that purpose. Our subsidiaries may not be able to, or may not be permitted to, make distributions to enable us to make payments in respect of our indebtedness. Each of our subsidiaries is a distinct legal entity and, under certain circumstances, legal and contractual restrictions may limit our ability to obtain cash from our subsidiaries. In the event that we do not receive distributions from our subsidiaries, we may be unable to make required interest and principal payments on the 4.625% Senior Notes, the 4.50% Senior Notes or our Revolving Credit Facility, or other indebtedness.

Our inability to receive distributions from our subsidiaries, otherwise generate sufficient cash flows to satisfy our debt obligations or refinance our indebtedness on commercially reasonable terms, or at all, would adversely affect our financial position and results of operations.

RISKS RELATED TO OUR COLLECTIVE BARGAINING AGREEMENTS.

Our failure to maintain satisfactory labor relations could adversely affect our business.

At December 31, 2022, approximately 66% of our employees were represented by labor unions under labor contracts with varying durations and expiration dates. Employees at our Trentwood and Newark, Ohio ("Newark") facilities are represented by the USW under a single contract that extends through September 2025. The USW also represents employees at six other facilities, one of which has a contract expiring in 2023. As part of any labor negotiation, the future wages, healthcare benefits and excise taxes that may result therefrom, and other benefits that we agree to, could adversely affect our future financial position, results of operations and cash flows. In addition, negotiations could divert management attention, result in unsatisfactory terms and conditions, fail in coming to any agreement at all or result in strikes, work stoppages or other union-initiated work actions, any of which could have an adverse effect on our financial position, results of operations and cash flows. Moreover, the existence of labor agreements may not prevent such union-initiated work actions.

Our participation in multi-employer union pension plans may have an adverse effect on our financial performance.

We participate in several multi-employer pension plans pursuant to our collective bargaining agreements. Our contribution amounts to these plans were established by collective bargaining and, along with benefit levels and related items, will be issues in our future collective bargaining negotiations. Based on the most recent information available to us, we believe some of these plans are underfunded and may require increased contributions from participating employers to fill the funding shortfall in the future. An employer that withdraws or partially withdraws from a multi-employer pension plan may incur a withdrawal liability for the portion of the plan's underfunding that is allocable to the withdrawing employer under very complex actuarial and allocation rules. The failure of a withdrawing employer to fund these obligations can increase the burden of the remaining participating employers to make up the funding shortfall, which could have an adverse effect on our financial position, results of operations and cash flows. The increase or decrease in our contributions to these multi-employer pension plans will depend on our future collective bargaining, actions taken by trustees who manage the plans, actions of other participating employers, government regulations and the actual return on assets held in the plans, among other factors.

An adverse decline in the liability discount rate, lower-than-expected investment return on pension assets and other factors could affect our business, financial condition, results of operations or amount of pension funding contributions in future periods.

Our results of operations may be negatively affected by the amount of expense we record for our pension and other postretirement benefit plans, reductions in the fair value of plan assets and other factors. We calculate income or expense for our plans using actuarial valuations in accordance with accounting principles generally accepted in the United States of America ("GAAP").

These valuations reflect assumptions about financial market and other economic conditions, which may change based on changes in key economic indicators. The most significant year-end assumptions we use to estimate pension or other postretirement benefit income or expense for the following year are the discount rate applied to plan liabilities and the expected long-term rate of return on plan assets. In addition, we are required to make an annual measurement of plan assets and liabilities, which may result in a significant charge to stockholders' equity. For more information, see Part II, Item 7. "Management's Discussion and Analysis of Financial Condition" under caption "Critical Accounting Estimates and Policies – Pension and Other Postretirement Benefits" included in this Report, as well as Note 5 of Notes to Consolidated Financial Statements included in this Report. Although GAAP expense and pension funding contributions are impacted by different regulations and requirements, the key economic factors that affect GAAP expense would also likely affect the amount of cash we would contribute to the pension plans.

Potential pension contributions include both mandatory amounts required under federal law and discretionary contributions to improve the plans' funded status. Higher than expected pension contributions due to a decline in the plans' funded status as a result of declines in the discount rate or lower-than-expected investment returns on plan assets could have a material negative effect on our cash flows. Adverse capital market conditions could result in reductions in the fair value of plan assets and increase our liabilities related to such plans, adversely affecting our liquidity and results of operations.

The USW has director nomination rights through which it may influence us, and interests of the USW may not align with our interests or the interests of our stockholders, debt holders and other stakeholders.

Pursuant to agreements we have with the USW, the USW has the right, subject to certain limitations, to nominate candidates which, if elected, would constitute 40% of our Board of Directors through December 31, 2025. As a result, the directors nominated by the USW have a significant voice in the decisions of our Board of Directors. It is possible that the USW may seek to extend the term of the agreement and its right to nominate board members beyond 2025.

RISKS RELATED TO ENVIRONMENTAL LAWS AND REGULATIONS AND ESG INITIATIVES.

Environmental compliance, cleanup and damage claims may decrease our cash flow and adversely affect our business.

We are subject to numerous environmental laws and regulations, including permitting and other administrative requirements, with respect to, among other things: (i) air and water emissions and discharges; (ii) the generation, storage, treatment, transportation and disposal of solid and hazardous materials; and (iii) the release of hazardous or toxic substances, pollutants and contaminants into the environment. In addition to environmental laws and regulations, environmental activists, lobbyists and consumers have targeted manufacturers for the purported impact of their operations on the environment. Compliance with existing and new environmental laws and standards or the implications of any actions by third parties are and may continue to be costly and, in some cases, unpredictable.

We have accrued and will accrue for costs that are reasonably expected to be incurred based on available information with respect to permits, fines, penalties and expenses for alleged breaches of, and compliance activities associated with, environmental laws and regulations in connection with our existing operations and investigations and environmental cleanup activities with respect to certain of our former operations. However, actual costs could exceed accrued amounts, perhaps significantly, and such expenditures could occur sooner than anticipated, which could adversely affect our financial position, results of operations and cash flows.

Additionally, we may be subject to new claims from governmental authorities or third parties related to alleged injuries to the environment, human health or natural resources, including claims with respect to waste disposal sites, the cleanup of sites currently or formerly used by us or exposure of individuals to hazardous materials. New laws or regulations or changes to existing laws and regulations may also be enacted that increase the cost or complexity of compliance. Costs related to any new investigation, cleanup or other remediation, fines or penalties, resolution of third-party claims or compliance with new or amended laws and regulations, including enhanced permitting requirements, may be significant and could have an adverse effect on our financial position, results of operations and cash flows.

Governmental regulation relating to greenhouse gas emissions may subject us to significant new costs and restrictions on our operations and could impact our supply chain and cost of material.

Laws enacted by governments, including the U.S. Congress, or policies of regulators, including the USEPA, could regulate greenhouse gas emissions through cap-and-trade systems, carbon taxes or other programs under which emitters would be required to buy allowances to offset emissions of greenhouse gas, pay carbon based taxes, make significant capital investments, alter manufacturing practices or curtail production. In addition, several states, including the state of Washington, in which we have manufacturing operations, have implemented and continue to consider various greenhouse gas regulation and reduction programs through legislative proposals, executive orders and ballot initiatives. Certain of our manufacturing plants use significant amounts of electricity and natural gas and certain of our plants emit amounts of greenhouse gas above certain minimum thresholds that have or may be imposed. While certain of our operations, including the melting of aluminum, require the use of natural gas to achieve the required temperatures, greenhouse gas regulations could restrict our access to natural gas and limit our ability to use natural gas and increase the price we pay for natural gas and electricity, any one of which could significantly increase our costs, reduce our competitiveness in the global economy or otherwise adversely affect our business, operations or financial results.

Furthermore, regulations or other targets for greenhouse gas emissions could impact the availability and price of energy and raw materials, which could ultimately lead to supply demand imbalances, higher costs and supply chain disruptions. Prolonged shortages or slowdowns could negatively impact our cost of goods and result in delays or non-delivery of shipments of our products. The future impact of these or other changes could be regulatory or voluntary and could impact our operations directly or indirectly through our customers or our supply chain. These potential impacts could have an adverse effect on our operations, financial position, results of operations and cash flows.

Expectations relating to ESG considerations expose us to potential liabilities, increased costs, reputational harm and other adverse effects on our business.

Many governments, regulators, investors, employees, customers and other stakeholders are increasingly focused on ESG considerations relating to businesses, including climate change and greenhouse gas emissions, human capital and diversity, equity and inclusion. We make statements about our ESG goals and initiatives through information provided on our website, press statements and other communications, including through our Corporate Sustainability Report. Responding to these ESG considerations and implementation of these goals and initiatives involves risks and uncertainties, including those described under "Forward-Looking Statements," requires investments and is impacted by factors that may be outside our control. In addition, some stakeholders may disagree with our goals and initiatives and the focus of stakeholders may change and evolve over time. Stakeholders also may have very different views on where ESG focus should be placed, including differing views of regulators in various jurisdictions in which we operate. Any failure, or perceived failure, by us to achieve our goals, further our initiatives, adhere to our public statements, comply with federal, state or international ESG laws and regulations or meet evolving and varied stakeholder expectations and standards could result in legal and regulatory proceedings against us that could materially adversely affect our business, reputation, results of operations, financial condition and stock price.

RISKS RELATED TO CYBERSECURITY AND PRIVACY.

We are subject to risks relating to our information technology systems.

We rely on information technology networks and systems to process, transmit and store electronic information, operate our business and communicate among our locations and with our customers, suppliers and other interested parties. Such information technology systems are subject to: (i) interruption or damage from power outages; (ii) cyber security breaches and other types of unauthorized access and/or use; and (iii) cyberattacks in the form of computer viruses, worms, malicious computer programs, denial-of-service attacks and other illegal or illicit means. Cyberattack and security breach strategies and methods continue to evolve and become more sophisticated. Accordingly, preventing intrusions and detecting successful intrusions and defending against them continues to be more difficult and requires ever-increasing vigilance.

A breach in cyber security could result in manipulation and destruction of sensitive data, cause critical systems to malfunction, be damaged or shut down and lead to disruption of our operations and production downtimes, potentially for lengthy periods of time. Theft of personal or other confidential data and sensitive proprietary information could also occur as a result of a breach in cyber security, exposing us to costs and liabilities associated with privacy and data security laws in the jurisdictions in which we operate. Additionally, a breach could expose us, our customers, our suppliers and our employees to risks of misuse of such information. Such negative consequences of cyberattacks or security breaches could adversely affect our reputation, competitive position, business or results of operations. The lost profits and increased costs related to cyber or other security threats or disruptions may not be fully insured against or indemnified by other means.

In addition, from time to time we may implement new technology systems or replace and/or upgrade our current information technology systems. These upgrades or replacements may not improve our productivity to the levels anticipated and may subject us to inherent costs and risks associated with implementing, replacing and updating these systems, including potential disruption of our internal control structure, substantial capital expenditures, demands on management time and other risks of delays or difficulties in transitioning to new systems or of integrating new systems into other existing systems. Our inability to prevent information technology system disruptions or to mitigate the impact of such disruptions could have an adverse effect on

RISKS RELATED TO TAX REGULATIONS.

We may not be able to utilize all of our net operating loss carryforwards.

Our ability to utilize our net operating loss carryforwards and other tax attributes could be limited to the extent they expire before we fully utilize them or if changes in federal or certain state tax laws reduce or eliminate our ability to use them to offset income taxes. Additionally, a change in our ownership, specifically a change in ownership of more than 50% during any period of 36 consecutive months ("ownership change"), as determined under the Internal Revenue Code of 1986 ("Code"), could reduce our ability to fully use our net operating loss carryforwards and other significant tax attributes.

Furthermore, our tax returns for certain past years are still subject to examination by taxing authorities, and the use of net operating loss carryforwards in future periods could trigger a review of attributes and other tax matters in years that are not otherwise subject to examination. After our net operating loss carryforwards and other significant tax attributes are fully utilized or if they become unavailable to us before we fully utilize them, our future income will not be shielded from federal and state income taxation and the funds otherwise available for general corporate purposes would be reduced.

We could engage in transactions involving our common shares that impair the use of our federal income tax attributes.

Section 382 of the Code affects our ability to use our federal income tax attributes, including our net operating loss carryforwards, following a more than 50% change in ownership during any period of 36 consecutive months, an ownership change, as determined under the Code. Certain transactions may be included in the calculation of an ownership change, including transactions involving our repurchase or issuance of our common shares. When we engage in any transaction involving our common shares that may be included in the calculation of an ownership change, our practice is to first perform the calculations necessary to confirm that our ability to use our federal income tax attributes will not be affected. These calculations are complex and reflect certain necessary assumptions. Accordingly, it is possible that we could engage in a transaction involving our common shares that causes an ownership change and inadvertently impairs the use of our federal income tax attributes. Furthermore, we may intentionally pursue a transaction that impairs the use of our federal income tax attributes if our strategy changes.

RISKS RELATED TO OUR COMMON STOCK.

Payment of dividends may not continue in the future and our payment of dividends and stock repurchases are subject to restrictions.

Our Board of Directors has declared a cash dividend for each quarter since the summer of 2007. In addition, our Board of Directors has authorized a stock repurchase program. The future declaration and payment of dividends and the purchase of our shares under the repurchase program, if any, are at the discretion of the Board of Directors and will depend on a number of factors, including our financial and operating results, including the availability of surplus and/or net profits, liquidity position, anticipated cash requirements and regulatory rules. Additionally, our Revolving Credit Facility and the indentures for our 4.625% Senior Notes and 4.50% Senior Notes impose limitations on our ability to pay dividends and repurchase our common shares. We can give no assurance that dividends will be declared and paid, that dividends will not be reduced or that purchases of our shares pursuant to our repurchase program will occur in the future.

Delaware law and our governing documents may impede or discourage a takeover, which could adversely affect the value of our common stock.

Provisions of Delaware law and our certificate of incorporation and bylaws may discourage a change of control of our company or deter tender offers for our common stock. We are currently subject to anti-takeover provisions under Delaware law. These anti-takeover provisions impose various impediments to the ability of a third party to acquire control of us. Additionally, provisions of our certificate of incorporation and bylaws impose various procedural and other requirements, which could make it more difficult for stockholders to effect certain corporate actions. For example, our certificate of incorporation authorizes our Board of Directors to determine the rights, preferences and privileges and restrictions of unissued shares of preferred stock without any vote or action by our stockholders. As a result, our Board of Directors can authorize and issue shares of preferred stock with voting or conversion rights that

could adversely affect the voting or other rights of holders of common stock. Our certificate of incorporation also divides our Board of Directors into three classes of directors who serve for staggered terms. A significant effect of a classified Board of Directors may be to deter hostile takeover attempts because an acquirer could experience delays in replacing a majority of directors. Moreover, stockholders are not permitted to call a special meeting.

RISKS RELATED TO PUBLICLY TRADED U.S. MANUFACTURING COMPANIES.

As a publicly traded U.S. manufacturing company, we are subject to a variety of other risks, each of which could adversely affect our financial position, results of operations or cash flows or the price of our common stock. These risks include but are not limited to:

- the ability to attract and retain key management and other personnel and develop effective succession plans;
- skills shortages in engineering, manufacturing, technology, construction and maintenance contractors and other labor market inadequacies;
- regulations that subject us to additional capital or margin requirements or other restrictions that make it more difficult to hedge risks associated with our business or increase the cost of our hedging activities;
- compliance with a wide variety of employment, minimum wage, health and safety laws and regulations and changes to such laws and regulations;
- new or modified legislation related to health care;
- pursuing growth through acquisitions, including the ability to identify acceptable acquisition candidates, finance and consummate acquisitions on favorable terms and successfully integrate acquired assets or businesses;
- protection of intellectual property, including patents, trademarks, trade secrets and copyrights, from infringement by others and the potential defense of claims, whether meritorious or not, alleging the unauthorized use of the intellectual property of others;
- the exertion of influence over us, individually or collectively, by a few entities with concentrated ownership of our stock;
- failure to meet the expectations of investors, including recent environmental, sustainability and governance expectations and other factors that are beyond the control of an individual company;
- disputes, legal proceedings or investigations, whether meritorious or not, with respect to a variety of matters, including matters related to personal injury, employees, taxes, contracts and product liability;
- taxation by multiple jurisdictions and the impact of such taxation on effective tax rate and the amount of taxes paid;
- · changes in tax laws and regulations; and
- compliance with Section 404 of the Sarbanes-Oxley Act of 2002, including the potential impact of compliance failures.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The following table provides information regarding the location, size and ownership of our principal production facilities as of December 31, 2022:

Location	Square footage	Owned or Leased
Chandler, Arizona (Extrusion)	110,000	Leased ¹
Chandler, Arizona (Tube)	103,000	Leased ²
Columbia, New Jersey	33,000	Owned
Florence, Alabama	249,000	Owned
Jackson, Tennessee	306,000	Owned
Kalamazoo, Michigan	465,000	Leased ²
London, Ontario (Canada)	306,000	Owned
Los Angeles, California	174,000	Owned
Newark, Ohio	1,284,000	Owned
Newburgh, Indiana (Warrick)	3,922,000	Owned/Leased ³
Richland, Washington	63,000	Leased ⁴
Richmond, Virginia (Bellwood)	474,000	Owned
Sherman, Texas	311,000	Owned
Spokane, Washington (Trentwood)	2,886,000	Owned/Leased ⁵
Total	10,686,000	

^{1.} The Chandler, Arizona (Extrusion) facility is subject to a lease with a 2023 expiration date, subject to certain extension rights held by us.

Production facilities and equipment are generally in good condition and suitable for their intended uses. For additional information regarding our production facilities, see the table under Item 1. Business "Resources - Manufacturing Processes" of this Report.

Item 3. Legal Proceedings

None.

Item 4. Mine Safety Disclosures

Not applicable.

^{2.} The Chandler, Arizona (Tube) and Kalamazoo, Michigan facilities are each subject to leases with terms that expire in 2033, subject to certain extension rights held by us.

The Warrick facility is owned by us, while the land where the rolling mill is located is subject to a lease with a 2081 expiration date and a renewal option subject to certain terms and conditions.

^{4.} The Richland, Washington facility is subject to a lease with a 2025 expiration date, subject to certain extension rights held by us.

The Trentwood facility consists of 2,765,000 square feet, which is owned by us, and 121,000 square feet, which is subject to a lease with a 2025 expiration date and a renewal option subject to certain terms and conditions.

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our outstanding common stock is traded under the ticker symbol "KALU" on the Nasdaq Global Select Market.

Holders

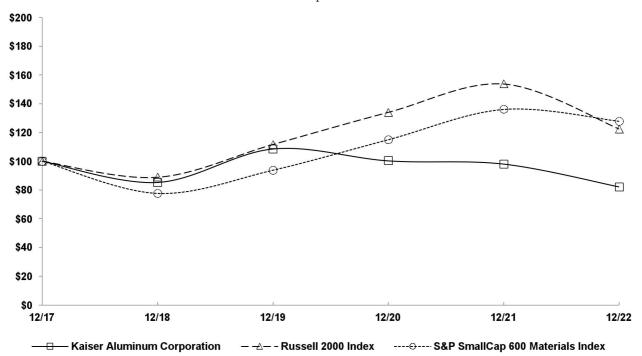
As of February 20, 2023, there were approximately 490 holders of record of our common stock.

Stock Performance Graph

The following graph compares the cumulative total shareholder return on our common stock with: (i) the Russell 2000 Index and (ii) the S&P SmallCap 600 Materials Index. We are a component of each of these indices. The graph assumes: (i) an initial investment of \$100 as of December 31, 2017 and (ii) reinvestment of all dividends. The performance graph is not necessarily indicative of the future performance of our stock price.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN

Among Kaiser Aluminum Corporation, the Russell 2000 Index and the S&P SmallCap 600 Materials Index



Issuer Repurchases of Equity Securities

The following table provides information regarding our repurchases of our common shares during the quarter ended December 31, 2022:

	Equity Inc Total Number of Shares Purchased ¹	Number Average of Shares Price			Stock Repurchase Pla Average Price per Share		Maximum Dollar Value of Shares that May Yet Be Purchased Under the Program (millions) ²	
October 1, 2022 - October 31, 2022	25	\$	65.42	_	\$	_	\$	93.1
November 1, 2022 - November 30, 2022	75		88.92	_		_		93.1
December 1, 2022 - December 31, 2022	_		_	_		_		93.1
Total	100	\$	83.04		\$	_		n/a

Under our equity incentive plan, participants may elect to have us withhold common shares to satisfy minimum statutory tax withholding obligations arising from the recognition of income and the vesting of restricted stock, restricted stock units and performance shares. When we withhold these shares, we are required to remit to the appropriate taxing authorities the market price of the shares withheld by us on the date of withholding. The withholding of common shares by us could be deemed a purchase of such common shares.

Item 6. [Reserved]

In September 2018, our Board of Directors authorized us to repurchase an indeterminate number of shares of our common stock at an aggregate market value of up to \$100.0 million. At December 31, 2022, \$93.1 million remained available to repurchase our common shares pursuant to the stock repurchase program. The September 2018 authorization does not have an expiration date.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included in Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K ("Report"). For a detailed discussion of items impacting the year ended December 31, 2020, as well as a year-to-year comparison of our financial position and results of operations for the years ended December 31, 2021 and December 31, 2020, refer to Part II, Item 7. "Management's Discussion and Analysis" of our Annual Report on Form 10-K for the years ended December 31, 2020 and 2021, respectively, filed with the Securities and Exchange Commission ("SEC") on February 26, 2021 and March 1, 2022, respectively.

Non-GAAP Financial Measures

This information contains certain non-GAAP financial measures. A non-GAAP financial measure is defined as a numerical measure of a company's financial performance that excludes or includes amounts so as to be different than the most directly comparable measure calculated and presented in accordance with generally accepted accounting principles ("GAAP") in the statements of income, balance sheets or statements of cash flows of the company. We have provided a reconciliation of non-GAAP financial measures to the most directly comparable financial measure in the accompanying tables. We have also provided discussion of the reasons we believe that presentation of the non-GAAP financial measures provide useful information to investors, as well as any additional ways in which we use the non-GAAP financial measures. The non-GAAP financial measures used in the following discussions are Conversion Revenue (defined as Net Sales less the Hedged Cost of Alloyed Metal, see below in "Metal Pricing Policies" discussion), earnings before interest, taxes, depreciation and amortization adjusted for non-run-rate items ("Adjusted EBITDA") and ratios related thereto. These measures are presented because management uses this information to monitor and evaluate financial results and trends and believes this information to also be useful for investors.

In the discussion of operating results below, we refer to certain items as "non-run-rate items." For purposes of such discussion, non-run-rate items are items that, while they may recur from period-to-period: (i) are particularly material to results; (ii) affect costs primarily as a result of external market factors; and (iii) may not recur in future periods if the same level of underlying performance were to occur. Non-run-rate items are part of our business and operating environment but are worthy of being highlighted for the benefit of readers of our financial statements. Our intent is to allow users of the financial statements to consider our results both in light of and separately from such items. For a reconciliation of Adjusted EBITDA to Net loss, see below in "Results of Operations - Selected Operational and Financial Information." Reconciliations of certain forward-looking non-GAAP financial measures to comparable GAAP measures are not provided because certain items required for such reconciliations are outside of our control and/or cannot be reasonably predicted or provided without unreasonable effort.

Changes in Presentation of Non-GAAP Financial Measures

Change from Value Added Revenue to Conversion Revenue. Beginning with the year ended December 31, 2022, we determined that we will rename our previously used non-GAAP financial measure, "value added revenue" or "VAR," to "Conversion Revenue." The change is based on discussions with staff of the SEC pertaining to comment letters received during 2022 and is intended to more clearly characterize the metric as a subcomponent of revenue. Separately, due to high inflationary trends and the historically unprecedented volatility of alloy costs starting in early 2022, we renegotiated certain customer contracts and amendments to existing contracts to replace future price adjustments based on higher commodity and alloy costs with adjustments that pass through commodity and alloy cost. In addition, effective January 1, 2022, we have determined that we will prospectively change our approach from including a portion of alloyed metal cost within Hedged Cost of Alloyed Metal to include all alloyed metal cost. Periods prior to 2022 have not been adjusted as these changes were deemed effective as of January 1, 2022. This approach further aligns the presentation with our business model objective of "metal price neutrality," as described below in our "Metal Pricing Policies" discussion. We have also expanded our disclosures regarding the nature of the costs included in the Hedged Cost of Alloyed Metal amounts in light of the comments from the SEC. See the table in "Results of Operations – Selected Operational and Financial Information" below for further details.

Change to Adjusted EBITDA. We have determined that we will revise our presentation of Adjusted EBITDA to no longer adjust our operating results for the impact of last-in, first-out ("LIFO") calculated on an annual basis to LIFO calculated on a monthly basis done at a plant level, previously identified as "Adjustments to plant-level LIFO." This change is based on discussions with the SEC pertaining to comment letters received during 2022. For comparability, references to prior periods' Adjusted EBITDA have been updated to show the effect of this change. See the table in "Results of Operations – Selected Operational and Financial Information" below for further details.

Metal Pricing Policies

Our pricing policies and hedging program are intended to significantly reduce or eliminate the impact on our profitability of fluctuations in the underlying price of primary and scrap, or recycled, aluminum, our main raw material, and certain alloys so that our earnings are predominantly associated with the conversion of aluminum to semi-fabricated mill products. To allow users of our financial statements to consider the impact of aluminum and alloy cost on our Net sales, we disclose Net sales as well as Conversion Revenue, which is Net sales less the Hedged Cost of Alloyed Metal. As used in this discussion, "Hedged Cost of Alloyed Metal" is the cost of aluminum at the average Midwest Transaction Price ("Midwest Price") plus the cost of alloying elements and any realized gains and/or losses on settled hedges related to the metal sold in the referenced period. The average Midwest Price of aluminum reflects the primary aluminum supply/demand dynamics in North America. For a reconciliation of Conversion Revenue to Net sales, see below in "Results of Operations - Selected Operational and Financial Information."

Molten Metal and Magnesium Supply Chain Issues

As we have previously discussed, our rolling mill facility located in Warrick County, Indiana ("Warrick") faced specific challenges with the September 2021 force majeure declaration of its primary magnesium supplier, US Magnesium, LLC ("US Mag"), which resulted in a significant reduction in deliveries while we were also being impacted by the operational challenges Alcoa Corporation was experiencing at its adjacent smelter, which supplies molten metal to Warrick. In June 2022, US Mag deliveries unexpectedly stopped while performance of the smelter also rapidly deteriorated, negatively impacting Warrick's operating efficiency and financial performance. As a result of the abrupt and unexpected decline in magnesium supply, on July 7, 2022, we declared force majeure at Warrick due to the limited availability of magnesium utilized in the production of our beverage and food packaging products, reducing our ability to produce those products at the time.

After successfully securing and qualifying magnesium from additional sources, on September 6, 2022 we announced that we had lifted our force majeure declaration and have now sourced Warrick's magnesium requirements through 2023 and beyond. We believe our supply base is now well diversified, as it is not reliant on any one single supplier or geographical region. In addition, the molten metal supply at Warrick has improved to an acceptable level and we have secured access to alternative sources of molten metal to further diversify our Warrick metal supply and mitigate the risk of further smelter operational disruptions.

Management Review of 2022 and Outlook for the Future

Review

The full year 2022 was a pivotal year in our evolution as we believe we laid the necessary groundwork to position ourselves for long-term, sustainable growth despite the numerous challenges we encountered, including unprecedented supply chain disruptions, inflationary cost pressures and labor turnover, which negatively impacted our financial performance. We continue to work with our customers to negotiate improvements to commodity price adjustments to mitigate the impact of inflationary and volatile commodity costs on our business and improve our margin profile. We are prioritizing investments in our growth through our roll coat capacity expansion project at Warrick, which we expect will become operational by mid-to-late 2024. In addition, we remain well positioned to service the recovery we have been experiencing in aerospace and continued demand for general engineering (plate) following the completion of a long planned, major outage at our Spokane, Washington ("Trentwood") facility in the third quarter of 2022.

Outlook

Looking ahead, we remain intently focused on continuing to pursue cost reductions in our operations, as well as improving efficiencies and implementing commercial actions to increase our margins. We believe the strategy we have in place should lead to improved performance in the year ahead with our full year 2022 Adjusted EBITDA representing a temporary low point. While our efforts will take time to manifest, we are confident in our ability to execute given our solid market position as a key supplier, diverse end markets with strong secular growth characteristics, deep customer relationships and multi-year contracts with strategic partners.

We remain well positioned to navigate the current demand environment prevailing in our end markets in 2023. We expect demand in commercial aerospace to continue to strengthen throughout 2023 towards levels before the Coronavirus Disease 2019 ("COVID-19") pandemic with both business jet and defense remaining strong. In our beverage and food packaging ("Packaging") end market, we expect our operations will return to more normalized levels in 2023 now that the most significant supply chain issues have been resolved, despite continuing impacts from higher metal costs and a lag in passing through certain costs. General engineering ("GE Products") end market demand is expected to soften for plate and rod and bar products on stable pricing levels as distributors destock inventories after taking advantage of lower metal prices in the second half of 2022. In the automotive end market ("Automotive Extrusions"), we do not expect a meaningful recovery until mid-to-late 2023.

We are cautiously optimistic our consolidated adjusted EBITDA margin (Adjusted EBITDA as a percentage of Conversion Revenue) will begin to strengthen in 2023 as we return to more normalized costs, improved efficiencies and continued commercial actions.

Results of Operations

Fiscal 2022 Summary

- Strong demand for GE products and Packaging;
- Increasing demand for our aerospace and high strength products ("Aero/HS products") within commercial aerospace while defense and business jet applications demand remained strong;
- Modest increase in Automotive Extrusions shipments as the market slowly continued to recover;
- Molten metal and magnesium supply chain issues impacted results;
- Diversification of our supply base to no longer be reliant on a single supplier or geographical region;
- Negotiated more efficient contained metal and alloy cost pass throughs and commodity price adjustments in our customer contracts to help mitigate the impact of higher material and other inflationary costs on our business;
- Completion of planned major outage, which included refurbishment of the large stretcher, at our Trentwood facility;
- As of December 31, 2022, we had \$615.2 million of combined cash and cash equivalents and net borrowing availability under our revolving credit facility with Wells Fargo Bank, National Association, as administrative agent, and the other financial institutions party thereto ("Revolving Credit Facility");
- We paid a total of approximately \$50.1 million, or \$3.08 per common share, in cash dividends to stockholders, including holders of restricted stock, and dividend equivalents to holders of certain restricted stock units during the year ended December 31, 2022, reflecting a 7% increase in the quarterly dividend compared with the prior year ended December 31, 2021.

Consolidated Selected Operational and Financial Information

The following data should be read in conjunction with our consolidated financial statements and the notes thereto included in Item 8. "Financial Statements and Supplementary Data" of this Report.

Net Sales. We reported Net sales for 2022 of \$3,427.9 million, compared to \$2,622.0 million for 2021. The increase in Net sales reflected a 132.6 million pound (12%) increase in shipment volume and a \$0.39/lb increase in average realized sales price per pound. The shipment volume increase reflected: (i) a 113.6 million pound (21%) increase in Packaging reflecting a full year of shipments during 2022 as a result of our Warrick acquisition, which was completed on March 31, 2021, partially impacted by reduced shipments in the second half of 2022 due to the third quarter force majeure event at Warrick; (ii) a 24.9 million pound (15%) increase in Aero/HS products reflecting continued strength in demand for our business jet and defense related applications, and improved demand for commercial aerospace as we continued to see the recovery in air travel and higher shipments of new aircraft from both major airframe producers, partially offset by constrained plate shipments during the quarter ended September 30, 2022 due to our planned major outage at our Trentwood facility; (iii) a 5.7 million pound (2%) increase in GE products reflecting continued strong underlying demand for semiconductor plate and industrial and machine tools; and (iv) a 2.5 million pound (3%) increase in Automotive Extrusions, which was relatively flat over prior year, driven by the shortage of semiconductors and industry supply chain issues that impacted the North American automotive production levels. The shipment volume increase was partially offset by a 14.1 million pound (54%) decrease in our other industrial end market application ("Other products"). The increase in average realized sales price per pound reflected a \$0.28/lb (21%) increase in average Hedged Cost of Alloyed Metal prices per pound and an \$0.11/lb (11%) increase in Conversion Revenue per pound reflecting higher pricing and surcharges to offset higher inflationary and commodity related costs. See the table in "Selected Operational and Financial Information" below for further detail

Cost of Products Sold, Excluding Depreciation and Amortization and Other Items ("Cost of products sold"). Cost of products sold for 2022 totaled \$3,180.2 million, or 93% of Net sales, compared to \$2,348.1 million, or 90% of Net sales, in 2021. The increase during 2022 compared to 2021 of \$832.1 million reflected: (i) a \$534.4 million increase in Hedged Cost of Alloyed Metal and (ii) a \$297.7 million increase in net manufacturing conversion and other costs. Of the \$534.4 million increase in Hedged Cost of Alloyed Metal, \$355.6 million was due to higher hedged metal cost and \$178.8 million was due to higher shipment volume, as discussed above in "Net Sales." The \$297.7 million increase in net manufacturing conversion and other costs was primarily due to: (i) a \$120.9 million increase related to higher sales, primarily due to a full year of shipments during 2022 as a result of our Warrick acquisition, which was

completed on March 31, 2021; (ii) an \$85.9 million increase in manufacturing costs due to lower efficiencies and higher employee related costs; (iii) \$49.8 million of higher benefits and overhead costs; (iv) \$28.4 million of higher energy, freight and metal costs driven by inflation, transportation bottlenecks and supply chain inefficiencies; and (v) \$8.3 million of higher planned major maintenance costs. See "Selected Operational and Financial Information" below for a further discussion of the comparative results of operations for 2022 and 2021.

Depreciation and Amortization. Depreciation and amortization for 2022 was \$106.9 million compared to \$91.5 million for 2021. The increase of \$15.4 million was primarily attributable to a full year of Warrick operations.

Selling, General, Administrative, Research and Development ("SG&A and R&D"). SG&A and R&D expense totaled \$110.9 million in 2022 compared to \$118.8 million in 2021. The decrease in 2022 compared with 2021 was primarily due to a \$16.8 million decrease in legal, consulting and outsourced service expenses primarily related to the completion of Warrick integration activities, partially offset by: (i) a \$6.7 million increase due to the addition of Warrick operations and (ii) a \$2.4 million increase in salaries and benefits.

Goodwill Impairment. Goodwill impairment of \$20.5 million for the year ended December 31, 2022 reflected our write-off of the goodwill we obtained from our acquisition of Warrick. See Note 4 of Notes to Consolidated Financial Statements included in this Report for further details.

Restructuring Costs (Benefit). Restructuring costs (benefit) reflects the impacts of our restructuring plans initiated in 2022 and 2020. See Note 12 of Notes to Consolidated Financial Statements included in this Report for further information regarding the restructuring plans.

Other Operating Charges (Income), Net. Other operating charges (income), net, of \$3.2 million for the year ended December 31, 2022 was primarily due to the impairment of our favorable commodity contract intangible asset. See Note 4 of Notes to Consolidated Financial Statements included in this Report for further details.

Interest Expense. Interest expense represents cash and non-cash interest expense incurred on our unsecured senior notes and our Revolving Credit Facility, net of capitalized interest. See Note 9 of Notes to Consolidated Financial Statements included in this Report for further information regarding interest expense, capitalized interest expense and a discussion of our debt and credit facilities that were in effect during each of the years 2022 and 2021.

Other Income (Expense), Net. See Note 9 and Note 13 of Notes to Consolidated Financial Statements included in this Report for details.

Income Tax Benefit. The income tax benefit for 2022 was \$8.3 million, resulting in an effective tax rate of 21.9%. The difference between the effective tax rate and the projected blended statutory tax rate for 2022 was primarily due to: (i) an increase of 3% due to various permanent items not deductible for tax purposes; (ii) an increase of 2% related to non-deductible compensation expense; and (iii) an increase of 1% related to state taxes, partially offset by a decrease of 6% related to a Federal Research and Development Credit.

The income tax benefit for 2021 was \$5.5 million, resulting in an effective tax rate of 22.9%. There was no material difference between the effective tax rate and the projected blended statutory tax rate for 2021.

Selected Operational and Financial Information

The following data should be read in conjunction with our consolidated financial statements and the notes thereto included in Part II, Item 8. "Financial Statements and Supplementary Data" of this Report.

The following table provides selected operational and financial information (in millions of dollars):

	Year Ended December 31,			31,
		2022		2021
Net loss	\$	(29.6)	\$	(18.5)
Interest expense		48.3		49.5
Other (income) expense, net		(6.4)		38.9
Income tax benefit		(8.3)		(5.5)
Depreciation and amortization		106.9		91.5
Non-run-rate items:				
Restructuring costs (benefit)		2.2		(8.0)
Mark-to-market loss on derivative instruments ¹		1.4		1.4
Goodwill impairment ²		20.5		_
Non-cash asset impairment charges		3.2		_
Net periodic post retirement service cost relating to Salaried VEBA		0.1		0.1
Environmental expenses ³		3.2		0.2
Acquisition costs ⁴		0.4		28.0
Total non-run-rate items		31.0		28.9
Adjusted EBITDA	\$	141.9	\$	184.8

Mark-to-market loss on derivative instruments for 2022 and 2021 represents loss on non-designated commodity hedges. Additionally, in 2021, the loss represents the reversal of mark-to-market loss on hedges entered into prior to the adoption of Accounting Standards Update No. 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities* and settled in the periods presented above. Adjusted EBITDA reflects the realized loss of such settlements.

Adjusted EBITDA for 2022 was \$42.9 million lower than Adjusted EBITDA for 2021. Adjusted EBITDA for 2022 reflected a full year of Packaging volume during 2022 as a result of our Warrick acquisition on March 31, 2021, offset by approximately \$73.0 million of incremental costs associated with magnesium and metal supply chain issues at our packaging operations, see above in "Molten Metal and Magnesium Supply Chain Issues," coupled with the planned outage at our Trentwood facility. In addition, we had inflation-driven higher energy, manufacturing and employee related cost that were not fully recovered through pricing increases. See above in "Consolidated Selected Operational and Financial Information" for further details.

See Note 4 of Notes to Consolidated Financial Statements included in this Report for additional information relating to the impairment of goodwill in 2022.

^{3.} Non-run-rate environmental expenses are related to legacy activities at operating facilities prior to July 6, 2006. See Note 10 of Notes to Consolidated Financial Statements included in this Report for additional information relating to the environmental expenses.

^{4.} Acquisition costs are non-run-rate acquisition-related transaction costs, which include professional fees, as well as non-cash hedging charges recorded in connection with our Warrick acquisition.

The following table provides our shipment and Conversion Revenue information (in millions of dollars, except shipments and Conversion Revenue per pound) by end market applications:

		Year Ended December 31,									
		2022						2021			
Aero/HS Products:											
Shipments (mmlbs)		186.5				16					
		\$		\$ / lb		\$		\$ / lb			
Net sales	\$	676.1	\$	3.63	\$	533.7	\$	3.30			
Less: Hedged Cost of Alloyed Metal		(319.8)		(1.72)		(219.0)		(1.35)			
Conversion Revenue	\$	356.3	\$	1.91	\$	314.7	\$	1.95			
Packaging:											
Shipments (mmlbs)			5.3			54	1.7				
		\$		\$ / lb		\$		\$ / lb			
Net sales	\$	1,585.3	\$	2.42	\$	1,119.3	\$	2.07			
Less: Hedged Cost of Alloyed Metal		(1,030.6)		(1.57)		(730.0)		(1.35)			
Conversion Revenue	\$	554.7	\$	0.85	\$	389.3	\$	0.72			
GE Products:											
Shipments (mmlbs)		30	3.9		298.2						
·		\$		\$ / lb	\$		\$ / lb				
Net sales	\$	883.8	\$	2.91	\$	706.1	\$	2.37			
Less: Hedged Cost of Alloyed Metal		(517.2)		(1.70)		(409.0)		(1.37)			
Conversion Revenue	\$	366.6	\$	1.21	\$	297.1	\$	1.00			
Automotive Extrusions:											
Shipments (mmlbs)		96	5.5			94	1.0				
		\$		\$ / lb	\$			\$ / lb			
Net sales	\$	254.8	\$	2.64	\$	225.0	\$	2.39			
Less: Hedged Cost of Alloyed Metal		(159.0)		(1.65)		(128.4)		(1.36)			
Conversion Revenue	\$	95.8	\$	0.99	\$	96.6	\$	1.03			
Other Products:											
Shipments (mmlbs)		12	2.0		26.1						
		\$		\$ / lb		\$		\$ / lb			
Net sales	\$	27.9	\$	2.33	\$	37.9	\$	1.45			
Less: Hedged Cost of Alloyed Metal		(18.6)		(1.55)		(24.4)		(0.93)			
Conversion Revenue	\$	9.3	\$	0.78	\$	13.5	\$	0.52			
Total:											
Shipments (mmlbs)		1,254.2 1,1				1,12	21.6				
1 ()		\$		\$ / lb		\$		\$ / lb			
Net sales	\$	3,427.9	\$	2.73	\$	2,622.0	\$	2.34			
Less: Hedged Cost of Alloyed Metal ^{1,2}	•	(2,045.2)	•	(1.63)		(1,510.8)		(1.35)			
Conversion Revenue	\$	1,382.7	\$	1.10	\$	1,111.2	\$	0.99			
	Ψ	_,50 ;	<u> </u>	1,10	Ť	_,	_				

Hedged Cost of Alloyed Metal for 2022 and 2021 was comprised of \$2,028.2 million and \$1,552.4 million, respectively, reflecting the cost of aluminum at the average Midwest Price and the cost of certain alloys used in the production process, as well as metal price exposure on shipments that we hedged with realized losses upon settlement of \$17.0 million in 2022 and realized gains upon settlement of \$41.6 million in 2021, all of which were included within both Net sales and Cost of products sold in our Statements of Consolidated (Loss) Income. See Note 8 of Notes to Consolidated Financial Statements included in this Report for the total realized loss (gain) on aluminum hedges for which we hedged the metal price exposure externally.

As previously described, effective January 1, 2022, we prospectively changed our approach of quantifying Hedged Cost of Alloyed Metal from including a portion of alloyed metal cost to include all alloyed metal cost. This prospective change resulted in the following decreases of Conversion Revenue by end market: (i) \$32.2 million of Aero/HS products; (ii) \$49.4 million of Packaging; (iii) \$22.4 million of GE products; (iv) \$7.1 million of Automotive extrusions; and (v) \$0.8 million of Other products, for a total decrease of \$111.9 million in 2022 compared to our historical presentation of this metric.

Liquidity and Capital Resources

Summary

The following table summarizes our liquidity (in millions of dollars):

	As of December 31,				
		2022		2021	
Available cash and cash equivalents	\$	57.4	\$	303.2	
Borrowing availability under Revolving Credit Facility, net of letters of credit ¹		557.8		367.3	
Total liquidity	\$	615.2	\$	670.5	

In April 2022, we executed Amendment No. 3 to our Revolving Credit Facility to, among other things: (i) increase the commitment to \$575.0 million; (ii) extend the maturity date; (iii) update our borrowing base; and (iv) update relevant benchmark provisions from London Interbank Offered Rate ("LIBOR") to Term Secured Overnight Financing Rate ("Term SOFR"). See Note 9 of Notes to Consolidated Financial Statements included in this Report for further details. Borrowing availability under the Revolving Credit Facility was determined by a borrowing base calculated as of December 31, 2022 and December 31, 2021 using the terms of the Revolving Credit Facility in effect as of those dates.

We place our cash in bank deposits and money market funds with high credit quality financial institutions. Cash equivalents primarily consist of money market funds, which are highly liquid.

See Note 16 of Notes to Consolidated Financial Statements included in this Report for information regarding restricted cash at December 31, 2022.

There were no borrowings under our Revolving Credit Facility during the years ending December 31, 2022 or December 31, 2021. See "Sources of Liquidity" below for a further discussion of subsequent borrowing activity.

Cash Flows

The following table summarizes our cash flows from operating, investing and financing activities (in millions of dollars):

		Year Ended December 31,				
		2022		2021		
Total cash (used in) provided by:						
Operating activities	\$	(63.1)	\$	79.4		
Investing activities	\$	(125.8)	\$	(665.8)		
Financing activities	\$	(56.8)	\$	109.1		

Cash used in operating activities for the year ended December 31, 2022 reflected results of business activity described within "Consolidated Selected Operational and Financial Information" above, as well as the following working capital changes: (i) an increase in inventory of \$120.8 million, primarily driven by higher inventory pounds built at our Warrick facility to mitigate the impact of supply chain disruptions related to magnesium and hot metal supply and at our Trentwood facility to prepare for the planned outages associated with our large stretcher refurbishment, as well as higher per pound inventory cost due to higher metal prices in ending inventory; (ii) a decrease in accounts payable of \$61.2 million, primarily due to timing of purchases and a decrease in period ending metal prices; and (iii) a decrease in accounts receivable of \$15.0 million due to the timing and mix of sales, as well as a decrease in period ending metal prices.

Cash provided by operating activities for the year ended December 31, 2021 reflected results of business activity for the year ended December 31, 2021, as well as the following working capital changes: (i) an increase in accounts payable of \$112.5 million, primarily driven by Warrick payables added during the year ended December 31, 2021 and higher metal cost; (ii) an increase in trade and other receivables of \$90.3 million, primarily driven by Warrick receivables added during the year ended December 31, 2021 and the remainder due to the timing and mix of sales and an increase in metal prices; and (iii) an increase in inventory of \$43.5 million due primarily to higher inventory pounds to satisfy increased demand, as well as a higher per pound inventory cost.

See Statements of Consolidated Cash Flows included in this Report for further details on our cash flows from operating, investing and financing activities for the years ended December 31, 2022 and December 31, 2021.

Sources of Liquidity

We believe our available cash and cash equivalents, borrowing availability under the Revolving Credit Facility and funds generated from operations are our most significant sources of liquidity, and that our Revolving Credit Facility and unsecured notes have covenants that allow us to operate our business with limited restrictions and significant flexibility for the foreseeable future. While we believe these sources will be sufficient to finance our working capital requirements, planned capital expenditures, investments, debt service obligations and other cash requirements for at least the next 12 months, and while we also believe that alternative sources of liquidity will remain available in the event we seek to add liquidity for opportunistic or other reasons in the future, our ability to fund such cash requirements will depend upon our future operating performance (which will be affected by prevailing economic conditions) and financial, business and other factors, some of which are beyond our control.

We do not believe that covenants contained in the Revolving Credit Facility are reasonably likely to limit our ability to raise additional debt or equity should we choose to do so during the next 12 months, nor do we believe it is likely that during the next 12 months we will trigger the availability threshold that would require measuring and maintaining a fixed charge coverage ratio.

At February 20, 2023, we had \$10.2 million in outstanding borrowings under the Revolving Credit Facility after repaying \$19.3 million on total borrowings of \$29.5 million incurred subsequent to December 31, 2022. See Note 9 of Notes to Consolidated Financial Statements included in this Report for a description of our Revolving Credit Facility.

We engage in certain customer-based supply chain financing programs to accelerate the receipt of payment for outstanding accounts receivable from certain customers. Costs of these programs are typically reimbursed to us by the customer. Receivables transferred under these customer-based supply chain financing programs generally meet the requirements to be accounted for as sales resulting in the derecognition of such receivables from our consolidated balance sheets. Receivables involved with these customer-based supply chain finance programs for the year ended December 31, 2022 constituted approximately 47% of our Net sales. See Note 1 of Notes to Consolidated Financial Statements included in this Report for further details with respect to these supply chain financing programs.

Debt

See Note 9 of Notes to Consolidated Financial Statements included in this Report for further details with respect to the 4.50% Senior Notes due 2031 ("4.50% Senior Notes") and 4.625% Senior Notes due 2028 ("4.625% Senior Notes") and the redemption of our 6.50% Senior Notes due 2025 ("6.50% Senior Notes").

We do not believe that covenants in the indenture governing the 4.50% Senior Notes and 4.625% Senior Notes are reasonably likely to limit our ability to obtain additional debt or equity financing should we choose to do so during the next 12 months.

Capital Expenditures and Investments

We strive to strengthen our competitive position across our end markets through strategic capital investment. Significant investments over the past decade have positioned us well with increased capacity and expanded manufacturing capabilities while more recent capital projects have focused on further enhancing manufacturing cost efficiency, improving product quality and promoting operational security, which we believe are critical to maintaining and strengthening our position in an increasingly competitive market environment. A significant portion of our capital spending over the past several years related to the modernization project at our Trentwood rolling mill, which focused on equipment upgrades throughout the process flow to reduce conversion costs, increase efficiency and further improve our competitive cost position on all products produced at our Trentwood facility. In addition, a significant portion of the investment also focused on modernizing legacy equipment and the process flow for thin gauge plate to achieve KaiserSelect® quality enhancements for these Aero/HS products and GE products. These improvements have allowed us to gain incremental manufacturing capacity to enable future sales growth. In 2022, we continued spending on our previously announced capital project to add a fourth roll coat line at our Warrick facility to increase our capacity for higher margin coated packaging product. Total capital expenditures were \$142.5 million in 2022, of which \$74.7 million related to the new roll coat line and \$67.8 million primarily related to critical sustaining capital projects, and \$58.0 million in 2021, primarily related to critical sustaining capital projects.

Our capital investment plans remain focused on supporting demand growth through capacity expansion, sustaining our operations, enhancing product quality and increasing operating efficiencies. We anticipate total capital spending in 2023 of approximately \$170.0 million to \$190.0 million, of which approximately 60% of total spending will be focused on growth initiatives, primarily reflecting continued investment in the new roll coat line at Warrick. We will continue to deploy capital thoughtfully to ensure that investment decisions align with demand expectations in order to maximize the earnings potential of the business and maintain financial strength and flexibility.

Capital investments will be funded using cash generated from operations, available cash and cash equivalents, borrowings under the Revolving Credit Facility and/or other third-party financing arrangements. The level of anticipated capital expenditures may be adjusted from time to time depending on our business plans, our price outlook for fabricated aluminum products, our ability to maintain adequate liquidity and other factors. No assurance can be provided as to the timing of any such expenditures or the operational benefits expected therefrom.

Dividends

We have consistently paid a quarterly cash dividend since the second quarter of 2007 to holders of our common stock, including holders of restricted stock, and have increased the dividend in each year since 2011. Nevertheless, as in the past, the future declaration and payment of dividends, if any, will be at the discretion of our Board of Directors and will depend on a number of factors, including our financial, including the availability of surplus and/or net profits, and operating results, financial position and anticipated cash requirements and contractual restrictions under our Revolving Credit Facility, the indentures for our 4.50% Senior Notes and 4.625% Senior Notes or other indebtedness we may incur in the future. We can give no assurance that dividends will be declared and paid in the future.

We also pay quarterly dividend equivalents to the holders of certain restricted stock units. Holders of performance shares are not paid a quarterly dividend equivalent, but instead are entitled to receive, in connection with the issuance of underlying shares of common stock for performance shares that ultimately vest, a one-time payment equal to the dividends such holder would have received if the number of such shares of common stock so issued had been held of record by such holder from the date of grant of such performance shares through the date of such issuance.

See our Statements of Consolidated Stockholders' Equity and Note 18 of Notes to Consolidated Financial Statements included in this Report for information regarding dividends declared during 2022 and 2021 and subsequent to December 31, 2022.

Repurchases of Common Stock

We suspended share repurchases as of March 2020. We will continue to assess share repurchases as a part of our capital allocation priorities and strategic investment opportunities identified to support further growth in our business. At December 31, 2022, \$93.1 million remained authorized and available for future repurchases of common stock under our stock repurchase program. See our Statements of Consolidated Stockholders' Equity included in this Report for information regarding minimum statutory tax withholding obligations arising during 2022 and 2021 in connection with the vesting of non-vested shares, restricted stock units and performance shares.

Environmental Commitments and Contingencies

See Note 10 of Notes to Consolidated Financial Statements included in this Report for information regarding our environmental commitments and contingencies.

Contractual Obligations, Commercial Commitments and Off-Balance Sheet Arrangements

The discussion below summarizes our significant contractual obligations, commercial commitments and off-balance sheet arrangements as of December 31, 2022.

Principal and Interest on 4.50% Senior Notes and 4.625% Senior Notes. See Note 9 of Notes to Consolidated Financial Statements included in this Report for information, including the timing of principal and interest payments, associated with our debt.

Standby Letters of Credit. Standby Letters of Credit represents letters of credit issued under our Revolving Credit Facility. The letters of credit provide financial assurance of our payment of obligations, primarily related to workers' compensation. The specific timing of payments with respect to such matters is uncertain. The letters of credit generally automatically renew every 12 months and terminate when the underlying obligations no longer require assurance or upon the maturity of our Revolving Credit Facility in April 2027. See Note 9 of Notes to Consolidated Financial Statements included in this Report for further information.

Uncertain Tax Liabilities. At December 31, 2022, we had uncertain tax positions which ultimately could result in tax payments. See Note 14 of Notes to Consolidated Financial Statements included in this Report for further information.

Deferred Compensation Plan Liability. As of December 31, 2022, we had deferred compensation plan liabilities for certain key employees, which were contingent upon investment performance, vesting and other eligibility requirements, including retirement

dates. See Note 5 of Notes to Consolidated Financial Statements included in this Report for further information, including the total expense related to all benefit plans.

Operating Leases. Operating lease liabilities represent multi-year obligations for certain manufacturing facilities, warehouses, office space and equipment as of December 31, 2022. See Note 3 of Notes to Consolidated Financial Statements included in this Report for the maturity of our lease liabilities associated with our operating lease portfolio.

Finance Leases. Finance lease liabilities represent non-cancelable capital commitments as of December 31, 2022. We expect finance leases to be funded through available cash generated from our operations, cash and cash equivalents, borrowings under our Revolving Credit Facility and/or other third-party financing arrangements. See Note 3 of Notes to Consolidated Financial Statements included in this Report for the maturity of our lease liabilities associated with our finance lease portfolio.

Pension and OPEB. See Note 5 of Notes to Consolidated Financial Statements included in this Report for additional information regarding the future net benefits we expect to pay with respect to our pension plans and our healthcare and life insurance postretirement benefit plan ("OPEB").

Salaried VEBA Variable Contributions. See Note 5 of Notes to Consolidated Financial Statements included in this Report for additional information regarding our variable cash contributions to the voluntary employees' beneficiary association ("VEBA") that provides benefits for certain eligible retirees and their surviving spouses and eligible dependents ("Salaried VEBA").

VEBA administrative fees. We are required to pay \$0.3 million in annual administrative fees related to the VEBA that provides benefits for eligible retirees represented by certain unions and their surviving spouses and eligible dependents through September 2025. See Note 5 of Notes to Consolidated Financial Statements included in this Report for additional information.

Purchase Obligations. Cash outlays for purchase obligations consist primarily of commitments to purchase primary aluminum, recycled scrap aluminum, other alloys, energy and equipment. We have various contracts with suppliers of metals that require us to purchase minimum quantities of these metals in future years based primarily at the associated metal price at the time of payment. We believe the minimum required purchase quantities are lower than our current requirements for these metals. Physical delivery commitments with energy companies are in place to cover our exposure to fluctuations in electricity and natural gas prices and are based on fixed contractual rates and quantities. Equipment purchase obligations are based on scheduled payments to equipment manufacturers.

Commitment Fees on Revolving Credit Facility. Future commitment fees on our Revolving Credit Facility are estimated based on the amount of unused credit under the facility at December 31, 2022 and assuming no extension of terms beyond the current maturity date of our Revolving Credit Facility, which is in April 2027. No borrowings were outstanding under our Revolving Credit Facility either throughout the year or as of December 31, 2022. See Note 9 of Notes to Consolidated Financial Statements included in this Report for additional information. See "Sources of Liquidity" above for a discussion of subsequent borrowing activity.

In addition to our off-balance sheet items discussed above:

- See Note 6 of Notes to Consolidated Financial Statements included in this Report for information regarding our participation in multiemployer pension plans.
- See Note 7 of Notes to Consolidated Financial Statements included in this Report for information regarding our long-term employee incentive plans. Additional equity awards are expected to be made to employees and non-employee directors in 2023 and future years.

Critical Accounting Estimates and Policies

Our consolidated financial statements are prepared in accordance with GAAP. In connection with the preparation of our financial statements, we are required to make assumptions and estimates about future events and apply judgments that affect the reported amounts of assets, liabilities, revenue and expenses and the related disclosures. We base our assumptions, estimates and judgments on historical experience, current trends and other factors that management believes to be relevant at the time our consolidated financial statements are prepared. On a regular basis, management reviews the accounting policies, assumptions, estimates and judgments to ensure that our financial statements are presented fairly and in accordance with GAAP. However, because future events and their effects cannot be determined with certainty, actual results could differ from our assumptions and estimates and such differences could be material.

In addition to the accounting estimates we discuss in Note 1 of Notes to Consolidated Financial Statements included in this Report, management believes that the following accounting estimates are critical to aid in fully understanding and evaluating our reported financial results and require management's most difficult, subjective or complex judgments, resulting from the need to make

estimates about the effects of matters that are inherently uncertain. Management has reviewed these critical accounting estimates and related disclosures with the Audit Committee of our Board of Directors.

Revenue Recognition.

We decide at the outset of entering into contracts with customers whether our performance obligations as specified in these contracts are satisfied over time or at a point in time. To recognize revenue over time means that we will need to synchronize revenue recognition with progress toward completion of the performance obligation.

If we have determined that revenue will be recognized over time for a specific customer order, the earliest point in our production process that we will recognize revenue will be the point that the product cannot be directed to another customer. In most cases, this happens at the time we begin to mold the ingot or billet, either by flat rolling the ingot or by extruding the billet through a die. For custom alloys, we would begin recognizing revenue over time at the point the custom alloy billet is cast.

Approximately 81% of our business is recognized at a point in time with the remaining 19% recognized over time.

We follow the input method of recognizing revenue over time. Under this approach, revenue is recognized on products in production based on the cost incurred to date plus a reasonable margin. Cost incurred to date is based on resources consumed, labor hours expended and other costs incurred relative to the total inputs expected in order to satisfy a performance obligation. Reasonable margins are estimated using an average margin of the respective production facility producing the product.

For purposes of recognizing revenue over time on products that are in work-in-process ("WIP") as of the period end, we make the assumption that the average margins at the respective production facilities are reasonably close to the individual product margins that are in WIP.

Although we believe that the judgments and estimates around recognizing revenue over time discussed herein are reasonable, actual results could differ and we may be exposed to losses or gains that could be material. A change in our estimated average margins by 5% would have had an impact of approximately \$0.2 million to Net (loss) income for the year ended December 31, 2022.

Income Tax.

We have tax attributes available to offset the impact of future income taxes. We have a process for determining the need for a valuation allowance with respect to these attributes. The process includes an extensive review of both positive and negative evidence including our earnings history, future earnings, adverse recent occurrences, carryforward periods, an assessment of the industry and the impact of the timing differences.

We expect to record a full statutory tax provision in future periods and, therefore, the benefit of any tax attributes realized will only affect future balance sheets and statements of cash flows.

Financial statements for interim periods include an income tax provision based on the effective tax rate expected to be incurred in the current year.

Inherent within the completion of our assessment of the need for a valuation allowance, we make significant judgments and estimates with respect to future operating results, timing of the reversal of deferred tax assets and current market and industry factors. In order to determine the effective tax rate to apply to interim periods, estimates and judgments are made (by taxable jurisdiction) as to the amount of taxable income that may be generated, the availability of deductions and credits expected and the availability of net operating loss carryforwards or other tax attributes to offset taxable income.

Making such estimates and judgments is subject to inherent uncertainties given the difficulty of predicting future tax rates, market conditions, customer requirements, the cost for key inputs such as energy and primary aluminum, overall operating efficiency and other factors. However, if, among other things: (i) actual results vary from our forecasts due to one or more of the factors cited above or elsewhere in this Report; (ii) income is distributed differently than expected among tax jurisdictions; (iii) one or more material events or transactions occur which were not contemplated; or (iv) certain expected deductions, credits or carryforwards are not available, it is possible that the effective tax rate for a year could vary materially from the assessments used to prepare the interim consolidated financial statements. See Note 14 of Notes to Consolidated Financial Statements included in this Report for additional discussion of these matters.

Although we believe that the judgments and estimates discussed herein are reasonable, actual results could differ and we may be exposed to losses or gains that could be material. A change in our effective tax rate by 1% would have had an impact of approximately \$0.4 million to Net (loss) income for the year ended December 31, 2022.

Acquisitions, Goodwill and Intangible Assets.

We account for acquisitions using the acquisition method of accounting, which requires the assets acquired and liabilities assumed to be recorded at the date of acquisition at their respective estimated fair values.

We recognize goodwill as of the acquisition date as the excess over the fair values of the identifiable net assets acquired. Goodwill is tested for impairment on an annual basis as well as on an interim basis as events and changes in circumstances occur.

Definite-lived intangible assets acquired are amortized over the estimated useful lives of the respective assets, to reflect the pattern in which the economic benefits of the intangible assets are consumed. In the event the pattern cannot be reliably determined, we use a straight-line amortization method. Whenever events or changes in circumstances indicate that the carrying amount of the intangible assets may not be recoverable, the intangible assets will be reviewed for impairment.

The judgments made in determining the estimated fair value assigned to each class of assets acquired and liabilities assumed, as well as asset lives, can significantly impact our results of operations. Fair values and useful lives of intangible assets are determined using the income approach valuation methodology, which is based on, among other factors, the expected future period of benefit of the asset, the various characteristics of the asset, long-term forecasts of the business, projected cash flows and the rate used in discounting those cash flows. As the determination of an asset's fair value and useful life involves management making certain estimates and because these estimates form the basis for the determination of whether or not an impairment charge should be recorded, these estimates are considered to be critical accounting estimates.

We do not believe there is a reasonable likelihood that there will be a material change in the estimates or assumptions we use to estimate the fair value of goodwill and intangible assets. Additionally, as of December 31, 2022, we do not believe any of our reporting units are at risk of failing the goodwill impairment test. However, if actual results are not consistent with our estimates and assumptions used in estimating future cash flows and fair values assigned to each class of assets acquired and liabilities assumed, we may be exposed to losses from impairment charges that could be material. For further details on goodwill and intangible assets, see Note 4 of Notes to Consolidated Financial Statements included in this Report.

Pension and Other Postretirement Benefits.

Liabilities and expenses for pension and other postretirement benefits are determined using actuarial methodologies and incorporate significant assumptions, including the interest rate used to discount the future estimated liability, the expected long-term rate of return ("LTRR") on plan assets and several assumptions relating to the employee workforce (salary increases, health care cost trend rates, retirement age and mortality). The most significant assumptions used in determining the estimated year-end obligations include the assumed discount rate and the LTRR.

In addition to the above assumptions used in the actuarial valuations, changes in plan provisions could also have a material impact on the net funded status of our pensions and other postretirement benefits. Additionally, our obligation to the Salaried VEBA is to pay an annual variable contribution amount based on the level of our cash flow. The funding status of the Salaried VEBA has no impact on our annual variable contribution amount. We have no control over any aspect of the plan. We rely on information provided to us by the Salaried VEBA administrator with respect to specific plan provisions such as annual benefits expected to be paid. See Note 5 of Notes to Consolidated Financial Statements included in this Report for additional information on our benefit plans.

Since the recorded obligation represents the present value of expected postretirement benefit payments over the life of the plans, decreases in the discount rate (used to compute the present value of the payments) would cause the estimated obligation to increase. Conversely, an increase in the discount rate would cause the estimated present value of the obligation to decline.

The LTRR on plan assets reflects an assumption regarding what the amount of earnings would be on existing plan assets (before considering any future contributions to the plan). Increases in the assumed LTRR would cause the projected value of plan assets available to satisfy postretirement obligations to increase, yielding a reduced net expense of these obligations. A reduction in the LTRR would reduce the amount of projected net assets available to satisfy postretirement obligations and, thus, cause the net expense of these obligations to increase.

A change in plan provisions could cause the estimated obligations to change. An increase in annual benefits expected to be paid would increase the estimated present value of the obligations and conversely, a decrease in annual benefits expected to be paid would decrease the estimated present value of the obligations.

The impact on the combined pension and other postretirement liabilities of a change in the weighted average discount rate of ¼ of 1% would be approximately \$3.5 million as of December 31, 2022, and would impact pretax earnings in 2023 by approximately \$0.3 million. A change in the assumption for the weighted average expected long-term rate of return on plan assets of ¼ of 1% would impact pretax earnings by approximately \$0.4 million for 2023.

New Accounting Pronouncements

For a discussion of all recently adopted and recently issued but not yet adopted accounting pronouncements, see Note 1 of Notes to Consolidated Financial Statements included in this Report.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The following quantitative and qualitative disclosures about market risk should be read in conjunction with Note 8 and Note 11 of Notes to Consolidated Financial Statements included in this Report. Our operating results are sensitive to changes in the prices of primary aluminum, certain alloying metals, natural gas, electricity and foreign currency, and also depend to a significant degree upon the volume and mix of products sold to customers. We have historically utilized hedging transactions to lock in a specified price or range of prices for certain products which we sell or consume in our production process, and to mitigate our exposure to changes in energy prices.

Aluminum

In 2022 and 2021, settlements of derivative contracts covering 271.9 million pounds and 187.2 million pounds, respectively, hedged shipments sold on pricing terms that created aluminum price risk for us. At December 31, 2022, we had derivative contracts with respect to approximately 60.5 million pounds and 2.5 million pounds to hedge sales to be made in 2023 and 2024, respectively, on pricing terms that create aluminum price risk for us.

Based on the aluminum derivative positions held by us to hedge firm-price customer sales agreements, we estimate that a \$0.10/lb decrease in the London Metal Exchange ("LME") market price of aluminum as of December 31, 2022 and December 31, 2021, with all other variables held constant, would have resulted in an unrealized mark-to-market loss of \$6.3 million and \$8.0 million, respectively, with corresponding changes to the net fair value of our aluminum derivative positions. Additionally, we estimate that a \$0.05/lb decrease in the Midwest premium for aluminum as of December 31, 2022 and December 31, 2021, with all other variables held constant, would have resulted in an unrealized mark-to-market loss of \$3.2 million and \$4.0 million, respectively, with corresponding changes to the net fair value of our aluminum derivative positions.

Alloying Metals

We are exposed to the risk of fluctuating prices of certain alloying metals, especially copper, zinc and magnesium, to the extent that changes in their prices do not highly correlate with price changes for aluminum. Copper, zinc, magnesium and certain other metals are used in our remelt operations to cast rolling ingot and extrusion billet with the proper chemistry for our products. From time to time, we enter into forward contract swaps and/or physical delivery commitments with third parties to mitigate our risk from fluctuations in the prices of these alloys. As of December 31, 2022, we had forward swap contracts with settlement dates designed to align with the timing of scheduled purchases of zinc and copper ("Alloying Metals") by our manufacturing facilities. We estimate that a \$0.10/lb decrease in the market price of Alloying Metals as of December 31, 2022 and December 31, 2021, with all other variables held constant, would have resulted in an unrealized mark-to-market loss of \$0.1 million and \$0.6 million, respectively, with corresponding changes to the net fair value of our Alloying Metals derivative positions.

Energy

We are exposed to risk of fluctuating prices for natural gas and electricity. We, from time to time, in the ordinary course of business, enter into hedging transactions and/or physical delivery commitments with firm prices with third parties to mitigate our risk from fluctuations in natural gas and electricity prices. We estimate that a \$1.00 per mmbtu decrease in natural gas prices would have resulted in an unrealized mark-to-market loss of \$3.5 million and \$5.2 million as of December 31, 2022 and December 31, 2021, respectively, with corresponding changes to the net fair value of our natural gas derivative positions. We estimate that a \$5.00 per Mwh decrease in electricity prices as of December 31, 2021, would have resulted in an unrealized mark-to-market loss of \$1.1 million with corresponding changes to the net fair value of our electricity derivative positions. As of December 31, 2022, we had no outstanding electricity derivative positions.

Foreign Currency

As of December 31, 2022, we hedged certain lease transactions and equipment purchases denominated in euros and British pounds using forward swap contracts with settlement dates through February 2024. We estimate that a 10% decrease in the exchange rate of our hedged foreign currencies to U.S. dollars would have resulted in \$0.1 million and an immaterial unrealized mark-to-market loss as of December 31, 2022 and December 31, 2021, respectively, with corresponding changes to the net fair value of our foreign currency derivative positions.

Our primary foreign exchange exposure is the operating costs of our London, Ontario facility. We estimate that a 10% change in the Canadian dollar exchange rate as of December 31, 2022 and December 31, 2021 would have resulted in an annual operating cost impact of \$2.6 million and \$2.2 million, respectively.

KAISER ALUMINUM CORPORATION AND SUBSIDIARY COMPANIES

Item 8. Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Kaiser Aluminum Corporation Franklin, Tennessee

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Kaiser Aluminum Corporation and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of (loss) income, comprehensive (loss) income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

Basis for Opinion

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM (CONTINUED)

prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue Recognition—Refer to Notes 1 and 17 to the financial statements

Critical Audit Matter Description

The Company recognizes revenue as it fulfills their performance obligations and transfers control of products to its customers. For products that have no alternative use and for which the Company has an enforceable right to payment (including a reasonable profit) throughout the production process, revenue is recognized over time. In general, revenue recognized over time primarily relates to the Company's Aero/HS products and Automotive Extrusions, with the revenue for the remainder of its products recognized at a point in time. For contracts recognized over time, control transfer occurs incrementally during the Company's production process as progress is made on fulfilling the performance obligation. The Company uses the input method of determining the progress, capturing direct costs beginning at the point that billet or cast ingot is introduced into production at either the extrusion phase or the rolling phase, respectively. For products in production, the Company recognizes revenue using the cost incurred to date plus an estimate of reasonable margin. As of December 31, 2022, net sales were \$3,427.9 million, of which \$645.0 million was recognized over time.

Given the volume of contracts that are recognized over time and the complexity of the determination of over time revenue, we identified revenue for over time contracts as a critical audit matter.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to revenue recognized over time, included the following, among others:

- · We tested management's controls over revenue recognized over time, including those over cost incurred to date and estimates of reasonable margin.
- · We tested the mathematical accuracy of management's calculation of revenue recognized over time.
- We selected a sample of contracts with customers and performed the following:
 - We evaluated whether the contracts were properly included in management's calculation of revenue recognized over time based on the terms and conditions of each contract.
 - o We tested that control transfer occurred as progress was made toward fulfilling the performance obligation.
- We evaluated the estimates of reasonable margin by developing a range of independent estimates and comparing our estimates to those used by management.
- We evaluated management's ability to accurately estimate reasonable margins by comparing actual margins to management's historical estimates.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM (CONTINUED)

Environmental Contingencies—Refer to Notes 1 and 10 to the financial statements

Critical Audit Matter Description

The Company is subject to a number of environmental laws and regulations, to potential fines or penalties assessed for alleged breaches of such laws and regulations and to potential claims based upon such laws and regulations. The Company records an environmental loss contingency whenever a contingency is probable and reasonably estimable. At December 31, 2022, the Company's \$17.7 million accrual for expected environmental costs is included in other accrued liabilities and long-term liabilities and represents the Company's undiscounted estimate of costs reasonably expected to be incurred based on presently enacted laws and regulations, existing requirements, currently available facts, existing technology and its assessment of the likely remediation actions to be taken.

We identified environmental contingencies as a critical audit matter because auditing management's estimate of the costs reasonably expected to be incurred for environmental contingencies involved especially subjective judgment and an increased extent of audit procedures, including the need to involve environmental specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's estimate of the costs reasonably expected to be incurred for environmental contingencies included the following, among others:

- We tested management's controls over environmental contingencies, including controls over the estimates of costs expected to be incurred.
- We evaluated management's ability to accurately estimate the costs expected to be incurred by comparing actual costs incurred to historical estimates.
- With the assistance of our environmental specialists, we evaluated the reasonableness of management's estimates of costs reasonably expected to be incurred by comparing the estimates to:
 - o Information obtained directly from the Company's external environmental specialists.
 - o Communications and feasibility studies the Company received from its regulators and other environmental associations, including Washington State Department of Ecology and Ohio Environmental Protection Agency.
 - o Information obtained directly from public domain searches.
 - o Actual costs incurred to date and the progress of management's remediation activities.

Business Combinations, Goodwill and Intangible Assets — Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

The Company's evaluation of goodwill for impairment involves the comparison of the fair value of each reporting unit to its carrying value. The Company estimates the fair value using a combination of an income approach and a market-based approach. The income approach incorporates the use of cash flow projections and a discount rate that are developed using market participant-based assumptions. The cash-flow projections are based on Company's best estimates of the long-term forecasts of the business, market prices, projected cash flows and the rate used in the discounting of those cash flows. The carrying value of the Warrick reporting unit exceeded the fair value as of the measurement date and, therefore, management has recognized an impairment of \$20.5 million as of December 31, 2022. Determining the fair values of the reporting unit requires management to make significant estimates and assumptions related to future revenue and earnings projections.

We identified the assumptions related to estimating the amount and timing of expected future revenue and earnings used in determining the fair values of the Warrick reporting unit as a critical audit matter because of the significant judgments involved in

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM (CONTINUED)

estimating these amounts. Performing audit procedures to evaluate the reasonableness of these estimates and assumptions required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the expected amount and timing of future revenue and earnings used to estimate the fair value of the Warrick reporting unit included the following, among others:

- We tested the effectiveness of controls over their goodwill impairment evaluation, including those over the determination of fair value of the Warrick reporting unit, such as controls related to management's selection of forecasts of future revenues and earnings.
- We assessed the reasonableness of management's forecasts of future revenues and earnings by performing inquiries of appropriate individuals outside
 of the finance organization, comparing the projections to historical results, contractual agreements, third-party industry forecasts, and internal
 communications to management and board of directors.
- With the assistance of our fair value specialists, we compared applicable industry forecasted long-term revenue growth rates to management's projected revenues used within the valuation models.
- · We evaluated whether the estimated future cash flows were consistent with evidence obtained in other areas of the audit.
- We evaluated management's ability to estimate future revenues and earnings by comparing actual revenues and earnings to management's historical forecasts.

/s/ Deloitte & Touche LLP

Costa Mesa, California February 23, 2023

We have served as the Company's auditor since 2002.

KAISER ALUMINUM CORPORATION AND SUBSIDIARY COMPANIES CONSOLIDATED BALANCE SHEETS

		As of Dec	ember 31,	
		2022	ember 51,	2021
		(In millions of do		share
ASSETS		and per sha	re amounts)	
Current assets:				
Cash and cash equivalents	\$	57.4	\$	303.2
Receivables:	•		•	
Trade receivables, net		297.2		332.7
Other		73.5		53.0
Contract assets		58.6		63.2
Inventories		525.4		404.6
Prepaid expenses and other current assets		30.5		48.7
Total current assets		1,042.6		1,205.4
Property, plant and equipment, net		1,013.2		955.2
Operating lease assets		39.1		46.2
Deferred tax assets, net		7.5		3.4
Intangible assets, net		55.3		67.7
Goodwill		18.8		39.3
Other assets		112.3		105.2
Total	\$	2,288.8	\$	2,422.4
LIABILITIES AND STOCKHOLDERS' EQUITY	<u>* </u>	,		, .
Current liabilities:				
Accounts payable	\$	305.1	\$	351.4
Accrued salaries, wages and related expenses	Ψ	45.2	Ψ	46.9
Other accrued liabilities		68.4		58.4
Total current liabilities	<u> </u>	418.7	_	456.7
Long-term portion of operating lease liabilities		35.4		40.8
Pension and other postretirement benefits		69.3		92.5
Net liabilities of Salaried VEBA		16.5		20.6
Deferred tax liabilities		4.9		10.5
Long-term liabilities		74.7		72.5
Long-term debt		1,038.1		1,036.3
Total liabilities	<u> </u>	1,657.6		1,729.9
Commitments and contingencies – Note 10		1,037.0		1,729.9
Stockholders' equity:				
Preferred stock, 5,000,000 shares authorized at both December 31, 2022 and				
December 31, 2021; no shares were issued and outstanding at				
December 31, 2022 and December 31, 2021		_		_
Common stock, par value \$0.01, 90,000,000 shares authorized at both				
December 31, 2022 and December 31, 2021; 22,776,042 shares issued and				
15,940,756 shares outstanding at December 31, 2022; 22,700,404 shares				
issued and 15,865,118 shares outstanding at December 31, 2021		0.2		0.2
Additional paid in capital		1,090.4		1,078.9
Retained earnings		13.3		93.0
Treasury stock, at cost, 6,835,286 shares at both December 31, 2022 and		(455.6)		(485.0)
December 31, 2021		(475.9)		(475.9)
Accumulated other comprehensive income (loss)		3.2		(3.7)
Total stockholders' equity	 	631.2		692.5
Total	\$	2,288.8	\$	2,422.4

KAISER ALUMINUM CORPORATION AND SUBSIDIARY COMPANIES STATEMENTS OF CONSOLIDATED (LOSS) INCOME

	Year Ended December 31,						
		2022		2021		2020	
		(In millions of dollars, except share					
Net sales	\$	3,427.9	\$	2,622.0	\$	1,172.7	
Costs and expenses:							
Cost of products sold, excluding depreciation and amortization							
and other items		3,180.2		2,348.1		941.3	
Depreciation and amortization		106.9		91.5		52.2	
Selling, general, administrative, research and development		110.9		118.8		91.2	
Goodwill impairment		20.5		_			
Restructuring costs (benefit)		2.2		(8.0)		7.5	
Other operating charges (income), net		3.2		_		(0.6)	
Total costs and expenses		3,423.9		2,557.6		1,091.6	
Operating income		4.0		64.4		81.1	
Other expense:							
Interest expense		(48.3)		(49.5)		(40.9)	
Other income (expense), net – Notes 9 and 13		6.4		(38.9)		(1.4)	
(Loss) income before income taxes		(37.9)		(24.0)		38.8	
Income tax benefit (provision)		8.3		5.5		(10.0)	
Net (loss) income	\$	(29.6)	\$	(18.5)	\$	28.8	
Net (loss) income per common share:							
Basic	\$	(1.86)	\$	(1.17)	\$	1.82	
Diluted	\$	(1.86)	\$	(1.17)	\$	1.81	
Weighted-average number of common shares outstanding (in thousands):							
Basic		15,906		15,836		15,802	
Diluted		15,906		15,836		15,913	

KAISER ALUMINUM CORPORATION AND SUBSIDIARY COMPANIES STATEMENTS OF CONSOLIDATED COMPREHENSIVE (LOSS) INCOME

Year Ended December 31,				
 2022		2021		2020
	(In million	s of dollars)		
\$ (29.6)	\$	(18.5)	\$	28.8
24.2		(1.6)		13.4
_		_		(0.3)
(17.3)		16.6		6.7
_		_		0.1
6.9		15.0		19.9
\$ (22.7)	\$	(3.5)	\$	48.7
	\$ (29.6) \$ 24.2 — (17.3) — 6.9	2022 2 2 (In million \$ (29.6) \$ 24.2	2022 2021 (In millions of dollars) \$ (29.6) \$ (18.5)	2022 2021 (In millions of dollars) \$ (29.6) \$ (18.5) \$

KAISER ALUMINUM CORPORATION AND SUBSIDIARY COMPANIES STATEMENTS OF CONSOLIDATED STOCKHOLDERS' EQUITY

	Common Shares Outstanding	_	Common Stock (In mil		Additional Paid In Capital of dollars, exc	Ea	tained rnings are and per	 reasury Stock	Accumulated Other Comprehensi ve (Loss) Income	 Total
BALANCE, December 31, 2019	15,868,304	\$	0.2	\$	1,062.9	\$	172.8	\$ (463.4)	\$ (38.6)	\$ 733.9
Net income							28.8			28.8
Other comprehensive income, net of tax	_		_		_		_	_	19.9	19.9
Common shares issued (including impacts from Long-Term Incentive programs)	142,173		_		0.4		_	_	_	0.4
Cancellation of shares to cover employees' tax withholdings upon vesting of non-vested shares	(45,545)		_		(4.3)		_	_	_	(4.3)
Repurchase of common stock ¹	(152,763)		_		`—´		_	(12.5)	_	(12.5)
Cash dividends declared ²			_		_		(43.4)	` — `	_	(43.4)
Amortization of unearned equity compensation					9.6					9.6
BALANCE, December 31, 2020	15,812,169	\$	0.2	\$	1,068.6	\$	158.2	\$ (475.9)	\$ (18.7)	\$ 732.4
Net loss		-		-			(18.5)			(18.5)
Other comprehensive income, net of tax	_		_		_		_	_	15.0	15.0
Common shares issued (including impacts from Long-Term Incentive programs)	75,748		_		0.3		_	_	_	0.3
Cancellation of shares to cover employees' tax withholdings upon vesting of non-vested shares	(22,799)		_		(2.6)		_	_	_	(2.6)
Cash dividends declared ²	_		_				(46.7)	_	_	(46.7)
Amortization of unearned equity compensation					12.6					12.6
BALANCE, December 31, 2021	15,865,118	\$	0.2	\$	1,078.9	\$	93.0	\$ (475.9)	\$ (3.7)	\$ 692.5
Net loss	_		_		_		(29.6)	_	_	(29.6)
Other comprehensive income, net of tax	_		_		_		_	_	6.9	6.9
Common shares issued (including impacts from Long-Term Incentive programs)	107,494		_		0.6		_	_	_	0.6
Cancellation of shares to cover employees' tax withholdings upon vesting of non-vested shares	(31,856)		_		(2.8)		_	_	_	(2.8)
Cash dividends declared ²	_		_		_		(50.1)	_	_	(50.1)
Amortization of unearned equity compensation					13.7			 		 13.7
BALANCE, December 31, 2022	15,940,756	\$	0.2	\$	1,090.4	\$	13.3	\$ (475.9)	\$ 3.2	\$ 631.2

^{1.} Weighted-average repurchase price (dollars per share) was \$81.94 for the year ended December 31, 2020.

Dividends declared per common share were \$3.08, \$2.88 and \$2.68 during 2022, 2021 and 2020, respectively.

KAISER ALUMINUM CORPORATION AND SUBSIDIARY COMPANIES

STATEMENTS OF CONSOLIDATED CASH FLOWS

	Year Ended December 31,		
	2022	2021	2020
		In millions of dollars)	
Cash flows from operating activities:		,	
Net (loss) income	\$ (29.6)	\$ (18.5)	\$ 28.8
Adjustments to reconcile net (loss) income to net cash provided by operating activities:	, ,	· · ·	
Depreciation of property, plant and equipment	97.6	82.5	49.3
Amortization of definite-lived intangible assets	9.3	9.0	2.9
Amortization of debt premium and debt issuance costs	2.3	2.1	2.0
Deferred income taxes	(12.0)	(11.4)	15.2
Non-cash equity compensation	14.3	12.9	10.0
Non-cash asset impairment charges	23.7	_	0.5
Loss on extinguishment of debt	_	35.9	_
(Gain) loss on disposition of property, plant and equipment	(6.0)	(0.5)	0.2
Gain on reimbursement on certain machinery and equipment – Note 13	(6.0)	`	_
Loss (gain) on disposition of short-term investments	`	_	(0.7)
Non-cash defined benefit net periodic postretirement benefit cost	13.1	9.4	5.2
Changes in operating assets and liabilities, net of effects of acquisition:			
Trade and other receivables	15.0	(90.3)	60.8
Contract assets	4.6	(27.1)	18.5
Inventories	(120.8)	(43.5)	25.6
Prepaid expenses and other current assets	(1.5)	(0.9)	(6.8)
Accounts payable	(61.2)	112.5	(5.9)
Accrued liabilities	4.4	17.3	(0.6)
Annual variable cash contributions to Salaried VEBA	_	(1.7)	(2.9)
Long-term assets and liabilities, net	(10.3)	(8.3)	4.8
Net cash (used in) provided by operating activities	(63.1)	79.4	206.9
Cash flows from investing activities ¹ :	(05.1)	75.4	200.5
Capital expenditures	(142.5)	(58.0)	(51.9)
Purchase of short-term investments	(142.5)	(50.0)	(39.1)
Purchase of equity securities	(0.3)	(0.4)	(0.5)
Proceeds from disposition of short-term investments	(0.5)	(0.4)	118.1
•	_	(609.2)	110.1
Cash payment for acquisition of Warrick, net of cash received – Note 4	6.0	(609.2)	_
Gain on reimbursement on certain machinery and equipment – Note 13		1.0	0.3
Proceeds from disposal of property, plant and equipment	11.0	1.8	
Net cash (used in) provided by investing activities	(125.8)	(665.8)	26.9
Cash flows from financing activities ¹ :		(000.0)	
Repayment of principal and redemption premium of 6.50% Senior Notes	_	(380.9)	_
Issuance of 4.50% Senior Notes	_	550.0	_
Issuance of 6.50% Senior Notes	_	_	350.0
Cash paid for debt issuance costs	(1.8)	(8.6)	(6.2)
Repayment of finance lease	(2.1)	(2.1)	(1.7)
Cancellation of shares to cover employees' tax withholdings upon vesting of non-vested shares	(2.8)	(2.6)	(4.3)
Repurchase of common stock	_	_	(12.5)
Cash dividends and dividend equivalents paid	(50.1)	(46.7)	(43.4)
Net cash (used in) provided by financing activities	(56.8)	109.1	281.9
Net (decrease) increase in cash, cash equivalents and restricted cash during the period	(245.7)	(477.3)	515.7
Cash, cash equivalents and restricted cash at beginning of period	317.0	794.3	278.6
Cash, cash equivalents and restricted cash at end of period	\$ 71.3	\$ 317.0	\$ 794.3

See Note 16 for supplemental disclosure of cash flow information.

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1. Summary of Significant Accounting Policies

In this Annual Report on Form 10-K (this "Report"), unless the context otherwise requires, references in these notes to consolidated financial statements to "Kaiser Aluminum Corporation," "Kaiser," "we," "us," "our," "the Company" and "our Company" refer collectively to Kaiser Aluminum Corporation and its subsidiaries.

Organization and Nature of Operations. Kaiser Aluminum Corporation specializes in the production of semi-fabricated specialty aluminum mill products, such as aluminum plate and sheet, bare and coated coil and extruded and drawn products, for the following end market applications: (i) aerospace and high strength ("Aero/HS products"); (ii) beverage and food packaging ("Packaging"); (iii) general engineering ("GE products"); (iv) automotive ("Automotive Extrusions"); and (v) other industrial ("Other products"). Our business is organized into one operating segment. See Note 17 for additional information regarding our business, product and geographical area information and concentration of risk.

Principles of Consolidation and Basis of Presentation. Our consolidated financial statements include the accounts of our wholly owned subsidiaries and are prepared in accordance with United States generally accepted accounting principles ("GAAP") and the rules and regulations of the Securities and Exchange Commission ("SEC"). Intercompany balances and transactions are eliminated.

Use of Estimates in the Preparation of Financial Statements. The preparation of financial statements in accordance with GAAP requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities known to exist as of the date the financial statements are published and the reported amounts of revenues and expenses during the reporting period. Uncertainties with respect to such estimates and assumptions are inherent in the preparation of our consolidated financial statements; accordingly, it is possible that the actual results could differ from these estimates and assumptions, which could have a material effect on the reported amounts of our consolidated financial position and results of operations.

Supply Chain Financing. Upon our acquisition of Warrick (as defined in Note 4), we became party to several supply chain financing arrangements, in which we may sell certain of our customers' trade accounts receivable to such customers' financial institutions without recourse. We sell our undivided interests in certain of these receivables at our discretion when we determine that the cost of these arrangements is less than the cost of servicing our receivables with existing debt. Under the terms of the agreements, we retain no rights or interest, have no obligations with respect to the sold receivables and do not service the receivables after the sale. As such, these transactions are being accounted for as a sale. During the years ended December 31, 2022 and December 31, 2021, we sold trade accounts receivable totaling \$1,589.3 million and \$1,102.8 million, respectively, related to these supply chain financing arrangements, of which our customers' financial institutions applied discount fees totaling \$23.3 million and \$6.2 million, respectively. To the extent discount fees related to the sale of trade accounts receivable under supply chain financing arrangements are not reimbursed by our customers, they are included in Other income (expense), net. As of December 31, 2022, we had been and/or expected to be fully reimbursed by our customers for a majority of these discount fees.

Fair Value Measurements. We apply the fair value hierarchy established by GAAP for the recognition and measurement of certain financial assets and liabilities. An asset or liability's fair value classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. In determining fair value, we utilize valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible and consider counterparty risk in our assessment of fair value. We also review the underlying inputs that are significant to the fair value measurement of financial instruments to determine if a transfer among hierarchy levels is appropriate.

Financial assets and liabilities that we measure at fair value each period include our derivative instruments and equity investments related to our deferred compensation plan (see Note 5 and Note 8). Additionally, we measure at fair value once each year at December 31 the plan assets of our defined benefit pension and postretirement plans including the Salaried VEBA (defined in Note 5). In determining the fair value of the plan assets at an annual period end, we utilize primarily the results of valuations supplied by the investment advisors responsible for managing the assets of each plan, which we independently review for reasonableness. We record our remaining financial assets and liabilities at carrying value.

Goodwill is tested for impairment during the fourth quarter on an annual basis, as well as on an interim basis, as warranted, at the time of relevant events and changes in circumstances. Our evaluation of goodwill for impairment involves the comparison of the fair value of each reporting unit to its carrying value. We estimate the fair value of a reporting unit using a combination of an income approach and a market-based approach. Intangible asset fair values and useful lives are determined using the income approach valuation methodology. The income approach incorporates the use of cash flow projections and a discount rate that are developed using market participant-based assumptions. The cash flow projections are based on, among other factors, the expected future period

of benefit of the asset, the various characteristics of the asset, long-term forecasts of the business, market prices, projected cash flows and the rate used in discounting those cash flows. Intangible assets with definite lives are initially recognized at fair value and subsequently amortized over the estimated useful lives to reflect the pattern in which the economic benefits of the intangible assets are consumed. In the event the pattern cannot be reliably determined, we use a straight-line amortization method. Whenever events or changes in circumstances indicate that the carrying amount of the intangible assets may not be recoverable, the intangible assets are reviewed for impairment. See Note 4 for a discussion of our business acquisition, goodwill impairment and intangible asset impairment.

For a majority of our remaining non-financial assets and liabilities, which include inventories, debt issuance costs and property, plant and equipment, we are not required to measure their fair value on a recurring basis. However, if certain triggering events occur, an evaluation of the affected non-financial asset or liability will be required, which could result in a reduction to the carrying amount of such asset or liability. See "Property, Plant and Equipment, Net" below for a discussion of impairment charges on idled assets recorded during 2020. See Note 9 for the fair value of our Long-term debt.

Government Grants. From time to time, we receive grants from certain governmental agencies such as states and municipalities. We recognize government grants when we have reasonable assurance that we will comply with any conditions attached to the grant and the grant will be received. Government grants related to property, plant and equipment are presented as a reduction to the related asset's carrying amount. Grants related to compensation for expenses already incurred or for immediate financial support with no future related costs are recognized as income in the period in which they are receivable. The following table presents the total government assistance recognized during the year ended December 31, 2022 (in millions of dollars):

Grantor	Grant	Amount	Duration	Classification
Tennessee Department of Economic and				
Community Development	TN Fast Track	\$ 1.1	2021 - 2028	Property, plant and equipment, net
Tennessee Department of Economic and Community Development	TN Fast Track	0.2	2021 - 2028	Selling, general, administrative, research and development
Tennessee Valley Authority	Performance	0.3	2021 - 2026	Property, plant and equipment, net
Indiana Economic Development			2021 2020	Cost of products sold, excluding depreciation and
Corporation	IN EDGE Tax Credit	1.6	2021 - 2030	amortization and other items
Indiana Department of Workforce				Cost of products sold, excluding depreciation and
Development	Employer Training Grant	0.1	2022	amortization and other items
Total		\$ 3.3		

To be eligible to receive and keep the full amount of the TN Fast Track and Performance grants, we must achieve: (i) minimum cumulative expenditures towards developmental and/or capital expenditures; (ii) a minimum number of new full-time employees; and (iii) a minimum average annual wage, all within seven years of our execution of the grant agreement. To be eligible to receive and keep the full amount of the IN EDGE Tax Credit, we must achieve: (i) minimum cumulative expenditures towards capital expenditures and (ii) a minimum number of full-time employees.

Cash and Cash Equivalents. We consider only those short-term, highly liquid investments which, when purchased, have maturities of 90 days or less to be cash equivalents. Our cash equivalents consist primarily of funds in money market funds, which are classified within Level 1 of the fair value hierarchy.

Restricted Cash. We are required to keep on deposit certain amounts that are pledged or held as collateral relating to workers' compensation and other agreements. We account for such deposits as restricted cash (see Note 16). From time to time, such restricted funds could be returned to us or we could be required to pledge additional cash.

Available for Sale Securities. We have historically accounted for investments in certain marketable debt securities with maturities of greater than 90 days as available for sale securities. Such securities were recorded at fair value with net unrealized gains and losses, net of income taxes, reflected in Accumulated other comprehensive income (loss) as a component of Stockholders' equity.

Realized gains and losses from the sale of available for sale securities, if any, were determined on a specific identification basis. We settled all outstanding available for sale securities during the year ended December 31, 2020.

Trade Receivables and Allowance for Credit Losses. Trade receivables primarily consist of amounts billed to customers for products sold. Accounts receivable are generally due within 30 to 90 days. For the majority of our receivables, we establish an allowance for credit losses based upon collection experience and other factors including, but not limited to, customer credit ratings, bankruptcy filings, published or estimated credit default rates, age of receivables, expected loss rates and collateral exposures. On certain other receivables where we are aware of a specific customer's inability or reluctance to pay, an allowance for credit losses is established against amounts due, to reduce the net receivable balance to the amount we reasonably expect to collect. However, if circumstances change, our estimate of the recoverability of accounts receivable could be different. Circumstances that could affect our estimates include, but are not limited to, customer credit issues and general economic conditions. Accounts are written off once deemed to be uncollectible. Any subsequent cash collections relating to accounts that have been previously written off are typically recorded as a reduction to total bad debt expense in the period of payment. Write-offs for 2022, 2021 and 2020 were immaterial to our consolidated financial statements.

Inventories. Inventories are stated at the lower of cost or market value. Finished products, work-in-process and raw material inventories are stated on the last-in, first-out ("LIFO") basis. At December 31, 2022 and December 31, 2021, the cost of our inventory on a first-in, first-out ("FIFO") basis, which approximates the current replacement cost, exceeded its stated LIFO value by \$84.6 million and \$137.1 million, respectively. Other inventories are stated on the FIFO basis and consist of operating supplies, which are materials and supplies to be consumed during the production process. Inventory costs consist of material, labor and manufacturing overhead, including depreciation. Abnormal costs, such as idle facility expenses, freight, handling costs and spoilage, are accounted for as current period charges. See Note 2 for the components of inventories.

Replacement Parts. Replacement parts consist of preventative maintenance and capital spare parts, which are stated on the FIFO basis. Replacement parts are recorded within Prepaid expenses and other current assets or Other assets depending on whether or not the expected utilization of the replacement parts is to occur within the next 12 months.

Property, Plant and Equipment, Net. Property, plant and equipment, net, is recorded at cost and includes construction in progress (see Note 2). Property, plant and equipment acquired in the Warrick (as defined in Note 4) acquisition was recorded at fair value as of the date of acquisition. Interest related to the construction of qualifying assets is capitalized as part of the construction costs (see Note 9).

Depreciation is computed using the straight-line method at rates based on the estimated useful lives of the various classes of assets. Depreciable finance lease assets and leasehold improvements are amortized on a straight-line basis over the shorter of the estimated useful lives of the assets or the lease term. The estimated useful lives are as follows:

	Kange (in years)
Land improvements	1-25
Buildings and leasehold improvements	2-45
Machinery and equipment	1-22
Depreciable finance lease assets	2-120

Depreciation expense is not included in Cost of products sold, but is included in Depreciation and amortization.

Property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset or group of assets may not be recoverable. We regularly assess whether events and circumstances with the potential to trigger impairment have occurred and rely on a number of factors, including operating results, business plans, economic projections and anticipated future cash flow, to make such assessments. We use an estimate of the future undiscounted cash flows of the related asset or asset group over the estimated remaining life of such asset or asset group in measuring whether the asset or asset group is recoverable.

There were no impairment charges in 2022 and 2021. We recorded impairment charges of \$0.5 million in 2020 to reflect the scrap value of idled assets we determined not to deploy for future use. Asset impairment charges are included in Other operating charges (income), net, in our Statements of Consolidated (Loss) Income.

We classify assets as held for sale only when an asset is being actively marketed and expected to sell within 12 months. Assets held for sale are initially measured at the lesser of the assets' carrying amount and the fair value less costs to sell.

Cloud Computing Implementation Costs. We defer implementation costs associated with a software hosting arrangement that meets the definition of a service contract. We recognize these deferred costs within Prepaid expenses and other current assets and within Other assets on our Consolidated Balance Sheets. When the project is placed into service, we amortize the deferred implementation costs over the term of the hosting arrangement inclusive of expected renewal periods to the same line item in the Statements of Consolidated (Loss) Income as the underlying arrangement. The following table summarizes the total deferred implementation costs and accumulated amortization related to the hosted cloud computing software for our enterprise resource planning system refresh project (in millions of dollars):

		As of December 31,	,	Average
	202	22	2021	Useful Life
Deferred implementation costs	\$	10.4 \$	7.8	9 years
Accumulated amortization	\$	(1.1) \$	(0.1)	n/a

We recorded amortization expense of \$1.0 million, \$0.1 million and zero in 2022, 2021 and 2020, respectively.

Leases. We determine whether an agreement is a lease at inception. We have operating and finance leases for equipment and real estate that primarily have fixed lease payments. For purposes of calculating lease liabilities, options to extend or terminate a lease are included within the lease term when it is reasonably certain that we will exercise such options. Short-term leases with an initial term of 12 months or less are not recorded on our Consolidated Balance Sheets.

As most of our leases do not provide an implicit rate, we use information available at the lease commencement date in determining an incremental borrowing rate when calculating our right-of-use lease assets and liabilities. In determining the inputs to the incremental borrowing rate calculation, we make judgments about the value of the leased asset, our credit rating and the lease term, including the probability of our exercising options to extend or terminate the underlying lease. Additionally, we make judgments around contractual asset substitution rights in determining whether a contract contains a lease.

We have lease agreements with lease and non-lease components, which are generally accounted for separately. These non-lease components include items such as common area maintenance, taxes and insurance for our real estate leases, as well as maintenance charges related to our equipment leases. We have, however, applied the practical expedient within Accounting Standards Update ("ASU") No. 2016-02, *Leases (Topic 842): Amendments to the Financial Accounting Standards Board Accounting Standards Codification* ("ASU 2016-02"), to not separate lease and non-lease components to our embedded supply system equipment leases and have therefore accounted for both lease and non-lease components in determining the lease assets and liabilities.

Many of our equipment leases contain clauses that require us to return the equipment with certain functionality intact. We account for these costs as residual value guarantees when the guarantee becomes probable of being owed. Our lease agreements do not contain any material restrictive covenants.

Derivative Financial Instruments. Consistent with guidelines established by management and approved by our Board of Directors, we use derivative financial instruments to mitigate our exposure to changes in the market price of aluminum, certain alloying metals, energy and, to a lesser extent, foreign currency exchange rates. We do not use derivative financial instruments for trading or other speculative purposes. Hedging transactions are executed centrally on behalf of all of our operations to minimize transaction costs, monitor consolidated net exposures and allow for increased responsiveness to changes in market factors.

We reflect the fair value of all of our derivative instruments on our Consolidated Balance Sheets. The fair value of hedges settling within one year is included in Prepaid expenses and other current assets or Other accrued liabilities. The fair value of hedges settling beyond one year is included in Other assets or Long-term liabilities. Cash flows related to all of our derivative instruments are reported in our Statements of Consolidated Cash Flows within the same category as the items being hedged. See Note 8 for additional information on our derivative financial instruments.

Self Insurance of Workers' Compensation and Employee Healthcare Liabilities. We self-insure the majority of the costs of workers' compensation benefits and employee healthcare benefits and rely on insurance coverage to protect us from large losses on individual claims. Workers' compensation liabilities are based on a combination of estimates for: (i) incurred-but-not-reported claims

and (ii) the ultimate expense of incurred claims. Such estimates are based on judgment, using our historical claims data and information and analysis provided by actuarial and claims advisors, our insurance carriers and other professionals. As of December 31, 2020, we revised our methodology of calculating our estimated workers' compensation liabilities from a discounted basis to an undiscounted basis, resulting in a charge of \$0.6 million. Accrued liabilities for employee healthcare benefits, which are estimates of unpaid incurred medical and prescription drug costs as provided by our healthcare administrators, were \$7.7 million and \$9.0 million at December 31, 2022 and December 31, 2021, respectively.

Debt Issuance Costs. Costs incurred in connection with debt financing are deferred and amortized over the estimated term of the related borrowing. Such amortization is included in Interest expense in our Statements of Consolidated (Loss) Income. Unamortized issuance costs are presented within Long-term debt on our Consolidated Balance Sheets (see Note 9).

Conditional Asset Retirement Obligations ("CAROs"). We have CAROs at several of our manufacturing facilities. Our CAROs can be separated into two primary categories: (i) legal obligations related to the removal and disposal of asbestos and (ii) asset retirement obligations related to future lease terminations. The majority of our CAROs relate to the first category and consist of incremental costs that would be associated with the removal and disposal of asbestos (all of which is believed to be fully contained and encapsulated within walls, floors, roof, piping or equipment insulation) of certain of our older facilities if such facilities were to undergo major renovation or be demolished. We estimate incremental costs for special handling, removal and disposal costs of materials that may or will give rise to CAROs and then discount the expected costs back to the current year using a credit-adjusted, risk-free rate. When it is unclear when or if CAROs will be triggered, we use probability weighting for possible timing scenarios to determine the probability-weighted liability amounts that should be recognized in our consolidated financial statements (see Note 10).

Environmental Contingencies. With respect to environmental loss contingencies, we record a loss contingency whenever a contingency is probable and reasonably estimable (see Note 10). Accruals for estimated losses from environmental remediation obligations are generally recognized no later than the completion of the remedial feasibility study. Such accruals are adjusted as information develops or circumstances change. Costs of future expenditures for environmental remediation obligations are not discounted to their present value. Accruals for expected environmental costs are included in Other accrued liabilities or Long-term liabilities, as appropriate (see Note 2). Environmental expense relating to continuing operations is included in Cost of products sold excluding depreciation and amortization and other items ("Cost of products sold" or "COGS") in our Statements of Consolidated (Loss) Income. Environmental expense relating to non-operating locations is included in Selling, general, administrative, research and development ("SG&A and R&D") in our Statements of Consolidated (Loss) Income.

Revenue Recognition. We recognize revenue as we fulfill our performance obligations and transfer control of products to our customers. For products that have an alternative use and/or for which we do not have an enforceable right to payment (including a reasonable profit) during the production process, we recognize revenue at a point in time. For products that have no alternative use and for which we have an enforceable right to payment (including a reasonable profit) throughout the production process, we recognize revenue over time. In general, revenue recognized over time primarily relates to our Aero/HS products and our Automotive Extrusions with the remainder of our products recognized at a point in time. In limited circumstances, we have concluded that we are an agent in certain Packaging end market arrangements. For these transactions, revenue has been recognized on a net basis.

For the majority of our business, contracts with customers begin when we acknowledge a purchase order for a specific customer order of product to be delivered in the near term. These purchase orders are short term in nature, although they may reference a longer term "blanket purchase order" or a "terms and conditions" agreement, both of which may span multiple years. For revenue recognized at a point in time, transfer of control usually occurs upon shipment or upon customer receipt of the product, depending on shipping terms. For contracts recognized over time, control transfer occurs incrementally during our production process as progress is made on fulfilling the performance obligation. We use the input method of determining our progress, capturing direct costs beginning at the point that billet or cast ingot is introduced into production at either the extrusion phase or the rolling phase, respectively. We believe the input method more accurately reflects the transfer of control as it represents the best information available of work completed to date for which we have an enforceable right to payment. For products in production, we recognize revenue using estimates of the cost incurred to date plus a reasonable margin. As the duration of our contracts for accounting purposes is typically less than one year, we do not present quantitative information about the aggregate transaction price allocated to unsatisfied performance obligations at the end of the reporting period.

We adjust the amount of revenue recognized on all products, regardless of timing of revenue recognition, for variable price consideration, which could include metal market price adjustments, volume rebates and sales discounts. We estimate rebate and discount values based on forecasted order data and historical payment trends for specific customers, adjusted as necessary at each reporting period. Accounts receivable is recorded when our right to consideration becomes unconditional. Payment terms for a majority of our domestic customers are 30 days after invoice date. To accommodate shipping time to overseas locations, payment

terms for foreign customers are typically several weeks longer than domestic terms. As such, we do not adjust the promised amount of consideration for the effects of a significant financing component as we do not expect the period between the transfer of control of products to our customers and receipt of payment will be greater than one year.

Contract assets primarily relate to our enforceable right to consideration for work completed but not billed at the reporting date on contracts for products recognized over time. Contract assets also include amounts related to our contractual right to consideration for finished goods recognized over time that were in transit as of period end.

Incremental Costs of Obtaining a Contract. We expense the costs of obtaining a contract as incurred as the amortization period of the asset that we otherwise would have recognized is one year or less.

Shipping and Handling Activities. We account for shipping and handling activities that occur after the customer has obtained control of a product as fulfillment activities (i.e., an expense) rather than as a promised service (i.e., a revenue element).

Advertising Costs. Advertising costs, which are included in SG&A and R&D, are expensed as incurred. We had no advertising costs for 2022, and \$0.1 million and \$0.2 million in 2021 and 2020, respectively.

Research and Development Costs. Research and development costs, which are included in SG&A and R&D, are expensed as incurred. Research and development costs for 2022, 2021 and 2020 were \$9.3 million, \$9.3 million and \$9.1 million, respectively.

Major Maintenance Activities. All major maintenance costs are accounted for using the direct expensing method.

Stock-Based Compensation. Stock-based compensation in the form of service-based awards is provided to executive officers, certain employees and non-employee directors and is accounted for at fair value. We measure the cost of services received in exchange for an award of equity instruments based on the grant-date fair value of the award and the number of awards expected to ultimately vest. The grant-date fair value is determined based on the stock price on the date of grant, adjusted for expected dividends or dividend equivalents to be paid during the vesting period.

We also grant performance-based awards to executive officers and other key employees. The methodology used to value these performance-based awards is based on the nature of the performance conditions within those awards. Awards that are subject to performance conditions pertaining to total shareholder return (market-based awards) are valued on the date of grant using a Monte Carlo valuation model. The key assumptions in applying this model are an expected volatility and a risk-free interest rate. Awards with certain other performance conditions (non-market-based awards) are valued based on our stock price at the date of grant. Our non-market-based awards have performance conditions pertaining to our cost performance and adjusted EBITDA margin performance, which is measured by our adjusted earnings before interest, taxes, depreciation and amortization ("Adjusted EBITDA") as a percentage of Conversion Revenue, which is Net sales less the Hedged Cost of Alloyed Metal. As used in this discussion, "Hedged Cost of Alloyed Metal" is the cost of aluminum at the average Midwest Transaction Price ("Midwest Price") plus the cost of alloying elements and any realized gains and/or losses on settled hedges related to the metal sold in the referenced period. Holders of performance-based awards receive a one-time payment at the time of issuance of vested shares based on the total dividends they would have received if the vested shares had been held of record from the date of grant through the date of issuance. See Note 7 for more information on our stock-based compensation.

The cost of service-based awards, including time-vested restricted stock and performance shares, is recognized as an expense over the requisite service period of the award on a straight-line basis. Adjustments to expense related to forfeitures are recorded in the period in which they occur. For performance shares with performance conditions pertaining to our cost performance and Adjusted EBITDA margin performance, the related expense is updated quarterly by adjusting the estimated number of shares expected to vest based on the most probable outcome of the performance condition (see Note 7).

Adoption of New Accounting Pronouncements

ASU No. 2021-10, Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance ("ASU 2021-10") was issued in November 2021. Under ASU 2021-10, the accounting entities with transactions with a government that are accounted for by analogy to a grant or contribution accounting model are required to annually disclose certain information regarding the transaction including: (i) nature and related accounting policy used; (ii) line items on the balance sheet and income statement affected by the transactions; (iii) amounts applicable to each line item; and (iv) significant terms and conditions. We adopted ASU 2021-10 during the year ended December 31, 2022 using a prospective approach. See "Government Grants" above for additional information.

In March 2020, the Financial Accounting Standards Board ("FASB") issued ASU 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting ("ASU 2020-04") and also issued subsequent amendments to the initial guidance (collectively, "Topic 848"). Topic 848 is effective for all entities as of March 12, 2020 through December 31, 2024 and provides optional guidance for contract modifications and certain hedging relationships associated with the transition from reference rates that are expected to be discontinued. During the quarter ended June 30, 2022, we completed the transition of our customers' supply chain financing contracts from the London Interbank Offered Rate ("LIBOR") to Term Secured Overnight Financing Rate ("Term SOFR"). Our adoption of Topic 848 did not have a material impact on our consolidated financial statements.

2. Supplemental Balance Sheet Information

Trade Receivables, net Billed trade receivables \$ Allowance for doubtful receivables Trade receivables, net \$ Inventories Finished products \$ Work-in-process Raw materials Operating supplies	98.0 242.5 174.0 10.9 525.4	\$ \$ \$	2021 333.5 (0.8) 332.7 90.3 162.2 143.0 9.1 404.6
Billed trade receivables \$ Allowance for doubtful receivables Trade receivables, net \$ Inventories Finished products \$ Work-in-process Raw materials	297.7 (0.5) 297.2 98.0 242.5 174.0 10.9 525.4	\$ \$	(0.8) 332.7 90.3 162.2 143.0 9.1
Billed trade receivables \$ Allowance for doubtful receivables Trade receivables, net \$ Inventories Finished products \$ Work-in-process Raw materials	98.0 242.5 174.0 10.9 525.4	\$	(0.8) 332.7 90.3 162.2 143.0 9.1
Allowance for doubtful receivables Trade receivables, net Inventories Finished products Work-in-process Raw materials	98.0 242.5 174.0 10.9 525.4	\$	(0.8) 332.7 90.3 162.2 143.0 9.1
Trade receivables, net Inventories Finished products Work-in-process Raw materials	98.0 242.5 174.0 10.9 525.4	\$	90.3 162.2 143.0 9.1
Inventories Finished products \$ Work-in-process Raw materials	98.0 242.5 174.0 10.9 525.4	\$	90.3 162.2 143.0 9.1
Finished products \$ Work-in-process Raw materials	242.5 174.0 10.9 525.4		162.2 143.0 9.1
Finished products \$ Work-in-process Raw materials	242.5 174.0 10.9 525.4		162.2 143.0 9.1
Work-in-process Raw materials	242.5 174.0 10.9 525.4		162.2 143.0 9.1
Raw materials	174.0 10.9 525.4	\$	143.0 9.1
	10.9 525.4	\$	9.1
Operating supplies	525.4	\$	
		\$	404.6
Total \$			
Property, Plant and Equipment, net			
Land and improvements \$	28.4	\$	26.0
Buildings and leasehold improvements	185.5		179.0
Machinery and equipment	1,232.7		1,151.5
Construction in progress ¹	141.3		75.3
Property, plant and equipment, gross	1,587.9		1,431.8
Accumulated depreciation and amortization	(574.9)		(480.4)
Assets held for sale	0.2		3.8
Property, plant and equipment, net	1,013.2	\$	955.2
Other Accrued Liabilities			
Uncleared cash disbursements \$	13.6	\$	10.9
Accrued income taxes and other taxes payable	8.9	,	9.5
Accrued interest	9.9		9.9
Short-term environmental accrual – Note 10	1.1		2.6
Other – Note 3 and Note 8	34.9		25.5
Total \$	68.4	\$	58.4
<u>· </u>			
Long-Term Liabilities			
Workers' compensation accruals \$	30.9	\$	31.9
Long-term environmental accrual – Note 10	16.6	-	14.2
Other long-term liabilities	27.2		26.4
Total \$	74.7	\$	72.5

Based on market conditions, we temporarily idled projects within Construction in progress totaling \$21.9 million and \$24.9 million as of December 31, 2022 and December 31, 2021, respectively, all of which are expected to resume at a future date.

3. Leases

Our leases have remaining lease terms of approximately one to 59 years, some of which may include options to extend the lease for up to 60 years, and some of which may include options to terminate the lease within one year.

The following table presents lease terms and discount rates as of December 31, 2022:

	Finance Leases	Operating Leases
Weighted-average lease term (in years)	29.0	7.0
Weighted-average discount rate	3.51 %	3.95%

The following table summarizes the classification of lease assets and lease liabilities on our Consolidated Balance Sheets (in millions of dollars):

			As of Dec	ecember 31,				
Description	Classification	2	2022		2021			
Operating lease assets	Operating lease assets	\$	39.1	\$	46.2			
Finance lease assets	Property, plant and equipment, net	\$	6.7	\$	8.2			
Current operating lease liabilities	Other accrued liabilities	\$	9.1	\$	9.0			
Current finance lease liabilities	Other accrued liabilities	\$	2.1	\$	2.1			
Non-current operating lease liabilities	Long-term portion of operating lease liabilities	\$	35.4	\$	40.8			
Non-current finance lease liabilities	Long-term liabilities	\$	5.0	\$	6.1			

The following table summarizes the components of lease cost in our Statements of Consolidated (Loss) Income (in millions of dollars):

		Year Ended December 31,								
		2022		2021	2020					
Operating lease cost	\$	12.1	\$	11.0	\$	6.8				
Short-term lease cost		4.3		3.2		1.6				
Finance lease cost:										
Amortization of leased assets		2.5		2.1		1.6				
Interest on lease liabilities		0.3		0.3		0.3				
Total lease cost	\$	19.2	\$	16.6	\$	10.3				
	-									

The following table presents the maturity of our lease liabilities as of December 31, 2022 (in millions of dollars):

	Fina	ance Leases	Opera	ating Leases
2023	\$	2.3	\$	10.6
2024		1.7		9.8
2025		1.3		6.4
2026		0.7		4.2
2027		0.1		3.6
Thereafter		5.7		17.6
Total minimum lease payments	\$	11.8	\$	52.2
Less: interest		(4.7)		(7.7)
Present value	\$	7.1	\$	44.5

4. Business Combinations, Goodwill and Intangible Assets

Business Combinations. On March 31, 2021, we acquired Alcoa Warrick LLC and certain assets comprising the aluminum casting and rolling mill facility located in Warrick County, Indiana (collectively, "Warrick") for a final purchase consideration of \$609.2 million. Warrick is a leading producer of bare and coated aluminum coil used for can stock applications in the beverage and

food packaging industry in North America. The transaction provided us with non-cyclical end market diversification and re-entry into the packaging end market.

Goodwill. In conjunction with our acquisition of Warrick, we added \$20.5 million of goodwill after allocating the consideration paid, net of cash received to all other identifiable assets. The goodwill reflected the value we expected from our re-entry into the Packaging end market and our assembled workforce. In conjunction with our annual testing and due to downward revisions in forecasted operating margins as a result of supply chain challenges, inflationary cost pressures and manufacturing inefficiencies, we determined that the carrying value of Warrick exceeded its fair value, and we recognized an impairment charge of \$20.5 million for the year ended December 31, 2022 within Operating income in the Statements of Consolidated (Loss) Income. We estimated the fair value of Warrick using a combination of an income approach and a market-based approach. The income approach incorporated the use of cash flow projections and a discount rate that is developed using market participant-based assumptions. The cash flow projections are based on our best estimates of the long-term forecasts of the business, market prices, projected cash flows and the rate used in the discounting of those cash flows. As goodwill is deductible for tax purposes, the deferred tax effects were included in the impairment charge and income tax provision. The following table presents the changes in the carrying value of our goodwill (in millions of dollars):

	As of December 31,							
	 2022							
Gross carrying value:								
Beginning balance	\$ 57.7	\$	37.2					
Warrick acquisition	_		20.5					
Warrick impairment	(20.5)		_					
Ending balance	37.2		57.7					
Accumulated impairment loss	(18.4)		(18.4)					
Net carrying value	\$ 18.8	\$	39.3					

Intangible Assets. The following table presents the gross carrying amount and accumulated amortization by major intangible asset class (in millions of dollars, except amortization periods):

	Weighted- Average Amortization Period (in years)		Gross Amount	-	Accumulated Amortization	Intangible Assets, Net
As of December 31, 2022	(iii years)	_	rimount		inortization	7155015, 1100
Customer relationships	19	\$	68.1	\$	(21.9) \$	46.2
Trade name	10		2.4		(1.0)	1.4
Non-compete agreement	5		5.4		(4.6)	8.0
Favorable lease contracts	120		7.0		(0.1)	6.9
Total		\$	82.9	\$	(27.6) \$	55.3
As of December 31, 2021						
Customer relationships	19	\$	68.1	\$	(17.8) \$	50.3
Trade name	10		2.4		(0.8)	1.6
Non-compete agreement	5		5.4		(3.5)	1.9
Favorable commodity contracts	2		11.0		(4.1)	6.9
Favorable lease contracts	120		7.0		_	7.0
Total		\$	93.9	\$	(26.2)	67.7

During the year ended December 31, 2022, we impaired the remaining book value of our favorable commodity contracts intangible asset as the supplier associated with the intangible asset ceased all deliveries of magnesium to us and provided no indication of when or if deliveries would resume over the remainder of the contract. The impairment charge of \$3.1 million was included within Other operating charges (income), net, in our Statements of Consolidated (Loss) Income. We identified no indicators of impairment associated with our intangible assets during the years ended December 31, 2021 or December 31, 2020.

Amortization expense relating to definite-lived intangible assets was \$9.3 million, \$9.0 million and \$2.9 million for 2022, 2021 and 2020, respectively. The following table presents the expected amortization of intangible assets for each of the next five calendar years and thereafter as of December 31, 2022 (in millions of dollars):

2023	\$ 5.3
2024	4.5
2024 2025 2026 2027	4.5
2026	4.5
2027	4.5
Thereafter	32.0
Total	\$ 55.3

5. Employee Benefits

Defined Contribution Plans

We sponsor defined contribution 401(k) savings plans for certain hourly and salaried employees. Employees may contribute a portion of their compensation to the plans and we match a specified percentage of these contributions in equivalent form of the investments elected by the employee. Additionally, we make fixed annual contributions for certain hourly and salaried employees in varying amounts depending on hire date.

Deferred Compensation Plan

We sponsor a non-qualified, unfunded, unsecured plan of deferred compensation for certain employees who would otherwise suffer a loss of benefits under our defined contribution plan as a result of the limitations imposed by the Internal Revenue Code of 1986. Despite the plan being an unfunded plan, we make an annual contribution to a rabbi trust to fulfill future funding obligations, as contemplated by the terms of the plan. The assets in the trust are held in various investment funds at certain registered investment companies (see discussion below in "Fair Value of Plan Assets") and are at all times subject to the claims of our general creditors. No participant has a claim to any assets of the trust; however, participants are eligible to receive distributions from the trust subject to vesting and other eligibility requirements. Offsetting liabilities relating to the deferred compensation plan are included within Other accrued liabilities and Long-term liabilities. Assets in the trust are accounted for as equity investments with changes in fair value recorded within Other income (expense), net (see Note 13).

Other Benefits

We provide other benefits for certain members of senior management, including certain of our named executive officers, related to terminations of employment in specified circumstances, including in connection with a change in control, by us without cause and by the executive officer with good reason.

Defined Benefit Plans

Pension. We sponsor defined benefit pension plans for certain hourly bargaining unit employees and salaried employees. Pension benefits generally depend on length of service, job grade and remuneration. Substantially all benefits are paid through pension trusts that are sufficiently funded to ensure that all plans can pay benefits to retirees as they become due. We use a December 31 measurement date for our pension plans.

OPEB. We sponsor a healthcare and life insurance postretirement benefit plan ("OPEB") covering certain eligible retirees. Generally, the medical plans are unfunded and pay a percentage of medical expenses, reduced by deductibles and other coverage. Life insurance benefits are generally provided by insurance contracts. We use a December 31 measurement date for our OPEB plan.

Salaried VEBA Postretirement Obligation. Certain retirees who retired prior to 2004 and certain employees who were hired prior to February 2002 and have subsequently retired or will retire with the requisite age and service, along with their surviving spouses and eligible dependents, are eligible to participate in a voluntary employees' beneficiary association ("VEBA") that provides healthcare cost, medical cost and long-term care insurance cost reimbursement benefits ("Salaried VEBA"). The accumulated postretirement benefit obligation ("APBO") for the Salaried VEBA was computed based on the level of benefits being provided. Since

the Salaried VEBA pays out a fixed annual amount to its participants, no future cost trend rate increase was assumed in computing the APBO for the Salaried VEBA.

We have an ongoing obligation with no express termination date to make variable cash contributions up to a maximum of \$2.9 million to the Salaried VEBA. The Salaried VEBA assets were invested in various managed funds based on information we received from the trustee of the Salaried VEBA. Our variable payment, if any, is treated as a funding/contribution policy and not counted as a Salaried VEBA asset at the accrual date for actuarial purposes. There was no required accrual for variable contributions as of December 31, 2022. There was no payment made with respect to 2021 during the first quarter of 2022. We account for the Salaried VEBA as a defined benefit plan in our financial statements using a December 31 measurement date.

Key Assumptions. The following table presents the weighted average assumptions used to determine benefit obligations:

		Pension Plans¹ OPEB As of December 31, As of December 31, 2022 2021 2022 202		er 31,	Salaried VEBA As of December 31,			
	2022			2021	2022	2021		
Discount rate	5.16%	2.90 %	5.14%	2.64 %	5.10 %	2.49 %		
Rate of compensation increase	2.69%	2.74%	—%	—%	—%	—%		

Assumptions for our pension plans are weighted based on the total benefit obligations of each.

The following table presents the weighted average assumptions used to determine net periodic postretirement benefit cost:

	Pension Plans ¹ Year Ended December 31,			Year En	OPEB ded December	31,	Salaried VEBA Year Ended December 31,				
	2022	2021	2020	2022	2021	2020	2022	2021	2020		
Discount rate	2.90 %	2.89 %	3.10 %	2.64%	2.97 %	n/a	2.49 %	2.05%	2.95 %		
Expected long-term return on plan assets ²	6.02 %	5.78%	4.45%	—%	—%	n/a	5.50%	5.50%	5.50%		
Rate of compensation increase	2.69%	2.74%	3.00%	—%	—%	n/a	—%	—%	—%		

Assumptions for our pension plans are weighted based on the total benefit obligations of each.

The expected long-term rate of return assumption for the Salaried VEBA is based on the targeted investment portfolios provided to us by the trustee of the Salaried VEBA.

Benefit Obligations and Funded Status. The following table presents the benefit obligations and funded status of our pension plans, OPEB and the Salaried VEBA and the corresponding amounts that are included in our Consolidated Balance Sheets (in millions of dollars):

	Pension Plans As of December 31,			OPEB As of December 31,				Salaried VEBA As of December				
		2022		2021		2022		2021		2022		2021
Change in benefit obligation:												
Obligation at beginning of year	\$	20.3	\$	10.0	\$	83.5	\$		\$	79.8	\$	78.3
Obligation assumed through acquisition of Warrick		_		6.5		_		78.1		_		
Foreign currency translation adjustment		(0.5)		_		_		_		_		_
Service cost		5.8		4.1		1.6		1.1		0.1		0.1
Interest cost		0.6		0.5		2.2		1.7		1.9		1.5
Prior service cost ¹		_		_		_		_		_		14.0
Actuarial (gain) loss ²		(7.1)		(0.3)		(20.4)		2.6		(16.3)		(6.9)
Plan participants contributions		0.1		_		0.1		_		_		_
Benefits paid		(0.4)		(0.5)		(0.6)				(6.6)		(7.2)
Obligation at end of year ³		18.8		20.3		66.4		83.5		58.9		79.8
Change in plan assets:												
Fair market value of plan assets at beginning of year		9.8		8.7		_		_		59.2		60.5
Foreign currency translation adjustment		(0.5)		_		_		_		_		_
Actual return on assets		(2.6)		1.1		_		_		(10.2)		5.9
Plan participants contributions		0.1		_		0.1				_		
Company contributions		8.5		0.5		0.5		_		_		
Benefits paid		(0.4)		(0.5)		(0.6)				(6.6)		(7.2)
Fair market value of plan assets at end of year		14.9		9.8						42.4		59.2
Net funded status ⁴	\$	(3.9)	\$	(10.5)	\$	(66.4)	\$	(83.5)	\$	(16.5)	\$	(20.6)
Cumulative gain (loss) recognized in Accumulated other comprehensive income (loss):												
Accumulated net actuarial gain (loss)	\$	2.6	\$	(1.0)	\$	17.8	\$	(2.6)	\$	1.7	\$	(1.2)
Prior service cost		_		_		_		_		(29.7)		(34.6)
Total	\$	2.6	\$	(1.0)	\$	17.8	\$	(2.6)	\$	(28.0)	\$	(35.8)

^{1.} The prior service cost relating to the Salaried VEBA in 2021 resulted from increases in the annual healthcare reimbursement benefit in 2021 for plan participants.

The actuarial gain relating to our pension plans in 2022 was comprised of an \$8.0 million gain due to a change in the discount rate and a \$0.9 million loss due to changes in census information. The actuarial gain relating to our pension plans in 2021 was comprised of a \$0.3 million gain due to changes in census information. The actuarial gain relating to the OPEB in 2022 was comprised of a \$20.4 million gain due to a change in the discount rate, a \$0.7 million gain due to changes in census information and a \$0.7 million loss due to a change in the trend rate assumption. The actuarial loss relating to the OPEB in 2021 was comprised of a \$3.2 million loss due to a change in the discount rate and a \$0.6 million gain due to changes in census information. The actuarial gain relating to the Salaried VEBA in 2022 was comprised of a \$12.6 million gain due to a change in the discount rate, a \$2.6 million gain due to changes in census information and a \$1.1 million gain due to a change in the trend rate assumption. The actuarial gain relating to the Salaried VEBA in 2021 was comprised of a \$3.9 million gain due to changes in census information and a \$3.0 million gain due to a change in the discount rate.

^{3.} For the pension plans, the benefit obligation is the projected benefit obligation. For the Salaried VEBA and OPEB, the benefit obligation is the APBO.

^{4.} Net funded status relating to the pension plans consisted of \$1.0 million and \$4.9 million within Other assets and Long-term liabilities, respectively, at December 31, 2022 and \$10.5 million within Long-term liabilities at December 31, 2021 on our Consolidated Balance Sheets. Of the Net funded status relating to the OPEB at December 31, 2022, \$2.0 million was included within Accrued salaries, wages and related expenses and \$64.4 million was included within Long-term liabilities on our Consolidated Balance Sheets. Of the Net funded status relating to the OPEB at December 31, 2021, \$1.6 million was included within Pension and other postretirement benefits and \$81.9 million was included within Long-term liabilities on our Consolidated Balance Sheets. Net funded status relating to the Salaried VEBA at December 31, 2022 and December 31, 2021 was included within Long-term liabilities on our Consolidated Balance Sheets.

The accumulated benefit obligation for the pension plans was \$18.0 million and \$19.3 million at December 31, 2022 and December 31, 2021, respectively. We expect to contribute \$4.6 million to the pension plans in 2023.

The following table presents the net benefits expected to be paid (in millions of dollars):

	Year Ended December 31,											
	2	023	:	2024		2025		2026		2027	202	8-2032
Pension benefit payments	\$	0.5	\$	0.7	\$	8.0	\$	1.1	\$	1.2	\$	8.3
Salaried VEBA benefit payments ¹		6.7		6.4		6.1		5.8		5.5		23.2
OPEB payments		2.0		2.8		3.4		4.1		4.7		31.7
Total	\$	9.2	\$	9.9	\$	10.3	\$	11.0	\$	11.4	\$	63.2

Such amounts are based on benefit amounts and certain key assumptions obtained from the Salaried VEBA trustees and will be paid out of the Salaried VEBA plan assets.

Plan Assets. The following table presents the asset class allocation per our pension plan investment policy and the weighted average asset allocation:

Asset class	Policy range	As of December 31, 2022
Equities	54% - 60%	59%
Fixed income	35% - 40%	34%
Other investments	5% - 6%	7%

Fair Value of Plan Assets. The plan assets of our pension plans and the Salaried VEBA are measured annually on December 31 and reflected in our Consolidated Balance Sheets at fair value. In determining the fair value of the plan assets at an annual period end, we utilize primarily the results of valuations supplied by the investment advisors responsible for managing the assets of each plan, which we independently review for reasonableness. With respect to the Salaried VEBA, the investment advisors providing the valuations are engaged by the Salaried VEBA trustees.

Certain plan assets are valued based upon unadjusted quoted market prices in active markets that are accessible at the measurement date for identical, unrestricted assets (e.g., liquid securities listed on an exchange). Such assets are classified within Level 1 of the fair value hierarchy. The remainder of plan assets are valued based on the net asset value ("NAV") of shares held by the plans at year end using the NAV practical expedient.

The following table presents the fair value of plan assets, classified under the appropriate level of the fair value hierarchy (in millions of dollars):

		Level 1		Level 2	Level 3		 Total
As of December 31, 2022:							
Plan Assets in the Fair Value Hierarchy:							
Salaried VEBA – Equity investment funds in registered investment companies ¹	\$	27.4	\$	_	\$	_	\$ 27.4
Salaried VEBA – Fixed income investment funds in registered investment companies ²		15.0		_		_	15.0
Pension plans – Equity investment funds in registered investment companies ¹		4.1		_		_	4.1
Pension plans – Fixed income investment funds in registered investment companies ²		2.6		_		_	2.6
Pension plans – Diversified investment funds in registered investment companies ³		8.2		_		_	8.2
Deferred compensation program – Diversified investment funds in registered investment companies ³		9.8		_		_	9.8
Total plan assets in the fair value hierarchy	\$	67.1	\$	_	\$	_	\$ 67.1
	_						
As of December 31, 2021:							
Plan Assets in the Fair Value Hierarchy:							
Salaried VEBA – Equity investment funds in registered investment companies ¹	\$	38.6	\$	_	\$	_	\$ 38.6
Salaried VEBA – Fixed income investment funds in registered investment companies ²		20.6		_		_	20.6
Deferred compensation program – Diversified investment funds in registered investment companies ³		10.5		_		_	10.5
Total plan assets in the fair value hierarchy	\$	69.7	\$	_	\$	_	\$ 69.7
Plan Assets Measured at NAV ⁴ :			_		_		
Pension plans – Equity investment funds in registered investment companies ¹							\$ 0.1
Pension plans – Fixed income investment funds in registered investment companies ²							0.1
Pension plans – Diversified investment funds in registered investment companies ³							9.6
Total plan assets at fair value							\$ 79.5

^{1.} Equity investment funds in registered investment companies. This category represents investments in equity funds that invest in portfolios comprised primarily of equity and equity-related securities of U.S. and non-U.S. issuers across all market capitalizations.

^{2.} *Fixed income investment funds in registered investment companies.* This category represents investments in various fixed income funds with multiple registered investment companies. Such funds invest primarily in bonds, debentures, notes, securities with equity and fixed-income characteristics, cash equivalents, securities backed by mortgages and other assets, loans, pooled or collective investment vehicles made up of fixed-income securities and other fixed-income obligations of banks, corporations and governmental authorities.

^{3.} Diversified investment funds in registered investment companies. The plan assets are invested in investment funds that hold a diversified portfolio of: (i) U.S. and international debt and equity securities; (ii) fixed income securities such as corporate bonds and government bonds; (iii) mortgage-related securities; and (iv) cash and cash equivalents.

^{4.} *NAV*. The market value of these funds has not been categorized in the fair value hierarchy and is being presented in the table above to permit a reconciliation of the fair value hierarchy to our Consolidated Balance Sheets and are comprised primarily of unitized mutual funds without externally published net asset values, which can be redeemed daily without restriction.

The following table presents the total expense related to all benefit plans (in millions of dollars):

	Year Ended December 31,									
	2022			2021		2020				
Defined contribution plans ¹	\$	17.1	\$	13.9	\$	8.3				
Deferred compensation plan ²		(0.6)		0.7		1.5				
Multiemployer pension plans ^{1,3}		5.2		5.0		4.9				
Net periodic postretirement benefit cost relating to defined benefit plans ^{2,3,4}		13.1		9.4		5.2				
Total	\$	34.8	\$	29.0	\$	19.9				

^{1.} Substantially all of these charges related to employee benefits are in COGS with the remaining balance in SG&A and R&D.

Components of Net Periodic Postretirement Benefit Cost. Our results of operations included the following impacts associated with our pension plans, OPEB plan and the Salaried VEBA: (i) a charge for service rendered by employees; (ii) a charge for accretion of interest; (iii) a benefit for the return on plan assets; (iv) amortization of prior service costs associated with plan amendments; and (v) amortization of net actuarial differences.

The following table presents the components of Net periodic postretirement benefit cost relating to our pension plans, OPEB plan and the Salaried VEBA (in millions of dollars):

		Pension Plans ¹ Year Ended December 31,					OPEB ¹ Year Ended December 31,				Salaried VEBA Year Ended December 31,						
	2	2022	2021		2021 2020		2022 2021		021	2020	2022		2021		2020		
Service cost	\$	5.8	\$	4.1	\$	0.3	\$	1.6	\$	1.1	n/a	\$	0.1	\$	0.1	\$	0.1
Interest cost		0.6		0.5		0.3		2.2		1.7	n/a		1.9		1.5		2.5
Expected return on plan assets		(0.9)		(0.4)		(0.3)		_		_	n/a		(3.1)		(3.1)		(2.8)
Amortization of prior service cost ²		_		_		_		_		_	n/a		4.9		3.5		4.7
Amortization of net actuarial loss		_		0.1		0.1		_		_	n/a		_		0.3		0.3
Net periodic postretirement benefit cost	\$	5.5	\$	4.3	\$	0.4	\$	3.8	\$	2.8	n/a	\$	3.8	\$	2.3	\$	4.8

Net periodic postretirement benefit cost for 2020 included only the Canadian pension plan. Net periodic postretirement benefit cost for the U.S. pension plan and the OPEB was not included in our Statements of Consolidated (Loss) Income until the March 31, 2021 acquisition date of our Warrick facility.

6. Multiemployer Pension Plans

Overview. We contribute to multiemployer defined benefit pension plans under the terms of collective bargaining agreements that cover our union-represented employees at certain facilities. At December 31, 2022, approximately 35% of our total employees were union-represented employees at facilities participating in these multiemployer pension plans. We currently estimate that contributions will range from \$4.0 million to \$6.0 million in 2023.

^{2.} Deferred compensation plan expense and the current service cost component of Net periodic postretirement benefit cost relating to Salaried VEBA are included within our Statements of Consolidated (Loss) Income in SG&A and R&D for all periods presented. All other components of Net periodic postretirement benefit cost relating to Salaried VEBA are included within Other income (expense), net, in our Statements of Consolidated (Loss) Income.

^{3.} See Note 6 for more information on our multiemployer defined benefit pension plans.

The current service cost component of Net periodic postretirement benefit cost relating to both the pension plans and the OPEB plan are included within our Statements of Consolidated (Loss) Income in COGS for all periods presented. All other components of Net periodic postretirement benefit cost relating to both the pension plans and the OPEB plan are included within Other income (expense), net, in our Statements of Consolidated (Loss) Income.

We amortize prior service cost on a straight-line basis over the average remaining years of service to full eligibility for benefits of the active plan participants.

The risks of participating in these multiemployer plans are different from single-employer plans in the following aspects:

- Assets contributed to the multiemployer plan by one employer may be used to provide benefits to employees of other participating employers.
- If a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
- If we choose to stop participating in any of our multiemployer plans, we may be required to pay those plans an amount based on the underfunded status of the plan, referred to as a withdrawal liability.

The following table presents information about multiemployer pension plans in which we participate:

	Employer	Pension Protection Act Zone Status ¹		FIP/RP Status Pending/	Contributions of the Company Year Ended December 31,					the Company				Pending/			the Company			Surcharge	Expiration Date
Pension Fund	Identification Number	2022	2021	Implemented in 2022 ²		Year E 022			2020		Imposed in 2022	of Collective- Bargaining Agreements									
Tension Fund	Number			III 2022		_		s of do			III 2022	Dai gaming Agreements									
Steelworkers Pension Trust (USW) ³	23-6648508	Green	Green	No	\$	3.8	\$	3.6	\$	3.8	No	Sep 2025 - Nov 2026									
Other Funds ⁴						1.4		1.4		1.1											
					\$	5.2	\$	5.0	\$	4.9											

The zone status is based on information that we received from the plan and is certified by the plan's actuary. Among other factors, plans in the green zone are at least 80% funded.

- The "FIP/RP Status Pending/Implemented" column indicates if a Financial Improvement Plan ("FIP") or a Rehabilitation Plan ("RP") is either pending or has been implemented for the plan under the Pension Protection Act.
- We are party to three collective bargaining agreements with the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL-CIO, CLC ("USW") that require contributions to the Steelworkers Pension Trust. As of December 31, 2022, USW collective bargaining agreements covering employees at our Newark, Ohio ("Newark") and Spokane, Washington ("Trentwood") facilities covered 86% of our USW-represented employees and expire in September 2025. Our monthly contributions per hour worked by each bargaining unit employee at our Newark and Trentwood facilities were (in whole dollars) \$1.75 in 2022. The union contracts covering employees at our Richmond, Virginia facility and Florence, Alabama facility cover 11% and 3% of our USW-represented employees, respectively, and expire in November 2026 and March 2026, respectively.
- Other Funds consists of plans that are not individually significant.

We were not listed in any of the plans' Forms 5500 or the Canada-Wide Industrial Pension Plan financial statements as providing more than 5% of the total contributions for any of the plan years disclosed. At December 31, 2022, financial statements and Forms 5500 were not available for the plan year ending in 2022. Further, there were no significant changes to the number of employees covered by our multiemployer plans that would affect the period-to-period comparability of the contributions for the years presented.

7. Employee Incentive Plans

Short-Term Incentive Plans ("STI Plans")

We have annual short-term incentive compensation plans for senior management and certain other employees payable at our election in cash, shares of common stock or a combination of cash and shares of common stock. Amounts earned under STI Plans are based on our Adjusted EBITDA, modified for certain safety, quality, delivery, cost and individual performance factors. The Adjusted EBITDA targets are determined based on the return on adjusted net assets. Most of our production facilities have similar programs for both hourly and salaried employees. Additionally, we have discretionary bonus programs that allow for management to incentivize employees based on performance. As of December 31, 2022, we had a liability of \$4.1 million recorded within Accrued salaries, wages and related expenses for estimated probable future payments relating to the 12-month performance period of our 2022 STI Plans and discretionary programs.

Long-Term Incentive Programs ("LTI Programs")

General. Executive officers and other key employees of the Company, as well as non-employee directors of the Company, are eligible to participate in the Kaiser Aluminum Corporation 2021 Equity and Incentive Compensation Plan ("2021 Plan"). The 2021 Plan was approved by stockholders on June 3, 2021 and replaced and succeeded, in its entirety, the Kaiser Aluminum Corporation Amended and Restated 2016 Equity and Performance Incentive Plan, except with regard to awards previously granted thereunder that continued to be outstanding. At December 31, 2022, 612,882 shares were available for awards under the 2021 Plan.

Non-Vested Common Shares and Restricted Stock Units. We grant non-vested common shares ("RSAs") to our non-employee directors and restricted stock units ("RSUs") to our executive officers and other key employees. The RSUs have rights similar to the rights of RSAs and each RSU that becomes vested entitles the recipient to receive one common share, for which we issue new shares of our common stock upon vesting under the 2021 Plan, or a cash amount equaling the value of one common share. The service period is generally one year for RSAs granted to non-employee directors and three years for RSUs granted to executive officers and other key employees.

The following table summarizes activity relating to RSAs and RSUs for the year ended December 31, 2022:

	Shares	 Weighted- Average Grant-Date Fair Value per Share
Outstanding at December 31, 2021	310,673	\$ 91.05
Granted	106,494	84.16
Vested	(84,412)	95.77
Forfeited	(9,576)	81.57
Outstanding at December 31, 2022	323,179	\$ 87.59

Performance Shares. We grant performance shares to executive officers and other key employees that vest upon the achievement of specified market or internal performance goals. Performance goals can include: (i) our achieving a total shareholder return ("TSR") compared to the TSR of a specified group of peer companies over a three-year performance period ("TSR-Based Performance Shares"); (ii) achieving targeted improvements to our total controllable cost performance over a three-year performance period; and/or (iii) achieving targeted improvements to our Adjusted EBITDA margin performance, measured by our Adjusted EBITDA as a percentage of Conversion Revenue, over a three-year performance period. Each performance share that becomes vested and earned entitles the recipient to receive one common share or a cash amount equaling the value of one common share. The number of performance shares that may be earned and result in the issuance of cash or common shares ranges between 0% to 200% of the target number of underlying performance shares, which is approximately 55% to 70% of individual long-term incentive plan target amounts.

The following table presents the weighted average inputs and assumptions used in the Monte Carlo simulations to calculate the fair value at the grant date of our TSR-Based Performance Shares:

		Year Ended December 31,							
	2022			2021		2020			
Grant date fair value	\$	122.22	\$	151.98	\$	105.88			
Grant date stock price	\$	95.13	\$	114.71	\$	91.22			
Expected volatility of Kaiser Aluminum ¹		49.37 %	ó	45.71 %	,)	27.40 %			
Expected volatility of peer companies ¹		51.08%	ó	50.69 %	ò	36.94%			
Risk-free interest rate		1.59 %	ó	0.29 %	,)	0.58%			
Dividend yield		3.24%	ó	2.51 %	,)	2.96%			

Weighted average expected volatility based on 2.8 years of daily closing share prices from the valuation date to the end of the performance period.

The following table summarizes activity relating to performance shares for the year ended December 31, 2022:

	Shares	 Weighted- Average Grant-Date Fair Value per Share
Outstanding at December 31, 2021	350,380	\$ 118.56
Granted ¹	133,840	111.37
Vested	(17,490)	124.05
Forfeited ¹	(3,490)	117.02
Canceled ¹	(95,688)	124.05
Outstanding at December 31, 2022	367,552	\$ 114.25

The number of shares granted and forfeited are presented at their maximum payout; and the number of shares canceled includes the number of shares that did not vest due to performance results falling below those required for maximum payout.

Non-Cash Compensation Expense. Non-cash compensation expense relating to all awards is included in SG&A and R&D. The following table presents non-cash compensation expense by type of award under LTI Programs (in millions of dollars):

	Year Ended December 31,						
	20)22		2021		2020	
RSAs and RSUs	\$	8.8	\$	8.1	\$	6.1	
Performance shares		4.9		4.5		3.5	
Total non-cash compensation expense	\$	13.7	\$	12.6	\$	9.6	

Recognized tax benefits relating to the non-cash compensation expense presented in the table above were \$3.2 million, \$3.0 million and \$2.3 million for 2022, 2021 and 2020, respectively.

The aggregate fair value of awards that vested was \$9.1 million, \$9.7 million and \$12.4 million for 2022, 2021 and 2020, respectively, which represents the market value of our common stock on the date that the awards vested.

Unrecognized Gross Compensation Cost Data. The following table presents unrecognized gross compensation costs and the expected period over which the remaining gross compensation costs will be recognized by type of award as of December 31, 2022:

	Compen (in 1	nized Gross sation Costs millions lollars)	Expected Period (in years) Over Which the Remaining Gross Compensation Costs Will Be Recognized
RSAs and RSUs	\$	13.6	2.3
Performance shares	\$	5.6	1.8

The following table presents the weighted-average grant-date fair value per share for shares granted by type of award:

	_	Year Ended December 31,							
		2022		2021		2020			
RSAs and RSUs		\$ 84.1	6 \$	107.24	\$	71.75			
Performance shares		\$ 111.3	7 \$	137.06	\$	99.87			

Participants may elect to have us withhold common shares to satisfy minimum statutory tax withholding obligations arising in connection with the vesting of RSAs, RSUs and performance shares. We cancel any such shares withheld on the applicable vesting dates or earlier dates when service requirements are satisfied, which correspond to the times at which income to the employee is recognized. When we withhold these common shares, we are required to remit to the appropriate taxing authorities the fair value of the shares withheld as of the vesting date. The withholding of common shares by us could be deemed a purchase of the common shares. See Statements of Consolidated Stockholders' Equity for details on cancellation of shares to cover employees' tax withholdings upon vesting of non-vested shares.

8. Derivatives, Hedging Programs and Other Financial Instruments

Overview. In conducting our business, we enter into derivative transactions, including forward contracts and options, to limit our exposure to: (i) metal price risk related to our sale of fabricated aluminum products and the purchase of metal, including primary and scrap, or recycled, aluminum, our main raw material, and certain alloys used as raw material for our fabrication operations; (ii) energy price risk relating to fluctuating prices of natural gas and electricity used in our production processes; and (iii) foreign currency requirements with respect to cash commitments for equipment purchases and/or other agreements denominated in foreign currency. We do not use derivative financial instruments for trading or other speculative purposes. Hedging transactions are executed centrally on behalf of all of our operations to minimize transaction costs, monitor consolidated net exposures and allow for increased responsiveness to changes in market factors.

Our derivative activities are overseen by a committee ("Hedging Committee"), which is composed of our chief executive officer, chief financial officer, chief accounting officer, treasurer and other officers and employees selected by the chief executive officer. The Hedging Committee meets regularly to review commodity price exposure, derivative positions and strategy. Management reviews the scope of the Hedging Committee's activities with our Board of Directors.

We are exposed to counterparty credit risk on all of our derivative instruments, which we manage by monitoring the credit quality of our counterparties and allocating our hedging positions among multiple counterparties to limit exposure to any single entity. Our counterparties are major investment grade financial institutions or trading companies, and our hedging transactions are governed by negotiated International Swaps and Derivatives Association Master Agreements, which generally require collateral to be posted by our counterparties above specified credit thresholds which may adjust up or down, based on increases or decreases in counterparty credit ratings. As a result, we believe the risk of loss is remote and contained. The aggregate fair value of our derivative instruments that were in a net liability position was \$3.3 million and zero at December 31, 2022 and December 31, 2021, respectively, and we had no collateral posted as of those dates.

Additionally, our firm-price customer sales commitments create incremental customer credit risk related to metal price movements. Under certain circumstances, we mitigate this risk by periodically requiring cash collateral from them, which we classify as deferred revenue and include as a component of Other accrued liabilities. We had no cash collateral posted from our customers at both December 31, 2022 and December 31, 2021. For more information about concentration risks concerning customers and suppliers, see Note 17.

Cash Flow Hedges

We designate as cash flow hedges forward swap contracts for aluminum, energy and, from time to time, zinc and copper ("Alloying Metals") used in our fabrication operations and foreign currency forward contracts for equipment and services for which payments are due in foreign currency. Unrealized gains and losses associated with our cash flow hedges are deferred in Other comprehensive (loss) income, net of tax, and reclassified to COGS when such hedges settle or when it is probable that the original forecasted transactions will not occur by the end of the originally specified time period. See Note 11 for the total amount of gain or loss on derivative instruments designated and qualifying as cash flow hedging instruments and fair value hedging instruments that was reported in Accumulated other comprehensive income (loss) ("AOCI"), as well as the related reclassifications into earnings and tax effects. Cumulative gains and losses related to cash flow hedges are reclassified out of AOCI and recorded within COGS when the associated hedged commodity purchases impact earnings.

Aluminum Hedges. Our pricing of fabricated aluminum products is generally intended to lock in our Conversion Revenue (representing our value added from the fabrication process) and to pass through aluminum price fluctuations to our customers. For some of our higher margin products sold on a spot basis, the pass through of aluminum price movements can sometimes lag by as much as several months, with a favorable impact to us when aluminum prices decline and an adverse impact to us when aluminum

prices increase. Additionally, in certain instances, we enter into firm-price arrangements with our customers for stipulated volumes to be delivered in the future. Because we generally purchase primary and secondary aluminum on a floating price basis, the lag in passing through aluminum price movements to customers on some of our higher margin products sold on a spot basis and the volume that we have committed to sell to our customers under a firm-price arrangement create aluminum price risk for us. We use third-party hedging instruments to limit exposure to aluminum price risk related to the aluminum pass through lag on some of our products and firm-price customer sales contracts.

Alloying Metals Hedges. We are exposed to risk of fluctuating prices for alloying metals used as raw materials in our fabrication operations. We, from time to time, in the ordinary course of business, enter into hedging transactions and/or physical delivery commitments with third parties to mitigate our risk from fluctuations in certain alloying metals prices that are not passed through pursuant to the terms of our customer contracts.

Energy Hedges. We are exposed to risk of fluctuating prices for natural gas and electricity. We, from time to time, in the ordinary course of business, enter into hedging transactions and/or physical delivery commitments with third parties to mitigate our risk from fluctuations in natural gas and electricity prices that are not passed through pursuant to the terms of our customer contracts.

The following table summarizes the percentage of our expected variable priced purchases of metal alloys and energy for which we have executed derivative and/or physical delivery commitments in place to reduce price fluctuations for the next five years as of December 31, 2022:

	2023	2024	2025	2026	2027
Zinc	11%	_	_	_	_
Copper	19%	_	_	_	_
Magnesium	98%	67%	27%	_	_
Silicon	100%	_	_	_	_
Natural Gas	44%	42%	23%	19%	_
Electricity	56%		_	_	_

Foreign Currency Hedges. We are exposed to foreign currency exchange risk related to certain supply and service agreements with vendors for which payments are due in foreign currency. We, from time to time, in the ordinary course of business, use foreign currency forward contracts in order to mitigate the exposure to currency exchange rate fluctuations related to these purchases.

Fair Value Hedges

We are exposed to foreign currency exchange risk related to firm-price commitments for equipment purchases from foreign manufacturers. We, from time to time, in the ordinary course of business, use third-party hedging instruments to mitigate our exposure to currency exchange rate fluctuations on these purchases and designate such hedging instruments as fair value hedges. Gain or loss related to components excluded from the assessment of effectiveness from these fair value hedges is first recognized in AOCI and subsequently reclassified to Depreciation and amortization on a straight-line basis over the term of the hedge. Gain or loss on the hedged item (e.g., equipment purchase firm commitments) and the remaining gain or loss on the fair value hedge is recorded within Depreciation and amortization in the period that the gain or loss occurs. Any difference between the change in the fair value of the excluded component and amounts recognized in income on a straight-line basis over the term of the hedge is recognized in AOCI.

Non-Designated Hedges of Operational Risks

From time to time, we enter into commodity contracts that are not designated as hedging instruments to mitigate certain short-term commodity impacts, as identified. The gain or loss on these derivatives is recognized within COGS.

Notional Amount of Derivative Contracts

The following table summarizes our derivative positions at December 31, 2022:

Aluminum	Maturity Period	Notional Amount of Contracts (mmlbs)
Fixed price purchase contracts	January 2023 through	
	February 2024	63.0
Midwest premium swap contracts ¹	January 2023 through	
	February 2024	63.0
		Notional Amount of
Alloying Metals	Maturity Period	Contracts (mmlbs)
Fixed price purchase contracts	January 2023 through December 2023	1.7
	December 2023	1.2
		Notional Amount of
Natural Gas	Maturity Period	Contracts (mmbtu)
Fixed price purchase contracts	January 2023 through	
	December 2025	3,480,000
		Notional Amount of
Euros	Maturity Period	Contracts (EUR)
Fixed price forward contracts	March 2023 through	
•	February 2024	908,441
		N
British Pounds	Maturity Period	Notional Amount of Contracts (GBP)
Fixed price forward contracts	May 2023 through	
	September 2023	202,128

^{1.} Regional premiums represent the premium over the London Metal Exchange price for primary aluminum which is incurred on our purchases of primary aluminum.

Loss (Gain)

The following table summarizes the amount of loss (gain) included in our Statements of Consolidated (Loss) Income associated with all derivative contracts (in millions of dollars):

	Year Ended December 31,					Statements of Consolidated	
		2022		2021		2020	(Loss) Income Classification
Total of income and expense line items presented in our Statements of Consolidated (Loss) Income in which the effects of hedges are recorded:							
Cash flow hedges	\$	3,180.2	\$	2,348.1	\$	941.3	Cost of products sold
Fair value hedges		n/a		n/a	\$	52.2	Depreciation and amortization
Fair value hedges		n/a		n/a	\$	(1.4)	Other income (expense), net
Loss (gain) recognized in our Statements of Consolidated (Loss) Income related to cash flow hedges:							
Aluminum	\$	7.4	\$	(35.2)	\$	13.7	Cost of products sold
Alloying Metals (effective hedges)		_		0.1		1.4	Cost of products sold
Alloying Metals (reclassification from AOCI due to forecasted transactions no longer probable of occurring)		_		_		0.8	Cost of products sold
Natural gas		(6.6)		(2.1)		1.3	Cost of products sold
Electricity		(11.3)		(4.7)		0.5	Cost of products sold
Total (gain) loss recognized in our Statements of Consolidated (Loss) Income related to cash flow hedges	\$	(10.5)	\$	(41.9)	\$	17.7	
Loss (gain) recognized in our Statements of Consolidated (Loss) Income related to fair value hedges:							
Foreign exchange contracts	\$	_	\$	_	\$	(0.1)	Depreciation and amortization
Hedged item		_		_		0.1	Depreciation and amortization
Excluded component amortized from AOCI		_		_		0.4	Depreciation and amortization
Reclassification from AOCI related to early termination of firm commitment		_		_		0.6	Other income (expense), net
Net settlement related to early termination of forward contracts						(0.7)	Other income (expense), net
Total loss recognized in our Statements of Consolidated (Loss) Income related to fair value hedges	\$		\$		\$	0.3	
(Gain) loss recognized in our Statements of Consolidated (Loss) Income related to non-designated hedges:							
Alloying Metals – Realized (gain) loss	\$	(0.5)	\$	(5.0)	\$	0.2	Cost of products sold
Alloying Metals – Unrealized loss (gain)		1.4		1.2		(3.5)	Cost of products sold
Total loss (gain) recognized in our Statements of Consolidated (Loss) Income related to non-designated hedges	\$	0.9	\$	(3.8)	\$	(3.3)	

Fair Values of Derivative Contracts

The fair values of our derivative contracts are based upon trades in liquid markets. Valuation model inputs can be verified, and valuation techniques do not involve significant judgment. The fair values of such financial instruments are classified within Level 2 of the fair value hierarchy.

All of our derivative contracts with counterparties are subject to enforceable master netting arrangements. We reflect the fair value of our derivative contracts on a gross basis on our Consolidated Balance Sheets. The following table presents the fair value of our derivative financial instruments (in millions of dollars):

	As of December 31, 2022					As of December 31, 2021						
	A	ssets	Li	iabilities	Ne	et Amount		Assets	Liabilitie	s	Net A	Amount
Cash Flow Hedges:												
Aluminum –												
Fixed price purchase contracts	\$	0.7	\$	(3.9)	\$	(3.2)	\$	12.2	\$ (1.1)	\$	11.1
Midwest premium swap contracts		0.5		(1.4)		(0.9)		5.5	(0.1)		5.4
Natural gas – Fixed price purchase contracts		4.7		_		4.7		3.0	(0.1)		2.9
Electricity – Fixed price purchase contracts		_		_		_		4.4	(0.6)		3.8
Total cash flow hedges		5.9		(5.3)		0.6		25.1	(1.9)		23.2
Non-Designated Hedges:												
Alloying Metals – Fixed price purchase contracts		_				_		1.6	(0.1)		1.5
Total non-designated hedges						_		1.6	(0.1)		1.5
Total	\$	5.9	\$	(5.3)	\$	0.6	\$	26.7	\$ (2.0)	\$	24.7

The following table presents the total amounts of derivative assets and liabilities on our Consolidated Balance Sheets (in millions of dollars):

	As of December 31,					
	2022					
Derivative assets:						
Prepaid expenses and other current assets	\$ 3.6	\$	25.0			
Other assets	2.3		1.7			
Total derivative assets	\$ 5.9	\$	26.7			
Derivative liabilities:						
Other accrued liabilities	\$ (5.3)	\$	(1.9)			
Long-term liabilities	_		(0.1)			
Total derivative liabilities	\$ (5.3)	\$	(2.0)			

Fair Value of Other Financial Instruments

All Other Financial Assets and Liabilities. We believe that the fair values of our accounts receivable, contract assets, accounts payable and accrued liabilities approximate their respective carrying values due to their short maturities and nominal credit risk.

9. Debt and Credit Facility

Senior Notes

During the years ended December 31, 2021, December 31, 2020 and December 31, 2019, we issued fixed rate unsecured notes with varying maturity dates ("Senior Notes"). The stated interest rates and aggregate principal amounts of our Senior Notes were, respectively: (i) 4.50% and \$550.0 million ("4.50% Senior Notes"); (ii) 6.50% and \$350.0 million ("6.50% Senior Notes"); and

(iii) 4.625% and \$500.0 million ("4.625% Senior Notes"). Our Senior Notes do not require us to make any mandatory redemptions or sinking fund payments. The following table summarizes key details of our Senior Notes:

			As of December 31,						
				2022		2021			
Issuance Date	Maturity	Effective Interest Rate	_	(in millions	of dollars	s)			
May 2021	June 2031	4.7%	\$	550.0	\$	550.0			
April/May 2020	May 2025	6.8%		_		_			
November 2019	March 2028	4.8%		500.0		500.0			
				1,050.0		1,050.0			
				(11.9)		(13.7)			
			\$	1,038.1	\$	1,036.3			
	May 2021 April/May 2020	May 2021 June 2031 April/May 2020 May 2025	May 2021 June 2031 4.7% April/May 2020 May 2025 6.8%	May 2021 June 2031 4.7% \$ April/May 2020 May 2025 6.8%	Issuance Date Maturity Effective Interest Rate (in millions May 2021 June 2031 4.7% \$ 550.0 April/May 2020 May 2025 6.8% — November 2019 March 2028 4.8% 500.0 1,050.0 1,050.0 (11.9) 1,050.0	Susance Date Maturity Effective Interest Rate Cin millions of dollars			

In May 2021, we redeemed in full our 6.50% Senior Notes at a redemption price of 108.83% of the principal amount plus \$1.3 million of accrued and unpaid interest for a total net cash outflow of \$382.2 million. Upon redemption of the 6.50% Senior Notes, we recorded a loss on extinguishment of debt of \$35.9 million within Other income (expense), net, in our Statements of Consolidated (Loss) Income, which included the premium payment of \$30.9 million and a write-off of the remaining unamortized premium and debt issuance costs of \$5.0 million.

The following table presents the fair value of our outstanding Senior Notes, which are Level 1 liabilities (in millions of dollars):

	As of Dec	As of December 31,					
	 2022		2021				
4.50% Senior Notes	\$ 438.7	\$	542.6				
4.625% Senior Notes	\$ 440.4	\$	506.9				

Revolving Credit Facility

In October 2019, we entered into a revolving credit facility with Wells Fargo Bank, National Association, as administrative agent, and the other financial institutions party thereto (the "Revolving Credit Facility"). Joining us as borrowers ("Co-Borrowers") under the Revolving Credit Facility are four of our wholly owned domestic operating subsidiaries: (i) Kaiser Aluminum Investments Company; (ii) Kaiser Aluminum Fabricated Products, LLC; (iii) Kaiser Aluminum Washington, LLC; and (iv) Kaiser Aluminum Warrick, LLC.

In April 2022, we entered into Amendment No. 3 to our Revolving Credit Facility. As amended, the Revolving Credit Facility, among other things: (i) increased the commitment from \$375.0 million to \$575.0 million (of which up to a maximum of \$50.0 million may be utilized for letters of credit); (ii) extended the maturity date from the earlier of (a) February 2024 (if certain conditions were met) and (b) October 2024 to April 2027; (iii) removed eligible equipment from the borrowing base and as collateral; and (iv) updated relevant benchmark provisions from LIBOR to Term SOFR.

The following table summarizes availability and usage of our Revolving Credit Facility as determined by a borrowing base calculated as of December 31, 2022 (in millions of dollars):

Revolving Credit Facility borrowing commitment	\$ 575.0
Borrowing base availability	\$ 575.0
Less: Outstanding borrowings under Revolving Credit Facility	_
Less: Outstanding letters of credit under Revolving Credit Facility	(17.2)
Remaining borrowing availability	\$ 557.8

Interest Expense

The following table presents interest expense relating to our Senior Notes and Revolving Credit Facility (in millions of dollars):

	Year Ended December 31,								
		2022		2021		2020			
Senior Notes interest expense, including debt issuance cost amortization	\$	49.6	\$	49.0	\$	40.2			
Revolving Credit Facility commitment fees and finance cost amortization		2.3		1.7		1.7			
Interest expense capitalized as construction in progress		(3.6)		(1.2)		(1.0)			
Total interest expense	\$	48.3	\$	49.5	\$	40.9			

10. Commitments and Contingencies

Commitments. We have a variety of financial commitments, including purchase agreements, forward foreign exchange and forward sales contracts, indebtedness and letters of credit (see Note 3, Note 8 and Note 9).

CAROs. The inputs in estimating the fair value of CAROs include: (i) the timing of when any such CARO cash flows may be incurred; (ii) incremental costs associated with special handling or treatment of CARO materials; and (iii) the credit-adjusted risk-free rate applicable at the time additional CARO cash flows are estimated. The majority of these inputs are considered Level 3 inputs as they involve significant judgment from us.

The following table summarizes activity relating to CARO liabilities (in millions of dollars):

	Year Ended December 31,							
	 2022		2021		2020			
Beginning balance	\$ 7.2	\$	6.7	\$	6.5			
Liabilities added during the period	2.3		_		_			
Liabilities settled during the period	(0.1)		(0.1)		(0.1)			
Accretion expense	0.7		0.6		0.5			
Adjustment to accretion expense due to revisions to estimated cash flow and timing of expenditure ¹	 _		_		(0.2)			
Ending balance	\$ 10.1	\$	7.2	\$	6.7			

The adjustments to accretion expense had a \$0.01 impact on the basic and diluted net income per share for 2020.

The estimated fair value of CARO liabilities were based upon the application of a weighted-average credit-adjusted risk-free rate of 8.23% and 8.70% at December 31, 2022 and December 31, 2021, respectively. CAROs are included in Other accrued liabilities or Long-term liabilities, as appropriate.

Environmental Contingencies. We are subject to a number of environmental laws and regulations, potential fines or penalties assessed for alleged breaches of such laws and regulations and potential claims based upon such laws and regulations. We are also subject to legacy environmental contingencies related to activities that occurred at operating facilities prior to July 6, 2006, which represent the majority of our environmental accruals. The status of these environmental contingencies are discussed below. We have established procedures for regularly evaluating environmental loss contingencies. Our environmental accruals represent our undiscounted estimate of costs reasonably expected to be incurred based on presently enacted laws and regulations, currently available facts, existing requirements, existing technology and our assessment of the likely remediation actions to be taken.

We continue to pursue remediation activities, primarily to address the historical use of oils containing polychlorinated biphenyls ("PCBs") at our Trentwood facility. Our remediation efforts are in collaboration with the Washington State Department of Ecology ("Ecology"), to which we submitted a feasibility study in 2012 of remediation alternatives and from which we received permission to begin certain remediation activities pursuant to a signed work order. We have completed a number of sections of the work plan and have received satisfactory completion approval from Ecology on those sections. In cooperation with Ecology, we constructed an experimental treatment facility to determine the treatability and evaluate the feasibility of removing PCBs from ground water under the Trentwood facility. In 2015, we began treatment operations involving a walnut shell filtration system, which we optimized for maximum PCB capture during 2020. Furthermore, based on advancements in technology, we signed an Amended Agreed Order with

Ecology in 2020 to evaluate and implement new technologies for PCB removal from groundwater on a pilot basis. The primary technology we are evaluating is Ultraviolet Light Advanced Oxidation Process (the "UV Process"). During the quarter ended December 31, 2022, we increased our environmental accrual by \$3.0 million based on a minimum cost estimate to implement the UV Process on a larger scale as part of our milestone submission to Ecology. As the long-term success of the UV Process cannot be reasonably determined at this time, it is possible we may need to make upward adjustments to our related accruals and cost estimates as the long-term results become available.

Pursuant to a consent agreement with the Ohio Environmental Protection Agency ("OEPA"), we initiated an investigational study of our Newark facility related to historical on-site waste disposal. During the quarter ended December 31, 2018, we submitted our remedial investigation study to the OEPA for review and approval. The final remedial investigation report was approved by the OEPA during the quarter ended December 31, 2020. We are currently preparing the required feasibility study, which we expect to submit to the OEPA for review during the quarter ending September 30, 2023. The actual and final remediation cost estimates will not be fully determinable until the feasibility study has been accepted by the OEPA and the selected remediation design work plans are completed, which we expect to occur in the next 11 to 17 months.

The following table presents the changes in our environmental accrual, which was primarily included in Long-term liabilities (in millions of dollars):

		Year Ended December 31,						
		2022			2021		2020	
Beginning balance	9	\$	16.8	\$	18.7	\$	17.0	
Additional accruals			3.2		0.1		5.2	
Less: expenditures			(2.3)		(2.0)		(3.5)	
Ending balance		\$	17.7	\$	16.8	\$	18.7	

At December 31, 2022, our environmental accrual of \$17.7 million represented our estimate of the incremental remediation cost based on: (i) proposed alternatives in the final feasibility study related to the Trentwood facility; (ii) currently available facts with respect to our Newark facility; and (iii) facts related to certain other locations owned or formerly owned by us. In accordance with approved and proposed remediation action plans, we expect that the implementation and ongoing monitoring could occur over a period of 30 or more years.

As additional facts are developed, feasibility studies are completed, remediation plans are modified, necessary regulatory approvals for the implementation of remediation are obtained, alternative technologies are developed and/or other factors change, there may be revisions to management's estimates and actual costs may exceed the current environmental accruals. We believe at this time that it is reasonably possible that undiscounted costs associated with these environmental matters may exceed current accruals by amounts that could be, in the aggregate, up to an estimated \$11.6 million over the remediation period. It is reasonably possible that our recorded estimate will change in the next 12 months.

Other Contingencies. We are party to various lawsuits, claims, investigations and administrative proceedings that arise in connection with past and current operations. We evaluate such matters on a case-by-case basis and our policy is to vigorously contest any such claims we believe are without merit. We accrue for a legal liability when it is both probable that a liability has been incurred and the amount of the loss is reasonably estimable. Quarterly, in addition to when changes in facts and circumstances require it, we review and adjust these accruals to reflect the impacts of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular case. While uncertainties are inherent in the final outcome of such matters and it is presently impossible to determine the actual cost that may ultimately be incurred, we believe that we have sufficiently accrued for such matters and that the ultimate resolution of pending matters will not have a material impact on our consolidated financial position, operating results or liquidity.

11. Accumulated Other Comprehensive Income (Loss)

The following table presents the changes in the accumulated balances for each component of AOCI (in millions of dollars):

		Year Ended December 31,					
		2022		2021		2020	
Defined Benefit Plans:							
Beginning balance	\$	(21.4)	\$	(19.8)	\$	(33.2	
Actuarial gain arising during the period		27.0		8.0		0.4	
Less: income tax expense		(6.5)		(1.9)		(0.1	
Net actuarial gain arising during the period		20.5		6.1		0.3	
Prior service credit (cost) arising during the period		_		(14.0)		12.3	
Less: income tax benefit (expense)				3.3		(3.0	
Net prior service credit (cost) arising during the period		_		(10.7)		9.3	
Amortization of net actuarial loss ¹		_		0.4		0.4	
Amortization of prior service cost ¹		4.9		3.5		4.7	
Less: income tax expense ²		(1.2)		(0.9)		(1.2	
Net amortization reclassified from AOCI to Net (loss) income		3.7		3.0		3.9	
Translation impact on Canadian pension plan AOCI balance		<u> </u>		<u> </u>		(0.1	
Other comprehensive income (loss), net of tax		24.2		(1.6)		13.4	
Ending balance	\$	2.8	\$	(21.4)	\$	(19.8	
			_				
Available for Sale Securities:							
Beginning balance	\$	_	\$	_	\$	0.3	
Unrealized gain on available for sale securities	Ψ	_	Ψ	_	Ψ	1.3	
Less: income tax benefit (expense)		_		_		(0.7	
Net unrealized gain on available for sale securities						0.6	
Reclassification of unrealized loss (gain) upon sale of							
available for sale securities ³		_		_		(2.0	
Less: income tax benefit ²						1.1	
Net loss (gain) reclassified from AOCI to Net (loss) income			_			(0.9	
Other comprehensive income (loss), net of tax						(0.3	
Ending balance	\$		\$		\$		
Cash Flow Hedges:							
Beginning balance	\$	17.7	\$	1.1	\$	(5.6	
Unrealized (loss) gain on cash flow hedges		(12.2)		63.6		(9.4	
Less: income tax benefit (expense)		2.9		(15.0)		2.3	
Net unrealized (loss) gain on cash flow hedges		(9.3)		48.6		(7.1	
Reclassification of unrealized (gain) loss upon settlement of cash flow hedges		(10.5)		(41.9)		17.4	
Reclassification due to forecasted transactions no longer		()		()			
probable of occurring		_		_		3.0	
Less: income tax benefit (expense) ²		2.5		9.9		(4.4	
Net (gain) loss reclassified from AOCI to Net (loss) income		(8.0)		(32.0)		13.8	
Other comprehensive (loss) income, net of tax		(17.3)		16.6		6.7	
Ending balance ⁴	\$	0.4	\$	17.7	\$	1.1	
Zirang omanee	<u> </u>	0.4	<u> </u>	17,7	Ψ		
Fair Value Hedges:			_				
Beginning balance	\$	_	\$	_	\$		
Unrealized gain (loss) on fair value hedges						(1.0	
Less: income tax benefit						0.2	
Net unrealized gain (loss) on fair value hedges		_		_		3.0)	
Excluded component amortized from OCI to Net (loss) income		_		_		0.4	
Reclassification due to cancellation of firm commitment		_		_		0.6	
Less: income tax benefit (expense) ²		_		_		(0.2	
Net loss reclassified from AOCI to Net (loss) income						3.0	
Other comprehensive income, net of tax		_	-			_	
Ending balance	\$		\$		\$	_	
Foreign Currency Translation:							
	¢		¢		¢	(0.1	
Beginning balance Other comprehensive income not of tay	\$	_	\$	_	\$	(0.1	
Other comprehensive income, net of tax	<u></u>		¢.		¢	0.1	
Ending balance	\$		\$		\$	_	
Total AOCI ending balance	\$	3.2	\$	(3.7)	\$	(18.7	

- 1. Amounts amortized out of AOCI related to pension and other postretirement benefits were included within Net periodic postretirement benefit cost (see Note 5).
- Income tax amounts reclassified out of AOCI were included as a component of Income tax benefit (provision).
- 3. Amounts reclassified out of AOCI relating to sales of available for sale securities were included as a component of Other income (expense), net. We use the specific identification method to determine the amount reclassified out of AOCI.
- 4. As of December 31, 2022, we estimate a net mark-to-market loss before tax of \$1.7 million in AOCI will be reclassified into Net (loss) income upon settlement within the next 12 months.

12. Restructuring

2022 Restructuring Plan. During 2022, we relocated our corporate headquarters from Foothill Ranch, California ("Foothill Ranch") to Franklin, Tennessee ("Franklin"). In conjunction with the relocation, we initiated a restructuring plan during the quarter ended December 31, 2022, which consisted primarily of employee retention benefits aimed at incentivizing Foothill Ranch employees to assist with the buildout of the new corporate function in Franklin ("2022 Restructuring Plan"). At December 31, 2022, the total amount expected to be incurred in connection with the 2022 Restructuring Plan was \$4.5 million. During the year ended December 31, 2022, we incurred restructuring costs of \$2.2 million related to the 2022 Restructuring Plan, which consisted of employee-related costs and office rent within Restructuring costs (benefit) in our Statements of Consolidated (Loss) Income. We intend to be fully completed with the 2022 Restructuring Plan by December 31, 2023.

2020 Restructuring Plan. We initiated a restructuring plan during the quarter ended June 30, 2020, which consisted primarily of reduction in force measures ("2020 Restructuring Plan") in order to align our projected operational requirements with reduced short and mid-term commercial aerospace demand as a result of the Coronavirus Disease 2019 ("COVID-19") pandemic. We incurred total restructuring costs of \$6.7 million related to the 2020 Restructuring Plan, which consisted of severance, voluntary buyout packages, outplacement services, estimated medical costs and associated payroll costs within Restructuring costs (benefit) in our Statements of Consolidated (Loss) Income. We completed the 2020 Restructuring Plan as of December 31, 2021.

The following table summarizes activity relating to restructuring plan liabilities (in millions of dollars):

		Year Ended December 31,							
	2	2022		2021					
Beginning balance	\$	_	\$	1.4					
Restructuring costs		2.2		_					
Costs paid or otherwise settled		(0.5)		(0.6)					
Other adjustments ¹		_		(0.8)					
Ending balance	\$	1.7	\$	_					

In 2021, we revised our production forecasts, thereby reducing the estimated number of headcount reductions necessary under the 2020 Restructuring Plan as compared with our initial requirements. These reductions to accommodate the revised headcount requirements are included in Other adjustments with an offset to Restructuring costs (benefit) in our Statements of Consolidated (Loss) Income.

13. Other Income (Expense), Net

The following table presents the components of Other income (expense), net, (in millions of dollars):

	Year Ended December 31,						
	2	2022		2021		2020	
Interest income	\$	1.3	\$	0.2	\$	0.6	
Net periodic postretirement benefit cost		(5.6)		(4.1)		(4.7)	
Realized gain on available for sale securities		_		_		2.0	
Unrealized (loss) gain on equity securities		(1.2)		(0.2)		0.7	
Gain (loss) on extinguishment of debt – Note 9		_		(35.9)		_	
Gain (loss) on disposition of property, plant and equipment		6.0		0.5		(0.2)	
Post-acquisition funding received from Alcoa Corporation ¹		6.0		_		_	
All other, net		(0.1)		0.6		0.2	
Other income (expense), net	\$	6.4	\$	(38.9)	\$	(1.4)	

Reimbursement received for repairs and maintenance expenditures on certain machinery and equipment that we had purchased from Alcoa Corporation in connection with our March 31, 2021 acquisition of Warrick.

14. Income Tax Matters

The following table presents (Loss) income before income taxes by geographic area (in millions of dollars):

	Year Ended December 31,							
	2022			2021		2020		
Domestic	\$	(44.6)	\$	(30.2)	\$	35.2		
Foreign		6.7		6.2		3.6		
(Loss) income before income taxes	\$	(37.9)	\$	(24.0)	\$	38.8		

Tax Benefit (Provision). Income taxes are classified as either domestic or foreign based on whether payment is made or due to the United States or a foreign country. Certain income classified as foreign is also subject to domestic income taxes.

The following table presents the components of Income tax benefit (provision) (in millions of dollars):

	Fed	leral	Foreign	State	Total
Year Ended December 31, 2022					_
Current	\$	_	\$ (1.1)	\$ (2.5)	\$ (3.6)
Deferred		8.9	(0.8)	1.6	9.7
Benefit applied to decrease AOCI		1.7	0.2	0.3	2.2
Income tax benefit (provision)	\$	10.6	\$ (1.7)	\$ (0.6)	\$ 8.3
Year Ended December 31, 2021					
Current	\$	_	\$ (2.4)	\$ (3.5)	\$ (5.9)
Deferred		2.1	0.5	4.2	6.8
Benefit applied to decrease AOCI		3.7	0.3	0.6	4.6
Income tax benefit (provision)	\$	5.8	\$ (1.6)	\$ 1.3	\$ 5.5
Year Ended December 31, 2020					
Current	\$	6.1	\$ (0.4)	\$ (0.6)	\$ 5.1
Deferred		(18.8)	(0.1)	(2.3)	(21.2)
Benefit (expense) applied to decrease (increase) AOCI		5.1	(0.1)	1.1	6.1
Income tax provision	\$	(7.6)	\$ (0.6)	\$ (1.8)	\$ (10.0)

The following table presents a reconciliation between the benefit (provision) for income taxes and the amount computed by applying the federal statutory income tax rate to (Loss) income before income taxes (in millions of dollars):

	Year Ended December 31,					
		2022		2021		2020
Amount of federal income tax benefit (provision) based on the statutory rate	\$	8.0	\$	5.0	\$	(8.1)
Decrease in federal valuation allowances		1.1		0.2		_
Non-deductible compensation expense		(0.9)		(0.5)		(1.1)
Non-deductible (expense) benefit		(1.0)		(0.2)		0.4
State income tax (provision) benefit, net of federal benefit ¹		(0.5)		1.0		(1.5)
Research and development credit		2.2		0.6		0.4
Gross decreases for tax positions from prior years		_		_		0.4
Foreign income tax expense		(0.3)		(0.3)		(0.4)
Foreign undistributed earnings		(0.3)		(0.3)		(0.1)
Income tax benefit (provision)	\$	8.3	\$	5.5	\$	(10.0)

The state income tax benefit was \$1.1 million in 2022, reflecting an increase of \$1.5 million due to state net operating loss ("NOL") carryforward expirations and tax rate true-ups in various states and a \$0.1 million increase in the valuation allowance relating to certain state net operating losses. The state income tax benefit was \$0.7 million in 2021, reflecting an increase of \$1.3 million due to state NOL carryforward expirations and tax rate true-ups in various states, offset by a \$1.6 million decrease in the valuation allowance relating to certain state net operating losses. State income taxes were \$1.3 million in 2020, reflecting an increase of \$3.7 million due to state NOL carryforward expirations and tax rate true-ups in various states, partially offset by a \$3.5 million decrease in the valuation allowance relating to certain state net operating losses.

Deferred Income Taxes. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes. The following table presents the components of our net deferred income tax assets and liabilities (in millions of dollars):

	As of December 31,			
		2022		2021
Deferred income tax assets:				
Loss and credit carryforwards	\$	47.7	\$	51.5
Pension benefits		2.9		7.1
Other assets		36.3		29.0
Lease assets		10.6		11.7
Inventories		46.9		50.4
Excess interest carryforward		12.2		_
Research & development capitalization		8.7		_
Valuation allowances		(3.7)		(4.6)
Total deferred income tax assets		161.6		145.1
Deferred income tax liabilities:				
Property, plant and equipment		(147.0)		(138.9)
Lease liability		(9.3)		(10.9)
Undistributed foreign earnings		(2.7)		(2.4)
Total deferred income tax liabilities		(159.0)		(152.2)
Net deferred income tax assets (liabilities)	\$	2.6	\$	(7.1)

Tax Attributes. At December 31, 2022, we had \$160.7 million of NOL carryforwards available to reduce future cash payments for federal income taxes in the United States. H.R.1, commonly referred to as the Tax Cut and Jobs Act, allows NOLs generated prior to December 31, 2017 (including our NOL carryforwards) to be fully deducted against 100% of taxable income until fully utilized or expired. NOL carryforwards generated after December 31, 2017 do not expire and can be carried forward indefinitely. For losses arising in taxable years beginning after December 31, 2017, the net operating loss deduction for taxable years beginning after December 31, 2020, is limited to 80% of the excess (if any) of taxable income. Our State NOL carryforwards expire periodically through 2030.

In addition, we had \$12.0 million of federal research and development ("R&D") credit carryforwards to offset regular federal income tax requirements. Our R&D credit carryforwards expire periodically through 2042.

In assessing the realizability of deferred tax assets, management considers whether it is "more likely than not" that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers taxable income in carryback years, the scheduled reversal of deferred tax liabilities, tax planning strategies and projected future taxable income in making this assessment. Due to uncertainties surrounding the realization of some of our deferred tax assets, primarily including state NOL carryforwards sustained during the prior years and expiring tax benefits, we have a valuation allowance against certain deferred tax assets. When recognized, the tax benefits relating to any reversal of this valuation allowance will be recorded as a reduction of income tax expense. There was a decrease in the valuation allowance of \$0.9 million in 2022, a decrease in the valuation allowance of \$1.8 million in 2021 and a decrease in the valuation allowance of \$3.5 million in 2020.

The decrease in the valuation allowance for 2022 was primarily due to the liquidation of an inactive passive insurance company, and its related separate return limitation year ("SRLY") net operating losses. The decrease in the valuation allowance for 2021 was primarily due to the expiration of state NOL carryforwards and the related reversal of their valuation allowances. The decrease in the valuation allowance for 2020 was primarily due to the expiration of state NOL carryforwards and the related reversal of their valuation allowances.

Other. We and our subsidiaries file income tax returns in the U.S. federal jurisdiction and various states and foreign jurisdictions.

Our tax returns for certain past years are still subject to examination by taxing authorities and the use of NOL carryforwards in future periods could trigger a review of attributes and other tax matters in years that are not otherwise subject to examination.

We have gross unrecognized benefits relating to uncertain tax positions. The following table presents a reconciliation of changes in the gross unrecognized tax benefits (in millions of dollars):

	Year Ended December 31,						
	2022		2021		2020		
Gross unrecognized tax benefits at beginning of period	\$	4.1	\$	3.8	\$	4.1	
Gross increases for tax positions of current year		0.9		0.3		0.1	
Gross increases for tax positions of prior years		0.1		0.4		_	
Gross decreases for tax positions of prior years		(0.1)		(0.3)		(0.4)	
Settlements		_		(0.1)		_	
Gross unrecognized tax benefits at end of period	\$	5.0	\$	4.1	\$	3.8	

If and when the \$5.0 million of gross unrecognized tax benefits at December 31, 2022 are recognized, \$5.0 million will be reflected in our income tax provision and thus affect the effective tax rate in future periods.

In addition, we recognize interest and penalties related to unrecognized tax benefits in the income tax provision. We had \$0.1 million and \$0.2 million accrued for interest and penalties at December 31, 2022 and December 31, 2021, respectively. Of these amounts, none were considered current and, as such, were included in Long-term liabilities on our Consolidated Balance Sheets as of December 31, 2022 and December 31, 2021. We recognized interest and penalties of \$0.3 million in our tax provision in 2020.

We do not expect our gross unrecognized tax benefits to significantly change within the next 12 months.

15. Net (Loss) Income Per Share

Basic net (loss) income per share is computed by dividing distributed and undistributed net (loss) income allocable to common shares by the weighted-average number of common shares outstanding during the applicable period. The basic weighted-average number of common shares outstanding during the period excludes non-vested share-based payment awards. Diluted net (loss) income per share was calculated under the treasury stock method for 2022, 2021 and 2020, which in all years was more dilutive than the two-class method.

The following table sets forth the computation of basic and diluted net (loss) income per share (in millions of dollars, except share and per share amounts):

	Year Ended December 31,						
	20)22	2021		2021		
Numerator:							
Net (loss) income	\$	(29.6)	\$	(18.5)	\$	28.8	
Denominator – Weighted-average common shares outstanding (in thousands):							
Basic		15,906		15,836		15,802	
Add: dilutive effect of non-vested common shares, restricted stock units and performance shares ¹		_		_		111	
Diluted		15,906		15,836		15,913	
Net (loss) income per common share, Basic	\$	(1.86)	\$	(1.17)	\$	1.82	
Net (loss) income per common share, Diluted	\$	(1.86)	\$	(1.17)	\$	1.81	

Quantities in the following discussion are denoted in whole shares. For the years ended December 31, 2022 and December 31, 2021, approximately 139,000 and 213,000 potentially dilutive shares, respectively, were excluded from the computation of net loss per share as their effect would have been anti-dilutive. A total of 44,000 non-vested RSAs, RSUs and performance shares for the year ended December 31, 2020 were excluded from the weighted-average diluted shares computation as their inclusion would have been anti-dilutive.

16. Supplemental Cash Flow Information

Year Ended December 31,					
2022					2020
		(in millio			
\$	45.7	\$	48.7	\$	29.4
			_		
\$	28.9	\$	14.0	\$	4.5
\$	3.1	\$	27.8	\$	5.4
<u></u>		<u>, </u>			
\$	9.8	\$	8.2	\$	4.5
\$	1.0	\$	2.2	\$	3.2
	202				2020
	2022				2020
		(111 1111110	ons of donars)		
\$	57.4	\$	303.2	\$	780.3
	13.9		13.8		14.0
		_			
\$	71.3	\$	317.0	\$	794.3
	\$ \$ \$ \$	\$ 45.7 \$ 28.9 \$ 3.1 \$ 9.8 \$ 1.0	\$ 45.7 \$ \$ \$ 45.7 \$ \$ \$ \$ 28.9 \$ \$ \$ \$ \$ 3.1 \$ \$ \$ \$ 9.8 \$ \$ \$ 1.0 \$ \$ \$ 45.7 \$ \$ \$ \$ 1.0 \$ \$ \$ \$ 57.4 \$ \$ 13.9	2022 2021 (in millions of dollars) \$ 45.7	2022 2021 (in millions of dollars) \$ 45.7

17. Business, Product and Geographical Area Information and Concentration of Risk

Our primary line of business is the production of semi-fabricated specialty aluminum mill products, such as plate and sheet, bare and coated coils and extruded and drawn products, primarily used in our Aero/HS products, Packaging, GE products, Automotive Extrusions and Other products end markets. We operate 13 focused production facilities in the United States and one in Canada. Our chief operating decision maker reviews and evaluates our business as a single operating segment. At December 31, 2022, approximately 66% of our employees were covered by collective bargaining agreements and 34% of those employees were covered by collective bargaining agreements with expiration dates occurring within one year from December 31, 2022.

The following table presents Net sales by end market applications and by timing of control transfer (in millions of dollars):

	Year Ended December 31,					
		2022		2021		2020
Net sales:						
Aero/HS products	\$	676.1	\$	533.7	\$	537.9
Packaging		1,585.3		1,119.3		_
GE products		883.8		706.1		458.8
Automotive Extrusions		254.8		225.0		161.4
Other products		27.9		37.9		14.6
Total net sales	\$	3,427.9	\$	2,622.0	\$	1,172.7
Timing of revenue recognition:						
Products transferred at a point in time	\$	2,782.9	\$	2,067.9	\$	690.9
Products transferred over time		645.0		554.1		481.8
Total net sales	\$	3,427.9	\$	2,622.0	\$	1,172.7

The following table presents geographic information for net sales based on country of origin, income taxes paid and long-lived assets (in millions of dollars):

	Year Ended December 31,									
		2022		2022		2022 20		2021		2020
Net sales to unaffiliated customers:										
Domestic	\$	3,328.2	\$	2,545.0	\$	1,126.8				
Foreign ¹		99.7		77.0		45.9				
Total net sales	\$	3,427.9	\$	2,622.0	\$	1,172.7				
Income taxes paid:										
Domestic	\$	3.1	\$	4.5	\$	0.7				
Foreign		3.2		1.1		0.3				
Total income taxes paid	\$	6.3	\$	5.6	\$	1.0				
	As of December 31,									
		2022		2021		2020				
Long-lived assets: ²										
Domestic	\$	984.8	\$	925.3	\$	597.5				
Foreign ¹		28.4		29.9		29.7				
Total long-lived assets	\$	1,013.2	\$	955.2	\$	627.2				

Foreign reflects our London, Ontario production facility.

The aggregate foreign currency transaction loss included in determining Net (loss) income was \$0.5 million and \$0.3 million for 2022 and 2020, respectively, and zero for 2021.

Concentrations. For the years ended December 31, 2022, December 31, 2021 and December 31, 2020, one customer represented 19%, 16% and 26%, respectively, of Net sales and a second customer represented 14%, 15% and 11%, respectively, of Net sales.

One individual customer accounted for 17%, a second individual customer accounted for 14% and a third individual customer accounted for 13% of the accounts receivable balance at December 31, 2022. One individual customer accounted for 16%, a second individual customer accounted for 13% and a third individual customer accounted for 11% of the accounts receivable balance at December 31, 2021.

The following table presents information about export sales and primary aluminum supply from our major suppliers:

	Year :	Ended December 31,	
	2022	2021	2020
Percentage of Net sales:			
Export sales	10 %	10%	10 %
Percentage of total annual primary aluminum supply (lbs):			
Supply from our top five major suppliers	81 %	78%	72 %
Supply from our largest supplier	48 %	47 %	21 %
Supply from our second and third largest suppliers combined	20%	20%	32 %

18. Subsequent Events

Dividend Declaration. On January 12, 2023, we announced that our Board of Directors declared a quarterly cash dividend of \$0.77 per common share. As such, we paid approximately \$12.5 million (including dividend equivalents) on February 15, 2023 to stockholders of record and the holders of certain restricted stock units at the close of business on January 25, 2023.

Long-lived assets represent Property, plant and equipment, net.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures. We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports under the Securities Exchange Act of 1934 is processed, recorded, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to management, including the principal executive officer and principal financial officer, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. An evaluation of the effectiveness of the design and operation of our disclosure controls and procedures was performed as of the end of the period covered by this Report under the supervision of and with the participation of our management, including the principal executive officer and principal financial officer. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2022 at the reasonable assurance level.

Management's Annual Report on Internal Control Over Financial Reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is designed under the supervision of our principal executive officer and principal financial officer and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States and include those policies and procedures that:

- (1) Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and the dispositions of our assets;
- (2) Provide reasonable assurance that our transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States and that our receipts and expenditures are being made only in accordance with authorizations of our management and Board of Directors; and
- (3) Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we assessed the effectiveness of our internal control over financial reporting as of December 31, 2022, using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control – Integrated Framework as established in 2013. Based on that evaluation, our principal executive officer and principal financial officer concluded that our internal control over financial reporting was effective as of December 31, 2022.

Deloitte & Touche LLP, the independent registered public accounting firm that audited our consolidated financial statements for the year ended December 31, 2022 included in Item 8. "Financial Statements and Supplementary Data" of this Report, has issued an attestation report on the effectiveness of our internal control over financial reporting.

Changes in Internal Control Over Financial Reporting. We had no changes in our internal control over financial reporting during our most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not Applicable.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item is incorporated by reference to the information included under the captions "Executive Officers," "Proposals Requiring Your Vote – Proposal 1 – Election of Directors" and "Corporate Governance" in our proxy statement for the 2023 annual meeting of stockholders.

Item 11. Executive Compensation

The information required by this item is incorporated by reference to the information included under the captions "Executive Compensation," "Director Compensation" and "Corporate Governance – Board Committees – Compensation Committee – Compensation Committee Interlocks and Insider Participation" in our proxy statement for the 2023 annual meeting of stockholders.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is incorporated by reference to the information included under the captions "Equity Compensation Plan Information" and "Principal Stockholders and Management Ownership" in our proxy statement for the 2023 annual meeting of stockholders.

Item 13. Certain Relationships and Related Transactions and Director Independence

The information required by this item is incorporated by reference to the information included under the captions "Certain Relationships and Related Transactions" and "Corporate Governance – Director Independence" in our proxy statement for the 2023 annual meeting of stockholders.

Item 14. Principal Accountant Fees and Services

The information required by this item is incorporated by reference to the information included under the caption "Independent Public Accountants" in our proxy statement for the 2023 annual meeting of stockholders.

PART IV

Item 15. Exhibits and Financial Statement Schedules

1. Financial Statements

The following are contained in this Annual Report on Form 10-K:

Report of Independent Registered Public Accounting Firm	47
Consolidated Balance Sheets	51
Statements of Consolidated (Loss) Income	52
Statements of Consolidated Comprehensive (Loss) Income	53
Statements of Consolidated Stockholders' Equity	54
Statements of Consolidated Cash Flows	55
Notes to Consolidated Financial Statements	56

2. Financial Statement Schedules

All schedules are omitted because they are either inapplicable or the required information is included in our Consolidated Financial Statements or the notes thereto included in Item 8. "Financial Statements and Supplementary Data" and incorporated herein by reference.

3. Exhibits Index

Exhibit		Provided		Incorp	orated by R	eference
No.	Exhibit Description	Herewith	Form	File Number	Exhibit	Filing Date
2.1	Purchase Agreement, dated as of November 30, 2020, by and between Alcoa Corporation and Kaiser Aluminum Corporation		8-K	001-09447	2.1	November 30, 2020
3.1	Amended and Restated Certificate of Incorporation of the Company		8-A	000-52105	3.1	July 6, 2006
3.2	Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Company dated July 2, 2008		10-Q	000-52105	3.2	August 7, 2008
3.3	Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Company dated June 2, 2015		8-K	000-52105	3.1	June 8, 2015
3.4	Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Company dated May 26, 2016		8-K	001-09447	3.1	May 26, 2016
3.5	Certificate of Designation of Series A Junior Participating Preferred Stock of Kaiser Aluminum Corporation, as filed with the Secretary of State of the State of Delaware on April 7, 2016		8-K	000-52105	3.1	April 8, 2016
3.6	Amended and Restated Bylaws of the Company		8-K	001-09447	3.1	June 22, 2020
4.1	<u>Indenture dated as of November 26, 2019, by and among Kaiser</u> <u>Aluminum Corporation, each of the guarantors</u>		8-K	001-09447	4.1	November 26, 2019
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Exhibit		Provided Incorporated by Reference				
No.	Exhibit Description	Herewith	Form	File Number	Exhibit	Filing Date
	named therein and Wells Fargo Bank, National Association, as Trustee					
4.2	Form of 4.625% Senior Notes due 2028 (included in Exhibit 4.1)		8-K	001-09447	4.2	November 26, 2019
4.3	<u>Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934</u>		10-K	001-09447	4.3	February 25, 2020
4.4	Indenture, dated May 20, 2021, among Kaiser Aluminum Corporation, each of the guarantors named therein and Wells Fargo Bank, National Association, as Trustee		8-K	001-09447	4.1	May 20, 2021
4.5	Form of 4.50% Senior Note due 2031 (included in Exhibit 4.1)		8-K	001-09447	4.2	May 20, 2021
10.1	Credit Agreement, dated as of October 30, 2019, among Kaiser Aluminum Corporation, Kaiser Aluminum Investments Company, Kaiser Aluminum Fabricated Products, LLC and Kaiser Aluminum Washington, LLC, the lenders that are parties thereto, Wells Fargo Bank, National Association, as administrative agent, Wells Fargo Bank, National Association, and JPMorgan Chase Bank, N.A., as joint lead arrangers and joint book runners, and Bank of America, N.A. as Syndication Agent		8-K	001-09447	10.1	November 4, 2019
10.2	Omnibus Amendment No. 1 to Credit Agreement and Loan Documents, dated as of March 31, 2021, by and among the Company and certain affiliates of the Company, as borrowers, Wells Fargo Bank, National Association, as agent for the lenders, and the lenders party thereto.	X				
10.3	Amendment No. 2 to Credit Agreement and Loan Documents, dated as of December 3, 2021, by and among the Company and certain affiliates of the Company, as borrowers, Wells Fargo Bank, National Association, as agent for the lenders, and the lenders party thereto.	X				
10.4	Amendment No. 3 to Credit Agreement and Loan Documents, dated as of April 7, 2022, by and among the Company and certain affiliates of the Company, as borrowers, Wells Fargo Bank, National Association, as agent for the lenders, and the lenders party thereto.		8-K	001-09447	10.1	April 12, 2022
10.5	Description of Compensation of Directors		10-Q	001-09447	10.1	July 28, 2022
*10.6	Offer Letter dated June 22, 2020, between the Company and Keith A. Harvey		8-K	001-09447	10.1	June 22, 2020
*10.7	Amended and Restated Severance Agreement dated July 31, 2020 between the Company and Keith A. Harvey		8-K	001-09447	10.1	July 31, 2020
*10.8	Form of Director Indemnification Agreement		8-K	001-09447	10.8	July 6, 2006
*10.9	Form of Officer Indemnification Agreement		8-K	001-09447	10.9	July 6, 2006
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Exhibit		Provided		Incorporated by Reference		
No.	Exhibit Description	Herewith	Form	File Number	Exhibit	Filing Date
*10.10	Form of Director and Officer Indemnification Agreement		8-K	001-09447	10.10	July 6, 2006
*10.11	Kaiser Aluminum Fabricated Products Restoration Plan		8-K	001-09447	10.14	July 6, 2006
*10.12	Amendment to the Kaiser Aluminum Fabricated Products Restoration Plan		8-K	000-52105	10.4	December 31, 2008
10.13	Form of Non-Employee Director Restricted Stock Award Agreement		10-Q	001-09447	10.2	July 27, 2016
*10.14	2020 Form of Executive Officer Restricted Stock Units Award Agreement		8-K	001-09447	10.2	March 10, 2020
*10.15	2020 Form of Executive Officer Performance Shares Award Agreement		8-K	001-09447	10.3	March 10, 2020
*10.16	Kaiser Aluminum Corporation 2020 - 2022 Long-Term Incentive Plan Management Objectives and Formula for Determining Performance Shares Earned Summary		8-K	001-09447	10.4	March 10, 2020
*10.17	Amended and Restated Severance Agreement dated March 5, 2021 between the Company and John M. Donnan		8-K	001-09447	10.1	March 11, 2021
*10.18	Kaiser Aluminum Fabricated Products 2021-2023 Long-Term Incentive Plan For Key Managers Summary		8-K	001-09447	10.3	March 11, 2021
*10.19	Kaiser Aluminum Fabricated Products 2022 Short-Term Incentive Plan For Key Managers Summary		8-K	001-09447	10.1	March 10, 2022
*10.20	Kaiser Aluminum Fabricated Products 2022-2024 Long-Term Incentive Plan For Key Managers Summary		8-K	001-09447	10.2	March 10, 2022
10.21	Ground Lease Agreement dated as of March 31, 2021 by and between Kaiser Aluminum Warrick, LLC and Warrick Real Estate LLC, solely as to Sections 2.2, 17 and 33.2, Alcoa Power Generating Inc. and Warrick Newco LLC		8-K	001-09447	10.1	April 1, 2021
*10.22	Kaiser Aluminum Corporation 2021 Equity and Incentive Compensation Plan		8-K	001-09447	10.1	June 3, 2021
*10.23	Amended and Restated Director Designation Agreement dated September 3, 2021		8-K	001-09447	10.1	September 7, 2021
21.1	Significant Subsidiaries of Kaiser Aluminum Corporation	X				
23.1	Consent of Independent Registered Public Accounting Firm	X				
31.1	Certification of Keith A. Harvey pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	X				
31.2	Certification of Neal E. West pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	X				
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Exhibit		Provided	Incorporated by Reference					
No.	Exhibit Description	Herewith	Form	File Number	Exhibit	Filing Date		
32.1	Certification of Keith A. Harvey pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X						
32.2	Certification of Neal E. West pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X						
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document							
101.SCH	Inline XBRL Taxonomy Extension Schema	X						
101.CAL	Inline XBRL Taxonomy Extension Calculation	X						
101.DEF	Inline XBRL Taxonomy Extension Definition	X						
101.LAB	Inline XBRL Taxonomy Extension Label	X						
101.PRE	Inline XBRL Taxonomy Extension Presentation	X						
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)	X						

^{*} Management contract or compensatory plan or arrangement required to be filed as an exhibit to this Annual Report on Form 10-K.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

KAISER ALUMINUM CORPORATION

/s/ Keith A. Harvey

Keith A. Harvey

President and Chief Executive Officer

Date: February 23, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

/s/ Keith A. Harvey	President, Chief Executive Officer and Director (Principal Executive Officer)	Date: February 23, 2023
Keith A. Harvey	(Finespal Executive Sineer)	
/s/ Neal E. West	Executive Vice President and Chief Financial Officer	Date: February 23, 2023
Neal E. West	(Principal Financial Officer)	
/s/ Jennifer Huey	Vice President and Chief Accounting Officer (Principal Accounting Officer)	Date: February 23, 2023
Jennifer Huey		
	Director	
Michael C. Arnold		
	Director	
David Foster		
/s/ Jack A. Hockema	Executive Chairman of the Board	Date: February 23, 2023
Jack A. Hockema		
/s/ Lauralee E. Martin	Director	Date: February 23, 2023
Lauralee E. Martin		
	Director	
Alfred E. Osborne, Jr., Ph.D.		
/s/ Teresa M. Sebastian	Director	Date: February 23, 2023
Teresa M. Sebastian		
	Director	
Donald J. Stebbins		
/s/ Brett Wilcox	Director	Date: February 23, 2023
Brett Wilcox		
/s/ Kevin W. Williams	Director	Date: February 23, 2023
Kevin W. Williams		

OMNIBUS AMENDMENT NO. 1

This Omnibus Amendment No. 1 is dated as of March 31, 2021, and is among the Persons identified on the signature pages hereof as Lenders (which Lenders constitute the Required Lenders and, as applicable, all affected Lenders), **WELLS FARGO BANK**, **NATIONAL ASSOCIATION**, a national banking association ("Wells Fargo"), as agent for the Lenders (Wells Fargo, in that capacity, "Agent"), **KAISER ALUMINUM CORPORATION**, a Delaware corporation ("KAC"), as a Borrower, and the Affiliates of KAC party to this agreement as Borrowers.

The Lenders, Agent, KAC, and the other Borrowers are party to a Credit Agreement dated as of October 30, 2019 (as amended, restated, supplemented, or otherwise modified before the date of this agreement, the "<u>Credit Agreement</u>"). The parties also desire to modify the Credit Agreement in certain respects.

The parties therefore agree as follows:

- 1. **Definitions.** Defined terms used but not defined in this agreement are as defined in the Credit Agreement.
- 2. Amendments to Credit Agreement.
- (a) The definition of "Eligible Accounts" set forth in Section 1.1 to the Credit Agreement is hereby amended by (i) deleting the word "or" appearing at the end of clause (v) thereof and (ii) inserting the following in place of clause (w) thereof:
 - "(w) which (i) is sold pursuant to a Permitted Supplier Financing Transaction or (ii) is otherwise owing from a Permitted Supplier Financing Account Debtor; or
 - (x) which Agent otherwise determines in its Permitted Discretion is unacceptable for any reason whatsoever."
- (b) The definition of "Eligible Inventory" set forth in Section 1.1 to the Credit Agreement is hereby amended by amending and restating clauses (i), (j) and (k) thereof in their entirety to read as follows:
 - "(i) which is located in any third party warehouse or is in the possession of a bailee or is being processed offsite at a third party location or outside processor or is in-transit to or from said third party location or outside processor unless (i) such warehouseman, bailee, or third party processor has delivered to Agent a Collateral Access Agreement on terms reasonably satisfactory to Agent or such other documentation as Agent may reasonably require (provided that subject to Agent's right to establish and maintain appropriate Reserves in its Permitted Discretion, up to \$25,000,000 of such Inventory may be included in the Borrowing Base even if Collateral Access Agreements and such other documentation as Agent may reasonably require have not been obtained with respect to such Inventory) or (ii) an appropriate Reserve has been established by Agent in its Permitted Discretion;

- (j) [Reserved];
- (k) which is the subject of a consignment by such Borrower as consignor or which any Borrower has placed on consignment with another Person (other than a Person that is a third party processor of such Inventory, in which case such Inventory may be included as Eligible Inventory to the extent provided in <u>clause (i)</u> above);"
- (c) Section 1.1 of the Credit Agreement is hereby amended to add the following new defined terms in proper alphabetical order:
 - ""KA Warrick" shall mean Kaiser Aluminum Warrick, LLC (f/k/a Alcoa Warrick LLC), a Delaware limited liability company.
 - "Permitted Supplier Financing Account Debtor" shall mean any of (i) Ardagh Group S.A. and its Subsidiaries, (ii) Ball Corporation, Ball Metal Beverage Mexico Holdings BV, Ball Packaging LLC, Ball Metal Beverage Container Corp. and Ball Beverage Can Americas S.A. de C.V.; (iii) Pepsico Inc. and its Subsidiaries and Affiliates located in USA and Canada, (iv) Crown Cork & Seal USA, Inc., Crown Metal Packaging Canada LP, Fabricas Monterrey S.A. de C.V., Crown Envases Mexico S.A. de C.V., Crown Famosa S.A. de C.V. and Crown Holdings, Inc., (v) Silgan Holdings Inc. and its Subsidiaries and Affiliates including, without limitation, Silgan Containers Corp. and (vi) any other Account Debtor of any Borrower approved in writing by Agent from time to time in the exercise of its Permitted Discretion at the written request of Administrative Borrower.
 - "Permitted Supplier Financing Transaction" shall mean any transaction in which any Borrower may, from time to time, sell to a financial buyer Accounts of such Borrower in the ordinary course of business on a non-recourse and true sale basis so long as (i) the Account Debtor of such Accounts is a Permitted Supplier Financing Account Debtor, (ii) such sale is made pursuant to documentation (including, without limitation, intercreditor arrangements) in form and substance reasonably satisfactory to Agent and (iii) each Deposit Account into which proceeds of each such Permitted Supplier Financing Transaction are deposited shall be identified in writing by the Administrative Borrower to Administrative Agent and shall be subject to a Control Agreement."
 - (d) Section 5.15 of the Credit Agreement is hereby amended and restated in its entirety to read as follows:
 - "5.15 **Permitted Supplier Financing Transaction**. Each Loan Party shall cause all proceeds of each Permitted Supplier Financing Transaction to be deposited into a Deposit Account of a Borrower which is subject to a Control Agreement."
- (e) Section 5.14(a) of the Credit Agreement is hereby amended by amending and restating the first sentence of such section to read as follows:
 - "Subject to applicable Requirements of Law, each Loan Party shall cause each of its domestic Significant Subsidiaries formed or acquired after the date of this Agreement to

become a Loan Party by executing a Joinder; provided that subject to compliance with the terms of Section 5.18(b), KA Warrick shall execute and deliver a Joinder no later than April 16, 2021."

- (f) Section 6.5 of the Credit Agreement is hereby amended by (i) deleting the word "and" appearing at the end of clause (h) thereof and (ii) inserting the following in place of clause (i) and the proviso appearing as the last paragraph of such Section:
 - "(i) a sale or other disposition of Accounts in connection with a Permitted Supplier Financing Transaction; and
 - (j) sales, transfers and other dispositions of assets (other than the sale of Equity Interests that would result in a Change in Control) that are not permitted by any other part of this <u>Section 6.5</u>, <u>provided</u> that the aggregate fair market value of all assets sold, transferred or otherwise disposed of in reliance upon this <u>Section 6.5(j)</u> shall not exceed \$50,000,000 during any Fiscal Year of KAC;

<u>provided</u> that all sales, transfers, leases and other dispositions permitted hereby (other than those permitted by <u>Sections 6.5(b)</u>, <u>6.5(h)</u>, <u>6.5(i)</u> and <u>6.5(j)</u> above) (i) shall be made for fair value and (ii) at least 75% of the consideration therefor shall be in cash or assets that can be readily converted into cash without discount within 90 days thereafter, unless, with respect to this <u>clause (ii)</u>, (x) such asset is not Collateral and (y) at the time the relevant asset sale, transfer, lease and other disposition occurs the Payment Condition is satisfied."

(g) Section 5.18 to the Credit Agreement is hereby amended and restated in its entirety to read as follows:

"5.18 Post-Closing Obligations.

- "(a) Within 30 days after the Closing Date (or such later date as Agent may agree in writing), the Loan Parties will deliver to Agent each of the following documents, in form and substance satisfactory to Agent, duly executed and delivered: (i) a master intercompany demand note between the Loan Parties and their Subsidiaries, and (ii) an intercompany subordination agreement between Agent and the Loan Parties and their Subsidiaries.
- (b) On or prior to April 16, 2021 (or such later date as Agent may agree in writing), the Loan Parties will deliver to Agent each of the following documents, in form and substance satisfactory to Agent, duly executed and delivered (as applicable):
- (i) a Perfection Certificate (or supplement to Perfection Certificate) reflecting the inclusion of KA Warrick, together with all schedules contemplated thereby, executed by the Loan Parties;

- (ii) a Joinder Agreement (Credit Agreement) ("<u>Joinder to Credit Agreement</u>") by and among KA Warrick and Agent together with all schedules contemplated thereby, executed by Agent and KA Warrick;
- (iii) a Joinder No. 1 to the Guaranty and Security Agreement ("<u>Joinder to GSA</u>") by and among KA Warrick and Agent together with all schedules contemplated thereby, executed by Agent and KA Warrick;
- (iv) a Patent Security Agreement and Trademark Security Agreement by and among KA Warrick and Agent together with all schedules contemplated thereby, executed by Agent and KA Warrick;
- (v) an appropriate financing statement to be filed in the office of the Delaware Secretary of State against KA Warrick to perfect the Agent's Liens in and to the Collateral of KA Warrick;
- (vi) a certificate from the Secretary of KA Warrick (i) attesting to the resolutions of KA Warrick's Board of Directors or Managers, as applicable, authorizing its execution, delivery, and performance of this agreement and the other Loan Documents to which KA Warrick is or will become a party, (ii) authorizing officers of KA Warrick to execute the same, and (iii) attesting to the incumbency and signatures of such specific officers of KA Warrick;
- (vii) a certificate of status with respect to KA Warrick, dated as of a recent date, such certificate to be issued by the appropriate officer of the jurisdiction of organization of KA Warrick, which certificate shall indicate that KA Warrick is in good standing in such jurisdiction;
- (viii) certificates of status with respect to KA Warrick, dated as of a recent date, such certificates to be issued by the appropriate officer of the jurisdictions (other than the jurisdiction of organization of KA Warrick) in which the failure to be duly qualified or licensed would constitute a Material Adverse Effect, which certificates shall indicate that KA Warrick is in good standing in such jurisdictions;
- (ix) copies of KA Warrick's Governing Documents, as amended, modified or supplemented to the date of delivery to Agent, certified by the Secretary (or Manager) of KA Warrick (including evidence of its name change from Alcoa Warrick LLC);
- (x) evidence that KA Warrick has been added to the Loan Parties' existing insurance policies required by Section 5.9 of the Credit Agreement;
- (xi) a customary opinion of counsel regarding such matters as to KA Warrick as Agent or its counsel may reasonably request, and which is otherwise in form and substance reasonably satisfactory to Agent (it being understood that such opinion shall be limited to the Joinder to Credit Agreement, Joinder to GSA and the other Loan Documents executed or delivered in connection therewith by KA Warrick (including the financing statement filed against KA Warrick); and

- (xii) such other agreements, instruments, approvals or other documents reasonably requested by Agent in order to create, perfect and establish the first priority of, or otherwise protect, any Lien purported to be covered by any Loan Document or otherwise to effect the intent that KA Warrick shall become bound by all of the terms, covenants and agreements contained in the Loan Documents and that, to the extent set forth in the Credit Agreement and the Guaranty and Security Agreement, all property and assets of KA Warrick shall become Collateral for the Obligation.
- (c) On or prior to April 16, 2021, the Loan Parties will use commercially reasonable efforts to deliver to Agent, in form and substance satisfactory to Agent, a Collateral Access Agreement for the Warrick County, Indiana facility."
- 3. **Amendment to Guaranty and Security Agreement**. The final paragraph of Section 3 of the Guaranty and Security Agreement is hereby amended and restated in its entirety to read as follows:

"Notwithstanding anything contained in this Agreement to the contrary, the term "Collateral" shall not include: (i) any rights or interest in any contract, lease, permit, license, or license agreement covering real or personal property of any Grantor if under the terms of such contract, lease, permit, license, or license agreement, or applicable law with respect thereto, the grant of a security interest or lien therein is prohibited as a matter of law or under the terms of such contract, lease, permit, license, or license agreement and such prohibition or restriction has not been waived or the consent of the other party to such contract, lease, permit, license, or license agreement has not been obtained (provided, that (A) the foregoing exclusion of this clause (i) shall in no way be construed (1) to apply to the extent that any described prohibition or restriction is ineffective under Section 9-406, 9-407, 9-408, or 9-409 of the Code or other applicable law, or (2) to apply to the extent that any consent or waiver has been obtained that would permit Agent's security interest or lien to attach notwithstanding the prohibition or restriction on the pledge of such contract, lease, permit, license, or license agreement and (B) the foregoing exclusion of this <u>clause (i)</u> shall in no way be construed to limit, impair, or otherwise affect any of Agent's, any other member of the Lender Group's or any Bank Product Provider's continuing security interests in and liens upon any rights or interests of any Grantor in or to (1) monies due or to become due under or in connection with any described contract, lease, permit, license, or license agreement, or (2) any proceeds from the sale, license, lease, or other dispositions of any such contract, lease, permit, license, or license agreement), (ii) any Accounts arising out of the sale of goods or services by any Grantor to any Permitted Supplier Financing Account Debtor, together with all proceeds, supporting obligations and other ancillary rights with respect to such Accounts, which are sold and transferred by such Grantor pursuant to any Permitted Supplier Financing Transaction (provided, that the foregoing exclusion of this clause (ii) shall in no way be construed to apply to any right, title or interest in any proceeds of the sale of such Accounts or amounts otherwise paid or payable to or claims arising in favor of any Grantor pursuant to or in connection with any such Permitted Supplier Financing Transaction) or (iii) any United States intent-to-use trademark applications to the extent that, and solely during the period in which, the grant of a security interest therein would impair the validity or enforceability of such intent-to-use trademark applications under applicable federal law; provided, that upon submission and acceptance by the PTO of an amendment to allege use pursuant to 15 U.S.C. Section 1060(a) (or

any successor provision), such intent-to-use trademark application shall be considered Collateral."

Agent and the Lende		To induce Agent and the Lenders to enter into this agreement, each Borrower nereby represents to
(a be duly authorized to	•	that each Borrower is duly authorized to execute and deliver this agreement and is and will continue to under the Credit Agreement and to perform its obligations under the Credit Agreement;
•	Credit Agreeme	that the execution and delivery of this agreement and the performance by each Borrower of its ent do not and will not conflict with any provision of law or of the Governing Documents of such g upon such Borrower;
•	er in accordance	that the Credit Agreement is a legal, valid, and binding obligation of each Borrower, enforceable with its terms, except as enforceability may be limited by equitable principles or by bankruptcy, m, or similar laws relating to or limiting creditors' rights generally;
	dit Agreement or	that the representations and warranties of each Borrower and each other Loan Party or its Subsidiaries in the other Loan Documents are true and correct in all material respects (except that such materiality esentations and warranties that already are qualified or modified by materiality in the text thereof) on

- (e) that no Default or Event of Default has occurred and is continuing on the date of this agreement.
- 5. **Conditions.** The effectiveness of this agreement is subject to satisfaction of the following conditions:

and as of the date of this agreement, as though made on and as of such date (except to the extent that such representations and warranties relate solely to an earlier date, in which case such representations and warranties continue to be true and correct as of such earlier date); and

- (a) that Agent has received this agreement executed by Agent, the Supermajority Lenders, and Borrowers;
- (b) that Agent has received the supplemental fee letter executed by Agent and Borrowers and that Borrowers have paid the fee described in such supplemental fee letter and all other fees and expenses required to be paid by Borrowers on the date of this agreement under this agreement, the Credit Agreement, or the other Loan Documents; and
- (c) that Agent has received the following, each in form and substance satisfactory to Agent, a certificate of an officer of Administrative Borrower certifying the acquisition of KA Warrick constitutes a Permitted Acquisition and providing the calculations required pursuant to <u>clause (f)</u> and <u>clause (g)</u>, as applicable, of the definition of Permitted Acquisition in making such determination.

- 6. **Eligibility of KA Warrick Accounts and Inventory.** Each Borrower acknowledges and agrees that following the joinder of KA Warrick as a Borrower under this Agreement and as a Grantor under and as defined in the Guaranty and Security Agreement, no Accounts of KA Warrick will be eligible for inclusion in the determination of the Borrowing Base until such time as Agent shall have conducted an audit and field examination of such Accounts to its satisfaction prior to such inclusion, which at Administrative Borrower's election, may be deferred until the occurrence of the next scheduled audit and field examination pursuant to Section 5.12 of the Credit Agreement. In addition, each Borrower acknowledges and agrees that following the joinder of KA Warrick as a Borrower under this Agreement and as a Grantor under and as defined in the Guaranty and Security Agreement, no Inventory of KA Warrick will be eligible for inclusion in the determination of the Borrowing Base until such time as Agent shall have received an appraisal of such Inventory in form and substance satisfactory to Agent.
- Release of Agent and Lenders by Loan Parties. Each Loan Party signatory to this agreement hereby waives and releases any and all current existing claims, counterclaims, defenses, or set-offs of every kind and nature which it has or might have against Agent or any Lender arising out of, pursuant to, or pertaining in any way to the Credit Agreement, any and all documents and instruments delivered in connection with or relating to the foregoing, or this agreement. Each Loan Party signatory to this agreement hereby further covenants and agrees not to sue Agent or any Lender or assert any claims, defenses, demands, actions, or liabilities against Agent or any Lender which occurred on or before the date of this agreement arising out of, pursuant to, or pertaining in any way to the Credit Agreement, any and all documents and instruments delivered in connection with or relating to the foregoing, or this agreement.

8. **Miscellaneous**.

- (a) This agreement is governed by, and is to be construed in accordance with, the laws of the State of New York. Each provision of this agreement is severable from every other provision of this agreement for the purpose of determining the legal enforceability of any specific provision.
- (b) This agreement binds Agent, the Lenders, and Borrowers and their respective successors and assigns, and will inure to the benefit of Agent, the Lenders, and Borrowers and the successors and assigns of Agent and each Lender.
- (c) Except as specifically modified or amended by the terms of this agreement, all other terms and provisions of the Credit Agreement and the other Loan Documents are incorporated by reference in this agreement and in all respects continue in full force and effect. Each Borrower, by execution of this agreement, hereby reaffirms, assumes, and binds itself to all of the obligations, duties, rights, covenants, terms, and conditions that are contained in the Credit Agreement and the other Loan Documents.
- (d) This agreement is a Loan Document. Each Borrower acknowledges that Agent's reasonable costs and out-of-pocket expenses (including reasonable attorneys' fees) incurred in preparing and reviewing this agreement constitute Lender Group Expenses.
- (e) The parties may sign this agreement in several counterparts, each of which will be deemed to be an original but all of which together will constitute one instrument. Delivery of an executed

counterpart signature page to this agreement by facsimile or other electronic method of transmission is as effective as executing and delivering this agreement in the presence of the other parties to this agreement. Delivery of an executed counterpart signature page to this agreement will be effective upon the express release by the executing party (or by counsel to that executing party, on behalf of that executing party) of that executed counterpart signature page.

[Signature pages to follow]

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The parties are signing this Omnibus Amendment No. 1 as of the date stated in the introductory clause.

KAISER ALUMINUM CORPORATION, as a Borrower

By: /s/ Neal West Name: Neal West

Title: Senior Vice President and Chief Financial Officer

KAISER ALUMINUM INVESTMENTS COMPANY, as a Borrower

By: /s/ Neal West Name: Neal West

Title: Senior Vice President and Chief Financial Officer

KAISER ALUMINUM FABRICATED PRODUCTS, LLC, as a

Borrower

By: /s/ Neal West Name: Neal West

Title: Senior Vice President and Chief Financial Officer

KAISER ALUMINUM WASHINGTON, LLC, as a Borrower

By: /s/ Neal West Name: Neal West

Title: Senior Vice President and Chief Financial Officer

Signature page to Omnibus Amendment No. 1—Kaiser

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Agent and as a Lender

By: /s/ Moses Harris Name: Moses Harris Its Authorized Signatory

JPMORGAN CHASE BANK, N.A., as a Lender

By: /s/ Kenneth Wong Name: Kenneth Wong Its Authorized Signatory

BANK OF AMERICA, N.A., as a Lender

By: /s/ James Fallahay Name: James Fallahay Its Authorized Signatory

U.S. BANK NATIONAL ASSOCIATION, as a Lender

By: /s/ Rod Swenson Name: Rod Swenson Its Authorized Signatory

BARCLAYS BANK PLC – NEW YORK BRANCH, as a Lender

By: /s/ Komal Ramkirath Name: Komal Ramkirath Assistant Vice President

AMENDMENT NO. 2 TO CREDIT AGREEMENT

This Amendment No. 2 to Credit Agreement is dated as of December 3, 2021, and is among the Persons identified on the signature pages hereof as Lenders (which Lenders constitute the Required Lenders and, as applicable, all affected Lenders), **WELLS FARGO BANK**, **NATIONAL ASSOCIATION**, a national banking association ("Wells Fargo"), as agent for the Lenders (Wells Fargo, in that capacity, "Agent"), **KAISER ALUMINUM CORPORATION**, a Delaware corporation ("KAC"), as a Borrower, and the Affiliates of KAC party to this agreement as Borrowers.

The Lenders, Agent, KAC, and the other Borrowers are party to a Credit Agreement dated as of October 30, 2019 (as amended, restated, supplemented, or otherwise modified before the date of this agreement, the "<u>Credit Agreement</u>"). The parties also desire to modify the Credit Agreement in certain respects.

The parties therefore agree as follows:

- 1. **Definitions**. Defined terms used but not defined in this agreement are as defined in the Credit Agreement.
- 2. Amendments to Credit Agreement.
- (a) The definition of "Letter of Credit Sublimit" set forth in Section 1.1 to the Credit Agreement is hereby amended and restated in its entirety to read as follows:
 - ""Letter of Credit Sublimit" means \$40,000,000."
 - (b) The following new definitions are added to Section 1.1 to the Credit Agreement in appropriate alphabetical order:
- ""Issuing Bank Sublimit(s)" means, as of the Second Amendment Effective Date, (a) \$20,000,000 in the case of Wells Fargo, (b) \$20,000,000, in the case of JPMorgan Chase Bank, N.A., a national banking association, and (c) such amount as an Issuing Bank may designate in writing to the Agent and the Borrowers; provided that any Issuing Bank may at any time in its discretion, but shall have no obligation to, issue Letters of Credit in stated amounts that cause the aggregate Letter of Credit Usage of such Issuing Bank to be in excess of its Issuing Bank Sublimit so long as the aggregate Letter of Credit Usage for all Issuing Banks does not exceed the Letter of Credit Sublimit.

"Second Amendment Effective Date" shall mean December 3, 2021."

- (c) Section 2.11(b) of the Credit Agreement is hereby amended and restated in its entirety to read as follows:
- "(b) **No** Issuing Bank shall have **any** obligation to issue a Letter of Credit if any of the following would result after giving effect to the requested issuance:
 - (i) the Letter of Credit Usage would exceed the Letter of Credit Sublimit, or

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(ii) would exceed the Issuing Bank Sublimit of su	the Letter of Credit Usage related to Letters of Credit issued by such Issuing Bank ich Issuing Bank, or
(iii) outstanding amount of Revolving Loans (includ	the Letter of Credit Usage would exceed the Maximum Revolver Amount $\underline{\textit{less}}$ thing Swing Loans), or

outstanding principal balance of the Revolving Loans (inclusive of Swing Loans) at such time."

the Letter of Credit Usage would exceed the Borrowing Base at such time less the

- 3. **Representations**. To induce Agent and the Lenders to enter into this agreement, each Borrower hereby represents to Agent and the Lenders as follows:
- (a) that each Borrower is duly authorized to execute and deliver this agreement and is and will continue to be duly authorized to borrow monies under the Credit Agreement and to perform its obligations under the Credit Agreement;
- (b) that the execution and delivery of this agreement and the performance by each Borrower of its obligations under the Credit Agreement do not and will not conflict with any provision of law or of the Governing Documents of such Borrower or of any agreement binding upon such Borrower;
- (c) that the Credit Agreement is a legal, valid, and binding obligation of each Borrower, enforceable against each Borrower in accordance with its terms, except as enforceability may be limited by equitable principles or by bankruptcy, insolvency, reorganization, moratorium, or similar laws relating to or limiting creditors' rights generally;
- (d) that the representations and warranties of each Borrower and each other Loan Party or its Subsidiaries contained in the Credit Agreement or in the other Loan Documents are true and correct in all material respects (except that such materiality qualifier is not applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof) on and as of the date of this agreement, as though made on and as of such date (except to the extent that such representations and warranties relate solely to an earlier date, in which case such representations and warranties continue to be true and correct as of such earlier date); and
 - (e) that no Default or Event of Default has occurred and is continuing on the date of this agreement.
- 4. **Conditions to Effectiveness**. The effectiveness of this agreement is subject to the condition that Agent has received this agreement executed by Agent, each Issuing Bank, the Required Lenders, and Borrowers.
- 5. **Release of Agent and Lenders by Loan Parties**. Each Loan Party signatory to this agreement hereby waives and releases any and all current existing claims, counterclaims, defenses, or set-offs of every kind and nature which it has or might have against Agent or any Lender arising out of, pursuant to, or pertaining in any way to the Credit Agreement, any and all documents and instruments delivered in connection with or relating to the foregoing, or this agreement. Each Loan Party signatory to this agreement hereby further covenants and agrees not to sue Agent or any Lender or assert any claims, defenses, demands, actions, or liabilities against Agent or any Lender which occurred on or before the date of this agreement arising out of, pursuant to, or pertaining in any way to the Credit Agreement, any

and all documents and instruments delivered in connection with or relating to the foregoing, or this agreement.

6. **Miscellaneous**.

- (a) This agreement is governed by, and is to be construed in accordance with, the laws of the State of New York. Each provision of this agreement is severable from every other provision of this agreement for the purpose of determining the legal enforceability of any specific provision.
- (b) This agreement binds Agent, the Lenders, and Borrowers and their respective successors and assigns, and will inure to the benefit of Agent, the Lenders, and Borrowers and the successors and assigns of Agent and each Lender.
- (c) Except as specifically modified or amended by the terms of this agreement, all other terms and provisions of the Credit Agreement and the other Loan Documents are incorporated by reference in this agreement and in all respects continue in full force and effect. Each Borrower, by execution of this agreement, hereby reaffirms, assumes, and binds itself to all of the obligations, duties, rights, covenants, terms, and conditions that are contained in the Credit Agreement and the other Loan Documents.
- (d) This agreement is a Loan Document. Each Borrower acknowledges that Agent's reasonable costs and out-of-pocket expenses (including reasonable attorneys' fees) incurred in preparing and reviewing this agreement constitute Lender Group Expenses.
- (e) The parties may sign this agreement in several counterparts, each of which will be deemed to be an original but all of which together will constitute one instrument. Delivery of an executed counterpart signature page to this agreement by facsimile or other electronic method of transmission is as effective as executing and delivering this agreement in the presence of the other parties to this agreement. Delivery of an executed counterpart signature page to this agreement will be effective upon the express release by the executing party (or by counsel to that executing party, on behalf of that executing party) of that executed counterpart signature page.

[Signature pages to follow]

The parties are signing this Amendment No. 2 to Credit Agreement as of the date stated in the introductory clause.

KAISER ALUMINUM CORPORATION, as a Borrower

By: /s/ Neal West

Name: Neal West

Executive Vice President and Chief Financial Officer

KAISER ALUMINUM INVESTMENTS COMPANY, as a Borrower

By: /s/ Neal West

Name: Neal West
Title: Executive Vice President and Chief Financial Officer

KAISER ALUMINUM FABRICATED PRODUCTS, LLC, as a Borrower

By: /s/ Neal West

Name: Neal West Title: Executive Vice President and Chief Financial Officer

KAISER ALUMINUM WASHINGTON, LLC, as a Borrower

By: /s/ Neal West

Name: Neal West Title: Executive

Executive Vice President and Chief Financial Officer

KAISER ALUMINUM WARRICK, LLC, as a Borrower

By: /s/ Neal West

Name: Neal West

Executive Vice President and Chief Financial Officer

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Agent and as a Lender

By: /s/ Peter Aziz

Name: Peter Aziz

Its Authorized Signatory

JPMORGAN CHASE BANK, N.A., as a Lender

By: /s/ Kenneth Wong
Name: Kenneth Wong
Vice President

BANK OF AMERICA, N.A., as a Lender

By: /s/ Jennifer Tang
Name: Jennifer Tang, SVP
Its Authorized Signatory

U.S. BANK NATIONAL ASSOCIATION, as a Lender

By: /s/ Rod Swenson

Name: Rod Swenson
Its Authorized Signatory

BARCLAYS BANK PLC, as a Lender

By: /s/ Jake Lam

Name: Jake Lam
Its Authorized Signatory

Exhibit 21.1

SUBSIDIARIES

Listed below are the principal subsidiaries and equity investments of Kaiser Aluminum Corporation, the jurisdiction of their incorporation or organization, and the names under which such subsidiaries do business. The Company's ownership is indicated for its equity investment. Certain subsidiaries are omitted which, considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary.

<u>Name:</u> <u>Place of Incorporation or Organization:</u>

Kaiser Aluminum Investments Company

Kaiser Aluminum Fabricated Products, LLC

Delaware

Kaiser Aluminum Washington, LLC

Delaware

Kaiser Aluminum Warrick, LLC

Delaware

Principal Domestic Operations and Administrative Offices:

Corporate Headquarters:

· Franklin, Tennessee

Fabricated Products:

- Richmond, Virginia (Bellwood)
- Chandler, Arizona (Tube)
- Chandler, Arizona (Extrusion)
- · Florence, Alabama
- · Jackson, Tennessee
- · Kalamazoo, Michigan
- Los Angeles, California (City of Commerce)
- · Sherman, Texas
- · Newark, Ohio
- Richland, Washington
- · Spokane, Washington
- · Newburgh, Indiana

Principal Worldwide Operations:

- Canada Kaiser Aluminum Canada Limited (Fabricated Products)
- China Kaiser Aluminum Beijing Trading Company (Development and Sales)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-211641, 333-170513, 333-135613 and 333-256743 on Form S-8 of our report dated February 23, 2023, relating to the financial statements of Kaiser Aluminum Corporation and the effectiveness of Kaiser Aluminum Corporation's internal control over financial reporting appearing in this Annual Report on Form 10-K for the year ended December 31, 2022.

/s/ Deloitte & Touche LLP

Costa Mesa, California

February 23, 2023

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Keith A. Harvey, certify that:

- 1. I have reviewed this report on Form 10-K of Kaiser Aluminum Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Keith A. Harvey

Keith A. Harvey
President and Chief Executive Officer
(Principal Executive Officer)

Date: February 23, 2023

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Neal E. West, certify that:

- 1. I have reviewed this report on Form 10-K of Kaiser Aluminum Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Neal E. West

Neal E. West

Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(Principal Financial Offi

Date: February 23, 2023

CERTIFICATION PURSUANT TO 18 U.S.C. 1350 AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

February 23, 2023

In connection with the Annual Report on Form 10-K by Kaiser Aluminum Corporation, a Delaware corporation (the "Company"), for the year ended December 31, 2022 (the "Report"), as filed on the date hereof with the Securities and Exchange Commission, the undersigned, Keith A. Harvey, President and Chief Executive Officer of the Company, does hereby certify, pursuant to 18 U.S.C. 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to such officer's knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

IN WITNESS WHEREOF, the undersigned has executed this certification as of the date first above written.

/s/ Keith A. Harvey

Keith A. Harvey
President and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION PURSUANT TO 18 U.S.C. 1350 AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

February 23, 2023

In connection with the Annual Report on Form 10-K by Kaiser Aluminum Corporation, a Delaware corporation (the "Company"), for the year ended December 31, 2022 (the "Report"), as filed on the date hereof with the Securities and Exchange Commission, the undersigned, Neal E. West, Executive Vice President and Chief Financial Officer of the Company, does hereby certify, pursuant to 18 U.S.C. 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to such officer's knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

IN WITNESS WHEREOF, the undersigned has executed this certification as of the date first above written.

/s/ Neal E. West

Neal E. West

Executive Vice President and Chief Financial Officer (Principal Financial Officer)