

Balama Audit Packet

December 2024



Initiative for Responsible
Mining Assurance



IRMA

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Syrah's Balama is the first graphite operation to complete independent audit against the IRMA Standard, achieves IRMA 50

19 December – Today the Initiative for Responsible Mining (IRMA) released the results of an independent audit of Syrah's Balama graphite operation ("Balama") against the IRMA Standard for Responsible Mining. Balama achieved IRMA 50 after the independent audit firm SCS Global Services measured its performance versus the Standard's 400+ criteria.

Balama is one of 22 industrial-scale mining operations worldwide engaged in independent audits with the IRMA system. After an initial self-assessment, a participating mine engages a third-party audit firm — trained and approved by IRMA — to conduct a detailed independent evaluation, including on-site visits to the mine and nearby communities.

IRMA 50 means SCS Global Services verified Balama met all critical requirements of the IRMA Standard, as well as at least 50% of the Standard's criteria in each of the four areas: social responsibility, environmental responsibility, business integrity and planning for positive legacies. The full audit report is available on the Balama audit page at responsiblemining.net.

"The information stakeholders need to decide what's going well — and what may require more attention."

"This report demonstrates that mines supplying materials essential to the renewable energy transition can point to transparent, independent evaluations of their environmental and social performance," **said Aimee Boulanger, Executive Director of IRMA.** "Through detailed IRMA audit reports, mining companies, communities and companies that purchase mined materials can gain the information they need to decide what's going well — and what may require more attention — at specific mines."

As the IRMA Standard is recognized and adopted around the globe, these audits are just the first steps in a deepening dialogue between mining companies and those affected by their operations. And because the process is still evolving, IRMA cautions that the initial results should be reviewed and interpreted accordingly.

"If the results don't fully reflect the experience of communities or other affected groups, we want to hear from them," **Ms. Boulanger said.** "We'll help them communicate with the company to better understand its performance, and with the auditors on any issues they feel were overlooked in the review. This is a cornerstone of our own commitment to transparency. We invite anyone who has criticisms of our work to join us in making it better. Finding ways to improve is built into our system — and a measure of its success."

"This accomplishment is a first in the global graphite industry and highlights nearly a decade of strengthening our differentiated ESG performance"

"Achieving IRMA 50 is a significant milestone for Syrah in our commitment to operate in line with international best practice for responsible mining. This accomplishment is a first in the

IRMA Initiative for Responsible Mining Assurance

global graphite industry and highlights nearly a decade of strengthening our differentiated ESG performance, particularly Balama's strong safety record, investment in training and developing a highly skilled workforce, ongoing community development, human rights due diligence, legal governance and compliance, stakeholder engagement and demonstrated commitment to environmental sustainability," **said Syrah Managing Director and CEO, Shaun Verner.**

The Initiative for Responsible Mining Assurance (IRMA) is (1) a voluntary mining standard describing best practices to protect people and the environment, (2) an assurance process to measure mines against that standard, and (3) an organization equally governed by representatives of six affected stakeholder sectors – communities, organized labor, NGOs, finance, purchasers and mining companies — that oversees the standard and the assurance process. IRMA is globally unique in that its governance provides communities equal power to mining companies, and the non-commercial interests the same power as commercial interests.

For More Information:

- Alan Septoff, +1.301.202.1445, aseptoff@responsiblemining.net
- Audit report and supporting materials: [English](#) | [Portuguese](#)
- IRMA audit page: <https://responsiblemining.net/balama>

December 2024

Questions & Answers

IRMA audit of Syrah Resources' Balama Graphite Mine

Do IRMA audits certify these mining operations as "responsible"?

IRMA audits do not "certify" nor do they declare at what point a site becomes "responsible" or "sustainable." The IRMA system is built to facilitate transparent conversation about mine impacts, at a table where civil society and labor have voice equal to the private sector, and to create greater value to the reduction of harm. The IRMA process also creates incentives for reducing waste, supporting a circular economy, addressing inequity in the use and benefits of mined materials, and supporting innovation that reduces the need for new extraction

In doing this audit, Syrah Resources volunteered Balama to be measured against a standard more rigorous, requiring more public engagement, and more transparent sharing of results than any other global standard. It is an act of leadership and commitment to increasing dialogue across diverse stakeholder sectors and with Indigenous rights holders.

What does IRMA 50 mean?

IRMA 50 – what Balama achieved – means that an operation has been independently audited and met 50% of the requirements within each of the four principle areas of the IRMA Standard—business integrity, positive legacies, and social and environmental responsibility. [A mine receiving IRMA 50 must meet all IRMA's critical requirements.](#)

Does an IRMA audit mean a mine is "safe"?

An IRMA audit doesn't declare a mine "safe" or "unsafe". An IRMA audit measures how an operation's performance compares to best practices at a moment in time, and transparently reports the results to the public. The audit reports provide unprecedented transparency so that stakeholders can make informed decisions about what actions to take regarding a mining operation.

How does IRMA compare to other standards?

IRMA's audit reports offer more independently verified information and insights into a mine's performance than any other system. The IRMA Standard requirements are detailed, specific and comprehensive, providing clear visibility into a mine's operations. This level of transparency is new for the industry and provides immense value for civil society, labor unions, investors, and purchasers alike.

A lack of specificity and clear reporting creates opacity and potential risks, as it becomes difficult to objectively assess which mine's operations truly align with best practice. Transparency is the first critical step toward the IRMA's ultimate goal: to drive improved practices in mining.

I'm a mining company contemplating doing an independent audit – if I do one, will civil society appreciate my effort, or just further criticize our work? Is this level of transparency going to be appreciated or just greater risk for us?

Trust is deeply broken between many mining companies and the stakeholders and Indigenous rights holders impacted by their operations. Key to building trust is sharing information, being responsive to concerns about impacts, and demonstrating timely responsiveness to community and worker concerns.

Changing the current context won't happen overnight. We appreciate the effort of companies voluntarily stepping forward during this time of change and uncertainty to increase sharing of information, making commitments to improve practices, and showing positive progress.

A voluntary initiative like IRMA can never replace the critical role of laws and government oversight. Increasingly, national governments and international institutions are seeking increased transparency in mineral supply chains, so an effort to engage in independent audits now can help companies to meet not only civil society and labor requests, but mandatory expectations for improved practices.

Many stakeholders and Indigenous rights holders don't trust auditors or audit processes, broadly speaking. Could there have been "cheating" or inappropriate influence of auditors involved in this process?

IRMA and the firms approved to do IRMA audits are aware of deep distrust of auditors and the audit process. In many cases, what has historically been described as "independent audits" are actually consulting work done by experts hired to serve a particular company. IRMA audits are different from these type of consulting contracts in several ways.

To date, IRMA has approved, trained, and worked closely with just three firms (Applications for new firms are being accepted). While the mining company must pay for the costs of the audit, the right to do an IRMA audit is conferred by IRMA. IRMA can remove that right to audit if a firm has not met expectations in terms of competency, has not demonstrated freedom from conflict of interest, and is not working in service

to the IRMA system and its commitment to all stakeholders and Indigenous rights holders.

IRMA-approved audit firms must be accredited to ISO 17021 or a similar standard for third-party auditing and are required to meet several strict requirements associated with maintaining impartiality and managing conflict of interest. These include prohibiting such audit firms from also providing consulting or internal auditing services to a site being audited, requirements to assess risks to impartiality and procedures to protect against conflict of interest, and recommendations for prohibiting certain relationships for a period prior to providing auditing services. Accredited audit firms are assessed annually by their accreditation body, and management of conflict of interest is a key component of this assessment. Audit firms that fail to properly manage and preserve impartiality risk losing their accreditation and therefore their ability to provide third party auditing.

Why would a mining company agree to do a rigorous audit like IRMA? Do they think they can control the process and influence auditors?

It's best to ask this question to each mining company engaged to hear their perspective. To date, the mining companies engaging in IRMA audits have done so because their local community members have asked them, or a customer or investor has asked. Mining companies are evaluating which standards systems bring the greatest value for the time and effort to engage. While the IRMA process is more rigorous, mining companies are finding that this type of robust assessment is better informing the specific improvements sought by those most affected by their operations.

How can governments/regulators use this report?

A voluntary initiative like IRMA will never replace, nor be as valuable, as the role that governments serve, and the laws they set which apply to all operators. Where mining companies have agreed to do an independent IRMA audit, they are often sharing information on performance beyond legal compliance. We encourage mining companies and their regulatory government agencies to communicate together about the information shared in the IRMA audit report.

IRMA staff offer our time in direct support to government staff who want to learn more about the IRMA Standard and cross-stakeholder definitions for best practices to drive more responsible mining practices. We support governments doing gap analysis work to measure where IRMA goes beyond regulatory structure.

How can purchasers of mined materials, like a car maker, or investors in mining companies use, these audit reports? What can companies buying materials from this operation say about their sourcing?

Purchasers of mined material, and investors in mining companies, can use IRMA audit reports to better understand environmental and social impacts at operations that supply materials they buy or companies in which they invest. We encourage purchasers and investors to take an in-depth look at audit reports to understand the scores and performance for each chapter. No voluntary initiative's results replace the expectations expressed by the OECD and other international institutions for purchasers and investors to do their own due diligence to understand risks in the supply chain and to be active participants to reduce harm.

In being audited, Syrah Resources and other companies doing IRMA audits are sharing with purchasers, investors, workers, and civil society metrics on their performance for more than 20 different areas of impact. This means that interested readers can understand more, and ask for further insights, so that performance isn't just about single issues like greenhouse gas emissions, or worker health and safety, or protecting water resources—but can be evaluated against a comprehensive range of issues relevant for large-scale mining.

As purchasers and investors learn more about mining companies' operations, they can encourage sites to

further share information on impacts, seek context and ask for improvement in areas of challenge, and value areas of strong performance. They can appreciate the effort Syrah has made to be audited and can encourage further dialogue between the company and its stakeholders and Indigenous rights holders.

In terms of specific sourcing claims, IRMA recently released a [Chain of Custody Standard](#) which provides a way to independently audit a purchaser's supply chain and ensure claims of responsible sourcing can be verified.

What confidence can I have that the audit report is accurate?

The information in this audit report represents the work of an audit firm to measure a mining company's performance against IRMA's Standard for Responsible Mining. The Standard includes more than 400 requirements – it's more rigorous and detailed than any other mining standard in the world. It's also the only audit of large-scale mines that involves public notice and encouragement of workers and community members to participate in the audit.

Auditors review thousands of pages of documents shared by the company, spend several days on site of the mining operation, and speak with workers, community members and Indigenous rights holders without the company present. However, this does not mean all the information in the audit report is complete, accurate or represents the perspectives of all people. The IRMA system is new, mining companies are still learning expectations, auditors are still learning how to measure achievement, and IRMA leaders are working to improve in real time.

If you have questions or concerns that information in the report isn't accurate, or if you have information and opinions different than what you read here, we encourage you to contact IRMA to make it more accurate: <https://responsiblemining.net/feedback>

Companies participating in IRMA audits are sharing a broad range of information with more transparency than has ever been done. Their effort is a work in progress and will further improve as direct communication increases between mining companies and the people most affected by their operations

If I have questions or feedback about this report, whom do I contact?

IRMA engagement is increasing direct dialogue and information sharing between mining companies and diverse stakeholders and Indigenous rights holders.

If you have questions about the mining operations' practices, we encourage you to contact: Maddy Grochowski, Syrah Resources' General Manager for People & Sustainability at m.grochowski@syrahresources.com.au

If you have questions about the process that auditors followed or the evidence they reviewed, contact the audit firm SCS Global Services at feedback@scsglobalservices.com

If you have questions about the IRMA Standard and the metrics there for measuring mining company performance, or IRMA rules for auditing, or IRMA's governance, accountability or other aspects of how the IRMA system works, please [contact IRMA](#).

IRMA staff are dedicated to helping all stakeholders and Indigenous rights holders get answers to questions related to this audit report. Please contact us if you need help getting answers to questions.

What are the next steps for Syrah Resources and for IRMA?

With this independent, third-party verified information, a new opportunity is created for a conversation between the mine, area residents, workers, customers, investors, and other stakeholders to explore priorities for improvement.

To maintain its IRMA Achievement recognition and to continue its responsible mining journey, the Balama operation will need to be audited again in three years, with an interim surveillance audit in the next 18 months. Syrah can choose to have Balama audited sooner if it would like to demonstrate verified improvements more quickly.

For more information

IRMA Balama audit page: <https://responsiblemining.net/balama>

Aimee Boulanger, Executive Director
Initiative for Responsible Mining Assurance (IRMA)
contact@responsiblemining.net

Or visit responsiblemining.net

JUNE 2023

Background

IRMA's assessment process

The IRMA independent mine assessment process

The Initiative for Responsible Mining Assurance (IRMA) oversees the only independent, comprehensive process for assessing individual mines' performance against an equally governed, consensus-based standard — the widely recognized IRMA Standard — and for measuring mines' subsequent progress in reducing social and environmental harm.

How the IRMA mine audit process works

- Audits against the IRMA Standard are conducted by third-party auditors who meet IRMA competency requirements and have received IRMA training.
- The rigorous IRMA process requires that those affected by a mine, including local community members and workers, must be given the opportunity to engage with the on-site auditing team and share their firsthand experiences and perspectives.
- An audit is announced in advance by IRMA and an IRMA-approved certification body. Prior to the on-site audit stage (see the step-by-step summary below), the certification body conducts additional outreach with affected parties.
- IRMA audits are in general conformance with established practices for independent audits (e.g., ISO 19011:2018 — Guidelines for Auditing Management Systems).
- In their evaluations, auditors apply scientific principles and professional judgment to reach evidence-based subjective interpretations. Auditors' judgments are based on the available facts, within the limits of existing data, scope of work, budget and timing.
- Audit evidence is sampled from available information, and therefore the audit process is subject to a measure of uncertainty. Any actions based on the audit conclusions should take this into consideration.

Steps in the IRMA assessment process

- **A mine begins the voluntary IRMA process** by completing a self-assessment and uploading data to an evidence-compiling tool on the IRMA website. When this self-assessment is complete, the assessment by third-party auditing firm can begin.
- **Stage 1** of the independent assessment is a desk review conducted by an IRMA-approved certification body, which assigns a team of auditors to review the self-assessment ratings and supporting evidence provided by the mine. During this stage, auditors may request additional information.
- **Stage 2** is the on-site visit, during which auditors make observations at the mine site, review additional materials and interview mine managers and workers, as well as affected community members, Indigenous rights holders and others.
- **Based on their observations**, interviews and evaluation of information gathered during Stage 1 and Stage 2, the auditors then determine how well the mine meets each of the relevant IRMA Standard requirements — i.e., fully, substantially, partially or not at all. The final decision on the mine's achievement level is made by the certification body.
- **Because this rigorous, transparent process is still evolving**, we encourage critical review of the initial audit results and welcome further insights from those directly affected by the audited mine's operations.

- **As the IRMA Standard is recognized** and adopted around the globe, these audits are helping to foster dialogue on potential further improvements between mining companies and those affected by their operations.
- **A global standard sets expectations** for the industry worldwide, discouraging operators from gravitating toward weaker regulatory environments. When leading purchasers of mined materials express consistent aims with regard to social and environmental responsibility, it sends a powerful message, encouraging governments to strengthen laws and oversight to better protect the environmental and social wellbeing of their citizens.

IRMA recognizes four levels of achievement

IRMA Transparency applies to any mine that consents to an independent audit by IRMA-approved auditors and releases the results publicly.

IRMA 50, IRMA 75 and IRMA 100 indicate progressively higher levels of performance against the IRMA Standard in its key areas of focus: Social Responsibility, Environmental Responsibility, Business Integrity and Planning for Positive Legacies.

For a complete description of the IRMA assessment process and achievement levels, please visit our website: responsiblemining.net.

Providing feedback to the mining company or IRMA

- Any queries about audit results or complaints about the auditing process can be submitted via the complaints and feedback page of the IRMA website, which includes detailed guidelines on the Issues Resolution Process, as well as a Complaint Form.
- As part of the rigorous assessment process, IRMA team members are responsible for evaluating all complaints and must make impartial efforts to resolve them — with full and transparent documentation.
- Complaints related to the conduct of an audit should be directed to the auditing firm. Our website has contact details for all mines currently undergoing IRMA assessment.
- If you have questions or concerns about a specific mine's performance, we encourage you to contact the company directly. The best practices that inform the IRMA Standard include the expectation that participating companies will respond to, and build dialogue with, communities, workers, civil society, governments, customers and investors.
- If you wish to provide feedback or submit a general complaint about any aspect of the assessment process, you are welcome to contact IRMA anytime via the web-based Complaint Form or by sending a message to issues@responsiblemining.net.
- For queries about the IRMA Standard and its requirements — what we're measuring and why — please contact info@responsiblemining.net.

For more information

Aimee Boulanger, Executive Director
Initiative for Responsible Mining Assurance (IRMA)
contact@responsiblemining.net
Or visit responsiblemining.net

MINE SITE ASSESSMENT PUBLIC SUMMARY REPORT

MINE SITE

Balama Graphite Operation (BGO)

OPERATING COMPANY

Syrah Resources Limited

COUNTRY OF OPERATION

Mozambique

DECEMBER 2024

Acknowledgements

IRMA believes that third-party, independent audits are most credible when there is robust participation not only from participating mines, but also from workers and stakeholders, particularly those from affected communities.

Outside stakeholders are not remunerated for their participation, and willingly give their time to provide perspectives and information on mine site performance. IRMA would like to recognize Balama Graphite Operation workers, governmental representatives, and members of affected communities for their participation in this audit.

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Audit Details

Name of Operation:	Balama Graphite Operation (BGO)
Operating Company:	Twigg Exploration & Mining, Limitada
Operation Owner:	Syrah Resources & Trading DMCC (71.560%), Syrah Resources Limited (23.439%), Empresa Moçambicana de Exploração Mineira, S.A. (EMEM) (5%) and Jacana Resources Pty Ltd (<1%)
Country of Operation:	Mozambique
Mined Material(s):	Graphite
# Employees / contractors:	506 employees/707 contractors at the time of audit
IRMA audit webpage:	https://responsiblemining.net/balama
Audit Type:	Initial Verification Audit
Audit Dates:	Stage 1: September – October 2023 Stage 2: January 29 – February 2, 2024 Technical Review: February to September 2024
Audit Team:	Lead Auditor (1), Social Auditor (1), Health and Safety Auditor (1), Environmental Auditors (2), Support team members (3)
Audit Firm Declaration:	<ul style="list-style-type: none"> ✓ The findings in this report are based on an objective evaluation of evidence (through review of documents; first-hand observations at the mine site; and interviews with mine staff, workers, and stakeholders) as presented during the Stage 1 and Stage 2 audit activities. ✓ The audit team members were deemed to have no conflicts of interest with the mine. ✓ The audit team members were professional, ethical, objective, and truthful in their conduct of audit activities. ✓ The information in this report is accurate according to the best knowledge of the auditors who contributed to the report.
Audit Firm/Certification Body:	SCS Global Services
CB Authorized Representative:	Scott Coye-Huhn, Vice-President, EBC Division
CB Representative Signature:	
Scope of Assessment	The scope includes: open pit mines, ore processing area, tailings storage facilities, mineralized waste dump, waste rock dump, leachate pond, stockpiles, packaging & loadout, solar power plant, warehouse, laboratory, clinic, administration building & other offices, maintenance workshops, waste management facility plant, wastewater treatment plant, tree and plant nursery, worker camp (i.e., accommodations, canteen, laundry room, etc.), associated on-site infrastructure (power line, bores, piping, storage, internal access road, etc.), and management, production & support processes.
IRMA Standard Version:	IRMA Standard for Responsible Mining, v.1.0 (June 2018)

IRMA Achievement Level:	IRMA 50
Achievement Decision Date:	19 December 2024
Achievement Valid Until	18 December 2027 (contingent upon outcome of surveillance audit and continuous compliance with the IRMA independent audit processes)
IRMA Reference Number	IRMA-STD-SCS-002-V-00004

1. Mine Site Overview

1.1. Overview of location¹

Mozambique is a southeastern African country situated on the Indian Ocean and bordered by Tanzania to the north, and the countries of Malawi, Zambia, Zimbabwe, Swaziland, and South Africa to the west. The Balama Graphite Operation (BGO) is located approximately 260 kilometers west of the coastal city of Pemba in Balama District, Cabo Delgado Province in the northern part of the country, see Figure 1.

The region is characterized by gently rolling or flat terrain interspersed with Inselbergs, which are steep-sided bedrock isolated hills that abruptly protrude from the surrounding plains.

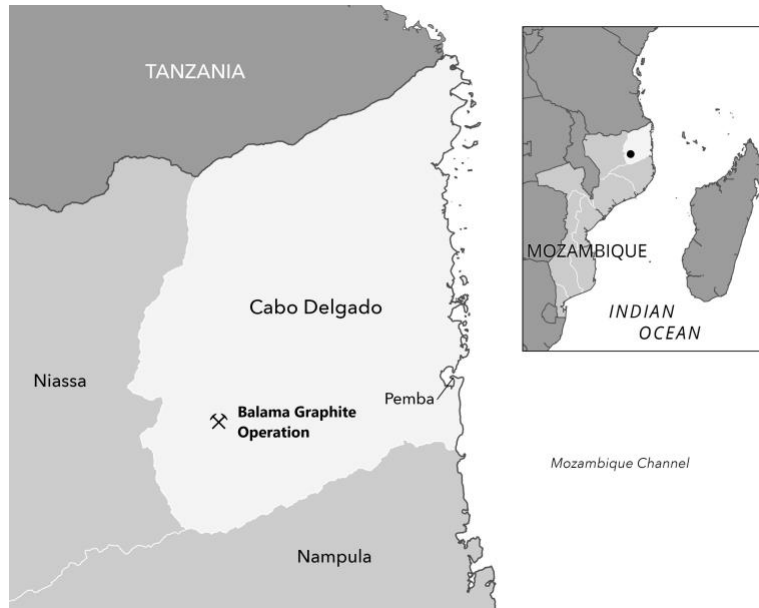


Figure 1: Illustrative, global location of the site

The climate in the area is tropical, marked by distinct wet and dry seasons. According to the World Meteorological Organization, the wet season spans from November to April, during which approximately 80% of the annual rainfall occurs. This period coincides with the warmer months of the year, with January being the warmest, having a mean temperature of 23.6°C. The dry season extends from May to October and is characterized by minimal rainfall. July, the coolest month, has a mean temperature of 17°C. The daily maximum relative humidity remains above 70% for most of the year, peaking at 87% in June and July. The BGO site receives an annual total rainfall of 1,342 mm on average, with the highest monthly precipitation of 392 mm in January. Rainfall decreases to a mere 6 mm in June. During the wet season, frequent flooding of low-lying areas near the major rivers renders many roads impassable.

Rivers in the project area are seasonal and only flow during the wet summer months. During the dry winter months when flow ceases, the rivers mostly consist of disconnected shallow

¹ This section synthesizes information from a range of sources, particularly focused on Mozambique's geographic and socio-economic characteristics, as well as the context surrounding the Balama Graphite Operation (BGO) and the communities potentially affected by the project. Major sources of information include: BGO Environmental, Social, and Health Impact Assessment (2015), World Meteorological Organization climate data, National Institute of Statistics of Mozambique, International Crisis Group and UNICEF Reports (2022-2024).

pools. Aquatic life is mostly sustained in the few perennial deeper pools. Water for domestic use in the communities around the project site, including drinking water, is sourced primarily from groundwater (i.e., boreholes and wells equipped with hand pumps), and from rainwater collection. Water for other agricultural and domestic purposes (i.e., irrigation and washing), may be derived from one of several surface water sources including the Mihapui Spring, Mihapui Stream, Mualipue River, Naconha River, Nehupua (Mehucua) River, Namitucu River, and the Montepuez River (includes the Chipembe Water Dam), as identified in the Environmental Social Health Impact Assessment developed in 2015 for the site.

Riparian Woodlands along streams and secondary-growth Miombo Woodlands, featuring acacias, baobabs, and various grasses, are the prevalent vegetation in the region. Trees, shrubs, and grasses are essential for local soil stability and provide habitat for wildlife consisting mostly of birds, small mammals, and reptiles. The vegetation at the project site is mostly characterized by agricultural crops, with the remainder being Miombo Woodlands on plains. There are two Inselbergs south of the mine with Miombo Woodlands that are largely untouched by agriculture and harbor important habitats for flora and fauna within the mine concession.

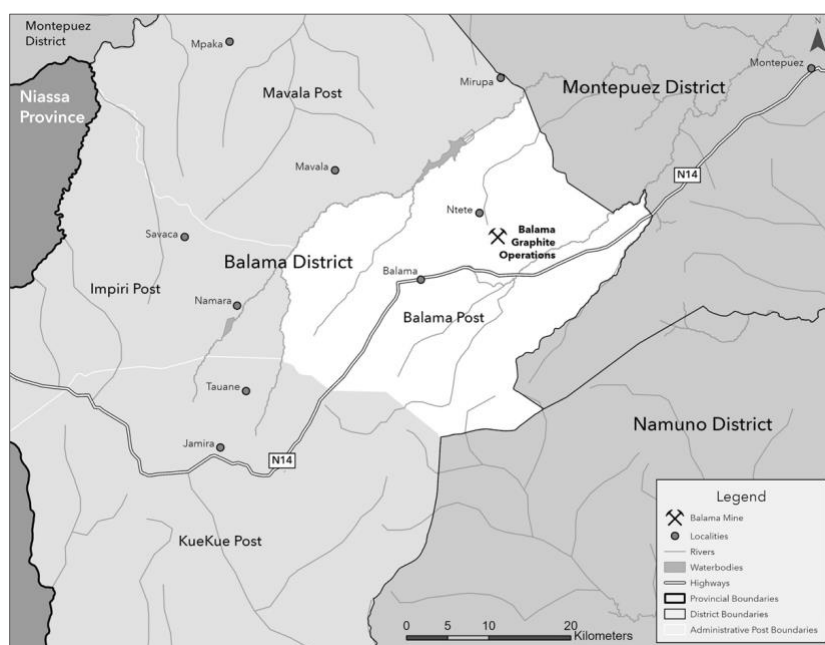


Figure 2: Illustrative, regional map of the site

Land surrounding the BGO is predominantly rural and frequently cleared for small-scale farming on *machambas* - plots of land used for subsistence agriculture, which serve as the primary food source for the local communities and sometimes provide surplus crops sold in local markets, supplementing household income. Most residents engage in subsistence agriculture, small-scale livestock farming, and market gardening of crops such as maize, cassava, beans, and peanuts. Residents rely heavily on ecosystem services (i.e. rain for agriculture, plants for medicinal purposes and food, reeds and grasses for construction, and wood for charcoal production for cooking) due to the absence of electricity and water systems in many villages.

In addition, slightly less than half of the households are engaged in subsistence hunting. Consequently, the natural habitats in and around the mine have been significantly transformed by local practices that support the communities' livelihoods. Farming activities often involve the collective effort of family members, fostering strong family bonds and community cohesion. The success and productivity of a *machamba* are sources of pride and social status within the community.

Eight communities were identified as Project Affected Communities due to their proximity to project infrastructure or because they contain agricultural areas that were part of the economic resettlement process. The following communities are within or proximal to the project: Balama, 7 de Setembro and Magaia (considered as one community), Nacole (formerly

Muapé), and Marica and impacted by the mine. The following communities were affected by economic resettlement of members of the previous communities: Ntete, Nquide, Maputo (formerly Mualia), and Pirira (refer to Figure 3). Collectively, these communities are home to approximately 50,000 individuals. The estimated population in 2022 was 3,000 in Nquide, 4,500 in Ntete, 5,600 in Mualia, 700 in Pirira, 400 in 7 de Setembro and Magaia, 3,500 in Nacole, and 5,000 in Marica, with over 27,000 residing in Balama town (Balama Overview, August 2023). Overall, the region's population density is considered low for Mozambique with approximately 22 inhabitants per square kilometer, as the national average for Mozambique is about 40 according to the Mozambique National Institute of Statistics.

The *machambas* (farmlands) of the Ntete, Nquide, Maputo, and Pirira communities, located in parts of the mine concession, required the creation of a Resettlement Action Plan (RAP) to manage the economic resettlement process. Developed in 2014, the RAP followed Mozambique's Regulations on the Resettlement Process resulting from Economic Activities (Decree No. 31/2012 of August 8). Under this legislation, the government of Mozambique was responsible for identifying and allocating alternative farmland for households whose *machambas* were acquired or affected by the BGO project (ESHIA 2015).

Land ownership is primarily communal, with land rights passed down traditionally to younger generations. This customary system often conflicts with formal land tenure legislation. In Mozambique, all land is vested in the state, although customary land is also recognized under the Land Act No 19 of 1997 and Decree No 66 of 1998.

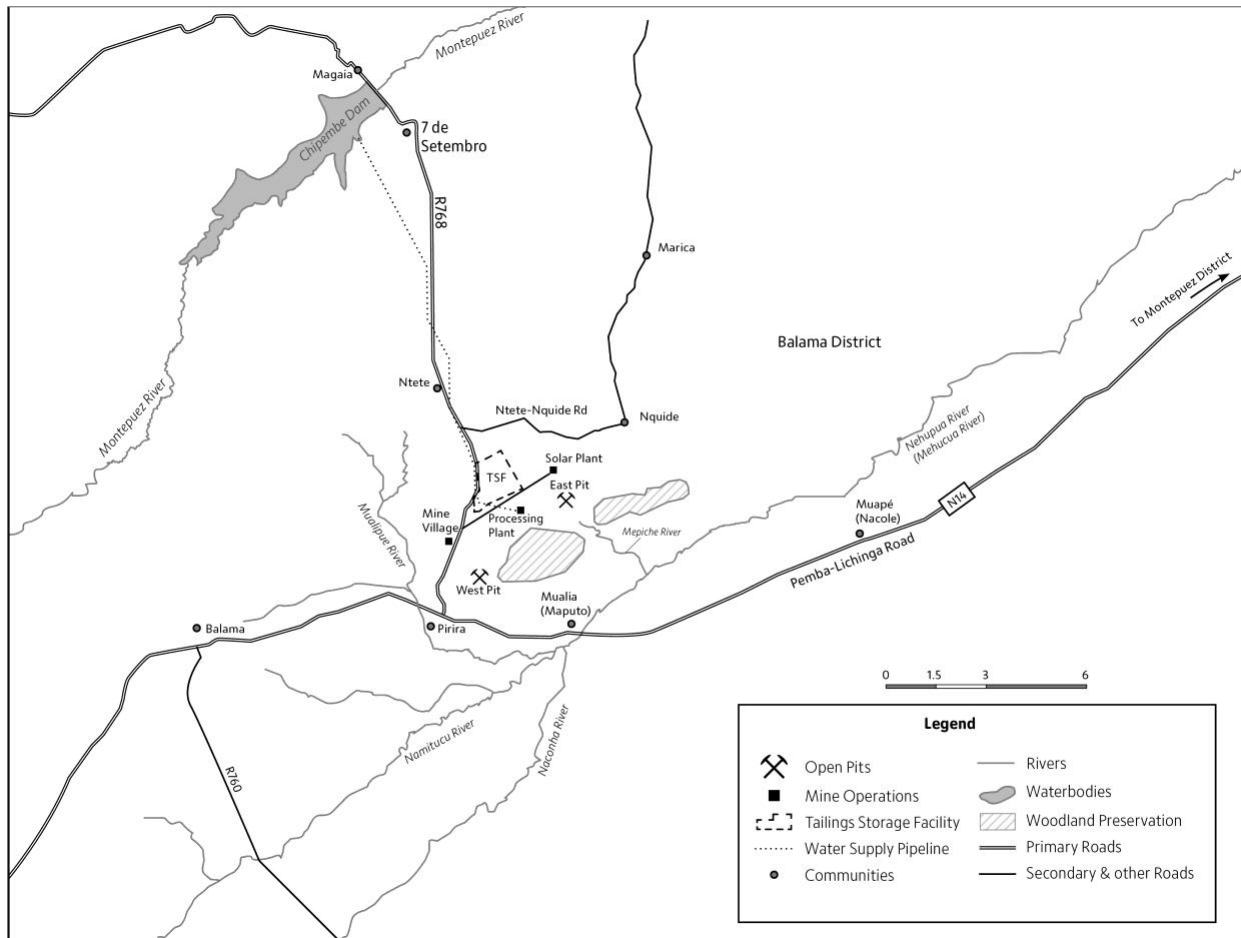


Figure 3: Illustrative, local map of the site

The eight project-affected communities are composed of the Macua people, an ethnic group native to northern Mozambique whose cultural practices are deeply rooted in tradition and long-standing ties to the land. Macua, the native language of 93% of the population of 2.32 million (National Statistics Institute 2017), and Portuguese, are the predominant languages. As noted by Sá e Bonnet in the *Suwelani Scientific Journal* (2018), the Macua people belong to the Bantu linguistic ethnic group and are organized in matrilineal groups.

These communities place significant value on communal decision-making and the authority of traditional leaders. Their social structure revolves around extended family networks and community-based organizations, with social hierarchies that help maintain community cohesion. Oral communication, particularly in community meetings led by local leaders and elders, is central to decision-making processes, and essential for implementing community projects.

Islam is the dominant religion, and its practices and festivals play a significant role in community life. Religious leaders are influential figures. Spiritual sites and practices are key aspects of daily life.

Men typically hold positions of authority and are the primary decision-makers within households, while women manage domestic duties, childcare, and agricultural tasks. Women also play a significant role in informal trade at local markets. However, their participation in socio-economic and political activities is hindered by high illiteracy rates—only 25% of women over 15 in Cabo Delgado are literate, compared to a national literacy rate of 62% (UNICEF 2022). During this audit, the barrier to women's participation was successfully addressed by the inclusion of a both men and women in the auditing team. Female auditors facilitated effective engagement with women in the community, ensuring their perspectives were represented.

While these communities share cultural traits that may align with the definition of Indigenous peoples under ILO Convention No. 169 and the UN Declaration on the Rights of Indigenous Peoples, their classification as Indigenous remains uncertain and requires further evaluation. However, as a precautionary measure, these project-affected Macua communities were treated as Indigenous under the IRMA Standard.

Few healthcare facilities are available to the local population and key services (i.e. water and sanitation) are limited, exacerbating health issues that are common in the area, such as malaria and waterborne diseases. However, access to health and sanitation services and regular power supply has increased over the past years due to the construction of new health centers and the expansion of electricity networks (Integrated Health Service Saves Lives in Cabo Delgado, UNICEF 2024).

Security concerns are a priority due to the ongoing conflict in the Cabo Delgado province. Since 2017, the region has suffered violent attacks from an Islamist-inspired insurgent group. Insurgents have caused thousands of deaths, displaced over 800,000 people, and severely disrupted local communities by destroying infrastructure and fostering instability, as reported by the International Crisis Group (2022).

While the primary conflict zones are concentrated in northern districts, violence has spread, influencing security instability into other regions. This instability has occasionally disrupted operations at BGO. For example, insurgent activities near the Ancuabe district led to temporary suspensions of personnel movement and logistics at the mine in 2022.

1.2. Overview of operation²

The BGO is operated under a 25-year mining concession held by Twigg Exploration and Mining Limitada (Twigg), a subsidiary of Syrah Resources Limited. The mining concession was granted by the Republic of Mozambique on December 6, 2013, and is valid until 2038. It grants Twigg the rights to explore and process graphite and vanadium over an area of 11,062 hectares. The mine, currently 5,812 hectares, is estimated to have a remaining life of 50 years (Mine Site Application Form June 6, 2022), with updates made annually depending on the global demand and supply in the graphite market.

BGO's development began with exploration work by Twigg from 2011 to 2014, identifying three graphite ore bodies: Ativa, Mualia, and Mepiche. Construction of the camp and site plant commenced in 2014, followed by the commissioning of the processing plant and first cell of the tailings storage facility (TSF) in 2017. Tailings Cell 1B was commissioned in 2018, Cell 2A in 2023. Cell 2B is currently under construction. Commercial production began in April 2018, making BGO an existing mine according to the IRMA Standard (June 2018), as it defines an existing mine as one that was operational prior to the standard's publication date in June 2018.

The ore is mined using conventional open-pit mining methods with only occasional drilling and blasting needed, where ripping of material by a dozer is not sufficient to loosen the material. The ore and waste rock are then loaded by hydraulic shovels into dump trucks and transported to either the medium to high-grade Run-of-Mine (ROM) stockpiles near the primary crusher, the lower-grade ore stockpile or one of the waste rock dumps, depending on ore grade and sulfide content.

The processing plant, designed to handle two million tons of ore per annum, can produce up to 350,000 tons of graphite concentrate annually, with a carbon content ranging from 94% to 98%. The processing involves conventional crushing, grinding, flotation, filtration, drying, screening, and bagging. Waste is stored in stockpiles and in an onsite tailings storage facility (TSF). The finished graphite products are transported by truck to the ports of Pemba and Nacala, from where they are shipped to customers worldwide. Up to 70 percent of the graphite produced at BGO is supplied to battery manufacturers.

Electrical power is provided by an on-site 15.4 MW diesel-fueled generating station, and an 11.25 MW photovoltaic plant combined with an 8.5 MW/MWh battery that supplies 35% of BGO's overall power requirements. Water for processing is supplied to the site through a 13 km pipeline from the Chipembe Water Dam and supplemented by recycling processes and rainwater collected from the tailings storage facility (TSF). Potable water for the mine camp is sourced from groundwater boreholes and potable water for the plant site is sourced from the Chipembe Water Dam and then treated.

The mine camp, located near Pirira, accommodates personnel and offers cafeterias, a clinic, sports courts, a gym, a multifaith space, and other recreational facilities. Transport from the

² This section synthesizes information from a range of sources, particularly focused on the operational scope, infrastructure, and workforce composition of BGO. Major sources of information include: BGO Environmental, Social, and Health Impact Assessment (2015), Mine Site Application Form (June 2022), Syrah's Sustainability Reports (2022, 2023), and internal employment and workforce report (January 2024).

camp to site is via company-operated buses. The camp concession also includes supporting infrastructure such as water treatment, maintenance shop, temporary fuel mobile bowser, administrative offices, power plant, waste management, and other facilities.

As of June 2023, the number of employees was estimated at 1,360, with 38% direct employees of BGO and 62% contractor employees. Among BGO's direct employees, 96% are Mozambican nationals, with 39% coming from the eight affected communities. The gender distribution among these employees is 82% men and 18% women. The contractors' workforce consists of 88% men and 12% women.

1.2.1. Scope of activities and facilities included in audit

For this IRMA Assessment, the scope includes the following elements: the Balama mine operation: (1) open pit mines, (2) ore processing area, (3) tailings storage facilities, (4) mineralized waste dump, (5) waste rock dump, (6) leachate pond, (7) stockpiles, (8) packaging & loadout, (9) solar power plant, (10) warehouse, (11) laboratory, (12) clinic, (13) administration building & other offices, (14) maintenance workshops, (15) waste management facility plant, (16) wastewater treatment plant, (17) tree and plant nursery, (18) worker camp (i.e., accommodations, canteen, laundry room, etc.), (19) associated on-site infrastructure (power line, bores, piping, storage, internal access road, etc.), and (20) management, production & support processes.

This IRMA Assessment Scope excludes the following off-site infrastructure:

- Transportation of materials to the mine and graphite production to the ports
 - Road transportation
 - Ports of Pemba and Nacala
- Contractor camps, maintenance and storage areas located off-site
- Local and national security offices and camps not under the site's responsibility

IRMA Chapters determined by the mine site to be not relevant at the time of its self-assessment are below and were confirmed by auditors as part of the assurance process.

- Chapter 3.6: Artisanal and Small-Scale Mining – Based on interviews with relevant stakeholders, community members, and key staff, as well as credible publicly available information, the audit team did not identify artisanal and small-scale mining (ASM) entities within the mine concession or close to the mining project.
- Chapter 4.7: Cyanide Management - The mine does not use cyanide in any step of the graphite processing.
- Chapter 4.8: Mercury Management - The mine does not use mercury in any step of the graphite processing.

2. Mine Site Assessment Process

2.1. Overview of IRMA Process

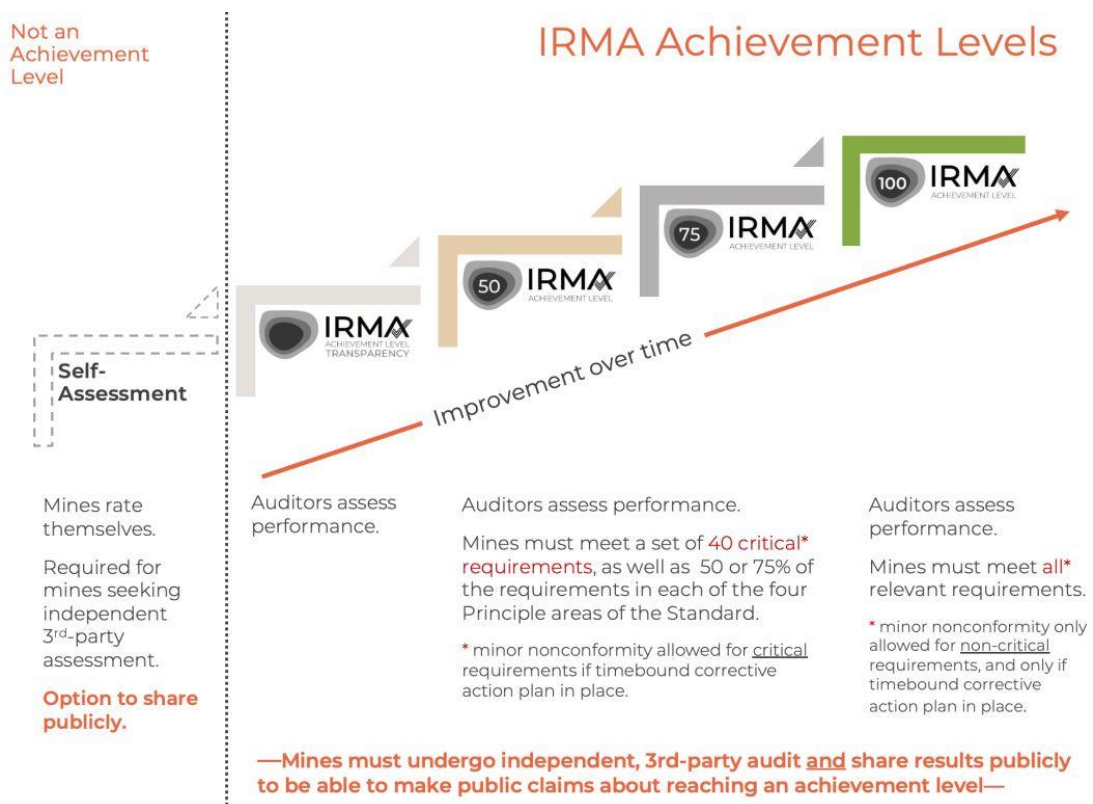
The mine site assessment process begins with mines completing a self-assessment and uploading evidence into an online tool (Mine Measure). When the self-assessment has been completed, the independent, third-party assessment may begin.

Stage 1 of the independent, third-party assessment is a desk review carried out by an IRMA-approved Certification Body, which puts together a team of auditors to review the self-assessment ratings and evidence provided by the mine site. During this stage of the audit additional information may be requested by auditors. Mines may also choose to take time to make improvements to practices prior to commencement of Stage 2.

Stage 2 is the on-site visit, which includes facility and site-based observations, additional review of materials, and interviews with mine site personnel, workers, stakeholders, and meetings with affected communities.

Based on observations, interviews and information evaluated during Stage 1 and Stage 2, auditors determine if mines are fully, substantially, partially, or not meeting each of the IRMA Standard requirements relevant at the mine site. The decision regarding a mine site's achievement level is made by the Certification Body.

IRMA recognizes four levels of achievement. For a complete description of the assessment process and achievement levels, see IRMA's Certification Body Requirements, available on IRMA's website.



2.1.1. Scope and Limitation of Audits

Within the IRMA system, independent, third-party assessment is a process by which mines are assessed against the IRMA Standard for Responsible Mining by external auditors. Audits are conducted by auditors who: have undergone IRMA training, meet IRMA competency requirements and have been deemed to have no conflicts-of-interest with the mine site under assessment.

Audits are carried out in general conformance with established industry practice for independent audits (i.e., ISO 19011). In addition to document review, audits include on-site visits of relevant facilities, review of records, and interviews with site personnel and relevant stakeholders.

Auditor evaluations are based upon samples of audit evidence assessed against the requirements of the IRMA Standard VI. Professional judgments expressed in auditor comments are based on the facts available at the time of the audit within the limits of the existing data, scope of work, budget, and schedule. As such, audit reports represent the reasonable conclusions of auditors based on the IRMA standard and associated guidance, and the facts and evidence available to them, within the framework of the audit process.

The information provided in this audit report is designed to identify opportunities for expanding responsible mining in accordance with the IRMA standard and is not intended for any other purposes.

2.1.2. IRMA Complaints Process

IRMA stakeholder wishing to file a complaint related to the mine site assessment process may do so by visiting the IRMA website at responsiblemining.net. Details on the complaints process can be found in [IRMA's Issues Resolution Procedure](#).

2.2. Audit Process and Timeline

- Syrah Resources Limited completed the initial self-assessment for BGO in March 2023 and the re-assessment in May 2023
- SCS Global Services carried out an initial Stage 1 desktop audit in September – October 2023
- SCS Global Services conducted a Stage 2 on-site audit in January – February 2024
- Technical Review including supplemental evidence review February 2024 to September 2024

The on-site audit conducted by SCS Global Services included a series of interviews with company staff (workers and management team), relevant community representatives, and governmental agencies; documentation review; and visits to operational areas including: mine site, processing plant, mine services (i.e., mineralized waste dump, waste rock dump, leachate pond, stockpiles), ancillary services and infrastructure (i.e., solar power plant, maintenance, transportation, mine camp), located beside the external water dam. Communities and nearby towns were also visited, including: Balama, Maputo (Mualia), 7 de Setembro (Magaia), Ntete, Marica, Nquide and Pirira.

2.3. Stakeholder Engagement

IRMA requires that stakeholders be engaged as part of the mine site assessment process. Audits are announced by IRMA and certification bodies, and prior to the on-site audit there is additional outreach carried out by certification bodies.

2.3.1. Written comments/inquiries

Stakeholders were notified at least thirty (30) days prior to the audit date; and inquiries were received via WhatsApp. Stakeholder outreach did not include the exact audit dates as per IRMA protocol for security reasons. Posters announcing the audit were placed in community centers in the eight affected communities and announcements in Macua, the local language, were broadcast on local radio stations. Additionally, no stakeholder comments were received via the SCS website public notification.

2.3.2. Mine Staff

Individuals in the following positions were interviewed as subject matter experts in one or more topics relevant to the IRMA standard. The interviewees were in the positions listed below at the time of the audit.

Position/Role
Site General Manager
People & Sustainability General Manager
General Council
Financial Controller Manager
Community Relations Manager
People & Sustainability Manager
Health, Safety, Security & Environment Manager
Account, Tax and Reports Superintendent
Human Resources Superintendent
People Superintendent
Health, Safety, Security & Environment Superintendent
Geology Superintendent
Process Engineering Superintendent
Legal and Compliance Coordinator
Community Relations Coordinator
Institutional Relations Coordinator
Tailings Storage Facility Engineer
Contractor Ayrlyne - Manager
Contractor CIS - Manager
Contractor Regis Group - Manager
Contractor Chelsea Group - Manager
Contractor Bureau Veritas - Manager
Contractor Tayanna – HR Manager

2.3.3. Workers/Contractors

Onsite interviews were conducted from January 29 to February 2, 2024, with both permanent and contract employees. The interviews involved a total of 77 workers and contractors through one-on-one and small group interviews. Of the 77 interviewees, 43 were employees (10 females, 33 males) and 34 were contractors (8 females, and 26 males). The participants represented a diverse cross-section of workers, varying in roles, gender, age, years of service, and type of work responsibilities across the key operational areas of the mining operation. Worker union representatives were also included.

The interviewees represented multiple departments and were selected to ensure diversity in age, gender, experience, work groups, shifts, and responsibilities, including operational, administrative, worker health and safety, and union roles, including union leadership. Topics discussed included working conditions, with a focus on women and vulnerable groups, freedom of association, health and safety, grievance mechanisms, and more.

Interviews were held at various onsite locations, such as conference rooms, offices, lunchrooms, maintenance areas, and outdoors, ensuring both safety and worker privacy. Importantly, worker interviews were conducted without company management present. Supervisory staff were interviewed individually but did not participate in group sessions to avoid influencing employee responses.

Meeting Type	Role/Position	Total Number of Attendees
Group interview, workers	Environmental	2 (1 male, 1 female)
Group interview, workers	Machine Operators	2 (2 males)
Group interview, workers	Worker Union Representatives	6 (6 males)
Group interview, contractors	Assistants	2 (1 male, 1 female)
Group interview, contractors	Medics	2 (2 males)
Group interview, contractors	Assistants	2 (2 males)
Group interview, contractors	Assistants	3 (3 females)
Group interview, contractors	Mechanics	3 (3 males)
Group interview, contractors	Security	6 (5 males, 1 female)
Individual Interviews, workers	Varied roles (HSE Technicians, Operators, ERT Assistants, Warehouse Technicians, Mechanics, and more)	33 (24 males, 9 females)
Individual Interviews, contractors	Varied roles (HSE Technicians, Lab Analysts, Operators, Security Officers, and more)	16 (12 males, 4 females)

2.3.4. Government Agencies

Onsite interviews were conducted with the following public sector institutions from January 29 to February 2, 2024.

Government Institution
Resettlement Representative – Land and Environment Provincial Directorate
Environment Department – Land and Environment Provincial Government
Regional Water Administration – Infrastructure Provincial Services
Infrastructure and Planning Services - District Services for Infrastructure and Planning
Women's Health and Social Action Services - District Services for Women's Health and Social Action Services
Education Department – District Services for Education, Youth and Technology

2.3.5. Participating Communities and NGOs

Interviews were conducted with external community stakeholders from January until March 2024, including four online meetings. The community interviews involved a total of 340 interviewees, 218 males and 122 females, and included a cross-section of members including men, women, youth, and vulnerable groups where possible; and key community leaders, government, and other stakeholders.

To ensure confidentiality, interviewees were informed about the measures in place to protect confidentiality of their identities and comments. All interview data was anonymized, and access to the information was restricted to the audit team, ensuring that no personal or sensitive details could be traced back to specific individuals.

As part of the stakeholder engagement planning, the audit team considered whether women might feel uncomfortable speaking up in mixed gender groups, potentially limiting their input. The structure of the meetings was determined by the communities themselves, who defined the format and organization of the discussions. The audit team respected this approach and observed that women actively participated and were respected by their peers during the sessions. Community leaders and members often worked together to prepare a list of concerns about the mine operation, which was presented to the auditors at the start of the interview, allowing them time to compile their key concerns. The audit team allocated ample time afterward to ask follow-up questions, address other topics not initially covered, and solicit any further concerns from the community.

Community Name	Location	Total Number of Attendees
Pirira	Village of Pirira	15 (10 males and 5 females)
Nquide	Village of Nquide	70 (50 males and 20 females) *
Marica	Village of Marica	65 (45 males and 20 females) *
Ntete	Village of Ntete	80 (50 males and 30 females) *

Community Name	Location	Total Number of Attendees
7 de Setembro (Magaia)	Village of 7 de Setembro	8 (5 males and 3 females)
Maputo (Mualia)	Village of Maputo	75 (45 males and 30 females) *
Balama	Balama town	8 (2 males and 6 females)
District assigned teacher	Balama town	1 female
Legal experts on Mozambique's Land Law (Maputo University)	online	2 (1 male and 1 female)
Anthropologist (Eduardo Mondlane University)	online	1 male
NGO - Wiwanana Foundation	Balama city	1 male
ARTEBA - Balama Artisans Association	Balama city	12 (6 males and 6 females)
NGO - Medicus Mundi Mozambique	Telephone	1 male
NGO - Community Civil Defense Center (NUDEC)	online	1 male

*Note that for interviews with larger groups, the number of attendees was estimated.

2.4. Summary of Mine Facilities Visited

The following areas were visited or observed during the on-site visit:

Operational areas	(1) open pit mines, (2) ore processing plant, (3) tailings storage facility, (4) mineralized waste dump, (5) waste rock dump, (6) leachate pond, (7) stockpiles, (8) product handling (9) solar power plant, (10) warehouse, (11) laboratory, (12) clinic, (13) administration building & other offices, (14) maintenance workshops, (15) waste management facility plant, (16) wastewater treatment plant, (17) tree and plant nursery, (18) mine camp (i.e., accommodations, restaurants, laundry room, etc.), (19) associated on-site infrastructure (power line, bores, piping, storage, internal access road, etc.), and (20) management, production & support processes.
Other areas visited (e.g., downstream watercourses, off-site facilities)	Chipembe Water Dam and environmental monitoring sites
Surrounding Communities	Communities and nearby villages including Pirira, Nquide, Marica, Ntete, 7 de Setembro and Magaia (considered as one community), Maputo (Mualia) and Balama. Due to road conditions and distance from the mine camp, the community of Nacole (formerly Muapé) was not visited during the on-site assessment but will be included in the surveillance audit.

3. Summary of Findings

Detailed audit findings on a requirement-by-requirement basis can be found in Appendix A.

3.1. Audit outcome

The site is recognized as having achieved the level of IRMA 50 based on the performance recorded because of the Stage 1 and Stage 2 described audit activities.

3.2. Scores by IRMA Standard principle and chapter

	Chapter Relevant*	Actual Score	Possible Score	Percent Score
Principle 1: Business Integrity		78.5	114	69%
Chapter 1.1—Legal Compliance	Yes	12	14	86%
Chapter 1.2—Community and Stakeholder Engagement	Yes	22	30	73%
Chapter 1.3—Human Rights Due Diligence	Yes	15	24	63%
Chapter 1.4—Complaints Mechanism/Access to Remedy	Yes	14	22	64%
Chapter 1.5—Revenue and Payments Transparency	Yes	15.5	24	65%
Principle 2: Planning for Positive Legacies		95	154	62%
Chapter 2.1—Env/Soc Impact Assessment and Management	Yes	21	32	66%
Chapter 2.2—Free, Prior and Informed Consent	Yes	16	28	57%
Chapter 2.3—Community Support and Benefits	Yes	14.5	16	91%
Chapter 2.4—Resettlement	Yes	13.5	20	68%
Chapter 2.5—Emergency Preparedness and Response	Yes	7.5	10	75%
Chapter 2.6—Planning/Financing Reclamation & Closure	Yes	22.5	48	47%
Principle 3: Social Responsibility		154.5	216	72%
Chapter 3.1—Fair Labor and Terms of Work	Yes	53.5	68	79%
Chapter 3.2—Occupational Health and Safety	Yes	31	46	67%
Chapter 3.3—Community Health and Safety	Yes	19	22	86%
Chapter 3.4—Conflict-Affected and High-Risk Areas	Yes	17	28	61%
Chapter 3.5—Security Arrangements	Yes	21	28	75%
Chapter 3.6—Artisanal and Small-Scale Mining	No	Not Relevant	Not Relevant	Not Relevant
Chapter 3.7—Cultural Heritage	Yes	13	24	54%

Principle 4: Environmental Responsibility		111.5	162	69%
Chapter 4.1—Waste and Materials Management	Yes	38.5	54	71%
Chapter 4.2—Water Management	Yes	22.5	38	59%
Chapter 4.3—Air Quality	Yes	16	18	89%
Chapter 4.4—Noise and Vibration	Yes	4.5	12	38%
Chapter 4.5—Greenhouse Gas Emissions	Yes	11.5	14	82%
Chapter 4.6—Biodiversity, Eco. Serv. and Protected Areas	Yes	18.5	26	71%
Chapter 4.7—Cyanide Management	No	Not Relevant	Not Relevant	Not Relevant
Chapter 4.8—Mercury Management	No	Not Relevant	Not Relevant	Not Relevant

* Chapters are marked as not relevant if auditors have verified that the issues addressed in the chapter are not applicable at the mine site.

3.3. Performance on critical requirements

Critical requirements consist of a set of 40 requirements that have been identified by the IRMA Board of Directors as being core requirements that any mine site claiming to be following good practices in mining should be meeting. Mines seeking to achieve IRMA 100 must fully meet all critical requirements, and mines achieving IRMA 50 or IRMA 75 must substantially meet all critical requirements, demonstrate progress over time, and fully meet all critical requirements within specified time frames.

3.3.1. Snapshot of performance on 40 critical requirements



3.3.2. Performance on 40 critical requirements.

RATING LEGEND	
Description of performance	● Fully meets
	◐ Substantially meets
	◑ Partially meets
	⊗ Does not meet
	— Not relevant

Principle 1: Business Integrity

1.1.1.1	The operating company shall comply with all applicable host country laws in relation to the mining project.	●
1.2.2.2.	The mine fosters two-way dialogue and meaningful engagement with stakeholders	◐
1.3.1.1.	The operating company has a policy in place that acknowledges its responsibility to respect all internationally recognized human rights.	●
1.3.2.1.	and an ongoing process to identify and assess potential and actual human rights impacts from mining project activities and business relationships.	◐
1.3.3.3.	The operating company is taking steps to remediate any known impacts on human rights caused by the mine.	—
1.4.1.1.	Stakeholders have access to operational-level mechanisms that allows them to raise and seek resolution or remedy for complaints and grievances that may occur in relation to the mining operation.	◐
1.5.5.1.	The operating company has developed, documented, and implemented policies and procedures that prohibit bribery and other forms of corruption by employees and contractors.	●

Principle 2: Planning for Positive Legacies

2.1.3.1	The operating company has carried out a process to identify potential impacts (social and environmental) of the mining project.	◐
2.2.2.2.	New mine sites have obtained the FPIC of Indigenous peoples, and existing mines either have obtained FPIC or can demonstrate that they are operating in a manner that supports positive relationships with affected Indigenous peoples and provides remedies for past impacts on Indigenous peoples' rights and interests.	◐
2.4.7.1.	If resettlement has occurred, the mine monitors and evaluates its implementation and takes corrective actions until the provisions of resettlement action plans and/or livelihood restoration plans have been met.	◐
2.5.1.1.	All operations related to the mining project shall have an emergency response plan	◐
2.5.2.1.	and there is community participation in emergency response planning exercises.	◐
2.6.2.1.	Reclamation and closure plans are compatible with protection of human health and the environment,	◐
2.6.2.6.	and are available to stakeholders.	●
2.6.4.1.	Financial surety instruments are in place for mine closure and post-closure (including reclamation, water treatment and monitoring).	●

Principle 3: Social Responsibility

3.1.2.1	Workers' freedom of association is respected.	
3.1.3.3.	Measures are in place to prevent and address harassment, intimidation, and/or exploitation, especially about female workers.	
3.1.5.1.	Workers have access to operational-level mechanisms that allows them to raise and seek resolution or remedy for complaints and grievances that may occur in relation to workplace-related issues.	
3.1.7.2.	No children (i.e., persons under the age of 18) are employed to do hazardous work	
3.1.7.3.	and no children under the age of 15 are employed to do non-hazardous work.	
3.1.8.1.	There is no forced labor at the mine site or used by the operating company.	
3.2.4.1.a, b	Workers are informed of hazards associated with their work, the health risks involved and relevant preventive and protective measures.	
3.3.1.1.	The risks to community health and safety posed by the mining operation are evaluated and mitigated.	
3.4.2.1.	If operating in a conflict-affected or high-risk area, the mine has committed to not support any parties that contribute to conflict or the infringement of human rights.	
3.5.1.2.	The mine has policy and procedures in place that align with best practices to limit the use of force and firearms by security personnel.	

Principle 4: Environmental Responsibility

4.1.4.1.	A risk assessment has been done to identify chemical and physical risks associated with existing mine waste (including tailings) facilities.	
4.1.5.1.	Mine waste facility design and mitigation of identified risks shall be consistent with best available technologies and best available/applicable practices.	
4.1.5.6.	The operating company regularly evaluates the performance of mine waste facilities to assess the effectiveness of risk management measures, including critical controls for high consequence facilities.	
4.1.8.1.	The mine does not use riverine, submarine or lake disposal for mine wastes.	
4.2.4.1.a-e	Water quality and quantity are being monitored at the mine site	
4.2.4.4	and adverse impacts resulting from the mining operation are being mitigated.	
4.3.2.1.	When significant potential impacts on air quality are identified, the mine develops measures to avoid and minimize adverse impacts on air quality, and documents them in an air quality management plan.	
4.5.1.1.	There is a policy being implemented that includes targets for reducing greenhouse gas emissions.	
4.6.2.1.	The mine has carried out screening to evaluate its potential impacts on biodiversity, ecosystem services and protected areas	
4.6.4.1.	and these impacts are being mitigated and minimized.	—
4.6.5.3.	New mines are not located in or adversely affect World Heritage Sites (WHS), areas on a State Party's official Tentative List for WHS Inscription, IUCN protected area management categories I-III, or core areas of UNESCO biosphere reserves	—
4.6.5.4.	and existing mines located in those areas ensure that activities during the remaining mine life cycle will not permanently and materially damage the integrity of the special values for which the area was designated or recognized.	—

4.7.11.	Gold or silver mines using cyanide are certified as complying with the Cyanide Code.	—
4.8.2.3.	Mercury wastes are not permanently stored on site without adequate safeguards,	—
4.8.2.2.	are not sold or given to artisanal or small-scale miners and are otherwise sold only for end uses covered in the Minamata Convention or disposed of in regulated repositories.	—

4. Next Steps

4.1 Corrective Action Plans

To improve the IRMA level of achievement following the initial audit, BGO prepared a corrective action plan (included in Appendix B) to address minor non-conformities with critical requirements. The audit team will assess the implementation of the corrective action plan during the surveillance audit.

4.2 Disclosure of Summary Audit Report

IRMA requires that all mines that undergo independent, third-party auditing disclose a summary audit report within 12 months of an audit to maintain good standing in the IRMA system. The public summary report of BGO mine will be posted on the IRMA website.






4.3 Timing of Future Audits

The mine's surveillance audit will take place no more than 18 months after the publication of this IRMA Initial Assessment Report.

APPENDIX A—Results by Requirement

Note: The following section includes the results for each requirement of the Standard. In total, the evidence included more than 1,000 files (MS Word, MS Excel, pdf, shapefiles, kmz, maps, photographs and mp3); only the most relevant ones, are included in this section.

RATING LEGEND
Description of performance

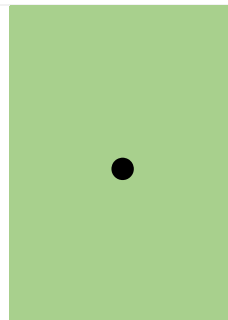
	Fully meets
	Substantially meets
	Partially meets
	Does not meet
	Not relevant or not scored

Principle 1: Business Integrity

Chapter 1.1—Legal Compliance

Basis for rating

1.1.1.1. **Critical.** The operating company shall comply with all applicable host country laws in relation to the mining project.



The evidence, LIRA SOGI Licenses (2023), a management software program used to inventory applicable requirements such as mining laws, land use rights (DUAT), agreements, regulations, permits, and licenses per Mozambique legislation, and other compliance management and tracking systems such as MyOSH arranged by department/subject matter area (i.e., HSSE, procurement, environmental, social) reviewed by auditors at the time of the site visit indicates the company has robust systems in place to maintain compliance with host country law over time. The systems specify accountabilities and send reminders to designated persons for ongoing requirements, among them environmental and social monitoring and management. In addition, the company conducts regular social and environmental audits, including to contractor companies, to track and remedy potential noncompliance or breach of host country laws. A sample of corrective actions (i.e., contractor labor law audit, environmental external audit, social internal audit) indicates that when renewals or updates are

		required to comply with national legislation, the company has developed a plan and is actively implementing corrective actions to address non-compliances. The evidence and onsite observations indicate that these corrective action plans work as intended and are regularly updated as needed.
1.1.2.1.	The operating company shall comply with whichever provides the greatest social and/or environmental protections of host country law or IRMA requirements. If complying fully with an IRMA requirement would require the operating company to break host country law then the company shall endeavor to meet the intent of the IRMA requirement to the extent feasible without violating the law.	Not relevant. IRMA requirements are not in conflict with host country laws.
1.1.3.1.	If non-compliance with a host country law has taken place, the operating company shall be able to demonstrate that timely and effective action was taken to remedy the non-compliance and to prevent further non-compliances from recurring.	<p>A sample of corrective action plans, including contractor labor law audit recommendations (from November 2023 and January 2024), a corrective action plan from an environmental external audit (September 2023), and a corrective action plan from a social internal audit on the Solar Plant (January 2024), indicates the company has taken timely and effective actions to remedy the non-compliance and to prevent further non-compliances from recurring. The evidence indicates the company has a process in place to track noncompliance issues with corrective actions expected to be completed within six months (based on actions and dates listed in the sample), and that corrective actions are effective, as both the corrective action plan from an environmental external audit (September 2023) and the corrective action plan from a social internal audit on the Solar Plant (January 2024) were considered acceptable by the competent authority. Furthermore, some corrective actions include updates to procedures and policies to prevent recurrence.</p> <p>The evidence does not provide details to confirm if for past non-compliance, not addressed in a timely and effective manner, the company has carried out an evaluation to determine why corrective actions were slow or ineffective.</p>
1.1.4.1.	The operating company shall demonstrate that it takes appropriate steps to ensure compliance with the IRMA Standard by contractors engaged in activities relevant to the mining project.	<p>The evidence, including MyOSH tracker, procedures, training and records (i.e., ethics, safety, etc.), as well as interviews with a sample of workers (employees, contractors), indicates that the company has policies and procedures in place to communicate the company's expectations related to environmental and social performance consistent with IRMA requirements, and these expectations are monitored in practice at the mine site. Interviews with key staff indicate that the company uses several means to track the compliance status of contractors, such as monthly evaluation of environmental and safety good practices implemented by the contractors, besides monthly environmental inspections of third parties, conducted by Twigg's staff.</p> <p>Interviews and document review with a sample of contractors indicated some relevant social requirements were not in compliance with the IRMA Standard and had not been tracked by the company. In addition, while</p>

			workers, including employees and contractors, were familiar with IRMA, they did not have further information on its applicability in their work.
1.1.5.1.	The operating company shall maintain records and documentation sufficient to authenticate and demonstrate compliance and/or non-compliance with host country laws and the IRMA Standard.	●	The evidence, screenshots from the MyOsh and SOGI systems, indicates records of compliance with host country laws up to December 2023. Interviews with company management indicated the company's commitment to ensuring compliance with both applicable legislation and the IRMA Standard. Additionally, the company provided sufficient records and documentation to authenticate the site's performance and demonstrate compliance with the IRMA Standard (note, this is an initial verification audit).
1.1.5.2.	Records related to compliance and/or non-compliance with host country laws shall be made available to IRMA auditors, and shall include descriptions of non-compliance events and ongoing and final investigations, allegations, discussions, and final remedies.	◐	<p>An environmental audit report (December 2021) indicates that the mining project complies 92% with host country laws, and if there was a breach of Mozambique legislation a plan would be in place, and corrective actions would be underway to resolve identified gaps. The evidence provided in this report includes records related to compliance, constraints, and suggestions made by the government agencies considering applicable host country laws available to IRMA auditors, including an action plan related to the renewal of the Community Development Agreement (January 2024), indicating descriptions of constraints events and ongoing and final investigations, allegations, discussions, and final remedies.</p> <p>The evidence does not include records of regulatory compliance inspections or reports (i.e., descriptions of allegations, discussions, monitoring reports, investigations, regulatory correspondence, and final remedies) to confirm mine-related compliance or non-compliance information referring to other than environmental requirements at the operating (department) level is present and up to date.</p>
1.1.5.3.	Upon request, operating companies shall provide stakeholders with a summary of the mining project's regulatory non-compliance issues that are publicly available.	●	The evidence, interviews with stakeholders and three (3) letters from NGOs and civil society organizations, indicates that requests have been made concerning non-compliance issues. The company provided evidence, including letters signed by Syrah's CEO throughout 2023, showing that responses summarizing all regulatory non-compliance issues related to the mining project were provided at the time of the requests. Additionally, the company presented evidence of an annual public consultation meeting held in March 2022, where it shared its performance on environmental and social aspects with external stakeholders and the general public.
1.1.5.4.	Where the operating company claims that records or documentation contains confidential business information, it shall:	●	Interviews with managers indicated the company's commitment to disclose all information and make it available to auditors, including copies of records or documents containing information that has been withheld from the public.
	a. Provide to auditors a general description of the confidential material and an explanation of the		During the IRMA assessment, all requested records and documentation, including those containing confidential business information, were provided to the auditors.

reasons for classifying the information as confidential; and

- b. If a part of a document is confidential, only that confidential part shall be redacted, allowing for the release of non-confidential information.



Chapter 1.2—Community and Stakeholder Engagement

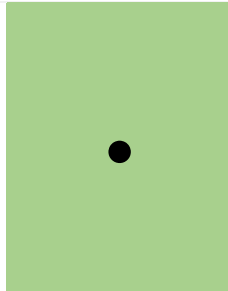
Basis for Rating

Background. Balama is an existing mine operating since 2017. During the scope definition phase of the Environmental, Social, and Health Impact Assessment (ESHIA) (August 2013), eight communities were identified as Project Affected Communities due to their proximity to project infrastructure or because agricultural land. These communities are: (1) Nquide, (2) Ntete, (3) Maputo (formerly Mualia), (4) Pirira, (5) Balama, (6) 7 de Setembro and Magaia (considered as one community), (7) Nacole (formerly Muapé), and (8) Marica. Since 2014, the company has developed a stakeholder engagement framework that identifies and analyzes individuals, local groups and institutions, including members of these communities, non-governmental organizations, district and provincial government authorities, and other institutions directly and indirectly affected by mining-related activities. A comprehensive stakeholder engagement plan (SEP) was developed (Stakeholder Engagement Plan, 2017), tailored to the specific needs of these stakeholders, and has been updated, with the latest version of the SEP released in October 2021. An important result of the SEP was the establishment of the Local Development Committee in 2017 with the object of engaging with local stakeholders, focusing on the eight (8) affected communities. Additionally, an extensive stakeholder engagement process was also undertaken during the resettlement process in 2014, as the ESHIA identified that the communities of Nquide, Ntete, Maputo, and Pirira had plots of land used for subsistence agriculture (*machambas*) within parts of the direct affection area, necessitating an exclusively economic, voluntary resettlement process.

Sources:

Environmental, Social and Health Impact Assessment (ESHIA) - Part I (August 2013);
Final Resettlement Action Plan (2014);
Local Development Committee Charter (April 2019);
Stakeholder Engagement Plan (October 2021).

- 1.2.1.1. The operating company shall undertake identification and analysis of the range of groups and individuals, including community members, rights holders and others (hereafter referred to collectively as “stakeholders”) who may be affected by or interested in the company’s mining-related activities.



The evidence, Stakeholder Engagement Plan (October 2021), indicates the company has identified and analyzed a broad range of community stakeholders affected by or interested in the mining project, including water users, workers, those residing near or along transportation routes associated with the mining project, or other populations whose livelihoods, health and safety or rights may be affected by the company’s activities, including vulnerable groups (or their representatives) such as women and children, along with those who have the potential to affect the operation (i.e., government officials, public health agencies, utilities, non-governmental organizations/civil society, other mining or industrial operations, etc.). The document includes an analysis of a range of groups, based on their level of influence and level of impact, and specifies the provisions made for each group depending on the context (social, cultural, political, and commercial). The specific

		<p>provisions include the following: (1) stakeholder, (2) stakeholder analysis, (3) stakeholder area of influence, (4) engagement purpose, (5) engagement frequency/type, (6) accountable person, and (7) executive sponsor. The Public Participation Report (September 2014) includes in Chapter 2 a stakeholder identification and analysis by the level of interest from national government to local level stakeholders. The document outlines a Project-Affected Community Liaison Committee was established in 2013, to ensure ongoing reliable communication and collaboration with communities. In addition, the Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015) indicates the company developed a demographic overview of the project-affected communities with the information gathered during a socio-economic baseline survey, conducted in March 2013 by the environmental consultancy Coastal & Environmental Services (CES).</p>
<p>1.2.1.2. A stakeholder engagement plan scaled to the mining project's risks and impacts and stage of development shall be developed, implemented and updated as necessary.</p>		<p>The evidence, Stakeholder Engagement Plan (SEP) (October 2021), indicates that the company has developed a SEP scaled to the mining project's risks and impacts and stage, as it outlines:</p> <ul style="list-style-type: none"> - roles and responsibilities in stakeholder identification, analysis, and engagement (Chapter 5); - stakeholder analysis and mapping, according to their level of influence and impact, in four different categories: (1) manage closely, (2) maintain confidence, (3) keep informed; (4) monitor and respond (Chapter 6); - stakeholder support, adopting a bottom-up approach (nucleating support 'upward' from a broad base of stakeholders who are 'closer to the action') (chapter 7); - specific Stakeholder Engagement Plans for four different groups depending on the context (social, cultural, political, and commercial). The specific provisions for each group include the following: (1) stakeholder, (2) stakeholder analysis, (3) stakeholder area of influence, (4) engagement purpose, (5) engagement frequency/type, (6) accountable person, and (7) executive sponsor (Chapter 8); - provisions for a stakeholder engagement register to manage data collection (chapter 9); - list of generalized stakeholder categories, including directly affected stakeholder groups, other stakeholder groups, and media (Chapter 10); and - monitoring and review, including the need to review on a three-yearly basis to ensure continual improvement (Chapter 11). <p>The Stakeholder Engagement Plan (October 2021) is non-conforming due to being outdated, since revision was set for March 2023. The Stakeholder Engagement Plan has not been updated. Interviews with mine staff indicate the document is currently under revision, and its new version is expected to be ready by July 2024.</p>
<p>1.2.1.3. The operating company shall consult with stakeholders to design engagement processes that are accessible, inclusive and culturally appropriate, and shall demonstrate that continuous efforts are taken to understand and remove barriers to engagement for affected stakeholders (especially women, marginalized and vulnerable groups).</p>		<p>The evidence, Syrah Group Stakeholder Engagement Register (February 2023) indicates that the company consults with a broad range of stakeholders on different topics, for example: community visits, Chipembe Water Dam Integrity Study, community forums, different partnership opportunities – e.g. Moz Youth. The Local Development Committee Charter (April 2019) indicates that a Local Development Committee (LDC) has been established, following national legislation, to engage with local stakeholders, focusing on the eight affected communities, in an accessible, inclusive, and culturally appropriate manner, which was designed in consultation with stakeholders. The LDC reviews the local development submissions received from the community and other stakeholders (including government agencies) and selects proposals for company sponsorship and delivery. Meetings of the LDC are held quarterly and include representatives from the</p>

		<p>communities and the government. During these meetings, issues that concern the Stakeholder Engagement Plan are debated and the company provides feedback to the communities on issues that they have requested (evidence: PowerPoint presentations, LDC quarterly meeting minutes for several months between 2021 and 2023).</p> <p>The Local Development Committee Charter (2019, Chapter 12 - Remuneration, p. 12) states that community members of the committee and subcommittees are entitled to a transportation allowance for each LDC meeting, and the company's anti-bribery and corruption policies prohibit paying any additional fees for community members' participation.</p> <p>Interviews with a sample of stakeholders, including community representatives on the Local Development Committee, indicate that some believe the company does not make ongoing efforts to remove transportation barriers to participation or ensure information is accessible and inclusive. Interviewees expressed a need for subsidies for community representatives who want to attend the quarterly meetings.</p> <p>The evidence does not provide details to confirm that the company has consistently assessed whether there are current barriers to engagement or taken actions to remove those barriers.</p>
<p>1.2.1.4. The operating company shall demonstrate that efforts have been made to understand community dynamics in order to prevent or mitigate community conflicts that might otherwise occur as a result of company engagement processes.</p>		<p>The evidence, Syrah Group Stakeholder Engagement Register (February 2023), indicates that the company consults with a broad range of stakeholders on different topics, for example: community visits, Chipembe Water Dam Integrity Study, community forums, different partnership opportunities, e.g. Moz Youth. The evidence, Local Development Committee Charter (April 2019), indicates that a Local Development Committee (LDC) has been established, following national legislation, to engage with local stakeholders, focusing on the eight host communities, in an accessible, inclusive, and culturally appropriate manner. The LDC effectively reviews the local development submissions received from the community and other stakeholders (including government agencies) and selects proposals for company sponsorship and delivery, without generating community conflict. The evidence, PowerPoint presentations of the LDC quarterly meeting minutes (several months between 2021 and 2023), indicates this committee effectively evaluates concerns and comments of community members on proposed local development programs and plans viability without generating conflict. The Stakeholder Engagement Plan methodology to understand community dynamics is considered adequate and aligned with good international practices, including consulting with stakeholders on issues related to community dynamics and consulting with external experts to understand better if any cultural or social factors could create unintended conflicts within communities.</p>
<p>1.2.2.1. Stakeholder engagement shall begin prior to or during mine planning, and be ongoing, throughout the life of the mine. (Note: existing mines do not need to demonstrate that engagement began prior to mine planning)</p>		<p>The Balama graphite mine is an existing mine and has several processes in place that allow for engagement with stakeholders on an ongoing basis. although the IRMA standard does not require demonstrating prior engagement for existing mines, it did occur. The evidence includes a Public Participation Process Report (September 2014), a socioeconomic impact assessment (August 2014) and a sample of records of focus group discussions with the affected communities held during the update of the socioeconomic impact assessment study in July 2022, indicating that the stakeholder engagement process started in the initial stages of the ESHIA</p>

process, in 2012, and included focus group discussions with different stakeholders, such as local community leaders of the potentially affected villages, traditional healers, groups of women, groups of youth, and teachers. An extensive stakeholder engagement process also occurred during the resettlement process (Final Resettlement Action Plan, 2014).

The evidence provided indicates a continuous engagement with stakeholders prior to and after the application of the IRMA process, as included in the Stakeholder Engagement Plan (October 2021), a review of the grievances and incidents Complaints & Grievances Register (January 2022 until February 2023), and PowerPoint presentation of the Local Development Committee meetings held quarterly, for several months through 2021 until 2023.

1.2.2.2. **Critical.** The operating company shall foster two-way dialogue and meaningful engagement with stakeholders by:

- a. Providing relevant information to stakeholders in a timely manner;
- b. Including participation by site management and subject-matter experts when addressing concerns of significance to stakeholders;
- c. Engaging in a manner that is respectful, and free from manipulation, interference, coercion or intimidation;
- d. Soliciting feedback from stakeholders on issues relevant to them; and
- e. Providing stakeholders with feedback on how the company has taken their input into account.

The company uses several means to foster two-way dialog and meaningful engagement with stakeholders as proscribed in the Stakeholder Engagement Plan (October 2021). Individuals and communities can contact the company in several ways and receive a response on issues raised in several ways: (1) directly, such as in person, telephone, e-mail, and letter, (2) during community meetings with company personnel present, and (3) through a village leader. The company also disseminates information through the community newspaper (Graphite Salama, December 2022), community radio (February 2023), and PowerPoint presentations, which include key company messages presented to the affected communities and their leaders, with feedback collected (March 2023).

The evidence, Stakeholder Engagement Plan (October 2021), bimonthly meeting roster and agenda (2022 Public Meeting held March 23, 2023) with over a hundred community members, including local community leaders, QTR 1 2023 Sustainability Report to local government (April 2023), a sample of Local Development Committee meeting minutes (several months from 2021 to 2023), and interviews with a sample of those potentially affected (i.e., living closest to the mine or in potentially affected areas) indicates the company has an engagement process in place and holds regular meetings with stakeholders to ensure:

- a. transparent, timely, and meaningful two-way engagement, as demonstrated in the LDC meeting minutes (from several months between 2021 and 2023) and this is ongoing as identified in a report of a Local Development Committee to address relevant topics raised by community members (Graphitizer, July 2024) ;
- b. participation by site-management and subject-matter experts when addressing concerns of significance to stakeholders (sample of meeting minutes with company subject matter experts, as in 2022 Public Meeting held March 2023, also indicated by a sample of stakeholders interviewed);
- c. engaging its stakeholders in a manner that is respectful and free from manipulation, interference, coercion, or intimidation (as indicated by stakeholder interviews, including government agencies and community members);

		<p>d. soliciting feedback from stakeholders through annual stakeholder surveys as part of the Socioeconomic Impact Assessment (January 2023) and during the Local Development Committee meeting (meeting minutes from several months between 2021 and 2023); and</p> <p>e. providing stakeholders with feedback on how the company has taken their input into account, such as a letter sent to the government for the repair of broken boreholes and revitalization of water committees after community members requested repairs (Repairing Boreholes, October 2023) and expert training provided to local honey producers (2023). The company newsletter (The Graphitizer, 2024) states that the boreholes were repaired by a company's partner (a community association).</p> <p>According to some interviewees, community stakeholders have the opinion that communication with the company's community relations team does not always meet expectations regarding (a) timely delivery of relevant information and (e) providing feedback on how the company has taken their input into account.</p> <p>While the evidence indicates the company has systems in place to conform with (a)-(e) stakeholders expressed that (a) and (e) do not always align with their expectations.</p>
<p>1.2.2.3. The operating company shall collaborate with stakeholders, including representatives from affected communities, to design and form stakeholder engagement mechanism(s) (e.g., a permanent advisory committee, or committees dedicated to specific issues), to provide stakeholder oversight of the mining project's environmental and social performance, and/or input to the company on issues of concern to stakeholders.</p>	<p>●</p>	<p>The evidence, including interviews with key personnel, government agencies and community members, indicates the company has implemented several means to design and form stakeholder engagement mechanisms to provide oversight of issues of interest to stakeholders and to provide input on the mining project's environmental and social performance at the operating level. The engagement mechanisms as proscribed in the Stakeholder Engagement Plan includes: telephone, e-mail, and letter, in-person during community meetings with company personnel presented, and through a community leader. The evidence, Public Participation Process Report (September 2014), indicates that the design and form of the stakeholder engagement mechanisms were defined during the Environmental, Social and Health Impact Assessment (ESHIA) development, and also indicates that the company has considered the requests of the communities in the design, form and execution of these mechanisms during the ESHIA development process conducted in 2014. A sample of the Local Development Committee meeting minutes, from several months through 2021 until 2023, as well as a review of the grievances and incidents Complaints & Grievances Register (January 2022 until February 2023), indicate that the company collects community opinions and complaints and provides stakeholders with some oversight of the mining project's environmental and social performance. The bimonthly meeting roaster and agenda (2022 Public Meeting held March 23, 2023) with over a hundred community members, including local community leaders, also indicates an ongoing dialogue between the company, the affected communities and public entities, and that affected stakeholders can actively collaborate in the design of the current implemented mechanisms to provide input on the mining project's environmental and social performance at the operating level.</p>
<p>1.2.2.4. Engagement processes shall be accessible and culturally appropriate, and the operating company shall demonstrate that efforts have been made to include participation by women, men, and</p>	<p>●</p>	<p>The evidence, Stakeholder Engagement Plan (October 2021), indicates the company made an analysis of a range of groups, based on their level of influence and level of impact, and that specific provisions are made for each group depending on the context (social, cultural, political and commercial). A sample of Local Development Committee meeting minutes, from several months between 2021 and 2023, indicates that the</p>

<p>marginalized and vulnerable groups or their representatives.</p>		<p>company has also established specific subcommittees for vulnerable groups (such as women and the elderly), with each potentially affected community having at least two representative members on each of these subcommittees. Interviews with a sample of key personnel and stakeholders of mixed gender at the time of the site visit, indicates that the company conducts activities with the communities in an inclusive manner regarding gender, age, economic status, and stakeholder sectors.</p>
<p>1.2.2.5. When stakeholder engagement processes depend substantially on community representatives, the operating company shall demonstrate that efforts have been made to confirm whether or not such persons represent the views and interests of affected community members and can be relied upon to faithfully communicate relevant information to them. If this is not the case, the operating company shall undertake additional engagement processes to enable more meaningful participation by and information sharing with the broader community.</p>	<p>●</p>	<p>The Local Development Committee Charter (April 2019) indicates that a Local Development Committee (LDC) was established to represent the best interests of the district, focusing on the company's eight affected communities by reviewing local development submissions from the community and other stakeholders, and approving selected proposals for company sponsorship and delivery. The evidence, including a sample of Local Development Committee meeting minutes from several months between 2021 and 2023, as well as interviews with key personnel and stakeholders, indicates that engagement processes heavily rely on the LDC, which is composed of appointed representatives from the communities, members of the wider community, company's community relations department key staff and local administrative authorities. Community representatives are still commonly defined through traditional decision-making by the traditional chief. Interviews with a sample of key personnel indicate the company has made efforts and continues to encourage affected community members to more actively participate in the selection process of an LDC representative.</p> <p>The evidence does not include an assessment of whether community representatives accurately represent the full spectrum of views and interests of affected community members and faithfully communicate all the relevant information to their populations. Additionally, some stakeholders interviewed during the onsite audit expressed concerns about the appointees' effectiveness in disseminating information to the wider community.</p>
<p>1.2.2.6. The operating company shall document engagement processes, including, at minimum, names of participants, and input received from and company feedback provided to stakeholders.</p>	<p>●</p>	<p>The evidence, a review of the grievances and incidents Complaints & Grievances Register (January 2022 until February 2023) with ten records of grievances and complaints raised, their status and outcome, as well as a sample of Local Development Committee meeting minutes (several months, 2021 - 2023), indicates the company documents engagement processes. The minutes include the names of participants, the scope of each meeting and input received by stakeholders. Stakeholder input is also documented as part of the Socioeconomic Impact Assessment (January 2023).</p> <p>According to some interviewees, including a sample of those potentially affected (i.e., living closest to the mine or in affected areas), communication with the company's employees not always fulfill expectations related to providing feedback on how the company has taken their input into account.</p>
<p>1.2.2.7. The operating company shall report back to affected communities and stakeholders on issues raised during engagement processes.</p>	<p>●</p>	<p>The evidence, Stakeholder Engagement Plan (September 2020), Syrah Group Stakeholder Engagement Register (February 2023), a review of the grievances and incidents Complaints & Grievances Register (January 2022 - February 2023), and a sample of Local Development Committee meeting minutes (several months, 2021 - 2023), indicates that the company reports back to affected communities and stakeholders on issues raised. A letter sent to the government for the repair of broken boreholes and revitalization of water committees after</p>

		<p>community members requested (Repairing boreholes, October 2023) and a record of specialized training provided to local honey producers (2023) are examples of evidence that the company has taken into account the issues raised by stakeholders.</p> <p>The evidence does not provide details to confirm that the company has developed processes for ongoing consultation with stakeholders on their satisfaction as to how their inputs have or have not been integrated into the operation planning.</p>
<p>1.2.3.1. The operating company shall offer to collaborate with stakeholders from affected communities to assess their capacity to effectively engage in consultations, studies, assessments, and the development of mitigation, monitoring and community development strategies. Where capacity gaps are identified, the operating company shall offer appropriate assistance to facilitate effective stakeholder engagement.</p>	<p>●</p>	<p>The evidence, including a socioeconomic impact assessment study (July 2022), a sample of Local Development Committee meeting minutes (from various months between 2021 and 2023), and interviews with key staff and stakeholders—including community members, workers, some contractors, and employees at all levels and departments that were recruited from local communities—indicates the company provides ample resources for capacity building and consultation related to the mining project. Examples include expert training provided to local honey producers (2023) and a Socioeconomic Impact Assessment (January 2023) that solicited feedback from stakeholders. Additionally, there is evidence that the company has taken steps to bridge identified gaps and facilitate more effective stakeholder engagement, such as holding meetings with communities that include translation into the local language, Macua, through community liaison agents who are local and native speakers, as well as recently beginning to segregate meetings by gender, depending on the topics.</p> <p>The evidence does not confirm that the company collaborates with stakeholders from affected communities to assess their capacity for effective engagement, such as their ability to participate meaningfully in consultations, studies, assessments, and the development of mitigation, monitoring, and community development strategies.</p>
<p>1.2.4.1. Any information that relates to the mine's performance against the IRMA Standard shall be made available to relevant stakeholders upon request, unless the operating company deems the request to be unreasonable or the information requested is legitimate confidential business information. If part of a document is confidential only that confidential part shall be redacted, allowing for the release of non-confidential information.</p>	<p>●</p>	<p>The evidence, Stakeholder Engagement Plan (October 2021), bimonthly meeting roaster and agenda (2022 Public Meeting held March 23, 2023) with over a hundred community members, including local community leaders, QTR 1 2023 Sustainability Report to local government (April 2023), and a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), indicates the company has systems in place through which the mine can share information with relevant stakeholders and also share the site's performance against any area required under IRMA, as well as any additional documents requested by stakeholders, provided the requested information is not confidential.</p> <p>Interviews with a sample of stakeholders from some communities report information, and requests for clarifications are not always provided fully or in a timely manner.</p>
<p>1.2.4.2. If original requests for information are deemed unreasonable, efforts shall be made by the operating company to provide stakeholders with overviews or summaries of the information requested.</p>	<p>—</p>	<p>There is no indication of requests for information that were deemed unreasonable.</p>

1.2.4.3. Communications shall be carried out and information shall be provided to stakeholders in a timely manner, and shall be in formats and languages that are culturally appropriate and accessible to affected communities and stakeholders	●	<p>The evidence, a Public Participation Process Report (September 2014), as well as interviews with key staff, provide information to confirm the company's commitment to making information available to stakeholders in formats and languages that are culturally appropriate and accessible and indicate that during the ESHIA and RAP process stakeholders were informed about the meetings in a timely manner, and the meetings were conducted in Portuguese with translation to Macua (local language). In addition, according to the Local Development Committee Charter (April 2019), the Local Development Committee has been established to represent the best interests of the district, focusing on the company's eight affected communities, by reviewing local development submissions received from the community and other stakeholders and approving selected proposals for company sponsorship and delivery. Evidence of the committee's quarterly meetings held between 2021 and 2023 was provided. A PowerPoint presentation on key messages to stakeholders (July 2023) indicates the company provides information about the project in different formats: community newspaper (Graphite Salama), community radio, liaison officers, and community leadership.</p> <p>Stakeholder interviews conducted during the site visit, including with affected and vulnerable populations, indicate a range of responses. Some stakeholders highlight that communication with key staff does not always fulfill expectations related to timely delivery of relevant information.</p>
1.2.4.4. If requests for information are not met in full, or in a timely manner, the operating company shall provide stakeholders with a written justification for why it has withheld information.	⊗	Does not meet.

Chapter 1.3—Human Rights Due Diligence

Basis for rating

1.3.1.1. Critical. The operating company shall adopt a policy commitment that includes an acknowledgement of its responsibility to respect all internationally recognized human rights.	●	The evidence, Syrah Human Rights Policy (September 2023, first version 2018), a corporate-level policy, indicates that the company acknowledges its responsibility to respect and promote all internationally recognized human rights of its employees, business partners, and the local communities affected by its operations. The policy presents the company's commitment to respect and promote the principles defined by the International Bill of Human Rights and the Fundamental Conventions of the International Labour Organization by following the UN Guiding Principles on Business and Human Rights.
1.3.1.2. The policy shall: a. Be approved at the most senior level of the company;	●	The evidence, Syrah Human Rights Policy (September 2023), a corporate-level policy, as well as interviews with a sample of company managers, including those with accountabilities in human rights, indicates the policy is:

- b. Be informed by relevant internal and/or external expertise;
- c. Stipulate the operating company's human rights expectations of personnel, business partners and other parties directly linked to its mining project;

Be publicly available and communicated internally and externally to all personnel, business partners, other relevant parties and stakeholders; Be reflected in the mining project's operational policies and procedures.

- a. approved at the most senior level of the company (page 2, Board of Directors' signatures),
- b. is informed by internal and external experts and reflects a commitment to the UN's International Bill of Human Rights and the Guiding Principles on Business and Human Rights by the International Labour Organization (page 1),
- c. has an assignment of responsibilities such as the human rights expectations of personnel, business partners and other entities such as security forces, and
- d. publicly available at https://www.datocms-assets.com/65260/1712650146-20240331_human-rights-policy.pdf (in English and Portuguese).

The Guideline for Prevention Mitigation and Remediation of Human Rights Impacts (January 2024) and the Specific Stakeholder Engagement Plans for four different groups depending on the context (social, cultural, political and commercial) (September 2020) indicate that the mining project's operational procedures reflect the human right policy, as in (e).

1.3.2.1. **Critical.** The operating company shall establish an ongoing process to identify and assess potential human rights impacts (hereafter referred to as human rights "risks") and actual human rights impacts from mining project activities and business relationships. Assessment of human rights risks and impacts shall be updated periodically, including, at minimum, when there are significant changes in the mining project, business relationships, or in the operating environment.

The evidence, a Salient Human Rights Issues Final Report (May 2023), the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023) and a risk matrix for potential human rights risks (May 2023), indicates that the company identified and completed an assessment of a broad range of potential human rights risks and impacts to workers and stakeholders associated with the mining project, including its operation and business relationships. The 2023 initial human rights assessment identifies risks and presents mitigations based upon document reviews (reference documents, internal data and public information on the country), on-site observations (mine facilities, infrastructure, surrounding villages), and interviews with company management, employees and contractors, and other relevant external stakeholders, such as academic researchers. Interviews with a sample of key staff indicate that the human rights issues assessment was conducted by competent professionals and their CVs were provided.

While the risk matrix for potential human rights risks (May 2023) indicates that a new assessment should be conducted on May 2025, the evidence does not include policies or procedures on how the company assesses human rights risks and impacts to confirm whether there is an ongoing process in place to ensure that the company will update its human rights risks and impacts assessment on a regular basis or when a significant change to the project prompts a re-assessment.

1.3.2.2. Assessments, which may be scaled to the size of the company and severity of human rights risks and impacts, shall:

- a. Follow a credible process/methodology;
- b. Be carried out by competent professionals; and

The evidence, a Salient Human Rights Issues Final Report (May 2023), the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023), a risk matrix for potential human rights risks (May 2023), as well as interviews with a sample of stakeholders and key staff and indicates that the assessments:

		<p>c. Draw on internal and/or external human rights expertise, and consultations with potentially affected rights holders, including men, women, children (or their representatives) and other vulnerable groups, and other relevant stakeholders.</p> <p>a. employs a credible methodology that includes a full range of potential human rights risks and impacts to affected communities and stakeholders, and identified six salient human rights issues areas, as described in the report (slide 40 of the roadmap report); and</p> <p>b. utilizes the expertise of an internationally recognized consulting company in human rights assessments.</p> <p>The evidence does not specify if (c) consultations fully represent potentially affected stakeholders, including men, women, children (or their representatives) and other vulnerable groups.</p>
<p>1.3.2.3. As part of its assessment, the operating company shall document, at minimum:</p> <p>a. The assessment methodology;</p> <p>b. The current human rights context in the country and mining project area;</p> <p>c. Relevant human rights laws and norms;</p> <p>d. A comprehensive list of the human rights risks related to mining project activities and business relationships, and an evaluation of the potential severity of impacts for each identified human rights risk;</p> <p>e. The identification of rights holders, an analysis of the potential differential risks to and impacts on rights holder groups (e.g., women, men, children, the elderly, persons with disabilities, Indigenous peoples, ethnic or religious minority groups, and other disadvantaged or vulnerable groups), and a disaggregation of results by rights holder group;</p> <p>f. Recommendations for preventing, mitigating and remediating identified risks and impacts, giving priority to the most salient human rights issues.</p>		<p>The evidence, a Salient Human Rights Issues Final Report (May 2023), the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023), a risk matrix for potential human rights risks (May 2023), a Guideline for Prevention Mitigation and Remediation of Human Rights Impacts (January 2024), as well as interviews with a sample of stakeholders and key staff, including workers, indicates that the company has:</p> <p>a. followed assessment methodology;</p> <p>d. developed a list of the potential human rights risks related to mining project activities and business relationships, and an evaluation of the potential severity for each;</p> <p>e. identified rights holders, with a partial analysis of the potential differential risks to and impacts to some broad subgroups, and a simplified disaggregation of results by rights holder group; and</p> <p>f. developed recommendations for preventing, mitigating, and remediating identified risks and impacts, giving priority to the most salient human rights issues identified.</p> <p>The evidence does not include:</p> <p>b. country and project-specific human rights contexts, relevant human rights laws and norms,</p> <p>e. a robust analysis of the differential risks to / impacts on specific local community groups such as women, men, children, the elderly, persons with disabilities, minorities and other disadvantaged or vulnerable groups, and a disaggregation of results by those rights holder groups.</p> <p>Refer to OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector (2017), Guiding Principles on Business and Human Rights (2011) and UN OHCHR (2014), as they were relied upon by the auditors in assessing this requirement.</p>
<p>1.3.2.4. At minimum, stakeholders and rights holders who participated in the assessment process shall have the opportunity to review draft key issues and findings</p>		<p>Does not meet. No evidence was provided to confirm that the company has shared the draft key issues and findings and solicited feedback from external stakeholders and rights holders who participated in the assessment.</p>

<p>that are relevant to them, and shall be consulted to provide feedback on those findings.</p>		
<p>1.3.2.5. The operating company shall demonstrate that steps have been taken to effectively integrate assessment findings at the mine site operational level.</p>		<p>The evidence, a risk matrix for potential human rights risks (May 2023), presents a table that details the mitigation measures and recommendations actions for the identified six salient human rights issues areas. The evidence, Guideline for Prevention Mitigation and Remediation of Human Rights Impacts (January 2024), and interviews with a sample of stakeholders, workers, and worker representatives, indicate that the company has a system that considers assessed human rights risks and impacts that are implemented at the operational level. The evidence, training records related to the prevention of human rights risks provided for employees and contractors, including specialized training for security contractors, (December 2023), indicate the company has awareness initiatives to prevent, mitigate and remediate human rights impacts.</p>
<p>1.3.3.1. Mining project stakeholders shall have access to and be informed about a rights-compatible grievance mechanism and other mechanisms through which they can raise concerns and seek recourse for grievances related to human rights.</p>		<p>The evidence, Specific Stakeholder Engagement Plans for four different groups depending on the context (social, cultural, political and commercial) (September 2020), the Local Development Committee Charter (April 2019) and a sample of the Local Development Committee quarterly meeting minutes for several months between 2021 and 2023, a review of the grievances and incidents Complaints & Grievances Register (January 2022 until February 2023), as well as interviews with a sample of stakeholders and key staff, indicates that the company has a process in which stakeholders can file a grievance to seek resolution or remedy, including for those related to human rights, and this is systematically and broadly communicated at community meetings, and in person-to-person meetings. Company representatives will assist stakeholders in completing the forms if requested.</p> <p>Interviews with a sample of community stakeholders indicate awareness relating to the company's complaints and grievance process, scope and how to use it, while interviews with employees and contractors indicated a mix in awareness relating to the company's complaints and grievance process and how to use it, from no awareness to moderate and full awareness.</p>
<p>1.3.3.2. Responding to human rights risks related to the mining project:</p> <p>a. If the operating company determines that it is at risk of causing adverse human rights impacts through its mining-related activities, it shall prioritize preventing impacts from occurring, and if this is not possible, design strategies to mitigate the human rights risks. Mitigation plans shall be developed in consultation with potentially affected rights holder(s).</p>		<p>The evidence, including a Salient Human Rights Issues Final Report (May 2023), the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023), a risk matrix for potential human rights risks (May 2023), and a Guideline for Prevention Mitigation and Remediation of Human Rights Impacts (January 2024), indicates that risks and impacts related to the mining operation are properly assessed for all phases of the mine life cycle, and that these results are incorporated into the mitigation strategy design and implementation indicating that the company complies with sub-requirements (a) - (c). The risk matrix for potential human rights risks (May 2023) analyzes all potential impacts (positive and negative) associated with mining project, including security, environmental, legal, social, and reputational risks.</p> <p>Interviews with a sample of stakeholders, workers, among them contractors and key staff, and a review of the</p>

- b. If the operating company determines that it is at risk of contributing to adverse human rights impacts through its mining-related activities, it shall take action to prevent or mitigate its contribution and use its leverage to influence other contributing parties to prevent or mitigate their contributions to the human rights risks.
- c. If the operating company determines that it is at risk of being linked to adverse human rights impacts through its business relationships, it shall use its leverage to influence responsible parties to prevent or mitigate their risks to human rights from their activities.

grievances and incidents (January and February 2023) do not provide evidence human rights risks are a concern to workers or stakeholders.

1.3.3.3. **Critical.** Responding to actual human rights impacts related to the mining project:

- a. If the operating company determines that it has caused an actual human rights impact, the company shall:
 - i. Cease or change the activity responsible for the impact; and
 - ii. In a timely manner, develop mitigation strategies and remediation in collaboration with affected rights holders. If mutually acceptable remedies cannot be found through dialogue, the operating company shall attempt to reach agreement through an independent, third-party mediator or another means mutually acceptable to affected rights holders;
- b. If the operating company determines that it has contributed to an actual human rights impact, the company shall cease or change any activities that are contributing to the impact, mitigate and remediate impacts to the extent of its contribution, use its leverage to influence other contributing parties to cease or change their activities, and mitigate and remediate the remaining impact;
- c. If the operating company determines that it is linked to an actual human rights impact through

Not relevant. The evidence, including a Salient Human Rights Issues Final Report (May 2023) and the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023), does not indicate that the company has caused any actual human rights impacts.

<p>a business relationship the company shall use its leverage to prevent or mitigate the impact from continuing or recurring; and</p> <p>d. The operating company shall cooperate with other legitimate processes such as judicial or State-based investigations or proceedings related to human rights impacts that the operating company caused, contributed to, or was directly linked to through its business relationships.</p>		
<p>1.3.4.1. The operating company shall monitor whether salient adverse human rights risks and impacts are being effectively addressed. Monitoring shall include qualitative and quantitative indicators, and draw on feedback from internal and external sources, including affected rights holders.</p>	<p>①</p>	<p>The evidence, the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023), a risk matrix for potential human rights risks (May 2023), and a Guideline for Prevention Mitigation and Remediation of Human Rights Impacts (January 2024), indicates that the company has qualitative and quantitative indicators to monitor human rights risks and impacts.</p> <p>The evidence does not specify if monitoring includes a process for stakeholder feedback from internal and external sources, including affected rights holders.</p>
<p>1.3.4.2. External monitoring of an operating company's human rights due diligence shall occur if the company's due diligence efforts repeatedly fail to prevent, mitigate or remediate actual human rights impacts; or if its due diligence activities failed to prevent the company from unknowingly or unintentionally causing, contributing to or being linked to any serious human rights abuse. Additionally:</p> <p>a. The company shall fund the external monitoring; and</p> <p>b. The form of such monitoring, and selection of external monitors, shall be determined in collaboration with affected rights holders.</p>	<p>—</p>	<p>Not relevant. There is no evidence indicating that the company's due diligence efforts repeatedly fail to prevent, mitigate, or remediate actual human rights impacts, or that its due diligence activities failed to prevent the company from unknowingly or unintentionally causing, contributing to, or being linked to any serious human rights abuse. Therefore, no external monitoring of human rights due diligence has been initiated.</p>
<p>1.3.5.1. The operating company or its corporate owner shall periodically report publicly on the effectiveness of its human rights due diligence activities. At minimum, reporting shall include the methods used to determine the salient human rights issues, a list of salient risks and impacts that were identified, and actions taken by the operating company to prevent,</p>	<p>①</p>	<p>The company quarterly publishes a company-level sustainability report specific to the BGO mine on its website, which includes a section on human rights. The evidence, Sustainability Report 2023 QRT4 (2024, page 10), indicates that the company reports on actions taken by the operating company to assess human rights risks and impacts, such as informing that the Salient Human Rights Issues Final Report (May 2023) is completed.</p>

mitigate and/or remediate the human rights risks and impacts.		The evidence does not include details on the methods used to determine the salient human rights issues, a list of salient risks and impacts that were identified, and actions taken by the company to prevent, mitigate and/or remediate the human rights risks and impacts.
1.3.5.2. If relevant, the operating company shall publish a report on external monitoring findings and recommendations to improve the operating company's human rights due diligence, and the operating company shall report to relevant stakeholders and rights holders on its plans to improve its due diligence activities as a result of external monitoring recommendations.	—	Not relevant. No external monitoring of human rights due diligence has been required.
1.3.5.3. Public reporting referred to in 1.3.5.1 and 1.3.5.2 may exclude information that is politically sensitive, confidential business information, or that may compromise safety or place any individual at risk of further victimization.	⊗	Does not meet.

Chapter 1.4—Complaints and Grievance Mechanism and Access to Remedy

Basis for rating

1.4.1.1. Critical. The operating company shall ensure that stakeholders, including affected community members and rights holders (hereafter referred to collectively as “stakeholders”), have access to an operational-level mechanism that allows them to raise and seek resolution or remedy for the range of complaints and grievances that may occur in relation to the company and its mining-related activities.	●	The evidence, Community and Local Stakeholder Complaints and Grievance Procedure (April 2020), indicates that the company has developed a procedure providing a framework for stakeholders to raise and seek resolution or remedy to grievances that may occur in relation to the company and its mining-related activities. The document provides guidance around accessibility, communication, and responsibilities, as well as a figure presenting the process to receive, manage, and resolve grievances (appendix 4), and a grievance risk tolerability matrix, with a breakdown of the acceptability of grievance occurrence ranging from low to extreme, according to the severity of the grievance risk's impact (p. 6). The procedure also mentions that grievances can be received through anonymous mailboxes, inquiries to company representatives (in person, telephone, e-mail, and letter), through a village leader/representative, or by raising issues in person during regularly scheduled community meetings with the company. The company provided the template of the grievance form, as well as a review of the grievances and complaints raised from January 2022 until February 2023 (10 grievances in total, Complaints & Grievances Register, February 2023), indicating accessibility at the operational level. Grievances are categorized by topics, the most common being resettlement impacts (land), environmental, and social.
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While the Community and Local Stakeholder Complaints and Grievance Procedure (April 2020) outlines a timeframe for resolution of grievances, indicating that at least 75% of all complaints should be resolved in less than fourteen (14) days and all grievances should be resolved in fewer than ninety (90) days, the evidence does not provide information to confirm the procedure timeframe was systematically implemented. A sample of stakeholders from communities, including those in potentially affected areas, were interviewed and indicated knowledge of the company's grievance process, including a general understanding of how to file a grievance, which either takes place verbally in dialogue spaces hosted by the company or anonymously. However, some community members interviewed indicated uncertainty as to whether resolution/remedy occurs in a timely manner. A sample of workers interviewed, both employees and contractors, indicate they are unaware of how to raise a grievance through the external hotline or other means anonymously.

- 1.4.2.1. The operating company shall consult with stakeholders on the design of culturally appropriate complaints and grievance procedures that address, at minimum:
- a. The effectiveness criteria outlined in Principle 31 of the United Nations Guiding Principles on Business and Human Rights, which include the need for the mechanism to be: (a) Legitimate, (b) Accessible, (c) Predictable, (d) Equitable, (e) Transparent, (f) Rights-compatible, (g) A source of continuous learning, and (h) Based on engagement and dialogue;
 - b. How complaints and grievances will be filed, acknowledged, investigated, and resolved, including general timeframes for each phase;
 - c. How confidentiality of a complainant's identity will be respected, if requested;
 - d. The ability to file anonymous complaints, if deemed necessary by stakeholders;
 - e. The provision of assistance for those who may face barriers to using the operational-level grievance mechanism, including women, children, and marginalized or vulnerable groups;
 - f. Options for recourse if an initial process does not result in satisfactory resolution or if the mechanism is inadequate or inappropriate for handling serious human rights grievances; and

The Community and Local Stakeholder Complaints and Grievance Procedure (April 2020) addresses:

- a. that it is aligned with the effectiveness criteria (a) - (h) outlined in Principle 31 of the United Nations Guiding Principles on Business and Human Rights (p. 2). The procedure also presents a community complaints escalation plan (Appendix 2), which is legitimate (a), accessible (b), predictable (c), equitable (d), transparent (e), rights-compatible (f), and based on engagement and dialogue (h) (p. 12). The template of the grievance form, as well as interviews with a sample of key staff and stakeholders, indicate the mechanism is accessible;
- b. how the company files, acknowledges, investigates, and resolves complaints and grievances, including general timeframes for each phase (pp. 4-9);
- c. how confidentiality of a complainant's identity will be respected if requested (p. 4);
- d. the ability to file anonymous complaints, if deemed necessary by stakeholders through mailboxes (p. 4);
- e. the provision of assistance for some of those who may face barriers to using the operational-level grievance mechanism because of language or literacy barriers (p. 4).
- f. not prohibit aggrieved parties from waiving their right to seek recourse from the company for the same complaint through other available mechanisms (p. 12); and
- g. how complaints and grievances are filed and tracked (p. 9).

The evidence does not include information to confirm that the procedure was designed in consultation with a wide range of stakeholders (including a diversity of women and men of different ages, and representatives of marginalized and vulnerable groups).

g. How complaints and grievances and their resolutions will be tracked and recorded.		
1.4.2.2. The operating company shall ensure that all complaints and grievance procedures are documented and made publicly available.	●	<p>The evidence, including interviews with a sample of key staff and stakeholders, indicates that the company has a documented complaints and grievance procedure (April 2020). The original document is written in English and states that the complaints and grievances must be recorded in Portuguese, but stakeholders can raise the complaint also in Macua (local language). A sample of Local Development Committee meeting minutes (several months through 2021 until 2023), indicates the procedures are publicly available, in a format and languages that are understood by stakeholders, and that at every engagement meeting, the company shares an update on grievances raised. Interviews with a sample of external stakeholders confirmed to be aware of these procedures and documented records of complaints, grievances, and follow-up actions.</p> <p>While interviews with company management and workers' representatives, along with a sample of training records for workers and contractors (Training Tracker, January 2024) confirm that employees receive annual training on the grievance mechanism procedures, a sample of workers interviewed, both employees and contractors, indicate they are unaware of how to raise a grievance through the external hotline or other means anonymously.</p>
1.4.3.1. No remedy provided by an operational-level grievance mechanism shall require aggrieved parties to waive their right to seek recourse from the company for the same complaint through other available mechanisms, including administrative, non-judicial or judicial remedies.	●	<p>The evidence, Community & Local Stakeholder Complaints and Grievance Procedure (April 2020), presents the company's grievance process and indicates that the company does not require complainants to sign a waiver and that they may also seek recourse through state mechanisms for the same complaint (p. 12). Interviews with company staff indicate that aggrieved parties can also present a subsequent complaint in case they disagree with the initial results.</p>
1.4.4.1. Complaints and grievances and their outcomes and remedies shall be documented.	●	<p>The evidence includes a review of grievances and complaints raised from January 2022 to February 2023 (10 grievances in total, Complaints & Grievances Register February 2023) and indicates that the company documents at least some complaints and grievances and the associated remedies. Interviews with company management indicate that grievances pertaining to potential violation of human rights are formally recorded.</p> <p>The evidence, including interviews with a sample of key staff in various departments and stakeholders, is not sufficient to confirm all complaints received through different channels, such as the complaints raised during meetings between the company and its stakeholders (i.e. the Local Development Committee meetings) and their remedies are systematically recorded.</p>

<p>1.4.4.2. The operating company shall monitor and evaluate the performance of the operational-level complaints and grievance mechanism over time to determine:</p> <ul style="list-style-type: none"> a. If changes need to be made to improve its effectiveness as per 1.4.2.1.a; b. If changes in company activities can be implemented to prevent or mitigate similar grievances in the future; and c. If outcomes and remedies provided through the mechanism accord with internationally recognized human rights. 		<p>The evidence including the Community & Local Stakeholder Complaints and Grievance Procedure (April 2020) and a review of the grievances and complaints (10 grievances in total, Complaints & Grievances Register February 2023), indicates that the company monitors the number of community-related complaints received, number of complaints by topics, number of complaints by severity, response time, and complaints resolved (Complaints & Grievances Register February 2023). The revision history of the Community & Local Stakeholder Complaints and Grievance Procedure (April 2020) indicates the procedure has already been updated to reflect key learnings from previous incidents but does not provide further details (p. 21).</p> <p>The evidence provided does not include information to confirm the company conducts satisfaction surveys on complaints among the communities. Surveys on the grievance mechanism were not included as evidence. While the procedure (April 2020 p. 11) notes monitoring of the mechanism, it lacks clarity on how the effectiveness of the mechanism itself is assessed. This includes:</p> <ul style="list-style-type: none"> a. evaluation for necessary improvements in effectiveness as per 1.4.2.1.a.; b. consideration of changes in company activities to prevent or mitigate similar grievances; and c. verification of outcomes and remedies aligning with internationally recognized human rights.
<p>1.4.4.3. Stakeholders shall be provided with clearly communicated opportunities to submit feedback on the performance of the complaints and grievance mechanism.</p>		<p>Does not meet. The evidence, Community & Local Stakeholder Complaints and Grievance Procedure (April 2020) as well as interviews with a sample of key staff and stakeholders, indicates that the company communicates the grievance procedure to affected communities in the project area through meetings, village leaders and representatives, and communication materials. Also, the grievance procedure mentions that company personnel will share with complainants the proposed solution in accordance with the grievance risk timeframe matrix, and inform complainants of how, in practice, the result or process can be challenged (pp. 8-10).</p> <p>Although it is understood that the grievance procedure is shared and that communication takes place during resolution of a specific grievance, there is no evidence indicating that the company has clearly communicated to stakeholders and workers, including contractors, that they can submit feedback on the performance of its complaints and grievance mechanism procedure or a system by which the company receives input on its grievance program effectiveness, including procedures.</p>
<p>1.4.5.1. The operating company shall take reasonable steps to inform all stakeholders of the existence of the operational-level complaints and grievance mechanism, its scope, and its procedures.</p>		<p>The evidence, a Community & Local Stakeholder Complaints and Grievance Procedure (April 2020), a review of the community-related grievances and complaints raised from January 2022 until February 2023 (10 grievances in total, Complaints & Grievances Register February 2023), a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), as well as interviews with a sample of key staff and a sample of affected stakeholders, indicates that the company has used a variety of strategies to actively inform members of the potentially affected communities about the operational-level grievance mechanism (i.e., material distributed in the community or presentation to key community leaders, etc.) in culturally appropriate, accessible and understandable format.</p>

		<p>While interviews with company management and workers' representatives, along with a sample of training records for workers and contractors (Training Tracker, January 2024) confirm that employees receive annual training on the grievance mechanism, including its scope and procedures, some workers interviewed, both employees and contractors, indicate they are unaware of how to raise a grievance through the external hotline or other means anonymously.</p>
<p>1.4.5.2. The operating company shall neither state nor imply that participation in an operational level grievance mechanism precludes the stakeholder from seeking redress through administrative, judicial or other non-judicial remedies.</p>		<p>The evidence, a Community & Local Stakeholder Complaints and Grievance Procedure (April 2020), does not state or imply that participation in the grievance mechanism precludes the stakeholder from seeking redress through administrative, judicial or other non-judicial remedies. Interviews with a sample of stakeholders indicate that they are aware of their right to seek independent redress, and have already pursued other mechanisms that are not operated by the company because they were not satisfied with the resettlement process. Interviews with key staff and stakeholders do not indicate that the company has discouraged stakeholders from seeking redress through administrative, judicial, or other non-judicial remedies.</p>
<p>1.4.5.3. The operating company shall inform relevant personnel who interact with stakeholders of the proper procedures for handling stakeholder complaints and grievances, and ensure that personnel directly involved in the operational-level mechanism receive instruction on the respectful handling of all complaints and grievances, including those that may appear frivolous.</p>		<p>The evidence, including the Community & Local Stakeholder Complaints and Grievance Procedure (April 2020), a review of the community-related grievances and complaints raised between January 2022 and February 2023 (10 grievances in total, Complaints & Grievances Register February 2023), a sample of Local Development Committee meeting minutes (several months between 2021 and 2023), as well as interviews with a sample of key staff, indicate that relevant personnel have functional knowledge of the process to document, track and handle complaints. The Training for Community Engagement Agents (December 2023) provides evidence that community engagement agents, who are community members, have received in-house training on the procedure for registering complaints.</p> <p>Interviews with a sample of stakeholders, among them workers, contractors and community members, indicate opportunities for capacity-building on grievance mechanism standards and compliance expectations exist. The evidence does not include staff training (i.e., slides or attendance records) on the respectful handling of complaints.</p>
<p>1.4.6.1. Periodically, the operating company shall report to stakeholders on grievances received and responses provided. This shall be done in a manner that protects the confidentiality and safety of those filing grievances.</p>		<p>The evidence, Sustainability Monthly Reports (from December 2021 to February 2022), indicates that the company tracks and reports statistics on complaints and grievances, detailing whether they were resolved (as recorded in company's Complaints & Grievances Received vs. Resolved table). A sample of Local Development Community meeting minutes (several months between 2021 and 2023) indicates that the company shares updates on grievances received from community members, including a summary of the nature of complaints in a manner that protects the confidentiality and safety of the complainants.</p> <p>Interviews with a sample of stakeholders indicate that, while routine methods such as roundtable meetings</p>

exist, there are opportunities for capacity-building in how responses and updates to grievances are shared, as community members expressed dissatisfaction with the time frame and the responses provided.

**Chapter 1.5—Revenue and Payments
Transparency**

Basis for rating

1.5.1.1. The operating company shall comply with 1.5.1.2 and 1.5.1.3, and/or demonstrate how it complies with equivalent reporting and disclosure requirements of the European Union Accounting Directive (2013/34/EU) and the European Union Transparency Directive (2013/50/EU), or an equivalent mandatory transparency regime. (Note: for the purposes of self-assessment, the respondent should only consider for question 1.5.1.1 whether the EU or an equivalent mandatory transparency regime is relevant (either because a company is legally required to comply or because the company voluntarily chooses to meet the EU or equivalent country requirements). If EU or an equivalent mandatory transparency regime is not relevant, then the respondent should mark 1.5.1.1 as not relevant and move to 1.5.1.2 below.)

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Not relevant. The company does not voluntarily follow the EU Directives or an equivalent mandatory transparency regime. See comments in 1.5.1.2 and 1.5.1.3.



1.5.1.2. On a yearly basis, the operating company shall publish a report that discloses all material payments made by itself and its corporate owner to the government of the country in which the mining project is located. The report shall be made public within 12 months after the end of each financial year.

(Note: for the purposes of self-assessment, if 1.5.1.1 is relevant then the respondent should mark both 1.5.1.2 and 1.5.1.3 as not relevant.)




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The company has participated in the Extractive Industries Transparency Initiative (EITI) since 2017. The evidence, Twigg Annual Report and Accounts for 2020, Independent Report of the Extractive Industries Transparency Initiative Year 2019 and December Quarterly Activities 2022, indicates that the company discloses all material payments made by itself and its corporate owner to the government of the country in which the mining project is located.

The evidence does not confirm the reports are made public within 12 months after the end of each financial year.

<p>1.5.1.3. The types of payment disclosed shall include as a minimum, as applicable:</p> <ul style="list-style-type: none"> a. The host government's production entitlement; b. National state-owned enterprise production entitlement; c. Profits taxes; d. Royalties; e. Dividends; f. Bonuses, such as signature, discovery and production bonuses; g. License fees, rental fees, entry fees and other considerations for licenses and/or concessions; h. Payments for infrastructure improvements; and i. Any other significant payments and material benefits to government, including in kind payments. 		<p>The evidence, including Announcement of the Disclosure of the Environmental and Social Performance of Twigg (2021), and an excel spreadsheet, EITI Report (2020), as well as managers' tracking of production and government reporting indicates the company tracks and reports the following payments:</p> <ul style="list-style-type: none"> c. Profits taxes; d. Royalties; e. Dividends; g. License fees, rental fees, entry fees and other considerations for licenses and/or concessions; and may include h. Payments for infrastructure improvements. <p>The evidence does not include 2021-2022 information, or a breakdown of:</p> <ul style="list-style-type: none"> a. the host government's production entitlement; b. national state-owned enterprise production entitlement; f. bonuses; or i. other payments to government, including in-kind payments, where applicable.
<p>1.5.1.4. At minimum, this information shall be broken down by recipient government body (where applicable), by project (where applicable), and by payment type.</p>		<p>The evidence, including Announcement of the Disclosure of the Environmental and Social Performance of Twigg (2021) and an excel spreadsheet, EITI Report for years 2017-2018 (2020), indicates the company reporting is broken down by project and by some payment type.</p> <p>The evidence does not include reporting broken down by recipient government body (where applicable) and all required payment types (see 1.5.1.3).</p>
<p>1.5.2.1. The operating company shall demonstrate its compliance with the reporting requirements specified in Chapter 10 of the European Union Directive 2013/34/EU or an equivalent mandatory transparency regime, and/or shall comply with the requirements listed under 1.5.2.2 below.</p> <p>(Note: for the purposes of self-assessment, the respondent should only answer question 1.5.2.1 if the</p>	<p>—</p>	<p>Not Relevant. The mining project is located in Mozambique, and according to the Mozambique 2016 mining code (article 95), all mining companies are required to participate in EITI reporting.</p>

<p>EU or an equivalent mandatory transparency regime is relevant (either because a company is legally required to comply or because the company voluntarily chooses to meet EU or equivalent country requirements). If question 1.5.2.1 is not relevant, move to 1.5.2.2 below.)</p> <p>1.5.2.2. The operating company shall ensure that the following information at the mining project level is reported on an annual basis and is readily accessible to the public:</p> <ul style="list-style-type: none"> a. Mine production, disaggregated by product type and volume; b. Revenues from sales, disaggregated by product type; c. Material payments and other material benefits to government as listed in paragraph 1.5.1.3, disaggregated according to the receiving government entity (e.g. national, regional, local entity; name of government department); d. Social expenditures, including the names and functions of beneficiaries; e. Taxes, tariffs or other relevant payments related to transportation of minerals; f. Payments to politicians' campaigns, political parties or related organizations; and g. Fines or other similar penalties that have been issued in relation to the project. 	●	<p>The evidence indicates the company reports to the government the following information on a regular basis (monthly, quarterly, annually):</p> <ul style="list-style-type: none"> a. Mine production b. Revenues from sales, c. Material payments to government, and d. Social expenditures <p>Items (e) - (g) are not relevant.</p> <p>The evidence does not confirm payments are disaggregated by product type or the report is readily accessible to the public.</p>
<p>1.5.2.3. The operating company shall publish annual accounts, following international accounting standards.</p>	●	<p>The evidence, Twigg Annual Report and Accounts (2020), and Independent Report of the Extractive Industries Transparency Initiative (2019) indicates company reports follow Mozambican accounting standards generally aligned to international standards.</p>
<p>1.5.3.1. If the mining project is located in a country without a mandated transparency regime, the operating company shall demonstrate support for the EITI by</p>	⊗	<p>Does not meet. The company does not publish a statement that it endorses Extractive Industries Transparency Initiative Principles on its external website.</p>

<p>publishing a clear public statement endorsing the EITI Principles on its external website.</p>		
<p>1.5.3.2. If the mining project is located in a country without a mandated transparency regime and the EITI is active in that country, the operating company shall:</p> <ul style="list-style-type: none"> a. Commit to engage constructively with and support implementation of the EITI consistent with the multi-stakeholder process adopted in its country of operation; and b. Provide links on its external website to completed and up-to-date company Forms for its operation, if the EITI implementing country has completed at least one validation. 		<p>The evidence, including interviews with managers, indicates the company's intent to engage with and support the Extractive Industries Transparency Initiative but does not provide links on its website to company forms.</p>
<p>1.5.4.1. The material terms for mineral exploration, development and production agreed between the operating company and government entities shall be freely and publicly accessible, with the exception of confidential business information, in the national language(s) of the country in which the mining project is located.</p> <ul style="list-style-type: none"> a. Where these terms are negotiated, rather than governed by law, the company shall make the relevant agreements, licenses or contracts freely and publicly accessible. b. Where these terms are governed by law, free, public access to the relevant statutory documentation is deemed sufficient to meet the IRMA requirement. 		<p>The evidence, Mining Agreement between the Mozambican government and Twigg (March 2018), indicates that the terms for mineral exploration, development, and production are accessible in the national language (Portuguese) of the country of operation (Mozambique). The agreement follows the requirements established by the National Mining Institute (INAMI, Portuguese acronym), which indicates it must describe material terms for mineral exploration, development and production agreed between the company and government. The document is publicly accessible on government website (https://inami.gov.mz/wp-content/uploads/2024/Contratos/Twigg_Exploration_And_Mining_Limitada.pdf).</p> <p>No evidence was provided to confirm the company informs stakeholders during their stakeholder engagement process, on how to access the INAMI website, nor whether the format and language are culturally appropriate.</p>
<p>1.5.4.2. The beneficial ownership of the operating company shall be publicly accessible.</p>		<p>The beneficial ownership of the company (5% by the Empresa Moçambicana de Exploração Mineira, S.A. and 95% by the Syrah Group) was made available on the government-owned journal (Republic of Mozambique Bulletin, February 15, 2021).</p>

<p>1.5.5.1. Critical. The operating company shall develop, document and implement policies and procedures that prohibit bribery and other forms of corruption by employees and contractors.</p>	●	<p>The evidence, the global corporate level documents: Syrah Code of Conduct (September 2022), Anti-bribery and Corruption Policy (October 2022), Whistleblower Policy (January 2023), Twigg General Terms and Conditions for Supply (December 2021), and a sampled contractor agreement from this mine project includes anti-corruption and anti-bribery provisions, indicates that the company has developed and documented policies and procedures to prohibit bribery and other forms of corruption by employees and contractors. Policies are available online, through Twigg’s intranet, and are provided in writing in Portuguese to employees and contractors.</p> <p>Contractor training records (February and March 2022) and attendance register (ABC Training, Contractors, February 2022), and interviews with mine site personnel, including employees and contractors, confirm anti-corruption policy training is delivered to workers initially (i.e., onboarding), and ongoing through internal corporate communication (i.e., email, newsletters) as well as by their supervisor.</p> <p>An interview with the whistle-blower program administrator provides evidence the program is implemented and working as intended.</p> <p>No cases of known or suspected bribery were encountered in reviews of documents or in interviews with company or community stakeholders.</p>
<p>1.5.5.2. Procedures shall include:</p> <ul style="list-style-type: none"> a. A requirement to internally report and record any undue pecuniary or other advantage given to, or received from, public officials or the employees of business partners, directly or through third parties; and b. Disciplinary actions to be taken if cases of bribery or corruption are discovered. 	●	<p>The evidence, Anti-Bribery and Corruption Policy (2023), indicates the company policy has language that requires (a) internal reporting procedures, and (b) disciplinary actions. Implementation of this procedure was confirmed in practice in interviews with company managers.</p>
<p>1.5.5.3. Relevant employees and contractors shall be trained in the application of the operating company’s policy and procedures.</p>	◐	<p>Contractor training records (February and March 2022) and attendance register (ABC Training, Contractors, February 2022), and interviews with mine site personnel, including employees and contractors, confirm anti-corruption policy training was conducted with workers.</p> <p>While training is confirmed, interviews with a sample of workers indicate a lack of awareness in how to raise a bribery or corruption-related complaint, such as a confidential reporting hotline posted in the workplace.</p>

Principle 2: Planning for Positive Legacies

Chapter 2.1—Environmental and Social Impact Assessment and Management		Basis for rating
2.1.1.1	An Environmental and Social Impact Assessment (ESIA), appropriate to the nature and scale of the proposed mining project and commensurate with the level of its environmental and social risks and impacts, shall be completed prior to the commencement of any site-disturbing operations associated with the project.	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.
2.1.1.2.	To enable a reasonable estimation of potential impacts related to the mining project, the ESIA process shall commence only after the project design has been sufficiently developed. Should the proposal be significantly revised a new assessment process shall be undertaken.	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.
2.1.1.3.	The ESIA shall be carried out in accordance with publicly available, documented procedures.	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.
2.1.2.1.	Prior to the implementation of the ESIA process the operating company shall ensure that there has been wide, public announcement of the project proposal and the associated ESIA process, and that reasonable and culturally appropriate efforts have been made to inform potentially affected and interested	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.

<p>stakeholders in potentially affected communities about the proposed project.</p>		
<p>2.1.2.2. Prior to the implementation of the ESIA process the operating company shall prepare a report and publish it on the operating company's external website, in the official national language(s) of the country in which the mining project is proposed to take place. The report shall provide:</p> <ul style="list-style-type: none"> a. A general description of the proposed project, including details on the proposed location, and nature and duration of the project and related activities; b. The preliminary identification of potential significant environmental and social impacts, and proposed actions to mitigate any negative impacts; c. A description of the main steps of the ESIA process that will be carried out, the estimated timeline and the range of opportunities for stakeholder participation in the process; and d. Contact details for the person or team responsible for management of the ESIA. 	—	<p>Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.</p>
<p>2.1.3.1. Critical. (New Mines) The operating company shall carry out a scoping process to identify all potentially significant social and environmental impacts of the mining project to be assessed in the ESIA.</p> <p>Critical. (Existing Mines) The operating company shall demonstrate that it has undertaken a comprehensive evaluation of potential environmental and social impacts associated with the mining operation.</p>	●	<p>Balama is an existing mine. The evidence, Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015), as well as the Resettlement Action Plan (2014), both prepared by external consultants, indicates that the company has carried out a scoping process to identify potential environmental and social impacts associated with the mine across all phases of the project, including potential cumulative impacts. Scoping is conducted by means of the specific terms of reference made available by the Environmental Law of Mozambique (Decree 76/98 of 29 December 1998) and the Regulation of the Environmental Impact Assessment Process (former Decree No. 45/2004, revoked by Decree 54/2015), in alignment with the Equator Principles and IFC Performance Standards, and approved by the national environmental regulatory authority. The assessments consider impacts on the environment (i.e., air, waste, water, landscape, land use, flora, and fauna) and social impacts (i.e., health and safety, wellbeing, infrastructure, cultural heritage, community services, and benefits). Several pre-development reports, ESHIA Part IV – Vegetation Impact Assessment (October 2014), Fauna Impact Assessment (December 2013) and Aquatic Impact Assessment (January 2014), reflect baseline conditions. The ESHIA - Part II (2015) includes a comprehensive and detailed analysis of potential impacts on the Balama East and West Pits. Scoping of environmental and social impacts is ongoing at the site</p>

		<p>to address new developments at the mine. The most recent scoping evaluation, the Environmental Management Plan (last updated in November 2019), considered the opening of a new mining front, the Mualia pit, within the original mine concession. While the Mualia pit was not explicitly mentioned in the ESHIA - Part II (2015), its potential impacts were already included as part of the West Pit potential impact assessment (ESHIA - Part II, February 2015, Appendix I - MICOA Approval for Scoping Report), as the West Pit consists of the Ativa and Mualia deposits.</p> <p>The evidence does not include detailed scoping of all water users and water uses in the area around the mine, including for surface water and springs.</p>
2.1.3.2.	<p>During scoping, the operating company shall identify stakeholders and rights holders (hereafter, collectively referred to as “stakeholders”) who may be interested in and/or affected by the proposed project.</p> <p>—</p>	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.
2.1.3.3.	<p>Scoping shall include the consideration of:</p> <ul style="list-style-type: none"> a. Social impacts (including potential impacts on communities and workers) and environmental impacts (including potential impacts on wildlife, air, water, vegetation and soils) during all stages of the project lifecycle, from pre-construction through post-closure; b. Direct, indirect and cumulative impacts; and c. Potential impacts of extreme events. <p>—</p>	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.
2.1.3.4.	<p>Scoping shall result in the identification of:</p> <ul style="list-style-type: none"> a. Potentially significant environmental and social impacts of the proposed project; b. Alternative project designs to avoid significant adverse impacts; c. Other actions to mitigate identified adverse impacts; and d. Additional information and data needed to understand and assess the potential impacts. <p>—</p>	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.

2.1.4.1.	Baseline data describing the prevailing environmental, social, economic and political environment shall be collected at an appropriate level of detail to allow the assessment of the potential impacts of the proposed mining project.	—	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.
2.1.4.2.	Additional studies shall be carried out as necessary to fulfill the information needs of the ESIA.	—	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.
2.1.5.1	<p>The operating company shall:</p> <ul style="list-style-type: none"> a. Predict in greater detail the characteristics of the potentially significant environmental and social impacts identified during scoping; b. Determine the significance of the predicted impacts; c. Evaluate options to mitigate predicted significant adverse impacts in line with the mitigation hierarchy, prioritizing the avoidance of impacts through consideration of alternative project designs; and d. Determine the relative importance of residual impacts (i.e., impacts that cannot be mitigated) and whether significant residual adverse impacts can be addressed to the satisfaction of affected or relevant stakeholders. 	—	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.
2.1.6.1.	<p>The operating company shall prepare an ESIA report that includes, at minimum:</p> <ul style="list-style-type: none"> a. A description of the proposed mining project; b. Detailed description of the direct, indirect and cumulative impacts likely to result from the project, and identification of significant adverse impacts; c. Description of the alternatives considered to avoid and mitigate significant adverse impacts in line with the mitigation hierarchy, and the recommended measures to avoid or mitigate those impacts 	—	Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.

<p>d. A review of the public consultation process, the views and concerns expressed by stakeholders and how the concerns were taken into account; and</p> <p>e. Names and affiliations of ESIA authors and others involved in technical studies.</p>		
<p>2.1.7.1. The operating company shall develop and maintain a system to manage environmental and social risks and impacts throughout the life of the mine.</p>	●	<p>The evidence, ESHIA - Part III on Environmental and Social Management Plan and Scheduled Monitoring (September 2014) and the Environmental and Social Management Plan (ESMP) (November 2019), which is an update to the former document and also addresses environmental and social risks and impacts, includes detailed descriptions of mitigation measures, and monitoring and review procedures for managing environmental and social risks and impacts related to all phases of the mining project, indicating that the company has developed a system to manage those risks throughout its mine life. The ESMP is updated every five years as required per the Mozambican legislation. Interviews with key staff, including managers, indicate awareness of their roles and responsibilities regarding the implementation of the environmental and social management plan and that an update of the Environmental and Social Management Plan is underway to satisfy the requirements of the site's environmental license renewal in 2024.</p>
<p>2.1.7.2 An environmental and social management plan (or its equivalent) shall be developed that, at minimum:</p> <p>a. Outlines the specific mitigation actions that will be carried out to address significant environmental and social impacts identified during and subsequent to the ESIA process;</p> <p>b. Assigns personnel responsible for implementation of various elements of the plan; and</p> <p>c. Includes estimates for the resources needed to implement the plan.</p>	●	<p>The evidence, ESHIA - Part III on Environmental and Social Management Plan and Scheduled Monitoring (September 2014) and the Environmental Management Plan (ESMP) (November 2019), which is an update to the former document and also addresses environmental and social risks and impacts, indicates the company has developed an environmental and social management plan, that:</p> <p>a. outlines specific mitigation actions to be carried out to address significant environmental and social impacts, identified during and after the ESHIA process (ESHIA - Part III, Chapter 8, and ESMP, Chapter 3); and</p> <p>b. assigns personnel responsible for the implementation of various elements of the plan (ESHIA - Part III, Chapters 5 and 7).</p> <p>The evidence does not include details to confirm that the company has estimated the resources needed to implement environmental and social monitoring programs (c).</p>
<p>2.1.7.3. The environmental and social management plan shall be implemented and revised or updated as necessary based on monitoring results or other information.</p>	●	<p>The evidence, ESHIA - Part III on Environmental and Social Management Plan and Scheduled Monitoring (September 2014) and the Environmental Management Plan (ESMP) (November 2019), which is an update to the former document and also addresses environmental and social risks and impacts, indicates that the company updates its environmental and social management plan every 5 years as required per the Regulation of AIA - Environmental Impact Assessment (Decree 54/2015, of December 31, 2015). The summary contained in the ESMP (November 2019) indicates its update considers a mine expansion, process changes (dry stacking of tailings) and experiences from the first years of operating.</p> <p>The evidence does not provide detail to confirm that ESMPs consider information gained from monitoring or</p>

		<p>are updated as necessary whenever new information gained from monitoring, operational changes, or other information (i.e., human rights risk assessments, water monitoring results, chance cultural finds, biodiversity assessments, economic displacement monitoring, etc.) is available and does not include documentation, such as monitoring reports, to confirm ESMPs are implemented.</p>
<p>2.1.8.1. As part of the ESMS, the operating company shall establish a program to monitor:</p> <ul style="list-style-type: none"> a. The significant environmental and social impacts identified during or after the ESIA process; and b. The effectiveness of mitigation measures implemented to address environmental and social impacts. 	<p>❶</p>	<p>The evidence, the Environmental Management Plan (ESMP) (September 2014), indicates the company has developed monitoring programs for environmental aspects (e.g., water quality, ecology, air, noise and vibration) and for some social aspects (e.g. OHS, recruitment and training) including the monitoring frequency and parameters.</p> <p>The evidence does not include details or monitoring information to confirm the company's monitoring program includes all social aspects such as human rights and that it is guided by:</p> <ul style="list-style-type: none"> a. indicators for all key environmental and social impacts (i.e., water quality, biodiversity, human rights impacts, security risks, local development improvement, etc.), b. monitoring of the effectiveness of mitigation measures implemented to address all social and environmental aspects, such as erosion control, human rights, biodiversity loss, etc., as needed.
<p>2.1.8.2. The monitoring program shall be designed and carried out by competent professionals.</p>	<p>❷</p>	<p>The evidence, including initial ESHIA reports that provide recommendations for monitoring include credentials to confirm monitoring programs are designed by competent professionals:</p> <ul style="list-style-type: none"> - Biodiversity monitoring reports, such as Vegetation and Floristics Specialty Study (October 2013), Assessment of the Impact on Terrestrial Fauna (December 2013), Report of the Vegetation and Floristics Specialist (October 2013), and Quality research and baseline impact assessment in Aquatic Ecology and Surface Waters (January 2014). - Hydrogeology and Geochemistry reports (2014-2015) <p>Monitoring program implementation reports in some cases include evidence of credentials or licensing, such as:</p> <ul style="list-style-type: none"> - Human Rights reports, such as Salient Human Rights Issues Final Report (May 2023), and the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023), - Resettlement reports, such as Livelihood Restoration Plan (LRP) (August 2019) and socio-economic study (July 2022). <p>In addition, environmental and social monitoring is headed by internal experts at the site, based upon a sample of credentials.</p> <p>The evidence does not include the details to confirm monitoring (i.e., biodiversity, water, safety, human right) conducted to evaluate social and environmental performance over time is carried out by competent professionals.</p>

<p>2.1.8.3. If requested by relevant stakeholders, the operating company shall facilitate the independent monitoring of key impact indicators where this would not interfere with the safe operation of the project.</p>	●	<p>Interviews with key staff indicate that the company has not yet received a request from stakeholders for independent monitoring of key impact indicators, but that they would facilitate independent monitoring if such a request was made.</p> <p>Interviews with a sample of stakeholders indicate that while water monitoring and livelihood restoration are important, no requests for independent monitoring have yet been made.</p>
<p>2.1.9.1. (New Mines) As part of the ESIA process, the operating company shall provide for timely and effective stakeholder and rights holder (hereafter collectively referred to as stakeholder) consultation, review and comment on:</p> <ol style="list-style-type: none"> The issues and impacts to be considered in the proposed scope of the ESIA (see 2.1.3); Methodologies for the collection of environmental and social baseline data (see 2.1.4); The findings of environmental and social studies relevant to the conclusions and recommendations of the ESIA (see 2.1.5.1.a and b); Options and proposals to mitigate the potential impacts of the project (see 2.1.5.1.c); Provisional conclusions and recommendations of the ESIA, prior to finalization (see 2.1.6.1); and The final conclusions and recommendations of the ESIA (see 2.1.6.1). <p>(Existing Mines) The operating company shall consult with relevant stakeholders in the identification and evaluation of potential environmental and social impacts associated with the mine.</p>	●	<p>The evidence, ESHIA - Part IV (February 2015), describes the process of information dissemination and public consultation meetings. As described in the document, the project was subject to two rounds of public consultation meetings, the first in the scope definition phase (August 2013) to present the project, disclose the calendar of the ESHIA process, as well as discuss potential preliminary impacts and mitigation measures, establish communication channels between the project and stakeholders and gather any concerns and recommendations from stakeholders; and the second phase (January 2015) to provide updated information on the project and preliminary results of the ESHIA process. The ESHIA - Part IV (February 2015) in Annex E includes a detailed log of stakeholder comments and questions that were raised during both consultation rounds or were received through other means such as e-mail, and the company's responses to them, and indicates that stakeholders were consulted on identification and evaluation of potential environmental and social impacts associated with the mine.</p> <p>Interviews with a sample of stakeholders, including government agencies and community members, provide information to confirm that the company provided opportunities for timely and effective stakeholder consultation, review, and comment during the ESHIA process.</p>
<p>2.1.9.2. (New Mines) The operating company shall encourage and facilitate stakeholder participation, where possible, in the collection of data for the ESIA, and in the development of options to mitigate the potential impacts of the project during and subsequent to the ESIA process.</p>	●	<p>Balama is an existing mine. The evidence includes:</p> <ul style="list-style-type: none"> - A detailed log of stakeholder comments and questions contained in the ESHIA - Part IV (February 2015) that were raised during public consultation rounds (August 2013, and January 2015) that includes suggestions from stakeholders and interested parties on impact mitigation (i.e., land use p. 113, carbon capture p. 115, resettlement compensation p. 130, traffic safety p. 133); and

		<p>(Existing Mines) The operating company shall encourage and facilitate stakeholder participation, where possible, in the development of options to mitigate the potential impacts of the mine.</p> <p>- A report containing questions, recommendations and requests received during an annual presentation on the company's environmental and social performance in 2021 to community stakeholders (Report of Public Participation Meeting, March 2022) with notions mostly pertaining to community benefits; and indicates the company has collected comments on the ESHIA including impact mitigation during the ESHIA process, and annually encourages feedback from stakeholders on the company's social and environmental performance. Interviews with key staff provided an example in which the company encouraged stakeholder participation in the development of mitigation options in which a grave required relocation during the ESHIA process.</p> <p>The evidence, as well as interviews with a sample of stakeholders, including those who have participated in some of the Local Development Committee's quarterly meetings, do not provide details to confirm whether the annual environmental and social performance presentations or other public consultation meetings allow stakeholder ongoing participation in the development of impact mitigation options, and whether a wide range of stakeholders have been notified of their ability to participate in such meetings, if applicable.</p>
<p>2.1.9.3. The operating company shall provide for timely and effective stakeholder consultation, review and comment on the scope and design of the environmental and social monitoring program.</p>	<p>●</p>	<p>Stakeholder consultation during the ESHIA process is governed by national regulations (National Decree 45/2004 of September 29, Article 14 - Public Participation Process). The evidence, including the ESHIA - Part IV Public Participation Process Report (February 2015), includes a detailed log of stakeholder comments and questions that were raised during public consultation rounds (August 2013, and January 2015) and indicates the company has disseminated information and held public consultation meetings before the start of the project, which provided opportunities for stakeholders to learn about and express concerns, opinions, recommendations regarding the mine project in a timely and effective manner.</p> <p>A list of participants of two meetings held annually with interested parties (Public Hearing on Environmental and Social Performance for the Years 2021 and 2022, held in March 2022 and March 2023) indicates the company discloses its social and environmental performance with stakeholders, including affected communities. Interviews with a sample of stakeholders, including government agencies and community members, corroborate that the company provided timely and effective opportunities for stakeholder consultation, review, or comment on the ESHIA.</p> <p>While the evidence confirms stakeholder participation occurred during the 2015 ESHIA permitting process, the evidence does not provide sufficient detail to confirm stakeholders were consulted specifically regarding the scope and design of the company's social (i.e., human rights, community security, safety, cultural heritage, etc.) and environmental (i.e., water and air quality, biodiversity, ecosystem services, etc.) monitoring programs.</p>
<p>2.1.9.4. The operating company shall encourage and facilitate stakeholder participation, where possible, in the implementation of the environmental and social monitoring program.</p>	<p>⊗</p>	<p>Does not meet. The evidence does not include information to confirm the company provides stakeholders with the opportunity to actively participate in the implementation of the social and environmental monitoring program, such as having stakeholders observe or participate in water quality monitoring (see 4.2.4.3).</p>

2.1.9.5.	<p>(New Mines) The operating company shall record all stakeholder comments received in relation to ESIA scoping; implementation; ESIA findings, conclusions and recommendations; and the environmental and social monitoring program. The company shall record how it responded to stakeholder comments.</p> <p>(Existing Mines) The operating company shall record all stakeholder comments received in relation to the environmental and social monitoring program. The company shall record how it responded to stakeholder comments.</p>	●	<p>The evidence, ESHIA - Part IV Public Participation Process Report (February 2015), includes a detailed log of stakeholder comments and questions that were raised during public consultation rounds (August 2013, and January 2015) and the Public Hearing on Environmental and Social Performance for the Year 2022 (March 2023), and interviews carried out with managers, indicate that during the ESHIA consultation process, the company was open to questions, and kept records of the comments, requests, and recommendations received by stakeholders as well as the company's responses.</p> <p>The evidence does not include company records of stakeholder feedback on its environmental and social monitoring program and how stakeholder comments were responded to.</p>
2.1.10.1.	<p>(New Mines) The ESIA report and any supporting data and analyses shall be made publicly available. Detailed assessments of some issues and impacts may be reported as stand-alone documents, but the ESIA report shall review and present the results of the full analysis in an integrated manner.</p> <p>(Existing Mines) At minimum, a summary of the significant environmental and social impacts and risks associated with the mining operation shall be made public.</p>	●	<p>Interviews with key staff and the ESHIA - Part IV Public Participation Process Report (February 2015) indicate the ESHIA was publicly available during the ESHIA process at local, regional, and national government offices, as well as online. Interviews with government officials at a local and regional level indicate that hard copies of the ESHIA full report are still available upon request at the government offices, as stipulated by National Decrees 28/2003 and 45/2004. The full ESIA is also available online (https://www3.dfc.gov/environment/eia/syrahbalama/ESIA.pdf).</p>
2.1.10.2	<p>The operating company shall make publicly available an anonymized version of the ESIA record of stakeholder comments and its own responses, including how each comment was taken into account.</p>	—	<p>Not scored. This requirement does not need to be scored at existing mines per IRMA Guidance issued in 2021.</p>
2.1.10.3	<p>The environmental and social management plan shall be made available to stakeholders upon request.</p>	●	<p>Interviews with a sample of key staff and stakeholders, including government agencies and community members, indicate that the most recent Environmental Management Program (April 2019), which also covers the social aspects, is publicly available, with a copy physically available in the Balama district administration office, and a copy in the provincial administration office (city of Pemba). The evidence, presentations of the annual public consultation meeting on the company's environmental and social performance for 2019 and 2020 (January 2022), 2021 (January 2022) and meeting minutes from the meeting covering 2022 (February 2023), which are attended by regulatory and community stakeholders, indicate that information regarding the</p>



		<p>environmental and social management plan are presented and that the company informs stakeholders on the different ways they can request information from the company.</p>
<p>2.1.10.4 Summary reports of the findings of the environmental and social monitoring program shall be made publicly available at least annually, and all data and methodologies related to the monitoring program shall be publicly available.</p>	<p>1</p>	<p>The evidence, presentations of the annual public consultation meeting on the company's environmental and social performance for 2019 and 2020 (January 2021) and 2021 (January 2022), and meeting minutes from the meeting covering 2022 (February 2023), which are attended by regulatory and community stakeholders, and interviews with a sample of key staff and stakeholders, including government agencies and community members, indicate that the company publicly discloses an annual summary on its social and environmental performance focusing on health and safety, social, and environmental monitoring results and the actions carried out, and informs stakeholders on the different ways they can request information from the company.</p> <p>The evidence does not provide details to confirm the company publishes all monitoring methodologies and data or would provide this information upon request.</p>
<p>2.1.10.5 (New Mines) The existence of publicly available ESIA and ESMS information, and the means of accessing it, shall be publicized by appropriate means. (Existing Mines) The existence of publicly available ESMS information, and the means of accessing it, shall be publicized by appropriate means.</p>	<p>1</p>	<p>The evidence, Public Hearing on Environmental and Social Performance for the Years 2021 and 2022, held in March 2022 and March 2023, and interviews with a sample of key staff and stakeholders, including community members, indicate the company presents an annual summary to stakeholders on its social and environmental performance focusing on health and safety, social, and environmental aspects in a culturally appropriate and accessible manner and in formats and languages understandable for affected stakeholders.</p> <p>While some summarized monitoring results (e.g. water usage, hazardous waste disposal, community investments) are published in quarterly Sustainability Reports on the company's website (www.syrahresources.com.au) and a performance report is produced every six months and presented to government agencies, the evidence does not include details to assess the means the company uses to make environmental and social management system (ESMS) information publicly available to the potentially affected communities in a format accessible to them.</p>



Chapter 2.2—Free, Prior and Informed Consent (FPIC)

Basis for rating

The applicability of Free, Prior, and Informed Consent (FPIC) for this site was evaluated based on stakeholders' consultation, including company personnel, communities' leaders, local NGOs' members, university researchers, and governmental agencies, as well as document review and on-site observations.

A biographical review confirmed that the predominant ethnic group in the Balama region is the Macua, native to northern Mozambique (Sangmpam, S., 2017). The Macua people have deep-rooted ties to the land and long-term residence, which align with the definition of Indigenous peoples under ILO Convention No. 169 and the UN Declaration on the Rights of Indigenous Peoples, despite the fact that these communities do not self-identify as Indigenous. In the absence of a clear consensus on whether they should be classified as Indigenous people, the audit team considered Chapter 2.2 to be relevant for the eight identified project-affected communities as a precautionary measure for the IRMA assessment at this site. The government performed an FPIC-aligned process for these affected communities, including disclosure and informed consent to the project. The company should conduct an ethnographic assessment to determine the cultural recognition status of these communities.

<p>2.2.1.1. The operating company shall have a publicly available policy that includes a statement of the company's respect for Indigenous peoples' rights, as set out in the United Nations Declaration on the Rights of Indigenous Peoples.</p>		<p>Does not meet. The evidence, Syrah Sustainability Policy (September 2023, first version 2022), includes an acknowledgment of the company to ensuring multi-level stakeholder engagement to establish shared understandings, collaborative partnerships and long-term commitments with potentially affected communities. The policy aims to promote sustainable community development through ongoing processes to identify, mitigate and minimize the risk of potential adverse human rights impacts, as well as ensuring mechanisms are in place to consult with the workforce, community and other key stakeholders on matters affecting them, and consider their feedback and input into business systems and processes. Interviews with company management indicated that in consideration of the national context, as the term "Indigenous" often carries colonial connotations, reminding many Mozambicans of the oppressive colonial era when their land and resources were exploited and their identities marginalized, the Sustainability Policy opts not to utilize the term "Indigenous peoples" but instead refers to them as "communities".</p> <p>The evidence does not include a publicly available policy that includes a statement on or commitment to respect Indigenous peoples' rights as set out in the United Nations Declaration on the Rights of Indigenous Peoples.</p>
<p>2.2.1.2. The operating company shall ensure that Indigenous peoples potentially affected by the company's mining-related activities are aware of the policy.</p>		<p>Does not meet. Information sharing in the area around the mine is primarily through oral tradition. The evidence, including interviews with a sample of key staff from the community relations department and stakeholders, as well as a sample of Local Development Committee meeting minutes (several months between 2021 and 2023), indicates the company respects the communities where it operates. Interviews with company management indicated that in consideration of the national context, the Sustainability Policy opts not to utilize the term "Indigenous peoples" but instead refers to them as "communities". Interviews with affected communities and potentially affected people indicate the company's sustainability policy has been discussed with them.</p>


		<p>While interviews with affected communities indicate relevant stakeholders have been informed about the company's commitment to respect local people and their communities as outlined in their Sustainability Policy, which is aligned with the national context, the evidence does not include a publicly available policy that meets the requirements of 2.2.1.1, and therefore stakeholders could not have been informed of its existence and content.</p>
<p>2.2.2.1. The operating company shall conduct due diligence to determine if the host government conducted an adequate consultation process aimed at obtaining Indigenous peoples' informed consent prior to granting access to mineral resources. The key findings of due diligence assessments shall be made publicly available and shall include the company's justification for proceeding with a project if the State failed to fulfill its consultation and/or consent duties.</p>		<p>The evidence, ESHIA - Part III on Environmental and Social Management Plan and Scheduled Monitoring (September 2014), indicates that the company conducted due diligence and determined that an FPIC-aligned process was implemented by the government with the local project-affected Macua communities prior to granting access to mineral resources. The Minute of Community Consultation for the Right to Use and Benefit from Land (April 2014) indicates that a government-led informed consent process, specifically for the BGO project, was completed in April 2014 as a prerequisite for obtaining the project's operating license. The evidence, ESHIA - Part IV Public Participation Process Report (February 2015), and interviews with a sample of key staff from the community relations department and stakeholders, among them Macua affected community leaders and representatives, indicate the communities provided consent to the project prior to the company gaining access to mineral resources and that the key findings of the company's due diligence were made publicly available.</p>
<p>2.2.2.2. Critical. New mines shall not be certified by IRMA unless they have obtained the free, prior and informed consent (FPIC) of potentially affected Indigenous peoples. The circumstances for obtaining FPIC include situations where mining-related activities may affect Indigenous peoples' rights or interests, including those that may: impact on lands, territories and resources; require the physical relocation of people; cause disruption to traditional livelihoods; impact on critical cultural heritage; or involve the use of cultural heritage for commercial purposes.</p>		<p>Balama is an existing mine. The Minute of Community Consultation for the Right to Use and Benefit from Land (April 2014) is a document signed by the community representatives of the eight potentially affected Macua communities as well as the district of Balama administrator, indicating that the company and the government, in alignment with national requirements, completed their due diligence assessments relating to an FPIC-aligned process, and that the eight potentially affected local communities consent to the proposed project with certain conditions. A Public Participation Process Report (February 2015), developed by a third party, details the methodology and evidences the Macua community participation during the disclosure phase of the project, which occurred prior to the signing of the Minute of Community Consultation for the Right to Use and Benefit from Land (April 2014). The document includes photos, meeting minutes, and the responses provided by the company representatives to questions raised by the local Macua population from August 2013 until January 2015. The evidence, Stakeholder Engagement Plan (September 2020), meeting roster and agenda (2022 Public Meeting held March 23, 2023) with local community leaders, QTR 1 2023 Sustainability Report to local government (April 2023), and a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), as well as interviews with a sample of key staff from the community relations department and stakeholders, among them affected local community leaders and representatives, also indicates the company has developed and maintains mutually agreed processes for Macua communities to raise concerns related to past and present impacts or concerns related to the mining project and provides mitigation acceptable to communities' members in alignment with national requirements.</p> <p>While the evidence indicates that the company obtained the consent of affected communities in the project area in alignment with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the</p>

		company has not provided conclusive evidence to confirm that these communities are Indigenous people. Nonetheless, the audit team evaluated compliance with FPIC requirements based on the provisional assumption that the eight affected Macua communities meet the criteria for Indigenous status. The company should assess the applicability of FPIC by conducting an ethnographic assessment of these communities.
2.2.2.3.	For new and existing mines, the operating company shall obtain FPIC from Indigenous peoples for proposed changes to mining-related activities that may result in new or increased impacts on Indigenous peoples' rights or interests.	— Not relevant. Although, the Balama Graphite mine is an existing mine with expansions in progress, the evidence, an Environmental and Social Management Plan (updated in November 2019), indicates that its expansion projects do not result in new or increased impacts on local Indigenous communities.
2.2.2.4.	If Indigenous peoples' representatives clearly communicate, at any point during engagement with the operating company, that they do not wish to proceed with FPIC-related discussions, the company shall recognize that it does not have consent, and shall cease to pursue any proposed activities affecting the rights or interests of the Indigenous peoples. The company may approach Indigenous peoples to renew discussions only if agreed to by the Indigenous peoples' representatives.	— Not relevant. There is no evidence indicating anyone asked for the FPIC processes to cease. The evidence, including the Minute of Community Consultation for the Right to Use and Benefit from Land (April 2014) (see 2.2.2.2) indicates that the Macua community members had no objection to the project and the FPIC process.
2.2.3.1.	The operating company shall: a. Consult with Indigenous peoples and others, and review other relevant data to identify Indigenous peoples that own, occupy or otherwise use land, territories or resources that may be affected by the mining project; b. Disclose to Indigenous peoples, in a culturally appropriate manner, the preliminary project concepts and/or proposed activities, and the Indigenous peoples' right to FPIC.	⊗ Does not meet. The evidence, Resettlement Action Plan (September 2014), Environmental, Social and Health Impact Assessment (February 2015), Livelihood Restoration Plan (August 2019), Livelihood Development Plan (June 2020), Stakeholder Engagement Plan (September 2020), and Socioeconomic Study (July 2022), indicates that the company: • is actively and continuously consulting communities that occupy or use lands, territories or resources that may be affected by the mining project, and • has disclosed to potentially affected community members, in a culturally appropriate manner, their right to FPIC. Interviews with a sample of affected community members and government officials indicate that the company has held meetings with affected communities about the current and planned mining operations, and explained their right to free, prior and informed consent in the event of major changes or expansions at the mine that require resettlement and/or economic restitution for community members (e.g. replacement of agricultural land used by the mining operation).

		<p>The evidence does not provide details to confirm whether the company performed an ethnographic assessment to determine the cultural recognition status of the communities affected by the mining project and if they should be classified as Indigenous peoples, even though they do not self-identify themselves as tribal/Indigenous people and are not specifically recognized as such by the government. On-site observations and stakeholder interviews indicate uncertainty regarding the status of these communities as Indigenous. However, it is observed that the eight project-affected Macua communities exhibit cultural traits consistent with the defining criteria for Indigenous people, as outlined in the ILO Convention No. 169.</p>
<p>2.2.3.2. The operating company shall collaborate with Indigenous peoples' representatives and other relevant members of affected communities of Indigenous peoples to:</p> <ul style="list-style-type: none"> a. Identify the appropriate means of engagement for each group of Indigenous peoples (e.g., tribe, nation, population); b. Identify Indigenous peoples' rights and interests that may be affected by the proposed activities; c. Identify additional studies or assessments needed to determine the range and degree of potential impacts on Indigenous peoples' rights or interests; and d. Identify if there are capacity issues that may prevent full and informed participation of Indigenous peoples. If issues are identified, the operating company shall provide funding or facilitate other means to enable Indigenous peoples to address capacity issues in their preferred manner; and e. Ensure that the community as a whole/collective has meaningful opportunities to be involved in these processes. 	<p>⊗</p>	<p>Does not meet. The evidence indicates that the company, in alignment with national requirements and FPIC, collaborates with affected communities, among them vulnerable groups, and has considered (a) to (e) in their programming, and that these efforts are ongoing (i.e., community meetings with the company personnel present, such as the Local Development Committee quarterly meetings, 2022 Public Meeting held March 23, 2023, Sustainability Report presentation to the local government; periodic visits to affected communities by company personnel; visits from community representatives and institutions to the Balama Graphite mine ('Mine Open Door' event, August 2023); through email or WhatsApp; and through the company's Social Responsibility Programs. Refer also to Ch. 1.2.</p> <p>The evidence does not provide details to confirm whether the company performed an ethnographic assessment to determine the cultural recognition status of the communities affected by the mining project and if they should be classified as Indigenous peoples, even though they do not self-identify themselves as tribal/Indigenous people and are not specifically recognized as such by the government. On-site observations and stakeholder interviews indicate uncertainty regarding the status of these communities as Indigenous. However, it is observed that the eight project-affected Macua communities exhibit cultural traits consistent with the defining criteria for Indigenous people, as outlined in the ILO Convention No. 169.</p>
<p>2.2.3.3. The operating company shall collaborate with the Indigenous peoples' representatives to design and implement plans to address the information gaps and needs identified through the scoping process.</p>	<p>⊗</p>	<p>Does not meet. The evidence, including the Public Participation Process Report (February 2015), the Resettlement Action Plan (September 2014) and the Environmental, Social and Health Impact Assessment (February 2015), indicates that information gaps and needs were identified through the feasibility studies, environmental impact assessment and socioeconomic studies. The Local Development Agreement (April 2019) outlines the key tools that guide the implementation of the corrective actions to address gaps and needs identified. The document indicates the company has the obligation to invest \$4 million US dollars in the first five (5) years of operation, and \$11 million US dollars in the remaining years, and these amounts must be</p>


		<p>applied to health, education and infrastructure projects, according to the priorities established by the members of the Committee, formed by company management, members of the Balama district government and representatives of the communities affected by the mining project.</p> <p>The evidence does not provide details to confirm whether the company performed an ethnographic assessment to determine the cultural recognition status of the communities affected by the mining project and if they should be classified as Indigenous peoples, even though they do not self-identify themselves as tribal/Indigenous people and are not specifically recognized as such by the government. On-site observations and stakeholder interviews indicate uncertainty regarding the status of these communities as Indigenous. However, it is observed that the eight project-affected Macua communities exhibit cultural traits consistent with the defining criteria for Indigenous people, as outlined in the ILO Convention No. 169.</p>
<p>2.2.4.1. If there is more than one distinct Indigenous peoples' group (e.g., tribe, nation, population) that may be affected by the operating company's mining-related activities, they may be included in a coordinated process or separate FPIC processes, as desired by the Indigenous peoples.</p>	<p>—</p>	<p>Not relevant. There is only one ethnic group potentially affected by the mine project, the Macua people.</p> <p>Note: the company has not provided conclusive evidence to confirm that this ethnic group is classified as Indigenous.</p>
<p>2.2.4.2. If the potentially affected Indigenous peoples have an FPIC protocol in place or under development, the operating company shall abide by it unless changes are agreed to by the Indigenous peoples' group(s). Otherwise, the operating company shall jointly develop and document, in a manner agreed to by Indigenous peoples' representatives, the FPIC process or processes to be followed.</p>	<p>●</p>	<p>The evidence, Local Development Agreement (April 2019), indicates that a committee, comprising company management, Balama district government officials, and representatives from affected Macua communities, collaboratively formulated and documented the FPIC process to be followed. This document delineates the company's commitments to invest in health, education, and infrastructure, aiming to ensure that affected Indigenous communities uphold their consent for the mining project.</p> <p>Interviews with a sample of key staff indicate that the document is under review since 2022 and the company is developing an updated version.</p>
<p>2.2.4.3. The operating company shall make information on the mutually-agreed FPIC processes publicly available, unless the Indigenous peoples' representatives have explicitly requested otherwise.</p>	<p>●</p>	<p>The evidence, Local Development Agreement (April 2019), indicates that a committee, comprising company management, Balama district government officials, and representatives from affected Macua communities, collaboratively formulated and documented the FPIC process to be followed. All accomplishments, outcomes, and commitments outlined in the Community Development Agreement are disseminated through the quarterly sustainability update report, as evidenced by the Q4 2023 Quarterly Sustainability Update (January 2024, pp. 29-39), which is publicly available on the company's website (link: https://www.datocms-assets.com/65260/1706685786-q4-2023-quarterly-sustainability-update.pdf). Interviews with government</p>

		officials and a sample of affected community members indicate that the process is in alignment with national legislation and respectful to the communities.
2.2.5.1.	The operating company shall document, in a manner agreed to by the Indigenous peoples, the FPIC process that was followed.	● The evidence, Minute of Community Consultation for the Right to Use and Benefit from Land (April 2014), which is a document signed by community representatives from eight potentially affected Macua communities, along with the Balama district administrator, signaling consent to the proposed project, indicates that the company documents the Free Prior and Informed Consent in alignment with national legislation and that this was documented (refer to 2.2.2.2).
2.2.5.2.	The operating company shall publicly report, in a manner agreed to by the Indigenous peoples, on the FPIC process that was followed and its outcome.	◐ The evidence, 4th Public Hearing to Disclose Twigg's Environmental and Social Performance - 2022 (February 2023), indicates that the company publicly reported through a public hearing, that included the participation of affected communities and other local and national level stakeholders, the FPIC process, including its outcomes and commitments, in alignment with national legislation. The evidence does not provide details to confirm if the public reporting was agreed by the Indigenous communities affected by the mining project.
2.2.5.3.	If the process results in consent being given by Indigenous peoples to certain mining-related activities, an agreement outlining the terms and conditions shall be signed or otherwise validated by the operating company and the representative(s) of the Indigenous peoples. The agreement shall be binding and shall be made publicly available unless the Indigenous peoples' representatives explicitly request otherwise.	● The evidence, including interviews of key staff, a sample of affected community members and government officials, as well as the Minute of Community Consultation for the Right to Use and Benefit from Land (April 2014) and the Local Development Agreement (April 2019), indicates that the company established mutually agreed FPIC processes with affected Macua communities, and that there are no documented grievances filed with the company providing indication that this process was not acceptable to the communities members.
2.2.6.1	For new mines, IRMA certification is not possible if a mining project does not obtain free, prior and informed consent from Indigenous peoples.	— Not relevant. Balama is an existing mine.
2.2.7.1.	The operating company shall collaborate with Indigenous peoples to monitor implementation of the FPIC agreement and document the status of the commitments made in the agreement.	● The evidence, a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), indicates that the FPIC-aligned process is transparent and is publicly available, including outcomes and commitments, in alignment with national legislation. Interviews with key staff and stakeholders, among those a sample of affected Macua community members and government officials, indicate that the

		<p>implementation of commitments made by the company following comments received in the Local Development Agreement (April 2019) are monitored and that this is ongoing.</p>
<p>2.2.7.2. Engagement with Indigenous peoples shall continue throughout all stages of the mining project.</p>		<p>The evidence, a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), indicates the company has established an appropriate process to engage with Macua communities around the mine and engagement is ongoing. The company uses several means to engage stakeholders, among them: consultation, i.e., community meetings with company personnel present; 2022 Public Meeting held March 23, 2023; Sustainability Report presentation to the local government; periodic visits to affected local communities by company personnel; visits from community representatives and institutions to the Balama Graphite mine ('Mine Open Door' event); through email or WhatsApp; and through the company's Social Responsibility Programs, and this work is ongoing.</p> <p>Interviews with a sample of stakeholders and key staff, and stakeholder and public meeting photos and minutes provided as evidence (i.e., Public Participation Process Report (February 2015), Local Development Committee meeting minutes from 2021 to 2023, among others) indicate that the company invites consultation and participation of Macua communities, as well as regulating bodies and government, and has made arrangements for travel and accommodations to further accessibility where needed or requested, including payment for fuel.</p>

Chapter 2.3—Obtaining Community Support and Delivering Benefits

Basis for rating

<p>2.3.1.1. The operating company shall publicly commit to:</p> <ul style="list-style-type: none"> a. Maintaining or improving the health, social and economic wellbeing of affected communities; and b. Developing a mining project only if it gains and maintains broad community support. 		<p>The evidence, Local Development Committee Charter (July 2018), indicates that the operating company, Twigg, as a result of the Consultation for the Right to Use and Benefit from Land process, and in accordance with Mozambique's Mining Law (Law 20/2014), has constituted a local development committee with representatives of its senior management, members of the Balama district government and representatives of the communities affected by the mining project, and has accepted the Local Development Agreement (April 2019). By signing the Local Development Agreement (April 2019), the company expresses its commitment to:</p> <ul style="list-style-type: none"> a. maintaining and improving the health, social and economic well-being of affected communities with the commitment to invest \$4 million US dollars in the first five (5) years of operation, and \$11 million US dollars in the remaining years that must be applied into health, education and infrastructure projects; and b. improving the quality of life of communities where they operate and only investing in health, social and infrastructure projects that are requested and approved by the affected communities and district government.
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		The existence of the Local Development Committee is known to the affected stakeholders, who, according to interviews, are fully aware of the financial commitments established in it. The document is publicly available at the National Mining Institute for anyone interested. In addition, the company's quarterly Sustainability Reports, publicly available on the company's website, also express the company's commitment to improving the health, social and economic well-being of affected communities.
2.3.2.1.	For new mines, the operating company shall demonstrate that it obtained broad community support from communities affected by the mining project, and that this support is being maintained.	Not relevant. Balama is an existing mine.
2.3.2.2.	For new mines, broad community support shall be determined through local democratic processes or governance mechanisms, or by another process or method agreed to by the company and an affected community (e.g., a referendum). Evidence of broad community support shall be considered credible if the process or method used to demonstrate support: <ul style="list-style-type: none"> a. Occurred after the operating company carried out consultations with relevant stakeholders regarding potential impacts and benefits of the proposed mining project; b. Was transparent; c. Was free from coercion or manipulation; and d. Included the opportunity for meaningful input by all potentially affected community members, including women, vulnerable groups and marginalized members, prior to any decision or resolution. 	Not relevant. Balama is an existing mine.
2.3.2.3.	For existing mines, the operating company shall demonstrate that the mine has earned and is maintaining broad community support.	The Local Development Committee Charter (July 2018) indicates that the operating company, Twigg, in accordance with Mozambique's Mining Law (Law 20/2014), has constituted a local development committee with representatives of its senior management, members of the Balama district government and representatives of the communities affected by the mining project, and has accepted the Local Development Agreement (April 2019). By signing the Local Development Agreement (April 2019), the company expresses its commitment to maintaining and improving the health, social and economic well-being of affected communities. The evidence, consisting of a sample of Local Development Committee (LDC) meeting minutes (several months through 2021 until 2023) and interviews with a sample of key staff and members of the eight (8)

2.3.3.1. The operating company, in collaboration with affected communities and other relevant stakeholders (including workers and local government), shall develop a participatory planning process to guide a company's contributions to community development initiatives and benefits in affected communities.

affected communities broadly represented, indicates the company strives to earn and maintain broad community support. With representatives of the affected communities among its members, the LDC holds quarterly meetings where key staff give an account of the community projects the company is supporting and their planned schedule for implementation. The LDC meeting minutes indicate that the committee delineates conditions agreed upon by both parties and the local government, including the provision of an elementary school in the community of Pirira and the Balama health center upgrade, providing evidence that the company works in good faith to resolve issues to the satisfaction of affected community stakeholders.

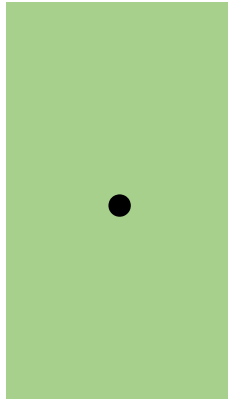
Interviews with a sample of stakeholders and key community relations staff emphasize the company's commitment to supporting community-led projects. Stakeholder interviews provided mixed levels of support. Those with moderate to high levels of support mentioned the work opportunity, either through direct employment or indirectly as a contractor, and emphasized the significance of even a single formal job at the mine helping to sustain a family and the community at large. Those who expressed low support appreciated past support of the company, and expressed the need for further or ongoing support in the future. Among those who had low support were the resettled stakeholders from one community (out of four economically resettled communities) who did not have access to the same type of land they had before the resettlement, and adjusting to the new farming conditions was a challenge. Land compensation is the Mozambican National Agency for Territorial Planning's responsibility (DINOTER acronym in Portuguese), and the evidence, Marica Resettlement Complaint Resolution (no date), indicates a resettlement complaint resolution agreement was signed in December 2020.

The evidence indicates that while the company is developing community support, it is not yet fully established in all areas and is ongoing.

The evidence, including the Local Development Committee Charter (July 2018) and a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), indicates that the company collaborates with stakeholders to guide its contributions to community development initiatives and benefits. The Local Development Agreement (April 2019) indicates the company has the commitment to invest \$4 million US dollars in the first five (5) years of operation, and \$11 million US dollars in the remaining years, and these amounts must be applied to health, education and infrastructure projects, according to the priorities established by the members of the Committee, formed by company management, members of the Balama district government and representatives of the communities affected by the mining project.

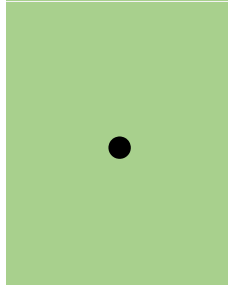
Interviews with a sample of stakeholders, workers and key staff, indicate that they were included in the planning processes for the delivery of benefits. And, while some stakeholders were included, a segment from the affected communities indicated dissatisfaction with the priorities of the projects being executed. Government agents interviewed indicate that the priority of the projects to be supported by the company's contributions is ultimately administered by the Balama District government, not by the company or individual local communities.

2.3.3.2. The planning process shall be designed to ensure local participation, social inclusion (including both women and men, vulnerable groups, and traditionally marginalized community members, e.g., children, youth, the elderly, or their representatives), good governance and transparency.



The evidence, Local Development Committee Charter (July 2018) and a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), indicate that the company has implemented participatory planning objectives through collaborative partnerships with local stakeholders. A corporate presentation, Community Investment (May 2022), indicates stakeholders such as women, vulnerable groups and marginalized community members (such as youth) were considered in the company's contributions, which include supporting an elementary school, the Balama Vocational Training Center to provide mechanical and electrical training courses, and a health program to support pregnant women. Comments from a sampling of those interviewed indicate the company ensures the participation of community members in the planning process, particularly those responsible for women, or conducting separate meetings to accommodate differences, including those based upon gender and age, through specific subcommittees for vulnerable groups (such as women and the elderly), with each potentially affected community having at least two representative members on each of these subcommittees.

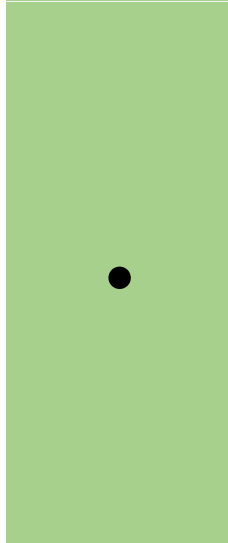
2.3.3.3. If requested by the community and not provided by the appropriate public authorities, the operating company shall provide funding for mutually agreed upon experts to aid in the participatory process.



During the constitution of the Local Development Agreement (April 2021), in 2017, members of the Balama district government and representatives of the communities affected by the mining project requested the company to provide funding for external experts to assist young job seekers. Evidence, including interviews with key staff and information from the MozYouth website (<https://www.mozyouth.co.mz/pt>), indicates that the company, in partnership with stakeholders like First National Bank, Hollards Group, and DP World, supports the MozYouth Foundation. This NGO offers internship and development programs to young Mozambicans, focusing on gender equality and catering to individuals ranging from those without formal education to university graduates.

2.3.3.4. Efforts shall be made to develop:

- a. Local procurement opportunities;
- b. Initiatives that benefit a broad spectrum of the community (e.g., women, men, children, youth, vulnerable and traditionally marginalized groups); and
- c. Mechanisms that can be self-sustaining after mine closure (including the building of community capacity to oversee and sustain any projects or initiatives agreed upon through negotiations).



Evidence from the Local Development Agreement (April 2019) and the corporate presentation "Community Investment" (May 2022) detail the initiatives the company has developed to improve the livelihoods of affected people, including:

- a. local procurement of materials and services such as sourcing honey and peanut butter from local producers;
- b. support for women and children through projects such as a clinic and an elementary school; and
- c. capacity-building of local institutions and groups, such as the Balama Vocational Training Center offering electrical and mechanics classes that can be self-sustaining after mine closure.

Interviews with stakeholders, including community members and company staff, confirm the implementation of various measures (i.e., strengthening women's organizations, capacity-building of local institutions), among them:

- Addressing the needs of vulnerable groups (i.e., creating a tailors' association of elderly men providing laundry bags)
- Agricultural and forestry extension services (i.e., local honey and peanut butter suppliers)

2.3.3.5. The planning process and any outcomes or decisions shall be documented and made publicly available.		<p>-Developing self-sustainable projects (i.e., a power transformation station in Ntete, installing water supply wells, construction of two schools, a vocational training center, and electricity for a community health center).</p> <p>Some stakeholders suggest the company should provide more training to community members to enable them to work at the mine as employees or contractors.</p>
2.3.3.6. In collaboration with the community, the operating company shall periodically monitor the effectiveness of any mechanisms or agreements developed to deliver community benefits, based on agreed upon indicators, and evaluate if changes need to be made to those mechanisms or agreements.	●	<p>The evidence, Local Development Committee Charter (July 2018), indicates that the company, in accordance with Mozambique's Mining Law (Law 20/2014), has constituted a local development committee with representatives of its senior management, members of the Balama district government and representatives of the communities affected by the mining project, and has accepted the Local Development Agreement (April 2019), where the company expresses its commitment to maintaining and improving the health, social and economic well-being of affected communities with the commitment to invest \$4 million US dollars in the first five (5) years of operation, and \$11 million US dollars in the remaining years that must be applied into health, education and infrastructure projects that are requested and approved by the affected communities and district government. The existence of the Local Development Committee is known to the affected stakeholders, who, according to interviews, are fully aware of the financial contribution amounts established in it. The document is publicly available at the National Mining Institute for anyone interested. In addition, the company's quarterly Sustainability Reports, publicly available on the company's website, also express the company's commitment to improving the health, social and economic well-being of affected communities.</p>
2.3.3.6. In collaboration with the community, the operating company shall periodically monitor the effectiveness of any mechanisms or agreements developed to deliver community benefits, based on agreed upon indicators, and evaluate if changes need to be made to those mechanisms or agreements.	●	<p>The evidence, Local Development Agreement (April 2019), Stakeholder Engagement Plan (September 2020) and a sample of Local Development Committee meeting minutes (several months from 2021 until 2023), indicates that the community representatives from different affected villages that are part of the committee provide feedback on the effectiveness of the community benefits delivered. The community benefits provided by the company must be defined by the Local Development Committee but the priority of the projects to be supported by the company's contributions is ultimately established by the Balama district government, not by the company or the communities.</p> <p>The evidence does not include effectiveness indicators or the details to confirm that the company, in collaboration with the community or Balama district government, periodically monitors the efficacy of mechanisms or agreements developed to deliver community benefits. Refer to IRMA Notes for 2.3.3.6.</p>

Chapter 2.4—Resettlement Requirements

Basis for rating

Background. Balama is an existing mine operating since 2017. The Environmental Social Health Impact Assessment (ESHIA) conducted in 2015 identified that the local communities of Ntete, Nquide, Maputo, and Pirira had plots of land used for subsistence agriculture (machambas) within parts of the mine concession area. This necessitated the development of a Resettlement Action Plan in September 2014 to guide an exclusively economic, voluntary resettlement process. Mozambique's regulations on the resettlement process resulting from economic activities (Decree 31 of 2012) indicate that any resettlement project in the country needs to be enacted and driven through an established technical resettlement commission which comprises various representatives from a selection of government bodies and local representatives. In 2014, this committee was established in the Balama District, referred to as the District Resettlement Committee, and was responsible for finding and allocating alternative farmland for those households whose machamba had been acquired or had the potential to be affected by the Balama Graphite mine. The resettlement actions occurred in 2014 and 2015, and among the economically resettled communities, some members of the Maputo community (Marica village) claimed to be dissatisfied with the land allocated to them. Following a number of engagements with the District Resettlement Committee, as well as an escalation to provincial authorities, the Mozambique Agriculture Research Institute was commissioned to conduct a full study of the suitability of the Marica village resettlement fields. The study found that most of the land assessed was suitable for agriculture but a small portion of land in a low area was not suitable for most crops produced by farmers in the area. As part of the resolution proposed by the provincial authorities and agreed by the District Resettlement Committee, which includes some of the complainants, a resolution action plan was developed and includes further soil studies, specialized training in new agricultural techniques, setting up of demo plots, provision of certified seeds, distribution of agricultural tools, in addition to extra monetary provision for all resettlements in the village of Marica.

Sources:

- Constitution of the Republic of Mozambique, 2004
- Mozambique regulations on the resettlement process resulting from economic activities, 2012
- Resettlement Action Plan (September 2014)
- Livelihood Development Plan (June 2020)
- Resolution of Marica Resettlement Complaint (February 2021)
- District Resettlement Committee Secretary
- Communities' Leaders; and Stakeholders

<p>2.4.1.1. If there is the potential that a new mine (including associated facilities) or the expansion of an existing mine or associated facilities may require land acquisition that could result in the involuntary resettlement (for the remainder of this chapter, referred to simply as resettlement) of people, the operating company shall undertake an assessment process to evaluate the potential direct and indirect risks and impacts related to the physical and/or economic displacement of people.</p>	—	<p>Not relevant because this is an existing mine where resettlement occurred in 2014 and 2015, prior to the start of the project, and there are no current proposals for changes to the mining operation which may require land acquisition that could result in involuntary resettlement.</p> <p>The evidence, Resettlement Action Plan (September 2014) and Livelihood Development Plan (June 2020), indicate that the company has evaluated the potential direct and indirect risks and impacts related to the economic displacement of people from past activities and that the company assists households in voluntary resettlement programs. The communities of Ntete, Nquide, Maputo and Pirira had their land located in parts of the mine project's concession area, necessitating economic resettlement.</p>
<p>2.4.1.2. The assessment shall:</p> <ul style="list-style-type: none"> a. Be undertaken during the early stages of mining project planning; b. Include identification of alternative mining project designs to avoid, and if that is not possible, 	—	<p>Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.</p>

	<p>minimize the displacement of people;</p> <p>c. Identify and analyze the social, cultural, human rights, conflict, environmental and economic risks and impacts to displaced persons and host communities for each project design alternative, paying particular attention to potential impacts on women, children, the poor and vulnerable groups; and</p> <p>d. Identify measures to prevent and mitigate risks and impacts, and estimate the costs of implementing the measures.</p>		
2.4.1.3.	The assessment shall be undertaken by competent professionals with experience in resettlement related to large-scale development projects.	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.
2.4.1.4.	The operating company shall document decision-making regarding alternative mining project designs and efforts to minimize resettlement.	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.
2.4.1.5.	The assessment shall be made public, or, at minimum, be made available to potentially affected people and their advisors.	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.
2.4.2.1.	<p>The operating company shall disclose relevant information and consult with potentially affected people and communities, including host communities, during:</p> <p>a. The assessment of displacement and resettlement risks and impacts, including the consideration of alternative mining project designs to avoid or minimize resettlement;</p> <p>b. The development of resettlement and livelihood options; and</p> <p>c. The development, implementation, monitoring and evaluation of a Resettlement Action Plan (RAP) and/or Livelihood Restoration Plan (LRP).</p>	●	<p>The evidence, Resettlement Action Plan (RAP) (September 2014), indicates that the company engaged in extensive stakeholder engagement during the resettlement process to discuss aspects related to the resettlement process such as:</p> <p>a. disclosure of the Environmental, Social and Health Impact Assessment Report (chapter 4.3.4); and</p> <p>b. discussion of compensation measures (chapter 4.4.3.3) and farmland surveys (4.4.3.2) and presentation of RAP report (4.3.6).</p> <p>The evidence, monthly progress reports of the Livelihood Development Program (September 2021) and interviews with a sample of community stakeholders, indicate a continuous stakeholder engagement in the monitoring of the implementation of the Livelihood Development Program.</p>

<p>2.4.2.2. The operating company shall facilitate access, if desired by potentially affected people and communities, including host communities, to independent legal or other expert advice from the earliest stages of project design and assessment, through monitoring and evaluation of the resettlement process.</p>	●	<p>A report prepared by an NGO specializing in sustainable management of natural resources and promotion of community rights called Centro Terra Viva, and interviews with key company staff (community relations department), indicates that the company has facilitated access to technical legal support to communities involved in the process. The NGO was selected and instructed by the community and the costs of the study were paid by the company. The evidence, Monitoring of Environmental and Land Licensing (March 2015), indicates that the NGO was presented since the early stages of the resettlement project design and presents an analysis, based on aspects related to the preparation for the public consultation meetings, the procedures observed, the level of participation, the transmission and assimilation of the content presented, and the quality of the interventions during the environmental licensing process for the graphite exploration project in Balama by Twigg. According to community interviewees, including a sample of those resettled, the company facilitated access to independent expert advice.</p>
<p>2.4.2.3. People from affected communities, including host communities, shall have access to an effective mechanism to raise and seek recourse for concerns or grievances related to displacement and resettlement.</p>	◐	<p>The evidence, Community & Local Stakeholder Complaints and Grievance Procedure (April 2020) and the template of the grievance form, indicate that the company has a procedure providing a framework for stakeholders to raise and seek resolution or remedy to grievances that may occur in relation to the company and its mining-related activities, including land acquisition and resettlement. The company provided a review of the grievances and complaints raised from January 2022 until February 2023 (10 grievances in total, Complaints & Grievances Register, February 2023), indicating some accessibility from external stakeholders. Almost half of the grievances received were related to resettlement, compensation and land acquisition and these stakeholders are among those who report, through onsite interviews, that the grievance mechanism does not work as intended (mainly due to the timescales for resolution and remediation).</p> <p>The evidence does not include an assessment of the grievance mechanism's continuous effectiveness that aligns with the effectiveness criteria of the UN Guiding Principles on Business and Human Rights or information to indicate that stakeholders participated in the grievance mechanism design.</p>
<p>2.4.3.1. When project-related displacement is deemed unavoidable, a census shall be carried out to collect appropriate socio-economic baseline data to identify the people who will be physically or economically displaced by the project and determine who will be eligible for compensation and assistance.</p>	—	<p>Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.</p>
<p>2.4.3.2. In the absence of host government procedures, the operating company shall establish compensation eligibility criteria and a cut-off date for eligibility. Information regarding the cut-off date shall be well</p>	—	<p>Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.</p>

documented, and disseminated along with eligibility information throughout the mining project area.

- 2.4.3.3. In the case of physical displacement, the operating company shall develop a Resettlement Action Plan. If the project involves economic displacement only, a Livelihood Restoration Plan shall be developed. In either case, these plans shall, at a minimum:
- a. Describe how affected people will be involved in an ongoing process of consultation throughout the resettlement/livelihood restoration planning, implementation and monitoring phases;
 - b. Describe the strategies to be undertaken to mitigate the negative impacts of displacement and improve or restore livelihoods and standards of living of displaced people, paying particular attention to the needs of women, the poor and vulnerable groups;
 - c. Describe development-related opportunities and benefits for affected people and communities;
 - d. Describe the methods used for valuing land and other assets;
 - e. Establish the compensation framework (i.e., entitlements and rates of compensation for all categories of affected people, including host communities) in a transparent, consistent, and equitable manner;
 - f. Include a budget and implementation schedule; and
 - g. Be publicly available.

The evidence, Resettlement Action Plan (RAP) (2014), indicates that the company has developed a Resettlement Action Plan prior to the resettlement process which includes descriptions of:

- a. how affected people will be involved in an ongoing process of consultation throughout the planning, implementation, and monitoring phases. RAP Chapter 4 (2014) describes that affected individuals, through the District Resettlement Commission, will be consulted about compensation and resettlement options; rehabilitation measures; and impacts on their livelihood and invited to actively participate in the identification of mitigation and rehabilitation measures, following national legislation (Mozambique's Regulations for the Resettlement process 2012);
- b. strategies to mitigate the negative impacts of displacement and improve or restore livelihoods and standards of living for those displaced, with particular attention to vulnerable groups. RAP Chapter 1.4 (2014) outlines impacts on livelihood (i.e. farmland, water wells, fruit trees, etc.) and measures to mitigate these impacts. Vulnerable groups, such as female farmers or disabled, elderly and weak farmers, are provided with special assistance such as priority access to all mitigation measures and development assistance (pp. 38 and 47);
- c. development-related opportunities and benefits for affected people and communities, such as details of training for impacted communities. The evidence also indicates training that will cover topics such as farming more productively and finances;
- d. the methods used for valuing land and other assets. RAP Chapter 6 (2014) discusses the methods for compensation valuation of crops, economic trees, secondary structures, communal resources and cultural property; and indicates that the Mozambique Ministry of Agriculture's standard rates for crops and trees were applied in the valuation of compensation for crops and trees, as required by Mozambique's Regulation on the Resettlement Process Resulting from Economic Activities (2012);
- e. an established compensation framework. RAP Chapter 6.2 (2014) includes an eligibility matrix outlining entitlements and rates of compensation for all categories (vulnerable groups, loss of access to natural resources, loss of economic trees, etc.) of affected people. RAP Chapter 6.3 further describes compensation rates and that the Mozambique Ministry of Agriculture's standard rates were applied;
- f. a budget and implementation schedule (RAP Chapter 7.5, 2014) and associated costs (RAP Chapter 9, 2014); and
- g. how the draft RAP (2014) was disclosed to the public during public consultation meetings held during the entire process (Chapter 4) and the final RAP is publicly available at the district agricultural agency.

<p>2.4.4.1. In all cases, when people are physically displaced as a result of the development or expansion of a mine or its associated facilities:</p> <ul style="list-style-type: none"> a. The operating company shall provide relocation assistance that is suited to the needs of each group of displaced peoples and is sufficient for them to improve or at least restore their standard of living at an alternative site; b. New resettlement sites built for displaced people shall offer improved living conditions; and c. Displaced people's preferences with respect to relocating in pre-existing communities and groups shall be taken into consideration and existing social and cultural institutions of the displaced peoples and any host communities shall be respected. 	—	<p>Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.</p>
<p>2.4.4.2. In cases where physically displaced people have formal legal rights to the land or assets they occupy or use, or do not have formal legal rights but have a claim to land that is recognized or recognizable under national law:</p> <ul style="list-style-type: none"> a. The operating company shall offer the choice of replacement property (land and assets) of at least equal value and characteristics, security of tenure, and advantages of location; and b. If cash compensation is appropriate and preferred by the affected people, compensation shall be sufficient to replace lost land and other assets at full replacement cost in local markets 	—	<p>Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.</p>
<p>2.4.4.3. In cases where physically displaced people have no recognizable legal right or claim to the land or assets they occupy or use, the operating company shall:</p> <ul style="list-style-type: none"> a. Offer options for adequate housing with security of tenure; and b. Compensate for the loss of assets other than land at full replacement cost, provided that the people had been occupying the project area prior to the cut-off date for eligibility. 	—	<p>Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.</p>

<p>2.4.5.1. If project-related land acquisition or restrictions on land use result in economic displacement, regardless of whether or not the affected people are physically displaced, the operating company shall apply the following measures:</p> <ul style="list-style-type: none"> a. When commercial structures are affected, the business owners shall be compensated for the cost of re-establishing commercial activities elsewhere, for lost net income during the period of transition, and for the costs of the transfer and reinstallation of the plant, machinery, or other equipment, and the employees shall be compensated for lost income; b. When affected people have legal rights or claims to land that are recognized or recognizable under national law, replacement property of equal or greater value shall be provided, or, where appropriate, cash compensation at full replacement cost; and c. Economically displaced people who are without legally recognizable claims to land shall be compensated for lost assets other than land at full replacement cost. 	—	<p>Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.</p>
<p>2.4.5.2. All economically displaced people whose livelihoods or income levels are adversely affected shall be provided opportunities to improve, or at least restore, their means of income-earning capacity, production levels, and standards of living, and transitional support shall be provided based on a reasonable estimate of the time required to restore their income-earning capacity, production levels, and standards of living. Additionally:</p> <ul style="list-style-type: none"> a. For people whose livelihoods are land-based, replacement land that has a combination of productive potential, locational advantages, and other factors at least equivalent to that being lost shall be offered as a matter of priority; b. For people whose livelihoods are natural resource-based and where project-related restrictions on access apply, continued access to affected 	—	<p>Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.</p>

<p>resources or access to alternative resources with at least equivalent livelihood-earning potential and accessibility shall be provided; and</p> <p>c. If circumstances prevent the operating company from providing land or similar resources as described above, alternative income earning opportunities shall be provided to restore livelihoods</p>		
<p>2.4.6.1. In order to be certified by IRMA, if a new project will require the displacement of indigenous peoples the operating company shall obtain the free, prior and informed consent (FPIC) of affected indigenous communities before proceeding with the resettlement and mine development (as per IRMA Chapter 2.2).</p>	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.
<p>2.4.6.2. If a new mine will require the displacement of non-indigenous peoples, the operating company shall make a good faith effort to negotiate agreements with all households that will be physically or economically displaced by the mining project before proceeding with the resettlement, even if the company has the legal means to acquire land or restrict land use without their consent.</p>	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.
<p>2.4.6.3. Prior to negotiating with affected people, the operating company shall provide or facilitate access to resources necessary to participate in an informed manner. This shall include, at minimum:</p> <p>a. Copies of RAP and/or LRP;</p> <p>b. Details on what to expect at various stages of the resettlement or livelihood restoration process (e.g., when an offer will be made to them, how long they will have to respond, how to access the grievance mechanism if they wish to appeal property or asset valuations, legal procedures to be followed if negotiations fail); and</p>	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.

<p>c. Independent legal experts or others to ensure that affected people understand the content of any proposed agreement and associated information.</p>		
<p>2.4.6.4. In cases where affected people reject compensation offers that meet the requirements of this chapter and, as a result, expropriation or other legal procedures are initiated, the operating company shall explore opportunities to collaborate with the responsible government agency, and, if permitted by the agency, play an active role in resettlement planning, implementation, and monitoring to mitigate the risk of impoverishment of those affected people.</p>	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.
<p>2.4.6.5. Forced evictions shall not be carried except in accordance with law and international best practice, and the requirements of this chapter.</p>	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.
<p>2.4.6.6. The operating company shall take possession of acquired land and related assets only after compensation has been made available, and, where applicable, resettlement sites and moving allowances have been provided to the displaced people.</p>	—	Not relevant because this is an existing mine where resettlement occurred in the past, and there are no current proposals for changes to the mining operation, such as expansion projects, that may require resettlement. See item 2.4.1.1.
<p>2.4.6.7. The operating company shall document all transactions to acquire land rights, and all compensation measures and relocation activities.</p>	●	<p>The evidence, Resettlement and Compensation Operational Procedure (March 2020), a sample of photos of the cash transactions made in 2020, payment receipts for transactions made after 2021, as well as interviews with key staff, indicate that the company documented some transactions.</p> <p>The evidence does not include documented compensation transactions related to the first land acquisition, which were made in cash in accordance with the legislation in force at the time.</p>
<p>2.4.7.1. Critical. The operating company shall establish and implement procedures to monitor and evaluate the implementation of a Resettlement Action Plan (RAP) or Livelihood Restoration Plan (LRP), and take corrective action as necessary until the provisions of</p>	●	<p>The evidence, Resettlement Monitoring and Evaluation Procedure (September 2023), an internal document, summarizes the key actions, inputs, outputs, and responsibilities for all steps of the resettlement process - from census surveys to the completion of the resettlement - for the implementation of the Resettlement Action Plan (RAP) (2014) and Livelihood Restoration Plan (LRP) (August 2019), including monitoring and evaluation procedures. The procedure states that resettlement monitoring is to be carried out by an external, qualified consultant experienced in resettlement to ensure impacts are managed following the RAP, confirm that there</p>

the RAP/LRP and the objectives of this chapter have been met.

are no residual impacts, and, if necessary, plan corrective actions. RAP and LRP monitoring campaigns are outlined in the Executive Compensation Plan (November 2021) and the Livelihood Development Plan (June 2020). The LRP (August 2019) includes a complaint resolution indicating that the company implemented corrective actions when monitoring and evaluation demonstrated that resettlement and livelihood objectives were not being met, and an independent socio-economic study, developed by a competent third party to evaluate the socioeconomic situation of the resettled communities and to verify if the objectives of the RAP (2014) were met (Socioeconomic Study July 2022), indicates monitoring of economic displacement under the RAP and LRP is being carried out in all areas and is ongoing. In addition, a sample of monitoring reports from 2019 until 2021 issued by the Mozambique government indicates that the National Agency for Territorial Planning (DINOTER acronym in Portuguese) periodically monitors and supervises the resettlement process, as required by legislation.

According to some interviewees, including a sample of those resettled, consultations conducted by the company's employees and a third party do not always fulfill expectations related to corrective actions implemented, especially concerning the alternative land provided - which is the government's responsibility. Interviews with resettled community members and company key staff indicate that the majority of the one hundred and seventy-seven (177) resettled families from one community, out of a total of eight hundred (800) resettled families from the four resettled communities, are not satisfied with the resettled land provided.

2.4.7.2. Periodically, the operating company shall report to affected people and other relevant stakeholders on progress made toward full implementation of the RAP or LRP.



The evidence, a Public Consultation Report (May 2018), a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), Quarterly Sustainability Reports (January 2023), as well as interviews with key staff, indicate that the company has a resettlement program in place and that the company reports to affected people and other relevant stakeholders on progress made toward full implementation of the RAP.



Interviews with affected communities and potentially affected people indicate a lack of information regarding the Livelihood Restoration Plan (LRP) (August 2019).

2.4.7.3. Where resettlement is deemed to pose a risk of significant adverse social impacts the operating company:

- a. Shall retain competent professionals to verify the operating company's monitoring information and provide advice on additional steps needed to achieve compliance with the requirements of this chapter; and
- b. Shall commission a completion audit that:



Does not meet. While according to the Socioeconomic Study (July 2022) the economic resettlement imposed by the mine project did not pose a risk of significant adverse social impacts for the people and communities affected, according to some interviewees, including a sample of those resettled, some members of the Maputo community (Marica village) are dissatisfied with the land allocated to them, suggesting that the resettlement may have caused significant adverse social impacts. The evidence, Resolution of Marica Resettlement Complaint (February 2021), a commissioned study to evaluate the suitability of the Marica village resettlement fields, indicates that while most of the land assessed was suitable for agriculture, a small portion of land in a low area was not suitable for most crops produced by farmers in the area.

<ul style="list-style-type: none"> i. Occurs after the company deems that its RAP/LRP has been fully and successfully implemented; ii. Is carried out by external resettlement experts; iii. Includes, at a minimum, a review of the mitigation measures implemented by the operating company, a comparison of implementation outcomes against the requirements of this chapter, and a determination as to whether the commitments made in the RAP/LRP have been delivered and the monitoring process can therefore be terminated; and iv. Is made available to affected people and their advisors. 		<p>No evidence was provided by the company to confirm that they retain competent professionals to verify monitoring information and advice on steps to close gaps to achieve compliance (a) or that they have commissioned a completion audit (b).</p>
<p>2.4.8.1. Where land acquisition and resettlement are the responsibility of the government, the operating company shall collaborate with the responsible government agency, to the extent permitted by the agency, to achieve outcomes that are consistent with this chapter.</p>		<p>The government of Mozambique is responsible for finding and allocating alternative farmland for those households whose land has been acquired or damaged by projects such as the Balama Graphite mine, which has triggered economic displacement. According to Mozambique's Regulations on the Resettlement Process resulting from economic activities (Decree No 31/2012 of 8 August), although the land acquisition (mainly finding and allocating replacement land) is under the government authorities' responsibility, the resettlement process must be conducted by the company in close proximity to the government authorities. The evidence, Final Resettlement Action Plan (RAP) (September 2014), indicates that to follow the resettlement process, two different working groups were created, involving government, community and company representatives, as follows:</p> <ul style="list-style-type: none"> - Technical Working Group (with representatives of the affected population and district-level government representatives); - District Resettlement Commission (with representatives of the territorial planning sector, local administration sector, public works and housing, agriculture sector, provincial and district government). <p>RAP Chapter 6.3.3 (2014) indicates that the District Resettlement Commission was responsible for finding and allocating replacement land under the resettlement process and that the company collaborated in this process.</p>
<p>2.4.8.2. The operating company shall identify government resettlement and compensation measures. If these measures do not meet the relevant requirements of this chapter, the operating company shall prepare a supplemental plan that, together with the documents prepared by the responsible government</p>		<p>According to the Mozambique Regulations on the Resettlement Process, as outlined in Decree No. 31/2012 of 8 August, the responsibility of land acquisition, particularly in locating and assigning replacement land, is designated to governmental authorities. The evidence, Resettlement Action Plan (RAP) (2014) and Livelihood Restoration Plan (LRP) (August 2019), indicates the company has:</p> <ul style="list-style-type: none"> a. Identified the affected people and impacts; and

agency, shall address the relevant requirements of this chapter. The company shall include in its supplemental plan, at a minimum:

- a. Identification of affected people and impacts;
- b. A description of regulated activities, including the entitlements of physically and economically displaced people provided under applicable national laws and regulations;
- c. The supplemental measures to achieve the requirements of this chapter in a manner that is permitted by the responsible agency and an implementation schedule; and
- d. The financial and implementation responsibilities of the operating company in the execution of its supplemental plan.

b. detailed the regulated activities for economically displaced people provided under the Mozambique regulations on the resettlement process resulting from economic activities (2012).

No evidence was provided to confirm that the company has developed and implemented supplemental measures to achieve the requirements of this chapter (c and d).

Chapter 2.5—Emergency Preparedness and Response

Basis for rating




2.5.1.1. **Critical.** All operations related to the mining project shall have an emergency response plan conforming to the guidelines set forth in United Nations Environment Programme, Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining.



The evidence includes four documents related to emergency preparedness and response planning: (1) Emergency Response Plan (September 2023), (2) Tailings Storage Facility Emergency Response Plan (December 2023), (3) Emergency Management Plan (January 2024), and (4) Balama Credible Failure Modes (March 2022), and indicate the company has developed emergency risk scenarios for its operations and mine camp, as well as actions to be taken for those responding to emergencies. The emergency and preparedness plan for the tailings dam is a stand-alone document commensurate with the size of potential impacts (Tailings Storage Facility Emergency Response Plan September 2023). The evidence also includes an evaluation of the risks and hazards that may result in emergency situations affecting the external community. The main emergency response plan which includes tailings (September 2023) contains options for risk reduction and is supported by other emergency-related documents and internal procedures. The evidence, Consultation for the Emergency Management of the Balama Graphite Mine Tailings Dam (December 2022), indicates the company established a consultation group, with governmental and non-governmental institutions, as well as community participants, to provide inputs related to emergency prevention and management of the Tailings Storage Facility.

Communities potentially affected by a dam breach lack an emergency warning system and designated safe zones. Interviews with company key staff indicate this absence is attributed to the current project phase (Phase 0) which extends until 2026, wherein tailings are only deposited in Cell 1 and Cell 2 is under construction. In Phase 0, the risks related to direct impacts on populations are minimal according to the Dam Classification

		<p>(Balama Credible Failure Modes March 2022). According to company management, the emergency plans will be updated as tailings disposal progresses or every three years. Interviews with government officials and company workers, including emergency response personnel and contractors, indicate familiarity with the plans and the responsibilities of the mine site response team are in alignment with local government emergency support.</p> <p>The evidence does not include an integrated site-wide plan consistent with the UN APELL, including identification and participation of all potentially affected stakeholders and workers in plan development, and testing (i.e., drills). And, while communities in the area of influence may be identified, the agency of potentially affected individuals (i.e., their age, level of ability, economic status, access to communication, access to water, etc.), and potential vulnerabilities are not part of the assessment planning process. In addition, the evidence does not provide details to confirm the company has mapped out safe, properly signposted areas within communities, or has an instant warning system in place for emergencies.</p>
<p>2.5.1.2. The operating company shall:</p> <ol style="list-style-type: none"> Conduct an exercise to test the plan, with key participants describing how they would respond to a variety of different emergency scenarios, at least every 12 to 24 months; and Update the communications contacts of the emergency response plan at least annually. 	<p>●</p>	<p>The evidence, Emergency Exercise Reports (February 2023), Emergency Response Plan (January 2024) as well as interviews with a sample of key staff, workers and other stakeholders, indicate that:</p> <ol style="list-style-type: none"> the company involved workers, contractors and emergency personnel in emergency exercises that cover different areas of the mine and a variety of emergency situations, and that these drills are conducted at least every 12 months. The evidence also indicates that communications contacts of the emergency response plan for the tailings dam are updated at least annually. <p>The evidence does not include the details to confirm emergency response plan testing:</p> <ol style="list-style-type: none"> involved all stakeholders (i.e., affected community members who live in the self-rescue zone and secondary security zone areas of the dams), and a well-defined timetable of when exercises with communities will begin; emergency response plan communication contacts are integrated in only one document.
<p>2.5.2.1. Critical. The emergency response plan shall be developed in consultation with potentially affected communities and workers and/or workers' representatives, and the operating company shall incorporate their input into the emergency response plan, and include their participation in emergency response planning exercises.</p>	<p>●</p>	<p>The evidence, including:</p> <ul style="list-style-type: none"> - Emergency Response Plan (September 2023), - Emergency Exercise Reports (February 2023), - Tailings Storage Facility Emergency Response Plan (December 2023), - Twigg Communication 94 (September 2023), - Consultation for the Emergency Management of the Balama Graphite Mine Tailings Dam (December 2023), - 'Mine Open Door' event photos and presentation (August 2023), - Public Consultation Meeting Minutes - ERP – TSF (November 2023), and - Emergency Management Plan (January 2024) <p>indicates the company has consulted and included the participation of workers, workers representatives, and contractors in its emergency response planning exercises, besides indicating that the company offers</p>

		<p>awareness-raising activities to the affected communities to inform them about the impacts and possible risks of the operation. Interviews with key management staff indicate the company consults with institutional stakeholders as required by national legislation.</p> <p>The evidence does not include a database capable of readily and accessibly relating who the members of the communities potentially affected by dam breaches are, concerning their location and characterization, affected structures, and economic impact. Interviews with a sample of affected community members during the site visit indicated a partial awareness of the emergency action plan and/or how the company has taken their inputs into consideration.</p>
<p>2.5.3.1. All operations related to the mining project shall be covered by a public liability accident insurance policy that provides financial insurance for unplanned accidental events.</p>		<p>The evidence includes a policy (Holland Seguros, Policy SPLAUSD24275, July 2023) that is a public liability accident insurance, with financial insurance for unplanned accidental events that cover all Balama mining project operations over time, including the Tailings Storage Facility, the pipelines to Chipembe water dam and physical infrastructure at the dam. The evidence includes a confirmation of the amount of the insurance coverage at 185 million US dollars and that policy #AARAUSD22655 is valid from March 1, 2023, to March 1, 2024.</p>
<p>2.5.3.2. The public liability accident insurance shall cover unplanned accidental events such as flood damage, landslides, subsidence, mine waste facility failures, major spills of process solutions, leaking tanks, or others.</p>		<p>The evidence includes a policy (Holland Seguros, Policy SPLAUSD24275, July 2023) that is a public liability accident insurance, with financial insurance for unplanned accidental events that cover all Balama mining project operations over time. The Industrial Special Risks Insurance Policy Wording (June 2023) details the terms of the policy, indicating that it covers, at minimum, unplanned accidental events such as flood damage, subsidence, mine waste facility failures, major spills of process solutions, and leaking tanks. The evidence includes a confirmation of the amount of the insurance coverage at 185 million US dollars and that policy #AARAUSD22655 is valid from March 1, 2023, to March 1, 2024.</p> <p>The public liability accident insurance policy wording indicates that it does not cover landslides (p. 47).</p>
<p>2.5.3.3. The accident insurance coverage shall remain in force for as long as the operating company, or any successor, has legal responsibility for the property.</p>		<p>Not relevant. There has been no change of ownership since commissioning of the mine.</p>

Chapter 2.6—Planning and Financing
Reclamation and Closure

Basis for rating

2.6.1.1.	The operating company shall guarantee that the cost of implementing reclamation for exploration activities related to the mining development will be met by the company.	⊗	Does not meet. While the evidence, Bank Guarantee Issue Agreement (April 2023), indicates the company has financial surety instruments intended to cover estimated closure and post-closure costs (Mine Closure Plan December 2022, pp. 54-55), the evidence does not provide details to confirm that this is inclusive of reclamation for exploration activities.
2.6.1.2.	The operating company shall implement exploration-related reclamation in a timely manner.	⊗	Does not meet. The evidence, Internal Revegetation Report 2021 to June 2022 (June 2022), indicates that the company aims to revegetate disturbed areas promptly after mining in alignment with Mozambican environmental legislation. The evidence does not include exploration area observations, an assessment of exploration revegetation success, or other information to confirm implementation of revegetation and restoration is sufficient and timely.
2.6.1.3.	Any stakeholder complaints of incomplete or inadequate exploration reclamation, if not resolved by other means, shall be discussed and resolved through the operational-level grievance mechanism (see IRMA Chapter 1.4).	●	The evidence, including the Community and Local Stakeholder Complaints and Grievance Procedure (April 2020) and a review of the grievances and complaints raised from January 2022 until February 2023 (10 grievances in total, Complaints & Grievances Register, February 2023), indicates that the company has not received complaints regarding incomplete or inadequate exploration reclamation and that the company has processes in place to resolve such complaints if raised.
2.6.2.1	Critical. Prior to the commencement of mine construction activities the operating company shall prepare a reclamation and closure plan that is compatible with protection of human health and the environment, and demonstrates how affected areas will be returned to a stable landscape with an agreed post-mining end use.	●	The Mine Closure Program is managed by the Mozambique National Mining Institute (Decree 26/2004 of August 2004). The evidence, the site's Mine Closure Plan (last updated December 2022), indicates that the company has considered the protection of human health and the environment (guiding principles). The strategy foresees maintenance of infrastructure that could be usable to the communities, and the decommissioning of infrastructure that will no longer be useful after closure. Stabilization measures are planned for areas that could be dangerous such as open pits, waste rock dumps, and the TSF, after closure, as well as rehabilitation and revegetation of the landscape. The information provided identifies a future use of the mine's properties subject to change based upon current conditions or views of a consensus of people. The evidence does not include whether the post-closure land use is agreed to by stakeholders and affected parties, or during which part of the life cycle they will be consulted.
2.6.2.2	At a minimum, the reclamation and closure plan shall contain: a. A general statement of purpose; b. Site location and background Information;	◐	The evidence includes a number of plans and reports, among them: - Mine Closure Plan (Genesis, December 2022) - Environmental, Social and Health Impact Assessment (ESHIA, Part II - Final Report CES, February 2015) - Report on the Public Consultation Process (ESHIA, Part IV, CES, February 2015)

- c. A description of the entire facility, including individual site features;
- d. The role of the community in reviewing the reclamation and closure plan;
- e. Agreed-upon (after-ESIA) post-mining land use and facility use;
- f. Source and pathway characterization including geochemistry and hydrology to identify the potential discharge of pollutants during closure;
- g. Source mitigation program to prevent the degradation of water resources;
- h. Interim operations and maintenance, including process water management, water treatment, and mine site and waste site geotechnical stabilization;
- i. Plans for concurrent or progressive reclamation and revegetation, which should be employed wherever practicable;
- j. Earthwork:
 - i. Stabilization and final topography of the reclaimed mine lands;
 - ii. Storm water runoff/run-on management;
 - iii. Topsoil salvage to the maximum extent practicable;
 - iv. Topsoil storage in a manner that preserves its capability to support plant regeneration;
- k. Revegetation/Ecological Restoration:
 - Plant material selection, prioritizing native species as appropriate for the agreed post-mine land use;
 - v. Quantitative revegetation standards with clear measures to be implemented if these standards are not met within a specified time;
 - vi. A defined period, no longer than 10 years, when planned revegetation tasks shall be completed;
 - vii. Measures for control of noxious weeds;

- Environmental Pre-feasibility Study and Definition of Scope and Terms of Reference (Volume 1A, CES, July 2013)
- Stormwater Management Plan and Water and Salt Balance Report (Geostratum, July 2022)
- Numerical Groundwater Flow Modelling Report (Geostratum Water Management Consultants, March 2022)

The information indicates the company has considered or specified:

- a. A mine closure plan general audit scope for 2020-2024 (Mine Closure Plan, 2022)
- b. Site location and background information (Section 3, Mine Closure Plan, 2022);
- c. A description of the entire facility, including individual site features (Section 2.2, Mine Closure Plan, 2022)
- f. Source and pathway characterization including geochemistry and hydrology to identify the potential discharge of pollutants during closure (2022 Geostratum Water Reports)
- g. Source mitigation program to prevent the degradation of water resources (2022 Genesis Mine Closure Plan and Geostratum Water Reports)
- h. Interim operations and maintenance, including process water management, water treatment, and mine site and waste site geotechnical stabilization (2022 Genesis Mine Closure Plan and Geostratum Water Reports)
- i. Evidence of revegetation concurrent with operations
- j. Earthwork:
 - i. General stabilization and final topography of the reclaimed mine lands;
 - ii. Stormwater runoff/run-on management (2022 Geostratum Water Reports);
- k. Revegetation/Ecological Restoration;
 - i. General (native) plant material selection (Section 5, Genesis Mine Closure Plan 2022)
 - ii. Quantitative revegetation standards (Section 5, Genesis Mine Closure Plan 2022) with clear measures to be implemented if these standards are not met within a specified time;
 - iii. A defined period, no longer than 10 years, when planned revegetation tasks shall be completed (Section 5, Genesis Mine Closure Plan 2022);
 - iv. Mention that noxious weeds should be controlled
 - v. General activities to restore natural habitats (Section 5, Genesis Mine Closure Plan 2022);
- l. Hazardous materials disposal (Section 5, Genesis Mine Closure Plan 2022);

- viii. Planned activities to restore natural habitats (as well as biodiversity, ecosystem services and other conservation values as per Chapter 4.6);
- l. Hazardous materials disposal;
- m. Facility demolition and disposal, if not used for other purposes;
- n. Long-term maintenance;
- o. Post-closure monitoring plan;
- p. The role of the community in long-term monitoring and maintenance (if any); and
- q. A schedule for all activities indicated in the plan.

- m. Facility demolition and disposal, if not used for other purposes (Section 5, Genesis Mine Closure Plan 2022);
- n. Long-term maintenance (Section 5, Genesis Mine Closure Plan 2022);
- o. Post-closure monitoring plan (Section 5, Genesis Mine Closure Plan 2022);
- q. A schedule for all activities indicated in the plan (Section 5.12 Genesis Mine Closure Plan 2022).

The evidence does not include information to confirm:

- d. The role of the community in reviewing the reclamation and closure plan;
- e. Agreed-upon (after-ESHIA) post-mining land use and facility use;
- i. Plans for concurrent or progressive reclamation and revegetation;
- j. Earthwork relating to: (iii) topsoil salvage and (iv) storage;
- k. (i) species to be planted, (ii) measures taken if standards are not met within a specified time, (iv) controls of noxious weeds, and (v) specifics of planned activities to restore natural habitats;
- p. The role of the community in long-term monitoring and maintenance (if any).

- 2.6.2.3. The reclamation and closure plan shall include a detailed determination of the estimated costs of reclamation and closure, and post-closure, based on the assumption that reclamation and closure will be completed by a third party, using costs associated with the reclamation and closure plan as implemented by a regulatory agency. These costs shall include, at minimum:
- a. Mobilization/demobilization;
 - b. Engineering redesign, procurement, and construction management;
 - c. Earthwork;
 - d. Revegetation/Ecological Restoration;
 - e. Disposal of hazardous materials;
 - f. Facility demolition and disposal;
 - g. Holding costs that would be incurred by the regulatory agency following a bankruptcy in the

The evidence, Mine Closure Plan (Genesis December 2022), estimates costs of reclamation and closure and post-closure based upon 2019 rates and the assumption that reclamation and closure will be implemented by qualified contractors selected by the national agency. These costs are mentioned include:

- c. Earthwork;
- d. Revegetation/Ecological Restoration;
- f. Facility demolition and disposal;
- h. Post-closure costs for:
 - ii. Monitoring (10 years) and maintenance (5 years);





The evidence does not provide the details to confirm the company considered the following specific costs:

- a. Mobilization/demobilization;

<p>first two years before actual reclamation begins, including:</p> <ul style="list-style-type: none"> i. Interim process water and site management; and ii. Short-term water treatment; <p>h. Post-closure costs for:</p> <ul style="list-style-type: none"> i. Long-term water treatment; and ii. Long-term monitoring and maintenance; <p>i. Indirect Costs:</p> <ul style="list-style-type: none"> i. Mobilization/demobilization; ii. Engineering redesign, procurement and construction management; iii. Contractor overhead and profit; iv. Agency administration; v. Contingency; and <p>j. Either:</p> <ul style="list-style-type: none"> i. A multi-year inflation increase in the financial surety; or ii. An annual review and update of the financial surety. 		<ul style="list-style-type: none"> b. Engineering redesign, procurement, and construction management; e. Disposal of hazardous materials; g. Holding costs that would be incurred by the regulatory agency following a bankruptcy in the first two years before actual reclamation begins, including: <ul style="list-style-type: none"> i. Interim process water and site management; and ii. Short-term water treatment; h. Post-closure costs for: <ul style="list-style-type: none"> i. Long-term water treatment; and i. Indirect costs such as (i) - (v). j. Either: <ul style="list-style-type: none"> i. A multi-year inflation increase in the financial surety; or ii. An annual review and update of the financial surety.
<p>2.6.2.4. The operating company shall review and update the reclamation and closure plan and/or financial assurance when there is a significant change to the mine plan, but at least every 5 years, and at the request of stakeholders provide them with an interim reclamation progress report.</p>	●	<p>The evidence includes two mine closure plans, one from 2020 that was updated in 2022, indicating that the mine closure plan is reviewed every 2 years as required per the Mozambican legal requirement.</p>
<p>2.6.2.5. If not otherwise provided for through a regulatory process, prior to the commencement of the construction of the mine and prior to completing the final reclamation plan the operating company shall provide stakeholders with at least 60 days to comment on the reclamation plan. Additionally:</p> <ul style="list-style-type: none"> a. If necessary, the operating company shall provide resources for capacity building and training to enable meaningful stakeholder engagement; and b. Prior to completing the final reclamation plan, the operating company shall provide affected 	⊗	<p>Does not meet. The evidence does not provide detail to confirm that stakeholders had the opportunity to comment on the mine closure plan.</p>

	communities and interested stakeholders with the opportunity to propose independent experts to provide input to the operating company on the design and implementation of the plan and on the adequacy of the completion of reclamation activities prior to release of part or all of the financial surety.		
2.6.2.6.	Critical. The most recent version of the reclamation and mine closure plan, including the results of all reclamation and closure plan updates, shall be publicly available or available to stakeholders upon request.	●	The most recent mine closure plan (2022) is available publicly at https://www.twigg.co.mz/emiromental . Interviews with Company personnel indicate they provide the mine closure plan to interested parties upon request, and that the report is available for public consultation at the Mozambique National Mining Institute office.
2.6.3.1.	Open pits shall be partially or completely backfilled if: a. A pit lake is predicted to exceed the water quality criteria in IRMA Chapter 4.2; and b. The company and key stakeholders have agreed that backfilling would have socioeconomic and environmental benefits; and c. It is economically viable.	●	The company has plans to partially backfill one of the existing pits but the other two will remain open because it is not economically viable and not predicted to exceed the water quality criteria in IRMA Chapter 4.2.
2.6.3.2.	Underground mines shall be backfilled if: a. Subsidence is predicted on lands not owned by the mining company; and b. If the mining method allows.	—	No underground mining takes place.
2.6.4.1.	Critical. Financial surety instruments shall be in place for mine closure and post closure.	●	The evidence, Bank Guarantee Issue Agreement (April 2023), indicates the company has financial surety instruments intended to cover estimated closure and post-closure costs (Mine Closure Plan December 2022, pp. 54-55). Mine closure costs are updated every two (2) years to conform to national legislation (Decree no. 26/2004, of 20 August). Financial securities are provided in the form of bank guarantees to Mozambique's National Mining Institute and are annually updated as indicated by evidence provided for years 2017-2022.
2.6.4.2.	Financial surety instruments shall be:	⊗	Does not meet. The evidence does not include documentation to assess this item.

<p>2.6.4.3. Self-bonding or corporate guarantees shall not be used.</p>	●	Company does not use self-bonding or corporate guarantees.
<p>2.6.4.4. The results of all approved financial surety reviews, with the exception of confidential business information, shall be made available to stakeholders upon request.</p>	⊗	Does not meet. The evidence does not include documentation to assess this item or that it was available to stakeholders upon request.
<p>2.6.4.5. Prior to the commencement of the construction of the mine, prior to any renewal of the financial surety, and prior to final release of the financial surety the operating company shall provide the public with at least 60 days to comment on the adequacy of the financial surety. Additionally:</p> <p>a. Where the company deems certain financial surety information to be confidential business information it shall make the data available to the IRMA auditor and satisfy the auditor that the grounds for confidentiality are reasonable. If certain information is not included for confidential reasons, the fact that the information has been withheld shall be disclosed along with the financial surety.</p> <p>b. If necessary, the operating company shall provide resources for capacity building and training to enable meaningful stakeholder engagement; and</p>	⊗	Does not meet. The evidence does not provide detail to confirm that stakeholders had the opportunity to comment on the adequacy of the financial surety.

<p>c. Prior to the beginning of closure reclamation activities the operating company shall provide affected communities and interested stakeholders with the opportunity to propose independent experts to review the financial surety.</p> <p>2.6.4.6. The terms of the financial surety shall guarantee that the surety is not released until:</p> <p>a. Revegetation/ecological restoration and reclamation of mine and waste sites and have been shown to be effective and stable; and</p> <p>b. Public comment has been taken before partial or final surety release.</p>		<p>Does not meet. The evidence, Bank Guarantee Issue Agreement (April 2023) does not include details to confirm that it shall only be released if the criteria outlined in sub-requirement (a) and (b) are met.</p>
<p>2.6.5.1. Monitoring of closed mine facilities for geotechnical stability and routine maintenance is required in post-closure. The reclamation and closure plan shall include specifications for the post-closure monitoring and maintenance of all mine facilities, including, but not limited to:</p> <p>a. Inspection of surface (open pits) and underground mine workings;</p> <p>b. Inspection and maintenance of mine waste facilities including effectiveness of cover and any seepage capture systems; and</p> <p>c. Mechanisms for contingency and response planning and implementation.</p>		<p>The Mine Closure Plan (December 2022) in Chapter 5.14 Post-Execution Maintenance and Monitoring indicates the company plans to monitor closed mine facilities for geotechnical stability and undertake regular maintenance that complies with (a) to (c).</p>
<p>2.6.5.2. Monitoring locations for surface and groundwater shall be sufficient to detect off-site contamination from all closed mine facilities, as well as at the points of compliance.</p>		<p>The Mine Closure Plan (December 2022) indicates that monitoring is an element considered during closure and post-closure.</p> <p>The evidence does not provide details, such as a map of post-closure monitoring points, groundwater and surface water flow, or other information sufficient to confirm off-site detection of potential contamination.</p>
<p>2.6.5.3. Water quality monitoring locations shall be sampled until IRMA Water Quality Criteria have been met for at least 5 years, with a minimum of 25 years of post-</p>		<p>The closure plan indicates that monitoring of surface and groundwater in remediated areas will be performed every six months for a period of 10 years after closure, or until it can be concluded that water quality conforms to legislative standards (surface water discharge from dams and pits, and 5% of baseline for groundwater). The</p>

		<p>closure data. The 25-year minimum may be waived if ongoing water quality monitoring demonstrates and modeling predicts that no contamination of surface or ground waters is occurring or will occur, respectively.</p> <p>parameters to be monitored are those currently being monitored by TWIGG for both groundwater and surface water.</p> <p>The closure plan (Section 5.1.2 Contaminated Site Remediation), does not include monitoring of contamination of water such as erosion and sediment control in surface water or acid drainage (i.e., waste rock, pits) in groundwater, or include IRMA Water Quality Standards as a measure of reclamation success.</p>
<p>2.6.5.4. Biologic monitoring shall be included in post-closure monitoring if required to ensure there is no ongoing post-closure damage to aquatic and terrestrial resources.</p>	<p>⊗</p>	<p>Does not meet. The closure plan (Section 5.14.2) lists monitoring of biological flora and fauna as a monitoring item on p. 47, and specifies for vegetation, monitoring should be performed every two years after closure to verify the progress of vegetation communities in rehabilitated areas. A total of four vegetation monitoring campaigns will be conducted and will include the following assessments:</p> <ul style="list-style-type: none"> - Abundance of species and basal coverage; - Estimated percentage of land cover for the herbaceous layer; and - Plant species diversity index within the rehabilitated plant community. On p. 39, vegetation success indicators mention biodiversity indexes. <p>The evidence is not sufficient to confirm biologic monitoring intended to prevent damage to aquatic and terrestrial resources, or provisioning ecological services, are considered.</p>
<p>2.6.5.5. If a pit lake is present, pit lake water quality shall be monitored, and if potentially harmful to people, wildlife, livestock, birds, or agricultural uses, adequate measures shall be taken to protect these organisms.</p>	<p>⊗</p>	<p>Does not meet. The closure plan indicates that closure and reclamation may include pit lakes, and includes a general intention that measures will be taken prevent any people, or animal from falling into the pit or drown, and monitoring of water quality in general.</p> <p>The post-closure monitoring plan does not include pit lake water quality testing in its post-closure monitoring plan or provisions for protecting people, wildlife, livestock, birds, or agricultural uses if pit lake water quality is predicted to pose a risk to these organisms. Refer to IRMA Notes for 2.6.5.5.</p>
<p>2.6.6.1. Long-term water treatment shall not take place unless:</p> <ol style="list-style-type: none"> a. All practicable efforts to implement best practice water and waste management methods to avoid long-term treatment have been made; and b. The operating company funds an engineering and risk assessment that: <ol style="list-style-type: none"> i. Is carried out by an independent third-party; ii. Evaluates the environmental and financial advantages/disadvantages and risks of long- 	<p>—</p>	<p>Not relevant. The mine closure plan does not indicate that long-term water treatment is necessary.</p>

	<p>term water treatment versus other mitigation methods;</p> <ul style="list-style-type: none"> iii. Incorporates data on the failure rates of the proposed mitigation measures and water treatment mechanisms; iv. Determines that the contaminated water to be treated perpetually poses no significant risk to human health or to the livelihoods of communities if the discharge were to go untreated; and v. Includes consultations with stakeholders and their technical representatives during the design of the study, and discussion of findings with affected communities prior to mine construction or expansion. 		
2.6.6.2	<p>If a decision is made to proceed with long-term water treatment, the operating company shall take all practicable efforts to minimize the volume of water to be treated.</p>	—	Not relevant. The evidence does not indicate that a decision in long-term water treatment has yet been made.
2.6.7.1.	<p>The operating company shall provide sufficient financial surety for all long-term activities, including: mine closure and post-closure site monitoring, maintenance, and water treatment operations. Financial assurance shall guarantee that funds will be available, irrespective of the operating company's finances at the time of mine closure or bankruptcy.</p>	●	<p>The evidence, Bank Guarantee Issue Agreement (April 2023) indicates the company has financial surety instruments in place to cover closure and post-closure costs estimated in 2019 rates and submitted Mine Closure Plan (December 2022, pp. 48-53). It also indicates that this bank guarantee is available for covering costs even if the company goes bankrupt.</p> <p>The evidence is not sufficient to confirm costs consider all elements to meet the intent of this item. Refer to 2.6.2.3 and related criteria.</p>
2.6.7.2.	<p>If long-term water treatment is required post-closure:</p> <ul style="list-style-type: none"> a. The water treatment cost component of the post-closure financial surety shall be calculated conservatively, and cost calculations based on treatment technology proven to be effective under similar climatic conditions and at a similar scale as the proposed operation; and b. When mine construction commences, or whenever the commitment for long-term water treatment is 	—	The evidence does not indicate that a decision in long-term water treatment has yet been made.

initiated, sufficient funding shall be established in full for long-term water treatment and for conducting post-closure monitoring and maintenance for as long as IRMA Water Quality Criteria are predicted to be exceeded.

2.6.7.3. The post-closure financial surety shall be recalculated and reviewed by an independent analyst at the same time as the reclamation financial surety.

The mine closure plan including the closure costs are done and calculated by an independent third-party (Genesis). The calculated costs are the basis for the amount issued in the bank guarantee.

2.6.7.4. Long-term Net Present Value (NPV) calculations utilized to estimate the value of any financial surety shall use conservative assumptions, including:

- a. A real interest rate of 3% or less; unless the entity holding the financial surety can document that a higher long-term real interest rate can be achieved; and
- b. NPV calculation will be carried out until the difference in the NPV between the last two years in the calculations is US \$10.00 or less (or its equivalent in other currencies).

Does not meet. The company indicated an intent to use conservative assumptions for the cost calculations in the next update.

Principle 3: Social Responsibility

Chapter 3.1—Fair Labor and Terms of Work

Basis for rating

3.1.1.1. The operating company shall adopt and implement human resources policies and procedures applicable to the mining project that set out its approach to managing workers in a manner that is consistent with the requirements of this chapter and national (i.e., host country) law.

The evidence, a number of program documents covering various human resources management aspects such as the hiring process (Recruitment Procedure May 2020), remuneration policy (People Management Policy May 2020), career and competencies (Learning and Development March 2020), Discipline Management (September 2018), procedures, indicate that the company has documented policies and procedures consistent with national legislation (Mozambique Labor Law 13/2023) and the intent of the Chapter. Implementation by qualified human resources managers follows well-defined compliance steps. Interviews with workers at all levels of the organization, including workers representatives, indicate awareness of these company policies and procedures.

3.1.2.1. **Critical.** The operating company shall respect the rights of workers to freedom of association and collective bargaining.

The evidence, a Company Level Agreement (CLA) signed by Twigg and workers' representatives, and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, indicates that the company has a freedom of association policy (Chapter 9 - Freedom of Association, p.18) according to national legislation allowing employees to exercise their rights. Interviews with key staff, including human resources managers, indicate that all new employees must familiarize themselves with the provisions of this agreement and attend training at least annually. An attendance register for the annual training was provided as evidence of the policy's implementation (CLA Workshop Attendance Register, April 2023). The company-sponsored annual workshop attendance register (April 2023) indicates 43 workers participated in the most recent training, and this is supported by interviews, among them employees, contractors and workers representatives, who indicate that the company supports their freedom of association.

The evidence includes fourteen (14) final reports of formal disciplinary processes (November 2022) relating to a worker strike organized by non-unionized workers, who were eligible to join a union but elected not to. The strike was determined by the government to be illegal under national legislation in 2022. Specifically, the strike was deemed illegal because it did not follow the principles and procedures applicable to the exercise of the freedom to strike as established in articles 207 and 211 of the Labor Law in force at the time (Law No. 23/2007). Article 207 pertains to the absence of prior notice at least five days before the commencement of the strike, while Article 211 relates to the effects of an unlawful strike, particularly due to violations of procedures for calling a strike and the use of violence against persons or property. The disciplinary reports for fourteen (14) workers who actively participated in the strike (November 2022) document the participation of workers' representatives and government officials in the strike review process through formal procedures that comply with national legislation. These reports provide information about the post-strike dismissal practices and the related disciplinary processes that were conducted in alignment with both national legislation and the company's policies and procedures. This alignment is supported by interviews with a sample of key staff and worker representatives. Additionally, it is noted that the company was already discussing the same concerns raised by the strikers with the union during the negotiations for the renewal of the Company Level Agreement.

While investigations, reports, and legislation indicate the strike was illegal and dismissal practices warranted, and this is confirmed in documents and in most interviews, a sample of some interviewees, among them community members with knowledge of the strike, either directly or indirectly, report that worker rights to freedom of association in this instance were not upheld. The evidence does not include further information to confirm such as an assessment of the company's freedom of association policy effectiveness.

<p>3.1.2.2. Where national law substantially restricts workers' organizations, the operating company shall not restrict workers from developing alternative mechanisms to express their grievances and protect their rights regarding working conditions and terms of employment. The operating company shall not seek to influence or control these mechanisms.</p>	—	<p>Not relevant. The country does not restrict workers from forming workers' organizations.</p>
<p>3.1.2.3. The operating company shall engage with workers' representatives and workers' organizations and provide them with information needed for meaningful negotiation in a timely manner.</p>	●	<p>The evidence, a sample of three (3) meeting minutes (2021 and 2022), a Company Level Agreement (CLA) signed by Twigg, workers' representatives and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, and interviews with a sample of key staff and worker delegates, indicate that the company engages with worker representatives on a regular basis and in good faith.</p> <p>Some interviewees, including contractors, report that receiving information from the company regarding the terms of the CLA in a timely manner is needed for more meaningful negotiations.</p>
<p>3.1.2.4. Workers' representatives shall have access to facilities needed to carry out their functions in the workplace. This includes access to designated non-work areas during organizing efforts for the purposes of communicating with workers, as well as accommodations for workers' representatives at fly-in/fly-out or other remotely located mine sites, where relevant.</p>	●	<p>The evidence, a Company Level Agreement (CLA) signed by Twigg and workers' representatives, and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, as well as interviews with a sample of workers, including workers' representatives, indicates that the company provides workers' representatives with access to a facility needed to carry out their functions in the workplace (Chapter 9 - Freedom of Association, p.18), and this building for union offices (workers and contractors) was observed at the time of the site visit, as well as accommodations for workers' representatives.</p>
<p>3.1.2.5. The operating company shall remain neutral in any legitimate unionizing or worker-organizing effort; shall not produce or distribute material meant to disparage legitimate trade unions; shall not establish or support a company union for the purpose of undermining legitimate worker representation; and shall not impose sanctions on workers' organizations participating in a legal strike.</p>	●	<p>The evidence, Syrah Human Rights Policy (September 2023) which states that the company respects and supports the rights of all employees and contractors to freedom of association and collective bargaining (p. 1) and the signed Company Level Agreement (December 2022, Chapter 9 - Freedom of Association, p.18), indicates that the company encourages freedom of association among workers and maintains a neutral stance. Interviews with a sample of workers and key staff and inquiries related to potential grievances indicate that the company does not interfere with legitimate workers' organizing efforts.</p>

<p>3.1.2.6. Upon employment, the operating company shall:</p> <ol style="list-style-type: none"> Inform workers of their rights under national labor and employment law; Inform workers that they are free to join a workers' organization of their choosing without any negative consequences or retaliation from the operating company; If relevant, inform workers of their rights under any applicable collective agreement; and If relevant, provide workers with a copy of the collective bargaining agreement and the contact information for the appropriate trade union (or workers' organization) representative. 		<p>The Company Level Agreement (December 2022, Chapter 4 - Employer Obligations and Employee Guarantees, p.5), the Syrah Code of Conduct (September 2022), provided upon employment, and the template of a Union Registration Form (no date), as well as interviews with a sample of key staff, worker delegates and workers, indicate that the company informs workers:</p> <ol style="list-style-type: none"> of their rights under national labor and employment law; that they are free to join a workers' organization of their choosing without any negative consequences or retaliation from the operating company; of their rights under the collective agreement; and a copy of the valid collective bargaining agreement is available on the company intranet and the contact information for the workers' organization is included in the Union Registration Form.
<p>3.1.2.7. The operating company shall not discriminate or retaliate against workers who participate, or seek to participate, in legitimate workers' organizations or in a legal strike.</p>		<p>The evidence, a Company Level Agreement (CLA) signed by Twigg and workers' representatives, and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, presents the company's intention to respect worker rights of freedom of association (Chapter 9 - Freedom of Association, p.18 and Chapter 40 - Right to Strike, p.20) according to national legislation, and this is supported by internal human resources policies, procedures, and postings in areas frequented by workers at the mine.</p> <p>Interviews with a sample of workers, among them workers (organized/non-members), workers reps, contractors, department managers and human resources staff, indicate that the company has not discouraged workers from electing workers' representatives, joining workers' organizations or bargaining collectively. While some interviewees, including a sample of former employees, reported that the company imposed sanctions on workers who participated in the workers' strike that took place in 2022, the disciplinary reports (November 2022) for fourteen (14) workers who actively participated in the strike indicate the post-strike dismissal practices and the related disciplinary processes were conducted in alignment with both national legislation and the company's policies and procedures.</p> <p>The evidence does not include an assessment of operating-level practices that lead to or could potentially lead to discrimination or retaliation against workers who participated, or sought to participate, in legitimate workers' organizations.</p>
<p>3.1.2.8. Where the operating company is a party to a collective bargaining agreement with a workers' organization, the terms of the agreement shall be respected. Where such an agreement does not exist, or an agreement does not address specific</p>		<p>The Company Level Agreement (CLA) signed by Twigg and workers' representatives, and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022 indicates that the company agrees with and encourages a freedom of association policy (Chapter 9, p.18 and Chapter 40, p. 20). The evidence does not include any grievances that indicate that the company does not respect the collective bargaining agreement terms.</p>

<p>requirements in this chapter, the operating company shall meet the relevant IRMA requirements.</p>		
<p>3.1.2.9. The operating company shall not make use of short-term contracts or other measures to undermine a collective bargaining agreement or worker organizing effort, or to avoid or reduce obligations to workers under applicable labor and social security laws and regulations.</p>	●	<p>The evidence, the Company Level Agreement (CLA) signed by Twigg, workers' representatives and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, as well as interviews with workers' representatives, indicate that the company utilizes written contracts with employees with unlimited terms (p.7). No evidence (i.e., grievances or other external actions, worker interviews) implied that the company has utilized short-term contracts or other measures to undermine a collective bargaining agreement or worker organizing effort, or that results in a decrease in obligations to workers under applicable labor and social security laws and regulations.</p>
<p>3.1.2.10 The operating company shall not hire replacement workers in order to prevent, undermine or break up a legal strike, support a lockout, or avoid negotiating in good faith. The company may, however, hire replacement workers to ensure that critical maintenance, health and safety, and environmental control measures are maintained during a legal strike.</p>	●	<p>The evidence, a Company Level Agreement (CLA) signed by Twigg and workers' representatives, and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, along with a Discipline Management Procedure (September 2018) and interviews with a sample of workers, indicates that the company operates according to national legislation and has processes in place to ensure labor agreements are respected. Interviews with a sample of workers, including their representatives, and key staff, do not recall an incident where the company hired replacement workers to prevent, undermine, or break up a legal strike or support a lockout. A sample of former workers interviewed reported their belief that they were dismissed after participating in a workers' strike in 2022 (refer to finding 3.1.2.7). Follow-up auditor inquiries and a review of documentation, including the disciplinary reports for fourteen (14) workers who actively participated in the strike (November 2022) document the participation of workers' representatives and government officials in the strike review process through formal procedures that comply with national legislation. These reports provide information about the post-strike dismissal practices and the related disciplinary processes that were conducted in alignment with both national legislation and the company's policies and procedures. This alignment is supported by interviews with a sample of key staff and worker representatives, as well as recruitment and dismissal records from July 2022 to December 2023, employee records from July 2022 to December 2023 and payroll records from July 2022 to December 2023. The evidence does not indicate that the company hires replacement workers to prevent, undermine, or break up a legal strike, support a lockout, or avoid negotiating in good faith.</p>
<p>3.1.3.1. The operating company shall base employment relationships on the principles of equal opportunity and fair treatment, and shall not discriminate or make employment decisions on the basis of personal characteristics unrelated to inherent job requirements.</p>	●	<p>The evidence, Human Rights Policy (September 2023), Diversity & Inclusion Policy (November 2023), Recruitment Procedure (May 2020) and the Local Employment Management Plan (March 2016), indicates that the company intends to employ workers based on principles of equal opportunity and fair treatment, without bias based on personal characteristics unrelated to inherent job requirements.</p> <p>Interviews with human resources managers indicate hiring practices and advancement relate to operational goals and selection based upon job descriptions, a candidate's qualifications for the job, and that job placement or dismissal are administered through formal procedures that include due diligence (i.e., signing off of others, in alignment with department needs, goals and growth or succession plans). Interviews with a sample of workers,</p>

		<p>particularly members of affected communities, reveal a belief that there are preferential hiring and advancement practices favoring non-local workers, though this has not been confirmed. According to the Recruitment Procedure (May 2020, p. 7), there is a high level of scrutiny for hiring relatives of non-local workers, whereas, for the local workforce, such practices are often allowed.</p> <p>The evidence does not include hiring records from recruitment processes, job descriptions, wage rates, employment contracts, payroll, professional development, training, performance reviews, promotion records, grievance or termination records, or hiring practices relating to local populations (vs. Pemba, for example), or an assessment of operating-level practices that lead to or could potentially lead to discrimination. Refer to IRMA Notes for 3.1.3.1.</p>
<p>3.1.3.2 Exceptions to 3.1.3.1 may be made with respect to hiring and recruitment in the case of:</p> <ul style="list-style-type: none"> a. Targets or quotas mandated by law; b. Targets developed through local agreements for the employment of local residents, Indigenous peoples, or individuals who have been historically disadvantaged; or c. Operating company targets for the employment of local residents, Indigenous peoples, or individuals who have been historically disadvantaged that are expressed in publicly accessible policies with explicit goals and justification for such targets. 		<p>The Local Employment Management Plan (March 2016) and the Recruitment Procedure (May 2020) indicate that local workers, those hired from the affected communities, have:</p> <ul style="list-style-type: none"> c. company targets for the employment of local residents with related company recruitment processes, and this is confirmed in interviews with key staff. The company's annual and quarterly Sustainability Reports, publicly available on the company's website, indicate the company has targets for local employment and female employment and outline the goals and actual data, as well as a rationale for these commitments. <p>The evidence does not include information to confirm the relevancy of targets or quotas:</p> <ul style="list-style-type: none"> a. mandated by law, or b. developed through local agreements for the employment of local residents, indigenous peoples, or individuals who have been historically disadvantaged.
<p>3.1.3.3 Critical. The operating company shall take measures to prevent and address harassment, intimidation, and/or exploitation, especially in regard to female workers.</p>		<p>The evidence, including corporate policies, the code of conduct, and employee training records, indicate that the company has documented measures to prevent and address harassment, intimidation, and/or exploitation, as follows</p> <ul style="list-style-type: none"> - Syrah Code of Conduct (September 2022): expresses the company's commitment to promoting and supporting a culture of integrity, leadership, corporate compliance, and responsible corporate governance. - Workplace Behaviour Policy (July 2023): explicitly condemns any form of bullying, sexual harassment, and other forms of inappropriate behavior such as discrimination based on race, sex, age, religion, etc., unconscious bias, victimization and retaliation, and vilification. - Whistleblower Policy (January 2023), which includes information on how an employee can contact a Whistleblower officer and indicates that allegations are treated with confidentiality and that those who raise concerns are not subject to detrimental treatment. - Records of new employee training that includes the policies on behavior in the workplace and diversity and inclusion, as well as on workplace behavior, diversity, and inclusion, as training topics (July 2023). - Records of a site-wide campaign to remind employees of the existing policies on workplace behavior, which was part of a mitigation action after a sexual harassment grievance was raised by a female contract worker (July 2023).

		<p>2022).</p> <p>Interviews with a sample of employees and contractors confirm participation in workplace training, an awareness of the harassment and discrimination policies and procedures, and this feedback includes women workers. Interviews with key staff relating to operational-level grievance mechanisms in view of a database on their computer screen indicate that intimidation and harassment are not believed to be prevalent in the workplace.</p> <p>While the company has developed policies and procedures, and workers indicate awareness of the importance of anti-harassment and intimidation programs, the evidence does not include the details to confirm that workers know how to raise an anonymous grievance related to harassment or intimidation (except through their supervisor), if needed.</p>
<p>3.1.4.1. Prior to implementing any collective dismissals, the operating company shall carry out an analysis of alternatives to retrenchment. If the analysis does not identify viable alternatives to retrenchment, a retrenchment plan shall be developed in consultation with workers, their organizations, and, where appropriate, the government. The plan shall be based on the principle of non-discrimination, and be implemented to reduce the adverse impacts of retrenchment on workers.</p>	<p>ⓘ</p>	<p>A collective dismissal of eighty-three (83) workers was organized by the company in October 2021 due to a replacement of the camp management support service provider. The evidence, including a letter sent by the site manager to the provincial secretary of the mine workers' union in Mozambique, a Demobilization & Transition Plan (August 2021) and a Personnel Transition Plan (November 2021), indicate the company has consulted workers and their organizations, and that a plan based on the principle of non-discrimination to reduce the adverse impacts of retrenchment on workers was developed, and this was confirmed in interviews with workers' representatives.</p> <p>The evidence does not provide details to confirm the company carried out an analysis of alternatives to retrenchment. The evidence, Bureau Veritas ISO 45001/14001 audit report (June 2021), indicates that in 2020 there was a significant retrenchment of around four hundred (400) workers and the evidence does not include information to confirm an analysis of alternatives to retrenchment was made prior to the collective dismissal.</p>
<p>3.1.4.2. The operating company shall ensure that all workers receive notice of dismissal and severance payments mandated by law and collective agreements in a timely manner. All outstanding back pay, social security benefits, and pension contributions and benefits shall be paid on or before termination of the working relationship, or in accordance with a timeline agreed through a collective agreement. Payments shall be made directly to workers, or to appropriate institutions for the benefit of workers. Where payments are made for the benefit of workers, they shall be provided with evidence of such payments.</p>	<p>⊗</p>	<p>Does not meet.</p>

<p>3.1.5.1. Critical. The operating company shall provide a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns. The mechanism, at minimum:</p> <ul style="list-style-type: none"> a. Shall involve an appropriate level of management and address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned, without any retribution; b. Shall allow for anonymous complaints to be raised and addressed; c. Shall allow workers' representatives to be present, if requested by the aggrieved worker; and d. Shall not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements. 		<p>The evidence, Discipline Management Procedure (September 2018) and Whistleblower Policy (January 2023), as well as a sample of key staff and workers, indicates that the company:</p> <ul style="list-style-type: none"> a. involves an appropriate level of management (such as immediate managers, human resources representatives, internal union representatives, general managers, or whistleblower officers), addresses concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned (Procedure 2018, pp. 10-12), without any retribution (Policy 2023, pp. 4-5); b. allows for anonymous complaints to be raised and addressed (Policy 2023, pp. 4-5); c. allows the aggrieved workers to have representatives present if requested (Procedure 2018, p.10); and d. does not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements (Procedure 2018, p. 12). <p>Interviews with key management staff indicate that the company put in place a hotline to an external (Mozambique) law firm to report grievances (in Portuguese) in February 2023.</p> <p>While interviews with company management and workers' representatives, along with a sample of training records for workers and contractors (Training Tracker, January 2024) confirm that employees receive annual training on the grievance mechanism, some workers interviewed, both employees and contractors, indicate they are unaware of how to raise a grievance through the external hotline or other means anonymously.</p>
<p>3.1.5.2. The operating company shall inform the workers of the grievance mechanism at the time of recruitment and make it easily accessible to them.</p>		<p>The evidence, Discipline Management Procedure (September 2018) and Whistleblower Policy (January 2023), along with training records for workers and contractors (Training Tracker, January 2024), indicates that the company has developed a grievance procedure. Interviews with a sample of workers, including employees and contractors, indicated a low awareness of how to raise a grievance (besides to their supervisor) and of the existence of a Portuguese speaking attended hotline with a direct link to an external law firm from Mozambique, implemented since February 2023.</p> <p>The evidence does not include the process for how workers are informed of the grievance mechanism at the time of recruitment or how it is made easily accessible.</p>
<p>3.1.5.3. The operating company shall maintain a record of grievances and the company's actions taken to respond to and/or resolve the issues.</p>		<p>The evidence includes interviews with key staff relating to operational-level grievance mechanisms in view of a database on their computer screen, along with examples of three investigations undertaken during 2023 with their remedy, indicating that the company has a system for partially tracking grievances, and documents some actions taken to respond to and resolve the issues.</p> <p>The information does not include the details to confirm that investigations, and remedies or resolutions, are recorded for every grievance, or that they are undertaken in a timely manner.</p>


3.1.6.1. The operating company shall have documented disciplinary procedures (or their equivalent) that are made available to all workers.	●	The evidence, Discipline Management Procedure (September 2021) and Syrah Code of Conduct (September 2022), indicates that the company has documented disciplinary procedures with training available to all workers, and this is confirmed in a sample of worker interviews.
3.1.6.2. The operating company shall not use corporal punishment, harsh or degrading treatment, sexual or physical harassment, mental, physical or verbal abuse, coercion or intimidation of workers during disciplinary actions.	●	<p>The employee handbook, Syrah Code of Conduct (September 2022), and the Discipline Management Procedure (September 2021), indicate that the company's procedure does not allow the use of harsh or degrading treatment, sexual or physical harassment, mental, physical or verbal abuse, coercion, or intimidation of workers during disciplinary actions. The evidence, Disciplinary Processes Tracker 2022 (January 2023), the two latest documented disciplinary notices (May and December 2023) and records of a grievance that led to disciplinary process (July 2022), including the investigation undertaken and resolution, indicates that the company monitors, investigates and implement remedies and/or resolutions to disciplinary actions, and they are consistent with this chapter. Interviews with a sample of workers and contractors indicate the company does not use corporal punishment of workers during disciplinary actions.</p> <p>A sample of contractors interviewed reported instances of verbal abuse occurring during working hours, with the perpetrators being contractors' managers. The evidence does not include a record of training on disciplinary actions and procedures for contract workers and management, nor does it include an assessment to confirm that contractors do not engage in harassment, verbal abuse, or intimidation of workers during disciplinary actions.</p>
3.1.6.3. The operating company shall keep records of all disciplinary actions taken.	●	The evidence, Disciplinary Processes Tracker 2022 (January 2023), the two latest documented disciplinary notices (May and December 2023) and records of a grievance that led to disciplinary process (July 2022), including the investigation undertaken and resolution, indicates all disciplinary actions including any outcomes of the investigation are recorded. Interviews with key staff and a sample of workers indicate disciplinary actions taken are investigated and documented.
3.1.7.1. The operating company shall document the ages of all workers.	●	The evidence, an Employee Database (April 2023) which includes the age record of all currently hired employees, as well as their age at the date of hire, indicates that the company documents workers' age on the hiring day and government-issued identification documents. A sample of unannounced internal annual audit reports from contracted companies (2022 and 2023), indicate the company tracks and verifies that contractors do not employ persons under the age of 18 years old. The company indicated that candidates must present a national identification document showing their personal information before employment, and this extends to visitors. Interviews with a sample of key personnel and workers, among them contractors, indicate the company has procedures to document the ages of all workers following the company's data protection policies.

<p>3.1.7.2. Critical. Children (i.e., persons under the age of 18) shall not be hired to do hazardous work (e.g., working underground, or where there is exposure to hazardous substances).</p>	●	<p>The minimum legal working age outlined by Mozambican law is 15 with restrictions. The evidence, Syrah Human Rights Policy (September 2023), states that all site-based operations employees are over the age of 18. Interviews with a sample of key staff (i.e., security, HR, medical providers, and managers from a number of departments) as well as workers, among them contractors, indicate that the company considers workers' age in employment decisions and that this consideration extends to employees, contractors, and visitors. During the onsite audit, there was no sign that minors were working at the site, including hazardous work (refer to 3.1.7.3). Staff, including workers, indicate age verification is at several levels such as medical (pre-hire fit-for-duty), upon arrival onsite (by security), through HR, and also at the time of initial, onsite safety training. Interviews with the human resources and medical staff indicate that they verify age during the recruitment process, onboarding, and health and safety orientation per the company's health and safety procedures. An Employee Database (April 2023) which includes the age record of all currently hired employees and their age at the date of hire, as well as a sample of unannounced internal annual audit reports from contracted companies (2022 and 2023) which include contractors' age assessment were provided as evidence.</p>
<p>3.1.7.3. Critical. The minimum age for non-hazardous work shall be 15, or the minimum age outlined in national law, whichever is higher.</p>	●	<p>The minimum legal working age outlined by Mozambican law is 15 with restrictions. Interviews with a sample of key staff (i.e., security, HR, medical providers, and managers from a number of departments) as well as workers, among them contractors, indicate that the company considers workers' age in employment decisions and that this consideration extends to employees, contractors, and visitors. During the onsite audit, there was no sign that minors were working at site, including hazardous work. Staff, including workers, indicate age verification is at several levels such as medical (pre-hire fit-for-duty), upon arrival onsite (by security), through HR, and also at the time of initial, onsite safety training. Interviews with the human resources and medical staff indicate that they verify age during the recruitment process, onboarding, and health and safety orientation per the company's health and safety procedures. An Employee Database (April 2023) which includes the age record of all currently hired employees and their age at the date of hire, as well as a sample of unannounced internal annual audit reports from contracted companies (2022 and 2023) which include contractors age assessment were provided as evidence.</p>
<p>3.1.7.4. When a child is legally performing non-hazardous work, the company shall assess and minimize the risks to their physical or mental health, and ensure that regular monitoring of the child's health, working conditions and hours of work occurs by the national labor authority, or if that is not possible, by the company itself.</p>	—	<p>Not relevant. The company does not employ children under the age of 18. On-site observations and interviews confirmed this.</p>
<p>3.1.7.5. If the operating company discovers that a child under the minimum age outlined in 3.1.7.2 and 3.1.7.3 is performing hazardous or non-hazardous work:</p>	—	<p>Not relevant. The company does not employ children under the age of 18. On-site observations and interviews confirmed this.</p>

<p>a. The child shall be removed immediately from his or her job; and</p> <p>b. Remediation procedures shall be developed and implemented that provide the child with support in his or her transition to legal work or schooling, and that take into consideration the welfare of the child and the financial situation of the child's family.</p>		
<p>3.1.7.6. Where there is a high risk of child labor in the mine's supply chain, the operating company shall develop and implement procedures to monitor its suppliers to determine if children below the minimum age for hazardous or non-hazardous work are being employed. If any cases are identified, the operating company shall ensure that appropriate steps are taken to remedy them. Where remedy is not possible, the operating company shall shift the project's supply chain over time to suppliers that can demonstrate that they are complying with this chapter.</p>	●	<p>The company identified child labor as one of the most salient human rights risks in the mine's supply chain, according to the Salient Human Rights Issues Final Report (May 2023) and a risk matrix for potential human rights risks (May 2023). The evidence, Syrah Human Rights Policy (September 2023), Syrah Code of Conduct (September 2022), the Recruitment Procedure (July 2022) and the Job Hazard Analysis template (July 2023), indicates that the company has developed corporate-level policies and procedures to prevent child labor. The Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023) indicates that an assessment of child labor in the mine's supply chain was conducted. The risk matrix for potential human rights risks (May 2023), along with a sample of unannounced internal annual audit reports from contracted companies (2022 and 2023), indicate that supplier monitoring is ongoing and mitigation steps are formulated in the event of identified cases.</p>
<p>3.1.8.1. Critical. The operating company shall not employ forced labor or participate in the trafficking of persons.</p>	●	<p>The evidence, Syrah Human Rights Policy (September 2023), Syrah Code of Conduct (September 2022), a Modern Slavery Statement (June 29, 2023) signed by Syrah's chairman and a roster of employee training on the company's code of conduct (February 26, 2022), indicates that the company has implemented policies and procedures to prohibit the employment of forced labor. A sample of unannounced internal annual audit reports from contracted companies (2022 and 2023), indicate the company tracks and verifies that contractors do not employ forced labor or participate in the trafficking of persons. On-site observations and interviews with employees and contractors confirmed that the company does not employ forced labor or participate in the trafficking of persons.</p>
<p>3.1.8.2. Where there is a high risk of forced or trafficked labor in the mine's supply chain, the operating company shall develop and implement procedures to monitor its suppliers to determine if forced labor or trafficked workers are being employed. If any cases are identified, the operating company shall ensure that appropriate steps are taken to remedy them. Where remedy is not possible, the operating company shall shift the project's supply chain over time to suppliers</p>	●	<p>The company identified forced or trafficked labor as one of the most salient human rights risks in the mine's supply chain, according to the Salient Human Rights Issues Final Report (May 2023) and a risk matrix for potential human rights risks (May 2023). The evidence, Syrah Human Rights Policy (September 2023), Syrah Code of Conduct (September 2022), a Modern Slavery Statement (June 29, 2023) signed by Syrah's chairman and a roster of employee training on the company's code of conduct (February 26, 2022), indicates that the company has developed corporate-level policies and procedures regarding suppliers' conduct especially related to forced labor or trafficked workers. The Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023) indicates that an assessment of forced or trafficked labor in the mine's supply chain was conducted. The risk matrix for potential human rights risks (May 2023), along with a sample of unannounced</p>


<p>that can demonstrate that they are complying with this chapter.</p>		<p>internal annual audit reports from contracted companies (2022 and 2023), indicate that supplier monitoring is ongoing and mitigation steps are formulated in the event of identified cases.</p>
<p>3.1.9.1. The operating company shall pay wages to workers that meet or exceed the higher of applicable legal minimum wages, wages agreed through collective wage agreements, or a living wage.</p>	<p>●</p>	<p>The evidence includes a Company Level Agreement (CLA) signed by Twigg and workers' representatives, and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, indicating that the base salary is defined according to the worker's category, as well as a sample of reviewed payslips from 2022 and 2023 at the time of the audit, which indicate the wages in the company are superior to the minimum wages required by Mozambique Labor Law. Interviews with a sample of workers, including contractors, indicate compensation is sufficient to afford a decent standard of living and that a position at the company is highly valued, besides indicating that the company provides a career plan based on internal evaluations or direct recommendations.</p>
<p>3.1.9.2. Overtime hours shall be paid at a rate defined in a collective bargaining agreement or national law, and if neither exists, at a rate above the regular hourly wage.</p>	<p>●</p>	<p>The evidence includes a Company Level Agreement (CLA) signed by Twigg, workers' representatives and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022 and a sample of reviewed payslips from 2022 and 2023 at the time of the audit and indicates that the overtime compensation given to workers is aligned with the national Labor Law and paid at the rate defined in the CLA. Interviews with key staff indicated the company complies with local regulations.</p> <p>The CLA does not cover terms for contractor employment as contractors have their own unions. Interviews with a sample of contractors, along with a review of selected payslips and timesheets from contracted companies, indicate that overtime hours are not being accurately recorded and the payment for these hours is incorrect.</p> <p>The evidence does not include an assessment of contractor overtime to confirm compensation at a defined rate above hourly wage.</p>
<p>3.1.9.3. All workers shall be provided with written and understandable information about wages (overtime rates, benefits, deductions and bonuses) before they enter employment, and for the pay period each time they are paid.</p>	<p>●</p>	<p>The evidence, a Company Level Agreement (CLA) signed by Twigg and workers' representatives, and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, a sample of an Offer Letter (October 2021), which must be signed during the hiring process, a monthly worker pay slip, that describes normal hours as well as overtime hours and other benefits less various deductions, indicates the company provides workers with written and understandable information about wages (overtime rates, benefits, deductions, and bonuses). Workers reported knowledge about their wages, including overtime rates, benefits, deductions and bonuses.</p> <p>Some contractors expressed not having access to information about their working hours and additional payment (i.e., night shift) and the evidence does not include details to confirm wage information is provided to all contractors.</p>

<p>3.1.9.4. The operating company shall pay wages in a manner that is reasonable for workers (e.g., bank transfer, cash or check).</p>	●	<p>The evidence, a written bank transfer receipt of a payslip payment made to an employee (Payslip 21291, June 2022), indicates that the company pays worker wages through bank transfer; a manner that is reasonable for workers. Interviews with a sample of workers indicated pay systems are reliable and work as intended.</p>
<p>3.1.9.5. The operating company shall ensure that deductions from wages are not made for disciplinary purposes unless one of the following conditions exist:</p> <ul style="list-style-type: none"> a. Deductions from wages for disciplinary purposes are permitted by national law, and the law guarantees the procedural fairness of the disciplinary action; or b. Deductions from wages for disciplinary purposes are permitted in a freely negotiated collective bargaining agreement or arbitration award. 	●	<p>The company does not use deductions as a form of disciplinary mechanism. A sample of reviewed payslips from 2022 and 2023, including deductions, was in accordance with the provisions of the Mozambique Labor Law (13/2023) at the time of the audit. These deductions are outlined in the Discipline Management Procedure (September 2018).</p> <p>The deductions from wages for disciplinary purposes allowed by national law are:</p> <ul style="list-style-type: none"> - suspension from work with loss of pay, up to a limit of 10 days for each offense and 30 days per calendar year; and - fine of up to twenty days' wages.
<p>3.1.10.1. The operating company shall ensure that:</p> <ul style="list-style-type: none"> a. Regular working hours do not exceed eight hours per day, or 48 per week. Where workers are employed in shifts the 8-hour day and 48-hour week may be exceeded, provided that the average number of regular hours worked over a 3-week period does not exceed 8 hours per day and 48 hours per week; b. Workers are provided with at least 24 consecutive hours off in every 7-day period; and c. Overtime is consensual and limited to 12 hours a week. d. Exceptions to 3.1.10.1.b and c shall be allowed at mines in remote locations if: <ul style="list-style-type: none"> i. A freely negotiated collective bargaining agreement is in force that allows variances to the rest and/or overtime hours above; and ii. Through consultations with workers' representatives, a risk management process that includes a risk assessment for extended working hours is established to minimize the 	●	<p>The Balama Graphite mine is in a remote location that is served by a workers camp. The evidence includes a Company Level Agreement (CLA) signed by Twigg (December 2022), interviews with key staff and samples of workers and contractors, as well as a sample of payroll records and timesheets, and indicates that:</p> <ul style="list-style-type: none"> a. employees work for 12 hours for 28 days in a row, and then have 26 days of rest (CLA 2022, Article 11); and d.(i) the company provides every worker with at least 24 consecutive hours off every fourteen days (CLA 2022, Article 11). <p>Subrequirements b and d are not relevant as overtime and rest days are defined by the Company Level Agreement (December 2022).</p> <p>While interviews with a sample of workers and workers' association representatives indicate that working hours and collective agreements are respected, a sample of contractor payroll records and interviews indicated that employees from one contract company did not accurately record their overtime hours, resulting in incorrect payment for the overtime hours worked.</p>

<p>impact of longer working hours on the health, safety and welfare of workers.</p>		
<p>3.1.10.2 Where neither national law nor a collective bargaining agreement includes provisions for worker leave, the operating company shall, at minimum, provide:</p> <ul style="list-style-type: none"> a. An annual paid holiday of at least three working weeks per year, after achieving one year of service; and b. A maternity leave period of no less than 14 weeks. 		<p>The evidence, a Company Level Agreement (CLA) signed by Twigg and workers' representatives, and subsequently endorsed by the provincial government (Cabo Delgado Department of Labour and Social Security) in December 2022, indicates that the company grants employees an annual paid holiday of one day for each month of actual work during the first year of employment, with a total of 12 days, and 24 days after achieving one year of service, and 30 days in the subsequent years (CLA 2022, Article 12). The evidence also indicates a maternity leave period of 90 days (CLA 2022, Article 16).</p> <p>Interviews with a sample of contractors indicated that their annual leaves were not respected during 2023.</p> <p>The evidence does not include payroll records to confirm leave is paid in accordance with the Company Level Agreement.</p>

Chapter 3.2—Occupational Health and Safety

Basis for rating

<p>3.2.1.1. The operating company shall implement a health and safety management system for measuring and improving the mining project's health and safety performance.</p>		<p>The evidence, including occupational health and safety (OHS) policies, procedures, an occupational health and safety plan (Health and Safety Management Plan, March 2023, MyOSH software (for the management of nonconformities / incidences), Scope of HSE Integrated Management System (IMS), August 15, 2020 that defines the physical and organizational boundaries for the HSE IMS (as part of requirement of ISO 14001:2015 and 45001:2018 certification), a risk matrix, a sample of Sustainability Reports posted and available at the mine site as well as online https://www.syrahresources.com.au/Sustainability/reports (Q4 2023) indicates that the company has implemented a health and safety management system aimed at measuring and improving the operation's health and safety performance. This system, which was last audited by an external consultant in October 2020, remotely over COVID when the facility was shut down (ISO 14001/45001 Audit Report, Bureau Veritas Certification Holding SAS-UK Branch, July 2020, Certificate No. AFR 21.00150 ENG Version No. 1, June 2021) indicates that the company has processes in place that enable the measurement and improvement of health and safety performance, and that these are working as intended.</p> <p>Interviews with a sample of workers, including contractors and key OHS management staff as well as observations of safety procedures implementation across various operational areas (e.g., production, equipment maintenance, worker transport, quality lab, camp services, security, and environmental monitoring) indicate that workers are knowledgeable about OHS management system goals and are provided information to actively contribute to continuous improvement, particularly in incident and injury prevention (i.e., through reporting of near miss safety observations/reports, pre-shift, safety equipment and workplace inspections). The system is overseen by competent professionals, and relevant information is communicated and utilized for</p>
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continuous improvement at the operating level (i.e., through toolbox talks, the posting of OHS metrics, etc.) and utilized in planning and decision-making (i.e., pre-shift job hazard analysis), including contractors. At the department and company level, staff track and review performance and conduct root cause analysis; information is shared at departmental meetings and company-wide, including contractors, as noted in interviews, and used in decision-making of occupational health and safety (i.e., to address specific issues or risks, such as improving housekeeping to reduce slip and trip hazards or enhance malaria prevention efforts when case numbers rise). Safety improvements are also available to external stakeholders in a general way through the company's Sustainability Reports.

3.2.2.1. The operating company shall implement an ongoing, systematic health and safety risk assessment process that follows a recognized risk assessment methodology for industrial operations.

The evidence, a Risk Management Procedure (TWG-PR-RK-0001_04, March 24, 2022), Risk Management Framework (SYR-MX-RK-0001_5, June 7, 2018), and Risk Register (September 2021 v5) indicate that the company has implemented a systematic health and safety risk assessment process that follows a recognized risk assessment methodology with OHS accountabilities and the main steps of the company's risk management process (i.e., job safety analysis (JSA), pre-task hazard assessment, team-based risk assessment). The Risk Management Framework presents the likelihood descriptors, consequence thresholds, and risk ratings and tolerability. The Risk Register presents a description of potential risks (i.e., mining, operations, maintenance, community, infrastructure, support, security, processing, etc.), current controls, risk analysis, opportunities, and due dates. The programs provide mechanisms for evaluating and mitigating potential hazards systematically on an ongoing basis, consistent with best practice.

Workers report participation in assessing potential risks at the task level (i.e., securing work areas, use of PPE, lock out tag out, work from height, etc.) through JSA assessments. Worker involvement revolves around problem-solving to mitigate physical risks associated with specific tasks or activities within their workspaces. This includes addressing concerns like burns, pinch points, and slip trips, as well as an evaluation of the needed PPE as well as the agency of team members (i.e., training, experience, competency) to carry out required duties.

Observations indicate an opportunity for more detailed risk assessment and strategies relating to safe worker handling of outdoor materials storage (i.e., stacking/transportation of oversize items, broken bags or pallets, including chemical substances in inclement weather).

3.2.2.2. The assessment process shall identify and assess the significance/consequence of the full range of potential hazards associated with the mining project, including those related to:

- a. The design, construction and operation of the workplace, mining-related activities and processes, the physical stability of working areas, the organization of work, use of equipment and machinery, and waste and chemical management;

The evidence, Health and Safety Policy (September 2023), Risk Register (September 2021), Risk Management Procedure (March 24, 2022), MyOSH incident tracking, assessments by external consultants such as for malaria (Site Health Review and Malaria Risk Assessment April 2013), radiation (Safety Assessment Report for Sealed Radioactive Sources October 2018 and Safety Assessment Report for Workers and Public September 2018), and general considerations in the final ESIA for the project (i.e., Sections 6,7,8 and 9, Coastal and Environmental Services, February 2015), as well as interviews with a sample of OHS and department managers, supervisors and workers, indicate the company assesses a full range of potential hazards associated with the mining project, both site-wide and regionally, and at the department and task level relating to:

- a. the design, construction and operation of the workplace (i.e., mining-related activities and processes, the organization of work, use of equipment and machinery);

- b. All personnel, contractors, business partners, suppliers and visitors;
- c. Unwanted events;
- d. Routine and non-routine activities, products, procedures, and services; and
- e. Changes in duration, personnel, organization, processes, facilities, equipment, procedures, laws, standards, materials, products systems and services.

- b. site personnel and visitors;
- c. some unwanted events;
- d. routine activities, procedures (JHAs); and
- e. changing conditions, such as weather and security.

The evidence includes assessments by external consultants that identifies potential sources and risks and vulnerabilities to malaria, and limitations to effective treatment (Site Health Review and Malaria Risk Assessment Balama, Mozambique, April 2013, 179 p., International SOS, AEA International Holdings Pte. Ltd.), and potential sources and exposures to radiation from sealed equipment to verify conformity to national legislation (Safety Assessment Report for Sealed Radioactive Sources, 34 pages., October 2018, African Radiation Consultants) and to workers and the public (Safety Assessment Report for Workers & Public, 84 pages, September 2018, African Radiation Consultants), considered negligible at the time of the 2013 and 2018 assessments. Risk registers provided as evidence such as an Operational Risk Register (March 2023 v8), Fatal Risks (May 2023), and TSF Risk Register (no date) indicates that the company identifies hazards for the mining project related to aspects of sub-requirements, (a) to (e) on a regular basis.

The evidence does not include documentation showing how health and safety risk assessments are updated or compared to the baseline over time (i.e., regular assessment of radiation protection program implementation effectiveness over time), or provide information to confirm that assessments fully consider:

- a. All areas of the operation (e.g., the Chipembe Dam), activities (such as drilling, blasting, land clearing, waste and chemical handling like neutralizing agents, dust suppressants, fuel and flocculants, cleaning agents, and bug spray), contractor areas and activities, and potential worker exposures (e.g., respirable crystalline silica or metals from welding, chemical risks, etc.); and
- b. All contract workers.

3.2.2.3. The operating company shall pay particular attention to identifying and assessing hazards to workers who may be especially susceptible or vulnerable to particular hazards.

The evidence, including Minimum Standard of Medical Fitness to Perform Work (September 2021), Section 4.2, explains that each workplace will have specific periodic examination requirements according to the hazards that occur and the type of work each worker is required to perform. The Critical Hazards Checklist (TWG-FR-SA-0017_0, June 29, 2021), a tool designed to identify critical hazards present in a specific task, and a Risk Management Procedure (TWG-PR-RK-0001_04, March 24, 2022), in Section 6.1, indicates that Take 5, an informal pre-task risk assessment, shall be completed, at a minimum, within the work area where the task is to occur, and in Section 6.2, that a Job Hazard Analysis (JHA) shall be completed for critical risks.

Interviews with a sample of potentially vulnerable or susceptible workers and contractors (apprentice, women that may or could be pregnant, night workers, those with potential limited range of movement or height or weight lifting limitations, for example) and competent professionals (OHS manager and representatives, the company doctor) indicate that the company has taken steps to identify, understand, and assess the possible barriers related to potential disability, including the identification and assessment of hazards specific to

		<p>susceptible or vulnerable workers. A variety of accommodations to perform job functions safely were observed at the time of the onsite audit including access to height and special glasses. Female workers and contractors interviewed indicated accommodations or alternative work arrangements are available to maintain safe working conditions while pregnant and allow time for paid recovery and while nursing, as needed.</p>
<p>3.2.2.4. The operating company shall develop, implement and systematically update a risk management plan that prioritizes measures to eliminate significant hazards, and outlines additional controls to effectively minimize negative consequences and protect workers and others from remaining hazards.</p>	<p>●</p>	<p>A Risk Management Procedure (TWG-PR-RK-0001_04 from 24 March 2022) and risk ranking system (Risk Framework), provides evidence of a risk assessment process with mechanisms for identifying, assessing, and remedying risks at a number of levels (daily, weekly, job-specific, etc.) aimed at maintaining a safe work environment and continual improvement. Interviews with workers and OHS managers indicate the company has developed processes that build upon industry best practice in hazard identification and significant hazard elimination (i.e., using the Hierarchy of Control). Observations of the workplace indicate mechanisms are in place to protect workers (i.e., training, personal protective equipment (PPE), supervision, safety postings, etc.) aligned to the ILO Convention on Safety and Health in Mines.</p> <p>The evidence does not include job-specific safety analyses, a near miss or incidents register, incident investigations, root cause analysis, or effectiveness monitoring over time to verify occupational health and safety risk management practices are informed by activities that prioritize significant hazards occurring at the operating level, with systematic updates over time.</p>
<p>3.2.2.5. In particular, the operating company shall demonstrate that it has developed procedures and implemented measures to:</p> <ol style="list-style-type: none"> Ensure that the mine has electrical, mechanical and other equipment, including a communication system, to provide conditions for safe operation and a healthy working environment; Ensure that the mine is commissioned, operated, maintained and decommissioned in such a way that workers can perform the work assigned to them without endangering their safety and health or that of other persons; Maintain the stability of the ground in areas to which persons have access in the context of their work; If relevant, whenever practicable provide two exits from every underground workplace, each connected to separate means of egress to the surface; 	<p>●</p>	<p>The evidence includes a sample of safety critical hazards and procedures, standard work instructions and SOPs relating to critical hazards:</p> <ul style="list-style-type: none"> - Critical Hazards Poster and critical hazards training (Section 5.7, Learning and Development Procedure June 2021 v2), that summarizes (1) dangerous working environments (permit to work, lightning, work from height, confined space, working alone, excavations), (2) plant maintenance, (3) hazardous chemicals, (4) energy isolation, (5) vehicles and driving; - Plant Operations Standards (March 21, 2023) covering mobile equipment operation, safe lifting, regular maintenance, inspection, training, defect reporting, records management) - Working in Dangerous Environments Standards (March 21, 2022), covering permit to work, lightning, work from height, confined space, working alone, excavations, etc. and other critical hazards; -Energization & De-Energization Standards (March 21, 2022) and Screen Panels Replacement SOP example -EMT Dry Run Exercise Plan (February 2022), -Emergency Response Plan (March 21, 2022), with standard work instructions for a number of potential incidents including fire, TSF failure, confined space rescue, etc. -Emergency Evacuation Procedure Training Attendance Register (4 manager participants, November 2021). <p>Combined with observations and interviews with a sample of workers and contractors at the time of the site visit, the evidence offers information to confirm that a risk management system is in place to provide the conditions for a safe and healthy work environment as outlined in (a) to (c) and (f) to (h). [Note (d) and (e) are not relevant since it is not an underground mine]. The evidence includes work procedures and information on risk management performance in accordance with the ILO Convention 176 Safety and Health in Mines guidelines.</p>

- e. If relevant, ensure adequate ventilation for all underground workings to which access is permitted;
- f. Ensure a safe system of work and the protection of workers in zones susceptible to particular hazards;
- g. Prevent, detect and combat accumulations of hazardous gases and dusts, and the start and spread of fires and explosions; and
- h. Ensure that when there is potential high risk of harm to workers, operations are stopped and workers are evacuated to a safe location.

Interviews with workers and contractors confirm they have the equipment, training, and support to do their job safely, including stopping work when there is a potential risk of harm. On-site audit observations and interviews with workers provide evidence that the mine:

- a. has electrical, mechanical and other equipment, including a communication system, to provide conditions for safe operation and a healthy working environment (workers were equipped with radios; and mechanical and electrical equipment viewed working as intended with proper safety features such as signage, restrictions, grounding, guarding, prevention of the release of potential energy, labelling, etc., based upon a sample); note that emergency notification in some areas included a pressurized air horn, and information on its effectiveness was not available at the time of the onsite audit.
- b. is commissioned, operated, maintained and decommissioned in such a way that workers can perform the work assigned to them without endangering their safety and health or that of other persons (operation and maintenance were viewed in practice at the mine site and considers ongoing, regular audit inspections);
- c. maintains the stability of the ground in areas to which persons have access in the context of their work (such as monitoring ground conditions at the pits and the TSF boreholes on a regular basis as confirmed in monitoring data, site observations, and interviews with key staff);
- f. ensures a safe system of work and the protection of workers in zones susceptible to particular hazards (such as specialized work involving one or more critical hazards and determined through worker interviews and a review of applicable site-level procedures and safety infrastructure such as Energy Isolation, Work from Height, Confined Space, Vehicle/Equipment Operation, etc.);
- g. prevents, detect and combats accumulations of hazardous gases and dusts, and the start and spread of fires and explosions (gas monitors observed calibrated and operating as intended, and worker competency in operating such equipment determined through interviews, including knowing the importance of such use such as to prevent gas accumulation and explosion);
- h. ensuring that workers understand that, when there is potential high risk of harm, they can stop work (refer to 3.2.3.1).

The Work Standards provided as evidence outline employee induction, training and skills, authorizations, JSA's, PPE; for management it outlines work permits, pre-work inspections, employee orientation, risk factors, mitigation and resources, inspections and audits; for equipment it identifies pre-use inspections, certifications and repairs register. Interviews with safety managers (site safety, security, emergency response and medical providers) and workers indicate a high awareness of safety programming; a sample of workers similarly indicate a high level of confidence in the site's safety procedures; workers could relay safety training elements, processes and schedules (i.e., daily, job-specific, and generally at least annually) for example, workers knew where fire extinguishers were located, where to muster in the event of an emergency, and where to go for first aid (for them or others).

- 3.2.3.1. Workers shall be informed of their rights to:
- Report accidents, dangerous occurrences and hazards to the employer and to the competent authority;
 - Request and obtain, where there is cause for concern on safety and health grounds, inspections and investigations to be conducted by the employer and the competent authority;
 - Know and be informed of workplace hazards that may affect their safety or health;
 - Obtain information relevant to their safety or health, held by the employer or the competent authority;
 - Remove themselves from any location at the mine when circumstances arise that appear, with reasonable justification, to pose a serious danger to their safety or health; and
 - Collectively select safety and health representatives.

The evidence includes a 2-hour OHS Induction Training Power Point (2022, 77 slides), a sample of 2022 induction training records representing a variety of workers and positions (31 workers total), including contractors (January 6, 2022 and March 19, 2022), among them housekeeping, maintenance, security, transportation; a Health and Safety Committee Procedure (January 23, 2022); a safety, health and environmental (SHE) representative nomination form; an HSSE interdiction notification form; a Health and Safety Representative Procedure (March 22, 2022); and a Weekly Safety Share form. The information provided presents a sample of activities and procedures with the objectives to identify hazards, risks and control them, demonstrate understanding of safety policies and procedures, know how to raise emergency and react in case of an incident, that provides information to confirm the company has informed workers of their rights to:

- Report accidents, dangerous occurrences and hazards to the employer and to the competent authority (covered in induction training ppt, slide 19, 25; HSE procedures; confirmed through employee interviews)
- Request and obtain, where there is cause for concern on safety and health grounds, inspections and investigations to be conducted by the employer and the competent authority (covered in Section 5.2, HSE Committee Accountabilities, HSE Committee Procedure; Section 8 Health and Safety Representative Role, HSE Representative Procedure; confirmed in employee interviews);
- Know and be informed of workplace hazards that may affect their safety or health (this is ongoing at numerous levels such as during orientation, annually, weekly, daily such as pre-shift, pre-job (JSA/JHA), as needed (i.e., Take Five), specialized work, etc., and this is confirmed in employee interviews;
- Obtain information relevant to their safety or health (personal safety and health monitoring and evaluation are provided upon request based upon interviews with employees, workers representatives, and HSE and medical managers);
- Remove themselves from any location posing a serious danger to their safety or health (mentioned in induction training ppt, slide 19 and in employee interviews; and interdiction notification)
- Collectively select safety and health representatives (the process is outlined in a procedure (Health and Safety Representative Procedure and Nomination Form), and confirmed in employee interviews.

While the evidence indicates a robust, participatory process for BGO employees relating to workers rights to a safe workplace, interviews with contract workers indicate gaps relating to (b), (d), (e) and (f) for some security and maintenance contract workers (refer also to 3.2.3.2).

- 3.2.3.2. In all cases a worker attempting to exercise any of the rights referred to in 3.2.3.1 in good faith shall be protected from reprisals of any sort.

The evidence, two policies, including Whistleblower Policy (January 2023) and Working with Integrity Policy (March 2023), available at <https://www.twigg.co.mz/codes-and-policies>, and interviews with a sample of workers (employees and contractors) and key management staff, indicate that the company actively engages its employees to recognize and report workplace safety concerns and incidents, including inappropriate conduct, and has established a number of systems to do so (i.e., to a supervisor, to a safety and environmental delegate, to an HSSE manager; or through daily, weekly and other routine avenues such as pre-shift and pre-job inspections, toolbox talks and weekly safety shares). The Whistleblower Policy presents the methods of

reporting Inappropriate Conduct and states the company's commitment to ensuring confidentiality in respect of all matters raised under the Policy, and that those who make a report in good faith are treated fairly and do not suffer any disadvantage. Workers interviewed report that the safety culture allows open sharing relating to safety concerns with supervisory staff, and that they feel comfortable doing so.

While workers report general understanding of policies and how to report safety concerns to managers, they expressed limited knowledge of how to file safety-related grievances, including anonymously, if needed. One contractor interviewed indicated that safety incidents can result in disciplinary action or immediate dismissal. The evidence does not include an assessment of contractor disciplinary actions related to worker reprisal when involved in, discovering, or reporting safety issues, potential hazards or incidents (refer to IRMA Notes for 3.2.3.2).

3.2.3.3. The operating company shall develop systems to effectively communicate with, and enable input from the workforce on matters relating to occupational health and safety.

The evidence, including a sample of weekly HSE meetings attendance (Toolbox Talk, Product Handling, Week of August 22, 2022), bi-weekly HSE Reps Contractor's Meeting attendance (9 participants including a clinic doctor, HSE coordinators, trainer, supervisor, etc., March 11, 2022), Monthly HSE Rep and Contractors Meeting PPT with a safety metrics, KPI's, headcounts, incident and safety shares (January 12, 2022), observations of Safety Boards (Regis Plant Site, TWIGG Workshop, Product Handling, Tayanna Workshop, Bureau Veritas Lab, Plant Entrance, Security Entrance, TSF, Engineering) and participation in pre-shift meetings with workers and their supervisors while onsite (2nd shift, processing plant), among others, and interviews with a sample of workers and contractors (various positions, years with the company, genders, ages), indicates the company's OHS system allows for and encourages workers to communicate on and contribute to matters related to safety through their supervisor regularly (i.e., JSA, safety toolbox talk, weekly safety share, TAKE 5 observations, Near Miss reporting, safe work instruction, permit to work, team activities, etc.), and through worker representatives at H&S Committee meetings.

In addition, the company maintains an Internal and External Communication Consultation and Participation Procedure (TWG-PR-SA-0005_1, May 2019) for all Interested and Affected Parties (I&AP) who might wish to raise issues, comments or suggestions in the context of Health, Safety and Environmental performance, as well as a Health and Safety Committee Procedure with objectives, roles, and responsibilities related to safety (BAL-PR-SA-0023_0 January 23, 2023). Communication logs or other evidence of implementation associated with these two procedures (i.e., in which inputs from workers were recorded and communicated to the company) were not included in the evidence.

Interviewees indicated that task-specific safety risks and mitigation were routinely discussed in the workplace. Topics related to potential occupational health exposures were not among the topics routinely discussed within their departments or areas (employees receive this information annually from the clinic upon request, i.e., annual testing, or as an aggregated result, that does not include area or task-specific personnel monitoring data compared to safe thresholds). Contract workers, such as maintenance and security, report site-wide safety information is delivered to them by their supervisor, and does not include two-way communication with the company, enabling input on matters relating to occupational health and safety (except to inform work aspects at the operating level, i.e., pre-shift or task-specific).

The evidence does not include an assessment of safety communication effectiveness for workers (i.e., of the

systems in place for workers to communicate their input on occupational health and safety (OH&S) issues, including contract workers), both individually and through workers' representatives and committees. Additionally, there is no assessment of procedures to protect workers, especially contractors, from retaliation when exercising their rights to raise health and safety concerns. Refer to IRMA Notes for 3.2.3.3

- 3.2.3.4. The operating company shall develop and implement a formal process involving workers' representatives and company management to ensure effective worker consultation and participation in matters relating to occupational health and safety including:
- Health and safety hazard identification and assessment;
 - Design and implementation of workplace monitoring and worker health surveillance programs;
 - Development of strategies to prevent or mitigate risks to workers through the health and safety risk assessments or workplace and workers' health surveillance; and
 - Development of appropriate assistance and programs to support worker health and safety, including worker mental health.

The evidence includes a sample of safety awareness, training, and planning activities, among them:

Bi-Weekly HSE Rep and Contractors Meeting Participation:

- January 12, 2022 - Attendance List (10 male participants): Regis, CIS, SPeraniza, Twigg, Total, ISOS, B.V., Tayana
- March 11, 2022 - Attendance List (8 male participants including HSE managers, supervisor, doctor, etc.):

Twigg, BV, CBE, Chelsea, CIS, Tayana, ISOS

Weekly Product Handling Meetings

- August 24, 2022 - Fatigue Focus (26 participants listed; day shift)

Weekly Toolbox Talks

- August 8-21, 2022 - Maintenance Team - numerous topics: incidents, alarms, personal hygiene, shutdown, 50 participants, 2 leaders

- August 22-28, 2022 - Process Team - topics not listed; 20 participants

- August 23, 2022 - Contractor Team - Regis, topics not listed, mechanics, operators, electricians, etc. 11 participants

Monthly HSE Contractors and SHE Rep Meeting Slides (participants not identified):

- January 12, 2022 - 14 slides, i.e., COVID-19, aggregated safety metrics, incidents and injury rates, contractor focus-Regis, and workplace best practices sharing)

- February 23, 2022 - 15 slides, i.e., COVID-19, malaria screening, incident and injury rates, contractor focus-Tayana, and workplace best practices sharing)

Safety Boards/Postings - plant entrance, security entrance, TSF, engineering, power plant, Total Fuel, BV Lab, Regis plant site, Twigg workshop, product handling, Tayanna workshop (covers emergency contacts, policies, best practices, monthly inspections, alerts, toolbox talks, etc.), and several policies and procedures:

- Working with Integrity Policy (March 2023), available at <https://www.twigg.co.mz/codes-and-policies>,
- Risk Management Procedure (March 24, 2022), available at <https://www.twigg.co.mz/codes-and-policies>,
- Internal and External Communication Consultation and Participation Procedure (TWG-PR-SA-0005_1 May 3, 2019), for all Interested and Affected Parties (I&AP) who might wish to raise issues, comments or suggestions in the context of Health, Safety and Environmental performance (note that auditors did not receive details to confirm this procedure's implementation at the operating level).

Combined with interviews with a sample of workers, workers representatives, and OHS representatives, the evidence indicates that the company has developed numerous means to invite worker participation, primarily toolbox talks at the operating level for workers and committee meetings for OHS managers and other Department supervisors at regular intervals. In addition, OHS information is posted in message boards

		<p>throughout the operation (excluding the mine). Key HSE staff, including appointed health and safety representatives, indicate participation in (a) some hazard identification and assessment at the operating level (i.e., pre-shift, pre-job, area), and (b) limited workplace monitoring such as safety inspections and recommendations in their area of work (but they are not part of the incident investigation, for example).</p> <p>The evidence does not include the details to confirm individual workers or workers representatives and committees are involved in the:</p> <ul style="list-style-type: none"> b. Design and implementation of workplace monitoring and worker health surveillance programs; c. Development of strategies to prevent or mitigate risks to workers through the health and safety risk assessments or workplace and workers' health surveillance; and d. Development of appropriate assistance and programs to support worker health and safety, including worker mental health.
<p>3.2.3.5. The operating company shall provide workers' health and safety representatives with the opportunity to:</p> <ul style="list-style-type: none"> a. Participate in inspections and investigations conducted by the employer and by the competent authority at the workplace; b. Monitor and investigate safety and health matters; c. Have recourse to advisers and independent experts; and d. Receive timely notice of accidents and dangerous occurrences. 	<p>1</p>	<p>The evidence, a Health & Safety Representative Procedure (March 2022) and interviews of employees and contractors (various positions), key staff, and workers' representatives, indicates H&S representatives: (a) participate in inspections (b) monitor safety, and (d) receive timely notice of accidents and dangerous occurrences.</p> <p>The evidence does not include the details to confirm workers' H&S representatives have the opportunity to (a) participate in incident investigations, (b) participate in monitoring health, or (c) have recourse to advisers and independent experts.</p>
<p>3.2.3.6. Visitors and other third parties accessing the mining premises shall receive an occupational health and safety briefing, and be provided with relevant protective equipment for areas of the mine site that or associated facilities that they will be entering.</p>	<p>2</p>	<p>The evidence, Balama Induction Pamphlet (June 2022) and onsite safety training at the beginning of the audit indicates that the company requires visitors to undergo occupational health and safety/ site-specific training including the issue of relevant protective equipment for areas of the mine site that they will be entering. The visitor training included the following themes: Site Access; Emergency Procedures; Accident/Incident/Injuries; Hazard Identification; Behaviour Based Safety; Medical Facilities; Personal Protective Equipment; Zero Tolerance; Fit for Work; Master Points; Malaria Prevention; Dress Code.</p> <p>Evidence of induction training for other third parties was included in the evidence (Attendance List, Document CM-107, January 2022) and includes expanded themes: TWIGG Vision and values; Camp Rules; Travel Management; Health and Safety; Personal Protective Equipment; Risk Assessment and Incident Reporting. Onsite observations and experiences of auditors indicate the company has a robust program aimed at ensuring</p>

the health and safety of visitors (pre-trip medical screening, arrival monitoring, safety briefing, and ongoing health monitoring, especially for malaria, cholera, etc.) while on-site.

3.2.4.1. **Critical (a and b).** The operating company shall implement measures to protect the safety and health of workers including:

- a. Informing workers, in a comprehensible manner, of the hazards associated with their work, the health risks involved and relevant preventive and protective measures;
- b. Providing and maintaining, at no cost to workers, suitable protective equipment and clothing where exposure to adverse conditions or adequate protection against risk of accident or injury to health cannot be ensured by other means;
- c. Providing workers who have suffered from an injury or illness at the workplace with first aid, and, if necessary, prompt transportation from the workplace and access to appropriate medical facilities;
- d. Providing, at no cost to workers, training/education and retraining programs and comprehensible instructions on safety and health matters as well as on the work assigned;
- e. Providing adequate supervision and control on each shift; and
- f. If relevant, establishing a system to identify and track at any time the probable locations of all persons who are underground.

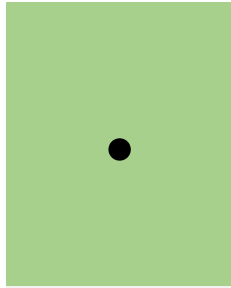
The evidence, General Induction Training (37 slides, 2023), with procedures to meet the measures of this requirement, letters (a) to (e), indicates that the company provides easy-to-understand training emphasizing its commitment to the health and safety of its employees. Observations and interviews with a sample of workers, including employees and contractors, OHS and human resources, and medical and emergency response staff, including ground transport and security, and emergency services, provide information to confirm that the company has implemented mechanisms and measures to protect the safety and health of workers, including:

- a. Informing workers of the hazards associated with their work and the health risks as in general induction training register, including contractors (27 participants, January 17, 2023),
- b. Providing suitable protective equipment and clothing as noted in a sample of PPE requisition forms for seven workers (May 2022 – June 2023) issued in alignment with PPE Management Procedure (December 2020), which details the controlled issue, use and management of PPE at no cost to employees and PPE inspection records (April 2023 Lifting Equipment Report) indicating, for example, that safety harnesses and other lifting equipment are inspected each quarter for good working condition and tagged or taken out of use, and this was confirmed in interviews with a sample of workers, including contractors (in addition to inspections prior to each use).
- c. Providing workers who have suffered an injury or personal medical need with support at the onsite clinics and their staff, and this was confirmed at the site visit by multiple workers and medical providers,
- d. Providing, at no cost to workers, training/education and retraining programs and understandable instructions on safety and health matters and assigned work confirmed in observations of multiple work areas and activities
- e. Providing adequate supervision on each shift, as observed and confirmed in interviews, all-shifts, during the site visit,
- f. Not relevant; the site does not have underground operations.

Onsite observations and interviews indicate that workers are informed about safety hazards (i.e., physical, chemical, biological, ergonomic) at many levels (initially upon hire, daily through a job safety analysis, weekly through toolbox talks, and safety observations, among others) and some health risks associated with assigned activities, areas, and tasks, and that employees are provided with PPE at no cost. Workers and contractors interviewed feel the OHS program is robust, and that the onsite clinic provides prompt, good quality care.

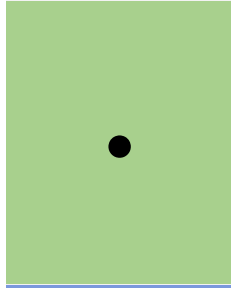
The evidence does not include the details to confirm that: (a) workers receive information related to potential industrial health exposures (i.e., to respirable crystalline silica, or chemical hazards such as neutralizing agents, fuels or welding fumes) compared to safe thresholds in an understandable fashion as in (a).

3.2.4.2. If the risk assessment process reveals unique occupational health and safety risks for certain groups of workers (e.g., pregnant women, children, HIV-positive, etc.) the operating company shall ensure that additional protective measures are taken, and trainings and health promotion programs are available to support the health and safety of those workers.



The evidence, No Go Area and Activity Register (June 23, 2022), and training registers (Healthy Pregnancy Awareness and HIV for product handlers, December 12, 2021), indicates that the company has considered unique occupational health and safety risks for certain groups of workers (i.e., pregnant women, HIV-positive), and also areas in which specific training and authorizations are required, for example pregnant women are not allowed in confined spaces including sealed equipment with radiation potential (in the event of a leak), and other aspects such as the handling of chemicals, as indicated by female workers of child-bearing age in interviews. No personnel are allowed access in these areas without proper authorization and training.

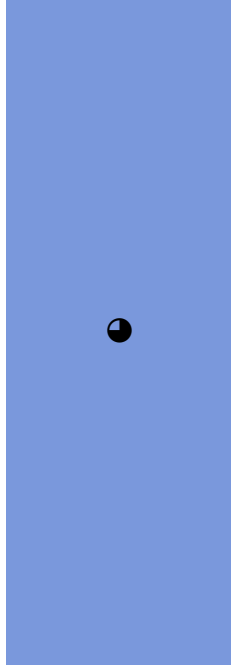
3.2.4.3. The operating company shall provide workers with clean toilets, washing and locker facilities (commensurate with the number and gender of staff employed), potable drinking water, and where applicable, sanitary facilities for food storage and preparation. Any accommodations provided by the operating company shall be clean, safe, and meet the basic needs of the workers.



The company provides safe potable water and comfortable, clean accommodations that meet the basic needs of workers, including employees, contractors, and visitors, in a designated camp area. Employees' and contractors' areas include gender-segregated shared rooms with private showers and toilets. In addition, the company provides recreation areas including a workout area, a recreation and pub area, and kitchen for barbeque celebrations. All these areas are for the use of workers, contractors and visitors without restriction.

3.2.4.4. The operating company shall ensure that workers are provided with compensation for work-related injuries and illnesses as follows:

- a. In countries where workers' compensation is not provided through government schemes or a collective bargaining agreement:
 - i. The operating company shall compensate workers for work-related injuries or illnesses at a rate that, at minimum, covers medical expenses and wages during the recovery and rehabilitation period;
 - ii. If a worker is not able to return to work due to the severity of the work-related injury or illness, the operating company shall compensate for lost earnings until the worker qualifies for an adequate pension (i.e., 2/3 or more of the salary they would otherwise normally receive if healthy and working); or
 - iii. If an occupational illness manifests after a worker has retired, the operating company or its corporate owner shall, at minimum,





The evidence, an annual worker's compensation certificate (Britam Insurance Policy Number MPT/RWCA/POL/3001822 dated June 1, 2021 for period July 1 2021 to June 30, 2022), a signed Collective Bargaining Agreement (TWG PR HR-0006_0 December 1, 2022), one example of compensation payments made to a worker for a March 2020 injury (two installments made in August and December 2020 as referenced in emails from the company's secondary benefits and insurance provider, Tempus Global Group), and interviews with key staff (i.e., workers, clinic staff, human resources) indicate that workers are compensated for work-related injuries and illnesses.

The collective bargaining agreement, also known as the company level agreement (CLA) between Twigg Exploration and Mining, Limitada, an operating subsidiary of Syrah Resources Limited and the Trade Union Committee of Twigg, an affiliate of the National Union of Workers in Construction, Wood and Mining Industry of Mozambique, presents the assistance provided to workers by the company in case of a work-related incident or illness in alignment with the objectives of this requirement in Chapter VII - Workers' benefits (Article 30 Funeral allowance, Article 31 Health Insurance, and Article 32 Medical Assistance and Medication Allowance) and Chapter VIII - Health, Safety, Security and the Environment (Article 34 General Principles and Article 35 Medical Assistance and Medicines).

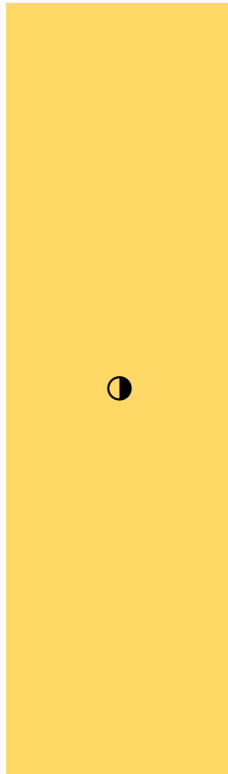
The evidence, including the CLA (December 2022) and compensation payments for an injured worker (August and December 2020) indicates (a) that workers are compensated through a company level bargaining agreement:

a.i. for work-related injuries or illnesses at a rate that, at minimum, covers medical expenses and wages during the recovery and rehabilitation period. The CLA, Article 31 - Health Insurance states that the Employer (TWIGG)

<p>compensate the worker for medical expenses, unless the operating company or its corporate owner can establish that the occupational illness was not connected to the worker's employment at the mining project.</p> <p>b. In countries that do not provide for worker rehabilitation as part of their workers' compensation schemes, the operating company shall ensure that workers have free or affordable access to rehabilitation programs to facilitate an expeditious return to work; and</p> <p>c. Where a worker dies as a result of a work-related injury or disease, the operating company shall, at minimum, provide to spouses and dependent children benefits to cover funeral expenses and transportation of the worker's body, if appropriate, as well as compensation that is equal to or greater than three months' salary of the deceased worker.</p>		<p>offers voluntary health insurance to employees, their spouse, and up to two dependents under 16, covering medical assistance and medications as agreed with the service provider. Employees co-pay 10% of the monthly insurance cost, deducted from their payroll, and are responsible for understanding and complying with the terms and limits of the insurance benefits.</p> <p>a. ii. for lost earnings until the worker qualifies for an adequate pension which 2/3 or more of the salary they would otherwise normally receive if healthy and working as provided in the compensation distribution for a work-related injury that includes provisions for annual pension, monthly salary (at 70% which is greater than 2/3) and remission.</p> <p>b. is not relevant, and</p> <p>c. in the event that a worker dies as a result of a work-related injury or disease. CLA, Article 30 - Funeral Allowance provides a funeral allowance of 5,000 Meticaís to local workers from the eight host communities, payable upon the death of a close family member (spouse, parent, child, or stepchild) and presentation of a death certificate.</p> <p>Further information on benefits is provided in CLA Chapter VIII - Health, Safety, Security and the Environment, Article 34 - General Principles. Workers, among them among them contractors, additionally receive care and rehabilitation through the onsite clinic (i.e., for malaria). CLA, Article 35 - Medical Assistance and Medicines additionally outlines that medical care and medication for workers are provided by the National Social Security Institute (INSS).</p> <p>While the company maintains collective insurance to cover work-related incidents, and this is confirmed in the evidence as well as interviews with workers and key staff, the executed CLA (December 2022), Article 35.3 (a) – (f) (page 18) indicates that the employer is not liable for accidents resulting from worker negligence, intentional actions, voluntary injury, loss of reason, force majeure, or failure to use Personal Protective Equipment (PPE).</p>
<p>3.2.5.1. The operating company and workers' representatives on a joint health and safety committee, or its equivalent, shall perform regular inspections of the working environment to identify the various hazards to which the workers may be exposed, and to evaluate the effectiveness of occupational health and safety controls and protective measures.</p>		<p>Does not meet.</p>
<p>3.2.5.2. The operating company shall carry out workplace monitoring and worker health surveillance to measure exposures and evaluate the effectiveness of controls as follows:</p>		<p>The evidence, Medical Control Treatment for Occupationally Exposed Workers Health Safety & Security (August 2019), Minimum Standard of Medical Fitness to Perform Work at BGO (September 2021), worker noise exposure measurements (Cirrus Research Summary Report July 28, 2022), a summary table of noise and dust monitoring (December 2021 - July 2022), a sample of one (1) individual noise and aerosol monitoring results (July 23, 2022, and June 13, 2022, respectively), as well as observations and interviews with a sample of workers and key staff at</p>

<ul style="list-style-type: none"> a. Workplace monitoring and worker health surveillance shall be designed and conducted by certified industrial hygienists or other competent professionals; b. Health surveillance shall be carried out in a manner that protects the right to confidentiality of medical information, and is not used in a manner prejudicial to workers' interests; c. Samples collected for workplace monitoring and health surveillance purposes shall be analyzed in an ISO/IEC 17025 certified or nationally accredited laboratory; d. Sample results shall be compared against national occupational exposure limits (OELs) and/or biological exposure indices (BEIs), if they exist, or OELs/BEIs developed by the American Conference of Governmental Industrial Hygienists (ACGIH); and e. If an OEL/BEI is exceeded, the affected worker(s) shall be informed immediately, and controls shall be reviewed and revised in a timely manner to ensure that future exposure levels remain within safe limits. 		<p>the time of the site visit provides information to confirm that the company has begun to implement a surveillance health monitoring consistent with this chapter, including:</p> <ul style="list-style-type: none"> b. Health surveillance is carried out in a manner that protects the right to confidentiality of medical information. Monitoring includes routine measurements of dust, noise, for radiation leaks, pulmonary function, hearing, among others. <p>The evidence does not include an assessment of program effectiveness in all areas or the information to confirm:</p> <ul style="list-style-type: none"> a. Workplace monitoring and worker health surveillance programming is designed and conducted by certified industrial hygienists or other competent professionals; c. Samples collected for workplace monitoring and health surveillance purposes are analyzed in an ISO/IEC 17025 certified or nationally accredited laboratory; d. Sample results are compared against national occupational exposure limits (OELs) and/or biological exposure indices (BEIs), if they exist, or OELs/BEIs developed by the American Conference of Governmental Industrial Hygienists (ACGIH); e. Affected workers are informed if an OEL/BEI is exceeded, and controls shall be reviewed and revised in a timely manner to ensure that future exposure levels remain within safe limits.
<p>3.2.5.3. Controls, protective measures, health risk assessments, risk management plans, and training and educational materials shall be updated as necessary based on inspection and monitoring results.</p>	⊗	<p>Does not meet.</p>
<p>3.2.5.4. The operating company shall ensure that all workplace injuries, fatalities, accidents and dangerous occurrences, as defined by national laws or regulations, are documented, reported to the competent authority, investigated and that appropriate remedial action is taken.</p>	●	<p>The evidence, a sample of two incident reports to the Balama Labor Department (April 8, 2022 and June 27, 2022) and related investigations, and onsite- computer views/screenshots of incident reports in MyOSH, indicates that the company has a process in place to investigate workplace injuries and incidents, classify them by priority and type, carry out root cause analyses and implement remedy, including deadlines and accountabilities, and report incidents as required by national legislation, and this is supported by interviews with key staff.</p> <p>The evidence does not include a complete record describing incidents, investigations and remedial actions taken in response to confirm all workplace incidents are sufficiently documented in line with the intent of this item, and this will be reviewed in greater detail at the surveillance audit (refer to IRMA Notes for 3.2.5.4).</p>

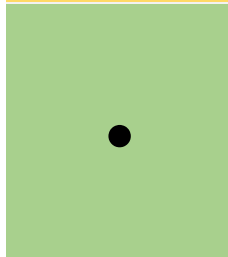
3.2.6.1. The operating company shall maintain accurate records of health and safety risk assessments; workplace monitoring and workers' health surveillance results; and data related to occupational injuries, diseases, accidents, fatalities and dangerous occurrences collected by the company and submitted to competent authorities. This information, except for data protected for medical confidentiality reasons, shall be available to workers' health and safety representatives.



The evidence consists of a Risk Register (June 2022), a number of procedures such as a HSE Incident Management Procedure (July 31, 2021) a Risk Management Procedure (March 24, 2022), Health & Safety Representative Procedure (March 22, 2022), HSE Records Management Procedure (March 2019), Internal and External Communication Consultation and Participation Procedure (May 2019), and several pre-development risk assessments including the TSF Dam Break and Spillway (December 2015), for malaria (Site Health Review and Malaria Risk Assessment April 2013), and radiation (Safety Assessment Report for Sealed Radioactive Sources October 2018 and Safety Assessment Report for Workers and Public September 2018). The evidence also includes site observations and interviews with a sample of key staff involved with or responsible for workplace monitoring and health and safety risks and updates, along with screenshots of the company's tracking software, MyOSH (staff desktop/computer view at the time of the onsite audit), two incident reports to the Balama Labor Department (April 8, 2022 and June 27, 2022) per national legislation, and Nuclear Density Radiation Source Field Measurements (2020 - July 2022).
The evidence provides information to confirm the TSF, sealed containers, and malaria are assessed and that radiation and malaria are tracked and updated. Dashboards available to workers on postings and through toolbox talks and other supervisory communications and sustainability reports provide information to confirm that safety metrics are communicated in a general way. Interviews with the management team indicate occupational injuries, diseases, accidents, or other dangerous occurrences are tracked and communicated and this is supported in interviews with supervisors and with workers who indicate routine meetings include safety shares and opportunities.

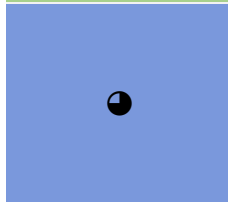
The evidence does not include worker health and safety or health risk assessments and updates, workplace monitoring and health surveillance results compared to indicators, or a procedure to provide access to health risk assessments, such workplace safety and health monitoring and health surveillance results to workers' representatives (i.e., assessments related to health and safety risks, occupational injuries, diseases, accidents, or other dangerous occurrences).

3.2.6.2. The operating company shall establish a data management system that enables worker health data to be readily located and retrieved, and data protected by medical confidentiality to be securely stored. Data shall be retained for a minimum of 30 years, and responsible custodians shall be assigned to oversee the health data management system.



The evidence, Privacy Policy (May 2021) and HSE Records Management (March 2019), indicates that the company has a data management system that enables worker health data to be readily located and retrieved, and data protected by medical confidentiality to be securely stored, including custodian accountabilities and storage of health records. The HSE Records Management indicates that there is no expiration on health records (retained indefinitely).

3.2.6.3. The operating company shall allow workers access to their personal information regarding accidents, dangerous occurrences, inspections, investigations and remedial actions, health surveillance and medical examinations.



The evidence, Privacy Policy (May 2021) and HSE Records Management (March 2019), does not provide the information to confirm workers have access to their personal information regarding accidents, dangerous occurrences, inspections, investigations and remedial actions, health surveillance and medical examinations. Interviews with a sample of workers, and OHS and clinic managers indicate that medical results are accessible from the clinic upon request.

Chapter 3.3—Community Health and Safety

Basis for rating

- 3.3.1.1. **Critical.** The operating company shall carry out a scoping exercise to identify significant potential risks and impacts to community health and safety from mining-related activities. At minimum, the following sources of potential risks and impacts to community health and/or safety shall be considered:
- General mining operations;
 - Operation of mine-related equipment or vehicles on public roads;
 - Operational accidents;
 - Failure of structural elements such as tailings dams, impoundments, waste rock dumps (see also IRMA Chapter 4.1);
 - Mining-related impacts on priority ecosystem services (see also IRMA Chapter 4.6);
 - Mining-related effects on community demographics, including in-migration of mine workers and others;
 - Mining-related impacts on availability of services;
 - Hazardous materials and substances that may be released as a result of mining-related activities (see also IRMA Chapter 4.1); and
 - Increased prevalence of water-borne, water-based, water-related, and vector-borne diseases, and communicable and sexually transmitted diseases (e.g., HIV/AIDs, tuberculosis, malaria, Ebola virus disease) that could occur as a result of the mining project.

The evidence, Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015) and Operational Risk Register (March 2023), as well as interviews with key staff and a sample of affected stakeholders, indicates that the company has carried out a scoping exercise to identify significant potential risks and impacts to community health and safety from mining-related activities. The ESHIA (2015) document considers the following sources of potential risks and impacts to community health and safety that may arise across all mining phases, being construction, operational, and decommissioning, and cumulative impacts:

- General mining operations for the construction phase (Chapter 8.3) and operation phase (Chapter 8.4), such as the operations' risks to community members due to traffic and transport or blasting.
- Operation of mine-related equipment or vehicles on public roads (Chapter 8) and Operational Risk Register (March 2023), causing vehicle emissions and generating dust, which might exacerbate acute respiratory infections. Company vehicles add to the risk of collisions with vehicular or foot traffic.
- Operational accidents (Chapters 7.4 and 7.5) and Operational Risk Register (March 2023), such as road accidental injuries, groundwater contamination, with the potential to impact the health, income, nutrition, and livelihood of affected villages.
- Failure of structural elements (Chapter 8.4), such as tailings dam and waste rock dump, and more detailed potential risks and impacts that are posed by the Tailings' Storage Facilities (TSF) in the risk register TSF Balama Risk Register (July 2023) and the Operational Risk Register (March 2023).
- Mining-related impacts on priority ecosystem services (Chapter 6), such as the biophysical environment, topography and geology, soils and agriculture, surface and groundwater availability and quality, aquatic environment, and flora and fauna. The scoping also included risks and impacts caused by mining-related infrastructure on waste, wastewater, noise, and air quality (Chapter 8), as well as effects of the project in global climate change (Chapter 9).
- Mining-related effects on community demographics, including in-migration of mine workers and others (Chapters 7 and 8) and the Operational Risk Register (March 2023); as the development of mine may bring an influx of migrant workers and those seeking economic opportunities into existing communities, creating the potential for cultural conflicts, as well as the potential for increased rates of alcoholism and substance abuse, and sexual violence or exploitation of women and children.
- Mining-related impacts on the availability of services (Chapter 7.6), especially in the final phases, since the mine supports a significant amount of educational and health projects, besides infrastructure, for the local government.

		<p>h. Hazardous materials and substances (Chapters 6, 7.4, and 8.3), such as pesticides, oil spillage and exhaust fumes, affecting surrounding communities and crops and potentially releasing contaminants into groundwater. Scoping and assessments were also provided in separate documents. The Safety Assessment Report for Sealed Radioactive Sources October 2018 and Safety Assessment Report for Workers and Public September 2018), indicates all radioactive sources at the plant tested negative for leaks, therefore these sources are leak tight and impacts to the public negligible.</p> <p>i. Increased prevalence of water-borne, water-based, water-related, and vector-borne diseases, and infectious and sexually transmitted diseases (e.g., HIV/AIDs, tuberculosis, malaria, Ebola virus disease) that could occur because of the mining project (Chapters 7.4, and 12.1).</p> <p>Interviews with key staff indicate that the risk assessment process at the site is ongoing. Interviews with a sample of stakeholders indicate concern for blasting and vibration.</p> <p>The evidence does not include scoping for potential fly rock, vibration or ground instability related to blasting (blasting was not considered needed due to graphite's soft, friable nature), so these risks were not considered during the pre-operation feasibility phase.</p>
<p>3.3.1.2. Scoping shall include an examination of risks and impacts that may occur throughout the mine lifecycle (e.g., construction, operation, reclamation, mine closure and post-closure).</p>	<p>●</p>	<p>The evidence, Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015) and Operational Risk Register (March 2023), indicates that the company's scoping exercise identifies risks and impacts and the accompanying risk register contains a matrix with identified risks that may occur throughout the mine lifecycle, as follows: construction, operation, decommissioning and cumulative impacts.</p>
<p>3.3.1.3. Scoping shall include consideration of the differential impacts of mining activities on vulnerable groups or susceptible members of affected communities.</p>	<p>●</p>	<p>The Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015) and the Operational Risk Register (March 2023) include the consideration of the differential impacts of mining activities on children (including orphans), women (including widows), elderly, and disabled and/or chronic illnesses people as indicated by their operational risk register which lists affected groups for each risk and more in-depth sections throughout several chapters of the ESHIA (2015).</p>
<p>3.3.2.1. The operating company shall carry out an assessment of risks and impacts to:</p> <ul style="list-style-type: none"> a. Predict the nature, magnitude, extent and duration of the potential risks and impacts identified during scoping; b. Evaluate the significance of each impact, to determine whether it is acceptable, requires mitigation, or is unacceptable. 	<p>●</p>	<p>The evidence, an Environmental, Social and Health Impact Assessment (ESHIA) (February 2015), Operational Risk Register (March 2023), and interviews with a sample of key staff indicate that the company has implemented a process to carry out risk assessments as in (a) to predict the nature and magnitude of the potential environmental and social impacts identified during scoping. The operational risk register provides an analysis of the probability of risk occurrence ranging from rare to almost certain, as well as a breakdown of the severity of the risk's impact from low to extreme. Interviews indicate that those responsible at the mine use the operational risk register tool to (b) evaluate the significance of impacts and provide management and mitigation measures, and this work is ongoing.</p>

3.3.3.1. The operating company shall document and implement a community health and safety risk management plan that includes:

- a. Actions to be taken to mitigate the significant risks and impacts identified during its risk and impact assessment; and
- b. Monitoring that will be conducted to ensure that measures to prevent or mitigate impacts remain effective.



The evidence, Local Development Agreement (April 2019), Operational Risk Register (March 2023), a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), as well as interviews with company key staff, indicates that the company has different documents that document the community health and safety risk management planned actions. The evidence includes:

- a. actions to be taken to mitigate some of the significant risks and impacts identified during its risk and impact assessment, such as support to the Balama Vocational Training Center to provide mechanical and electrical training courses, to a health program to support pregnant women, and to a close orphanage; and
- b. ongoing monitoring to ensure that measures to prevent or mitigate impacts remain effective (Operational Risk Register, March 2023).

The evidence does not include the information to confirm the implementation of (a) mitigation actions for all significant risks and impacts listed in the Environmental, Social and Health Impact Assessment (ESHIA) (February 2015).

3.3.3.2. Mitigation measures shall prioritize the avoidance of risks and impacts over minimization and compensation.



The evidence, the Local Development Agreement (April 2019), Operational Risk Register (March 2023), and Update of the Socio-Economic Impact Study (July 2022) that includes interviews with stakeholders, provides information to confirm that a hierarchical approach is used to prioritize avoidance over mitigation and compensation. An exchange of emails between the company and a national government agency (May 2022) indicates that the mine project area was reduced in comparison to the concession area to avoid some significant social impacts, including economic resettlement, in three affected communities. In cases where risks and impacts exist solely because of the mine operation (i.e., risk of accidents with company vehicles, TSF failure), the mitigation measures aim at minimizing or compensating.

The evidence does not include a community health and safety management plan formalizing avoidance in the development of mitigation strategies.

3.3.3.3. The community health and safety risk management plan shall be updated, as necessary, based on the results of risk and impact monitoring.



The evidence includes a report of socio-economic impacts associated with the mine, updated (Update of the Socio-Economic Impact Study, Nemus Africa July 2022) that includes interviews with stakeholders. In combination with the risk register (March 2023) the evidence indicates that the company revises mitigation strategies based upon monitoring information.

While the evidence does not include a community health and safety management plan, the evidence indicates that safety risk management updates in collaboration with stakeholders is ongoing.

- 3.3.4.1. If the operating company's risk and impact assessment or other information indicates that there is a significant risk of community exposure to HIV/AIDS, tuberculosis, malaria or another emerging infectious disease related to mining activities, the operating company shall develop, adopt and implement policies, business practices, and targeted initiatives:
- a. In partnership with public health agencies, workers' organizations and other relevant stakeholders, create and fund initiatives to educate affected and vulnerable communities about these infections and modes of prevention of them, commensurate with the risks posed by mining;
 - b. Operate in an open and transparent manner and be willing to share best practice for the prevention and treatment of these diseases with workers' organizations (e.g., trade unions), other companies, civil society organizations and policymakers; and
 - c. Make information publicly available on its infectious disease mitigation program.

The Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015 Chapter 6) and the Health Impact Assessment (May 2013) indicate that there is an increased risk of community exposure to HIV/AIDS, tuberculosis, and malaria during mining activities across all phases of the project. The evidence, as well as interviews with key staff and relevant government officials, indicate that the company supports initiatives to reduce the risk of these infections and improve treatment outcomes. According to Mozambican legislation, no company can directly carry out actions related to community health, these actions must be performed and organized by the district government's health agencies, and the company can only co-organize or finance them.

The evidence, Balama Health Programs (March 2019 and January 2020) and Local Development Agreement (April 2019), indicates that to prevent or minimize the effects of HIV/AIDS, tuberculosis, and malaria, the company has:

- a. provided funds to public health agencies to create initiatives to educate affected and vulnerable communities about these infections and modes of prevention of them;
- b. is operating openly and transparently, applying best practices for the prevention and treatment of workers and contractors, such as awareness campaigns, training of medical staff, storing anti-malaria drugs, and providing specific PPE for workers/contractors at high risk of contracting malaria, among others, and
- c. provides information on its infectious disease mitigation program upon request in alignment with national legislation.

- 3.3.4.2. If the assessment demonstrates a significant risk of community exposure to HIV/AIDS, tuberculosis or malaria from mining-related activities, the following prevention and mitigation strategies shall be applied, as appropriate:
- a. In relation to HIV/AIDS, the operating company shall, at minimum:
 - i. Provide free, voluntary and confidential HIV testing and counseling for all mine workers and employees;
 - ii. Provide HIV/AIDS treatment for workers and employees where it cannot reasonably be assumed that this will be provided in an effective manner by public or private insurance schemes at an affordable rate;

The Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015 Chapter 6) and the Health Impact Assessment (May 2013) indicate that there is an increased risk of community exposure to HIV/AIDS, tuberculosis, and malaria during mining activities across all phases of the project. The evidence, as well as interviews with key staff and relevant government officials, indicate that the company supports initiatives to reduce the risk of these infections and improve treatment outcomes. According to Mozambican legislation, no company can directly carry out actions related to community health, these actions must be performed and organized by the district government's health agencies, and the company can only co-organize or finance them. In relation to HIV/AIDS, and in respecting national legislation the company:

- a. i. and a. ii supports confidential medical testing and care for all mine workers and employees that may include HIV/AIDS upon request;
- a. iii. conducts awareness campaigns for workers and contractors (i.e., the World AIDS Day Programme for Tomorrow, December 2021); and
- a. iv. provides funds to public health agencies to create initiatives to educate affected and vulnerable communities about these infections and modes of prevention of them, as indicated in the Balama Health Program (March 2019) and the Local Development Agreement (April 2019).

- iii. Provide access for contractors to education and other preventative programs, and to work with the operating company's or facility's contracting companies or others to identify ways for contract workers to access affordable treatment; and
 - iv. Work with public health authorities, communities, workers' organizations and other stakeholders towards ensuring universal access to treatment for dependents of mine workers/employees and affected community members.
- b. In relation to tuberculosis, the operating company shall, at minimum, provide free and voluntary testing for mine workers/employees where it is not reasonably likely to be provided by public or private health programs at an affordable rate.
- c. In relation to malaria, the operating company shall, at minimum:
- i. Develop a vector control plan;
 - ii. Ensure that company facilities are not breeding environments for malaria-carrying mosquitoes; and
 - iii. Provide protection from infection by malaria-carrying mosquitoes in company facilities and any company-provided housing.

b. supports free and voluntary testing for tuberculosis of mine workers/employees upon request;

In relation to malaria, the company has:

- c. i. developed a vector control plan that includes malaria (Balama Health Programs, March 2019 and January 2020);
- c. ii. proposed measures to reduce the presence of breeding environments for malaria-carrying mosquitoes at the operation, such as using larvicide in stagnant water around the surrounding communities and minimizing the presence of standing water in the operations;
- c. iii. implemented measures to reduce breeding environments on-site and provided protection from infection by malaria-carrying mosquitoes in company facilities and any company-provided housing (such as providing and encouraging the use of mosquito netting and repellent).

3.3.5.1.

The operating company shall collaborate with relevant community members and stakeholders, including workers who live in affected communities and individuals or representatives of vulnerable groups, in:

- a. Scoping of community health and safety risks and impacts related to mining;
- b. Assessment of significant community health and safety risks and impacts related to mining;
- c. Development of prevention or mitigation strategies;

The evidence, a sample of assessments and community engagement documents and activities such as initial and updated assessments of community health and safety risks and impacts related to mining and that include stakeholder engagement (Update of the Socio-Economic Impact Study July 2022), an Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015 Chapter 6), Health Impact Assessment (May 2013), Local Development Agreement (April 2019) and a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), indicates that the company collaborates with relevant community members and stakeholders, including those who may be workers who live in affected communities and individuals or representatives of vulnerable groups and associated government agencies in accordance with national legislation, including collaboration related to:

- a. Scoping significant of community health and safety risks and impacts related to mining (2013, 2015, 2022 impact assessments and updates);

- d. Collection of any data needed to inform the health risk and impact assessment process; and
- e. Design and implementation of community health and safety monitoring programs.

- b. Assessing significant community health and safety risks and impacts related to mining (2013, 2015, 2022 impact assessments and updates);
- c. Developing prevention or mitigation strategies (a sample of Local Development Committee minutes 2021-2023);
- d. Collection of any data needed to inform the health risk and impact assessment process (2013, 2015, 2022 impact assessments and updates); and
- e. Design and implementation of community health and safety monitoring programs (2019 and meeting minutes 2021 - 2023).

Interviews with a sample of key staff and stakeholders, among them community leaders and members, workers, indicate that there is dissatisfaction among community members regarding the delivery timelines of some health and safety projects, such as the revitalization of the access road to the Chipembe community. Interviews with agency officials and key staff suggest that project deliveries are informed by the timelines of government entities and are not the sole responsibility of the company.

3.3.6.1. The operating company shall make information on community health and safety risks and impacts and monitoring results publicly available.

The evidence, a sample of Local Development Committee meeting minutes (several months through 2021 until 2023), Sustainability Quarterly and Annual Reports (January 2023), as well as interviews with key staff and relevant government officials, indicates that the company provides publicly available information on community health and safety risks and impacts and monitoring results.

While the evidence indicates that some stakeholders are informed about the community health and safety risks and impacts and monitoring results, a sample of stakeholder interviews indicated that some community members are not aware of the possible risks and impacts related to mining operations.

Chapter 3.4—Mining and Conflict-Affected or High-Risk Areas

Basis for rating

3.4.1.1. The operating company shall conduct a screening analysis, based on evidence from credible sources, to determine whether or not the mining project is located in and/or sources minerals from a conflict-affected or high-risk area.

IRMA references Mining in Conflict-Affected or High-Risk Areas to be aligned with the OECD Due Diligence Guidance, with the objective of preventing mines that operate in, source minerals from, or transport minerals through conflict-affected or high-risk areas from contributing to conflict or the perpetration of serious human rights abuses. By carrying out such due diligence, mines can provide purchasers and others with added assurance that the extraction, processing, and transport of minerals or metals from these mines are not contributing to the financing of conflict or serious abuses of human rights.

		<p>The evidence, BGO Security Overview and Assessment (first report from 2017, last updated on January 2024), a constantly updated report developed by Syrah's Security Council, indicates that the company conducted a screening analysis based on evidence from credible sources, including the Heidelberg Institute for International Conflict Research ("HIIC") Conflict Barometer Report 2022, to determine the mining project's province, Cabo Delgado, is a conflict-affected area, as it has been the stage of a series of violent attacks from an Islamist inspired group of insurgents. The assessment also indicates that as of January 2024, there are no current risks identified to the mine project as the incidents are contained further north and away from the site, proper deterrence exists to prevent and/or respond to potential changes to the risk profile, and the company's current security protocols are sufficiently robust to allow for full protection of all employees and contractors (p. 3).</p>
<p>3.4.1.2. If a determination is made that the mining project is located in a conflicted-affected or high-risk area or it sources minerals from such areas, then the operating company shall undertake the additional due diligence steps outlined in the remainder of this chapter.</p>	●	<p>The evidence, BGO Security Overview and Assessment (January 2024), indicates that the company screened the location of the mining province and determined that it is located in a conflict-affected or high-risk area. The company carries out additional due diligence process consistent with this chapter (refer to IRMA 3.4.2.1.).</p>
<p>3.4.1.3. If a determination is made that the project is not located in a conflicted-affected or high-risk area, and no minerals are sourced from those areas, then conflict-related risks shall be monitored at a level commensurate with the potential that the project area may become a conflict-affected or high-risk area and/or minerals from such areas may enter the mine's supply chain. If new risks emerge or previously identified risks intensify, screening shall take place to determine if risks are significant enough to warrant undertaking the additional due diligence steps in the remainder of this chapter.</p>	—	<p>Not relevant. The evidence, BGO Security Overview and Assessment (January 2024), indicates that the company screened the location of the mining province and determined that it is located in a conflict-affected or high-risk area.</p>
<p>3.4.2.1. Critical. When operating in or sourcing minerals from a conflict-affected or high-risk area, the operating company shall not knowingly or intentionally cause, contribute to or be linked to conflict or the infringement of human rights by any party, or knowingly provide direct or indirect support to non-state armed groups or their affiliates, public security forces, or private security forces who:</p>	●	<p>The BGO Security Overview and Assessment (January 2024) indicates that the company screened the location of the mining project and determined that it is located in a conflict-affected or high-risk area as the province it is located, Cabo Delgado, has been the stage of a series of violent attacks from an Islamist inspired group of insurgents.</p> <p>The evidence, BGO Security Overview and Assessment (January 2024), Modern Slavery and Human Rights - Supplier Risk Assessment (January 2024), an Anti-Bribery and Anti-Corruption Certificate of Compliance (two samples signed by contractor companies, May 2023), the Distribution Agreement between Twigg and Syrah Global DMCC (October 2019), and corporate-level policies such as the Anti-Bribery and Anti-Corruption Policy (October 2023, first version 2015), in addition to interviews with key staff, indicate with reasonable confidence</p>

- a. Illegally control mine sites, transportation routes and upstream actors in the supply chain;
- b. Illegally tax or extort money or minerals at point of access to mine sites, along transportation routes or at points where minerals are traded; or
- c. Illegally tax or extort intermediaries, export companies or international traders.

that the company does not knowingly or intentionally cause or contribute to and is not linked to conflict or the infringement of human rights by any party specifically regarding direct or indirect support to non-state armed groups or their affiliates, public security forces, or private security forces who illegally control, tax or extort:

- a. mine sites, transportation routes and upstream actors in the supply chain;
- b. money or minerals at the points of access to the mine site, along transportation routes, or at points where minerals are traded; and
- c. intermediaries, export companies or international traders. Note that Twigg's operations do not involve intermediaries, export companies, or international traders in its supply chain. Syrah Global DMCC has been appointed as the exclusive distributor and authorized dealer for Twigg's material. As part of the Syrah Resources Group, Syrah Global DMCC adheres to the same corporate governance standards and conflict and human rights risk mitigation frameworks as BGO.

3.4.2.2. When operating in a conflict-affected or high-risk area, the operating company shall:

- a. Adopt and communicate to the public and stakeholders a commitment that when operating in a conflict-affected or high-risk area the operating company will not knowingly or intentionally cause, contribute to or be linked to conflict or the infringement of human rights by any party;
- b. Maintain documentation on the quantity and dates of mineral extraction; quantity and dates of minerals obtained from other sources (e.g., from ASM); locations where minerals are consolidated, traded or processed; all mining-related taxes, fees, royalties or other payments made to governmental officials for the purposes of extraction, trade, transport and export of minerals; all taxes and other payments made to public or private security forces or other armed groups; identification of all actors in the upstream supply chain; and transportation routes. This information shall be made available to downstream purchasers and auditors and to any institutionalized mechanism, regional or global, with the mandate to collect and process information on minerals from conflict-affected and high-risk areas;

The evidence, BGO Security Overview and Assessment (January 2024), indicates that the company conducted a screening analysis based on evidence from credible sources and determined the mining project's province, Cabo Delgado, is a conflict-affected area, as it has been the stage of a series of violent attacks from an Islamist inspired group of insurgents. The evidence, Code of Conduct (July 2023) and the Syrah Human Rights Policy (September 2023), indicates that the company:

- a. has made publicly available its Code of Conduct and Human Rights Policy, which indicate that the company, Syrah Resources, has adopted and communicated to the public a commitment that the company will not knowingly or intentionally cause, contribute to, or be linked to conflict or any party's infringement of human rights;
- b. maintains documentation on the quantity and date of mineral extraction, as well as records of all mining-related taxes, fees, royalties, or other payments made to government officials for the purposes of extraction, trade, transport, and export of minerals, as indicated in the Disclosure of the Environmental and Social Performance of Twigg (2021) and an Excel spreadsheet, EITI Report (2020). The BGO Security Overview and Assessment (January 2024) confirms that the company has identified all actors in the upstream supply chain and transportation routes, and also indicates that the company does not source mineral material from other suppliers;
- c. has assigned a Security Council, composed of the Syrah Executive Committee and relevant senior leaders, to oversee the conflict due diligence process; and
- d. provides stakeholders with appropriate mechanisms for conflict-related concerns, grievances and complaints to be raised (refer to IRMA 1.2.2.2 and 3.1.5.1).

While interviews with company management and workers' representatives, along with training records for workers and contractors (Training Tracker, January 2024), indicate that employees receive annual training on the grievance mechanism and its scope, some worker interviews with both employees and contractors




<ul style="list-style-type: none"> c. Assign authority and responsibility to senior staff with the necessary competence, knowledge and experience to oversee the conflict due diligence processes; and d. Ensure that stakeholders have access to and are informed about a mechanism to raise conflict-related concerns or grievances. 		<p>indicated a low awareness of how to raise a grievance (besides to their supervisor) and of the existence of a Portuguese speaking attended hotline with direct link to an external law firm from Mozambique, implemented since February 2023. No evidence was provided regarding taxes or other payments made to public or private security forces or other armed groups, as outlined in b.</p>
<p>3.4.3.1. The operating company shall assess the risks to the company, workers and communities associated with operating in or sourcing minerals from the conflict-affected or high-risk area. Assessments shall include, at minimum:</p> <ul style="list-style-type: none"> a. Analysis of structural, root and proximate causes of the current conflict, and potential triggers of conflict in the area of operation; b. Review of the factual circumstances of the operating company's mineral extraction, transport, and, if relevant, mineral sourcing and/or processing; and c. Analysis of the risk that any of the company's activities may lead to the direct or indirect infringement of human rights, support of armed groups or otherwise contribute to conflict. 	●	<p>The evidence, BGO Security Overview and Assessment (January 2024), as well as interviews with key staff, indicate that the company assesses risks related to the company, workers and communities associated with operating in a conflict-affected and high-risk area. The assessment includes:</p> <ul style="list-style-type: none"> a. an identification and analysis of the root and structural causes of the ongoing conflict in the province where the company operates, which is linked to risks of human rights abuses and armed conflict due to a religious and terrorist conflict in the region; b. a review of the factual circumstances surrounding the company's extraction, processing, and transportation of minerals from the mining site to the two ports used. The review indicates that the company does not source mineral material from any other supplier, is solely responsible for all mineral processing activities, and maintains a comprehensive map and control of the transportation routes to the point of sale; c. an analysis of the risk that the company's activities might directly or indirectly contribute to human rights violations, including risks related to child labor and forced labor. <p>The evidence indicates that the company does not utilize other suppliers to acquire its minerals and extracts and processes all its material on site therefore reducing the level of risks.</p>
<p>3.4.3.2. Assessments shall follow a recognized risk assessment methodology, and be carried out and documented by competent professionals.</p>	⊗	<p>Does not meet. The BGO Security Overview and Assessment (January 2024) indicates that a risk assessment is conducted and documented. The assessment uses recognized international indicators, including the Heidelberg Institute for International Conflict Research ("HIIK") Conflict Barometer Report 2022, and external resources, such as monthly reports from officials at local, provincial and national levels of government, the district's police command, the United Kingdom's High Commission, and the Australian High Commission for Southern Africa, to identify risks in the company's supply chain.</p> <p>No evidence was provided by the company to confirm that the assessment follows a recognized risk assessment methodology, and was carried out by competent professionals.</p>

3.4.3.3. Assessments shall be based on credible evidence including on-the-ground research, expert advice, and information from consultations with relevant stakeholders, including men, women, children (or their representatives) and other vulnerable groups.	⊗	Does not meet.
3.4.3.4. Conflict risk assessments shall be updated at minimum, on an annual basis, and more often if necessitated by the situation.	●	The BGO Security Overview and Assessment (January 2024), as well as interviews with key staff, including the site general manager, indicate that the company conducts risk assessment due diligence multiple times per year, and updates the assessment whenever new risks develop or intensify or at least once a year.
3.4.4.1. The operating company shall develop and implement a risk management plan that includes actions to be taken to prevent or mitigate risks identified through the risk assessment process.	●	The Operational Risk Register (March 2023), as well as key staff interviews, including the security provider manager and the site general manager, indicate that the company has planned and documented the actions to be taken to prevent or mitigate risks identified through the risk assessment process. Interviews with a sample of workers, including security providers, indicate that relevant staff is aware of the risk management plan and how it is implemented, besides indicating that this is an ongoing process.
3.4.4.2. The operating company shall collaborate with relevant stakeholders to develop culturally appropriate strategies to prevent or mitigate risks that are relevant to them; to develop performance objectives, timelines and indicators to measure the effectiveness of the risk management strategies; and to update or revise its prevention and mitigation strategies as needed.	⊗	Does not meet.
3.4.4.3. If risks to human rights are identified in the assessment, the operating company shall adhere to the requirements in IRMA Chapter 1.3.	●	The BGO Security Overview and Assessment (January 2024) indicates that there are human risks identified related to the current conflict in the mining project's province. The evidence, a Salient Human Rights Issues Final Report (May 2023), the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023) and a risk matrix for potential human rights risks (May 2023), indicate that the steps taken to prevent, mitigate and remediate risk and impacts align with the requirements in IRMA Chapter 1.3.
3.4.5.1. The operating company shall implement and monitor the effectiveness of its risk management plan as per the performance objectives, timelines and indicators developed with stakeholders.	⊗	Does not meet.

<p>3.4.5.2. If through monitoring or some other means it is discovered that the operating company has unknowingly or unintentionally been complicit in armed conflict or serious human rights abuses in conflicted-affected or high-risk areas, the operating company shall immediately cease or change the offending action, mitigate or remediate the impact, and carry out external monitoring of its due diligence activities as per as per IRMA Chapter 1.3.</p>	—	<p>Not relevant because the company has not unknowingly or unintentionally been complicit in armed conflict or serious human rights abuses in conflicted-affected or high-risk areas.</p>
<p>3.4.6.1. The findings of conflict risk assessments, risk management plans and monitoring shall be reported to senior management of the operating company; and stakeholders, contractors, mine workers and other employees shall be informed of findings that are relevant to them.</p>	●	<p>The evidence, rationale provided by the company and interviews with key company staff (security department and site general manager), indicate that the company Security Council, composed of the Syrah Executive Committee and relevant senior leaders, holds monthly meetings to discuss:</p> <ul style="list-style-type: none"> - the findings of conflict risk assessments (BGO Security Overview and Assessment, January 2024), - other relevant reports and information provided from multiple credible sources, - the mine security level as per the Security Emergency Escalation Plan and discussing further controls if necessary, - current controls in place and their effectiveness, - implications for the mine project in terms of potential scenarios, and - the Security Emergency Escalation Plan as required. <p>Interviews with a sample of workers, including security providers, indicated awareness about relevant risk-related findings.</p>
<p>3.4.6.2. On an annual basis, where the operating company is operating in or sourcing minerals from a conflict-affected or high-risk area, the company or its corporate owner shall publicly report on due diligence undertaken to ensure that its actions are not supporting armed conflict or the infringement of human rights in those areas.</p>	⊗	<p>Does not meet.</p>

Chapter 3.5—Security Arrangements

Basis for rating

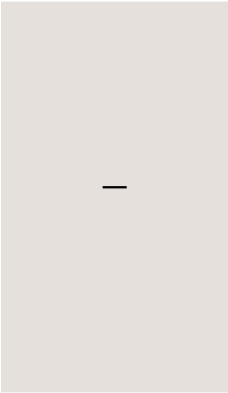
<p>3.5.1.1. The operating company shall adopt and make public a policy acknowledging a commitment to respect human rights in its efforts to maintain the safety and security of its mining project; and a commitment that it will not provide support to public or private security forces that have been credibly implicated in the infringement of human rights, breaches of international humanitarian law or the excessive use of force.</p>		<p>The evidence, Syrah Human Rights Policy (September 2023), a corporate-level policy, as well as interviews with a sample of key staff, indicates that the company has adopted and made public a policy acknowledging a commitment to respect human rights in its efforts to maintain the safety and security of its mining project, and a commitment that it will not provide support to public or private security forces that have been credibly implicated in the infringement of human rights, breaches of international humanitarian law or the excessive use of force (p. 1). The policy is publicly available at https://www.datocms-assets.com/65260/1695011753-20230918_pol-human-rights-policy.pdf</p>
<p>3.5.1.2. Critical. The operating company shall have a policy and procedures in place regarding the use of force and firearms that align with the best practices expressed in UN Basic Principles on the Use of Force and Firearms. At minimum, the company's procedures shall require that:</p> <ul style="list-style-type: none"> a. Security personnel take all reasonable steps to exercise restraint and utilize non-violent means before resorting to the use of force; b. If force is used it shall not exceed what is strictly necessary, and shall be proportionate to the threat and appropriate to the situation; and c. Firearms shall only be used for the purpose of self-defense or the defense of others if there is an imminent threat of death or serious injury. 		<p>The evidence, a procedure for firearms management plan (May 2023) and the Syrah Human Rights Policy (September 2023), indicates that the company has a policy and procedures in place regarding the use of force that aligns with the best practices expressed in UN Basic Principles on the Use of Force that includes:</p> <ul style="list-style-type: none"> a. security personnel taking all reasonable steps to exercise restraint and utilize non-violent means before resorting to the use of force (p. 10); b. if force is used, it shall not exceed what is strictly necessary and shall be proportionate to the threat and appropriate to the situation (p. 10); and c. firearms shall only be used for self-defense or the defense of others if there is an imminent threat of death or serious injury (p. 11). <p>Interviews with a sample of key staff, primarily security managers and emergency response personnel, indicate that policy and procedures related to the use of force and firearms are implemented, and that this is regularly emphasized in training. Security guards, several who were recently employed with the company's security contractor, indicate training on the use of force was part of their pre-work orientation, and that violence was not permitted.</p>
<p>3.5.1.3. If private security is used in relation to the mining project, the operating company shall have a signed contract with private security providers that at minimum:</p> <ul style="list-style-type: none"> a. Sets out agreed on principles that are consistent with the Voluntary Principles on Security and Human Rights and the operating company's procedures on the use of force and firearms; b. Delineates respective duties and obligations with respect to the provision of security in and around 		<p>The evidence, Chelsea Security Fully Signed Contract (May 21, 2019) and the contract extensions (24-month extension from July 2021 to June 2023, and a 12-month extension from July 2023 to June 2024), indicates that the company has a signed security contract with a private security provider that:</p> <ul style="list-style-type: none"> a. is consistent with the Voluntary Principles on Security and Human Rights and the company's procedures on the use of force and firearms (p. 2); b. delineates respective duties and obligations with respect to the provision of security in and around the mining project and along transport routes (p. 2); and c. outlines required training for security personnel (p. 3).

<p>the mining project and, if relevant, along transport routes; and</p> <p>c. Outlines required training for security personnel.</p>		<p>Interviews with a sample of key staff including security personnel, indicate the private security provider complies with the terms of the signed contract.</p>
<p>3.5.1.4. If public security forces are used to provide security to the mining project and/or transport routes, the operating company shall make a good faith effort to sign a Memorandum of Understanding (MoU) or similar agreement with public security providers that includes similar provisions to those in 3.5.1.3.</p>	<p>—</p>	<p>Not relevant. The company indicated that the public security forces are not used to provide security to the mining project and/or transportation routes. State military and police forces deployed by the government are present throughout Cabo Delgado province to protect civil society and national territory by responding to general security threats. The military forces operate under government authority with a mandate to act autonomously in securing the region. The company employs private security to respond to incidents at the mine and along transportation routes (see 3.5.1.3). The company indicated in interviews, and no evidence was encountered to the contrary, that it does not have a contractual, formal, or informal relationship with the military or police for security services related to the mining project or transport routes.</p> <p>The relevancy of this requirement will be reevaluated during the surveillance audit to confirm public security forces would not respond to incidents involving the mining project and/or transport routes.</p>
<p>3.5.2.1. The operating company shall assess security risks and potential human rights impacts that may arise from security arrangements. Assessments of security-related risks and impacts shall be updated periodically, including, at minimum, when there are significant changes in mining-related activities, security arrangements, or in the operating environment.</p>	<p>●</p>	<p>The evidence, a Salient Human Rights Issues Final Report (May 2023), the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023) and a risk matrix for potential human rights risks (May 2023), as well as interviews with a sample of key staff, indicates that the company identified and completed an initial assessment of a broad range of potential human rights risks and impacts to workers and stakeholders associated with the mining project, including security risks and potential human rights impacts that could stem from its security arrangements.</p> <p>The evidence does not include policies or procedures on how the company assesses human rights risks and impacts to confirm whether there is an ongoing process in place to ensure that the company will update its human rights risks and impacts assessment on a regular basis or when a significant change to the project prompts a re-assessment, including security arrangements, or in the operating environment.</p>
<p>3.5.2.2. Assessments, which may be scaled to the size of the company and severity of security risks and potential human rights impacts, shall:</p> <ol style="list-style-type: none"> Follow a credible process/methodology; Be carried out and documented by competent professionals; and Draw on credible information obtained from a range of perspectives, including men, women, children (or their representatives) and other 	<p>●</p>	<p>The evidence, a Salient Human Rights Issues Final Report (May 2023), the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023), a risk matrix for potential human rights risks (May 2023), as well as interviews with a sample of key staff, indicates that the assessment was scaled to the size of the company and severity of security risks, and potential human rights impacts, and that it:</p> <ol style="list-style-type: none"> employs a credible methodology that includes a full range of potential human rights risks and impacts to affected communities and stakeholders, and identified six salient human rights issues areas, as described in the report (slide 40 of the roadmap report); and utilizes the expertise of an internationally recognized consulting company in human rights assessments.

<p>vulnerable groups, relevant stakeholders and expert advice.</p>		<p>The evidence does not specify if (c) consultations fully represent potentially affected stakeholders, including men, women, children (or their representatives) and other vulnerable groups.</p>
<p>3.5.2.3. The scope of the security risk assessment shall include, but need not be limited to:</p> <ul style="list-style-type: none"> a. Identification of security risks to the company, workers and communities, paying particular attention to risks to women, children and other vulnerable groups; b. Analysis of the political and security context in the host country context (e.g., the human rights records of the government and public and private security forces; adherence to the rule of law; corruption); c. Analysis of current and potential conflicts or violence in the host country and affected communities; and d. Risks associated with equipment transfers. 	<p>●</p>	<p>The evidence, a Salient Human Rights Issues Final Report (May 2023), the Balama Mine Human Rights Gap Analysis and Roadmap Report (August 2023), a risk matrix for potential human rights risks (May 2023), as well as interviews with a sample of key staff, indicates the assessment includes risks:</p> <ul style="list-style-type: none"> a. to the company, workers and communities (including women, children, and other vulnerable groups); and d. equipment transfers. <p>The security-specific BGO Security Overview and Assessment (January 2024) indicates the company analyzes (b) the political and security context in the Mozambican context and (c) the current and potential conflicts or violence in the mining project area and affected communities (including risks for terrorist attacks), and the risk matrix for potential human rights risks (May 2023), as well as the Security Emergency Escalation Plan (March 2022) include those risks.</p>
<p>3.5.2.4. The operating company shall develop and implement a risk management plan that includes actions to be taken to prevent or mitigate identified risks, and monitoring that will be conducted to ensure that mitigation measures are effective.</p>	<p>●</p>	<p>The internal document Guideline for Prevention Mitigation and Remediation of Human Rights Impacts (January 2024) indicates that the company has developed and implemented a risk management plan that considered recommendations for preventing, mitigating, and remediating identified risks and impacts, giving priority to the most salient human rights issues identified, which include those security-related.</p> <p>The security-specific Security Emergency Escalation Plan (March 2022) is an internal guidance on how to ensure a planned and considered approach is taken in an escalating security environment.</p>
<p>3.5.2.5. If the security risk assessment reveals the potential for conflicts between mine security providers and affected community members or workers, then the operating company shall collaborate with communities and/or workers to develop mitigation strategies that are culturally appropriate and that take into consideration the needs of women, children and other vulnerable groups. If specific risks to human rights are identified in the assessment, the</p>	<p>●</p>	<p>The evidence, Public Security Meeting Minutes (March 2022) between the company, the Balama District Police Commander and the Ntete Police Post Chief, as well as interviews with a sample of key staff and stakeholders, including government officials, indicates that the company has collaborated with communities to develop mitigation strategies.</p> <p>No evidence was provided to confirm the company collaborates with communities and/or workers to develop mitigation strategies that are culturally appropriate and take into consideration vulnerable groups.</p>

<p>mitigation strategies shall conform with requirements in IRMA Chapter 1.3.</p>		
<p>3.5.3.1. The operating company shall develop and implement due diligence procedures to prevent the hiring of company security personnel and private security providers who have been convicted of or credibly implicated in the infringement of human rights, breaches of international humanitarian law or the use of excessive force.</p>	●	<p>The evidence, a sample of the documents required for security personnel during the hiring process with the contracted security service provider (examples from 2019 and 2021), indicates that the company has developed and implemented a procedure to screen security personnel and private security backgrounds (i.e., for criminal records, breaches of international humanitarian law, use of excessive force, etc.) and this is confirmed in interviews with a sample of company managers (i.e., human resources, security, safety), and their security contractor, Chelsea Group.</p>
<p>3.5.3.2. The operating company shall make a good faith effort to determine if public security personnel providing security to the mine have been convicted of or credibly implicated in the infringement of human rights, breaches of international humanitarian law or the use of excessive force.</p>	—	<p>Not relevant. The company indicated that the public security forces are not used to provide security to the mining project and/or transportation routes. Therefore no evaluation was conducted to determine if the military and police officers in the province have been convicted or implicated in human rights violations. State military and police forces deployed by the government are present throughout Cabo Delgado province to protect civil society and national territory by responding to security threats. The military forces operate under government authority with a mandate to act autonomously in securing the region. The company employs private security to respond to incidents at the mine and along transportation routes (see 3.5.1.3). The company does not have any contractual, formal, or informal relationship with the military and police for security services related to the mining project or transport routes.</p> <p>The relevancy of this requirement will be reevaluated during the surveillance audit to confirm public security forces would not respond to incidents involving the mining project.</p>
<p>3.5.4.1. Prior to deployment of company or private security personnel, the operating company shall provide training that incorporates, at minimum, information related to ethical conduct and respect for the human rights of mine workers and affected communities, with particular reference to vulnerable groups, and the company's policy on the appropriate use of force and firearms. Initial training and refresher courses shall be mandatory for all operating company personnel involved in security, and for private security contractors that have not received equivalent training from their employers.</p>	●	<p>The evidence, a copy of the voluntary principles on security and human rights lecture slides (no date), indicates that the security provider, Chelsea Group, has provided training that incorporates information related to ethical conduct and respect for the human rights of mine workers and the company's policy on the appropriate use of force and firearms (pp. 10 and 11). The evidence, Annual training Human Rights (September 2021), a training attendance sign-in sheet, as well as interviews with key staff and security workers, indicates that the company has provided training that incorporates, at minimum, information related to respect for affected communities and respect for the human rights of mine workers and use of force (initial training and refresher courses) for company personnel involved in security, and for private security contractors that have not received equivalent training from their employers.</p> <p>The evidence does not indicate that the company provides training that incorporates ethical conduct, with particular reference to vulnerable groups.</p>

3.5.4.2. If public security forces are to be used, the operating company shall determine if public security personnel are provided with training on human rights and the appropriate use of force and firearms. If this training is not occurring, the company shall offer to facilitate training for public security personnel that provide mine-related security.

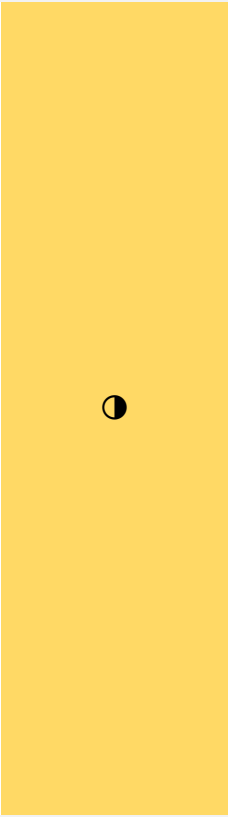


Not relevant. The company indicated that the public security forces are not used to provide security to the mining project and/or transportation routes. Therefore no assessment was conducted to determine if they have received adequate training on human rights and the appropriate use of force and firearms. State military and police forces deployed by the government are present throughout Cabo Delgado province to protect civil society and national territory by responding to security threats. The military forces operate under government authority with a mandate to act autonomously in securing the region. The company employs private security to respond to incidents at the mine and along transportation routes (see 3.5.1.3). The company does not have any contractual, formal, or informal relationship with the military and police for security services related to the mining project or transport routes.

The relevancy of this requirement will be reevaluated during the surveillance audit to confirm public security forces are not to be used to provide mine-related security.

3.5.5.1. The operating company shall:

- a. Develop and implement systems for documenting and investigating security incidents, including those involving impacts on human rights or the use of force;
- b. Take appropriate actions, including disciplinary measures, to prevent and deter abusive or unlawful acts by security personnel and acts that contravene the company's policies on rules of engagement, the use of force and firearms, human rights, and other relevant policies;
- c. Take appropriate actions to mitigate and provide remediation for human rights impacts (as per IRMA Chapter 1.3), injuries or fatalities caused by security providers;
- d. Report security incidents, including any credible allegations of human rights abuses by private or public security providers, to the competent authorities and national human rights institutions, and cooperate in any investigations or proceedings;
- e. Provide medical assistance to all injured persons, including offenders; and
- f. Ensure the safety of victims and those filing security-related allegations.



The evidence, Community and Local Stakeholder Complaints and Grievance Procedure (April 2020) and Discipline Management Procedure (September 2018), two procedures on grievance mechanisms, one for workers and contractors and the other for external stakeholders, indicates that the company has:

- a. developed and implemented systems for documenting and investigating incidents;
- c. takes appropriate actions to mitigate and provide remediation for human rights impacts;
- d. incident management reporting for external stakeholders, and has procedures in place for community and external stakeholders relating to
- e. medical assistance, and
- f. ensure the safety of victims.

The evidence does not include records or documentation of incident management relating to security (i.e., reports to competent authorities, internal reports, follow-up, medical services provided, remediation, compensation, etc.) to assess program effectiveness or confirm if the company:

- b. takes appropriate actions, including disciplinary measures, to prevent and deter abusive or unlawful acts by security personnel or that contravene company relating to the use of force and firearms, human rights, and other relevant policies;
- d. reports security incidents related to workers and contractors, including any credible allegations of human rights abuses by private or public security providers to the competent authorities and national human rights institutions, and cooperates in any investigations or proceedings; and has procedures in place to provide workers and contractors
- e. medical assistance, and

		f. ensure the safety of victims. Refer to IRMA Notes 3.5.5.1.
3.5.5.2.	In the event of security-related incidents that result in injuries, fatalities or alleged human rights impacts on community members or workers, the company shall provide communities and/or workers with information on the incidents and any investigations that are underway, and shall consult with communities and/or workers to develop strategies to prevent the recurrence of similar incidents.	— Not relevant. No security-related incidents that result in injuries, fatalities or alleged human rights impacts on community members or workers were reported.
3.5.6.1.	If requested by a representative community structure, the operating company shall offer a briefing for community stakeholders on the company's procedures on the use of force and firearms.	● According to interviews with key staff, requests for information on this item have yet to be made, but there is indication that the company would offer a briefing for community stakeholders if requested, based upon stakeholder experience reported in a sample of interviews.
3.5.6.2.	The operating company shall consult regularly with stakeholders, including host governments and affected communities, about the impact of their security arrangements on those communities; and shall report to stakeholders annually on the company's security arrangements and its efforts to manage security in a manner that respects human rights.	⊗ Does not meet.
3.5.6.3.	Stakeholders shall have access to and be informed about a mechanism to raise and seek recourse for concerns or grievances related to mine security.	● The evidence, Community and Local Stakeholder Complaints and Grievance Procedure (April 2020) and Discipline Management Procedure (September 2018), two procedures on grievance mechanisms, one for workers and contractors and the other for external stakeholders, indicates that the company has a system for reporting grievances. The evidence indicates that some stakeholders are informed about and have access to the grievance mechanism as represented in a sample of stakeholder interviews, while some others are not aware of the mechanism and its scope in general.
3.5.6.4.	If public security forces are providing security for any aspect of the mining project, the operating company shall encourage host governments to permit making	— Not relevant. The company indicated that the public security forces are not used to provide security to the mining project and/or transportation routes. Therefore the company did not discuss or advise the government on their security arrangements and disclosure to the public. State military and police forces deployed by the

security arrangements, such as the purpose and nature of public security, transparent and accessible to the public, subject to any overriding safety and security concerns.

government are present throughout Cabo Delgado province to protect civil society and national territory by responding to security threats. The military forces operate under government authority with a mandate to act autonomously in securing the region. The company employs a private security force to respond to incidents at the mine and along transportation routes (see 3.5.1.3). The company does not have any contractual, formal, or informal relationship with the military and police for security services related to the mining project or transport routes.

The relevancy of this requirement will be reevaluated during the surveillance audit to confirm public security forces are not providing security for any aspect of the mining project.

Chapter 3.6—Artisanal and Small-Scale Mining

Chapter Not Relevant. There is no indication that the mining project is located in an area where artisanal or small-scale mining is practiced.

Sources:

Environment and Artisanal Mining in Three Districts of Cabo Delgado: Ancuabe, Montepuez, and Namuno - A Cross-Sectional Study (March 2018), an independent report developed by local NGOs; On-site observations;

Interviews: with stakeholders (including a sample of those potentially affected, such as those living closest to the mine or in potentially affected areas), government agencies, members of a local NGO involved in protecting the rights of artisanal small-scale miners, company key staff, and workers.

Chapter 3.7—Cultural Heritage

Basis for rating

3.7.1.1. Screening, assessment and the development and implementation of mitigation measures and procedures related to the management of cultural heritage shall be carried out by competent professionals.

The evidence, ESHIA - Part II (February 2015), Resettlement Action Plan (RAP) (2014), and Archaeological Scoping Report (September 2016), indicates screening to identify risks and potential impacts on cultural heritage was carried out by external consultants. The ESHIA (2015) and the RAP (2014) include a screening of cultural heritage and indicate that there is a potential risk of disturbing areas of living heritage interest, as well as gravesites and tombs. The Archaeological Scoping Report (2016) is a study focused on the Iron Age and Stone Age, and identified archeological sites important to the landscape's heritage, however, none of them has outstanding conservation value. The biographies contained in the ESHIA, RAP and Archaeological Scoping Report indicate that screening was carried out by competent professionals with decades of relevant academic and work experience. The evidence, Procedures for the Management and Rescue of Cultural Assets in Fortuitous Discoveries (March 2020), outlines the mitigation of potential impact to and management of chance discoveries of archaeological or cultural resources. The document (page 5) indicates that in the event of the identification of any material remains or archaeological elements, all activity on the site must be halted and the

		material must not be removed. The procedure indicates that in this case company key staff must be informed and must notify the district government within 48 hours, which will then be responsible for analyzing the material and authorizing (or not) the resumption of operations at the location.
3.7.1.2.	Screening, assessment and the development of mitigation measures and procedures related to the management of cultural heritage shall include consultations with relevant stakeholders.	<p>The evidence, ESHIA - Part II (February 2015), indicates that consultations with relevant stakeholders and interested parties were part of the studies' methodology. The Resettlement Action Plan (2014, Ch. 6.3) outlines mitigation measures for potential impacts to cemeteries and other cultural heritage such as sacred trees, shrines and spiritual sites, and indicates that specific mitigation measures prior to disturbance of such sites will follow the National Heritage Protection Law of 1988.</p> <p>The evidence does not provide details to confirm that stakeholder consultation was carried out during screening of cultural heritage. Interviews with a sample of stakeholders and key staff did not provide details necessary to confirm stakeholders were consulted on cultural heritage management procedures.</p>
3.7.1.3.	Cultural heritage assessments, management plans and procedures shall be made available upon request to community stakeholders and other stakeholders who have been engaged with the mine site on cultural heritage issues.	<p>Does not meet. The evidence, Procedures for the Management and Rescue of Cultural Assets in Fortuitous Discoveries (March 2020, p. 5), indicates the procedure for the management of archaeological resources is to notify the district government within 48 hours, which will then be responsible for analyzing the material and authorizing (or not) the resumption of operations at the location.</p> <p>The evidence and interviews with a sample of stakeholders and key staff do not provide sufficient information to confirm whether any requests have been made or, if received, whether the company would share its cultural heritage assessments, management plans, and procedures with community stakeholders.</p>
3.7.2.1.	Prior to the development of a new mine, or when there are significant changes to mining-related activities, the operating company shall undertake a screening process to identify risks and potential impacts to replicable, non-replicable and critical cultural heritage from the proposed mining-related activities.	Not relevant. Balama is an existing mine with some expansions underway (i.e. the solar field and the Mualia pit). The evidence, ESHIA - Part II (February 2015), as well as the Resettlement Action Plan (2014), both prepared by external consultants, indicate that screening of cultural heritage across the project's site (including the solar field and the Mualia pit) was undertaken by third-party. The Environmental Management Plan (ESMP) (November 2019), which is an update to the former ESHIA (2015) and addresses environmental and social risks and impacts, indicates that there have been no significant changes to mining-related activities that would impact the identified (or new) cultural heritage.
3.7.2.2.	If the screening indicates the potential for replicable, non-replicable or critical cultural heritage to be encountered during mining-related activities, the operating company shall assess the nature and scale of the potential impacts and propose mitigation measures to avoid, minimize, restore or compensate for adverse impacts. Mitigation measures shall be	Not relevant. Balama is an existing mine with some expansions underway (i.e. the solar field and the Mualia pit). The evidence, ESHIA - Part II (February 2015), as well as the Resettlement Action Plan (2014), both prepared by external consultants, indicate that screening of cultural heritage across the project's site (including the solar field and the Mualia pit) was undertaken by third-party. The Environmental Management Plan (ESMP) (November 2019), which is an update to the former ESHIA (2015) and addresses environmental and social risks

<p>consistent with the requirements below (see criteria 3.7.3, 3.7.4, 3.7.5 and 3.7.6), based on the type of cultural heritage likely to be affected.</p>		<p>and impacts, indicates that there have been no significant changes to mining-related activities that would impact the identified (or new) cultural heritage.</p>
<p>3.7.3.1. When tangible replicable cultural heritage that is not critical is encountered during mining-related activities the operating company shall apply mitigation measures that favor avoidance. Where avoidance is not feasible, the following mitigation hierarchy shall apply:</p> <ul style="list-style-type: none"> a. Minimize adverse impacts and implement restoration measures, in situ, that ensure maintenance of the value and functionality of the cultural heritage, including maintaining or restoring any ecosystem processes needed to support it; b. Where restoration in situ is not possible, restore the functionality of the cultural heritage, in a different location, including the ecosystem processes needed to support it; c. Where restoring the functionality of the cultural heritage in a different location is not feasible, permanently remove historical and archeological artifacts and structures; and d. Where affected communities are using the tangible cultural heritage for long-standing cultural purposes compensate for loss of that tangible cultural heritage. 	<p style="text-align: center;">1</p>	<p>The evidence, ESHIA - Part II (February 2015), Resettlement Action Plan (RAP) (2014), Archaeological Scoping Report (September 2016), as well as interviews with a sample of key staff, indicates that cultural heritage screening reveals the potential for archaeological and cultural heritage sites and resources to be encountered during mining-related activities, including isolated finds, graveyards and gravesites of cultural significance, and indicates disruption of graves or gravesites, except for one grave, has been avoided. In accordance with the ESHIA (2015, pp. 179 - 181) mitigation measures were applied for the single grave as avoidance was not feasible. The following mitigation measures were applied:</p> <ul style="list-style-type: none"> b. the single grave was relocated in alignment with internationally recognized best practices; and; d. compensation to the affected family by Payments to carry out the exhumation ceremony (January 2018). <p>As per (b) and (c), the company applied mitigation strategies that aligned with the mitigation hierarchy and followed National Protection Law (1988), the premise of the UN Convention Concerning the Protection of World Cultural and Natural Heritage (1972).</p> <p>The evidence does not include (a) restoration measures in situ.</p>
<p>3.7.3.2. All mitigation work involving tangible replicable cultural heritage shall be carried out and documented by competent professionals, using internationally recognized practices for the protection of cultural heritage.</p>	<p style="text-align: center;">1</p>	<p>The evidence, ESHIA - Part II (February 2015), Management and Rescue Procedures for Cultural Goods in Fortuitous Discoveries (March 2020), as well as interviews with a sample of key staff, indicates that mitigation work for the cultural heritage sites and resources to be encountered during mining-related activities must be carried out under the National Heritage Protection Law of 1988, which states that the government agencies must be consulted in the event where archaeological material is found, and was developed following the premises of the UN Convention Concerning the Protection of World Cultural and Natural Heritage (1972). The evidence, the Payment statement for a local family to carry out the exhumation ceremony (January 2018), indicates that the mitigation work carried out for the single grave that had to be relocated was in alignment with internationally recognized best practices.</p>

		The evidence does not include details to confirm the mitigation actions and documentation were carried out by competent professionals.
<p>3.7.4.1. The operating company shall not remove any tangible nonreplicable cultural heritage, unless all of the following conditions are met:</p> <ul style="list-style-type: none"> a. The overall benefits of the mining project conclusively outweigh the anticipated cultural heritage loss from removal; and b. Any removal of cultural heritage is conducted using the best available technique. 	⊗	Does not meet. No evidence was provided to assess this item. The evidence provided for other requirements, the ESHIA - Part II (February 2015) and the Archaeological Scoping Report (September 2016), does not specify if the screening identified the archaeological sites potentially impacted during mining-related activities as tangible non-replicable cultural heritage.
<p>3.7.4.2. All mitigation work involving tangible non-replicable cultural heritage shall be carried out and documented by competent professionals, using internationally recognized practices for the protection of cultural heritage.</p>	⊗	Does not meet. No evidence was provided to assess this item. The evidence provided for other requirements, the ESHIA - Part II (February 2015) and the Archaeological Scoping Report (September 2016), does not include credentials of the professionals that carried out the actual mitigation work to confirm their competency, and does not include details (e.g., peer reviews of proposed strategies, examples from academic or professional literature demonstrating that strategies used are considered best practices/techniques) to confirm mitigation measures are aligned with internationally recognized practices.
<p>3.7.5.1. Except under exceptional circumstances, the operating company shall not remove, significantly alter, or damage critical cultural heritage. In exceptional circumstances when impacts on critical cultural heritage are unavoidable, the operating company shall:</p> <ul style="list-style-type: none"> a. Retain external experts to assist in the assessment and protection of critical cultural heritage, and use internationally recognized practices for the protection of cultural heritage; and b. Collaborate with affected communities to negotiate measures to protect critical cultural heritage and provide equitable outcomes for affected communities, and document the mutually accepted negotiation process and outcomes. (Note: Where impacts may occur to Indigenous peoples' critical cultural heritage, negotiation shall take place through the Free, Prior and Informed Consent process outlined in 	●	<p>The evidence, ESHIA - Part II (February 2015) and Archaeological Scoping Report (September 2016), indicates that the screening identified the archaeological sites potentially impacted during mining-related activities, including one grave, identified as a critical cultural heritage. The grave had to be relocated as impacts were unavoidable. The evidence, as well as the Payment statement for a local family to carry out the exhumation ceremony (January 2018) and interviews with a sample of key staff, indicates that:</p> <ul style="list-style-type: none"> a. the mitigation work was assisted by the relevant government agency and followed internationally recognized best practices; and b. an equitable outcome was provided to the affected community and the mutually accepted negotiation and final compensation are documented and were included as part of the state-led community consent process, as indicated in the Minute of Community Consultation for the Right to Use and Benefit from Land (April 2014) (refer Chapter 2.2 overview).

	IRMA Chapter 2.2 unless otherwise specified by the Indigenous peoples).		
3.7.5.2.	When a new mine is proposed within a legally protected cultural heritage area, including areas proposed by host governments for such designation, or a legally defined protected area buffer zone, the operating company shall: <ul style="list-style-type: none"> a. Comply with the requirement 3.7.5.1; b. Comply with the protected area's management plan; c. Consult with agencies or bodies responsible for protected area governance and management, local communities and other key stakeholders on the proposed mining project; and d. Implement additional programs, as appropriate, to promote and enhance the conservation aims of the protected area. 	—	Not Relevant. Balama is an existing mine.
3.7.5.3.	IRMA will not certify new mines that are developed in or that adversely affect the following protected areas if those areas were designated to protect cultural values (See also Chapter 4.6). <ul style="list-style-type: none"> - World Heritage Sites, and areas on a State Party's official Tentative List for World Heritage Site Inscription; - International Union for Conservation of Nature (IUCN) protected area management categories I-III; - Core areas of UNESCO biosphere reserves. 	—	Not Relevant. Balama is an existing mine.
3.7.5.4.	An existing mine located entirely or partially in a protected area listed in 3.7.5.3 shall demonstrate that: <ul style="list-style-type: none"> a. The mine was developed prior to the area's official designation; b. Management plans have been developed and are being implemented to ensure that activities during the remaining mine lifecycle will not permanently 	—	Not relevant. The ESHIA - Part II (February 2015) indicates the existing mine is not located entirely or partially in a protected area listed in 3.7.5.3.

	<p>and materially damage the integrity of the cultural values for which the area was designated or recognized; and</p> <p>c. The operating company collaborates with relevant management authorities to integrate the mine's management strategies into the protected area's management plan.</p>	
3.7.5.5.	To safeguard irreplaceable cultural heritage and respect Indigenous peoples' right to self-determination, the operating company shall not carry out new exploration or develop new mines in areas where Indigenous peoples are known to live in voluntary isolation.	<p>The evidence, the ESHIA - Part II (February 2015) and the Archaeological Scoping Report (September 2016), indicates the company has not undertaken any exploration or developed mines in areas where Indigenous people are known to live in voluntary isolation.</p>
3.7.6.1.	Where the operating company proposes to use the intangible cultural heritage, including knowledge, innovations or practices of local communities for commercial purposes, the company shall inform these communities of their rights under national and international law, of the scope and nature of the proposed commercial development, and of the potential consequences of such development.	<p>Not relevant. The evidence does not indicate that the company is using or proposing to use intangible cultural heritage for commercial uses.</p>
3.7.6.2.	<p>The operating company shall not proceed with such commercialization unless it:</p> <p>a. Collaborates with affected communities using a good faith negotiation process that results in a documented outcome; and</p> <p>b. Provides for fair and equitable sharing of benefits from commercialization of such knowledge, innovation, or practice, consistent with local customs and traditions.</p>	<p>Not relevant. The evidence does not indicate that the company is using or proposing to use intangible cultural heritage for commercial uses.</p>
3.7.6.3.	Where the operating company proposes to use Indigenous peoples' cultural heritage for commercial uses, negotiation shall take place through the Free, Prior and Informed Consent process outlined in IRMA	<p>Not relevant. The evidence does not indicate that the company is using or proposing to use Indigenous cultural heritage for commercial uses.</p>

Chapter 2.2 unless otherwise specified by the Indigenous peoples.

3.7.7.1. A cultural heritage management plan or its equivalent shall be developed that outlines the actions and mitigation measures to be implemented to protect cultural heritage.

The evidence includes:

- the ESHIA - Part II (February 2015), which indicates that archaeological resources and cultural heritage will be monitored during the operation phase (page 181),
- the Procedures for the Management and Rescue of Cultural Assets in Fortuitous Discoveries (March 2020), which outlines the procedure for the management of archaeological and cultural finds indicating avoidance of impacts is prioritized and is presented as a mitigation measure in the ESHIA, and
- the Resettlement Action Plan (2014), which describes mitigation measures associated with potential impacts to cemeteries and other cultural heritage such as sacred trees, shrines, and spirit sites, besides the logistical and ritual costs for the one grave that had to be relocated as impacts were unavoidable.

The evidence indicates management plans have been developed and include actions, mitigation measures, and compensation for potential impacts to cultural heritage including chance finds and special provisions for the mitigation of impacts to the removed grave, which was determined upon consultation with stakeholders and regulatory authorities.

3.7.7.2. If a new or existing mine is in an area where cultural heritage is expected to be found, the operating company shall develop procedures for:

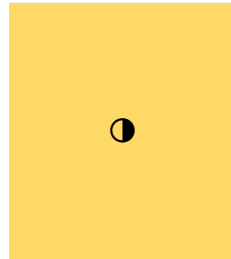
- Managing chance finds, including, at minimum, a requirement that employees or contractors shall not further disturb any chance find until an evaluation by competent professionals is made and actions consistent with the requirements of this chapter are developed;
- Managing potential impacts to
- Allowing continued access to cultural sites, subject to consultations with affected communities and overriding health, safety, and security considerations; and
- If the mining project affects Indigenous peoples' cultural heritage, the operating company shall collaborate with Indigenous peoples to determine procedures related to the sharing of information related to cultural heritage.

The Procedures for the Management and Rescue of Cultural Assets in Fortuitous Discoveries (March 2020) is a procedure for the management of archaeological and cultural finds uncovered during any mine-related operations and activities, even those carried out outside of the mine project area, and it indicates the company has developed a procedure that:

- outlines management plans for chance finds indicating the first step of action is to stop operations/activity to prevent any damage to the cultural heritage find;
- applies to employees and contractors; and
- allows continued access to the cultural heritage, subject to consultation with relevant government authorities and stakeholders.

The evidence does not include details to confirm that management and rescue procedures include provisions for potential impacts from visitors (b) and if procedures related to the sharing of information related to cultural heritage were developed in collaboration with affected communities (d).

3.7.7.3. The operating company shall ensure that relevant employees receive training with respect to cultural awareness, cultural heritage site recognition and care, and company procedures for cultural heritage management.



The evidence, the Procedures for the Management and Rescue of Cultural Assets in Fortuitous Discoveries (March 2020), indicates that training sessions on the procedure will be carried out for operational staff, including contractors. Interviews with a sample of key staff and employees, including contractors, besides on-site observation of a well-preserved sacred tree located in the camp, indicate training was provided.

The evidence does not include records of employee training on cultural awareness, site recognition and care, besides cultural heritage management, to confirm that relevant personnel have received training.

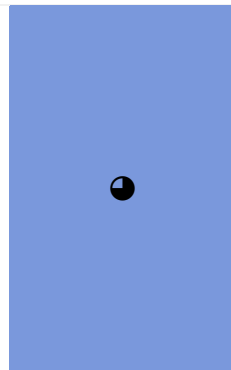
Principle 4: Environmental Responsibility

Note The objective of this IRMA Principle is to assess the management of wastes and materials to verify that the entity addressed the topics of short- and long-term physical and chemical risks, and health and safety of communities, as well as future land and water uses, as indicated by the IRMA Guidance (June 2018). In conducting this assessment, the auditing team exercised professional judgment based on the information available to them, demonstrating the same level of care and skill typically employed under similar circumstances by reputable consultants providing comparable services in the same geographical area. It is important to acknowledge that reasonable individuals may hold differing views on matters involving professional judgment, which could consequently lead to varying opinions on a question of professional judgment. The evaluation of the requirements in this Principle pertaining to the structural stability of mining facilities (such as TSF, open pit, dams, reservoirs, etc.) should not be misconstrued as a certification or a professional engineering assessment of these structures. The responsibility for certifying the stability or the appropriateness of these structures is outside the scope of the IRMA assessment. Those responsibilities lie solely with authorized technical and governmental organizations.

Chapter 4.1—Waste and Materials Management

Basis for rating

4.1.1.1. The operating company shall develop a policy for managing waste materials and mine waste facilities in a manner that eliminates, if practicable, and otherwise minimizes risks to human health, safety, the environment and communities.



The Sustainability Policy (September 2023) indicates the company's goal to align with internationally recognized practices regarding environmental, social, and governance performance and to operate safely and ethically. The company's intent to minimize impacts is underlined by the Waste Management Procedure (October 2020), which aims to reduce waste other than mining waste by reducing or recycling or composting waste materials and practices align eliminating or avoiding impacts, and the Waste Rock Management Plan (January 2024), which aims to minimize the environmental, social and health impacts of mined waste and mineralized waste rock and promote beneficial post-mining land uses

The evidence does not include a stand-alone policy that clearly commits to managing waste materials and mine waste facilities in a manner that eliminates, where possible, or minimizes risks to health, safety, the environment, and communities.

- 4.1.1.2. The operating company shall demonstrate its commitment to the effective implementation of the policy by, at minimum:
- Having the policy approved by senior management and endorsed at the Director/Governance level of the company;
 - Having a process in place to ensure that relevant employees understand the policy to a degree appropriate to their level of responsibility and function, and that they have the competencies necessary to fulfill their responsibilities.
 - Having procedures and/or protocols in place to implement the policy; and
 - Allocating a sufficient budget to enable the effective implementation of the policy.

The Sustainability Policy (September 2023) is:

- signed off by the Executive Committee and Board of Directors
- available to all employees at office buildings as observed on-site. All employees receive induction training covering the proper handling of waste materials as indicated by presentation slides (Balama 2 Hours Induction, 2022) and a sample of attendance lists and training feedback forms (2022 and 2023). The Waste Management Procedure has been communicated to all employees as indicated by an e-mail from June 2021. The evidence, a Learning and Development Procedure (June 2021), indicates employees receive area and role-specific training to assure and maintain competency, which is supported by training registers for hazardous waste (August 2022, June 2023) and training material on Risk Prevention in the Use of Hazardous Chemicals (version 23, no date) attended by employees handling hazardous waste as part of their job duties (e.g., maintenance and process departments). Interviews with a sample of workers and contractors indicated awareness of proper waste management procedures.
- underlined by several procedures and plans on proper waste and mine waste management including the Waste Management Procedure (October 2020), the Waste Rock Management Plan (January 2024), and an Environmental Safety Plan for Tailings Storage Facility (November 2019). The company regularly conducts due diligence on its contractors that handle non-mining waste including hazardous waste, used oil, or the incinerator, as indicated by a sample of audit reports (November 2020, February 2022, and June 2023) and several contractor licenses. Waste transfer and safe disposal are tracked through receipts and certificates as indicated by a sample of receipts (2023) and are maintained in a waste log sheet (not received, but indicated in the Waste Management Procedure).

The evidence does not include information to confirm the company has allocated a sufficient budget to successfully implement the waste management procedures and plans that underline the sustainability policy (d).

- 4.1.2.1. The operating company shall:
- Identify all materials, substances and wastes (other than mine wastes) associated with the mining project that have the potential to cause impacts on human health, safety, the environment or communities; and
 - Document and implement procedures for the safe transport, handling, storage and disposal of those materials, substances and wastes.

The Waste Management Procedure (October 2020):

- contains a classification of waste types based on their potential to cause harm to the environment. The classification offers some examples of the specific waste for each category that has the potential to cause impacts on human health, safety, the environment, or communities.
- documents procedures for safe transport, handling, storage, and disposal of those materials, substances, and wastes and a sample of waste receipts and certificates documenting the transfer between the company and contractors (2023) as well as onsite observations largely indicate that these procedures are implemented. The Waste Management Procedure (October 2020), onsite observations and interviews with key staff, including management, employees, and contractors, indicate that the company prioritizes the reuse, including donations, and recycling, such as composting of organic waste, of products, and that this is implemented at an operational level.

The evidence lacks an aggregated list or map identifying waste facilities. Onsite observations during the audit

indicated that some MSDS were incomplete or not maintained, some chemical containers were not placed on stable ground, and the contents were not always clearly identified.

4.1.3.1. The operating company shall identify all existing and/or proposed mine waste facilities that have the potential to be associated with waste discharges or incidents, including catastrophic failures, that could lead to impacts on human health, safety, the environment or communities.

The evidence Tailings Storage Facility Design Report (April 2016), a Mine Site Layout map showing existing and planned mining infrastructure for the years 2017 to 2063 (October 2017), Waste Rock Management Plan (August 2024), and a sample of a monthly Mining Governance Report (June 2024), including a list and map of waste rock facilities, indicates the company has the following active mine waste facilities:

- Tailings Storage Facility (Cell 1),
- Waste rock dump (west),
- Sub-grade dump including low-grade stockpile and mineralized waste stockpile (west),
- Sub-soil dump (west),
- Topsoil dump (west),
- In-pit sump, collecting potentially contaminated water accumulating in the pit and made of groundwater infiltration, surface run-off, and direct rainfall, and
- ex-pit sump (Stage 3 sump), collecting potentially contaminated stormwater run-off from waste and subgrade dumps and receiving pumped water from the in-pit sump.

Facilities under construction:

- Leachate pond for potential acid forming (PAF) material (on hold),
- PAF waste rock storage, stored in a lined section of the Mineralized West Dump (on hold),

And planned waste facilities:

- Tailings Storage Facility (Cell 2, 3, 4, and 5),
- Mineralized waste dump (east), and
- Waste rock dump (east).

Onsite review of documental evidence including lists of facilities and maps, and onsite observations confirm the company has identified all existing and proposed mine waste facilities that pose a potential hazard to health, safety, or the environment.

4.1.3.2. The operating company shall perform a detailed characterization for each mine waste facility that has associated chemical risks. Characterization shall include:

- a. A detailed description of the facility that includes geology, hydrogeology and hydrology, climate change projections, and all potential sources of mining impacted water (MIW);

The evidence, Balama Graphite Environmental Geochemistry Report (Digby Wells Environmental, November 2014), Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015), Site Water Balance Model (Advisian, January 2016), Geochemical Characterization of Process-Tailings Samples (GCA, March 2016), Tailings Storage Facility Design Report (Advisian, April 2016), Stormwater Management Plan and Water and Salt Balance (Geostratum, July 2022), Numerical Groundwater Flow Modelling Report (Geostratum, July 2022), Hydrogeology Groundwater Report (Digby Wells Environmental, January 2015), a sample of a monthly Mining Governance Report (June 2024), and Waste Rock Management Plan (WRMP) (August 2024), indicates the company has identified potential chemical risks during the project conception and planning phase of the mine life cycle for existing and proposed mine waste facilities. The characterizations include:

- b. Source material characterization using industry best practice to determine potential for acid rock drainage (ARD) or metals leaching (ML). This shall include:
 - i. Analysis of petrology, mineralogy, and mineralization;
 - ii. Identification of geochemical test units;
 - iii. Estimation of an appropriate number of samples for each geochemical test unit; and
 - iv. Performance of comprehensive geochemical testing on all samples from each geochemical test unit.
- c. A conceptual model that describes what is known about release, transport and fate of contaminants and includes all sources, pathways, and receptors for each facility
- d. Water balance and chemistry mass balance models for each facility; and
- e. Identification of contaminants of concern for the facility/source materials, and the potential resources at risk from those contaminants.

- a. Detailed descriptions of mine waste facilities that may generate mine-impacted water (e.g. tailings storage facility, waste rock, sub-grade, and soil dumps) including a description of the regional and local geology and soils (ESHIA - Part II, 2014, Ch. 4.2.3), geochemical baseline of mineralized zone, and over- and underburden (ESHIA -Part II, 2014, Ch. 4.2.9), geochemical and geotechnical characterization of tailings and tailings slurry water (Geochemical Characterization of Process-Tailings Samples, March 2016), geochemical and mineralogical characterization of waste rock (WRMP, Ch. 8), hydrogeology and hydrology (ESHIA - Part II, 2014, Ch. 4.2.7 and 4.2.8, Tailings Storage Design, Ch. 6) and other potential sources of mine impacted waters such as the processing area as well as the catchment basins of potentially impacted water (in-pit and ex-pit sump) (Stormwater Management Plan, July 2022, Ch. 7).
- b. Source material characterization as documented in the ESHIA - Part II (February 2015, Ch. 4.2.3 and 4.2.9) and Waste Rock Management Plan (August 2024, Ch. 8) are aligned with industry best practices to determine the potential for acid rock drainage (ARD) and metals leaching (ML) including:
 - i. Analysis of petrology, mineralogy, and mineralization (ESHIA, 2015; WRMP, 2024),
 - ii. Identification of geochemical test units representing overburden, mineralized rock, and waste rock,
 - iii. A number of samples for each geochemical test unit (47 total samples) representative of the first three years of production sampled between 2013 and 2018, and
 - iv. Detailed results on each test unit's performance regarding their potential to form acid.
- c. A conceptual model that describes what is known about the release, transport, and fate of effluents including those that are potentially contaminated, and includes all sources, pathways, and receptors for each facility included in the Stormwater Management Plan and Water and Salt Balance (Geostratum, July 2022, Figure 7.1) and the Numerical Groundwater Flow Modelling Report (Geostratum, July 2022).
- d. a preliminary site water balance model and a more detailed static and dynamic water balance for the TSF (Site Water Balance Model, January 2016) and an updated model that includes sulfate mass balances that may be indicative of acid rock drainage and evaluates appropriateness of sizing of existing ponds to contain potentially contaminated run-off based on model results (Stormwater Management Plan and Water and Salt Balance, July 2022, and Numerical Groundwater Flow Modelling Report, July 2022).
- e. the identification of potential contaminants such as elevated pH, metal, and salt levels due to AMD predicted for water run-off from pits and the ROM pad, development of measures to prevent impacts to surface watercourses, such as run-off diversion channels sized to accommodate water masses generated during storm events, containment of potentially contaminated water in lined sumps to prevent seepage and treatment (addition of hydrated lime) to adjust pH, and a map identifying the discharge points in the environment (Figure 6.2) as indicated in the Stormwater Management Plan and Water and Salt Balance (Geostratum, July 2022, Figure 7.1) and the Numerical Groundwater Flow Modelling Report (Geostratum, July 2022).

The evidence does not include details to confirm the company considered the potential effects of climate change on its waste facilities and associated water balances such as the TSF.

- 4.1.3.3. The operating company shall identify the potential physical risks related to tailings storage facilities and all other mine waste facilities where the potential exists for catastrophic failure resulting in impacts on human health, safety, the environment or communities. Evaluations shall be informed by the following:
- a. Detailed engineering reports, including site investigations, seepage and stability analyses;
 - b. Independent technical review (See criteria 4.1.6)
 - c. Facility classification based on risk level or consequence of a failure, and size of the structure/impoundment;
 - d. Descriptions of facility design criteria;
 - e. Design report(s);
 - f. Short-term and long-term placement plans and schedule for tailings and waste rock or other facilities subject to stability concerns;
 - g. Master tailings placement plan (based on life of mine);
 - h. Internal and external inspection reports and audits, including, if applicable, an annual dam safety inspection report;
 - i. Facility water balances (See also 4.1.3.2.d); and
 - j. Dam breach inundation (if applicable) and waste rock dump runout analyses.

The relevant mine waste facilities include the tailings storage facility (TSF), and waste and mineralized waste rock dumps (waste rock dump, sub-grade dump, sub-soil dump, and a topsoil dump, referred to collectively as waste rock storage facilities) and observed to be flat consisting either of single heaps of waste or one lift of waste material (max. 9 m high as indicated in a monthly Mining Governance Report June 2024) during the on-site audit. The TSF has one operational cell (Cell 1) and a second cell (Cell 2) is in construction with planned completion in 2024. Risk evaluations of the TSF and waste rock storage facilities have been informed by:

- a. Detailed descriptions of the TSF design and associated infrastructure following ANCOLD guidelines, seepage analysis, and embankment stability evaluations for Cell 1 and Cell 2 (Tailings Storage Facility Design Report, Advisian, April 2016) and updates to these described in Tailings Storage Facility Cell 2 - Design Report (Advisian, June 2018) prior to construction and operation of the cells.

Detailed descriptions of the waste rock storage facility designs are included in the Detailed Design Study (Snowden, August 2015) and associated drainages (Waste Rock Management Plan, August 2024).

- b. Independent technical reviews by specialists evaluating the operation and performance of the TSF as indicated by a desktop review (Review of Balama Tailings Storage Facility, April 2021) conducted by the Australian Centre for Geomechanics at the University of Western Australia, a report by consulting firm SRK (Factual Balama Tailings Storage Facility Report and Recommendations Applicable to the SRK Phase 1 Scope of Work – Revision 2, May 2021), and a report by an external consultant for TEC3 for Cell 1 (Tailings Storage Facility Dam Safety Review Report, February 2024).

- c. Facility classifications based on consequence of a failure and size of the impoundment as indicated by TSF Dam Break Study (Advisian, 2022), TSF Design Basis Report (Advisian, May 2023), and the most recent Dam Classification (Advisian, March 2023) which classified the TSF comprising cell 1 and cell 2 (under construction) as category “Extreme” per GISTM and ANCOLD criteria and “Class I” according to Mozambican Decree 50/2107, based on an updated dam breach analysis and following best practice considering both sunny-day (fair-weather) and rainy-day (flood-induced) dam breach scenarios and basing the dam consequence classification on the cumulative consequence category of Cell 1 and Cell 2, although Cell 2 is not operational yet. The ultimate TSF design, which will comprise five cells, has not yet undergone classification, and the company plans to re-evaluate the need for Cells 3, 4, and 5 as it may transition to dry stacking before constructing Cell 3. While the evidence does not include a classification of risk for each waste rock storage facility (e.g., WSRHC system), the Waste Rock Management Plan (August 2024) includes a risk assessment for each facility (topsoil, sub-grade, etc.) listing physical risks, including slope failure and landslides and the associated consequence, indicating the potential physical risks are low (waste, sub-grade, and subsoil) to moderate (topsoil).

- d. Detailed descriptions of facility design criteria for the final TSF including all five (5) planned cells as included in the Tailings Storage Facility Design Report (Advisian, April 2016) and for waste rock storage facilities as described in the Detailed Design Study (Snowden, August 2015) and Waste Rock Management Plan (August 2024).

- e. Design reports such as the TSF Spillway Design (Advisian, December 2015), Tailings Storage Facility Design Report (Advisian, April 2016) and Tailings Storage Facility Cell 2 - Design Report (Advisian, June 2018), TSF Design Basis Report (Advisian, May 2023) for the TSF, and reports including Detailed Design Study (Snowden, August

2015), the Waste Rock Management Plan (August 2024), and internal comparisons of existing waste rock storage facilities against design as indicated by a monthly Mining Governance Report (June 2024) for waste rock storage facilities.

f. Short-term plans for the deposition of tailings as described in a sample of TSF Governance Monthly Reports (July to December 2023), and long-term annual placement plan as shown in Chapter 7 - Storage Strategy in the TSF Design Basis Report (Advisian, May 2023) for the TSF indicating upstream raising of each of the cell for the remainder of the LOM (50 years), and long-term plans for rock deposition in waste rock storage facilities (Detailed Design Study, Snowden, August 2015) and Waste Rock Management Plan (August 2024, Ch. 7 and 8).

g. Master tailings placement plan and waste rock storage facility plan (see 4.1.3.3. f)

h. Annual reviews on TSF operation and performance are carried out by external specialists (see 4.1.3.3. b). Note that the site was put on extended shutdown from March 2020 to March 2021 meaning that no waste deposition into the TSF was carried out during this period. Daily and monthly TSF inspections are carried out internally to ensure deposition objectives are met and potential deviations identified as indicated in the Operations, Maintenance and Surveillance Manual (OMSM) (August 2024) for the TSF, a sample of a completed Daily Inspection Form (May 2023) and a sample of a completed Monthly Inspection Form (June 2023). Internal monthly inspections of waste rock storage facilities described in the monthly Mining Governance Report (June 2024) and three samples of completed inspection forms contained therein indicate internal reviews of waste rock storage facilities are conducted.

i. Operational level water balances that include critical indicators such as current vs. maximum pond volume and level and water balance forecasts updated monthly as included in a sample of TSF Governance Monthly Reports (July to December 2023), and a detailed static and dynamic water balance for the TSF (Site Water Balance Model, January 2016) and a water balance model covering all mine waste facilities in the Stormwater Management Plan and Water and Salt Balance for Balama Graphite Operations (Geostratum, July 2022).

j. a dam breach inundation analysis as described in Balama Tailings Storage Facility Dam Break Study (December 2023), which considers advancements in the state of practice for tailings dam breach studies and both rainy- and sunny-day failure scenarios at the current TSF arrangement and ultimate arrangement of Cells 1 and 2.

The evidence does not include an updated static water balance for the TSF (i) to confirm TSF risk assessment is informed by recent water balances.

No documentation was provided to confirm that the risk evaluation of waste rock storage facilities has been informed by:

- a. detailed design reports that are based on site investigations, seepage, and stability analysis,
- b., h. independent and external reviews,
- f. short-term placement plans,
- i. water balances, and
- j. waste rock storage run-out analysis.

4.1.3.4. Facility characterizations shall be updated periodically to inform waste management and reclamation decisions throughout the mine life cycle.



The evidence includes a preliminary Balama TSF Design - Dam Break and Spillway Design (Advisian, December 2015), which includes a first failure consequence category for the TSF, and an updated Dam Classification (Advisian, March 2023), which classified the final configuration of the TSF as category "Extreme" per GISTM and ANCOLD criteria and "Class I" according to Mozambican Decree 50/2107. The TSF Operations, Maintenance, and Surveillance Manual (OMSM) (August 2022) is informed by the first failure consequence category classification indicating these classifications inform the company's TSF management and reclamation decisions.

While the Waste Rock Management Plan (August 2024) includes a risk assessment for each facility (topsoil, sub-grade, etc.) (see 4.1.3.3. c) and indicates that risk evaluations, as well as monthly inspections, inform waste management actions, the evidence does not confirm the company has carried out initial facility characterizations of the waste rock storages to be updated based on new physical, hydrological, and geochemical information (e.g. consequence of failure assessment, seepage and stability analyses (see 4.1.3.3.)) and inform waste management and reclamation decisions.

4.1.3.5. Use of predictive tools and models for mine waste facility characterization shall be consistent with current industry best practice and shall be continually revised and updated over the life of the mine as site characterization data and operational monitoring data are collected.



The evidence including the studies:

- a Stormwater Management Plan and Water and Salt Balance for Balama Graphite Operations (Geostratum, July 2022), which uses the industry-accepted software GoldSim for modeling and cites an earlier water balance report for the site (Advisian, 2015), and
- the Numerical Groundwater Flow Modelling Report (Geostratum, July 2022) following guidelines from the ASTM Standard Guide for Documenting a Groundwater Flow Model Application (2013) and Australian Modelling Guidelines (Barnett et al., 2012)

indicates the company has developed and updated models to predict potential impacts from the mining area, including mine waste facilities (TSF, detention ponds, waste rock storage facilities, and sumps), and other areas such as the processing plant and mine camp, to surface and groundwater.

Regarding the TSF, the latest Dam Classification (Advisian, March 2023), which uses consequence categories as presented in the ANCOLD and GISTM guidelines for TSFs, is based on updated studies including the water balance (Geostratum, July 2022), the numerical model (Geostratum, July 2022), and the Dam Break Study from 2022 (Advisian, October 2022) which uses hydraulic modeling software HEC-RAS (USACE, 2022), Canadian Dam Association (CAD) guidelines, and other literature to determine realistic parameters for different failure scenarios and indicates alignment with international best practices or standards.

A sample of TSF Governance Monthly Reports (July to December 2023) indicates the company obtains and incorporates updated design specifications, hydrological assessments, site geology, and geotechnical data, such as the updated water balance studies water models studies, into its operations.

- 4.1.4.1. **Critical.** A risk-based approach to mine waste assessment and management shall be implemented that includes:
- Identification of potential chemical risks (see 4.1.3.2.e) and physical risks (see 4.1.3.3) during the project conception and planning phase of the mine life cycle;
 - A rigorous risk assessment to evaluate the potential impacts of mine waste facilities on health, safety, environment and communities early in the life cycle;
 - Updating of risk assessments at a frequency commensurate with each facility's risk profile, over the course of the facility's life cycle; and
 - Documented risk assessment reports, updated when risks assessments are revised (as per 4.1.4.1.c).

The company has implemented a risk-based approach to mine waste facility assessment and management, including:

a. The identification of potential chemical risks (see 4.1.3.2.e) and physical risks (see 4.1.3.3) during the project conception and planning phase of the tailings dam facility and waste rock storage facilities as first summarized in the ESHIA - Part II (February 2015) and later further detailed in the Geochemical Characterization of Process-Tailings Samples (GCA, March 2016). For further details see 4.1.3.2. and 4.1.3.3. The evidence indicates a potential of AMD from tailings and waste rock which may contaminate nearby waterways if not properly managed as outlined in the proposed actions for minimizing, monitoring, and mitigating impacts during operation and commissioning of the mine.

b. A risk assessment to evaluate the potential impacts of risks and hazards associated with the mine's waste facilities on the health, safety, environment, and communities was conducted during the planning phase of the operation and is included in the ESHIA - Part II (February 2015). The report on Balama Graphite Environmental Geochemistry (Digby Wells, November 2014) provides more detail for such risks associated with the waste rock storage facilities, and the Waste and Wastewater Assessment Report (CES, November 2013) is a report specifically on the potential risks of waste management to water resources and potential mitigation options. The ESHIA includes mitigation actions to reduce impacts and an evaluation of the residual impact if those are implemented.

c. Once in operation, risks of all waste facilities (waste rock storage facilities, sumps, process water detention pond, and TSF) are evaluated with the tool Operational Risk Register (version 8, last updated March 2023), which has been updated over time and lists risks, impacts, probability, consequence, a risk rating, current and planned control actions, and residual risk if those are implemented. The Waste Rock Management Plan (August 2024) also includes an additional risk assessment specific to waste rock storage facilities and offers more detail on the potential chemical and physical risk for each single waste rock storage facility. TSF risk assessments and management are informed by Dam Break Studies (December 2015, October 2022, and December 2023) and Credible Failure Mode Studies (January and March 2022).

d. Documented risk assessments as indicated by the ESHIA - Part II (February 2015), the Operational Risk Register (version 8, last updated March 2023), which is signed off by department managers and the mine manager, and the risk assessment contained in the Waste Rock Management Plan (August 2024).

Interviews with a sample of key staff indicate risk assessments are updated when new information is available on the performance, impacts, or changes in legislation regarding waste facilities such as information on the stability, impacts of potential dam breaks, or other information gained from external audits that may warrant an update to the risk register.

While the evidence indicates the risk assessment register is reviewed and signed off by management, the evidence does not include management-level risk assessment reports that summarize all identified risks of mine waste facilities, which are updated when risk assessments are revised. The risk assessments of waste rock storage facilities and sumps have not yet been supported by independent reviews to ensure the robustness of risk inventory and assessment.

- 4.1.4.2. The operating company shall carry out and document an alternatives assessment to inform mine waste facility siting and selection of waste management practices. The assessment shall:
- Identify minimum specifications and performance objectives for facility performance throughout the mine life cycle, including mine closure objectives and post-closure land and water uses;
 - Identify possible alternatives for siting and managing mine wastes, avoiding a priori judgements about the alternatives;
 - Carry out a screening or “fatal flaw” analysis to eliminate alternatives that fail to meet minimum specifications;
 - Assess remaining alternatives using a rigorous, transparent decision-making tool such as Multiple Accounts Analysis (MAA) or its equivalent, which takes into account environmental, technical, socio-economic and project economics considerations, inclusive of risk levels and hazard evaluations, associated with each alternative;
 - Include a sensitivity analysis to reduce potential that biases will influence the selection of final site locations and waste management practices; and
 - Be repeated, as necessary, throughout the mine life cycle (e.g., if there is a mine expansion or a lease extension that will affect mine waste management).

The evidence, including the Tailings Management Bankable Feasibility Study Update (Knight Piésold, March 2015, Appendix G), the Environmental, Social and Health Impact Assessment (ESHIA) - Part II (February 2015, Ch. 10.3.2), the Tailings Storage Facility Design Report (Advisian, April 2016), the Memorandum on the Site Visit to Balama TSF (Advisian, March 2020), Project Concept Study Report (Enprotec, December 2019), and Evaluation of Dry Stacking (Advisian, 2018) and interviews with key personnel, indicates that the company has conducted an alternatives assessment for the TSF siting and management practices, which considered:

- Minimum specifications, such as sensitivity to vegetation and proximity to communities (Tailings Management Bankable Feasibility Study Update, Knight Piésold, March 2015, Appendix G), as well as dry stacking options to optimize water use.
- Alternative sitings of the facility and different embankment types (Knight Piésold, March 2015), as well as various tailings management strategies, including wet tailings deposition, and dry stacking (Advisian, April 2016).
- Fatal flaw analysis of tailings embankment types (downstream, centreline, upstream) that resulted in the elimination of centreline and downstream embankments based on economic feasibility, construction material needs, and environmental impacts, except for the initial embankment for which borrow material from within the tailings facility footprint was suggested. These considerations are briefly outlined in Chapter 2.1 - "TSF Construction Options" of the Tailings Storage Facility Design Report (Advisian, April 2016). The decision of using the downstream method for raises was justified by the mine's production of “little to no mine waste suitable for use in TSF embankment construction,” which would necessitate sourcing materials externally if a centerline or downstream embankment were selected. Advisian deemed this approach neither economically feasible nor environmentally responsible (page 3).
- and f. Periodic reviews and reassessments of remaining tailings management strategies (e.g. slurry deposition and dry stacking) based on evolving project conditions throughout the mine life as indicated in the Evaluation of Dry Stacking (Advisian, 2018), Project Concept Study Report (Enprotec, December 2019), and Memorandum on the Site Visit to Balama TSF (Advisian, March 2020).

The evidence does not confirm that an alternatives assessment was conducted for all mine waste facilities other than the TSF (e.g., waste rock dumps), nor that the TSF alternatives assessment was informed by:

- Comprehensive performance objectives for facility performance, closure, and post-closure phases.
- A detailed account of the fatal flaw analysis or clearly documented decision criteria for alternative evaluation of the TSF dam design.
- Structured decision-making tools like MAA or clear integration of socio-economic and risk factors.
- A comprehensive sensitivity analysis of all significant potential biases and uncertainties.

- 4.1.5.1. **Critical.** Mine waste facility design and mitigation of identified risks shall be consistent with best available technologies (BAT) and best available/applicable practices (BAP).

IRMA's notes on the requirement reference international guidelines from ANCOLD, the Canadian Dam Association, the European Commission, and the Mine Environment Neutral Drainage (MEND) program as benchmarks for Best Available Practices (BAP) and Best Available Techniques (BAT) for mine waste facility design and risk mitigation.

The evidence, including Dam Break Studies (December 2015, October 2022, and December 2023), Tailings Storage Facility Design Report (Advisian, April 2016), Operations, Maintenance, and Surveillance Manual (August 2024), a sample of TSF Governance Monthly Reports (July to December 2023), Credible Failure Mode Studies (January and March 2022), Tailings Storage Facility Emergency Response Plan (May 2023), 2021 InSAR Survey Report (August 2021), Balama Risk Register (July 2023), Environmental Management Plan (November 2019), a monthly Mining Governance Report (June 2024), and Waste Rock Management Plan (August 2024), indicate the company implements BATs and BAPs as follows:

TSF Design:

- The company's final Tailings Storage Facility (TSF) design consists of five planned geosynthetically lined cells, with the perimeter embankments of the cells being progressively raised using the tailings as an embankment fill to increase storage capacity over the TSF's life cycle and the upstream raising phases based on geotechnical stability assessment of the embankments, water management, and tailings deposition guidelines. The TSF design is consistent with BATs as it follows the Australian National Committee on Large Dams Guidelines on Tailings Dams and the International Committee on Large Dams Bulletin 153. In addition, the company is currently working to align the TSF design with the Global Industry Standard on Tailings Management (GISTM), and considers best practices outlined for upstream-type embankments for their safe operation as outlined in the Good Practice Guide from ICMM (May 2021, p. 112). A Dam Safety Review (TEC3, February 2024) indicates conformance of Cell 1 design criteria to ANCOLD Requirements for TSFs with a classification of "Extreme".

- The company considered alternative embankment types (e.g. centerline, downstream) in the planning phases and concluded that these are not economically feasible or environmentally responsible as both methods require large volumes of construction materials normally sourced from mine waste, which would need to be quarried from external sources able to sustain increasing volumes during future raises (Bankable Feasibility Report, Knight Piésold, 2015; and Tailings Storage Facility Design Report, Advisian, April 2016). Alternative designs considered a potential transition from the slurry deposition to a dry stacking strategy, incorporating a tailings dewatering plant, allowing a reduction in the volume of water captured at the Chipembe dam for the production process (Memorandum on the Site Visit to Balama TSF, Advisian, March 2020). The evidence further indicates the company reviews the current paddock style with upstream raise to include new and emerging technologies and approaches and use the evolving knowledge in the refinement of the design, construction and operation of the TSF, with the potential implementation of dry stacking under evaluation as supported by several reports including Steering Committee Meeting TSF 2 – Dry Screening and Stacking (April 2019), Project Concept Study Report (Enprotec, December 2019), and Evaluation of Dry Stacking (Advisian, 2018). The appropriate studies of the TSF design were conducted to identify and mitigate risks, and are consistent with both BATs and BAPs. The validity of the engineering designs and their underlying calculations were not evaluated for this requirement, as they are not part of the scope of an IRMA assessment.

TSF Operations:

- The company uses an Operations, Maintenance, and Surveillance Manual (OMSM) to ensure safe operations of the TSF, which is updated whenever operation changes or improvements are identified. The management of the TSF is substantially aligned with BAP and BAT outlined in the GISTM guideline, considered the most rigorous TSF standard, with the performance of the TSF reviewed monthly as documented in a sample of monthly TSF Governance Monthly Reports (July to December 2023). New risks are identified through monitoring, dam break studies, and credible failure mode studies as referenced above, with the TSF inspected

for embankment movement and minimal displacement using satellite imagery. The company maintains a risk register for the TSF, which includes defined controls for embankment failure risks suitable for upstream construction. The Tailings Storage Facility Emergency Response Plan was developed following Australian, International, and Mozambican legislation regarding safety requirements for TSF and other leading practice guidelines on tailings dam operations. BAP and BAT for tailings management are also considered by the company as the current paddock style with upstream raise will be routinely reviewed under consideration of changes in the production forecast, characteristics of the tailings, land use, mine development, Mozambican regulations, availability of construction materials (notably the availability of mine waste), overall performance of the existing cells, availability of pit void(s), and the closure plan.

Interviews with management confirm the company aims to align the Tailings Storage Facility (TSF) with BAT and BAP as outlined in the 2020 Global Industry Standard on Tailings Management (GISTM), and progress tracked in the Balama TSF Design Basis Report (May 2023, p. 7).

Waste rock storage facility and sump design and operations:
- Waste rock dumps (waste, sub-grade, sub-soil, and topsoil) are located within the mining concession and away from rivers or streams to avoid disrupting significant drainage lines, are situated at least 600 meters from the ultimate pit crest, and design safety factors are aligned with international guidelines. Before constructing each dump, full geochemical characterization, Acid-Base Accounting (ABA), and leachability tests are conducted to assess potential chemical risks to run-off and downstream waterbodies. The dump floors are lined to prevent soil and groundwater contamination, and drainage systems are designed to prevent instability by avoiding undercutting the dump base. Surface runoff from potentially contaminated areas is directed to a lined pond (ex-pit sump), where potentially contaminated water is treated and detailed short-term and long-term mine water management plans are reviewed on a monthly basis. The performance of waste rock storage facilities and leachate ponds is reviewed monthly and recorded as indicated in a sample of a monthly Mining Governance Report (June 2024).

The company's mine waste facilities design and risk mitigation efforts are substantially aligned with BAPs as outlined throughout the requirements of Chapter 4.1 of the IRMA Standard. Although the management of mine waste facilities was considered aligned with BAT/BAP, there are some gaps in the underlying studies of the waste storage facilities including: stability and seepage analysis, external reviews, and assessments of physical risks (e.g. structural failure, landslides), see 4.1.3.3., and 4.1.3.4. There is a partial site alternatives assessment for the TSF. There is no alternatives assessment for waste rock storage areas (see 4.1.4.2.). There are no maintenance programs for waste rock storage areas and leachate ponds (see 4.1.5.5.).

- 4.1.5.2. Mitigation of chemical risks related to mine waste facilities shall align with the mitigation hierarchy as follows:
- a. Priority shall be given to source control measures to prevent generation of contaminants;

The evidence, including the Acid Mine Drainage Management Plan (June 2023), further supported by the Tailings Storage Facility Design Report (Advisian, April 2016), Tailings Storage Facility Cell 2 - Design Report (Advisian, June 2018), Waste Rock Management Plan (January 2024), Stormwater Management Plan and Water and Salt Balance for Balama Graphite Operations (Geostratum, July 2022), an SOP on Mine Water Treatment

- b. Where source control measures are not practicable or effective, migration control measures shall be implemented to prevent or minimize the movement of contaminants to where they can cause harm; and
- c. If necessary, MIW shall be captured and treated to remove contaminants before water is returned to the environment or used for other purposes.

(March 2023), and interviews with key personnel, and on-site observation indicate the company's mitigation of chemical risks related to mine waste facilities is aligned with the mitigation hierarchy by:

- a. Prioritizing source control measures to prevent the generation of contaminants (e.g., the addition of neutralizing agents to ore during the processing stage to lower the pH of tailings, covering PAF waste with NAF material to avoid oxidation).
- b. Migration and capture of potentially contaminated water by lining the TSF cells, PAF waste dump, and leachate ponds to prevent contaminated water from infiltrating the natural environment.
- c. Treating contaminated water (e.g., leachate) prior to reuse or discharge into the environment.

4.1.5.3. For high consequence rated mine waste facilities, a critical controls framework shall be developed that aligns with a generally accepted industry framework, such as, for example, the process outlined in Mining Association of Canada's Tailings Management Guide.

The Tailings Storage Facility (TSF) has been classified as "Extreme" based on the consequence classification in the TSF Dam Classification (Advisian, March 2023) following a TSF Dam Break Study (Advisian, October 2022). Credible Failure Modes (CFMs) were identified for the TSF and documented in the Credible Failure Modes Report (Advisian, March 2022). These CFMs are listed as risks in the Balama Risk Register (July 2023), which analyzes each failure mode's potential consequences for health, the environment, the community, and reputation. The register provides a ranking of consequences, potential causes, existing controls (with their effectiveness), and mitigation plans.

The Trigger Action Response Plan (TARP) in the Operations, Maintenance, and Surveillance Manual (OMSM, August 2024), specifically Section 14 and Appendix B, serves as a key tool for managing TSF risks. It defines four pre-established trigger levels (acceptable, minor, moderate, and high risk) based on performance criteria linked to the identified CFMs, and includes preventative and mitigative controls. It also defines responsible parties, additional surveillance activities, documentation and reporting requirements, a review of the effectiveness of implemented risk controls, and pre-defined actions if control is lost (e.g., activation of the ERPR, notification of potentially affected persons, and/or cease operations).

The evidence indicates that the risk management process, including the critical control framework of the TSF and its classification, aligns with best practices in tailings management, such as the Global Industry Standard on Tailings Management (GISTM) and Australian National Committee on Large Dams (ANCOLD) guidelines.

4.1.5.4. Mine waste management strategies shall be developed in an interdisciplinary and interdepartmental manner and be informed by site-specific characteristics, modeling and other relevant information.

The evidence, a sample of TSF Governance Monthly Reports (July to December 2023), Balama Tailings Storage Facility Dam Break Study (December 2023), and Waste Rock Management Plan (January 2024), indicate the company's mine waste management strategies have been developed and are reviewed in an interdisciplinary and interdepartmental manner including inputs from the site's process, environmental, technical services, geology, health and safety departments and are informed by site-specific characteristics (e.g. climate, flora, and fauna), modeling (see 4.1.3.5.), and other relevant information such as technical tailings management reports, including the TSF Design Basis Report (2023), the TSF Detailed Design Reports (2016, 2018), and the Dam Break Analysis Update prepared by an interdisciplinary team of the Engineer of Record (EoR), Advisian.

4.1.5.5.

The operating company shall develop an Operation, Maintenance and Surveillance (OMS) manual (or its equivalent) aligned with the performance objectives, risk management strategies, critical controls and closure plan for the facility, that includes:

- a. An operations plan that documents practices that will be used to transport and contain wastes, and, if applicable, effluents, residues, and process waters, including recycling of process waters;
- b. A documented maintenance program that includes routine, predictive and event-driven maintenance to ensure that all relevant parameters (e.g., all civil, mechanical, electrical and instrumentation components of a mine waste facility) are maintained in accordance with performance criteria, company standards, host country law and sound operating practices;
- c. A surveillance program that addresses surveillance needs associated with the risk management plan and critical controls management, and includes inspection and monitoring of the operation, physical and chemical integrity and stability, and safety of mine waste facilities, and a qualitative and quantitative comparison of actual to expected behavior of each facility;
- d. Documentation of facility-specific performance measures as indicators of effectiveness of mine waste management actions; and
- e. Documentation of risk controls and critical controls (see also 4.1.5.3), associated performance criteria and indicators, and descriptions of pre-defined actions to be taken if performance criteria are not met or control is lost.

Interviews with company personnel indicate that mine waste strategies are generated in collaboration with various departments (i.e., geotechnical, water, environment).

The evidence, Operations, Maintenance and Surveillance Manual (OMSM) (August 2024) for the TSF, a Waste Rock Management Plan (WRMP) (August 2024), samples of Waste Rock Dumps Monitoring Reports (January and June 2024), an Acid Mine Drainage (AMD) Management Plan (June 2023), an SOP on Mine Water Treatment, March 2023), TSF planned and completed maintenance work orders from the company's maintenance work order system, PRONTO, 2017-August 2024 (Excel, September 19, 2024), and interviews with key staff indicates the company has developed OMS manuals or equivalents for some mine waste facilities and mine waste management processes that are partially aligned with the performance objectives, risk management strategies, closure plans, and critical controls for the facility.

The following items are included in the mine waste facility OMS manuals:

- a. an operations plan that documents practices that will be used to transport and contain wastes, effluents, residues, and process waters, including recycling of process waters (OMSM, Ch. 9, and WRMP, Ch. 5, 6, 9.4. and 9.5, and AMD Plan, Ch. 4) and to treat potentially contaminated mine water captured in leachate ponds (SOP on Mine Water Treatment, March 2023).
- b. regular maintenance (preventative, corrective, and predictive) of relevant TSF components and ancillary devices (e.g., embankments, ramps, site access, valves, taps, joints, and spigots) (OMSM, Ch. 11), and regular maintenance of some waste rock management components (e.g. monitoring boreholes, survey equipment) outlined in the mine governance framework action plan (Mining Governance Report, June 2024), and identified in completed maintenance work orders for the TSF that works in parallel with the OMS and includes SOPs for maintenance personnel (inspections per specifications such as on civil, mechanical, electrical and instrumentation components of its mine waste facility according to manufacturer or other specifications) (PRONTO maintenance system work orders 2017-August 2024 and interviews with key staff).
- c. a surveillance program that addresses surveillance needs associated with the risk management plan and critical controls management, and includes inspection and monitoring of the operation, physical and chemical integrity and stability, and safety of mine waste facilities (OMSM, Ch. 10 and 11, and WRMP, Ch. 13), and a qualitative and quantitative comparison of actual to expected behavior of each facility as indicated by a sample of TSF Monthly Governance Reports (July to December 2023), samples of completed Waste Rock Dumps Monitoring Reports (January and June 2024), monthly comparison of waste rock storage facility performance against performance criteria (Mining Governance Report, June 2024), and monitoring of performance (fill volume, water characteristics) of leachate ponds (Mining Governance Report, June 2024).
- d. the facility-specific performance measures as indicators of effectiveness of mine waste management actions, such as performance parameters listed on the daily inspection forms for the TSF (TSF Monthly Inspection Report OMS – June and July 2023) further supported by the monthly comparison of TSF performance against a set of key performance indicators (KPIs) (TSF Governance Monthly Report, July to December 2023), and design

parameters for waste rock dumps and quality criteria for effluents from waste rock dumps (WRMP, Ch. 6 and 12).

e. trigger levels for several operational factors such as TSF pond level, seepage, and embankment cracking (OMSM, Ch. 14 and Appendix A) at which deviations from desired operation prompt action, and risk mitigation measures for each waste rock storage if performance indicators are not met (WRMP, Ch. 11). For trigger action response plans regarding the contamination of water from waste rock storage facilities refer to 4.2.4.4.

The Waste Rock Management Plan does not include details to confirm a comprehensive maintenance program has been developed and documented for waste rock storage facilities (b), and the evidence does not include documentation such as an SOP, to confirm the company has developed and documented an operation, maintenance, and surveillance program for leachate ponds, that includes aspects such as regular inspections, maintenance of equipment (e.g., pumps), and performance and control measures (c, d, e) as applicable.

4.1.5.6. **Critical.** On a regular basis, the operating company shall evaluate the performance of mine waste facilities to:

- a. Assess whether performance objectives are being met (see 4.1.4.2.a and 4.1.5.5);
- b. Assess the effectiveness of risk management measures, including critical controls (see 4.1.5.3);
- c. Inform updates to the risk management process (see 4.1.4.1.c) and the OMS (see 4.1.5.7); and
- d. Inform the management review to facilitate continual improvement (see 4.1.5.8).

The company evaluates the performance of its mine waste facilities to:

a. assess whether the performance objectives are met. For the TSF daily and monthly inspections of pipelines, spigotting, decant, embankments, liners, etc. are conducted as indicated by the company's Operations, Maintenance, and Surveillance Manual (OMSM) (August 2024), and embankment movement and minimal displacement have been assessed between the years 2018 and 2021 using satellite imagery as indicated in the 2021 InSAR survey report (August 2021). Interviews with key personnel and a sample of a TSF Annual Plan for 2024 (no date) indicate the company produces an annual plan for the TSF that outlines general performance objectives for the year, which are reviewed monthly during the TSF governance meetings (Sample of TSF Governance Monthly Reports, July to December 2023), which include an evaluation of the actual TSF performance against a set of key performance indicators (KPIs). In addition, independent specialists have evaluated the operation and performance of the TSF (see 4.1.6.1) and these external performance review audits have contributed to updating the TSF risk management process (e.g. update of the dam break analysis study, consequence classification, definition of credible failure modes, TARP and OMS manual, etc.). Internal monthly inspections of waste rock storage facilities are conducted and performance is compared against KPIs and design parameters as indicated by a monthly Mining Governance Report (June 2024) and three samples of completed inspection forms contained therein, and the capacity of leachate ponds and water characteristics are reviewed.

b. assess the effectiveness of risk management measures. For the TSF the company reviews the effectiveness of risk management measures regularly as indicated in the monthly governance report tracks the progress of mitigation and elimination measures as indicated in TSF 1 Governance Monthly Report (May 2023, pp. 44-47), and further supported by progress pictures of mitigation measures (pp. 54-56) and follow-up e-mail conversations (May and July 2023). In addition, the OMS Manual (August 2024) outlines the procedure of recording risks identified during daily inspection and mitigation or elimination of the risk. The monthly Mining Governance Report (June 2024) includes discussions on risk mitigation effectiveness of waste rock storages (e.g. backfilling areas where erosion occurred) and performance compared against KPIs and design parameters as

indicated by a monthly Mining Governance Report (June 2024) and three samples of completed inspection forms contained therein.

c. inform updates to the risk management process and the OMSM when deficiencies in performance or areas for improvement are identified. The company maintains a risk register as indicated by Balama Risk Register (version 8, July 2023), and interviews with key personnel indicate the risk register is updated at least annually and as new risks are identified e.g., by risks identified in the latest dam break study (October 2022) and study of credible failure modes (March 2022). The OMSM was updated in August 2022 and 2024 following external reviews and identification of areas of improvement and indicates furthermore that updates should occur based on any changes to the operations, where improvements in the operations and reporting procedures are identified or based on comments received following regular reviews of the facilities. According to key personnel and most recent independent reviews of the TSF no deficiencies in performance have been identified in the recent past that would have warranted an update to the TSF OMSM. The Tailings Storage Facility Emergency Response Plan (December 2023) has been updated recently to reflect the scenarios from the recent dam break study (October 2022). The Waste Rock Management Plan (August 2024, replacing earlier version from January 2024) indicates regular reviews are planned every 3 years or as necessary, and includes a recently updated risk assessment for each waste rock storage facility and risk mitigation measures.

d. inform continual improvement (see 4.1.5.8) and ongoing alignment with industry best practices (see 4.1.5.1), as indicated in the monthly performance review of the TSF (TSF Governance Monthly Reports, July to December 2023), and waste rock storage facilities and high-level review of leachate ponds (Mining Governance Report, June 2024), both reviewed by the general manager and forwarded to the COO and CEO.

While there are a few gaps identified (see 4.1.5.5., 4.1.5.7., 4.1.5.8.), the evidence and interviews with key personnel, indicate the company regularly evaluates the performance and management systems of its mine waste facilities to continually improve its mine waste management practices (e.g. alignment of TSF to GISTM, recent updates to waste rock management plans, monthly meetings and updates on mine waste facility performance, updates to risk registers, short-term and long-term acid mine drainage management) meeting the general intent of this requirement.

4.1.5.7. The OMS manual shall be updated and new or revised risk and critical control strategies implemented if information reveals that mine waste facilities are not being effectively operated or maintained in a manner that protects human health and safety, and prevents or otherwise minimizes harm to the environment and communities.

The evidence, Operations, Maintenance and Surveillance Manual (OMSM) for the TSF (August 2022 and 2024), a Waste Rock Management Plan (WRMP) (August 2024), samples of Waste Rock Dumps Monitoring Reports (January and June 2024), an Acid Mine Drainage (AMD) Management Plan (June 2023), an SOP on Mine Water Treatment (March 2023), and interviews with key staff indicate that the company reviews and updates its OMS manuals regularly. The most recent update to the OMSM was completed in August 2024. The OMSM and Waste Rock Management Plan are subject to updates following operational changes, improvement areas, external factors, or regular reviews. Updates are informed by regular inspections, monitoring data, and external reviews (currently only conducted for the TSF) (refer to 4.1.5.6). When occasional minor nonconformances (e.g., slope cracking, erosion, spillages) have been identified, they are managed through scheduled processes documented in TSF Monthly Inspection Reports (June and July 2023) and Waste Rock Dumps Monitoring Reports (January and June 2024). According to key personnel and most recent independent reviews of the TSF,

no deficiencies in performance have been identified in the recent past that would have warranted an update to the TSF OMSM.

The evidence indicates the mine waste facilities are functioning as intended, with no major issues that would trigger updates to risk management or operational practices. Interviews with key personnel, onsite observations, TSF maintenance work orders in the maintenance software PRONTO, 2017-August 2024 (Excel, September 19, 2024), samples of TSF Governance Monthly Reports (July to December 2023), and a recent monthly Mining Governance Report (June 2024) provide information to confirm that the company has implemented processes to swiftly address identified issues by implementing new or revised risk mitigation measures. A review of the TSF Annual Plan for 2024 (no date) indicates that the company has developed risk mitigation strategies for predicted risks of future projects such as cell construction and cell raises of the TSF (e.g. changing order of cell construction to prevent impact to groundwater flow). TSF Management systems (i.e., monthly governance meetings and reports, independent review board, etc.) provide information to confirm overall performance measures are met in a way that protects human health and safety and prevents or minimizes harm to the environment and communities.

While the evidence indicates the company reviews the performance of its waste rock storage facilities, the evidence does not include details to confirm the company has developed processes to regularly assess and review all relevant maintenance components (e.g., drainage, embankments) (see 4.1.5.5).

4.1.5.8. The operating company shall implement an annual management review to facilitate continual improvement of tailings storage facilities and all other mine waste facilities where the potential exists for contamination or catastrophic failure that could impact human health, safety, the environment or communities. The review shall:

- a. Align with the steps outlined in the Mining Association of Canada's Tailings Management Protocol or a similar framework; and
- b. Be documented, and the results reported to an accountable executive officer.

The evidence includes samples of TSF Governance Monthly Reports (July to December 2023), a Mining Governance Report (June 2024), and interviews with key staff, and provides information to confirm that the company has:

a. implemented a management review process to facilitate continual improvement of tailings storage facilities (TSFs) and other mine waste facilities with potential contamination or catastrophic failure risks impacting human health, safety, the environment, or communities, which includes regular review by management to ensure continual improvement based on performance evaluation and assurance. Reviews of the TSF performance conducted by the company partially align with Section 7, Management Review for Continual Improvement, Tailings Management Protocol (MAC version 3.2, page 41 March 2021) and include the status of actions from the previous review; tailings facility performance including key metrics (i.e., tailings deposition, water management, wall integrity, monitoring system, etc.); along with improvement opportunities and action plans including progress updates on key actions associated with ICMM Action plan. Reviews of waste rock storage facilities and leachate ponds may cover a wide range of aspects such as acid mine drainage management, mitigation action implementation progress (e.g., construction of PAF dump and associated leachate ponds) and mitigation actions effectiveness, and short- and long-term management improvement plans.

b. documented its management review process, with the results reported to an accountable executive officer. The monthly TSF Governance and Mining Governance Reports summarize the company's process of review and documentation:

4.1.6.1. The siting and design or re-design of tailings storage facilities and other relevant mine waste facilities, and the selection and modification of strategies to manage chemical and physical risks associated with those facilities shall be informed by independent reviews throughout the mine life cycle.

- A comprehensive monthly report (est. 50 pages) is developed by the Responsible Tailings Facility Engineer (RTFE) to consolidate information related to the TSF that is
- reviewed by the General Manager from a site perspective for approval.
- The Engineer of Record (EoR) conducts monthly performance reviews focused on performance indicators.
- The Chief Operating Officer (COO) leads a monthly governance review, involving multiple managers, to provide oversight. The COO also provides monthly updates to the Corporate Executive Officer (CEO), who, in turn,
- reports bi-annually to the Board of Directors for review.

The evidence sample does not include information to confirm the reviews consider all the steps outlined in the tailings management framework (e.g., Tailings Management Protocol, version 3.2., 2021) such as conformance and change management, controls review, effectiveness of risk management, emergency response planning, the OMS manual, effectiveness, adequacy of resources, or changes to legal requirements that may affect all mine waste facilities.

The evidence:

- a report by consulting firm SRK (Factual Balama Tailings Storage Facility Report and Recommendations Applicable to the SRK Phase 1 Scope of Work – Revision 2, May 2021),
- a report by consulting firm TEC3 for Cell 1 (Tailings Storage Facility Dam Safety Review Report, February 2024), and
- a desktop review (Review of Balama Tailings Storage Facility, April 2021) conducted by the Australian Centre for Geomechanics at the University of Western Australia,

indicates independent technical reviews of third parties that have not been involved in the design, operation, or construction of the TSF, on the operation and performance of the TSF were carried out in the planning and operational phases of the mine and are taken into account for the selection and modification of strategies to manage chemical and physical risks prior to the siting of TSF, such as the evaluation of reducing physical risks by switching from wet tailings deposition to dry stacking before the remaining cells of the TSF are built (Memorandum on the Site Visit to Balama TSF, March 2020).

The evidence, a risk assessment contained in the Waste Rock Management Plan (August 2024), indicates the potential risk for catastrophic failure of waste rock storage facilities is considered low to moderate, and the potential risk of acid-mine drainage from the waste and sub-grade storage facility is currently considered high. A sample of a monthly Mining Governance Report (June 2024) and the Waste Rock Management Plan (August 2024) indicates the company is in the process of hiring an independent third party to conduct geotechnical gap analysis and review existing mine infrastructure including pits and dumps and that external geotechnical inspections shall be conducted every five years starting 2024.

While the evidence indicates the company is working on reducing the potential risk of contamination related to acid mine drainage by constructing a lined PAF dumped and additional leachate ponds, and no changes to their operation or design have yet been proposed, the evidence does not provide information to confirm an independent review of waste rock storage facilities and leachate ponds has been conducted yet.

<p>4.1.6.2. Reviews shall be carried out by independent review bodies, which may be composed of a single reviewer or several individuals. At high-risk mine waste facilities, a panel of three or more subject matter experts shall comprise the independent review body.</p>	●	<p>The evidence:</p> <ul style="list-style-type: none"> - a report by consulting firm SRK (Factual Balama Tailings Storage Facility Report and Recommendations Applicable to the SRK Phase 1 Scope of Work – Revision 2, May 2021) with a review panel consisting of more than three subject matter experts, and signed by one principal engineer and one partner consultant, - a report by consulting firm TEC3 for Cell 1 (Tailings Storage Facility Dam Safety Review Report, February 2024) with a review panel of at least 8 engineers as listed on page 6, and <p>indicates the company has contracted independent third parties in 2021 and 2024 whose independent review panel consists of at least three or more subject matter experts to carry out detailed reviews of the TSF, which is considered a high-risk facility.</p> <p>The evidence, samples of Monthly Governance Reports (July to December 2023) indicate the company is in the process of appointing an independent tailings review board (ITRB) following GISTM guidelines.</p>
<p>4.1.6.3. Independent reviewers shall be objective, third-party, competent professionals.</p>	●	<p>Several independent reviews of the Tailings Storage Facility (TSF) have been conducted as indicated by:</p> <ul style="list-style-type: none"> - Professional Engineering Review of the Tailings Storage Facility by SRK Consulting (November 2020). - Review of Balama Tailings Storage Facility by the Australian Centre for Geomechanics at the University of Western Australia (April 2021). - Tailings Storage Facility Dam Safety Review Report by TEC3 (February 2024). <p>The reviews were conducted by independent, third-party experts recognized for their competence in the field, including internationally acknowledged subject matter experts. These experts are not employed by the mining project, are not involved in the design or operations of the facility, and have no relevant conflicts of interest.</p>
<p>4.1.6.4. Independent review bodies shall report to the operation's general manager and an accountable executive officer of the operating company or its corporate owner.</p>	⊗	<p>The evidence does not include documentation such as memos or other communication to confirm that the general manager or an accountable executive officer receives the third-party review reports or a summary of the key issues identified.</p>
<p>4.1.6.5. The operating company shall develop and implement an action plan in response to commentary, advice or recommendations from an independent review, document a rationale for any advice or recommendations that will not be implemented, and track progress of the plan's implementation. All of this information shall be made available to IRMA auditors.</p>	⊗	<p>The evidence includes:</p> <ul style="list-style-type: none"> - an independent TSF Safety Review Report by third-party TEC3 (February 2024) including a list of recommendations, - a Tailings Facility Independent Third-Party Review Action Update (March 2022), which is a PowerPoint with recommendations from a third-party review and the status of implementation, - a Credible Failure Modes study (January 2022) that was conducted following the recommendation of a third-party review.

		<p>These documents indicate that the company has formulated action plans and tracks implementation progress for some recommendations from independent reviews.</p> <p>However, while monthly Governance Reports (July to December 2023) list planned actions and progress updates for the TSF Governance Framework, it is unclear if these are based on independent review outcomes. Additionally, there is no documentation confirming that a clear action plan was developed following each independent review, including the most recent TSF Safety Review (February 2024), nor that all recommendations are tracked or where applicable a rationale provided for not implementing them.</p>
<p>4.1.7.1. Stakeholders shall be consulted during the screening and assessment of mine waste facility siting and management alternatives (see 4.1.4.2), and prior to the finalization of the design of the facilities.</p>		<p>IRMA expects existing mines that did not engage stakeholders during waste facility screening, siting, and assessment to demonstrate compliance by informing a broad range of stakeholders about the current design and management of the facilities.</p> <p>Stakeholder consultation during the ESHIA process is governed by national regulations (National Decree 45/2004 of September 29, Article 14 - Public Participation Process). The evidence, ESHIA - Part IV (February 2015, Annex E), includes a detailed log of stakeholder comments and questions that were raised during public consultation rounds (August 2013, and January 2015) and indicates the company has disseminated information and held public consultation meetings before the start of the project, which allowed stakeholders to learn about and raise any concerns or recommendations regarding the mine project including the company's planned waste facilities and waste management practices. The initial designs for waste rock storage facilities were finalized after the public consultation process in August 2015 as indicated by the Detailed Design Study (Snowden, August 2015), and the designs of cells 1 and 2 of the TSF were finalized in April 2016 as indicated by the document titled Balama Graphite Project - Tailings Storage Facility Design Report (Advisian, April 2016) with minor adjustments made to the design of Cell 2 considering lessons learned from operating cell 1 as indicated in Tailings Storage Facility Cell 2 - Design Report (Advisian, June 2018).</p> <p>The company continues to provide information on its waste facilities and management practices to stakeholders as indicated by presentations of the annual public consultation meeting on the company's environmental and social performance for 2019 and 2020 (January 2022), 2021 (January 2022), and meeting minutes from the meeting covering 2022 (February 2023), which are attended by regulatory and community stakeholders.</p> <p>Stakeholder interviews indicate that a diverse array of stakeholders, including representatives from communities most likely to be directly impacted by mine waste management decisions, were consulted throughout the screening and assessment phases of the mine project. Interviews with government agencies and community members corroborate that the company provided opportunities for timely and effective stakeholder consultation, review, and comment during the ESHIA process.</p>
<p>4.1.7.2. Emergency preparedness plans or emergency action plans related to catastrophic failure of mine waste facilities shall be discussed and prepared in consultation with potentially affected communities</p>		<p>The evidence, Consultation for the Emergency Management of the Balama Graphite Mine Tailings Dam (December 2022), and meeting minutes of the Consultation Group for Issues related to the Emergency Management of the Tailings Dam (October and November 2023), indicates the company established a consultation group, with governmental and non-governmental institutions, as well as community participants,</p>

and workers and/or workers' representatives, and in collaboration with first responders and relevant government agencies. (See also IRMA Chapter 2.5).

to provide inputs related to emergency prevention and management of the Tailings Storage Facility. An updated TSF Emergency Response Plan (draft version, August 2023) details host community responsibilities including regular participation in emergency drills, stakeholder involvement, and the notification process of potentially affected communities in case of an emergency. Interviews with government response coordinators, company managers, and emergency response personnel, including contractors, indicate familiarity with the emergency response plans related to a potential TSF failure and collaboration between the mine site response team and local emergency support groups.

The evidence and interviews indicate the emergency preparedness of communities potentially affected by a dam breach has not yet been fully discussed and implemented as there are a few gaps that will be addressed in coming years (e.g., emergency warning systems and designated safe zones in communities). Interviews with company key staff indicate these gaps are attributed to the current project phase (Phase 0), which extends until 2026, wherein tailings are only deposited in Cell 1 and Cell 2 is under construction. In Phase 0, the risks related to direct impacts on populations are minimal according to the Dam Classification (Credible Failure Modes, March 2022). According to company management, the emergency plans will be updated in consultation with community stakeholders as tailings disposal progresses or every three years.

4.1.7.3. Emergency and evacuation drills (desktop and live) related to catastrophic failure of mine waste facilities shall be held on a regular basis. (See also IRMA Chapter 2.5).



Does not meet. The evidence includes:

- Emergency Exercise Reports (February 2022 and 2023), showing that the company conducts emergency drills annually to evaluate preparedness and readiness for various types of emergencies, with participation from employees and contractors.
- An updated TSF Emergency Response Plan (draft version, August 2023), which requires employees, contractors, and surrounding communities to actively participate in emergency drills to ensure proper response and prevention measures.

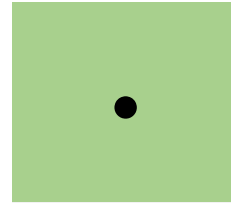
Interviews with company staff reveal that emergency and evacuation drills specific to a catastrophic failure of the TSF have not yet been conducted. This is because, during operational Phase 0, the risk of catastrophic failure is considered minimal according to the Dam Classification (Advisian, 2023). In Phase 0, tailings are only deposited in Cell 1 until Cell 2 is completed in 2026. The company plans to update emergency actions and plans as tailings disposal progresses or every three years and has started implementing internal desktop exercises. However, there is no provided plan for the frequency of TSF-specific emergency drills.

4.1.7.4. If requested by stakeholders, the operating company shall report to stakeholders on mine waste facility management actions, monitoring and surveillance results, independent reviews and the effectiveness of management strategies.



Not relevant. Interviews with key staff and stakeholders indicate that no requests have been made regarding the company's mine waste facility management actions, monitoring and surveillance results, independent reviews, or the effectiveness of management strategies, and this will be reviewed again at the surveillance audit.

4.1.8.1. **Critical.** At the present time, mine sites using riverine, submarine and lake disposal of mine waste materials will not be certified by IRMA.

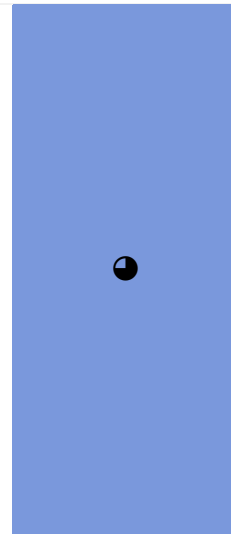


The evidence, TSF design report (April 2016), indicates that the company follows design guidelines by the Australian National Committee on Large Dams Guidelines on Tailings Dams (ANCOLD, 2012). Tailings are stored in an engineered and lined earthfill dam, waste rock is stored in dumps, and run-off is channeled into leachate ponds. Onsite observations and interviews with key staff confirm the company does not use riverine, submarine, or lake disposal to dispose of any waste.

Chapter 4.2—Water Management

Basis for rating

4.2.1.1. The operating company shall identify water users, water rights holders and other stakeholders that may potentially affect or be affected by its mine water management practices.

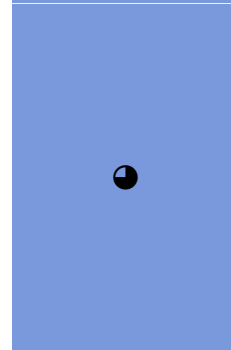


Water is sourced primarily from groundwater (i.e., boreholes and wells equipped with hand pumps), and from rainwater collection for domestic use, including drinking water. Water for other agricultural and domestic purposes (i.e., washing, irrigation), may be derived from one of several surface water locations including the Mihapui Spring, Mihapui Stream, Mualipue River, Naconha River, Mehucua River, Namitucu River, and the Montepuez River (includes the Chipembe Dam). The company's access to water for mine camp services (i.e., drinking water, washing) is through groundwater wells. Water for graphite processing is derived from the Chipembe Dam through a license issued by the regulatory agency (ARA Norte).

The evidence, an ESHIA (Parts II and Part IV, and Annex E, CES, February 2015), a Groundwater Report (Balama Graphite Project- Hydrogeology, Digby Wells Environmental, January 2015), an updated Socio-Economic Impact Study (Nemus, July 2022) that includes maps of all water users, and interviews with a sample of key staff and stakeholders indicates that the company has taken steps to identify populations of water users that may potentially affect or be affected by its mine water management practices.

The evidence does not include details such as the types and number of associated uses for each water source, and the number of associated users, particularly outside of rural centers.

4.2.1.2. The operating company shall conduct its own research and collaborate with relevant stakeholders to identify current and potential future uses of water at the local and regional level that may be affected by the mine's water management practices.



The evidence, an Environmental, Social and Health Impact Assessment (ESHIA) - Parts II and IV, and Annex E (February 2015), a Groundwater Report (Balama Graphite Project- Hydrogeology, Digby Wells Environmental, January 2015), as well as interviews with a sample of key staff and stakeholders indicates that the company has considered current and potential future uses of water that may be affected by the mine's water management practices in its research. The public Participation Report documents two rounds of public meetings at the provincial, district and national levels (Balama, Pemba and Maputo) during scoping as part of the ESHIA process: August 2013 and January 2015. Meeting minutes from 2014 and 2015 include community-raised concerns about water availability along with company responses, including proposed solutions, indicating stakeholder consultation on water use-related issues. The evidence indicates that the company has gathered general baseline information on water resources and general information on water use, has prepared an inventory of potential water impacts, and has discussed water-related issues with stakeholders as part of the

		<p>ESHIA process.</p> <p>The evidence does not include information to confirm the ESHIA process included collaboration with stakeholders to identify current and potential future uses of water or research relating to water-dependent natural resources (i.e., aquatic ecosystems and organisms, riparian ecosystems, wetlands, wildlife, etc.) and ecosystem services that could be affected if there are mining-induced changes to water quality or quantity.</p>
<p>4.2.1.3. The operating company shall conduct its own research and collaborate with relevant stakeholders to identify and address shared water challenges and opportunities at the local and regional levels, and shall take steps to contribute positively to local and regional water stewardship outcomes.</p>		<p>The evidence, a mine 'Open Door' event with communities' leaders (August 2023), and Consultation for the Emergency Management of the Graphite Mine Tailings Dam (December 2023), indicates the company collaborates with relevant stakeholders, including authorities and water users, to identify and address shared water challenges, among them, access to clean water (i.e. supporting the development of community wells). This information is supported through onsite observations and confirmed in interviews with a sample of stakeholders at the time of the site visit.</p>
<p>4.2.2.1. The operating company shall gather baseline or background data to reliably determine:</p> <ul style="list-style-type: none"> a. The seasonal and temporal variability in: <ul style="list-style-type: none"> i. The physical, chemical and biological conditions of surface waters, natural seeps/springs and groundwater that may be affected by the mining project; ii. Water quantity (i.e., flows and levels of surface water, natural seeps/springs, and groundwater) that may be affected by the mining project; and b. Sources of contamination and changes in water quantity or quality that are unrelated to the mining project. 		<p>The evidence, Balama Graphite Project Hydrogeology (Digby Wells Environmental January 2015), Environmental, Social and Health Impact Assessment (ESHIA) - Part II (CES February 2015), an Aquatic Ecology Baseline Survey and Impact Assessment (January 2014), and Adaptive Management Plan (June 2022 revised August 2024), indicates that the company has collected baseline information since 2015 on water quality and water availability in the area around the mine. Data includes water monitoring and analysis from eleven boreholes, four rivers, one stream, one spring and from the Chipembe Dam on the Montepuez River. The data provides information to confirm that the company has collected baseline information that offers background on:</p> <ul style="list-style-type: none"> a. seasonal and temporal variability, specifically: <ul style="list-style-type: none"> (i) the physical, chemical and biological background, including aquatic conditions, of surface waters, natural seeps/springs and groundwaters and (ii) water quantity (i.e., water table elevations in boreholes and wells and water withdrawal rates from the Chipembe Dam) that may be affected by the mining project. <p>Baseline studies and the site's adaptive management plan (June 2022 revised August 2024), which incorporates by reference other management plans that identify potential sources of contamination, including those for stormwater runoff, biodiversity, and domestic water and sewage sludge handling include information on:</p> <ul style="list-style-type: none"> b. sources of contamination unrelated to the mine site such as water quality due to natural geochemistry (i.e., calcium, magnesium, bicarbonate), and human-induced causes such as sewage disposal <p>The evidence does not include baseline information on springs, or information to confirm the company added</p>

		<p>monitoring points or augmented its sampling methodology (i.e., sample collection, analysis and flow) to improve reliability as recommended in the 2015 hydrogeology report.</p>
<p>4.2.2.2. The operating company shall carry out a scoping process that includes collaboration with relevant stakeholders, to identify potentially significant impacts that the mining project may have on water quantity and quality, and current and potential future water uses. The scoping process shall include evaluation of:</p> <ul style="list-style-type: none"> a. The mining-related chemicals, wastes, facilities and activities that may pose a risk to water quality; and b. The mine's use of water, and any mining activities that may affect water quantity. 		<p>The evidence, Hydrogeology of the Balama Graphite Project (Digby Wells Environmental January 2015) and Environmental, Social and Health Impact Assessment (ESHIA) - Part IV (February 2015), indicates that the company has carried out a scoping process to identify potentially significant impacts that the mining project may have on water quantity such as the mine's use of water, and water quality, and current and potential future water uses. The scoping process considered:</p> <ul style="list-style-type: none"> a. mining-related chemicals, wastes, facilities and activities that may pose a risk to groundwater or surface water quality, including the potential impacts of the geochemical composition of the ore, waste rock, and effluents. b. the mine's use of water, and any mining activities that may affect water quantity. <p>Further evidence, such as Feasibility Study Project Identification and Definition of Environmental and Social Impacts, Environmental Pre-feasibility Study and Definition of Scope and Terms of Reference (July 2013), and interviews indicate that scoping was done in collaboration with relevant stakeholders as part of the ESHIA process (i.e., meetings or focus groups at the provincial, district, and community levels), that included the identification of risks, mitigation measures, and approval of pre-feasibility scoping by the environmental government agency. Interviews with a sample of key staff and stakeholders, including managers, community members and government representatives, indicate that prior to the implementation of the ESHIA process the company made a reasonable effort to disseminate information about the project to potentially affected and interested stakeholders in a culturally appropriate manner.</p>
<p>4.2.2.3. Where potential significant impacts on water quantity or quality, or current and future water uses have been identified, the operating company shall carry out the following additional analyses to further predict and quantify the potential impacts:</p> <ul style="list-style-type: none"> a. Development of a conceptual site model (CSM) to estimate the potential for mine-related contamination to affect water resources; b. Development of a numeric mine site water balance model to predict impacts that might occur at different surface water flow/groundwater level conditions (e.g., low, average and high flows/levels); 		<p>The evidence, Stormwater Management Plan and Water and Salt Balance (July 2022) and Numerical Groundwater Flow Modelling Report (July 2022) carried out by an external consultant (Geostratum), and Hydrogeology of the Balama Graphite Project (Digby Wells Environmental January 2015) indicates that the company has considered and conducted the following evaluations to predict and quantify potential significant impacts:</p> <ul style="list-style-type: none"> a. a conceptual site model (CSM) to estimate the potential for mine-related contamination to affect water resources, surface water and groundwater (Digby 2015 and Geostratum 2022); b. a numeric groundwater flow model to predict impacts that might occur under different groundwater conditions (Geostratum 2022); c. other surface water and groundwater numerical models such as potential contaminant transport (Digby 2015 and Geostratum 2022). <p>The evidence does not include:</p>

		<p>b. a quantified mine site water balance model that estimates potential impacts that might occur at different surface water flow/groundwater level conditions (i.e., low, average and high flows/levels), and</p> <p>d. a predictive model or analysis of whether water treatment will be required during operations and mine closure/post-closure.</p>
<p>4.2.2.4. Use of predictive tools and models shall be consistent with current industry best practices, and shall be continually revised and updated over the life of the mine as operational monitoring and other relevant data are collected.</p>	●	<p>The evidence, Hydrogeology of the Balama Graphite Project (Digby Wells Environmental January 2015) and Numerical Groundwater Flow Modelling (Geostratum July 2022), includes modelling and other predictive tools and studies which are consistent with industry best practices and provides information to confirm that the company has a system of evaluation which includes hydrogeological studies and models to predict water quality and groundwater flow (i.e., groundwater drawdown, contaminant transport, sediment in surface water runoff, etc.). Studies and models describe limitations of data inputs, assumptions made, inherent uncertainty in the modeling, and predictive results.</p>
<p>4.2.3.1. The operating company, in collaboration with relevant stakeholders, shall evaluate options to mitigate predicted significant adverse impacts on water quantity and quality, and current and potential future water uses that may be affected by the mine's water management practices. Options shall be evaluated in a manner that aligns with the mitigation hierarchy.</p>	①	<p>The evidence, ESHIA - Part IV (February 2015) that includes a log of pre-project stakeholder consultation, an Environmental Management Plan (November 2019), a mine 'Open Door' event with community leaders (August 2023), and Consultation for the Emergency Management of the Graphite Mine Tailings Dam (December 2023), indicates that there has been information sharing and dialog between the company and relevant authorities and stakeholders that included, for example, a presentation of potential impacts and strategies allowing for stakeholder input relating to Chipembe Dam water users and the tailings storage facility. Consultation was informed by the mitigation hierarchy. Combined with minutes from Local Development Meetings, the evidence indicates that the company has sought stakeholders opinions, among them water resource protection relating to impacts at the mine.</p> <p>The evidence does not include the details to confirm that the company discussed and evaluated options to mitigate predicted significant adverse impacts specific to surface water and groundwater for all water sources and with all stakeholders related to the company's adaptive management plan relating specific to water quantity and quality.</p>
<p>4.2.3.2. If a surface water or groundwater mixing zone is proposed as a mitigation strategy:</p> <p>a. A risk assessment shall be carried out to identify, evaluate and document risks to human health, local economies and aquatic life from use of the proposed mixing zone, including, for surface water mixing zones, an evaluation of whether there are specific contaminants in point source</p>	—	<p>Not relevant. The company has not proposed the use of a surface water or groundwater mixing zone as a mitigation strategy.</p> <p>The evidence Balama Graphite Project Hydrogeology (January 2015) and Part II – ESHIA (February 2015), indicates that the company has provided a quantification of contaminants that could pose a risk to public resources and outlined mitigation measures that are currently being put into effect, as part of the actions of mitigation the evidence Stormwater Management Plan and Water and Salt Balance (July 2022) Drains all rainwater and treats it in specific sumps by area of operation.</p>

discharges, such as certain metals, that could accumulate in sediment and affect aquatic life; and

- b. If any significant risks are identified, the operating company shall develop mitigation measures to protect human health, aquatic life and local economies including, at minimum:
 - i. Surface water or groundwater mixing zones are as small as practicable;
 - ii. Water in a surface water mixing zone is not lethal to aquatic life;
 - iii. A surface water mixing zone does not interfere with the passage of migratory fish;
 - iv. Surface water or groundwater mixing zones do not interfere with a pre-mine use of water for irrigation, livestock or drinking water, unless that use can be adequately provided for by the operating company through another source of similar or better quality and volume, and that this substitution is agreed to by all potentially affected water users; and
 - v. Point source discharges into a surface water mixing zone match the local hydrograph for surface water flows to the extent practicable.

Interviews with a sample of key staff and a specific look at the areas indicate that there is no mixing zone identified.

4.2.3.3. Waters affected by the mining project shall be maintained at a quality that enables safe use for current purposes and for the potential future uses identified in collaboration with relevant stakeholders (see 4.2.1.2). In particular, the operating company shall demonstrate that contaminants measured at points of compliance are:

- a. Being maintained at baseline or background levels; or
- b. Being maintained at levels that are protective of the identified uses of those waters (See IRMA Water Quality Criteria by End Use Tables 4.2.a to 4.2.h, which correspond to particular end uses).

The evidence, a Hydrogeology Report (Digby Wells Associates, January 2015) and Environmental Geochemistry Report (November 2014) containing some background sampling results on surface water and groundwater, monitoring maps and points of compliance (GIS Shapefiles, June 4, 2024), an Annual Environmental and Social Performance Report (2022) with aggregated sampling results over time, a Water Quality sampling results data table (Excel, 2023), and two (2) lab reports of borehole water quality sampling (Certifications, April and June 2022), indicates that the company conducts water sampling of surface water and groundwater according to national legislation (i.e., monthly, quarterly, etc.) for a variety of parameters, that this information is tracked and reported regularly to government officials and stakeholders (with internet access), and that sample results generally align with legislative limits and IRMA Water Quality Criteria, enabling continued safe use.

The evidence does not include a comprehensive summary of sampling results compared to baseline or background water quality levels, as in IRMA Water Quality Criteria by End Use Tables 4.2.a to 4.2.h to confirm how the data correspond to protective, particular end uses as in (a) and (b).

4.2.3.4. Unless agreed by potentially affected stakeholders, water resources affected by mining activities shall be maintained at quantities that enable continued use of those resources for current purposes and for the potential future uses identified in collaboration with relevant stakeholders (see 4.2.1.2).

The evidence, including a Water abstraction License - Chipembe Dam and a monthly Sustainability Report (June 2022) presenting water use over time, indicates that the company tracks the onsite water balance monthly, and that this information is shared with the authorities and stakeholders and water use is well below permitted thresholds. The ESHIA hydrogeology report (Digby Well Associates January 2015), indicates the potential for water drawdown in wells over time, and that this will be reassessed at the surveillance audit.

4.2.4.1. **Critical (a through e).** The operating company shall develop and document a program to monitor changes in water quantity and quality. As part of the program the operating company shall:

- a. Establish a sufficient number of monitoring locations at appropriate sites to provide reliable data on changes to water quantity and the physical, chemical and biological conditions of surface waters, natural springs/seeps and groundwater (hereafter referred to as water characteristics);
- b. Sample on a frequent enough basis to account for seasonal fluctuations, storm events and extreme events that may cause changes in water characteristics;
- c. Establish trigger levels and/or other indicators to provide early warning of negative changes in water characteristics;
- d. Sample the quality and record the quantity of mine-affected waters destined for re-use by non-mining entities;
- e. Use credible methods and appropriate equipment to reliably detect changes in water characteristics; and
- f. Use accredited laboratories capable of detecting contaminants at levels below the values in the IRMA Water Quality Criteria by End-Use Tables.

The company has developed a program to monitor changes in water quantity and quality as presented in the evidence: (1) Section 10.3 Water Quality Monitoring (Environmental and Social Management Plan and Monitoring Programme, ESHIA Part III September 2014, pp. 93 – 104, and update, Genesis November 2019, pp. 10-20), (2) ESHIA hydrogeology report (Digby Well Associates January 2015), (3) a sample of water monitoring reports and analyses from various laboratories, (4) monitoring procedures, (5) Adaptive Management Plan (June 2022, revised August 2024), (6) Aquatic Ecology Survey (2023), (7) Company monitoring schedule of water quality parameters (Excel list v12) and (8) through interviews with key staff and stakeholders and observations of water sampling protocols undertaken by competent professionals. The hydrogeological investigation report for the site (Digby Well Associates January 2015) developed by external consultants indicates water resources around the mine have been systematically monitored since 2015. The report and ongoing updates informed by changes at the mine, sampling results, external reviews and reports, etc., identifies:

- a. Monitoring locations at appropriate sites to provide reliable information, as follows: nine (9) surface water locations and thirty-four (34) groundwater locations in order to measure groundwater quality and quantity. Groundwater (wells and boreholes) include the West Pit (6), East Pit (2), Nquide Village (4), Ntete Village (3), Pirira Town (4), Maputo Town (3), and tailings storage facility (12).
- b. Monitoring at a frequency to detect seasonal changes in water level quality (Water Sampling Excel Table, 2023) as specified in the site's updated Environmental Management Plans (Section 3.1 Water Management, Genesis November 2019, pp. 10-20). The schedule is varied: monthly monitoring includes potable water (bacteriological), sewage water, dam water (decant, process dam, and S05), oil separators, pit water and drainages, and borehole level measurements. Quarterly monitoring activities consist of decant and surface water, groundwater, surface water, and potable water (metals), with some parameters sampled at other frequencies (i.e., annually, random), each frequent enough to account for seasonal fluctuations.
- c. Has trigger levels or indicators as a measure of the mine site's contribution to negative impacts in the watershed. Indicators align with national legislation for surface water and effluents (Decree No. 18/2004 as amended by Decree No. 67/2010) as well as other, international standards and guidelines (i.e., IFC EHS Safety General Guidelines 2007) and for drinking water at the plant (i.e., Regulation on the Quality of Water for Human Consumption (Ministerial Diploma of 18/2004) and the WHO (2011).
- e. Samples are collected by trained and competent professionals according to the company's Quality Assurance/Control program (Part III - ESHIA, p. 91), using credible methods and appropriate equipment to reliably detect changes in water characteristics; i.e., regular calibration of on-site equipment, use of external laboratories, following chain of custody requirements, sample bottles clearly labeled, etc.) and sampling

		<p>protocols such as no overflow of water in sample bottles, samples transported in cooler boxes to the lab within 48 hours of collection, and samples collected by internal staff are accompanied by shipping documents.</p> <p>f. Analysis is conducted at external, accredited laboratories capable of detecting contaminants at levels below the values defined by Mozambican legislation consistent with the company's Quality Assurance/Control program (Part III - ESHIA, p. 91) to meet IRMA Water Quality Criteria based upon review of a sample of analyses' detection limits for analyzed parameters for Regen Lab (accreditation certificate October 2018), Aquático Laboratories (accreditation certificate December 2021 Reg. No. 2012/065554/07), and CEIL (accreditation certificate December 2021).</p> <p>The evidence does not include integrated water resources mapping, or the following details to confirm:</p> <p>a. and b. Monitoring locations capture seasonal variability from runoff directly before and after rain events to assess the company's contribution to surface water (i.e., of suspended solids or other potential contaminants during wet season or other extreme weather events). Refer to 4.2.4.2.</p> <p>d. water quality sampling of mine-affected water discharged off-site (i.e., for use as irrigation or other purposes) and documented quantities, if any, or rationale and evidence as to why this item is not relevant (i.e., not reused).</p>
<p>4.2.4.2. Samples shall be analyzed for all parameters that have a reasonable potential to adversely affect identified current and future water uses. Where baseline or background monitoring, source characterization, modeling, and other site-specific information indicate no reasonable potential for a parameter to exceed the baseline/background values or numeric criteria in the IRMA Water Quality Criteria by End-Use Tables (depending on the approach used in 4.2.3.3), those parameters need not be measured on a regular basis.</p>		<p>The evidence, TSF boreholes, potable water at the plant, Mualipue River (S05), mine concession boreholes, and other water quality data such as dams, drainages, pit water and settlement dams (Water Quality Data, separate Excel spread sheets 2023) indicate that the company conducts sampling in alignment to national legislation covering IRMA end-use water quality criteria for monitoring.</p> <p>The evidence does not include full documentation of water quality sampling data (raw data and lab results compared to baseline/background such as sulfate or turbidity) sufficient to confirm the company's water management sampling program analyzes all parameters that have a reasonable potential to adversely affect identified current and future water uses including those with a reasonable potential for a parameter to exceed baseline/background values or numeric criteria in the IRMA Water Quality Criteria by End-Use Tables.</p>
<p>4.2.4.3. The operating company shall actively solicit stakeholders from affected communities to participate in water monitoring and to review and provide feedback on the water monitoring program:</p> <ul style="list-style-type: none"> a. Participation may involve the use of independent experts selected by the community; and b. If requested by community stakeholders, costs related to participation in monitoring and review of the monitoring program shall be covered in full 		<p>The evidence, a report of the company's Annual Environmental and Social Performance Report (2022) and Chipembe & TSF Water Levels Report (Monthly), as well as interviews with key personnel and a sample of stakeholders indicate that the company shares water monitoring information with ARA Norte, the government entity overseeing water management, and that this information, aggregated, is available to stakeholders with online access. The information may also be shared in a general way with local communities, and this is not confirmed to meet the intent of this requirement.</p> <p>No information was presented to confirm the company has invited stakeholders to participate in the water monitoring as in (a) or (b).</p>

or in part by the company, and a mutually acceptable agreement for covering costs shall be developed.

4.2.4.4 **Critical.** The operating company shall develop and implement an adaptive management plan for water that:

- a. Outlines planned actions to mitigate predicted impacts on current and future uses of water and natural resources from changes in surface water and groundwater quality and quantity related to the mining project; and
- b. Specifies adaptive management actions that will occur if certain outcomes (e.g., specific impacts), indicators, thresholds or trigger levels are reached, and timelines for their completion.

The evidence includes the Twigg Adaptive Management Plan (AMP) (June 2022 revised August 2024, 14 pages) which incorporates by reference other plans and procedures with adaptive management actions, among them stormwater runoff, biodiversity, and domestic water and sewage sludge handling. These plans are informed by the company's environmental impact assessment, data from ongoing monitoring, and reports from external consultants—such as Part II: ESHIA (February 2015, pp. 124-167), Part III: ESMP & Monitoring Plan (September 2014, 104 pages). The evidence indicates that the company has developed and implemented an adaptive management strategy for water that:

a. outlines planned actions to mitigate predicted impacts, such as protecting aquatic resources (e.g., responding to changes in vegetation along watercourses), mitigating acid mine drainage, and managing predicted variations in water availability (e.g., stormwater collection for the rainy season and water recirculation during the dry season). These actions are detailed in the Environmental Management Plan (November 2019), Stormwater Management Plan and Water and Salt Balance (Geostratum, July 2022), and Acid Mine Drainage Management Plan (June 2023).

b. specifies actions that will occur if certain outcomes (i.e., specific impacts, indicators, or trigger levels) are reached and timelines for their completion. Table 3 Substance Concentration in Water (AMP, Section 7), includes trigger values for twelve key parameters—primarily metals—for surface water and groundwater. Beyond these twelve parameters, the AMP includes broader trigger criteria for ecological indicators, such as biodiversity (e.g., vegetation changes along watercourses, fluctuations in aquatic species populations), and water quality concerns (e.g., soil or freshwater contamination near riparian zones, community water quality complaints). The response framework in the AMP (Section 6.7, Table 1 Action Levels and Responses) defines three action levels (low, moderate, and high) that correspond to increasing magnitude of change, each level with its own set of predefined mitigation actions, timelines and persons responsible for their implementation. Depending upon the level, these actions include steps such as creating or updating the management response plan, confirming exceedances or trends, investigating root causes, evaluating ecological impacts, and identifying and adjusting mitigation measures. If exceedances persist, actions are reviewed and refined until issues are resolved. Interviews with water sampling personnel and water resource managers, and observations of a sample of entries in the water collection and analysis database at the time of the onsite visit, provide further examples of the site's adaptive management approach, including steps taken when a trigger value, set to be in advance of a minimum compliance level, is reached. In addition to the trigger levels defined in the AMP, the semi-annual Environmental and Social Performance Report (January–June 2021) documents thresholds for effluents from various on-site water treatment and separation units, including parameters such as pH, oil and grease, COD (Chemical Oxygen Demand), BOD (Biochemical Oxygen Demand), phosphorus, and chromium and establishes limits for pH, dissolved oxygen, and conductivity in surface water.

The evidence does not include specific thresholds and mitigation actions for some parameters, such as coliform bacteria, total suspended solids, and oil and grease in domestic or agricultural water supplies.

<p>4.2.4.5. Annually or more frequently if necessary (e.g., due to changes in operational or environmental factors), the operating company shall review and evaluate the effectiveness of adaptive management actions, and, as necessary, revise the plan to improve water management outcomes.</p>	●	<p>The evidence, an Environmental Management Plan (November 2019), an Adaptive Management Plan (June 2022), and an updated Adaptive Management Plan (August 2024) indicate that the company has developed programming to mitigate potential impacts related to the mine and has reviewed its adaptive water management actions within the past 12 months. Interviews with a sample of key staff reveal that the impact or failure concerning surface water quality undergoes continuous review, with mitigation actions pursued until resolution is achieved.</p>
<p>4.2.4.6. Community stakeholders shall be provided with the opportunity to review adaptive management plans and participate in revising the plans.</p>	⊗	<p>Does not meet. The evidence does not include information to confirm stakeholders review and participate in the revision of the company's adaptive management plan.</p>
<p>4.2.5.1. The operating company shall publish baseline or background data on water quantity and quality, and the following water data shall be published annually, or at a frequency agreed by stakeholders from affected communities:</p> <ul style="list-style-type: none"> a. Monitoring data for surface water and groundwater points of compliance; and b. Monitoring data for water quantity (i.e., flows and levels of surface waters, springs/seeps and groundwater), and the volume of water discharged and extracted/pumped for mining operations. 	●	<p>The evidence, a monthly Sustainability Report (June 2022) presenting water use over time, a PowerPoint presentation of Social and Environmental Performance 2019 - 2020, Aquatic Ecology Survey in the Chipembe Dam and Surrounding Areas Being Influenced by the Balama Graphite Operations Mining Concession 6432C (Pemba: Lúrio University - Faculty of Natural Sciences October 2023, 68 pages), Section 2.2, indicates that the company's sampling strategy, and aggregated water monitoring information is made available to government and local leaders at least annually. Performance indicators, including water monitoring information, is also provided to stakeholders through in-person meetings, the preferred means of communication.</p> <p>The evidence does not include information to confirm water quality or quantity data is published on the company's or another external website (e.g. government website) annually or at a frequency agreed to by stakeholders, and that the presented water data includes:</p> <ul style="list-style-type: none"> a. surface water and groundwater points of compliance; or b. water monitoring (i.e., flows and levels of surface waters, springs/seeps and groundwater), and the volume of water discharged.
<p>4.2.5.2. The operating company shall develop and implement effective procedures for rapidly communicating with relevant stakeholders in the event that there are changes in water quantity or quality that pose an imminent threat to human health or safety, or commercial or natural resources.</p>	⊗	<p>Does not meet. The evidence, a written procedure for emergencies (Emergency Response Plan and Incident Management Procedure July 2021) and Communication Participation and Consultation Procedure (May 2019), includes a flowchart of the communication chain that is initiated when an emergency has happened.</p> <p>The evidence does not include technical descriptions of potential emergencies related to water quality or quantity, the specifics of external contacts to be notified (including communities, authorities, and media), confirmation that procedures have been shared with pertinent stakeholders (such as public safety agencies and first responders), or details about actions implemented when trigger levels are surpassed.</p>
<p>4.2.5.3. The operating company shall discuss water management strategies, performance and adaptive</p>	⊗	<p>Does not meet. The evidence, a mine 'Open Door' with communities' leaders (August 2023), Consultation for the Emergency Management of the Graphite Mine Tailings Dam de Balama (December 2023), Twigg</p>

management issues with relevant stakeholders on an annual basis or more frequently if requested by stakeholders.

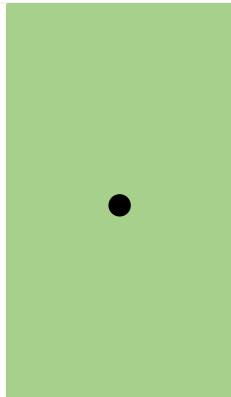
Communication 94 (September 2023) and Chipembe & TSF Water Levels Report indicates that the company has conducted a meeting with relevant stakeholders about general mining water management practices, include a participant log (i.e., names, locations, representation). The water quality data presented to community stakeholders includes pH and conductivity, along with a general statement that results are 'at background levels'.

The evidence, including interview with a sample of stakeholders does not include the details to confirm that the company discusses water topics (quality, quantity, performance) specific to the mine operation, on an annual basis (including communities, authorities, other water users and stakeholders).

Chapter 4.3—Air Quality

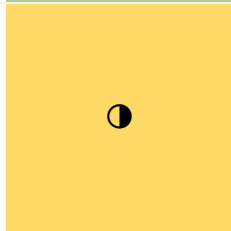
Basis for rating

4.3.1.1. The operating company shall carry out air quality screening to determine if there may be significant air quality impacts associated with its operations.



The evidence, Air Quality Baseline Assessment (Digby Wells and Associates, January 2015), indicates that air quality screening was performed prior the commencement of the operation to determine whether there may be significant air quality impacts associated with mine operations. The assessment is informed by local context, regional climate, historic dust deposition records, and the operation's emissions inventory. The assessment compares the modelled air quality results including predicted dust deposition, PM2.5, PM10, NO2, CO, and HC to the Mozambican Decree 18/2004-regulation on environmental quality and effluent emissions as amended by Decree 67/2010, WHO/IFC guidelines, and the South African National Standard (SANS) 1929:2012 as applicable. Although potential impacts of SO2 were not assessed, as the manufacturer's specifications of equipment used at the mine did not indicate that SO2 will be generated, the company monitors SO2 concentrations (see 4.3.3.1). The Air Quality Baseline Assessment (January 2015) indicates that potential impacts on air quality are predicted to be significant for the extraction of ore, crushing, transportation, and storage and handling of materials (p. 79). It further provides suggestions on a monitoring and air quality management program.

4.3.1.2. During screening, or as part of a separate data gathering effort, the operating company shall establish the baseline air quality in the mining project area.



The evidence, Air Quality Baseline Assessment (Digby Wells and Associates, January 2015), indicates that the company has established a baseline for dust deposition during the screening exercise based on 8 months of local monitoring data from the company. Similar monitoring data was not available for PM2.5, PM10, and gaseous pollutants including SO2, NO2, O3, Benzene, and CO, and no estimated pre-mining baseline has been derived from e.g. air quality modelling, historic studies of the area, or measurements in similar airsheds for these air quality parameters.

<p>4.3.1.3. If screening or other credible information indicates that air emissions from mining-related activities may adversely impact human health, quality of life or the environment, the operating company shall undertake an assessment to predict and evaluate the significance of the potential impacts.</p>	●	<p>The evidence, Air Quality Baseline Assessment (Digby Wells and Associates, January 2015, Ch. 12), includes an impact assessment indicating that open pit mining and storage, handling, and treatment of hazardous waste during the operating phase may lead to medium to high air quality impacts, which can be remedied with proposed mitigation measures. The company's Risk Register (last updated September 2023) indicates the company regularly updates its air quality impact assessment and classification, and includes implemented and planned control measures to mitigate potential impacts.</p> <p>Interviews with the HSSE manager and key personnel indicate that air quality impacts from the mine are assessed on an ongoing basis, and interviews with a sample of stakeholders from the communities around the mine indicate that mine-related air quality impacts are not a key concern.</p>
<p>4.3.1.4. The assessment shall include the use of air quality modeling and monitoring consistent with widely accepted and documented methodologies to estimate the concentrations, transport and dispersion of mining-related air contaminants.</p>	●	<p>The Air Quality Baseline Assessment (Digby Wells and Associates, January 2015) was compiled in compliance with current Mozambican environmental legislation and the International Finance Corporation (IFC) Performance Standards, as well as the Equator Principles (EPs). The methodology of the assessment is detailed (Ch. 9, 10, and 11) and indicates it was prepared using widely accepted methodologies as:</p> <ul style="list-style-type: none"> - dispersion modelling is based on the AERMOD modelling system. - suitable meteorological data was used. - relevant emission sources, such as equipment fleets and mine-related activities, were considered for all stages of the mine operation (e.g. construction, operation, decommission). - gaseous emissions were quantified based on the Australian NPI – Emission Estimation Technique (EET) (1999) and the US-EPA 1998 emission factor. - an appropriate spatial and temporal resolution covering 400 km² with 6561 modelling points.
<p>4.3.2.1. Critical. If significant potential impacts on air quality are identified, the operating company shall develop, maintain and implement an air quality management plan that documents measure to avoid, and where that is not possible, minimize adverse impacts on air quality.</p>	●	<p>The evidence, Air Quality Baseline Assessment (Digby Wells and Associates, January 2015), presents a preliminary impact assessment of dust and gaseous emissions and indicates that potential impacts on air quality by PM_{2.5} and PM₁₀ generated during extraction of ore, crushing, transportation, and storage and handling of materials during the operational phase of the mine and NO₂ generated mostly by mobile equipment are predicted to be significant (Ch. 13). The assessment further evaluates the residual impacts if appropriate mitigation measures and an air quality management plan were to be implemented indicating that impacts could be reduced significantly (Ch. 16). The Air Quality Management Procedure (October 2020) describes control measures (Ch. 6.2.1 and 6.2.2.) for dust and gaseous pollutants, prioritizing avoidance over minimization, such as restricting land disturbance, limiting speed vehicles, implementation of clean technologies, and watering and revegetation of disturbed areas. Databases containing the air quality monitoring information from monitors located at the site, camp and the surrounding communities for dust fallout, PM_{2.5}, PM₁₀ (monthly monitoring data, last updated December 2023), SO₂, NO₂, O₃, and CO (quarterly monitoring data, last updated October 2023), indicate that exceedances of dust limits on-site and at the camp are negligible and correlate with meteorological conditions (e.g., wind speed, wind direction, precipitation), which are tracked in real-time, and that NO₂ concentrations do not exceed limits at the site or in surrounding communities, indicating overall successful mitigation of emissions.</p>

		<p>On-site observations confirm the implementation of emissions avoidance and mitigation measures such as revegetation of slopes, adjusting the TSF deposition plan to reduce dust generation from dry tailings, preservation of vegetation between mine and communities, wetting of roads, reduced vehicle speeds, and elimination of A/C refrigerant containing ozone-depleting gases.</p> <p>Interviews with a sample of key staff indicate air quality in neighboring communities is also impacted by non-mining related events, such as traditional slash-and-burn practices or plowing of adjacent agricultural fields, strong winds during the dry season, bushfires, and burning of charcoal for cooking and petroleum for heating which can lead to localized air quality exceedances. Interviews with a sample of community stakeholders including those living closest to the mine indicate that mine-related air quality impacts have not been a key concern.</p>
<p>4.3.2.2. Air quality management strategies and plans shall be implemented and updated, as necessary, over the mine life.</p>		<p>The evidence includes two documents that describe the company's air quality management strategies:</p> <ul style="list-style-type: none"> - The Air Quality Management Procedure (October 2020) describes the measurement of air quality at nearest receptors, control measures, and data analysis and reporting, and indicates that the plan shall be reviewed and revised as necessary every 3 years or whenever legislation or operations change. The procedure is due for review in October 2023. - The Environmental Management Plan (November 2019), which is an update to the plan outlined in the ESHIA - Part III (February 2014), includes the facility's air quality management strategies including measures to avoid, and where not possible to reduce impacts on air quality and indicates that the management plan is updated every 5 years as per legislation or whenever there are significant changes to the operation. Interviews with a sample of key staff indicate that the update of the Environmental Management Plan is underway to satisfy the requirements of the site's environmental license renewal in 2024. <p>The evidence does not include an updated air quality management procedure to confirm that air quality plans are updated as planned.</p>
<p>4.3.3.1. The operating company shall monitor and document ambient air quality and dust associated with the mining project by using personnel trained in air quality monitoring.</p>		<p>The Air Quality Management Procedure (October 2020) and the Environmental Management Plan (November 2019) describe the air quality monitoring plan, including monitoring locations, frequency, applicable air quality limits, and data analysis, indicating that the company has developed a monitoring program. The evidence includes an air quality monitoring schedule for 2022, and databases containing monthly monitoring data for dust fallout, PM10, and PM2.5 (last updated December 2023), and quarterly monitoring data for SO2, NO2, O3, and CO (last updated October 2023), as well as a sample of lab reports with monitoring results for each of these variables indicating the company monitors and documents air quality.</p> <p>Air quality is measured as follows:</p> <ul style="list-style-type: none"> - Radiello monitors measure quarterly SO2, NO2, O3, and CO concentrations which are sent to and analyzed by SGS Moçambique in Maputo (Radiello analysis, SGS, January, May, August, and October 2023). - Monthly dust fallout samples are collected with a bucket and sent to and analyzed by Intertek in Pemba (Dust

		<p>Fallout Test Reports, January to December 2023).</p> <ul style="list-style-type: none"> - PM10 and PM2.5 data is collected monthly using a TSI DustTrack 8543 instrument, which collects data in real-time (Air Quality Management Procedure, October 2020). - a training certificate (June 2013) of one of the employees conducting monitoring and interviews with a sample of key staff indicate competency. - real-time monitoring of meteorological data, including wind speed, wind direction and precipitation, to correlate with monitoring data as observed on-site. - regular calibration of the particulate matter monitoring instrument as indicated in interviews with relevant personnel and further supported by a sample of a certificate of calibration and testing (TSI Instruments, June 2021). Calibration of the radiello devices and the bucket for dust fallout collection are not necessary due to the nature of the devices. <p>Interviews with a sample of key staff from the environmental team, including managers and employees, carrying out the monitoring campaigns and observations of monitoring-related tasks in the field confirm that personnel is adequately trained.</p>
<p>4.3.3.2. Ambient air quality and dust monitoring locations shall be situated around the mine site, related operations and transportation routes and the surrounding environment such that they provide a representative sampling of air quality sufficient to demonstrate compliance or non-compliance with the air quality and dust criteria in 4.3.4.3, and detect air quality and dust impacts on affected communities and the environment. Where modeling is required (see 4.3.1.4) air monitoring locations shall be informed by the air quality modeling results.</p>	●	<p>The Environmental Management Plan (November 2019, p. 24), includes a map of monitoring locations indicating the company measures air quality at six locations covering sensitive receptors inside and outside the project area. One monitoring point is at the site, one at the mine camp, and one each at the surrounding communities of Ntete, Pirira, Maputo, and Nquide. The evidence includes databases containing monthly monitoring data for dust fallout, PM10, and PM2.5 (last updated December 2023), and quarterly monitoring data for SO2, NO2, O3, and CO (last updated October 2023) for each of the six monitoring points confirming the implementation of monitoring at sensitive receptors. The placement of monitors is informed by and consistent with sensitive receptors predicted to be most likely impacted identified through the dispersion modelling exercise in the Air Quality Baseline Assessment (Digby Wells and Associates, January 2015, Ch. 11) indicating that the monitoring results are representative of local air quality and sufficient to draw conclusions on compliance, which was confirmed through interviews with a sample of key staff, including the environmental manager explaining the rationale for selecting the monitoring locations and confirming the site's adherence to regulatory requirements.</p> <p>Interviews with a sample of key staff also indicate air quality in neighboring communities is also impacted by non-mining related events, such as traditional slash-and-burn practices or plowing of adjacent agricultural fields, strong winds during the dry season, bushfires, and burning of charcoal for cooking and petroleum for heating which can lead to localized air quality exceedances.</p>
<p>4.3.4.1. New mines and existing mines shall comply with the European Union's Air Quality Standards (EU Standards) as amended to its latest form (See Table 4.3, below) at the boundaries of the mine site and transportation routes, and/or mitigate exceedances as follows:</p>	—	<p>Not scored. Per IRMA guidance this requirement can be marked "not scored" if the company does not follow EU emissions standards. The Air Quality Management Procedure (October 2020) indicates the company measures particulate matter and gaseous emissions (SO2, NO2, O3, and CO) against the most stringent limit set out in the Mozambican Decree No. 67/2010, IFC Standard, or EU Standard. The dust fall rate is measured per the American</p>

- a. If a mine is in an air shed where baseline air quality conditions meet EU Standards, but emissions from mining-related activities cause an exceedance of one or more parameters, the operating company shall demonstrate that it is making incremental reductions in those emissions, and within five years demonstrate compliance with the EU Standards; or
- b. If a mine is located in an air shed where baseline air quality is already degraded below EU Standards, the operating company shall demonstrate that emissions from mining-related activities do not exceed EU Standards, and make incremental improvements to the air quality in the air shed that are at least equivalent to the mining project's emissions.

Society for Testing and Materials D1739:1970, and compared against limits of South African National Dust Control Regulations (NDCR) 2013.

- 4.3.4.2. As an alternative to 4.3.4.1, the operating company may undertake a risk-based approach to protecting air quality as follows:
- a. New and existing mines shall comply with host country air quality standards at a minimum, and where no host country standard exists mines shall demonstrate compliance with a credible international best practice standard;
 - b. Where compliance is met for host country standards but the mine experiences a residual risk related to its air emissions, then more stringent international best practice standards shall apply;
 - c. Where compliance is met for international best practice standards and a mine still experiences a residual risk from its air emissions, then the mine shall set more stringent self-designed limits, and implement additional mitigation measures to meet those limits; and
 - d. For all air-emissions-related risks, the mine shall demonstrate that it is making incremental reductions in emissions, through a multi-year phased plan with defined timelines.

Not scored. Per IRMA guidance this requirement can be marked "not scored" if the company does not follow EU emissions standards.
 The Air Quality Management Procedure (October 2020) indicates the company measures particulate matter and gaseous emissions (SO₂, NO₂, O₃, and CO) against the most stringent limit set out in the Mozambican Decree No. 67/2010, IFC Standard, or EU Standard.
 The dust fall rate is measured per the American Society for Testing and Materials D1739:1970, and compared against limits of South African National Dust Control Regulations (NDCR) 2013.

<p>4.3.4.3. Dust deposition from mining-related activities shall not exceed 350 mg/m²/day, measured as an annual average. An exception to 4.3.4.3 may be made if demonstrating compliance is not reasonably possible through ordinary monitoring methods. In such cases the operating company shall utilize best available practices to minimize dust contamination.</p>	—	<p>Not scored. Per IRMA guidance this requirement can be marked "not scored" if the company does not follow EU emissions standards.</p> <p>The Air Quality Management Procedure (October 2020) indicates the company measures particulate matter and gaseous emissions (SO₂, NO₂, O₃, and CO) against the most stringent limit set out in the Mozambican Decree No. 67/2010, IFC Standard, or EU Standard.</p> <p>The dust fall rate is measured per the American Society for Testing and Materials D1739:1970, and compared against limits of South African National Dust Control Regulations (NDCR) 2013.</p>
<p>4.3.5.1. The operating company shall ensure that its air quality management plan and compliance information is up-to-date and publicly available, or made available to stakeholders upon request.</p>	●	<p>Interviews with personnel and review of documentation on-site indicate that the company shares details about its environmental performance, including air quality, with stakeholders through various channels.</p> <p>The company submits reports on its environmental performance to the Ministry of Environment on a quarterly, bi-annual, and annual basis, including air quality monitoring data, which is supported by a sample of receipt letters from the ministry (January and March 2022). The evidence, presentations of the annual public consultation meeting on the company's environmental and social performance for 2019 and 2020 (January 2022), 2021 (January 2022) and meeting minutes from the meeting covering 2022 (February 2023), which are attended by regulatory and community stakeholders, includes the company's dust and gaseous pollutants monitoring data for each monitoring point and the relevant legal emissions limits. The presentations also include the company contact information for further inquiries on environmental performance. Interviews with a sample of key staff indicate it would provide information on air quality and air quality management when requested by stakeholders.</p>

Chapter 4.4—Noise and Vibration

Basis for rating

<p>4.4.1.1. The operating company shall carry out screening to determine if there may be significant impacts on offsite human noise receptors from the mining project's noise and/or vibration. Screening is required at all new mines, and also at existing mines if there is a proposed change to the mine plan that is likely to result in a new source of noise or vibration or an increase in existing noise or vibration levels.</p>	●	<p>The evidence, Environmental Noise Impact Assessment (January 2014), indicates that the company carried out a screening to determine the impacts arising from its activities, as part of its initial assessment, identifying external receptors and determining whether they could be significantly affected by noise or vibrations from the mine. The study utilized predictive modelling taking into account the noise emissions from the mine's main emitters such as haul trucks etc., and concludes that without mitigation there is a potential for moderate to high impact on noise in surrounding villages related to mine activities during the construction and operational phase of the operation.</p> <p>The company's Risk Register (last updated September 2023) indicates the company regularly updates its noise impact assessment and classification, and includes implemented and planned control measures to mitigate potential impacts.</p>
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4.4.1.2. If screening identifies potential human receptors of noise from mining-related activities, then the operating company shall document baseline ambient noise levels at both the nearest and relevant offsite noise receptors.



The evidence, Environmental Noise Impact Assessment for the proposed Balama Graphite Mine (January 2014), identifies four communities (Nquide, Ntete, Maputo, and Pirira) as human receptors and provides baseline ambient noise measurements for day and nighttime (Table 7-1) from measurement points in each community as illustrated in a map (Plan 2) and compares these against IFC EHS guidelines for noise limits in residential areas. The document indicates noise measurements were taken during one night and one day for each community and that the baseline data excludes extraordinary noise emitters that occur in villages from time to time, such as cicadas and the sound of maize milling machinery during their operation, to prevent skewing the baseline results.

The baseline measurements do not include noise data collected over a longer period of time capturing noise variances in different ambient conditions due to differing noise sources during the week or due to meteorological conditions to ensure the ambient noise baseline is representative as outlined in internationally best practice guidelines, such as the Leading Practice Sustainable Development Program: Airborne Contaminants, Noise and Vibration by the Australian Department of Industry, Innovation and Science (2009).




4.4.2.1. If screening or other credible information indicates that there are residential, institutional or educational noise receptors that could be affected by noise from mining-related activities, then the operating company shall demonstrate that mining-related noise does not exceed a maximum one-hour LAeq (dBA) of 55 dBA during the hours of 07:00 to 22:00 (i.e., day) and 45 dBA at other times (i.e., night) at the nearest offsite noise receptor. These hours may be adjusted if the operating company can justify that alternative hours are necessary and/or appropriate because of local, cultural or social norms.



Does not meet. The Environmental Noise Impact Assessment (January 2014) indicates that potential human receptors have been identified and concludes that without mitigation there is a potential for moderate to high impact on noise in surrounding villages related to mine activities during the construction and operational phase of the operation (Ch. 13). The results of baseline noise meter recordings for all sampled points, including residential, institutional or educational noise receivers, and classification limits are presented in Table 7-1, indicating that the baseline noise is usually below the IFC limit, except for Maputo where noise exceeds the IFC limit at night by 3 dBA. The Environmental Noise Monitoring database (last updated December 2023) contains monthly noise measurements at sensitive receptors taken during the daytime from March 2022 to December 2023, which are compared against IFC noise limits, and indicates occasional noise exceedances.

Interviews with a sample of key staff from the HSSE department indicate the company has not been able to take noise measurements at night since October 2019 as the company has determined that it is not safe to do so due to the national security situation/crisis in northern Mozambique. The HSSE manager indicates that no noise-related complaints have been received by communities and that some noise exceedances are caused by extraordinary circumstances (e.g. cicada sitting on microphone) outside of the company's control. Interviews with a sample of stakeholders from the communities around the mine did not indicate that mine-related noise is a key concern.

While the company has identified sensitive receptors and implemented a noise monitoring program, the evidence does not sufficiently demonstrate compliance with the specified daytime (55 dBA) and nighttime (45 dBA) noise limits at the nearest offsite receptors. This is due to the absence of nighttime monitoring data since 2019 and occasional daytime noise exceedances without sufficient supporting information, such as an integrated database with baseline measurements (see 4.4.1.2.), site and community noise data, and contextual conditions (e.g., wind direction, speed, and operational times), to confirm whether the company has a robust

		<p>process to assess its impact on sensitive receptors and determine if the exceedances are caused by mining activities or external factors.</p>
<p>4.4.2.2. The following exceptions to 4.4.2.1 apply:</p> <ol style="list-style-type: none"> a. If baseline ambient noise levels exceed 55 dBA (day) and/or 45 dBA (night), then noise levels shall not exceed 3 dB above baseline as measured at relevant offsite noise receptors; and/or b. During periods of blasting, the dBA levels may be exceeded, as long as the other requirements in 4.4.2.4 are met. 		<p>Does not meet. The evidence does not include details to confirm exceptions can be made to requirement 4.4.2.1.</p> <ol style="list-style-type: none"> a. The evidence, Environmental Noise Impact Assessment (January 2014), includes results of baseline noise measurements for sensitive receptors (Table 7-1), indicating that the baseline noise in Maputo exceeds IFC limits at night by 3 dBA. The Environmental Noise Monitoring Database (last updated December 2023) contains monthly noise measurements at sensitive receptors taken during the day time from March 2022 to December 2023, but does not contain night time noise measurement data to confirm the night time noise baseline in Maputo is not exceeded by 3 dBA. Interviews with a sample of key staff from the HSSE department indicate the company has not been able to take noise measurements at night since October 2019 as the company has determined that it is not safe to do so due to the national security situation/crisis in northern Mozambique. b. The evidence, Blast Monitoring Database (last updated November 2023), which includes blast data such as peak overpressure (dBL) from 2018 to end of 2023 measured at the closest community (Pirira), does not include noise measurement data (dBA) taken during blast activities to confirm that dBA limits are not exceeded during blasting, or if that is the case that all requirements in 4.4.2.4 are met (b) (see 4.4.2.4.).
<p>4.4.2.3. If screening or other credible information indicates that there are only industrial or commercial receptors that may be affected by noise from mining-related activities, then noise measured at the mine boundary or nearest industrial or commercial receptor shall not exceed 70 dBA.</p>		<p>Not relevant. The evidence, Environmental Noise Impact Assessment (January 2014), indicates that there are more sensitive noise receivers, namely the surrounding communities Nquide, Ntete, Maputo, and Pirira, than commercial receivers that are potentially affected by mine-related noise.</p>
<p>4.4.2.4. If screening or other credible information indicates that noise or vibration from blasting activities may impact human noise receptors, then blasting operations at mines shall be undertaken as follows:</p> <ol style="list-style-type: none"> a. A maximum level for air blast overpressure of 115 dB (Lin Peak) shall be exceeded on no more than 5 % of blasts over a 12-month period; b. Blasting shall only occur during the hours of 09:00 to 17:00, on traditionally normal working days; and 		<p>A sample of vibration-related complaints filed in regard to a mine-induced blast in February 2023 indicates vibration from blasting activities is a concern to stakeholders. Interviews with key staff and the Blast Monitoring Database (last updated November 2023), which includes blast data from 2018 to the end of 2023, indicate blasting at the mine does not occur on a regular basis as it is dependent on mine progression and seasonal factors (wet season), and the number of blasts averaged 6 times a year from 2020 to 2023. The Blast Monitoring Database (last updated November 2023), a presentation on the annual public consultation on the company's environmental and social performance from 2021 (January 2022), which includes blast times and monitoring data for the year 2021, and a sample of blast monitoring reports (February, March, and July 2019) indicates the mine largely undertakes blasting operations as follows:</p>

<p>c. Ground vibration (peak particle velocity) shall neither exceed 5 mm/second on 9 out of 10 consecutive blasts, nor exceed 10 mm/second at any time.</p>		<p>a. A maximum level for air blast overpressure of 115 dB (Lin Peak) exceeded on average 1 time per year over the past 3 years,</p> <p>b. Blasts were executed between the hours of 9:00 to 17:00 on traditional working days during the years 2019 and 2021.</p> <p>c. Ground vibration (peak particle velocity) exceeded 5 mm/second on average 1 time per year over the past 3 years.</p> <p>The Blast Monitoring Database indicates that the current blast management strategies do not always successfully reduce ground vibrations exceeding 10 mm/s, as the database documents an instance in the past three years where vibration exceeded that limit (c).</p> <p>The evidence does not provide timestamps for blasts initiated after 2021 to confirm that blasting took place between the hours of 09:00 to 17:00 (b) or during alternative times as described in 4.4.2.5.</p>
<p>4.4.2.5. Mines may undertake blasting outside of the time restraints in 4.4.2.4.b when the operating company can demonstrate one or more of the following:</p> <p>a. There are no nearby human noise receptors that will be impacted by blasting noise or vibration;</p> <p>b. Alternative hours are necessary and/or appropriate because of local, cultural, or social norms; and/or</p> <p>c. Potentially affected human receptors have given voluntary approval for the expanded blasting hours.</p>	<p>⊗</p>	<p>Does not meet. Interviews with the HSSE manager indicate that blast times may be adjusted as necessary to ensure the safety of people and animals (e.g., when locals working in their agricultural fields close to the mine have not yet cleared the blast radius by the afternoon, as is customary in the area). The evidence does not include information to confirm that delays of blasts beyond 17:00 were made due to local norms.</p>
<p>4.4.2.6. If a credible, supported complaint is made to the operating company that noise or vibration is adversely impacting human noise receptors, then the operating company shall consult with affected stakeholders to develop mitigation strategies or other proposed actions to resolve the complaint. Where complaints are not resolved then other options, including noise monitoring and the implementation of additional mitigation measures, shall be considered.</p>	<p>—</p>	<p>Not relevant. The evidence, including interviews and document review, indicates that no credible, supported complaints regarding noise or vibration have been received.</p> <p>The evidence includes a sample of vibration-related complaints filed regarding a mine-induced blast in February 2023 and the company's responses to each case (February 2023). The evidence also includes inspection reports of the claims by the government (June 2023), indicating the company has collaborated with the regulatory agencies during investigation of the claims and jointly concluded the issues raised were not caused by the vibration and that mitigation is therefore not necessary. The inspection reports are signed by each complainant and include their written agreement on the outcome of the inspection.</p> <p>While some stakeholders from communities, including those in potentially affected areas, indicated they have raised vibration-related complaints, interviews with key staff and a review of the grievance log indicate the company has not yet received a credible, supported complaint regarding noise or vibrations.</p>

4.4.2.7. All noise- and vibration-related complaints and their outcomes shall be documented.	—	Not relevant. The evidence, including interviews and document review, indicates that no credible, supported complaints regarding noise or vibration have been received (see 4.4.2.6.).
4.4.3.1. When stakeholders make a noise-related complaint, the operating company shall provide relevant noise data and information to them. Otherwise, noise data and information shall be made available to stakeholders upon request.	—	<p>Not relevant. The evidence, including interviews and document review, indicates that no credible, supported complaints regarding noise or vibration have been received (see 4.4.2.6.).</p> <p>There is no evidence indicating that noise or vibration measurement data has been requested by stakeholders. Interviews with personnel indicate they would share information on noise and vibration measurements if requested by a stakeholder.</p> <p>The evidence, presentations of the annual public consultation meeting on the company's environmental and social performance for 2019 and 2020 (January 2022), 2021 (January 2022) and meeting minutes from the meeting covering 2022 (February 2023), which are attended by regulatory and community stakeholders, includes the company's noise monitoring data for each monitoring point and the IFC noise emission limit for residential areas and for year 2021 monitoring data related to blasting activities (e.g. mm/s and dB) was shared. The presentation also includes the company's contact information for further inquiries on environmental performance.</p>

Chapter 4.5—Greenhouse Gas Emissions

Basis for rating

<p>4.5.1.1. Critical. The operating company or its corporate owner shall develop and maintain a greenhouse gas or equivalent policy that commits the company to:</p> <ol style="list-style-type: none"> Identifying and measuring greenhouse gas emissions from the mining project; Identifying energy efficiency and greenhouse gas reduction opportunities across the mining project; Setting meaningful and achievable targets for reductions in absolute greenhouse gas emissions at the mine site level or on a corporate-wide basis; and Reviewing the policy at least every five years and revising as needed, such as if there are significant changes to mining-related activities, new 	●	<p>The evidence, Syrah Sustainability Policy (last updated July 2024), is equivalent to a greenhouse gas policy and commits the company to:</p> <ol style="list-style-type: none"> Identify and measure the mining project's greenhouse gas emissions. Documentation of a completed independent life cycle assessment (LCA) of its operations was observed during the on-site audit. The site's Environmental Dashboard (last updated July 2024) is a database containing emissions data dating back to 2019, supporting this commitment. Identify opportunities to increase energy efficiency and reduce greenhouse gases. Reduce absolute greenhouse gas emissions of the site by 30% by the end of 2024. Interviews with the Sustainability Manager and a review of the Emissions Modelling database (July 2024) indicate progress is measured against the site's monthly average absolute greenhouse gas emissions before the operation of the solar photovoltaic system is fully optimized. Review the policy annually, as indicated by past and planned reviews (first established July 2022, reviewed in July and September 2023, and July 2024, with a planned review in July 2025). The policy further indicates the
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<p>technologies become available, or there are newly identified opportunities for reductions.</p>		<p>company's commitment to setting meaningful and achievable longer-term targets for reductions in greenhouse gas emissions.</p>
<p>4.5.2.1. The operating company shall comply with emissions quantification methods described in a widely accepted reporting standard, such as the Greenhouse Gas Protocol Corporate Standard or the Global Reporting Initiative's GRI 305 emissions reporting standard.</p>		<p>During the on-site audit the company's greenhouse gas emissions calculator to quantify the site's emissions was observed. The calculator has been created by the Australian Government within the framework of it's National Greenhouse and Energy Reporting Act and calculates CO2, CH4, and N2O emissions based on fuel consumption, etc. entered into the tool. The site currently tracks emissions generated through its diesel consumption, which is the sites' only source of energy besides its solar power plant that was commissioned end of 2023.</p> <p>The evidence observed on-site indicates that sulfur hexafluoride (SF6), perfluorocarbons (PFC and hydrofluorocarbons (HFCs)) are excluded from the emissions quantification. The site is currently replacing ozone depleting refrigerants (R22) that are used in air conditioners. HCF emissions generated by the remaining use of R22 is not accounted for. It is not clear from the evidence if the methodology used to quantify GHG emissions is widely accepted or comparable to widely accepted methods.</p>
<p>4.5.3.1. The greenhouse gas policy shall be underpinned by a plan that details the actions that will be taken to achieve the targets set out in the policy.</p>		<p>The evidence, HSE objectives and plans to achieve them (February 2022), indicates that the company documents planned actions to reduce the site's emissions. The document indicates that the company planned the construction of a photovoltaic plant to reduce it's GHG emissions. On-site observations during January 2024 confirmed the implementation and operability of the photovoltaic plant.</p>
<p>4.5.3.2. The operating company shall demonstrate progress toward its greenhouse gas reduction targets.</p>		<p>The evidence, HSE objectives and plans to achieve them (February 2022), indicates that the company documents planned actions to achieve the company's site-specific emissions reduction target. The document indicates that the company planned the construction of a photovoltaic plant to reduce it's GHG emissions. On-site observations during January 2024 confirmed the implementation and operability of the photovoltaic plant. While the company has not yet determined baseline emissions of its operation due to inconsistent production since its commission in 2017, on-site observations of the site's predicted emissions intensity (GHG emissions per ton of graphite product) derived from a forecasted LCA indicate the site's emissions intensity will be lower than from benchmark operations producing natural graphite or synthetic graphite.</p> <p>The evidence does not provide detail to confirm a reduction of emissions over time.</p>
<p>4.5.3.3. The operating company shall demonstrate that it has investigated greenhouse gas reduction strategies, and shall document the results of its investigations.</p>		<p>The evidence includes a business case investigating the emissions reduction when replacing diesel with electric forklifts (May 2020), an addendum to the ESHIA describing the scope and impacts of installing and operating a photovoltaic power plant (July 2021) and an installation license for the power plant (September 2021) indicating the company has investigated GHG reduction strategies and documented results.</p>

		On-site observations during January 2024 confirmed the implementation and operability of the photovoltaic plant.
4.5.4.1.	The greenhouse gas policy shall be publicly available.	<p>The Syrah Sustainability Policy (September 2023) is equivalent to a greenhouse gas policy and is available in English on the company's corporate website, Sustainability Overview (syrahresources.com.au).</p> <p>No evidence was provided to confirm the company informs stakeholders on how to access the sustainability policy and whether the format and language are culturally appropriate.</p>
4.5.4.2.	<p>On an annual basis, the operating company or its corporate owner shall:</p> <p>a. Disclosure to IRMA auditors an accounting of its greenhouse gas emissions from the mining project; achievement of and/or progress towards mine-site-level greenhouse gas reduction targets; and efforts taken to reduce emissions from the mining project and mining-related activities; and</p> <p>b. Publicly report on mine-site-level or corporate-level greenhouse gas emissions, progress towards greenhouse gas reduction targets and efforts taken to reduce emissions.</p>	<p>The evidence includes a sample of quarterly Sustainability Updates available publicly on the company's website and on-site observations and interviews with a sample of key staff and indicates that:</p> <p>a. during the on-site audit, the company shared with auditors their methods of GHG accounting, and its progress on and achievement of site-level initiatives to eliminate or reduce GHG emissions;</p> <p>b. the company reports publicly mine-site-level greenhouse gas emissions in its quarterly sustainability updates that are available on Syrah's website (https://www.syrahresources.com.au/Sustainability/reports?tab=Sustainability) and to governmental agencies in bi-annual and annual environmental performance reports. The sustainability updates also describe ongoing projects to reduce or eliminate GHG emissions at site-level and their progress.</p>

Chapter 4.6—Biodiversity, Ecosystem Services and Protected Areas

Basis for rating

4.6.1.1.	Biodiversity, ecosystem services and protected areas screening, assessment, management planning, implementation of mitigation measures, and monitoring shall be carried out and documented by competent professionals using appropriate methodologies.	<p>The evidence includes an Environmental, Social and Health Impact Assessment (ESHIA) (February 2015), an Environmental Management Plan (Genesis Ltda., November 2019), baseline impact assessments such as Part IV – Vegetation Impact Assessment (October 2014), Fauna Impact Assessment (December 2013) and Aquatic Impact Assessment (January 2014), and Monitoring of Flora and Fauna in the Balama Conservation Areas (March 2019), prepared by the Department of Biological Sciences of the Faculty of Sciences of the Eduardo Mondlane University and accompanied by CVs of three (3) team members, and a proposal for and report of a survey of aquatic ecology in the Chipembe dam and areas adjacent to the mine (March and October 2021), developed by the Lúrio University - Faculty of Natural Sciences, and indicates the company contracts third-parties for screening, assessment, management planning, implementation of mitigation measures and monitoring of biodiversity. The biographies contained in the ESHIA and associated baseline assessments, and</p>
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		<p>the CVs for monitoring contractors indicate that screening, impact assessment, and monitoring is carried out by competent professionals with decades of relevant academic and work experience.</p>
<p>4.6.1.2. Biodiversity, ecosystem services and protected areas screening, assessment, management planning, and the development of mitigation and monitoring plans shall include consultations with stakeholders, including, where relevant, affected communities and external experts.</p>		<p>The evidence, ESHIA Part III on Environmental and Social Management Plan and Monitoring Program (September 2014), indicates the company's stakeholder engagement plan allows for stakeholders to provide their views on project risks, impacts, and mitigation measures (Ch. 6.5). A Public Consultation Process Report (February 2015) indicates that interested parties, including community stakeholders, regulatory agencies, subject matter experts, and environmental NGO's, were consulted during the process of impact screening. Baseline impact assessments such as Part IV – Vegetation Impact Assessment (October 2014), Fauna Impact Assessment (December 2013) and Aquatic Impact Assessment (January 2014), which are included in the company's ESHIA and provide recommendations regarding management plans, mitigation measures, and monitoring plans, indicates the company's strategies for biodiversity, ecosystem services and protected areas management were informed by external experts (see 4.6.1.1.).</p> <p>The evidence does not include details, such as meeting minutes or similar documentation, to confirm community stakeholders were consulted on the development of biodiversity management, mitigation, and monitoring plans.</p>
<p>4.6.1.3. Biodiversity, ecosystem services and protected areas impact assessments, management plans and monitoring data shall be publicly available, or made available to stakeholders upon request.</p>		<p>Interviews with a sample of key staff and stakeholders, including community members, indicate the company has not yet received requests regarding impact assessments on biodiversity, ecosystem services and protected areas, management plans and monitoring data. Interviews with a sample of key staff indicate the company would provide information on biodiversity and ecosystem services when requested by stakeholders.</p> <p>Information on biodiversity, ecosystem services, and protected areas impact assessment, management plans, and monitoring have been made available to the public at different instances:</p> <ul style="list-style-type: none"> - Impact assessment results were shared with community and interested stakeholders during the ESHIA process as indicated by the ESHIA - Part IV Public Participation Process Report (February 2015), which includes a detailed log of stakeholder comments and questions that were raised during public consultation rounds (August 2013, and January 2015). - The most recent Environmental Management Plan (2019), which includes the biodiversity management plan and details on proposed and implemented protection and mitigation actions, and monitoring parameters and frequencies, is physically available at the District Administration (Balama District) and another at the Provincial Directorate (City of Pemba) (no date) as indicated by a sample of key staff during interviews. - Some monitoring information on general biodiversity, aquatic fauna health, and conservation and reforestation efforts are presented to regulatory and community stakeholders during annual public consultation meeting on the company's environmental and social performance as indicated by the presentations for 2019 and 2020 (January 2022), 2021 (January 2022) and meeting minutes from the meeting covering 2022 (February 2023), which also include the company contact information for further inquiries on environmental performance.

4.6.2.1. **Critical.** New and existing mines shall carry out screening or an equivalent process to establish a preliminary understanding of the impacts on or risks to biodiversity, ecosystem services and protected areas from past and proposed mining-related activities.

Balama is an existing mine. The evidence includes ESHIA - Part II (February 2015, pp. 112-170), baseline impact assessments such as Part IV – Vegetation Impact Assessment (October 2014), Terrestrial Faunal Impact Assessment (December 2013) and Aquatic Impact Assessment (January 2014) and indicates competent professionals (see 4.6.1.1.) carried out a preliminary screening process and more detailed baselines assessments to establish a comprehensive understanding of the direct and indirect impacts and risks to biodiversity, ecosystem services, and protected areas as well as cumulative impacts from mine activities during construction, operation, and decommissioning phases.

The Public Consultation Process Report (February 2015) includes comments from stakeholders and company responses made during in-person meetings or through e-mail communication as part of the ESHIA process and indicates stakeholders from potentially affected communities (Nquide, Ntete, Pirira, Mualia, and Balama) and other interested parties were consulted and actively participated at multiple stages during the screening process by offering their views on key issues that should be considered during the ESHIA process and commenting on the appropriateness of impact assessment results.

The Environmental Management Program (PGA) (November 2019) states that while an expansion of one of the operational pits and a new tailings disposal method are planned, potential impacts and mitigation measures are sufficiently covered in the ESHIA. The PGA includes an Official Letter from the Ministry of Land, Environment and Rural Development (July 2019) which expresses the authority's approval of the PGA and attests the assessment was carried out according to the legislation.

Interviews with a sample of key staff and stakeholders, including management and government authorities, confirm that EIA legislation requires the company to consult interested and affected parties on key issues that are potentially affected by the mine project and consider their concerns throughout the EIA process before an operating license can be issued, which was further supported by the presentation of Local Development Committee meeting minutes.

4.6.2.2. Screening shall include identification and documentation of:

- Boundaries of legally protected areas in the mine's actual or proposed area of influence, and the conservation values being protected in those areas;
- Boundaries of Key Biodiversity Areas (KBA) in the mine's actual or proposed area of influence, the important biodiversity values within those areas and the ecological processes and habitats supporting those values;
- Areas of modified habitat, natural habitat and critical habitat within the mine's proposed or actual area of influence, and the important

The evidence, an ESHIA (February 2015) and assessments on terrestrial faunal (December 2013) and vegetation (October 2013), and an Aquatic Ecology Baseline Survey and Impact Assessment (January 2014), all prepared by consultancy Coastal & Environmental Services, as well as an Aquatic Ecology Survey in the Chipembe Dam and Surrounding Areas Influenced by the Balama Graphite Operation (Lúrio University, Faculty of Natural Sciences, October 2023, 68 pages), which indicate the company has screened for:

- boundaries of ecologically sensitive and important areas close to the mine, including WWF defined global ecoregions, and nationally protected areas such as national parks, game reserves etc. and indicates the closest protected area, which is the Quirimbas National Park that is also registered as a UNESCO biosphere reserve, is located 85 km northeast of the mine project and outside of the mine's area of influence (ESHIA, February 2015, Ch. 4.3.4).

- the vulnerability of bird, reptile, mammal, and other faunal, as well as vegetation species within the mine's area of influence informed by lists provided by IUCN, IBA, CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora), and Mozambique Red Data List (Terrestrial Faunal Assessment,

- biodiversity values (e.g., threatened and endangered species) present in the critical habitat areas; and
- d. Natural ecosystems or processes within the mine's proposed or actual area of influence that may or do provide provisioning, regulating, cultural and supporting ecosystem services.

Ch. 2.3., and 3, and Vegetation Assessment, Ch. 3.5). The assessments indicate the area is home to a few Bird Species of Special Concerns (SSC) and birds listed by CITES.

c. sensitive natural habitats, such as riparian zones, wetlands, steep slopes and rocky ridges, including Inselbergs, as well as modified habitats such as agricultural land and described their specific conservation values. The Vegetation report provides descriptions on different ecological zones and their sensitivity such as Inselbergs, which are isolated islands with distinct biodiversity and are associated with endemic species, and rare and threatened habitats and provide important corridors for flora and fauna. (Terrestrial Faunal Assessment and Vegetation Assessment, Ch. 5)

d. ecosystem services supplied by each vegetation type including provision of food, medicine, water, charcoal and regulation such as erosion control (Vegetation Assessment, Ch. 6.4 and Table 6-2)

The evidence and interviews with a sample of key staff indicate that there are no legally protected areas close to the company.

Interviews with management and review of a related e-mail conversation (August 2022) indicate that the company has not yet scanned for critical habitat (c) but has engaged with a consultant to close this gap.

- 4.6.3.1. When screening identifies protected areas or areas of potentially important global, national, or local biodiversity or ecosystem services that have been or may be affected by mining-related activities (e.g., KBAs, critical habitat, threatened or endangered species), the operating company shall carry out an impact assessment that includes:
- Establishment of baseline conditions of biodiversity, ecosystem services and, if relevant, conservation values (i.e., in protected areas) within the mine's proposed or actual area of influence;
 - Identification of potentially significant direct, indirect and cumulative impacts of past and proposed mining-related activities on biodiversity, ecosystem services and, if relevant, on the conservation values of protected areas throughout the mine's lifecycle;
 - Evaluation of options to avoid potentially significant adverse impacts on biodiversity, ecosystem services and conservation values of protected areas, prioritizing avoidance of impacts on important biodiversity values and priority

The ESHIA (February 2015) indicates that local biodiversity and ecosystem services may be impacted by mine-related activities and the company has carried out impact assessments that include:

a. the types of plant and animal species observed in the project area during the wet and dry season of 2013, as documented in the Vegetation Impact Assessment (October 2014), Terrestrial Faunal Impact Assessment (December 2013) and Aquatic Ecology Baseline Survey and Impact Assessment (January 2014), which are largely aligned with the guidelines described in Good Practices for the Collection of Biodiversity Baseline Data (Gullison et al., 2015) regarding the identification of study area, determination of scope, desk-based assessment, field-based assessments and reporting. It is noted that there has been limited historical data on Mozambique's biodiversity which is identified as a limitation to the studies.

b. an identification of potentially significant direct, indirect and cumulative impacts of proposed mining-related activities on biodiversity and ecosystem services as summarized in the ESHIA (February 2015, Ch. 6 and 7). For further details see 4.6.2.1.

c. an evaluation of project alternatives to avoid impacts on ecologically sensitive areas, and important biodiversity values such as vulnerable plants with conservation value as indicated in the Alternatives Assessment in the ESHIA (February 2015, Ch. 10), and evaluation of options to minimize, mitigate and offset potential and actual impacts as described for each component in the impact assessment (ESHIA, February 2015, Ch. 6, 7, and 12). For further details see 4.6.4.1 and 4.6.4.2.

The evidence (ESHIA, February 2015) and interviews with a sample of key staff indicate that there are no legally protected areas close to the mine concession.



<p>ecosystem services; evaluation of options to minimize potential impacts; evaluation of options to provide restoration for potential and actual impacts; and evaluation of options to offset significant residual impacts (see 4.6.4.1 and 4.6.4.2); and</p> <p>d. Identification and evaluation of opportunities for partnerships and additional conservation actions that could enhance the long-term sustainable management of protected areas and/or biodiversity and ecosystem services.</p>		<p>The biodiversity baseline does not include details on species abundance such as the number of individuals per unit area observed during the field surveys or data obtained during a longer time span, since the existing data is representative of two campaigns in 2013, or details on ecosystem service metrics such as number of medicinal plants or quantity of fresh water, as outlined in Good Practices for the Collection of Biodiversity Baseline Data (Gullison et al., 2015), that allows a robust quantification of mining-related impacts on biodiversity and ecosystem services at a later point (a). The evidence does not include details to confirm the company has evaluated opportunities for collaboration with other parties or for further conservation actions to enhance the overall outcomes of its biodiversity and ecosystem services management (d).</p>
<p>4.6.4.1. Critical. Mitigation measures for new mines shall:</p> <p>a. Follow the mitigation hierarchy of:</p> <ol style="list-style-type: none"> i. Prioritizing the avoidance of impacts on important biodiversity values and priority ecosystem services and the ecological processes and habitats necessary to support them; ii. Where impacts are not avoidable, minimizing impacts to the extent possible; iii. Restoring biodiversity, ecosystem services and the ecological processes and habitats that support them; and iv. As a last resort, offsetting the residual impacts. <p>b. Prioritize avoidance of impacts on important biodiversity values and priority ecosystem services early in the project development process;</p> <p>c. Be designed and implemented to deliver at least no net loss, and preferably a net gain in important biodiversity values, and the ecological processes that support those values, on an appropriate geographic scale and in a manner that will be self-sustaining after mine closure.</p>		<p>Not relevant. Balama is an existing mine. See 4.6.4.2. for the company's biodiversity impact avoidance and mitigation measures.</p>

<p>4.6.4.2. At existing mines:</p> <p>a. Where past adverse impacts on important biodiversity values and priority ecosystem services have been identified, the operating company shall design and implement onsite restoration strategies, and also, through consultation with stakeholders, design and implement additional conservation actions to support the enhancement of important biodiversity values and/or priority ecosystem services on an appropriate geographic scale; and</p> <p>b. If there is the potential for new impacts on important biodiversity values or priority ecosystem services (e.g., as a result of mine expansions, etc.), the operating company shall follow the mitigation hierarchy, prioritizing the avoidance of impacts on important biodiversity values or priority ecosystem services, but where residual impacts remain, shall apply offsets commensurate to the scale of the additional (new) impacts.</p>		<p>The evidence and interviews indicate the company has developed and implemented restoration and mitigation strategies that aim at:</p> <p>a. offsetting any impacts on biodiversity where necessary as indicated by the Mine Closure Plan (February 2020), which aims at the recovery of natural ecosystems in the project area that have been impacted by mine activities, and interviews with the HSSE manager and observations of the onsite nursery in which the company grows native seedlings for mine rehabilitation purposes and to enhance biodiversity outcomes. The HSSE manager also indicated the company has implemented a Natural Resources Management Committee, which includes the participation of community stakeholders, to promote Environmental Education and the distribution of native seedlings as biodiversity preservation initiatives. The conclusions contained in the Terrestrial Flora and Fauna Monitoring Report (March 2019), the Aquatic Ecology Survey in the Chipembe Dam and surrounding areas being influenced by the Balama Graphite Project (October 2021), and the Annual Environmental and Social Performance Report (2022) indicate the company has not yet adversely impacted biodiversity.</p> <p>b. the avoidance of new impacts on biodiversity caused by mine-related activities, such as by implementing delineated conservation areas around the mine as indicated during interviews with key staff, observations made on-site and supported by a procedure on Conservation Area & Sustainable Livelihoods Management (October 2020), and where that is not possible follow the mitigation hierarchy as indicated by the mitigation measures described in the ESHIA - Part II (February 2015, Ch. 6.3.4, 6.3.5, and 6.3.6) and Environmental Management Program (PGA) (November 2019, Ch. 3.5), as well as offsetting any residual impacts and implement additional conservation actions as described in the Mine Closure Plan (February 2020).</p> <p>The evidence does not include details to confirm a wide range of stakeholders, including those that participate in the Natural Resources Management Committee, have been able to provide input on the design or implementation of conservation efforts.</p>
<p>4.6.4.3. Offsetting, if required, shall be done in a manner that aligns with international best practice.</p>	<p>—</p>	<p>Not relevant. Interviews with a sample of key staff and documental evidence indicate that mitigation measures have been successful and that offsetting is currently not required (see 4.6.4.2.).</p>
<p>4.6.4.4 The operating company shall develop and implement a biodiversity management plan or equivalent that:</p> <p>a. Outlines specific objectives (e.g., no net loss/net gain, no additional loss) with measurable conservation outcomes, timelines, locations and activities that will be implemented to avoid, minimize, restore, enhance and, if necessary, offset adverse impacts on biodiversity and ecosystem services;</p>		<p>The Environmental Management Plan (PGA) (November 2019), Adaptive Management Plan (January 2022, revised August 2024), and Mine Closure Plan (February 2020) describe biodiversity management plans that:</p> <p>a. outline the company's overarching objective to avoid, eliminate, mitigate or compensate for potential negative impacts and maximize potential positive impacts (PGA, Ch. 3) and more specifically for biodiversity management to identify any changes in fauna, flora and habitats in the areas adjacent to the project area and compensate for possible negative impacts (PGA, Ch. 3.5.1.1. and Adaptive Management Plan, Section 6.7 Adaptive Management Response Framework and Section 6.9 Table 2, Selected Indicator). The programs describe planned control actions such as establishing conservation areas to preserve local flora and fauna, prohibiting hunting on mine concession or introduction of invasive or exotic species without prior approval, and</p>

<p>b. Identifies key indicators, and ensures that there is an adequate baseline for the indicators to enable measurement of the effectiveness of mitigation activities over time;</p> <p>c. Provides a budget and financing plan to ensure that funding is available for effective mitigation.</p>		<p>water management to prevent impacts on aquatic ecology (PGA, Table 25) and indicates that all these actions are already being implemented. This is supported by the company's procedures on Conservation Area & Sustainable Livelihoods Management (October 2020) and Bush Clearing (November 2019), which describe specific measures that aim at protecting biodiversity and ecosystem services.</p> <p>a. outlines general conservation objectives and locations used to guide adverse impacts such as any changes in vegetation along water courses, the number and distribution of fish and macroinvertebrate indicator species, or change in abundance of amphibians, reptiles or mammals.</p> <p>b. identify success indicators for vegetation and soil to be achieved during mine closure (Mine Closure Plan, Table 6).</p> <p>c. provide a budget for closure and post-closure rehabilitation cost (Mine Closure Plan, Ch. 6.2. and 6.3.) and financial surety (see 2.6.4.1).</p> <p>The company's biodiversity management plans do not include details to confirm the company has developed and documented (a) measurable conservation outcomes and timelines for achieving the outcomes, or (b) key indicators for biodiversity and ecosystem services during the operational phase of the mine or a baseline that includes details on species abundance such as number of individuals per unit area observed during the field surveys that can be used to assess the effectiveness of mitigation measures over time, or (c) a budget and financing plan that ensures the company has sufficient funds to effectively mitigate any impacts to biodiversity or ecosystem services prior closure.</p>
<p>4.6.4.5. Biodiversity management shall include a process for updating or adapting the management plan if new information relating to biodiversity or ecosystem services becomes available during the mine lifecycle.</p>	●	<p>The Mozambican legislation (Decree 26/2004) requires companies to update their Environmental Management Plan every 5 years or in the case of significant changes to the project.</p> <p>The evidence, Environmental Management Plan (November 2019), which is an update to the environmental and social management plan outlined in the ESHIA - Part III (February 2014), indicates the company has implemented a process to update its management plans, which also cover biodiversity management, every 5 years or whenever significant changes to the project occur or new information on biodiversity and ecosystem services are available.</p> <p>Interviews with a sample of key staff indicate that the update of the Environmental Management Plan is underway to satisfy the requirements of the site's environmental license renewal in 2024.</p>
<p>4.6.5.1. An operating company shall not carry out new exploration or develop new mines in any legally protected area unless the applicable criteria in the remainder of this chapter are met, and additionally the company:</p>	—	<p>Not relevant. Balama is an existing mine and no legally protected area was identified in proximity to the mine (see 4.6.2.2.).</p>

<ul style="list-style-type: none"> a. Demonstrates that the proposed development in such areas is legally permitted; b. Consults with protected area sponsors, managers and relevant stakeholders on the proposed project; c. Conducts mining-related activities in a manner consistent with protected d. Implements additional conservation actions or programs to promote and enhance the conservation aims and/or effective management of the area. 		
<p>4.6.5.2. An operating company shall not carry out new mining-related activities in the following protected areas unless they meet 4.6.5.1.a through d, and an assessment, carried out or peer-reviewed by a reputable conservation organization and/or academic institution, demonstrates that mining-related activities will not damage the integrity of the special values for which the area was designated or recognized International Union for Conservation of Nature (IUCN) protected area management category IV protected areas; Ramsar sites that are not IUCN protected area management categories I-III; and Buffer zones of UNESCO biosphere reserves.</p>	—	<p>Balama is an existing mine and the evidence including the ESHIA - Part II (February 2015), Part III – Environmental and Social Management Plan and Monitoring Program (September 2014), and Faunal and Vegetation Assessment reports (October 2013) indicates the mine has not been developed or operates in a:</p> <ul style="list-style-type: none"> - IUCN protected area management category IV protected area, - Ramsar site; or - Buffer zone of a UNESCO biosphere reserve. <p>The nearest protected area is the Quirimbas National Park, that is also registered as UNESCO biosphere reserve, and is situated 85 km northeast of the project site outside of the mine's area of influence (ESHIA, February 2015, Ch. 4.3.4).</p>
<p>4.6.5.3. Critical. IRMA will not certify new mines that are developed in or that adversely affect the following protected areas:</p> <ul style="list-style-type: none"> - World Heritage Sites, and areas on a State Party's official Tentative List for World Heritage Site Inscription; - IUCN protected area management categories I-III; - Core areas of UNESCO biosphere reserves. 	—	<p>Not relevant. Balama is an existing mine.</p>

<p>4.6.5.4. Critical. An existing mine located entirely or partially in a protected area listed in 4.6.5.3 shall demonstrate that:</p> <ol style="list-style-type: none"> The mine was developed prior to the area's official designation; Management plans have been developed and are being implemented to ensure that activities during the remaining mine lifecycle will not permanently and materially damage the integrity of the special values for which the area was designated or recognized; and The operating company collaborates with relevant management authorities to integrate the mine's management strategies into the protected area's management plan. 	—	<p>Not relevant. The evidence including the ESHIA - Part II (February 2015), Part III – Environmental and Social Management Plan and Monitoring Program (September 2014), and Faunal and Vegetation Assessment reports (October 2013) indicates the mine has not been developed or operates in a:</p> <ul style="list-style-type: none"> - World Heritage Site, or area on a State Party's official Tentative List for World Heritage Site Inscription, - IUCN protected area management categories I-III, or - Core area of a UNESCO biosphere reserve. <p>The nearest protected area is the Quirimbas National Park, that is also registered as UNESCO biosphere reserve, and is situated 85 km northeast of the project site outside of the mine's area of influence (ESHIA, February 2015, Ch. 4.3.4).</p>
<p>4.6.6.1. The operating company shall develop and implement a program to monitor the implementation of its protected areas and/or biodiversity and ecosystem services management plan(s) throughout the mine lifecycle.</p>	●	<p>The evidence, Environmental Management Plan (November 2019), which is an update to the plan outlined in the ESHIA - Part III (February 2014), describes the biodiversity monitoring program (Ch. 3.5) including monitoring parameters, locations and frequency for the terrestrial ecology (e.g., habitat, vegetation, avifauna, mammals) and aquatic ecology (e.g., water quality, aquatic vegetation, fish), and its implementation is indicated by:</p> <ul style="list-style-type: none"> - a Terrestrial Flora and Fauna Monitoring Report (March 2019) by the Department of Biological Sciences of the Faculty of Sciences of Eduardo Mondlane University, - an Aquatic Ecology Survey in the Chipembe Dam and surrounding areas being influenced by the Balama Graphite Project (October 2021) by Lúrio University - Faculty of Natural Sciences, and - aquatic ecology monitoring outcomes for the year 2022 contained in the Annual Environmental and Social Performance Report – 2022, filed annually with the regulatory agency. <p>Interviews with a sample of key staff indicate that the next terrestrial fauna and flora monitoring campaign is scheduled for the year 2024.</p> <p>While the ecological monitoring plan indirectly covers some of the ecosystem services important to local populations such as the provision of wood used for charcoal by monitoring vegetation every 5 years, the evidence does not include details to confirm the management plan covers ecosystem services in sufficient detail to allow an assessment of actual impacts on these services from the mine.</p>
<p>4.6.6.2. Monitoring of key biodiversity or other indicators shall occur with sufficient detail and frequency to enable evaluation of the effectiveness of mitigation strategies and progress toward the objectives of at</p>	●	<p>The evidence, Environmental Management Plan (November 2019, Ch. 3.5) indicates aquatic ecology is monitored at an appropriate frequency of once a year, and terrestrial ecology is monitored once every 5 years. The Terrestrial Fauna and Flora Monitoring Plan (March 2019) includes baseline results from the 2014 baseline studies and monitoring results for the years 2016, 2017, and 2018, indicating monitoring was undertaken at a</p>

<p>least no net loss or net gain in biodiversity and ecosystem services over time.</p>		<p>higher frequency in the past. The Aquatic Ecology Survey in the Chipembe Dam and surrounding areas being influenced by the Balama Graphite Project (October 2021) by Lúrio University - Faculty of Natural Sciences, indicates that the assessment used stress indicators, habitat indicators, response indicators, and analysis of specific aquatic plant and macrofauna communities to determine the scope of impacts and concludes the mine has no impacts on water quality of local watercourses or on the ecological integrity of aquatic resources.</p> <p>Interviews with a sample of key staff indicate that the next terrestrial fauna and flora monitoring campaign is scheduled for the year 2024.</p> <p>The evidence does not provide details on the performance indicators used to assess the mine's impact on terrestrial flora and fauna and ecosystem services over time, such as the presence and number of key species or the health of plant community in a given habitat over time, documentation such as past aquatic monitoring reports to confirm the monitoring frequency, or rationale on how the monitoring frequency of terrestrial flora and fauna is sufficient.</p>
<p>4.6.6.3. If monitoring reveals that the operating company's protected areas and/or biodiversity and ecosystem services objectives are not being achieved as expected, the operating company shall define and implement timely and effective corrective action in consultation with relevant stakeholders.</p>		<p>Does not meet.</p>
<p>4.6.6.4 The findings of monitoring programs shall be subject to independent review.</p>		<p>The evidence includes a number of monitoring reports (2013 - 2021) prepared by external consultants, among them:</p> <ul style="list-style-type: none"> - Report of the Vegetation and Floristics Specialist Study (Coastal & Environmental Services, October 2013), - Monitoring of Flora and Fauna in the Balama Conservation Areas, Cabo Delgado (University Eduardo Mondlane, March 2019), and - Aquatic Ecology Survey in the Chipembe Dam and surrounding areas being influenced by the Balama Graphite Project (October 2021) by Lúrio University - Faculty of Natural Sciences, <p>contain biodiversity monitoring information, recommendations, and conclusions and indicate an independent review of monitoring outcomes.</p>

Chapter 4.7—Cyanide Management

Chapter Not Relevant. Not considered relevant as no cyanide used in process according to ESIA 2015.

Chapter 4.8—Mercury Management

Chapter Not Relevant. Not considered relevant as no mercury used in process according to ESIA 2015.

APPENDIX B–Corrective Action Plan

Chapter Number	Topic	Criteria Number	Criteria Name	Requirement Number	Requirement Text	Rating	Action Plan
1.2	Community and Stakeholder Engagement	1.2.2.	Engagement Processes	1.2.2.2.	<p>The operating company shall foster two-way dialogue and meaningful engagement with stakeholders by:</p> <ul style="list-style-type: none"> a. Providing relevant information to stakeholders in a timely manner; b. Including participation by site management and subject-matter experts when addressing concerns of significance to stakeholders; c. Engaging in a manner that is respectful, and free from manipulation, interference, coercion or intimidation; d. Soliciting feedback from stakeholders on issues relevant to them; and e. Providing stakeholders with feedback on how the company has taken their input into account. 	Substantially Meets	<ul style="list-style-type: none"> • Communication: Expand community communication and engagement platforms to improve two-way dialogue. • Stakeholder Feedback Monitoring System: Use the Stakeholder Engagement Plan and Register in place as a key monitoring system to better track and evaluate stakeholder feedback. This system can be used to ensure that all input is considered in decision-making processes and that responses are communicated transparently. • Capacity Building: Conduct targeted training sessions for key personnel in the Community Relations department and other Sustainability functions on community engagement strategies, focussing on dialogue effectiveness, ensuring inclusivity and providing improved feedback on investigation outcomes.
1.3	Human Rights Due Diligence	1.3.2.	Assessment of Human Rights Risks and Impacts	1.3.2.1.	<p>The operating company shall establish an ongoing process to identify and assess potential human rights impacts (hereafter referred to as human rights “risks”) and actual human rights impacts from mining project activities and business relationships. Assessment of human rights risks and impacts shall be updated periodically, including, at minimum, when there are significant changes in the mining project, business relationships, or in the operating environment.</p>	Substantially Meets	<ul style="list-style-type: none"> • Human Rights Risk Management Framework: Develop and implement a human rights management system that outlines Twigg's approach to human rights due diligence at Balama, Human Rights Policy commitments, the assessment of potential risks and impacts, and the strategies for prevention, mitigation, and remediation of human rights issues. It will also be communicated broadly to the workforce to ensure a shared understanding of human rights, how the business can impact them, and how employees can raise concerns related to human rights. • Risk Register update: Include human rights risk on Syrah's corporate risk register which has Board oversight and is updated annually or more frequently as required.

							<ul style="list-style-type: none"> Human Rights Awareness Campaigns: Enhance training and awareness campaigns to educate the workforce and local communities about human rights impacts and the company's approach to combatting human rights breaches. These awareness campaigns will serve as a key source of feedback from the above personnel as we assess potential human rights impacts.
1.4	Complaints and Grievance Mechanism and Access to Remedy	1.4.1.	Access to Operational-Level Complaints and Grievance Mechanism	1.4.1.1.	The operating company shall ensure that stakeholders, including affected community members and rights holders (hereafter referred to collectively as "stakeholders"), have access to an operational-level mechanism that allows them to raise and seek resolution or remedy for the range of complaints and grievances that may occur in relation to the company and its mining-related activities.	Substantially Meets	<ul style="list-style-type: none"> External Grievance Mechanism Improvement: Strengthen the existing complaints and grievance mechanism by making it more accessible and effective, especially for remote and vulnerable stakeholders. Internal Grievance Mechanism: Develop and implement a standalone / dedicated Employee Complaints and Grievance Procedure (currently captured under other policies such as the Workplace Behaviour Policy). Improved Training: Provide targeted training for grievance officers to strengthen their capacity to handle grievances, respond appropriately, in a timely manner and better close out complaints with complainants. Improved Communication: Disseminate information in the communities about the complaints procedure, reporting channels, flowchart and timelines. Reinforce the role of the community liaison agents in disseminating company related information in their communities.
2.1	Environmental and Social Impact Assessment and Management	2.1.3.	Scoping	2.1.3.1.	(Existing Mines) The operating company shall demonstrate that it has undertaken a comprehensive evaluation of potential environmental and social impacts associated with the mining operation.	Substantially Meets	<ul style="list-style-type: none"> Water Risk Assessment: conduct a comprehensive water scoping study to evaluate BGO's water quantity and quality, and the related risks including: <ul style="list-style-type: none"> Water sources, users and uses within the mining concession and around the mine Climate change consequences Rights and potential conflicts

2.2	Free, Prior and Informed Consent (FPIC)	2.2.2.	General Requirements	2.2.2.2	New mines shall not be certified by IRMA unless they have obtained the free, prior and informed consent (FPIC) of potentially affected Indigenous peoples. The circumstances for obtaining FPIC include situations where mining-related activities may affect Indigenous peoples' rights or interests, including those that may: impact on lands, territories and resources; require the physical relocation of people; cause disruption to traditional livelihoods; impact on critical cultural heritage; or involve the use of cultural heritage for commercial purposes.	Substantially Meets	<ul style="list-style-type: none"> • Conduct an independent ethnographic survey of the BGO host communities.
2.4	Resettlement	2.4.7.	Resettlement and Livelihood Restoration Monitoring and Evaluation	2.4.7.1.	The operating company shall establish and implement procedures to monitor and evaluate the implementation of a Resettlement Action Plan (RAP) or Livelihood Restoration Plan (LRP), and take corrective action as necessary until the provisions of the RAP/LRP and the objectives of this chapter have been met.	Substantially Meets	<ul style="list-style-type: none"> • Consolidate the resettlement database to ensure that all affected farmers are clearly identified, including the compensation and benefits received. • Conduct a Livelihood Survey every three years to assess changes and community sentiment based on established baseline criteria, including: <ul style="list-style-type: none"> • Subsistence farming and income generation • Access to livelihood development initiatives • Resettlement procedures and community satisfaction
2.5	Emergency Preparedness and Response	2.5.1.	Emergency Response Plan	2.5.1.1.	All operations related to the mining project shall have an emergency response plan conforming to the guidelines set forth in United Nations Environment Programme, Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining.	Substantially Meets	<ul style="list-style-type: none"> • Obtain government (National Institute for Disaster Risk Reduction and Management- INGD) approval of the TSF Emergency Response Plan. • Disseminate the TSF Emergency Response Plan to the communities potentially affected by a TSF failure. • Involve the TSF Consultation Group and HSE Committee in the planning of emergency drills. • Collaborate with relevant government authorities to erect informative signs demarcating flood areas and emergency assembly points in potentially affected communities. • Collaborate with relevant government authorities to implement a warning system in the communities for emergencies.

							<ul style="list-style-type: none"> Carry out an assessment to determine the characterisation, agency and vulnerabilities of potential affected people and incorporate into emergency preparedness plans and procedures.
2.5	Emergency Preparedness and Response	2.5.2.	Community and Worker Consultation	2.5.2.1.	The emergency response plan shall be developed in consultation with potentially affected communities and workers and/or workers' representatives, and the operating company shall incorporate their input into the emergency response plan, and include their participation in emergency response planning exercises.	Substantially Meets	<ul style="list-style-type: none"> Involve the TSF Consultation Group and HSE Committee in the planning of emergency drills. Develop a detailed community preparedness plan for a major TSF failure scenario. Carry out an assessment to determine the characterisation, agency and vulnerabilities of potential affected people and incorporate into emergency preparedness plans and procedures. Maintain a database and update periodically.
2.6	Planning and Financing Reclamation and Closure	2.6.2.	Reclamation and Closure Planning	2.6.2.1	Prior to the commencement of mine construction activities the operating company shall prepare a reclamation and closure plan that is compatible with protection of human health and the environment, and demonstrates how affected areas will be returned to a stable landscape with an agreed post-mining end use.	Substantially Meets	<ul style="list-style-type: none"> Update the Mine Closure Plan to include a clear commitment to agree on post closure land uses with stakeholders and affected communities and timing of consultation.
3.1	Fair Labor and Terms of Work Requirements	3.1.2.	Workers' Organizations and Agreements	3.1.2.1.	The operating company shall respect the rights of workers to freedom of association and collective bargaining.	Substantially Meets	<ul style="list-style-type: none"> Internal Awareness: Conduct more regular workforce training and awareness sessions on employees' rights including freedom of association and the Company's collective bargaining mechanism (CLA). External Awareness: Include an update on the CLA mechanism and other workers rights as an agenda item at established community communication forums e.g. LDC meetings.
3.1	Fair Labor and Terms of Work Requirements	3.1.3.	Non-Discrimination and Equal Opportunity	3.1.3.3.	The operating company shall take measures to prevent and address harassment, intimidation, and/or exploitation, especially in regard to female workers.	Substantially Meets	<ul style="list-style-type: none"> Internal Grievance Mechanism: Roll out the updated Workforce Complaints & Grievance Procedure to employees, contractors and relevant stakeholders. Training: Strengthen training modules on Workplace Behaviour Policy, Whistleblower Policy and Workforce Complaints & Grievance Procedure.

3.1	Fair Labor and Terms of Work Requirements	3.1.5.	Grievance Mechanism	3.1.5.1.	<p>The operating company shall provide a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns. The mechanism, at minimum:</p> <ol style="list-style-type: none"> a. Shall involve an appropriate level of management and address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned, without any retribution; b. Shall allow for anonymous complaints to be raised and addressed; c. Shall allow workers' representatives to be present, if requested by the aggrieved worker; and d. Shall not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements. 	Substantially Meets	<ul style="list-style-type: none"> • Internal Grievance Mechanism: Roll out the updated Workforce Complaints & Grievance Procedure to employees, contractors and relevant stakeholders. • Training: Strengthen training modules on Workplace Behaviour Policy, Whistleblower Policy and Workforce Complaints & Grievance Procedure.
3.2	Occupational Health and Safety	3.2.4.	Measures to Protect Workers	3.2.4.1.	<p>The operating company shall implement measures to protect the safety and health of workers including:</p> <ol style="list-style-type: none"> a. Informing workers, in a comprehensible manner, of the hazards associated with their work, the health risks involved and relevant preventive and protective measures; b. Providing and maintaining, at no cost to workers, suitable protective equipment and clothing where exposure to adverse conditions or adequate protection against risk of accident or injury to health cannot be ensured by other means; c. Providing workers who have suffered from an injury or illness at the workplace with first aid, and, if necessary, prompt transportation from the workplace and access to appropriate medical facilities; 	Substantially Meets	<ul style="list-style-type: none"> • Develop and implement a workforce communication strategy to ensure workers receive information related to potential industrial health exposures compared to safe thresholds, in an understandable fashion.

					<ul style="list-style-type: none"> d. Providing, at no cost to workers, training/education and retraining programs and comprehensible instructions on safety and health matters as well as on the work assigned; e. Providing adequate supervision and control on each shift; and f. If relevant, establishing a system to identify and track at any time the probable locations of all persons who are underground. 		
3.3	Community Health and Safety	3.3.1.	Health and Safety Risk and Impact Scoping	3.3.1.1.	<p>The operating company shall carry out a scoping exercise to identify significant potential risks and impacts to community health and safety from mining-related activities. At minimum, the following sources of potential risks and impacts to community health and/or safety shall be considered:</p> <ul style="list-style-type: none"> a. General mining operations; b. Operation of mine-related equipment or vehicles on public roads; c. Operational accidents; d. Failure of structural elements such as tailings dams, impoundments, waste rock dumps (see also IRMA Chapter 4.1); e. Mining-related impacts on priority ecosystem services (see also IRMA Chapter 4.6); f. Mining-related effects on community demographics, including in-migration of mine workers and others; g. Mining-related impacts on availability of services; h. Hazardous materials and substances that may be released as a result of mining-related activities (see also IRMA Chapter 4.1); and i. Increased prevalence of water-borne, water-based, water-related, and vector-borne diseases, and communicable and sexually transmitted diseases (e.g., HIV/AIDs, tuberculosis, malaria, 	Substantially Meets	<ul style="list-style-type: none"> • Conduct a scoping and community risk assessment for potential fly rock, vibration and ground instability related to drill and blasting.

					Ebola virus disease) that could occur as a result of the mining project.		
4.1	Waste and Materials Management	4.1.4.	Waste Facility Assessment	4.1.4.1.	<p>A risk-based approach to mine waste assessment and management shall be implemented that includes:</p> <ol style="list-style-type: none"> Identification of potential chemical risks (see 4.1.3.2.e) and physical risks (see 4.1.3.3) during the project conception and planning phase of the mine life cycle; A rigorous risk assessment to evaluate the potential impacts of mine waste facilities on health, safety, environment and communities early in the life cycle; Updating of risk assessments at a frequency commensurate with each facility's risk profile, over the course of the facility's life cycle; and Documented risk assessment reports, updated when risks assessments are revised (as per 4.1.4.1.c). 	Substantially Meets	<ul style="list-style-type: none"> Engage an independent geotechnical consultant to review the existing mine infrastructure and waste facilities and provide an assessment and recommendations.
4.1	Waste and Materials Management	4.1.5.	Mitigation of Risks and Management of Mine Waste Management Facilities	4.1.5.1.	Mine waste facility design and mitigation of identified risks shall be consistent with best available technologies (BAT) and best available/applicable practices (BAP).	Substantially Meets	<ul style="list-style-type: none"> Engage an independent geotechnical consultant to review the existing mine infrastructure and waste facilities and provide an assessment and recommendations.
4.1	Waste and Materials Management	4.1.5.	Mitigation of Risks and Management of Mine Waste Management Facilities	4.1.5.6.	<p>On a regular basis, the operating company shall evaluate the performance of mine waste facilities to:</p> <ol style="list-style-type: none"> Assess whether performance objectives are being met (see 4.1.4.2.a and 4.1.5.5); Assess the effectiveness of risk management measures, including critical controls (see 4.1.5.3); Inform updates to the risk management process (see 4.1.4.1.c) and the OMS (see 4.1.5.7); and Inform the management review to facilitate continual improvement (see 4.1.5.8). 	Substantially Meets	<ul style="list-style-type: none"> Strengthen the Waste Rock Management Plan to follow the same framework that is in place for the TSF Maintenance and Inspection programs.

4.2	Water Management	4.2.4.	Monitoring and Adaptive Management	4.2.4.1.	<p>The operating company shall develop and document a program to monitor changes in water quantity and quality. As part of the program the operating company shall:</p> <ol style="list-style-type: none"> Establish a sufficient number of monitoring locations at appropriate sites to provide reliable data on changes to water quantity and the physical, chemical and biological conditions of surface waters, natural springs/seeps and groundwater (hereafter referred to as water characteristics); Sample on a frequent enough basis to account for seasonal fluctuations, storm events and extreme events that may cause changes in water characteristics; Establish trigger levels and/or other indicators to provide early warning of negative changes in water characteristics; Sample the quality and record the quantity of mine-affected waters destined for re-use by non-mining entities; Use credible methods and appropriate equipment to reliably detect changes in water characteristics; and Use accredited laboratories capable of detecting contaminants at levels below the values in the IRMA Water Quality Criteria by End-Use Tables. 	Substantially Meets	<ul style="list-style-type: none"> Evidences available to satisfy this requirement but not provided during the audit: Integrated water resources mapping with runoff monitoring locations Runoff monitoring results (before and after rain events) that includes suspended solids and other potential contaminants TSF water quality sampling results of the affected discharge off-site during 2021 temporary discharge authorisation TSF records of the quantity of discharge offsite in 2021 temporary discharge authorization
4.2	Water Management	4.2.4.	Monitoring and Adaptive Management	4.2.4.4.	<p>The operating company shall develop and implement an adaptive management plan for water that:</p> <ol style="list-style-type: none"> Outlines planned actions to mitigate predicted impacts on current and future uses of water and natural resources from changes in surface water and groundwater quality and quantity related to the mining project; and Specifies adaptive management actions that will occur if certain outcomes (e.g., specific impacts), indicators, 	Substantially Meets	<ul style="list-style-type: none"> Review and update the Adaptive Management Plan to include specific actions that will occur if proposed mitigation measures are not effective, or if predefined thresholds or trigger levels are exceeded for all parameters.

					thresholds or trigger levels are reached, and timelines for their completion.	
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