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# <sup>5.3</sup> Waste and Hazardous Materials

#### Why it Matters to Orla

Gold mining uses and generates both waste and hazardous materials, which vary depending on the type of mine and operations. For example, mining uses explosives to break rock, cyanide to extract the gold from the ore, and hydrocarbons (oils and fuels) to run mining equipment. As well as these hazardous materials, rock with no economic value (waste) is stored so that any physical and chemical risks they pose to the surrounding environment are minimized. Responsible management of waste and hazardous materials is critical to protect people and local ecosystems, while reducing risk and environmental liability for our business.

## **Our Approach: Responsible Production**

Our objective is to minimize all forms of waste generated by our operations and ensure its proper disposal, so we divert waste from landfills. We look for new opportunities to reduce waste, incorporate circular economy approaches and extend the life cycle of the products we use.

#### Waste Rock

As part of the environmentally safe management of our waste rock, we identify the short- and long-term risks associated with storage of various rock types, including chemical risks such as the risk of metal leaching and acid rock drainage (ARD). Once we understand the nature and magnitude of the risk, we store the waste rock in specially-designed storage facilities based on a waste rock management plan and industry good practices, in order to prevent water contact and mobilization of contaminants. We also capture any rainfall that contacts the facility to prevent migration into the surrounding environment. Despite our site design models and third-party evaluation showing no short- or long-term risks of significant instability for the waste facility, we ensure the geotechnical stability of our waste structures by having them designed and regularly inspected by qualified geotechnical staff and third-party experts.





Orla continuously looks for new opportunities to reduce waste.



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#### INTRODUCTION

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#### Hazardous Materials

Through our Environmental Management System, we have programs in place to manage and mitigate all non-mineral waste and hazardous materials across our operational mine and our exploration projects. At the Camino Rojo mine, we use standard industry practices in the transport, storage, and use of various chemicals required for mining and processing. For explosives and cyanide in particular, there are strict regulatory requirements that must be met. All non-mineral waste generated in Camino Rojo is collected and transported to the on-site waste management centre where it is further sorted into hazardous and non-hazardous waste. Orla complies with all permits and relevant regulatory requirements as a part of everyday operations.

The Camino Rojo Hazardous Waste Management Plan was approved by the environmental authority, SEMARNAT in Mexico City. Every year, the operation reports waste management results to the environmental authorities.

Our operational practice is aligned with the International Cyanide Management Code (ICMC) to guide our transport, storage, and use of cyanide in terms of public safety, worker health and safety, and environmental stewardship. Our Camino Rojo operation will continue working in 2023 to complete the adoption of the standard, including compliance and a certification audit conducted by external trained auditors within three years of declaring commercial production. Camino Rojo, which started commercial production in April 2022, is on track to achieving certification ahead of schedule, with an independent compliance evaluation projected for late 2023.

#### Training and Reporting

We educate our workforce about different types of waste, ways to responsibly manage it, and how to report any environmental incident including spills. Additional training is provided to workers that use hazardous materials, to ensure their safety as well as understanding of the environmental risks associated with the various chemicals used. Training on cyanide management included our workforce and contractors between 2021 and 2022. During 2023, we will include local communities at our Camino Rojo mine and will continue information campaigns with communities around the Cerro Quema project, so that they understand the risks associated with cyanide and how we manage those risks to a rigorous international standard.

We conduct inspections and audits to ensure we adhere to our internal standards and regulatory requirements. Our Camino Rojo site maintains all necessary permits and licenses from the relevant authorities (such as the Secrataria de la Defensa Nacional (SEDENA) for our storage and use of explosives, for example) related to the transport, storage, usage and disposal of waste, and hazardous materials.

#### Accountability

The Chief Executive Officer has ultimate responsibility for our environmental management and performance. Waste management initiatives and strategies are approved by the Board-level ESH&S Committee. Our Chief Operating Officer is responsible for reporting identified risks and opportunities related to waste, and ensuring the sites identify and implement practices to minimize waste and handle it responsibly.

### 2022 Highlights



**Zero** fines or penalties recorded related to hazardous materials or chemical spills

# 0.67 w:o strip ratio

the amount of waste material that must be moved to extract a given amount of ore INTRODUCTION

**OUR SUSTAINABILITY** APPROACH

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 At Camino Rojo, we produced 5.5 million tonnes of waste rock last year. These quantities were added to our

designated waste rock facility as a geotechnically and

During both construction (2021 to March 2022) and

the first year of production (April to December 2022), the Company received no fines or statutory violations

related to environmental incidents, including spills. This

pumps, and tanks are operated for the first time. It is a

During 2022, two non-reportable minor spills occurred

pressure limit switch that turns feeding pumps off; we

also expanded the containment area as an additional precaution. For both spills, our trained site team cleaned the contaminated soil, removing and disposing it at the

involving hazardous substances. To manage and prevent such incidents from recurring, we installed a

credit to the construction and site operations teams that

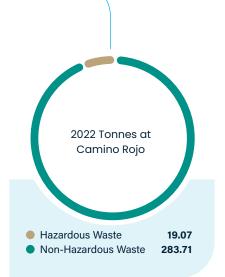
is noteworthy, considering that the commissioning period has the most potential for significant spills, as pipes,

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2022 Highlights

geochemically stable landform.

we achieved these positive results.



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5,535,125			
0.67			
0.84			
50.50		The star N	

leach pad. The spill had no impact on the environment or surrounding communities and did not require reporting to the authorities under the regulations.

- As part of our commitment to recycling, during the year we diverted 14.9 tonnes of cardboard, 390kg of aluminum, and more than 15,000L of used oil from landfill to recycling centres. We also tracked and disposed of 7.4 tonnes of hydrocarbon-contaminated material and 11.6 tonnes of hazardous chemical residues according to regulatory requirements.
- In 2022, members of our mine rescue brigade team at our Camino Rojo site received training from the State's "Civil Protection" personnel on fire fighting and vehicle extraction, as well as on cyanide poisoning, electrical accidents, and carbon monoxide poisoning.
- No fines or non-financial penalties were recorded during 2022 related to hazardous materials or chemical spills.

# **2023 Focus**

- · Reinforcing our strategic aim to reduce or, if possible, eliminate the generation of non-mineral, non-hazardous waste, including contaminated solids, scrap metals, wood waste, plastics, tires, glass, cardboard, paper, and electronic waste across all sites.
- Continue the adoption of the International Cyanide Management Code (ICMC) at Camino Rojo.
- · Start the operations of the non-mineral and non-hazardous waste landfill at Camino Rojo.

2022 Waste Rock Indicators at

Waste Generated (tonnes)

Intensity (tonnes generated /

tonnes ore mined-strip ratio) Intensity (tonnes generated /

Intensity (tonnes generated/ ounces gold produced)

tonnes ore processed)

Camino Rojo

WASTE ROCK