

GISTM Public Disclosure Report

Caserones Mine El Tambo Tailings Storage Facility

October 2024

1. Introduction

Lundin Mining is committed to the implementation of the Global Industry Standard on Tailings Management (GISTM) at its Caserones Mine in Chile, which includes two active tailings facilities known as La Brea and El Tambo. Principle 15 of the GISTM requires public disclosure and access to information about the tailings facility to support public accountability. This disclosure document focuses on the El Tambo Sand Stack tailings facility. It has been prepared in accordance with the requirements of Principle 15 of the GISTM and reviewed by Lundin Mining's Accountable Executive.

2. Tailings Storage Facility Description

The El Tambo Sand Stack is an active tailings facility situated approximately one kilometer south of the processing/concentrator plant, in the lower Caserones valley. The coarse fraction of tailings (sand), representing 40 to 60% of the total tailings mass, is hydraulically transported to this facility. The El Tambo sand deposit occupies an area of approximately 300 hectares.

Caserones is located in Chile's Atacama Region approximately 125 km southeast of Copiapó, and approximately 100 km from Lundin Mining's Candelaria Copper Mining Complex in Chile and 20 km from the Company's Josemaria project in Argentina. The mine and mine infrastructure are situated at an elevation ranging between 3,200 m and 5,500 m above sea level.

Caserones produces high-quality copper concentrate, copper cathode and molybdenum concentrate. Lundin Mining is the operator, holding a 70% interest in Minera Lumina Copper Chile, with JX Metals Corporation holds the remaining 30% interest. Lundin Mining acquired its ownership from JX Metals Corporation in 2023. Caserones mine is a large open pit copper-molybdenum mine with a low ore to waste strip ratio. Mining is performed using a conventional truck and shovel fleet. The processing facilities have been in commercial operation since 2014. The grinding-flotation plant has a stated design capacity of 4,700 tonnes per hour operated (105,000 tonnes per day based on 93% availability). The SX-EW plant has a nominal capacity of 34,500 tonnes per year.

The El Tambo Sand Stack tailings facility is situated in a valley (about 14% average slope, as steep as 30% in places) downstream of the processing/concentrator plant. The area near the confluence of the valley with Rio Ramadillas is known as the Tambo area. The toe of the sand stack is a few hundred meters upstream of the river, and a seepage collection sump and pump back wells are located between the sand stack toe area and the river. The elevations at the sand stack vary from about 3,200 m at the toe to close to 3,900 m at the top. The El Tambo sand stack will provide 570 million tonnes (Mt) of tailings storage capacity.

The design includes creating a stack with a final downstream slope of 3H:1V (horizontal: vertical) and a maximum vertical thickness of 300 m. The El Tambo Sand Stack tailings facility is designed as a free-draining facility with no ponded water.

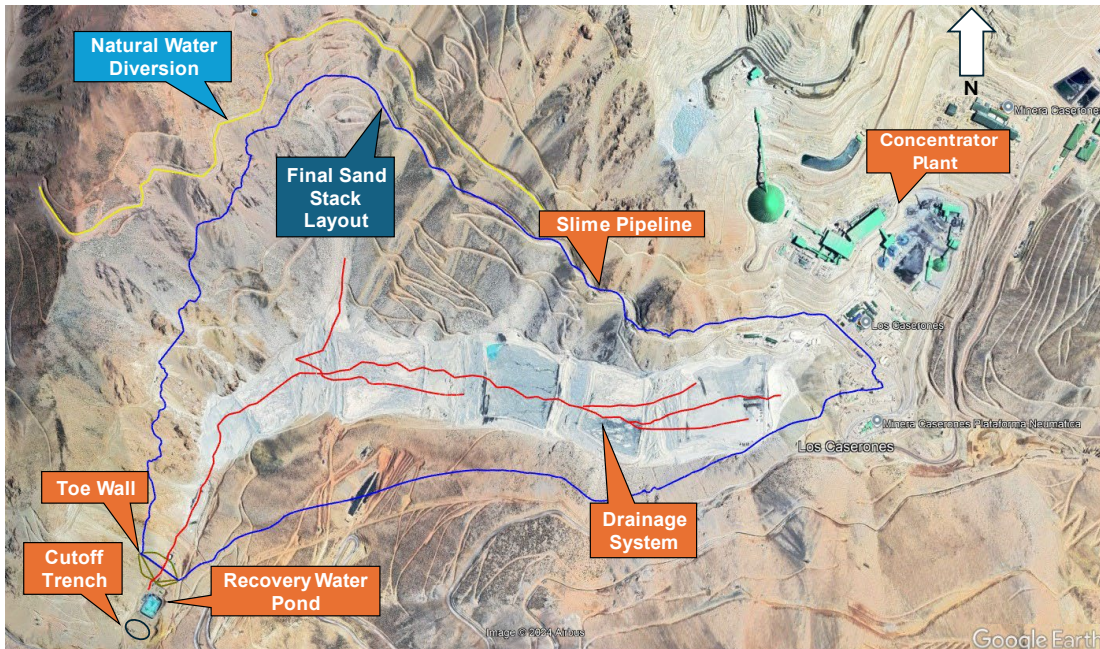


Figure 1: El Tambo Sand Stack Storage Facility Layout

3. Consequence Classification

The consequence of failure classification for the tailings facility is determined by assessing the downstream conditions and selecting the classification corresponding to the highest Consequence Classification from the following incremental loss categories: potential population at risk, potential loss of life, environment, health, safety, cultural, and infrastructure and economics.

The GISTM Consequence Classification for the El Tambo Sand Stack has been determined and documented after conducting a series of breach analyses, considering credible failure modes and scenarios including internal erosion, slope instability and uncontrolled seepage to the environment. Based on these analyses, the GISTM Consequence Classification is Very High for the final configuration of the sand stack in a rainy-day scenario due to erosion. This classification is based on the potential environmental impact according to the system defined within the GISTM.

4. Summary of Risk Assessment Findings

Lundin Mining applies a risk-informed decision-making approach for all TSF lifecycle phases. Risk assessments are used to identify and evaluate risks to prevent catastrophic failures, and to inform decisions to manage risks to as low as reasonably practicable (ALARP). This approach focuses on credible failure modes and to reduce the risks at our facilities by reducing the likelihood of occurrence and/or downstream impacts, regardless of the consequence classification defined using credible or hypothetical failure modes.

The most recent risk assessment for the El Tambo Sand Stack tailings facility was conducted in September 2024 by an external independent facilitator with participation from a multidisciplinary site team and the Engineer or Record (EOR). The risk assessment included a semi-quantitative Failure Mode and Effects Analysis (FMEA). As part of this assessment, potential failure modes were deemed as credible or non-credible regardless of their likelihood, and then the risk of credible failure modes was evaluated. All failure modes were sorted according to Lundin Mining’s risk management framework, with risk mitigation controls identified and tracked.

The El Tambo Sand Stack tailings facility is designed as a free-draining facility with no ponded water. The risk assessment identified a credible failure mode due to an extreme hydrological event that may result in overtopping and material

released downstream. Although the impact associated with this failure mode is evaluated as moderate, it is recommended that a new breach analysis be performed to better understand the impact of this failure mode. The highest severity risk with a moderate impact is related to the uncontrolled release of seepage into the environment due to the insufficient capacity of the seepage collection system. The slope instability risks due to an earthquake were identified to be localized and not catastrophic. The only risk identified with a catastrophic impact (though extremely rare in likelihood) was dust generation due to wind with sufficient intensity to erode sand, a risk that has been well studied. These risks, along with associated controls and mitigation measures, were reviewed by the Independent Tailings Review Board (ITRB) in 2024.

Following the FMEA risk assessment workshop, additional risk mitigation measures were proposed to achieve ALARP by either reducing the likelihood of failure or minimizing consequences to people and the environment. These ALARP measures will undergo further evaluation in 2025.

5. Summary of Impact Assessments and of Human Exposure and Vulnerability to Tailings Facility Credible Flow Failure Scenarios

Hypothetical dam breach analyses and inundation studies have been conducted for the El Tambo Sand Stack tailings facility to identify potentially impacted areas and waterbodies in the extremely unlikely event of a tailings breach. Potentially affected areas are limited to the Caserones mining areas, including roads, works, and the mining camp. No urban areas, rural villages, or indigenous territories will be directly impacted by a potential failure. The controls and mitigations implemented to reduce the likelihood and consequences of credible tailings facility failure scenarios for the El Tambo Sand Stack tailings facility were defined during the risk assessment.

6. Description of the Design for all Phases of the Tailings Facility Lifecycle

The El Tambo Sand Stack tailings facility consists of the following elements:

- Starter Dam and Toe Dam
- Disposal Cells
- Sand Distribution System
- Seepage Collection System: This includes the drainage system, seepage collection pond, and cutoff trench.
- Natural Water Diversion System

The growth strategy for the El Tambo Sand Stack involves the hydraulic deposition of material, complemented by mechanical deposition and rehandling. The sands are hydraulically deposited from auxiliary dikes located upstream of the cells. Once a beach is formed, the material is mechanically rehandled and relocated (graded) to achieve the desired geometry. It is then compacted to meet the minimum values required by design. The growth of the auxiliary dikes is carried out through mechanical deposition.

The Sand Stack features a global intermediate slope angle of 3H:1V and a maximum storage capacity of 570 million tonnes (Mt). During operation, the deposited sand in the storage area releases excess water, which drains by gravity towards the base of the stack. There, the water is intercepted by a basal drainage system. The collected water is directed to a collection sump that is interconnected with a seepage pond located downstream of the toe dam, and it is later recirculated to the processing plant.

Additionally, the El Tambo Sand Stack design incorporates a system to control any potential seepage. This system ensures that seepage is directed to a concrete collection sump for reuse in the production process. A long-term (2025 to 2042) construction and deposition plan was developed by the EOR in 2020, considering four stages of development. This plan will be revisited periodically to ensure that construction aligns with the design intent.

The most recent closure plan approved by Chilean regulators in 2024 includes the implementation of a cover over the tailings surface, the construction of a rock fill toe dam, the construction of a pond downstream of the toe dam, the construction of berms at the access points of the TSF and a slope stability verification study.

7. Summary of Material¹ Findings of Annual Facility Performance Review and Dam Safety Review (DSR)

The most recent independent DSR for the El Tambo Sand Stack was completed in January 2024. Various recommendations were made, including improvements in geotechnical characterization and slope stability analysis, enhancing hydrological studies and the water management plan, improving the seepage collection system, and upgrading the instrumentation and monitoring system. The next DSR is scheduled for completion in 2029.

The first El Tambo Sand Stack Performance Review report will be issued by the EOR in November 2024. No significant risks were identified based on site visit inspections and reviews. The main EOR recommendations include flattening the local slopes between the cells to achieve lower gradients and avoiding the outcropping of water between the end of the drain and the desander. These recommendations are being addressed by the site team. There were no major variations in the instrumentation monitoring data or activation of Trigger Action Response Plans (TARPs) in 2024.

8. Summary of Material Findings of the Environmental and Social Monitoring Program

Our operations are subject to environmental regulations in the various jurisdictions in which we operate. Permitting, approvals and compliance management are important for the effective regulation of mining-related activities to prevent possible adverse impacts on the natural environment, as well as to protect the interests and rights of local communities. There were no material environmental incidents associated with the El Tambo Sand Stack from the 2024 environmental monitoring program to date.

As part of the environmental control measures for the El Tambo TSF, infiltration control systems and the online monitoring network are fully operational. In addition, an accredited laboratory, serving as a technical environmental oversight authority, conducts discrete water quality parameter measurements. Results from 2024 to date show an improvement in water quality measured at groundwater monitoring points, reflecting the effectiveness of the enhanced hydraulic barrier in the area. In all instances, full compliance with environmental regulations is rigorously maintained.

Lundin Mining's approach to stakeholder engagement is based on clear communication, transparency, and trust. Our goal is to better understand and respond to the interests and concerns of our stakeholders and any emerging issues and risks to our operations. The Responsible Mining Policy (RMP) and Responsible Mining Management System (RMMS) set the framework for a consistent approach to engaging with stakeholders across our organization. We use insights gained from the Social License to Operate (SLO) Index to identify stakeholders and engage on perceived and actual impacts. The SLO is not a one-time achievement; it can vary over time and therefore needs to be constantly maintained. Since 2024, the Caserones operation engaged an independent third-party to measure the SLO Index. To better integrate social performance in the internal decision-making process on tailings facility operations and emergency planning, a set of questions covering the community perception on the tailings facility was included in the quarterly perception surveys. There have been no material findings associated with the El Tambo Sand Stack tailings facility from the already implemented surveys and also no complaints from stakeholders in this regard.

¹ Material findings are defined as unacceptable tailings facility risks such as a dam safety issue considered immediately dangerous to life, health or the environment, or a significant risk of regulatory enforcement.

9. Summary of the Tailings Facility Emergency Preparedness and Response Plan (EPRP)

Using the results of the Dam Breach Analysis, the Emergency Action Plan document was developed, considering the flow behavior in failure scenarios and measures required to eliminate or mitigate the consequences of these types of events. This document is regularly updated and includes specifications to prepare and manage procedures for the detection, assessment, and classification of emergency situations, as well as actions expected for each level of emergency, in addition to a training plan for emergency preparedness. The Emergency Action Plan is tested and updated at all phases of the tailings facility lifecycle. It is shared with relevant stakeholders involved in response planning.

10. Independent Reviews

The last ITRB site visit was completed in January 2024. The next ITRB site visit and review is scheduled for February 2025 while the next independent DSR is planned in 2029.

11. Financial Capacity

Lundin Mining confirms that it has sufficient financial resources to meet its business requirements for the planned closure, early closure, reclamation, and post-closure of the El Tambo Sand Stack and its appurtenant structures. These costs are disclosed annually in aggregate form in our financial statements contained within our [Annual Management's Discussion & Analysis \(MD&A\) Report](#). Further, Lundin Mining maintains insurance for the El Tambo Sand Stack tailings facility to the extent commercially reasonable and available.

12. Management System Reviews and Audits

Caserones is implementing the Lundin Mining RMP through the RMMS, which includes 16 requirements. The RMMS specifies Company-wide requirements for managing health, safety, environmental and community (HSEC) aspects of our business.

In support of GISTM implementation, Lundin Mining has developed a corporate guideline for the development of a site-specific performance-based Tailings Management System (TMS). An initial TMS implementation self-assessment was carried out in July 2024 at Caserones. The self-assessment results indicated that several components of the TMS already exist at the site level. The percentage of alignment to the TMS guideline was 62%. It is anticipated that the site-specific TMS will be completed by Q4 2024. A formal internal review of the defined site-specific TMS document is planned for 2025.

13. GISTM Conformance

Lundin Mining has retained an external auditor to perform conformance assessments on the GISTM for the El Tambo Sand Stack. These assessments have been performed in accordance with the ICMM Conformance Protocols issued in May 2021.

For the El Tambo Sand Stack, all requirements have been met, or met with a plan in place, and verified by our external auditor.