Responsible Production

Pictured above: Employee at Highland Valley Copper Operations, Canada.

Responsible Production

As the world advances toward a low-carbon economy, mined metal production is predicted to jump 250% by 2030 to satisfy increasing demand, resulting in expansion of extraction activities and corresponding waste generation.[17] Responsible production efforts throughout the value chain — including responsible and traceable sourcing, minimization of waste generation during raw materials production, and recapture and reuse of products at end of life — are a key part of ensuring that the impacts from mining are minimized. If these efforts are implemented globally, this move to responsible production can contribute to elimination of the emissions gap and support global climate commitments.[18]

Multiple global trends in responsible production have advanced in recent years. Raw material traceability has been a key trend, with the increasing demand for information on the traceability of mined materials giving rise to new and growing product certifications and standards. At the other end of the value chain is material recapture. As metals are infinitely recyclable, they are well positioned to play a key part in materials recovery and reuse. Additionally, the high value of many metals and minerals incentivizes the recovery of these components at the end of a product's life cycle.[19]

Teck provides the key commodities required for sustainable products that are durable and naturally recyclable. Teck has long worked to reduce waste and pollution, to keep products in use and to help improve the natural environment where we operate. Our Trail Operations recycles various metals, utilizing a highly efficient smelting and refining operation. We have a Materials Stewardship Committee responsible for ensuring the responsible use of our products by our customers and, at our operations, we track and report on waste and are implementing waste reduction and recycling programs. In 2021, we piloted a blockchain solution for materials traceability with germanium, a first step toward our goal of developing a product passport for our products. The objective of this project is to provide end-to-end traceability of greenhouse gas emissions, ISO certifications and other sustainability performance indicators. We also developed and refined our on-site waste inventories to serve as a baseline as we work toward our goal of zero industrial waste.

GRI Indicators and Topic Boundary

306-103, 306-2, 306-4, G4-DMA (formerly MM11), G4-MM3

This topic is considered one of the most material by our employees, local communities, government regulators, investors and society in the context of all Teck-managed sites.

How Does Teck Manage This Topic?

Information about how we manage responsible production and waste management, including relevant policies, management practices and systems, is available for download on our website.

[17] The case for circularity in metals and mining. Accenture. 2020. [18] Circularity Gap Report. Circle Economy. 2021. [19] The 'circular economy' in mining and metals. ICMM. 2021.

2021 Highlights

64,880 tonnes of hazardous and non-hazardous waste recycled

40,700 tonnes of urban ore/ secondary sources recycled at Trail Operations

Piloted a **blockchain solution for materials traceability with germanium,** a first step toward our goal of developing a product passport for our products

Announced a **formal commitment to The Copper Mark**; our Highland Valley Copper Operations were assessed and independently verified against The Copper Mark's responsible production criteria in 2021

Our Performance in Responsible Production in 2021

Our Targets and Commitments The following table summarizes our performance against our sustainability strategy and goals for responsible production.

Sustainability Strategy Goals	Status	Summary of Progress in 2021
Strategic Priorities: • Be a leader in responsibly providing the metals and minerals needed for the transition to an economy focused on reducing waste and keeping products in use • Work towards disposing zero industrial waste by 2040		
Goal: By 2025, establish site-based industrial waste inventories and plans to turn waste into useful and appropriate products. Based on these inventories and plans, set goals for industrial waste reduction.	On track	Updated operational waste inventories and industrial waste definitions and set preliminary reduction targets through Teck's Industrial Waste Working Group.
Goal: By 2025, develop and implement a responsible producer program and "product passport" that is traceable through the value chain.	On track	Launched a pilot using blockchain technology to trace a single product — germanium — from mine to end user.
Goal: Be a leader in product stewardship by continuing to implement our Materials Stewardship program and produce secondary metals at our Trail Operations.	On track	Continued our product stewardship activities, led by our Materials Stewardship Committee.

Waste Management Performance

Mineral Waste

Based on volume, mineral waste is the most significant waste type generated by Teck. In 2021, our operations generated approximately 786 million tonnes of mineral waste, with the vast majority being waste rock from the extraction of ore and steelmaking coal. We use internal and independent third-party subject matter experts to design our mineral waste storage facilities. Mineral waste storage methods are determined based on site-specific conditions and industry good practices.

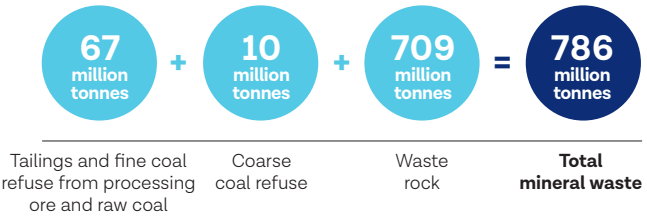
The following categories of mineral waste are products of Teck's operations:

Waste Rock: Waste rock, which is material that is removed to access ores, coal and oil sands, typically contains trace amounts of naturally occurring metals and other constituents. The bulk of waste rock from our operations is placed in areas that are specifically designed to contain the rock. Where geochemical and physical properties allow, waste rock is also used for construction purposes such as haul roads, retention embankments for tailings storage and other similar projects. The remainder of the rock, which may still have some geochemical concern, is placed within tailings storage facilities or used to backfill open pits and underground workings.

Coarse Coal Refuse: Coarse coal refuse is a coarse fraction of raw coal that is separated during processing; it is not currently an economic product. Coarse coal refuse is placed in designated engineered facilities or, if determined to not be susceptible to leaching, it may be used as a construction material. Coarse coal refuse is an excellent construction material for creating retention embankments for fine coal refuse.

Tailings and Fine Coal Refuse: Tailings and fine coal refuse are the finer fractions of the processed mined material that have no economically recoverable commodities. These materials are typically stored in tailings storage facilities. All of Teck's tailings storage facilities are designed by external third-party experts and independently reviewed for both design and performance. Learn more about tailings management at Teck on our website at www.teck.com/tailings.

Figure 14: Mineral Waste by Composition in Metric Tonnes (t) [1], [2]



(1) Figures have been restated in tonnes per GRI 306 (2020) standard requirements.
(2) Rounding of the individual numbers may cause a discrepancy in the total value.

Non-Mineral Waste

In addition to mineral wastes summarized above, Teck also generates non-mineral waste. Non-mineral waste includes municipal/domestic waste and industrial waste, which is further categorized as non-hazardous and hazardous waste. These waste materials are segregated and disposed of in accordance with material-specific waste management plans and regulatory requirements, mitigating potential impacts on environmental and human health. We also have permit and regulatory requirements for treating and recycling waste at all of our operations.

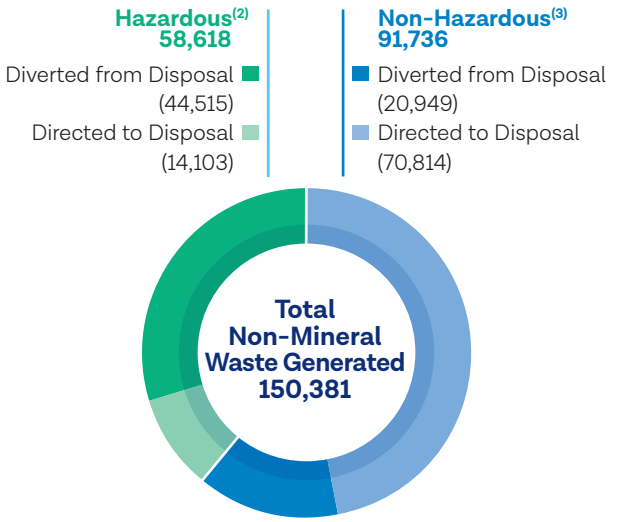
Industrial Waste: Industrial waste is a subcategory of non-mineral waste, which includes hazardous and non-hazardous types of waste generated by industrial processes, and does not include municipal/domestic waste streams. Significant industrial waste streams at Teck include metallurgical waste, sludges, process residuals (such as from water treatment), haul truck tires, construction and demolition debris, equipment and contaminated soil. We have set a target to dispose zero industrial waste by 2040, and we are working towards using site-based industrial waste inventories to generate reduction plans and to turn waste into useful and appropriate products. Based on these inventories and plans, we will set the final goals for each industrial waste stream aligned to the waste mitigation hierarchy.

Hazardous Waste: At Teck, waste is considered hazardous as defined by jurisdictional regulatory regimes. The primary industrial hazardous wastes produced at our operations include waste oil, solvents, antifreeze, paint and batteries. We collect and store hazardous waste in a responsible manner and in accordance with regulatory requirements, and licensed contractors recycle or dispose of this waste off-site as required by regulation.

Non-hazardous Waste: The most significant types of non-hazardous waste streams include contaminated solids, scrap metal, wood waste, glass, tires, e-waste, cardboard and paper.

Our strategic intent is to eliminate or reduce the generation of non-mineral waste, to explore long-term viable alternatives, and to divert waste from disposal through reuse and recycling whenever possible.

Figure 15: Non-Mineral Waste by Composition, in Metric Tonnes (t) — 2021[1]



(1) Rounding of the individual numbers may cause a discrepancy in the total value.
(2) Hazardous waste includes hazardous industrial waste.
(3) Non-hazardous waste includes non-hazardous industrial and municipal/domestic waste.

Table 10: Waste Diverted from Disposal by Recovery Operation, in Metric Tonnes (t) — 2021[1]

Type of Waste	On-Site	Off-Site	Total
Hazardous Waste[2]			
Preparation for reuse	0	24	24
Recycling	35,541	8,941	44,482
Other recovery operations	0	9	9
Total Hazardous Waste	**35,541**	**8,974**	**44,515**
Non-Hazardous Waste[3]			
Preparation for reuse	129	422	551
Recycling	3,521	16,877	20,398
Other recovery operations	0	0	0
Total Non-Hazardous Waste	**3,650**	**17,299**	**20,949**

(1) Rounding of the individual numbers may cause a discrepancy in the total value.
(2) Hazardous waste includes hazardous industrial waste.
(3) Non-hazardous waste includes non-hazardous industrial and municipal/domestic waste.

Table 11: Waste Directed to Disposal, by Disposal Operation - in Metric Tonnes (t) — 2021[1]

Type of Waste	On-Site	Off-Site	Total
Hazardous Waste[2]			
Incineration (with energy recovery)	0	937	937
Incineration (without energy recovery)	0	27	27
Landfilling	1	720	721
Other disposal operations	0	12,418	12,418
Total Hazardous Waste	**1**	**14,101**	**14,103**
Non-Hazardous Waste[3]			
Incineration (with energy recovery)	43	48	91
Incineration (without energy recovery)	11,558	1	11,559
Landfilling	46,501	6,233	52,734
Other disposal operations	6,066	364	6,430
Total Non-Hazardous Waste	**64,169**	**6,645**	**70,814**

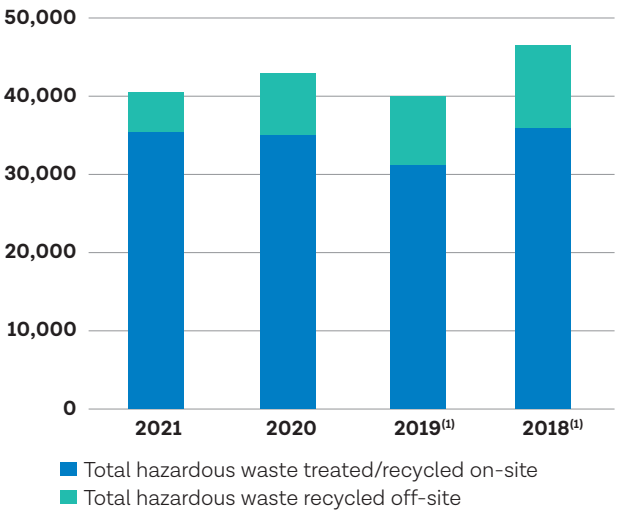
(1) Rounding of the individual numbers may cause a discrepancy in the total value.
(2) Hazardous waste includes hazardous industrial waste.
(3) Non-hazardous waste includes non-hazardous industrial and municipal/domestic waste.

Recycling

Teck's methods for recycling include recycling for value recovery, industrial waste processing and domestic recycling. We do not currently track office and construction waste, which are managed by licensed external waste service providers. We recycle in accordance with international, national, provincial and local requirements, and we aim to exceed these requirements. Continually improving recycling at our operations by identifying and sharing best practices throughout the company is our goal — including ongoing assessments of our recycling and reuse practices.

At our Trail Operations, we recycle materials purchased from external users. Our focus remains on treating cathode ray tube glass, plus small quantities of zinc alkaline batteries and other post-consumer waste through our lead acid battery recycling program.

Figure 16: Recycled Material at Trail Operations



(1) Figures have been restated due to improvements in calculations.

Red Dog Operations and the Toxics Release Inventory

Every year, Red Dog Operations is listed on the United States Environmental Protection Agency (EPA) Toxics Release Inventory (TRI), due to the volumes of rock and ore safely moved at the mine site each year. Red Dog is required to report the amount of materials moved at the mine site due to the grades of zinc and lead naturally occurring in the rocks. This is part of the mining process and does not indicate any health or environmental effect nor any release of materials from Red Dog to the environment. The Alaska Department of Environmental Conservation (ADEC) has also responded to the TRI, noting that almost all of the releases from TRI facilities in Alaska are regulated under strict EPA and state of Alaska permits, with monitoring and compliance requirements designed to prevent human and environmental harm.

Managing Product Impacts through Materials Stewardship

All Teck products are listed on a Master Product List that is owned and managed by Teck's Materials Stewardship Committee (MSC). For products to be added to the list, a detailed application is submitted to the MSC. Products are assessed on their whole product life cycle and include customer assessments, legal jurisdiction reviews, logistics and form of transportation, hazardous materials and emergency response, contracts and financial rate of return. No new products were added to the Master Product List in 2021.

The MSC also commissions and conducts customer assessments to help ensure that products are handled safely by smelters, refineries or other end users. The assessments allow us to uphold business ethics, regulatory requirements, sustainable management practices and external expectations. Due to COVID-19 restrictions, engagements with customers during 2021 continued virtually. We expect that customer site work will continue in person in 2022.

We draw on ecotoxicity expertise developed by various commodity associations and other experts to bring sound science into our management approaches and decisions. Our materials stewardship program is also actively engaged with collective industry efforts, including those of the International Council on Mining and Metals (ICMM), towards continuously improving materials stewardship practices. In 2021, major engagements related to materials stewardship included the engagement with ICMM; the International Lead Association; the International Copper Association; the International Zinc Association; the Indium, Cadmium and Germanium REACH consortia; the London Metal Exchange; and ResponsibleSteel. In 2021, Teck announced our formal commitment to The Copper Mark, a voluntary assurance framework to promote responsible production practices. Teck's Highland Valley Copper Operations were assessed and independently verified against The Copper Mark's responsible production criteria in 2021, and we plan to expand the certification to Carmen de Andacollo Operations and Quebrada Blanca Phase 2 project in 2022 and 2023, respectively.

Responding to Regulatory Requirements

Our materials stewardship efforts have expanded in recent years to meet growing regulatory pressures on mineral concentrates. These are manifested, for example, in the International Maritime Organization bulk cargo requirements, Chinese import restrictions and the Minamata Convention for Mercury. These requirements and restrictions now affect mining companies and smelters globally and Teck specifically, in the same way that Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations have defined chemical management programs for refined metals, alloys and compounds in the European Union since 2006.

Case Study: Using Blockchain Technology to Support Supply Chain Transparency

People and companies around the world are increasingly asking where their products come from, and what are the impacts of the raw materials that went into the items they use every day. To meet this increasing expectation, Teck is harnessing blockchain technology to develop a secure approach to end-to-end traceability of our geramanium products, ensuring that our customers and communities can be confident that our products are responsibly sourced, from mine to manufacturer.

Through the pilot, germanium will be traced from its origin at Teck's Red Dog mine in northwest Alaska, through transport and co-mingling with other sources, refining at Teck's Trail metallurgical facility and finally to a manufacturer of fibre optic cable. This supports Teck's work to ensure that third-party suppliers to our Trail smelting facility are likewise sourcing raw materials from responsible sources. Read the full case study at teck.com/news/stories.