



### **DELIVERING GROWTH**

# CONTENTS

# DELIVERING GROWTH1ABOUT THIS REPORT2MESSAGE FROM THE PRESIDENT1DIRECTOR4

### 8

#### SUSTAINABILITY PERFORMANCE 2017 AT A GLANCE

## 10

#### **ABOUT THE COMPANY**

PT AGINCOURT RESOURCES	12
THE MARTABE GOLD MINE	14
SUSTAINABILITY STRATEGY	21
COMPANY ETHICS AND INTEGRITY	26
CORPORATE GOVERNANCE	27
STAKEHOLDER ENGAGEMENT	30

### 34

#### OUR LOCAL COMMUNITIES

### 38

#### OUR APPROACH TO MANAGING FOR SUSTAINABILITY

### 56

MARTABE GOLD MINE INPUTS AND OUTPUTS (2017)

### 58

#### SUSTAINABILITY MILESTONES

60

#### OUR PERFORMANCE IN 2017

ECONOMIC AND FISCAL BENEFITS	63
ENVIRONMENTAL COMPLIANCE	65
DISPOSAL OF TAILINGS	65

DISPOSAL OF WASTE ROCK	66
MANAGEMENT OF HAZARDOUS INDUSTRIAL WASTES	67
SITE WATER MANAGEMENT	67
SITE REHABILITATION AND MINE CLOSURE	69
PROTECTION OF BIODIVERSITY	69
OCCUPATIONAL HEALTH AND SAFETY	70
LOCAL EMPLOYMENT	73
GENDER DIVERSITY	73
EMPLOYEE DEVELOPMENT	74
COMMUNITY DEVELOPMENT	75

**LOOKING FORWARD** 

#### **APPENDICES**

THE PROCESS APPLIED FOR DEFINING REPORT CONTENT	87
GRI STANDARDS PERFORMANCE INDICATOR DATA TABLES	92
GRI STANDARDS REFERENCE TABLE	106
GLOSSARY	111

#### PTAR SUSTAINABILITY REPORT FEEDBACK FORM

Fahri Hasibuan (*Griya Upa Tondi* Cooperative) and Ilham Perwira (PTAR Community Development) inspecting an organic paddy plot at Napa village supported by PTAR.



# DELIVERING GROWTH

Since before commencement of operations at the Martabe Gold Mine, the Company has maintained a very active exploration program, targeting the discovery of additional Ore Reserves close to the mine. By international industry standards, this program has been remarkably successful. By the close of 2017, 43.1 million tonnes had been added to Martabe's Ore Reserves since operations commenced, an increase of 48% and equivalent to nearly eight additional years of production.

This ongoing growth in Reserves will deliver greater benefits over a longer period of time for all our key stakeholders, including investors, employees, government and local communities. The potential for further significant discoveries remains high due to the size of the mineralised system and the large remaining area left to be explored. PTAR is committed to maximising the potential of the Martabe Gold Mine in full alignment with the Company's core values, especially Growth, Excellence and Action.

#### VISION

To become a sustainable world-class operation delivering first-quartile performance in the gold industry.

#### MISSION

To develop a long-term sustainable business generating positive outcomes for all stakeholders.

#### **CORE VALUES**

Success at PTAR is driven by our people who live by our GREAT values:

Growth and added value - for all our stakeholders.

**Respect** - for people, culture, and stakeholders.

**Excellence** - through energy, enthusiasm, and commitment.

Action - delivery and doing what we say we are going to do. Transparency - openness, listening, engagement, honesty.

# **ABOUT THIS REPORT**

Sustainable development can be defined as economic development that meets the needs of the present without compromising the ability of future generations to meet their own needs<sup>1</sup>. PT Agincourt Resources (PTAR) is the owner and operator of the Martabe Gold Mine, located in Sumatra, Indonesia. Like many mines, the Martabe Gold Mine is located close to local communities, agriculture, waterways and forests. Operations at the mine potentially impact a range of stakeholders, most important of which are the local communities that surround the mine. These communities will continue long after mine closure, and the successful implementation of sustainable development at Martabe Gold Mine is key to maintaining the Company's social licence to operate.

This report is the fourth annual sustainability report for PTAR and the Martabe Gold Mine. The purpose of these reports is to communicate to our stakeholders in a consistent, open and easily understood manner the implementation of sustainable development by the Company. The focus of the report is the significant economic, environmental and social impacts associated with operations at the Martabe Gold Mine, both negative and positive. PTAR believes that regular sustainability reporting will assist stakeholders in developing balanced opinions and making informed decisions about the Company's implementation of sustainable development. This in turn will support the development of mutual trust, understanding and productive relationships between the Company and its stakeholders.

The content of this report, as for the previous reports, has been drafted in accordance with guidance provided by the Global Reporting Initiative (GRI)<sup>2</sup>, an international independent standards organisation. The Company endeavours to meet GRI reporting principles, being:

- Accuracy.
- Balance.
- Clarity.
- Comparability.
- Reliability.
- ► Timeliness.

The first three PTAR sustainability reports were drafted with reference to the GRI G-4 Guidelines, being current at the time the reports were produced. In 2016, the GRI G-4 Guidelines were officially transitioned to the GRI Standards. This 2017 report was therefore drafted with reference to the GRI Standards. The differences between the GRI G-4 Guidelines and the GRI Standards are not major, and relate to a restructuring of how information is presented, rather than new or different information requirements. As a result, the transition to the GRI Standards does not prevent data in this report from being compared to that in previous reports.

The way in which the scope, content and boundaries of this report were established to meet the requirements of the GRI Standards is described in Appendix One.

This report comprises eight main sections and four appendices, and the purpose and content of each is summarised as follows. While many readers may find all sections of interest, a person with a good understanding of the Company and its approach to managing sustainability might prefer to go directly to *Our Performance in 2017*.

<sup>1.</sup> World Commission on Environment and Development (1987).

<sup>2.</sup> www.globalreporting.org

#### **REPORT OUTLINE**

Section	Purpose
Message from The President Director	To clearly communicate the Company's commitment to sustainable development and its principles and goals in this regard. To highlight sustainable development performance in 2017 and expectations for the coming years.
Sustainability Performance 2017 at a Glance	Sustainability Key Performance Indicators (KPIs) highlighting the Company's progress in managing certain aspects of sustainability over time.
About the Company	Information about the Company that provides context for understanding the sustainable management results documented later in the report, including: organisational and operational profiles, strategy for managing sustainability, approach to impact assessment, ethics, integrity and corporate governance, and stakeholder engagement.
Our Local Communities	An introduction to the history, culture and socioeconomic status of local communities around the Martabe Gold Mine.
Our Approach to Managing for Sustainability	How PTAR manages each identified material aspect or topic. These general principles and approaches tend to remain constant over time but may be updated to reflect site experience or industry leading practice. This section provides context for understanding information <i>in Our</i> <i>Performance in 2017</i> .
Sustainability Milestones	PTAR has been managing for sustainability since project commencement. This section provides an overview of sustainability milestones in previous years, as a backdrop to understanding information in <i>Our Performance in 2017</i> .
Our Performance in 2017	PTAR sustainability management in 2017: effort, performance and learnings.
Looking Forward	Medium-term objectives and goals related to key risks and opportunities.
Appendix One	Our process for defining report content, scope and boundaries.
Appendix Two	GRI Data table addressing all identified material aspects or topics for the Martabe Gold Mine.
Appendix Three	A matrix that maps the relationship between the contents of this report and the requirements for reporting against GRI Universal Standards and Topic Specific Standards.
Appendix Four	A glossary aimed at making sure that all readers can understand report content irrespective of technical background or familiarity with mining.
PTAR Sustainability Report Feedback Form	A form designed to facilitate feedback on this report from stakeholders.

### MESSAGE FROM THE PRESIDENT DIRECTOR



On behalf of the Board of Directors, I am pleased to introduce this report, which is the fourth annual sustainability report for PT Agincourt Resources (PTAR). This reporting is intended to provide our stakeholders with a balanced and informed view of how the environmental, social and economic impacts associated with our activities are being managed, and as such is fully aligned with the Company's core values, especially *Respect*, *Excellence* and *Transparency*.

Sustainable development is most often defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"<sup>1</sup>, and has become widely accepted as the key guiding principle for long-term global development. It has three aspects or pillars, being environmental, social and economic performance. The Board of Directors recognise that the long-term business success of PTAR will depend on the implementation of sustainable development across all aspects of our operations, and our commitment to sustainable development is communicated to our stakeholders in a number of key ways, as explained below.

Our Company's commitment to sustainability is reflected in our vision and mission statements. Our Company Vision is to become a sustainable world-class operation delivering first-quartile performance in the gold industry. This means setting standards of excellence in all aspects of our operations in support of environmental, social and economic performance. Our Company Mission is to develop a long-term sustainable business generating positive outcomes for all stakeholders. Our local stakeholders are most important in this regard, and supporting the development of our local communities ensures that our most important stakeholders benefit directly from operation of the Martabe Gold Mine.

The Company's strategy for implementing sustainable development at the Martabe Gold Mine is outlined in the PTAR Sustainability Policy. The core commitments expressed in this policy can be summarised as safety of our employees, safety of the communities that may be affected by our operations, protection of the environment, effective community development, and respect for the cultures, customs and values of our local communities. These outcomes encompass some of the highest priorities for the management of our operations, and are fully integrated into our annual budgets, management plans, role accountabilities and operational controls such as Codes of Practice. Our performance in meeting these outcomes is under ongoing review in many Company forums including the Board of Commissioners and the Board of Directors.

<sup>&</sup>lt;sup>1.</sup> Report of the World Commission on Environment and Development (2018).

This brings me to a brief review of our sustainability performance in 2017, and I will base this around the three pillars of sustainable development, being environmental, social and economic performance, as follows.

I am very pleased to report that the Company maintained its outstanding occupational safety record in 2017. Regrettably, we experienced one Lost Time Injury (LTI)<sup>1</sup> last year, our first in almost two years. While any injury is a disappointing outcome, our Lost Time Injury Frequency Rate (LTIFR) of 0.15 remained outstanding by industry standards. During the year we continued to pursue opportunities for further reduction of safety risk. This included a Frontline Safety Leadership Program involving 107 site supervisors, and a third-party safety audit that assessed the implementation of critical safety controls across the site. The findings of this audit will help direct safety improvement initiatives in 2018.

The Martabe Gold Mine's strong environmental management record was maintained in 2017. No significant environmental incidents were recorded, and the discharge of treated water from the Water Polishing Plant (WPP) to the Batangtoru River was fully compliant with the site's discharge permit, maintaining an unbroken record of compliance since commencement of operations. The site received an PRATAMA (bronze) award under ESDM's<sup>2</sup>, environmental management assessment program for mines. Only one hectare became available for rehabilitation during the year, so total area rehabilitated increased to 13.1 hectares.

In 2017 we maintained our commitment to providing local communities with opportunities for employment at the mine. At the close of the year, a record 74 percent of the site workforce was local. As part of our Gender Diversity Program, 93 percent of PTAR employees attended gender diversity training, and changes to the Company's recruitment process resulted in 39 percent of recruitments being female.

Implementation of the PTAR Community Management Plan (CMP) continued in 2017, maintaining the Company's focus on support for health, education, local business development, public infrastructure development and community relations. The Company expended \$1.7 million in direct support of community development programs and projects. A major public infrastructure project completed in 2017 was the Sopo Daganak public auditorium, in Batangtoru. This is the only auditorium in Tapanuli Selatan.

<sup>&</sup>lt;sup>1.</sup> A contractor employee working on a drill rig received a broken carpal bone, from which he fully recovered.

<sup>&</sup>lt;sup>2</sup> Ministry of Energy and Mineral Resources

The year 2017 was the most successful year for production since commencement. A record 355,000 ounces of gold were produced with an All-in Sustaining Cost (AISC) of gold production of \$405 per ounce, the lowest to date<sup>1</sup>. Our exploration strategy resulted in an aggressive program which yielded outstanding results, with Ore Reserves increasing 50% to 4.8 million ounces of gold. This extended the mine plan by six years, which will support significantly increased economic benefits flowing to community and government.

It is appropriate to conclude my report with mention of an emerging issue that PTAR will factor into planning and management of sustainability over the mid-term. Late in 2017, the orangutan population in the Batangtoru Forest was recognised as a new species, Tapanuli orangutan or *Pongo tapanuliensis*. Although this finding has not directly affected operations at the Martabe Gold Mine, which are positioned near to the southwestern boundary of the Batangtoru Forest, there may be opportunities for the Company to contribute to regional initiatives in support of protection of this species and its habitat.

I believe that this report maintains the standard established by previous reports for accurate and balanced reporting of the Company's sustainability performance. We hope that the information contained meets the needs of our stakeholders, and we encourage suggestions as to how we can improve our approach to sustainability reporting in the coming years.

Jakarta, June 2018

TIM DUFFY President Director and Managing Director PT Agincourt Resources

<sup>&</sup>lt;sup>1.</sup> Detailed information on the operational and financial performance of the Company in 2017 can be found in the PTAR Annual Report (www. agincourtresources.com).

### SUSTAINABILITY PERFORMANCE **2017 AT A GLANCE**

#### **ECONOMIC AND SOCIAL**



Locals Employed at the Martabe Gold Mine	
1,852 People	<b>1,672</b> 2016
% Local Employment	
74%	<b>72%</b> 2016
Community Development Investments	
US\$1.72 million	US\$1.16M 2016

#### **ENVIRONMENT**

Numbers of Days Discharging Water to the **Batangtoru River** 

340 days 297 days 2016

100%

2016

2016

6

**Compliance with Discharge Permit** 

100% **ESDM Environmental Management Assessment Program for Mines UTAMA (Silver) PRATAMA** (Bronze)

**Seedlings Planted** 

.939	4,653
.,	2016

SAFETY	
Lost Time Injuries	
1	<b>0</b> 2016
LTIFR	
0.15	0 2016
SMKP Minerba Audit Score <sup>2</sup>	
93%	<mark>91</mark> % 2016
Attendance at Safety Training Courses	
15,000 hours	<b>25,000 hours</b> 2016

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<sup>&</sup>lt;sup>1.</sup> Lost Time Injury Frequency Rate

<sup>&</sup>lt;sup>2</sup> SMKP Minerba is the government standard for mine safety management systems.



# **ABOUT THE COMPANY**



# **PT AGINCOURT RESOURCES**

#### **OVERVIEW**

PT Agincourt Resources (PTAR) is an Indonesiabased mining company with business activities encompassing mineral exploration and the mining, processing and sale of gold and silver bullion. The Company's sole operating site is the Martabe Gold Mine located in Sumatra. Corporate functions are managed from a headquarters in Jakarta. to allocate 40% of dividends to community development projects in the area surrounding the Martabe Gold Mine. The remaining 60% of dividends can be allocated to its shareholders in the ratio of 70% to the District of South Tapanuli and 30% to the Province of North Sumatra.

#### WORKFORCE

OWNERSHIP

The Company is privately-owned with majority ownership (95%) by an investment consortium led by EMR Capital, a specialist mining private equity fund. The remaining 5% is held by PT Artha Nugraha Agung (PTANA), which is 70% owned by the District of South Tapanuli and 30% owned by the Province of North Sumatra. Under the shareholders agreement, PTANA is required At the close of 2017, PT Agincourt Resources had a total workforce of 793 employees, with 762 employees based at the Martabe Gold Mine and 31 employees based at the office in Jakarta. All were employed full-time, as permanent employees or on fixed-term contracts. An additional 1,901 contractor employees were based at the mine. Over 74% of the total workforce, or 1,852 employees and contractors, were employed from the local community.

Total Number of Direct Employees	793
Total Number of Contractor Employees	1,901
Total Workforce	2,694
Gold Poured	355,377 oz (11,053 kg)
Silver Poured	2,808,452 oz (87,352 kg)
Total Sales	USD 484 million
Gold	USD 444 million
Silver	USD 40 million
Total Capitalisation	USD 774 million

#### Scale of the Organisation in 2017

Muhammad Gusnar (PTAR Gold Room staff) preparing a newly poured ingot for cleaning.

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### THE MARTABE GOLD MINE

#### **OVERVIEW**

The Martabe Gold Mine operates under a 30year Contract of Work (CoW) with the Indonesian government. The area covered by this agreement is 1,639 km<sup>2</sup> and extends across four Regencies in the Province of North Sumatra, namely South Tapanuli, Central Tapanuli, North Tapanuli, and Mandailing Natal. The mine itself is located entirely within the Regency of South Tapanuli, with an active footprint, at the close of 2017, of 460 hectares. Construction of the Martabe Gold Mine commenced in 2008 and production commenced in July 2012. As of December 2017, the Martabe Gold Mine had been in production for five and a half years, with a production plan extending to 2033.

There are six mineral deposits in Reserves category at the Martabe Gold Mine. These deposits are mostly of a type known as high sulphidation epithermal deposits, and comprise part of a large-scale mineralised district which has the potential to host further gold and gold-copper deposits. As of 31 December 2017, the Mineral Resources<sup>1</sup> of the Martabe Gold Mine were 8.9 million ounces of gold and 72 million ounces of silver. Ore Reserves<sup>2</sup> were 4.8 million ounces of gold.



<sup>&</sup>lt;sup>1.</sup> The Mineral Resource is the quantity of gold or silver in defined deposits for which there are reasonable prospects for eventual economic extraction. A Mineral Resource is determined from exploration and sampling.

<sup>&</sup>lt;sup>2</sup> The Ore Reserve is the economically mineable part of the Mineral Resource. It is the Ore Reserve that determines mine life, together with production rate.

#### **LOCATION AND SITE FACTORS**

The Martabe Gold Mine is located in a largely rural area dominated by native forest, palm oil and rubber plantations and rice farming. Most of the mine's support facilities are located adjacent to the trans-Sumatran highway and close to a number of villages within the sub-district of Batang Toru. The operational facilities are several kilometres distant in a hilly area at the southern boundary of the Batangoru Forest. The majority of the landscape within the mining footprint, before construction, was forest, degraded forest, and rubber plantations. Due to the close proximity of villages, townships and extensive plantation areas, much of the area had experienced prior disturbance, including the presence of numerous walking tracks used by plantation workers.

Annual rainfall at the site averages 4,553 millimetres. The site is located within the watersheds of two streams, the Aek Pahu Hutamosu and the Aek Pahu Tombak.



View of the Martabe Gold Mine (Purnama pit to the right, the process plant and TSF in the centre, and Barani pit in the background).

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#### **OPERATIONS**

Operations at the Martabe Gold Mine include three open pit mines and a conventional carbon-in-leach (CIL) gold ore processing plant with a design capacity of 4.5 million tonnes of ore per annum (exceeded in practice). Associated infrastructure includes haul roads, a tailings storage facility (TSF), raw water storage tanks, sediment control dams, a water polishing plant, an analytical laboratory, a high voltage switchyard, explosive magazines and several workshops. Support facilities include administration and support buildings, a fuel depot, warehousing facilities, a plant nursery, an accommodation camp for the mine's fly-in fly-out workforce, sporting facilities and a medical clinic. Mining at the Martabe Gold Mine comprises conventional open-cut mining from relatively shallow pits located on mineralised hills or ridges. Mining commenced at the Purnama pit in 2011 and mining at the nearby Barani and Ramba Joring deposits commenced in 2016 and 2017 respectively. Mining activities comprise mine surveying and planning, geotechnical analysis, grade control drilling, blasting, trucking of waste rock and ore, and ore stockpiling. Mining is conducted by a mining services contractor. Waste rock from the pits is largely utilized to construct the TSF embankment. The process plant operates continuously except for maintenance shutdowns. As for most gold mines, the process of gold and silver extraction from the ore is relatively simple, the main steps being:

- Crushing and stockpiling of ore.
- Grinding and conversion of ore to form a slurry.
- Leaching of gold and silver from the slurry using cyanide.
- Adsorption of gold and silver in solution onto carbon granules.
- Removal of gold and silver from the carbon granules in a process called elution.
- Recovery of gold and silver through electrowinning.
- Smelting to produce dore bullion (gold and silver combined) bars ready for shipment.
  All bullion produced at the Martabe Gold Mine is refined in Jakarta.

After the gold and silver is removed, the slurry undergoes cyanide detoxification, a process which reduces cyanide levels, before being pumped to the tailings storage (TSF) for permanent disposal.

#### **EXPLORATION**

In addition to supporting mining and processing activities, the site also serves as the base for the Company's regional exploration programme. The exploration facilities include offices, a core shed, a workshop and a helicopter operations base. PTAR considers the exploration potential at Martabe to be very high due to the size of the system and the large area remaining to be explored. Through an ongoing exploration programme, the company continually seeks to extend Ore Reserves and hence mine life. In 2017, up to fifteen drill rigs were in operation at any one time.

Exploration activities are generally limited to small drill pads in addition to several camps for workers. Material and personal movement to the drill pads is normally by helicopter, minimizing disturbance due to ground travel. The pads are rehabilitated following completion of drilling.

#### **SUPPLY CHAIN**

The operation of Martabe Gold Mine is supported by numerous suppliers and service providers based locally, nationally and internationally. During 2017, these totaled 782 companies:

Breakdown of PTAR Suppliers and Service Providers by Origin (2017)	
18	
438	
271	
782	

Important examples of work done under contract to PTAR include:

- All mining at the site and associated civil works, including the ongoing construction of the tailings storage facility, is conducted by a mining services contractor.
- The transport of goods purchased nationally and internationally is managed by a logistics services contractor. Almost all shipped goods pass through Sibolga Port before being trucked to site in road convoys, with PTAR managing associated on-site warehousing and stock control.
- Other major site contractors are involved in the provision of medical, laboratory, site security, camp administration and catering, geotechnical engineering and drilling services.
- The transport of bullion from site to a refinery in Jakarta and subsequent delivery of gold and silver to buyers is handled by a security contractor. A feature of the contractual provisions applying to this service is insurance for any loss of product once it leaves the site gold room until it is received by the buyer.
- Specialist advice and technical studies are provided by various consulting companies.
- Important contracts for the purchase of goods include those for bulk chemicals, grinding media, reagents, fuel, lubricants and spare parts.

The Company applies strict controls on the procurement of goods and services to ensure that cost, quality, product specification and other important commercial outcomes are consistently achieved:

- The evaluation of tender bids or quotations is conducted by specialist procurement staff independently of the end-user departments.
- Depending on value, all purchases must be based on an approved purchase order or contract, and all PTAR contracts contain a large number of standard conditions designed to protect Company interests, including a set of standard HSE requirements for site contractors.
- Approval of purchase orders, contracts and payments for goods and services are made in accordance with a Delegations of Authority schedule which is set and approved by the Board, and performed within an on-line enterprise resource planning (ERP) system.

In addition to the procurement requirements outlined above, PTAR has a policy to support local business development, and preferentially purchases goods and services from local suppliers and contractors subject to cost and quality criteria being met.

#### **SALE OF PRODUCT**

All bullion produced at the Martabe Gold Mine is refined in Jakarta at a state-owned refinery and then sold by the Company outside of Indonesia. Gold and silver are commodities, and as such the Company does not brand or advertise its product, and its sale of bullion does not attract particular stakeholder interest or concern. Customer purchase specifications are typically very simple, namely percent purity and physical form (usually bar or granules), and instances of out-of-specification product have been extremely rare. The main customers are banks located in Singapore.

#### **SIGNIFICANT CHANGES**

There were no significant changes to the organisation of PTAR, operations at the Martabe Gold Mine, its supply chain or sale of product between 2017 and 2016

# SUSTAINABILITY STRATEGY

#### GOALS

The Company's strategy with regards to sustainable development is documented in its Sustainability Policy<sup>1</sup>. This was developed following a review of two important protocols for assessing progress in implementing sustainable development, namely the United Nations *Sustainable Development Goals*<sup>2</sup> and the ICMM *10 Principles*<sup>3</sup>. The PTAR Sustainability Policy commits the Company to conduct all business activities in accordance with the following principles:

- Ethical business practice, based on a sound system of corporate governance.
- Full compliance with applicable laws and regulations.
- Effective management of risk, based on well-developed management systems.
- Full environmental and social impact assessments for all new projects, and for significant changes to existing operations.
- Continual improvement of health and safety performance, with the safety and health of employees and local communities being paramount.
- Continual improvement of environmental performance, with protection of biodiversity and prevention of pollution being paramount.
- Protection of basic human rights within the organisations and in dealings with stakeholders.

- Respect for the cultures, customs and values of local communities.
- Contribution to the development of local communities, through assistance in meeting immediate needs, and also providing for sustainable development into the future.
- Transparent, effective, inclusive and open engagement with all stakeholders.

#### **KEY SUSTAINABILITY RISKS AND OPPORTUNITIES**

The Company's efforts in managing sustainability are directed towards the key sustainability risks (impacts and potential impacts) and opportunities associated with the Martabe Gold Mine. The environmental and social impacts associated with the Martabe Gold Mine have been systematically assessed in detail in the project's AMDAL and subsequent AMDAL Amendments as per regulation. These assessments include:

- Original AMDAL (2008).
- AMDAL Addendum addressing the Barani and Ramba Joring prospects (2016).
- AMDAL Addendum addressing the Tor Uluala prospect and various operational changes (2018).

<sup>&</sup>lt;sup>1.</sup> www.agincourtresources.com

<sup>&</sup>lt;sup>2.</sup> www.un.org/sustainabledevelopment/sustainable-development-goals

<sup>&</sup>lt;sup>3.</sup> www.icmm.com/en-gb/about-us/member-commitments/icmm-10-principles

The assessment process applied in these studies is summarised as follows:

#### ASSESSMENT PROCESS APPLIED IN THE AMDAL PROCESS FOR DETERMINING THE KEY ENVIRONMENTAL AND SOCIAL IMPACTS ASSOCIATED WITH A PROPOSAL





A separate source of information that makes direct reference to the Equator Principles and IFC Performance Standards on Environmental and Social Sustainability is an Environmental and Social Due Diligence Report conducted by consultants for the Martabe Gold Mine in 2017.

Integrating these two sets of information, the significant social and environmental impacts, risks and opportunities associated with the Martabe Gold Mine are summarised as follows:

#### **Key Impacts and Risks**

- Health and safety of employees and the community in general.
- Impacts on biodiversity.
- Loss of land productivity.
- Pollution of surface water and groundwater resources.
- Disruption to community values.
- Stakeholder uncertainty and concern.

#### **Key Opportunities**

- Fiscal<sup>1</sup> and economic benefits.
- Local employment and employee development.
- Improvement of local community services and community infrastructure.
- Local business development.
- Local government capacity-building.
- Support for community values.

The way in which these risks and opportunities are addressed by the Company is documented in detail in the following sections Our Approach to Managing Sustainability and Our Performance in 2017.

#### **PRECAUTIONARY PRINCIPLE**

In the development and implementation of its sustainability strategy, the Company supports the "precautionary principle", which can be stated as "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation"2. Applying the Precautionary Principle can help an organization to reduce or to avoid negative impacts on the environment.

#### **EXTERNAL STANDARDS, CODES AND OTHER INDUSTRY INITIATIVES**

To-date, PTAR has not formally endorsed or sought certification against external standards, principles, codes or other industry initiatives addressing sustainability. The Company prefers a risk-based rather than a compliance-based approach to the management of environmental and social impacts, and operational controls such as the PTAR Codes of Practice have been developed specifically for the site based on technical studies, reviews, risk assessments, benchmarking of industry-leading practice and expert advice.

A number of sources reflective of industry-leading practice have been referenced in the development of the Company's operational controls such as the PTAR Codes of Practice and the PTAR Community Management Plan, as follows.

Fiscal benefits are funds provided to government from the Company including but not limited to taxes and royalties.
<sup>2</sup> United Nations Conference on Environment and Development (UNCED) 1992.

Australian National Committee on Large Dams (ANCOLD) and International Committee on Large Dams (ICOLD) guidelines	Applicable ICOLD and ANCOLD dam safety design guidelines are referenced as minimum requirements by PTAR Code of Practice Safe <i>Tailings Disposal</i> .
Business and Biodiversity Offsets Programme (BBOP)	This standard has been referenced in biodiversity offset studies implemented by PTAR.
Equator Principles (2013)	PTAR's implementation of the Equator Principles at the Martabe Gold Mine has been audited several times as a due diligence measure for the benefit of third-parties. The IFC Performance Standards referenced by the Equator Principles have been used in the development of PTAR Code of Practice <i>Biodiversity Protection</i> .
GRI Standards (2017)	The GRI Standards and the preceding GRI-G4 Reporting Guidelines have been applied in the Company's sustainability reports.
International Council on Mining and Metals (ICMM) 10 Principles for Sustainable Development (2003)	The ICMM 10 Principles for Sustainable Development were referenced in the development of the PTAR <i>Sustainability Policy</i> .
ICMM Position Statement on Preventing Catastrophic Failure of Tailings Storage Facilities (2016)	The critical controls documented in this position paper are referenced in PTAR Code of Practice Safe Tailings Disposal.
ISO 14001 (2004) and ISO 18001 (2007)	The PTAR HSE Management System has been developed with reference to these international standards for environmental and safety management systems.
United Nations Sustainable Development Goals (2015) and ICMM Community Development Toolkit (2015)	These sources and others were referenced in the development of the current PTAR Community Management Plan.

#### Key Industry Codes Referenced by PTAR Operational Controls

#### MEMBERSHIP OF INDUSTRY ASSOCIATIONS

In 2017, the Company was a member of three industry associations, namely the *Indonesian Mining Association* (IMA), the *Australian Mining Infrastructure Energy & Resources Chamber* (Ausmincham) and the *Indonesian Forum for Mineral Exploration and Development* (EMD).

## **COMPANY ETHICS AND INTEGRITY**

The Company is committed to maintaining high standards of corporate behavior and decisionmaking. These are made explicit through the PTAR Core Values:

Growth and value add - for all our stakeholders.

Respect - for people, culture, stakeholders.

**Excellence** - through energy, enthusiasm and commitment.

**Action** - delivery and also doing what we say we are going to do.

**Transparency** - openness, listening, engagement, honesty.

The application of these Core Values to operational decision-making in support of sustainable management is codified by means of key Company policies approved at the Board level, namely:

- Sustainability Policy.
- ► Health and Safety Policy.
- ► Community Policy.
- Environment Policy.

These policies are made available to stakeholders at www.agincourtresources.com.

These Core Values and associated Company policies are upheld across all aspects of the Company's operations by means of a strong corporate governance framework, as described in the following section.



# **CORPORATE GOVERNANCE**

#### **OVERVIEW**

Corporate governance is the system of rules, practices and processes by which a company is directed and controlled in order to ensure accountability, fairness and transparency in its relationships with its stakeholders. PT Agincourt Resources is committed to the implementation of good corporate governance (GCG) principles.

#### PTAR CORPORATE GOVERNANCE FRAMEWORK

Implementation of GCG by the Company is regulated by a corporate governance framework directed towards a range of key outcomes:

- Ensuring that all business decisions and activities are aligned with the Company's Core Values.
- Maximising corporate value and return to shareholders.
- Protection of Company assets.
- Ongoing improvement in operational performance in line with industry-leading practice.
- Meeting all compliance obligations.
- Development of management competency throughout the organisation.
- Meeting corporate social responsibilities including protection of the environment, stakeholder engagement, community development and employee welfare.
- Management of enterprise risk.

The Company corporate governance framework is based on a hierarchy of bodies and appointments:

- The General Meeting of Shareholders is the highest decision-making body of the Company, with rights to appoint and dismiss members of the Boards of Commissioners and Directors, declare dividends and make changes to the Company Articles of Association.
- A Board of Commissioners oversees the actions of the Board of Directors and represent the interests of all stakeholders. It grants approvals for certain actions and a yearly business plan.
- An Audit Committee provides independent opinion to the Board of Commissioners, reviews the Company's financial reports, and monitors the implementation of corporate governance.
- A Resources and Reserves Governance Committee provides assurances to the Boards and Company shareholders that Resources and Reserves are developed in line with the JORC<sup>1</sup> code and Company policy.
- An Internal Audit Function is responsible for managing the Company's audit programme, reporting to the Audit Committee.
- The Company is operated under the control of a Board of Directors, led by the Company's President Director. The Board of Directors is responsible for the operational performance of the Company, risk management and implementation of policy such as the Sustainability Policy.
- The operational running of the Company is delegated to a management team, led by the President Director, with divisional heads responsible for different aspects of the business.

<sup>&</sup>lt;sup>1.</sup> A professional code of practice that sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves.

The performance of the Company in implementing GCG is regularly reviewed at shareholder and Board level based on a range of information including company reporting, audits and audited financial statements.

#### OPERATIONAL CONTROLS FOR GOOD CORPORATE GOVERNANCE

In the implementation of corporate governance, the Company complies with a range of Indonesian legal requirements, specifically Law number 40/2007 on Limited Liability Companies and regulations under the Indonesian Financial Services Authority. In addition to legal requirements, the Company operates under a range of internal controls, summarised as follows:

 Decision-making at the Board level is regulated by the PT Agincourt Resources Articles of Association, resolutions from General Meetings of Shareholders and annual business plans.

- Decision-making at the company level is regulated by Company policies such as the PTAR Sustainability Policy.
- Decision-making at the operational level is subject to a wide range of controls such as the Delegation of Authority Manual, which sets out levels of authority for approval of financial transactions, and PTAR Codes of Practice, which define accountabilities and required outcomes in regards to management of operational risk and compliance.
- Employees of PT Agincourt Resources are required to sign a Code of Ethics and Business Conduct. This commits every employee to outcomes related to company governance, legal compliance, ethical behavior at work and avoidance of conflict of interest.
- A Supply Chain Code of Conduct and Supplier Code of Conduct sets out specific requirements for employees involved in procurement and suppliers respectively.



#### **KEY ELEMENTS OF THE PTAR CORPORATE GOVERNANCE FRAMEWORK**

Access to the Ramba Joring pit area, development of which commenced in 2017.

# **STAKEHOLDER ENGAGEMENT**

#### **OVERVIEW**

Stakeholder engagement is the process by which a company communicates with its stakeholders to share information, understand stakeholder concerns and expectations, resolve issues and maximise opportunities for cooperation. The stakeholder groups of PT Agincourt Resources are diverse, with a wide range of views, beliefs, expectations and needs. Key amongst these are:

- Employees and their dependents.
- Local communities around the Martabe Gold Mine.
- Cultural and religious organisations.
- National, regional and local government and agencies.
- ► Non-government organisations.
- Suppliers and contractors.
- Educational institutions.
- ► The media.

The important stakeholders for the Martabe Gold Mine have been identified through a range of studies, including the original Amdal and subsequent amendments, a stakeholder mapping and analysis study conducted in 2015, and a fiscal and economic benefits study conducted in 2016. Additionally, the Company maintains an External Relations team to identify and manage stakeholders and stakeholder issues.

Effective stakeholder engagement is an essential element in maintaining and strengthening the Company's social licence to operate. PT Agincourt Resources has been carefully managing stakeholder relationships since commencement of the Martabe project. The general approach has been to:

 Identify stakeholders and understand their needs, concerns and aspirations.

- Actively seek dialogue and build trust with all stakeholder groups, including potentially marginalised groups such as women, the elderly and youth.
- Provide timely and accurate information to stakeholders about all aspects of operations at the Martabe Gold Mine.
- Show patience in dealing with others and respect for their viewpoints, beliefs, cultural values and practices.
- Support local employment and the implement fair and transparent processes for recruitment and procurement.
- Support regulatory bodies in the discharge of their obligations under regulation, including the implementation of approval processes and site inspections.
- Meet all government reporting requirements in an accurate and timely manner.
- Facilitate open reporting of concerns and grievances by stakeholders in relation to Company activities.

#### KEEPING STAKEHOLDERS INFORMED

The Martabe Gold Mine remains the only mining operation in South Tapanuli, and many local stakeholders have a limited understanding of mining and the management of environmental and social impacts associated with mining operations. To help ensure a good understanding of operations at the Martabe Gold Mine amongst local stakeholders, the Company maintains an active broad-based communication program. This includes:

 Tours of the mine site for a broad range of stakeholder groups (1,500 participants in 2017).

- Publication of Tona Nadenggan (meaning "the good message" in the local Angkola language), a bi-monthly magazine that covers matters of interest to stakeholders including community development projects, environmental management and cultural activities.
- Publication of Saroha (meaning "one heart" in the Angkola language), a weekly newsletter for employees which covers community-related topics.
- Maintaining the Company website (www. agincourtresources.com) which includes access to sustainability reporting and information on community relations and community development activities.
- Wide distribution of the Company's sustainability reports, in Indonesian, English and Angkolan languages.
- Distribution of media releases, media briefings and site visits for media groups.
- Participation in a range of exhibitions, conferences and workshops.

#### **COMMUNITY CONSULTATION**

An important element of the Company's stakeholder engagement strategy is the Lembaga Konsultasi Masyarakat Martabe (LKMM). The purpose of this consultative forum is to facilitate dialogue between the Company and local communities. Membership of the LKMM comprises elected representatives from 15 local villages, including participants from women's groups and youth groups. This forum met regularly during 2017. Village engagement meetings are also conducted to discuss various matters. Ten meetings were held in early 2017 to review community development projects implemented in 2016, as part of the planning process for the 2017 community development program.

#### CONSULTATION WITH GOVERNMENT

One of the most active areas of stakeholder engagement for the Company is dialogue with government on matters ranging from approvals, reporting, compliance, oversight, cooperation on community development programs and general sharing of information. Some 429 meetings or events were held with various government agencies and bodies at the regional, provincial and national levels in 2017.

#### MANAGEMENT OF GRIEVANCES AND CONCERNS

The company encourages unrestricted reporting from stakeholders of any concerns and grievances regarding Company activities, and maintains a grievance register to record such concerns. Any recorded grievances are assessed and provided with a response. During 2017, the Company received no formal community grievances, a reduction from two received in 2016 and five received in 2015. Representatives from local government, police, and army together with PTAR staff and community members participating in a customary ceremony in support of a successful rice harvest.

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# OUR LOCAL COMMUNITIES



# **OUR LOCAL COMMUNITIES**

In many ways the most important stakeholder groups for PT Agincourt Resources are the local communities surrounding the Martabe Gold Mine. The people living and working closest to the mine are those most likely to be affected by the Company's day-to-day activities; and are the most important in terms of ongoing stakeholder support for Company operations. Aside from being of key importance in determining the Company's social licence to operate, local communities also contribute the large majority of people working at the mine, and so are direct and vital contributors to the ongoing performance and growth of the Company.

There are fifteen villages spanning the subdistricts of Batang Toru and Muara Batang Toru that are designated as Directly Affected Villages (DAVs) in terms of being potentially affected by operations at the Martabe Gold Mine. In total, these villages supporting a population of approximately 20,000.

Agriculture is the most significant employment sector for these villages. The most widely grown commodities are rice and corn. Cassava, sweet potatoes, peanuts, soya beans and green beans are also planted. Some local people also work in, or operate, rubber and oil palm plantations. Trade and service industries are the next most important sources of employment after agriculture, with Batang Toru and Muara Batang Toru supporting many small retail businesses and other commercial enterprises such as banks and transport providers.

Participation in elementary and secondary school in these local communities is high, with opportunities for university education within the region and province, as well as elsewhere in Indonesia. There is a medical clinic and public health centres (*Puskesmas*) locally, with major hospitals one to two hours distant by road in Sibolga and Padangsidempuan. The socio-economic conditions within local communities have been used as the basis of the Company's community development programs, which focus on health, education, infrastructure, agriculture, and economic development, as well as support for local cultural values and customs.

The communities around the Martabe Gold Mine comprise a number of ethnic groups, all originally from other areas in Indonesia. Most dominant and longest-established are three interrelated groups known as the Angkola, Mandailing, and Toba, often collectively referred to as Batak. The majority of these are Angkolan, and Batang Toru is considered to be the cultural territory of the Angkola, with the Angkola language commonly used for daily communication. Also important in the development of Batang Toru, were the Javanese, who began arriving around 1906 to work in rubber plantations, and the Nias, who began arriving around 1925.

Local cultural institutions and customs have a strong influence on everyday life and the resolution of social problems in Batang Toru and Muara Batang Toru. Kinship amongst the Angkola is patrilineal (meaning the heads of families are male) with men typically occupying customary roles such as village head. Social identity is strongly defined by a person's family group or clan.

There are several types of land title in the local area, namely customary or *adat* land owned by clans collectively, privately-owned land, land owned by the state and companies, and land donated for public religious purposes. Land use away from settlements is dominated by forests, plantations, gardens, rice paddies and fish farming. Large areas of level land have made Batang Toru a strategic location for plantations, and Batang Toru Plantation (PTPN III) is the oldest state-owned rubber enterprise in Sumatra, established in 1906.

A view of the Batangtoru area highlighting the proximity of the Martabe Gold Mine to local communities.

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# OUR APPROACH TO MANAGING FOR SUSTAINABILITY

# INTRODUCTION

This section describes the general principles and methods applied at the Martabe Gold Mine for the management of sustainable development. These principles have been developed in the context of industry-leading practice and in many cases are mandated as site requirements by PTAR Codes of Practice. The following information provides context for understanding the results for managing sustainability documented in the following section *Our Performance in 2017*.

The Company's general principles and approaches to managing sustainability remain largely consistent year after year, modified as required, based on industry developments and site experience. Therefore, the following material is similar to that presented in the 2016 Sustainability Report, updated as appropriate.

The GRI Standard makes clear that the focus of sustainability reporting for an enterprise should be the material topics (or aspects) related to its activities, these being its significant economic, environmental and social impacts; or aspects that otherwise substantively influence the assessments and decisions of its stakeholders. Prior to discussing these material topics for PTAR, the first section below explains the general principles and approaches applied to all aspects of operations at the Martabe Gold Mine in support of sustainable development.

# GENERAL PRINCIPLES AND METHODS

### ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENTS

Environmental and social impact assessment is a formal process aimed at the systematic assessment of all potential impacts associated with a project, identifying those of significance and the associated controls necessary for their successful management. For a complex undertaking such as a mining operation, an environmental and social impact assessment is an essential input into planning for sustainable development.

Indonesian law requires an approved environmental and social impact assessment, known as *Analisis Mengenai Dampak Lingkungan* (AMDAL) as part of the permitting process for all mining projects. An AMDAL comprises three documents: an environmental impact statement (*Analisis Dampak Lingkungan or* ANDAL), an environmental management plan (*Rencana Pengelolaan Lingkungan* or RKL) and an environmental monitoring plan (*Rencana Pemantauan Lingkungan* or RPL).

Planning for sustainable development at the Martabe Gold Mine commenced before the construction of the project with the implementation of 38 environmental and social studies in support of the project's AMDAL, approved in 2008. The AMDAL has the status of a compliance document and contains a large number of requirements for the control of impacts, and will apply over the life of the mine. PTAR is committed to conducting environmental impact assessments for all material changes to operations at the Martabe Gold Mine, as the starting point in ensuring that potential impacts continue to be properly managed. Examples of this approach include an Addendum to the AMDAL addressing the Barani and Ramba Joring prospects, approved in 2016, and an Addendum addressing the Tor Uluala prospect and various operational changes, developed and submitted for approval in 2017.

## **MANAGEMENT APPROACH**

Sustainable development outcomes for the Martabe Gold Mine are integrated into the management of the site in various ways, including risk assessments, integrated management systems, the incorporation of sustainability outcomes in annual plans, and the operation of special committees.

#### **Risk Assessments**

The Company implements an annual enterprise risk assessment, aimed at reviewing the key risks to the organisation and required operational controls. Risk is measured across a range of consequences of importance to sustainability, including safety, environment, compliance, community, and government.

#### **Management Systems**

The successful management of safety, environmental and social impacts resulting from a mining operation depends on the implementation of effective management systems. The way in which a management system can deliver continual improvement has been well established. There are five key elements which, when properly implemented, will drive continual improvement:



PT Agincourt Resources has implemented an integrated Health Safety and Environment (HSE) management system with reference to a range of external standards such as ISO 14001 (Environmental Management Systems), OHSAS 18001 (Occupational Health and Safety Management Systems) and the GRI Standards for sustainability reporting, as well as the Indonesian standard for mine safety management systems, known as *SMKP Minerba*.

This management system largely comprises documents, records and special purpose software. The key operational controls in this system are PTAR Codes of Practice, which describe the full range of outcomes required to address particular areas of risk, or standard procedures in support of risk management. The range of controls documented in these Codes of Practice includes risk assessments, key accountabilities specifications, standard procedures, emergency arrangements and monitoring, and reporting. PTAR Codes of Practice of specific relevance to the sustainable development outcomes include:

- Biodiversity Protection.
- Emergency Management.
- General Workplace Safety.
- HSE Accountabilities.
- ► HSE Compliance.
- Hydrocarbon Management.
- Industrial Hygiene Monitoring and Measurement.
- ► Job Safety Environment Analysis (JSEA).
- Managing Pregnancy related Work Restrictions.
- OHS Management Measurement, Monitoring and Improvement.
- Permit to Work.
- Personal Protective Equipment.
- Safe Tailings Disposal.
- Site Water Management.
- Waste Management.
- ▶ Work at Height.

To assist in monitoring performance against sustainability outcomes during the year, a range of key sustainability performance indicators are communicated in routine reporting. Examples include a *Monthly Safety KPI Dashboard*, which measures safety management across the departments using 10 indicators, and a *TSF Safety* & *Stewardship Report*.

#### Resourcing

All Company departments are involved in managing outcomes in support of sustainable development, and these are incorporated into departmental budgets, annual plans, and personal key performance indicators (KPIs) for managers. In addition, several departments are accountable for outcomes in support of the Company as a whole, including *Community Relations*, *Occupational Health and Safety, Environment, External Relations* and *Training and Development*. Company employees in these departments comprised 162 persons in 2017, or 21% of the entire Company workforce.

#### **Special Committees**

Many of the sustainability outcomes for the Company require effort from more than one Department. To facilitate and coordinate work in these areas, the site operates a number of special committees targeting specific aspects of sustainable operations. These include:

- ► Acid Mine Drainage Management Committee.
- ► Gender Diversity Committee.
- ► Risk Management Committee.
- ► Safety Steering Committee.
- ► Site Water Management Committee.
- Stakeholder Management Steering Committee.
- ► TSF Safety Committee.

# **MATERIAL ASPECTS**

Sustainability reporting should address an organisation's significant economic, environmental and social impacts, and those aspects that otherwise will be important in influencing the assessments and decisions of its stakeholders. A systematic process has been applied to identify the material aspects or topics for Martabe Gold Mine, as described in Appendix 1. These material topics are summarised as follows.

#### Material Aspects in Relation to Sustainable Development at the Martabe Gold Mine

Environmental		Social			
►	Environmental compliance	►	Economic and fiscal benefits		
	Disposal of tailings	►	Health and safety		
	Disposal of waste rock	►	Local employment		
	Disposal of hazardous industrial wastes	►	Gender diversity		
	Site water management	►	Employee development		
►	Rehabilitation and mine closure	►	Community development		
	Protection of biodiversity				

In many cases these aspects are interrelated. For example, disposal of tailings will have consequences for both water resources and mine closure. Management of these aspects can be correspondingly complex, with a range of short- and long-term, and sometimes competing, goals. The principles and approaches applied in managing these aspects at the Martabe Gold Mine are explained in turn as follows.

## ECONOMIC AND FISCAL BENEFITS

Any mining operation generates a range of economic impacts on local, regional and national economies. The net economic impact associated with the Martabe Gold Mine is highly positive. This is a key contributor to the Company's social licence to operate, and an important measure of its contribution to sustainable development. The financial contributions by the Company can be divided to into two classes, namely fiscal (payments to government) and economic (payments to the general public).

Fiscal contributions include, in order of importance:

- Corporate tax.
- ► Royalties on gold and silver produced.
- Personal income tax.
- Various other taxes at Central and Regional government levels such as land and building taxes.
- Dividends.

One example is the 5% ownership of PTAR by *PT Artha Nugraha Agung (PTANA)*, which is 70% owned by the South Tapanuli District government and 30% owned by the North Sumatra Provincial government. This was a voluntary divestment by the Company, that ensures the Regional and Provincial Governments benefit directly from the operation of the Martabe Gold Mine. PTAR ensures that payments to government fully comply with legal requirements, and the Company's annual financial statements are audited by an independent accounting firm to support transparency in meeting these commitments.

In addition to fiscal benefits, significant economic benefit passes directly to the community through salaries, wages and other benefits to employees. PTAR ensures that salaries, wages and associated benefits meet or exceed government minimum requirements, are in accordance with the PTAR CLA<sup>1</sup>, and are competitive both locally and nationally. In addition to health cover for employees and dependents fully funded by the Company, all national employees are enrolled in government social security and healthcare programs as required under regulation. These provide for work-related accident, death, provident fund and retirement benefits. An employee who reaches retirement age is entitled to receive severance pay, separation pay and other compensation as stipulated under manpower laws.

PTAR also supports the Indonesian economy through the preferential purchase of goods and services locally and nationally subject to quality and price criteria being met, and also makes direct financial contributions to community development programs and projects each year.

### ENVIRONMENTAL COMPLIANCE

As for all mining operations in Indonesia, the operation of the Martabe Gold Mine is subject to many laws and regulations addressing environmental performance, enacted at national, provincial and regency levels. A range of site operating permits contain additional environmental compliance requirements specific to the site. To assist in the management of operational compliance a *Legal Database* and an *Operating Conditions Database* are maintained by the Company, so that the management team can readily determine compliance requirements applying to Company activities. The *Operating Conditions Database* alone references 93 permits and 429 individual conditions, the majority of which address outcomes related to environmental performance. HSE compliance requirements across a range of key site activities are documented in PTAR Code of Practice HSE *Compliance*.

# **DISPOSAL OF TAILINGS**

#### **General Approach**

The process for extracting gold and silver from ore at the Martabe Gold Mine produces a waste stream called tailings, which largely comprises ground rock, water, lime and residual cyanide. The large majority of gold mining operations dispose of tailings in on-land containment structures known as tailings storage facilities (TSFs). A modern TSF typically comprises an engineered embankment in a valley, or a continuous enclosing embankment on flat land, that provides containment space for the permanent disposal of tailings. This approach currently reflects industry best practice, with the possible exception of a very limited number of sites practicing deepsea tailings placement, and is the method being implemented at the Martabe Gold Mine.

#### **Overview of the Martabe TSF**

The Martabe TSF comprises an engineered embankment in a valley, with tailings placed in the storage space provided behind the embankment. The embankment is of conventional and proven design, with three main internal zones:

- A clay core to prevent seepage.
- A sand filter layer adjacent to the clay core to protect it against movement due to earthquakes and long-term settlement, and to ensure water does not build up within the structure.
- A large rock mass downstream of these zones to provide for stability.



SIMPLIFIED CROSS-SECTIONAL VIEW OF THE MARTABE GOLD MINE TSF EMBANKMENT

Rock Fill	Provided stability for the first stage of construction. The pit was not yet operating, so quarried rock was used.
Zone 1	Low permeability (clayey) material on the upstream face of the embankment. Designed to limit seepage from the tailings into the embankment.
Zone <sup>4</sup>	A sand filter layer. Designed to collect any seepage passing through Zone 1 and direct it to the base of the embankment. Water building up in an embankment can reduce stability and lead to internal erosion.
Zone 5	A second filter layer. Designed to separate the finer sand filter layer (Zone 2) from the coarser mine waste (Zone 3) and prevent the sand from moving into the mine waste.
Zone 3	The structural zone of the embankment. Provides stability and forms the bulk of the earthworks. Also provides a storage location for almost all waste rock from the pit.

<sup>1.</sup> Collective Labour Agreement, an agreement between PTAR and the employee union (SPSI) which lays out the obligations and rights of both parties and policies in relation to the workforce.

Over the life of the TSF, the embankment will be progressively raised in height to provide sufficient capacity for the ongoing production of tailings. When the TSF is completed the embankment crest will have a height of over 220 meters and a length of over 1000 meters. The method of raising the embankment being implemented at the Martabe Gold Mine is known as *downstream lifting*. This is inherently safer than the alternative methods of *centreline* lifting and *upstream lifting*.



The safe placement of tailings at the Martabe Gold mine is of the highest importance to the Company and subject to ongoing review. The key management objectives include:

- No uncontrolled release of contained tailings or water.
- No pollution of local groundwater and surface waters due to seepage.
- ▶ No fauna deaths in the TSF decant pond.
- Control of acid mine drainage in the embankment.
- Compliance with the site's permit to place tailings.
- Rehabilitation following closure to a safe and stable condition.

Requirements applying to the design, construction and operation of the TSF are prescribed by PTAR Code of Practice *Safe Tailings Disposal*. The key controls are summarised as follows:

#### **TSF Design and Construction**

- The TSF has been designed to industry leading standards by an internationally recognized engineering consultancy.
- The TSF design complies with dam safety criteria specified by the International Committee on Large Dams (ICOLD). Dam stability is a key design objective, and the TSF has been designed to ensure that it remains safe in the event of the most extreme earthquake that could be expected for the location.

- The TSF design has been reviewed by the Indonesian Dam Safety Committee and certified by the Indonesian Minister of Public Works.
- Great care is taken in construction of the embankment, with an ongoing quality assurance and quality control program. Test results under this program are signed by the supervising engineer to provide a permanent record of compliance with the engineering specifications.

#### **TSF Operation**

- Before leaving the process plant, the tailings are treated to reduce cyanide to low levels (below 50 mg/L) to ensure no risk to wildlife coming in contact with water held in the dam. This level is as specified by the International Cyanide Management Code.
- Tailings are deposited in the TSF in thin layers onto a tailings "beach", allowing each layer to settle, drain and dry before being covered with a new layer of fresh tailings. Benefits of this method include increased strength of the placed tailings and destruction of residual cyanide with exposure to natural ultraviolet light.
- Water held in the TSF is kept to a minimum. Excess water held within the pond of a TSF will increase the risk of overtopping following storms, reduce the stability of the embankment, impair tailings consolidation, and increase seepage. Excess water at the TSF is removed by pumping to a Water Polishing Plant (WPP) for treatment before release from site.
- Damage to a TSF structure may result from a range of factors including seismic activity, water erosion, vegetation growth, and geotechnical failures. To ensure that unsafe conditions do not develop at the Martabe TSF, the company implements a daily inspection program.

As a final measure to ensure that the ongoing construction and operation of the TSF is meeting the required safety standards, the Company engages expert consultants to conduct an annual independent review of TSF safety.

# **DISPOSAL OF WASTE ROCK**

Besides tailings, waste rock is the second major waste stream that requires careful management at the Martabe Gold Mine. Waste rock is rock that is mined as part of pit development but that contains insufficient gold to warrant processing as ore. The Martabe Gold Mine is notable in that construction of the TSF embankment will utilise almost all of the waste rock to be produced under the current mine plan, and as a result there has been no requirement to place waste rock in large waste rock dumps as seen at many other mining operations. The TSF embankment is therefore a fully engineered structure addressing both tailings and waste rock disposal requirements for the site.

As for most gold mines, some of the waste rock produced at the Martabe Gold Mine has the potential to form acidity when disturbed by the mining process, due to oxidation of naturally occurring sulphide minerals contained in the rock. This process, known as acid mine drainage (AMD), has the potential to cause pollution if uncontrolled.

AMD can be successfully managed by a number of methods, most commonly by sealing potentially acid-forming rock so that the rate of oxygen entry into the rock and hence the rate of acid production is reduced to very low levels. Usually this sealing is achieved by the use of compacted layers of rock or clay. This is the strategy being implemented at the Martabe Gold Mine. In summary, rock known to be potentially acid forming is placed within the TSF embankment in cells, sealed by up two meters of compacted rock that forms a barrier against oxygen entry. The task of identifying waste rock as non-acid forming (NAF), potentially-acid forming (PAF) or some intermediate category is made more difficult at the Martabe Gold Mine by a relatively complex geology, featuring a range of geological rock types in different states of weathering and containing various quantities of reactive minerals. Also, because waste rock is used for sealing, its physical characteristics are also important in determining how it can be used within the TSF embankment.

The Company has implemented a range of technical studies over a period of several years in order to develop a best-practice AMD management program. This has included:

- Detailed rock waste characterisation studies.
- Development of waste characterisation criteria.
- Production of a life-of-mine waste schedule.
- Selection of a waste sealing specification based on oxidation modelling.
- Progressive implementation of selective waste placement and sealing.
- Performance measurement to validate waste sealing design and implementation.

All key technical teams at the Martabe Gold Mine, including exploration, mine geology, mine planning, TSF construction and environment, have played an integral role in the implementation of this program. The results of this work have been documented in the Martabe Gold Mine *AMD Management Technical Manual*. This manual documents technical guidance for specific aspects of waste rock management and an overall framework for AMD management at the site. More detailed information on AMD management at the site can be found in several papers published on this topic<sup>1</sup>.

To ensure that the site is meeting industry best practice in the management of waste rock, the Company engages a specialist consultancy with broad international experience to review waste rock management at the site on an ongoing basis.

### MANAGEMENT OF HAZARDOUS INDUSTRIAL WASTES

Indonesian Law No. 32/2009 on Environmental Protection and Management defines hazardous and toxic waste ("B3 waste") as any waste that can cause pollution or harm the health of humans and other living organisms. Any party involved in the placement, storage, transport or treatment of B3 waste must have a permit for these activities, and parties that manage B3 waste without a permit or fail to comply with permit conditions are liable to sanction or criminal prosecution.

The Martabe Gold Mine produces a range of waste types classified as B3 waste, including tailings, waste oil and greases, waste process chemicals, used paint and chemical containers, batteries, computer and printer scrap parts, and medical waste from the site clinic. PTAR has a B3 permit for tailings placement in the site's TSF and for the temporary storage of all other B3 wastes in designated storage facilities at site. With the exception of tailings, all B3 waste is transported from site to a licensed waste processor located in Java.

Because of its importance, the Company has in place the following controls addressing B3 waste management:

- Requirements for B3 waste management at the Martabe Gold Mine are documented in PTAR Code of Practice Waste Management.
- These requirements are included in the PTAR Workplace Condition Inspection program.
- A training course for B3 waste management is managed by the PTAR Training Department. This is recorded as a "Required" competency in the PTAR training system, with status reported for all departments in the monthly PTAR HSE Training Report.

<sup>&</sup>lt;sup>1.</sup> Progressive Rehabilitation - Martabe Gold Mine as a Case Study. Proceedings of the 11th International Conference on Mine Closure. Perth 2016.

- Key B3 waste management requirements are featured in the site's HSE Induction training for all new employees and also the site's HSE poster program.
- B3 waste non-compliances and the status of contracts with required B3 waste transport and processing contractors are reported to senior management each month.
- Remaining capacity in the site's temporary B3 waste storage facilities is reported at the daily site management meeting.

# SITE WATER MANAGEMENT

Site water management is typically a key issue for open-cut mining operations in high rainfall areas, and several factors need to be accounted for in the mine planning stage:

- Surface mining exposes large areas of soil and disturbed rock. Rainfall on these exposed areas will mobilize sediments, and sometimes metals and acidity, and runoff from these areas may require treatment before being released from the site.
- Almost all mineral processing plants require large amounts of water. This is especially true for gold mines where the process of extraction is based on a rock slurry.
- Surface mines and associated infrastructure such as dams can disrupt natural catchments and waterways, resulting in the reduction of clean flow available for downstream areas.
- Downstream waterways and groundwater are often an important resource for the local community, for fishing, irrigation, bathing and sometimes as a source of domestic water.
- Downstream waterways often have significant biodiversity values that need to be protected.

At the Martabe Gold Mine, all of these factors are important, and significant effort is directed at minimising potential impacts to local water resources resulting from operations at the site.

#### Site Water Balance Model

The first step in successful water management at a mine site is a water balance model. This is a key tool for making decisions regarding water management infrastructure across the site (storage structures, pumps and piping systems) and the overall site water management strategy. A site water balance model is developed from a range of inputs including:

- ► Historic rainfall records.
- The natural rainfall catchments upstream of the site and within the mine footprint.
- The location and capacity of the various water retention and water diversion structures planned for the site.
- The capacity of site pumping systems and water treatment systems once built.

The Martabe Gold Mine uses a complex site water balance model for planning purposes that was developed by specialist consultants. It is a probabilistic model, taking into full account the natural variability of local rainfall by running many simulations of different storm events and integrating the results to produce estimates of water accumulation for given levels of likelihood.

One key finding from the use of water balance modelling during the planning stage for the Martabe Gold Mine was that the site would have a net positive water balance, meaning that water would need to be discharged during operations. This important outcome is discussed in the next section.

#### Site Water Management and Site Discharge

In recognition of the importance of water management, the site operates a carefully designed water management system to protect downstream water quality and to avoid excessive volumes of water accumulating in the TSF following rainfall. The operation of the site's water management system is prescribed by PTAR Code of Practice *Site Water Management*. This specifies the following key outcomes for site water management:

- Minimising the risk of non-compliant releases and the risk of environmental impact on downstream waters.
- Ensuring continuity of raw water and process water supply to meet production needs.
- Minimising water held in the TSF.
- Minimising water treatment costs.

Under this system, runoff from areas disturbed by mining operations cannot directly leave the site but flows instead to the TSF or to large water management ponds. This arrangement provides for very good control over the quality of water leaving the site.

Rainfall at the Martabe site averages 4,553 millimetres per year. Due to this high rainfall, the site has a net positive water balance, meaning that during wet seasons rainwater tends to accumulate in the TSF. In order to minimise the volume of water routinely held in the TSF and in particular to ensure adequate spare capacity for storm events, excess process water must be released to the nearby Batangtoru River almost continuously, following treatment at a Water Polishing Plant (WPP) to remove residual contaminants.

Of all the operational aspects associated with the Martabe Gold Mine, it was the release of treated water to the Batangtoru River that elicited the most stakeholder concern during construction of the project and in the first months of operations. A great deal of effort has been directed by the Company to ensure that discharge from the WPP meets compliance requirements and avoids any significant environmental impact in the Batangtoru River, and in keeping local stakeholders fully informed of ongoing performance in this regard.

Excess water from the TSF and water management ponds is pumped to the WPP to remove contaminants. Ferrous sulphate is used to remove metals, peroxide is used to destroy any residual cyanide, and flocculant is used to settle fine rock solids. Discharge to the Batangtoru River is fully permitted under Indonesian law, and it is managed to meet water quality limits in Ministerial Decree No. 202/2014. To ensure ongoing compliance with these requirements, the site implements a continuous quality assurance program that includes water sampling at the WPP every two hours with analysis on-site by an analytical laboratory. Duplicate samples are sent to an off-site independent laboratory to ensure the accuracy of the test results.

As a means of providing an independent assessment of the management of discharge to the Batangtoru River, the University of North Sumatra has been engaged by PTAR to conduct a *River Health Monitoring Program* addressing water quality in waterways receiving discharge or runoff water from the site. Under this program, water quality and aquatic life in the Batangtoru River is surveyed four times per year, at the point of discharge into the river and also at locations upstream and downstream of this point. This monitoring program will be implemented over the life of the mine.

Given the public interest in discharge of treated water to the Batangtoru River, an independent monitoring team was established in 2013 by Decree of the Governor of North Sumatra with the full support of PTAR. The role of this team is to assess compliance with the site's discharge permit by means of an independent water monitoring program. This team comprises representatives from local government, local community and the University of North Sumatra, and results from this program are announced at public meetings held at the mine every three months.

### SITE REHABILITATION

The activities required to return areas at the mine to a safe, stable and productive state once nolonger required for mining operations is called *mine rehabilitation*. At the Martabe Gold Mine the long-term goal of the site rehabilitation strategy in general is establishment of a tropical forest association similar to initial conditions before disturbance by mining. Rehabilitation techniques for mines in the tropics are well established, and there are several mines in Indonesia that have successfully rehabilitated many hectares of mined area to tropical forest. PTAR is also committed to the implementation of progressive rehabilitation, meaning that land is rehabilitated as it becomes available, rather than waiting for mine closure.

The general steps in the rehabilitation of disturbed areas at the Martabe Gold Mine are similar to that at most other mines, namely:

- Reshaping of the area to achieve a design slope.
- Spreading of topsoil over the area.
- Installation of runoff control structures such as contour drains.
- Application of fertiliser.
- Spreading of seed (usually a mixture of legumes).
- Handplanting of tree seedlings.
- Ongoing maintenance including weeding and additional fertiliser applications.

To support the site rehabilitation program, a plant nursery has been established at the mine. This provides for an ongoing supply of native tree species for planting.

Topsoil management is an important part of the site rehabilitation program, with soil from cleared areas carefully recovered and stored in stockpiles for later use. The placement of thin layers of topsoil over areas being rehabilitated typically results in dramatic improvements in species diversity and growth rates. This benefit comes from topsoil containing large amounts of seed and root stock of native species, and also microorganisms that are essential for nutrient cycling in forests.

# **MINE CLOSURE**

Following cessation of mining and processing, the Martabe Gold Mine shall be returned to a safe, stable and productive state. This stage of operations is called *mine closure*. The closure strategy for the site is documented in a *Mine Closure Plan*, and is summarised as follows:

- Removal of the process plant and associated infrastructure such as offices and workshops.
- Rehabilitation of the TSF. The surface of the embankment will be covered with a layer of rock and soil and then revegetated. The outer perimeter of the tailings beach will also be capped in a similar manner and revegetated, while the lowest part of the beach will be retained as a pond, containing rainwater runoff.
- Rehabilitation of the mine pits through backfilling as far as possible and revegetation.
- Survey and remediation of any contaminated sites.
- Maintenance of water management infrastructure including the WPP for a number of years following closure, to allow ongoing treatment of mine water as required until all sites are fully rehabilitated.
- To support post-closure activities, a small workforce shall be maintained at the site for some years after mine closure. Also, the Company will maintain an environmental monitoring program at the site for a number of years.

Successful mine closure requires careful planning and a range of technical and social studies. PTAR has already commenced planning for mine closure, and a range of closure studies will be completed over the coming years to ensure mine closure strategies are successful.

Mine closure requires significant funds, and there are examples around the world where mining companies have completed operations with insufficient funds remaining to properly implement mine closure. As in many countries, the Indonesian government has implemented a system to protect the public against this risk. Under government regulation MEMR 18/2008, every mining company in Indonesia must estimate mine closure costs and pay an annual closure bond during operations to cover this expenditure. These funds become available for use by the company at mine closure. The value of the closure



bond is based on a detailed estimate of mine closure costs documented in a Mine Closure Plan (MCP). PTAR has an approved mine closure plan for the Martabe Gold Mine, and is implementing closure bond payments in accordance with regulation. This plan shall be updated with every significant expansion of activities at the site.

The MCP addresses the technical and physical aspects of mine closure. Equally important are provisions to address the social impact of loss of employment at mine closure. This need is addressed by the Company's community development planning (see below).

### **PROTECTION OF BIODIVERSITY**

Biodiversity can be defined as the variability amongst living organisms and the ecological complexes of which they are a part. The importance of protecting biodiversity is receiving increasing attention from the scientific community, the mining industry, financial institutions, government agencies and the general public.

All mining operations that disturb natural vegetation will have some impact on biodiversity, at least until the site has been rehabilitated. The disturbed footprint of the Martabe Gold Mine is partly located within an area of natural forest, and although this area is small compared to the total area of nearby forest, the management of impacts on biodiversity is an important issue for the Martabe Gold Mine. The management of impacts on biodiversity is addressed by PTAR Code of Practice *Biodiversity Management*. This code documents operational controls required to minimise impacts on biodiversity including:

- Minimisation of the area of disturbance. Any clearing of vegetation at the Martabe Gold Mine must be approved under a Land Access & Disturbance Request (LADR).
- Restoration of habitat by rehabilitating disturbed areas to a tropical forest association similar to that of nearby undisturbed forest.
- Minimisation of any impacts on downstream waterways.

- Reporting of sightings of any threatened fauna in the project area.
- A ban on any fauna collection or hunting onsite.
- ► Hazardous waste disposal offsite.

Although these measures will significantly mitigate impacts on biodiversity, the Company has also been working to identify options for compensating for impacts on biodiversity through means of a *biodiversity offset*. Biodiversity offsets are measures that protect or enhance biodiversity undertaken specifically to compensate for unavoidable biodiversity impacts associated with a project. Often these offsets are located in a different location to the project. The way in which biodiversity offsets should be applied is documented in the *BBOP<sup>1</sup>* Standard on *Biodiversity Offsets*.

### **HEALTH AND SAFETY**

At the Martabe Gold Mine there is no operational outcome more important than worker safety. Any accident is preventable, but it is also true that mining operations contain many hazards in a complex and varying work environment. Minimising the risk of accidents at the Martabe Gold Mine requires consistent attention to three basic factors, namely workplace condition, worker competency, and worker behaviour. These are addressed by the sites HSE Management System (see above). Under this system, the risk of workplace accidents is addressed by a range of operational controls, for example:

#### **Golden Rules**

The Martabe Gold Mine Golden Rules are simple safety rules designed to protect workers from the most common causes of serious accidents in the mining industry. All people working at the Martabe Gold Mine receive training in the Golden Rules before commencing work. These rules are mandatory and an employee who knowingly breaches a Golden Rule and places himself or others at risk faces a final written warning. The Golden Rules are supported by a training course, pocket book, posters and a pictorial "comic book".

BBOP or Business and Biodiversity Offsets Program is an international collaboration between companies, financial institutions, government agencies and civil society organisations. The members are developing best practice in following the mitigation hierarchy to achieve no net loss or a net gain of biodiversity.



#### Take 5

*Take 5* is the simplest safety procedure at the Martabe Gold Mine. As the name suggests, it takes less than five minutes to conduct a Take 5. It comprises a simple checklist that every worker should complete before starting a job, and is designed to assist a worker to identify hazards associated with the work and the required controls for the job to be done safely.

# Job Safety and Environmental Analysis (JSEA)

JSEA is a team-based approach to planning work so it can be done safely. It entails the stepby-step breakdown of a job into activities, the identification of hazards associated with each activity, and identification of the required controls to ensure safety. The JSEA should be completed by the work team immediately before the job is commenced and each worker must sign it to confirm that they understand the hazards and required controls.

#### Permit to Work (PTW) System

*Permit to Work* (PTW) systems are in common use across the mining industry and are used to ensure the safety of workers involved in the repair or modification of machinery and equipment, especially when the work is conducted in complex and hazardous environments such as a process plant. A *permit to work* is an agreement signed by both the work crew and the area supervisor (or *permit issuer*) which describes various controls for the protection of the workers against uncontrolled releases of energy (e.g. electricity, or liquids or gas under pressure). The PTAR PTW System is reflective of industry leading practice. One of the key controls is *isolation and lockout* procedure, which requires workers to place a *personal danger tag* and *isolation lock* on equipment to prevent it from starting or moving unexpectedly.

#### ASA Program

Many occupational accidents can be attributed in part to unsafe behaviour by the worker involved or by those around them. This may range from failure to follow procedure, "taking shortcuts", ignoring risk or simply working without due care. At the Martabe Gold Mine, unsafe behaviour is addressed by the *Active Safety Agreement* (ASA) program. An ASA is a technique designed to encourage employees to routinely consider the potential consequences of their actions and the need to work safely, and is based on a structured conversation initiated by managers with employees engaged in work. It is intended to promote "visible safety leadership" and participation in this program is mandatory for the site management team.



#### Tags Used in the PTAR Permit to Work System

#### **Incident Management**

Irrespective of the controls in place to minimise risk, accidents or "near misses" will always occur in a mining environment, caused by organisational, environmental and human factors. It is a requirement at the Martabe Gold Mine that significant incidents are reported within 24 hours, including:

- ► All work-related injuries or "near misses".
- ► Work-related illnesses.
- ► Significant safety hazards.
- Vehicle accidents.
- Fires within the area of operations.
- Accidental chemical releases or improper storage of hazardous chemicals.
- Unapproved land clearing.
- Any inoperable safety system, fire control system or pollution control equipment.

To minimise the risk of reoccurrence, it is important to determine the causes of incidents and implement appropriate corrective actions. Often the underlying causes of such events are complex and not easily determined. Therefore, a standard methodology is used at the Martabe Gold Mine for the investigation of incidents, supported by training and the use of standard forms. Incident management is supported by use of a server-based incident management system that facilitates initial reporting of incidents, email notification of the management team, implementation of incident investigations, and tracking of corrective actions.

#### **Occupational Health**

In addition to minimising the risk of industrial accidents, PTAR works to eliminate the risk of injury resulting from occupational exposures to environmental hazards. The site implements an occupational health program focused on addressing the risk of health impacts resulting from exposure to excessive levels of noise, dust and metals. Monitoring of environmental hazards in the workplace is routinely conducted by industrial hygiene staff as the starting point in establishing engineering, procedural and personal protective equipment controls on workplace exposures.

## LOCAL EMPLOYMENT

As a key measure to maintain the Company's social licence to operate, and because it provides operational advantages, PTAR has committed to providing local communities with access to employment opportunities at the Martabe Gold Mine. Since the beginning of the project the Company has had the goal of at least 70% local workforce for the site, which is now routinely exceeded. Local employment is supported by employee access to a wide range of training courses and opportunities for government certification in a range of skills including equipment operation.

### **GENDER DIVERSITY**

The Company has a Gender Diversity policy to enhance diversity and equality in all of its activities. This reflects the understanding that genderdiverse organisations are more successful than those which do not have a diverse workforce. The Company recognizes that each employee brings their own unique capabilities, experiences and characteristics to their work, and that that diverse perspectives enhance organisational strength, problem solving ability and innovation.

The key areas of gender diversity planning at PTAR include:

Increasing female participation rates in all levels of organisation. The target is to achieve 25% female workforce, and 40% female management of PTAR, by the end of 2019.

- Removing barriers to diversity by reviewing work practices to ensure roles are gender neutral.
- Workforce engagement and alignment to develop a more inclusive culture.
- Policy and training to ensure the Company Human Resources framework supports gender diversity, for example removal of gender pay gap issues, and practical policies to support diversity.
- Leadership accountability and commitment for the success of the Gender Diversity program.

## **EMPLOYEE DEVELOPMENT**

Most of the people commencing employment at the Martabe Gold Mine have no prior experience of work in a mining or industrial environment. Training and development of employees is therefore critical to the ongoing success of the Martabe Gold Mine. The training delivered to PTAR employees and site contractors is of four main types:

- Health, safety and environment training.
- Personal development training.
- ► Technical skills training.
- Training for licences to operate vehicles and equipment.

Most of this training is delivered on-site, and most of the course materials have been developed by PTAR so as to best meet employee needs. PTAR employee training and assessment records are managed through an on-line training management system. Safety training is critical to preventing accidents, and while the company provides many types of safety training, there is a core group of safety competencies that is mandatory for all employees at the site.

# **COMMUNITY DEVELOPMENT**

Community development is a process designed to create conditions of economic and social progress for a community as a whole, with its active participation and initiative. Community development programs are common in the mining industry, particularly where mining operations are located in rural or remote areas where local communities have limited access to public services. PTAR is committed to community development programs that ensure its most important stakeholders benefit directly from operation of the Martabe Gold Mine.

#### Scope

The Company's support for community development is focused on 15 villages spanning the sub-districts of Batang Toru and Muara Batang Toru categorised as *Directly Affected Villages* (DAVs). These communities are characterised by a range of socioeconomic challenges including low education levels, high unemployment, limited access to health care, and dependence on agriculture as a source of wealth generation.

#### **Guiding Principles**

PTAR has defined guiding principles for the delivery of community development reflective of the Company's Core Values. These form the basis for the design and implementation of community development and relations programs by the company, and can be used to manage stakeholder expectations:

► Empowerment

PTAR community development programs must be aimed at promoting community empowerment and ensuring that there are processes in place to improve individual, group and community capacities to make purposive choices and transform these choices into desired outcomes. Good Governance

Community development programs must be properly managed to ensure accountability, transparency, responsiveness, effectiveness, efficiency, equitability and inclusiveness.

Sustainable Development

PTAR community development programs must deliver benefits to stakeholders after mine closure.

Stakeholder Values

PTAR community development programs must reference, promote and embrace traditional knowledge and local wisdom. No program shall be detrimental to local values.

#### **Strategy and Framework**

The Company's community development strategy is documented in a *Community Management Plan* (CMP) that addresses community development planning over the period 2016 to 2020. This plan references a range of international guidelines and protocols, including:

- The United Nation's Sustainable Development Goals.
- The International Council on Mining and Metals (ICMM) Community Development Toolkit.
- The International Finance Corporation (IFC) Strategic Community Investment Handbook.
- ISO 26000 (a management framework for companies implementing social responsibility).

As described in the CMP, the Vision and Mission and Goals for the PTAR community development program are as follows:

Vision	To improve livelihoods through sustainable development and respect for local cultures, wisdom and values.
Mission	To further empower local communities by initiating programs that deliver sustainable and beneficial outcomes.
Goals	Enhancing the socio-economic development of the local community and maintaining a harmonious relationship between PTAR and its stakeholders.

Based on local socioeconomic factors, stakeholder consultation, special studies and industry benchmarking, the CMP targets five main program areas for delivering support to our local communities. These are: economic development, education, health, community relations and infrastructure support. The goals and contributing elements of the CMP are summarised as follows:

Program Area	Goals	Elements		
Economic	Developing the local economy by supporting income diversification.	Increased diversification and productivity of agriculture.		
Development		Increased number and capacity of local suppliers and contractors.		
		Development of vocational skills.		
Education	Improving access to high- quality education.	Improved quality and accessibility of education infrastructure and facilities.		
		Improved quality of education delivery and management.		
		Increased student participation, achievement and competitiveness.		
Health	Improving the quality of community health.	Improved quality of community services.		
		Promotion of healthy life behaviours.		
		Improved prevention of infectious and non-communicable diseases.		
Community	Promoting trust and respect between stakeholders and PTAR.	Increased awareness of PTAR operations		
Relations		Appropriate management of stakeholder concerns and grievances regarding PTAR operations		
		Respect, appreciation and preservation of local wisdom.		
Infrastructure	Supporting infrastructure development that contributes to	Improved accessibility and availability of facilities supporting social and economic activities.		
	quality of file.	Improvement of public and government facilities.		
		Improved accessibility and quality of sanitation and hygiene infrastructure.		

# MARTABE GOLD MINE INPUTS AND OUTPUTS (2017)

# **INPUTS**



- 166,299 MWh of electricity
- 2,394 tonnes of blasting materials

12,555,179 litres of diesel fuel



**56** 

One way to view the operation of a gold mine in terms of potential impacts and benefits is to map the physical inputs and outputs of the operation. Production at the Martabe Gold Mine requires utilisation of a wide range of inputs and yields a range of outputs in addition to gold and silver. All of these inputs and outputs require careful management across various activities such as transport, storage, handling, utilisation, collection, and disposal. The successful management of these activities without significant incident since the commencement of operations reflects the systematic application of operational controls at the Martabe Gold Mine for risk mitigation.





# **SUSTAINABILITY MILESTONES**

2000	2001	2004	2005	2006	2008	2009	2010
Environmental scoping study.	First aquatic and terrestrial ecology studies.	Feasibility design for the TSF.	First air and noise studies.		First site water balance study.	First PTAR Environmental Policy.	Commencement of "PTAR Goes to School" program.
	First local social -	First rainfall and river flow studies.			First stakeholder analysis study.	First PTAR Community	
	economic study.	First waste rock characterisation testwork.			25 environmental studies and 13 social studies completed.	Policy. First Community Development	
		health survey.			Martabe Gold Mine Amdal approved.	First Reading Garden	
						Tona Nadenggan, monthly publication for stakeholders, commences.	
						Commencement of healthcare program for mothers and children.	

# ENVIRONMENTAL COMMUNITY GENERAL





2011	2012	2013	2014	2015	2016	2017
Detailed waste rock characterisation	Detailed water balance model established	Independent Monitoring Team established by Decree of the Governor of North Sumatra. First WPP discharge permit approved.	Approval of first Mine Closure	GPMB CSR Awards.	First organic farming project.	Discharge of treated water to the Batangtoru River remains fully compliant with the site's discharge permit, maintaining an unbroken record of compliance since
study completed.	USU commences the River Health Program. Commissioning approval for WPP discharge received.		First reclamation guarantee approved.	Batangtoru health	Grand Mosque completed.	
Free cataract surgery program commences.				clinic completed.	Hanging bridge completed.	A record number of people from
1,011 people treated.			First Blue PROPER Rating.		Fire truck	local communities are employed at the Martabe Gold Mine, totalling
First Sustainability		First tailing placement	Commencement of biodiversity		Community Management Plan completed.	1,852 persons, or 74% of all employees.
Policy.		Creation of LKMM, a consultative group representing local villages.	ermit approved. offset studies. reation of LKMM, consultative roup representing roup representing roup representing roup commenced. TAR supports re inaugural apanuli Selatan ultural Festival. rist community rater supply roject. Tommencement ommencement			A major public infrastructure project, the Sopo Daganak public auditorium
					Barani	in Batangtoru, is completed with funding from PTAR.
		First fish farm project commenced.			approved.	Environmental and social impact studies in support of the Tor Uluala prospect are completed
		PTAR supports the inaugural Tapanuli Selatan Cultural Festival.				As part of the Company's Gender Diversity Program, 93 percent of PTAR employees attend gender diversity training, and changes to the Company's recruitment process result in 39 percent of recruitments being female.
		First community water supply				
		project. Commencement				
		of community visits to site.	Community health			
		People receiving	study completed.			

Third-party gap assessment against the Equator Principles reports that the economic in

free cataract surgery

passes 3500.

. "Martabe Gold

Project is in material compliance with EP requirements".

Fiscal and economic impact study completed.

Stakeholder

# OUR PERFORMANCE IN 2017

Iswandi and Fitri Ritonga (PTAR Environment Department) collecting samples of native trees for the Company's herbarium collection.

# **OUR PERFORMANCE IN 2017**

# **INTRODUCTION**

The focus of sustainability reporting should be the material aspects or topics of an enterprise, being the potential social, environmental and economic impacts of most interest to stakeholders. The identified material aspects associated with the Martabe Gold Mine are as follows:

- Economic and fiscal benefits.
- ► Environmental compliance.
- ► Disposal of tailings.
- Disposal of waste rock.
- Management of hazardous industrial wastes.
- ► Site water management.

- Site rehabilitation and mine closure.
- Protection of biodiversity.
- Occupational health and safety.
- ► Local employment.
- ► Gender diversity.
- Employee development.
- Community development.

While the preceding section describes the general principles applied in the management of these topics at the Martabe Gold Mine, this section describes the effort, progress and lessons learnt in 2017.



## ECONOMIC AND FISCAL BENEFITS

By many measures, 2017 was the most successful year for operational and financial performance at the Martabe Gold Mine since commencement<sup>1</sup>. This strong performance included:

- A record plant throughput of 5.35 million tonnes of ore.
- A record 355,000 ounces of gold produced.
- An All-in Sustaining Cost<sup>2</sup> (AISC) of gold production of \$405 per ounce, the lowest ever for the Martabe Gold Mine.
- ► Record gold sales of 352,000 ounces.
- A record Profit After Tax of \$151.3 million.

The increase in plant throughput was supported by improved ore blends, commissioning of a secondary crusher, a reduction in unplanned mill downtime and other improvement initiatives under the Company's Martabe Improvement Program (MIP). The reduction in cost of gold production reflected increased sales, lower strip ratios, improved recoveries and other improvement initiatives. One of these included connection to the North Sumatran electricity grid, with full migration to grid power achieved in November 2017.



#### All-in Sustaining Cost<sup>2</sup>





#### Profit After Tax (PAT)

<sup>&</sup>lt;sup>1.</sup> Detailed information on the operational and financial performance of the Company in 2017 can be found in the PTAR Annual Report (www. agincourtresources.com).

<sup>&</sup>lt;sup>2</sup> A standardised way to measure the cost of gold production that includes direct mining and processing costs (cash costs) plus mining lifecycle costs related to sustaining production from exploration to closure.

As in previous years, the strong operational performance of the Martabe Gold Mine supported very significant financial contributions to its stakeholders. This included:

- Tax and royalty payments to government amounting to \$58.2 million. Additionally, both the South Tapanuli District government and the North Sumatra Provincial government received dividends through the ownership of 5% of PTAR totalling \$7.71 million.
- Wages and benefits paid to PTAR employees and contract staff amounting to \$25.3 million.
- Payments for the provision of goods and services by local vendors and suppliers amounting to \$20.7 million.
- Over \$1.72 million spent on community development programs.

The Company's exploration strategy in 2017 yielded outstanding results, with Ore Reserves increasing 50% to 4.8 million ounces of gold. This has extended the mine plan by six years, which in turn will support significantly increased economic benefit flowing to community and government over the life of the mine.

#### **Tax and Royalty Payments**



#### Wages and Benefits PTAR Employees



#### **Purchase of Local Goods and Services**



# ENVIRONMENTAL COMPLIANCE

In 2017, the Company maintained its focus on managing compliance with the many environmental laws and site permits pertaining to operations at the Martabe Gold Mine, with results summarised as follows:

- Full compliance with government reporting requirements applying to site environmental approvals and permits.
- No significant breaches of limits applying to stack emissions or discharge of water from site.
- Discharge of treated water from the Water Polishing Plant remained fully compliant with the site's discharge permit and Ministerial Decree KepMen No. 202/2014.

During 2017, a cooperative engagement process was commenced with the Ministry of Environment and Forestry (MOEF) to review conditions of the site's tailing placement permit. The objective is to provide for greater operational flexibility while maintaining full control over environmental risk. This process is expected to conclude in 2018.

# **DISPOSAL OF TAILINGS**

In 2017, a total of 5.25 million tonnes of tailings was placed in the Tailings Storage Facility (TSF) without incident and in accordance with operational requirements laid out in Code of Practice *Safe Tailings Placement*. Key outcomes in this regard included:

Ministry of Energy and Mineral Resources



- Consistently good sub-aerial deposition of tailings, resulting in extended beaching of tailings away from the embankment.
- Ongoing minimisation of TSF decant pond volume.
- Ongoing provision of the required storm freeboard allowance.
- Ongoing cyanide detoxification at the process plant prior to tailings discharge.
- No significant concerns identified in the TSF condition monitoring program.
- No measurable impacts on local groundwater.
- Ongoing construction of the embankment in accordance with the approved TSF design.
- Ongoing monitoring of TSF construction and performance by the Company's geotechnical engineering consultancy.
- Implementation of a second annual independent review of the safety of the facility conducted by TSF experts, addressing design, construction and operational aspects.

Operational control of tailings management was strengthened in 2017 by an update to Code of Practice *Safe Tailings Placement* to fully address principles laid out in the ICMM Tailings Governance Framework (2017).

### **DISPOSAL OF WASTE ROCK**

In 2017, a total of 5.33 million tonnes of waste rock was placed in the TSF embankment, with all potentially acid forming rock being sealed by compacted rock layers in accordance with the site's acid mine drainage (AMD) management program. As for previous years, significant effort was directed towards developing and implementing this program. To summarise:

- Four independent AMD management reviews were conducted to provide technical oversight and guidance for the program.
- Over 3,000 rock samples were analysed, to verify waste block modelling results, to characterise waste rock for the Ramba Joring pit, and to test samples from boreholes drilled through the TSF embankment.
- Technical studies, waste characterisation, block modelling and waste schedules were completed for the Barani and Ramba Joring pits.
- Several test boreholes were drilled to allow measurement of conditions within the embankment.
- A third AMD monitoring station was installed in the TSF embankment.

Ongoing testwork verified key outcomes for the AMD program in 2017:

- Grade control testwork confirmed that waste rock characterisation based on block modelling is a reliable basis on which to selectively handle and place waste rock.
- Data collected from embankment monitoring installations showed that oxygen ingress through the sealing layers was very limited, and that oxidation rates within the embankment profile were very low. These results indicate that the sealing strategy is performing as planned and is successfully controlling AMD.

The site's AMD management program was recognised in 2017 with the publication of a paper at the 13th International Mine Water Association Congress (Finland). This was the third conference paper published todate presenting aspects of the site's AMD management program in the context of industryleading practice.

# MANAGEMENT OF HAZARDOUS INDUSTRIAL WASTES

Requirements applying to the management of site waste classified as hazardous and toxic (B3) under Indonesian regulations were implemented without incident in 2017. This included waste labelling, temporary storage of waste in permitted facilities at site, and delivery of B3 waste offsite to a licensed waste processor for treatment. Planning commenced for the establishment of additional permitted temporary waste storage facilities, to facilitate operational management of B3 waste. An Amdal Addendum under preparation in 2017 (expected to be approved in 2018) will permit the use of waste oil in blasting, as practised at other mines in Indonesia.

# SITE WATER MANAGEMENT

During 2017, water at the site was managed in accordance with the requirements of the site water management system without significant incident. Key outcomes included:

- Discharge of treated water from the Water Polishing Plant remained fully compliant with the site discharge permit and Ministerial Decree KepMen No. 202/2014. This maintained an unbroken record of discharge compliance since commencement of operations.
- For the fourth consecutive year, the Integrated Team established by Decision of the Governor of North Sumatra provided independent verification of WPP discharge compliance.





- The University of North Sumatra continued to monitor the condition of streams and rivers surrounding the site under a River Health Monitoring Program that has been running since 2014. Under this program, aquatic life at sites in the Batang Toru River was surveyed four times in 2017. This monitoring confirmed that there were no significant environmental impacts resulting from WPP discharge in 2017.
- As a measure to reduce the volume of runoff water pumped to the WPP, a system to allow lime dosing of water in runoff ponds downstream of the TSF was under finalisation in 2017. This arrangement will increase the availability of the WPP for receiving excess water from the TSF following storm events, with benefits for tailings beaching and consolidation.

- An Amdal Addendum under preparation in 2017 will support an increase in WPP discharge rate of 10 percent. This will allow full utilisation of the existing capacity of the WPP.
- To assist in the management of the site water balance, a review of the site water balance model was conducted in 2017 by consultants, including a site water management workshop. This work included verification of the model against operational data, and the modelling of several new water management scenarios, including addition of the planned Tor Ulu Ala pit area.


## SITE REHABILITATION AND MINE CLOSURE

During 2017, only one hectare was made available for final rehabilitation, so total area rehabilitated remained increased to 13.1 hectares. Largerscale site rehabilitation is pending completion of the lowest section of the TSF embankment to final profile, planned for 2018. A total of 1,135 seedlings were planted during the year, with 1,943 seedlings being available in the site nursery at the close of the year. The site nursery was improved with concrete pads and fencing.

Planning for mine closure was progressed with a site closure workshop conducted in June 2017. This was the first of a planned program of annual workshops, and was attended by consultants and mine management. The scope of this initial workshop included mine closure case studies and Indonesian regulatory requirements applying to mine closure and concluded with a preliminary Failure Modes and Effects Analysis (FMEA) of mine closure options.

In September 2017, the PTAR Mine Closure Plan, used as the basis of determining the closure bond, was updated to take into account the Barani and Ramba Joring pits and submitted to ESDM for approval. The closure bond set by the original Mine Closure Plan (\$23 million) will be fully placed in 2018.

### PROTECTION OF BIODIVERSITY

During 2017, there was no unauthorised clearing of vegetation at the site. Fauna and flora surveys were conducted as part of impact assessment studies addressing the planned Tor Ulu Ala pit area, and the Company continued sponsorship of a non-government conservation organisation active in the protection of endangered forest fauna in Sumatra. In November 2017, the orangutan population in the Batangtoru Forest was recognised as a new species, named Tapanuli Orangutan or *Pongo tapanuliensis*. The number of *Pongo tapanuliensis* is estimated to be no more than 800 individuals, occurring in a small number of forest fragments in the districts of Central, North, and South Tapanuli. This finding has no immediate implications for operations at the Martabe Gold Mine, however it has elevated the conservation status of remaining orangutan habitat in the Batangtoru Forest.

### OCCUPATIONAL HEALTH AND SAFETY

### Safety Management Effort in 2017

In 2017, the Company continued its efforts to improve the safety of all employees at the Martabe Gold Mine. This involved contributions from all levels of the organisation and all site contractors. PTAR measures safety management performance by means of a balanced set of safety key performance indicators (KPIs). In 2017, a site aggregate safety KPI score of 93% was achieved against a target of 90%. This score reflected a very high level of compliance with controls aimed at minimising the risk of incidents, including:

- Implementation of incident investigations to determine the cause of incidents.
- Implementation of corrective actions to minimise the risk of reoccurrence of incidents.
- Full implementation of monthly Departmental HSE Committee meetings.
- Compliance with mandatory safety training requirements.
- Maintaining workplaces in good condition as measured in a workplace inspections program.
- Participation of site management in the Active Safety Agreement (ASA) program.

#### 2017 Safety Management Snapshot

Outcome	Number
Safety Awareness & Communication	
Active Safety Agreements (ASA) Completed	1,216
Departmental Safety Committee Meetings	144
Hazard Reporting Recognition Awards	1
Safety Alerts & Health Advisories	19
Safety Poster Topics	14
Monthly Martabe HSE Forum Meetings	12
Safety Competitions	7
Safety Competencies	
Hours Attendance Safety Training Courses	15,426
Monitoring & Assurance	
Formal Vehicle & Equipment ("Gate Pass") Inspections	313
HSE Workplace Condition Inspections	174
Hazards and Non-conformances Reported	116
Workplace Industrial Hygiene Surveys	40
Incident Management	
Accidents and "Near Misses" Investigated	149
Corrective Actions Completed	518
Safety Management System	
New Standard Operating Procedures (SOPs)	106
SMKP Compliance Audit Score	93%



Development of the PTAR Safety Management System continued in 2017 with the implementation of two significant initiatives:

- In recognition of the critical role that operational supervisors have in preventing unsafe behaviour and ensuring safety controls are properly implemented, a Frontline Safety Leadership Program was delivered to all PTAR and contractor supervisors at site. This training is based on a video that demonstrates good and bad safety behaviour by a site supervisor, which proved to be an effective communication tool. By the close of 2017, 107 site supervisors had received this training, including all PTAR supervisors.
- For the first time, in December 2017 a thirdparty safety audit was conducted at the Martabe Gold Mine. This audit assessed the implementation of critical safety controls across the site and identified opportunities to further reduce the risk of serious accidents. On the basis of the audit findings, the Company is planning to implement a process in 2018 for engaging supervisors in systematically verifying on a regular basis the implementation of critical safety controls in the workplace.

### Safety Performance in 2017

In 2017, the Martabe Gold Mine unfortunately experienced one Lost Time Injury. A PT Promincon Indonesia (PMC) employee working on an exploration drill rig suffered a broken wrist bone due to sudden release of a wireline. He later fully recovered from this injury. An incident investigation was conducted and corrective actions were implemented to minimise the risk of reoccurrence. A key safety performance indicator in the mining industry is Lost-time Injury Frequency Rate (LTIFR), being the ratio of lost-time injuries per one million man-hours, calculated as a 12-month rolling average. In 2017, the LTIFR for the entire site workforce was 0.15. By industry standards this was an outstanding result, and a continuation of the very low incidence of Lost Time Injuries experienced at the site since commencement of operations.



### Total Lost Time Injuries (LTI)



#### Lost Time Injury Frequency Rate (LTIFR)





### LOCAL EMPLOYMENT

As a key measure to maintain the Company's licence to operate, PTAR has committed to providing local communities with access to employment opportunities at the Martabe Gold Mine. Since the beginning of the project the Company has had the goal of 70 percent local workforce for the site. At the close of 2017 there were 1,852 local people employed at the site, representing over 74 percent of our total workforce.

In 2017, the Company launched the Marsipature Program, which is aimed at increasing employment opportunities for local employees by providing them with skills training.

### **GENDER DIVERSITY**

In support of the PTAR Gender Diversity Program, 753 employees (93% of the total workforce), attended gender diversity training in 2017, and changes to the Company's recruitment process resulted in 36 percent of new employees in 2017 being female. At the close of 2017, the Company's total workforce of employees and contractors included 476 females (20% of the total). In terms of PTAR employees, 21 percent of PTAR superintendents and managers were female.

### **EMPLOYEE DEVELOPMENT**

Training remained an important component of employee development in 2017, with over 35,000 hours of training delivered to Company employees by the PTAR Training and Development Department, amounting to an average of 46 hours of training per PTAR employee. Over 15,000 hours of this (43%) was health and safety training. The breakdown of this training by course is shown as follows:

Safety Training Course Category	No. Courses
Health & Safety	54
Mobile Equipment	27
Technical	2
Developmental	15
Language	4
Total	100

In 2017, 100 percent of employees received reviews under an annual performance review process in which performance in meeting role requirements during the year is assessed and personal targets are agreed for the coming year. Additionally, all employees participated in a bonus scheme that rewards work performance. A standardised sanction system was applied as required in cases of poor work performance or breaches of company policy and procedures.

In 2017, there were an additional seven national managers and three deputy managers appointed, four of these replacing expatriate roles.



### **COMMUNITY DEVELOPMENT**

In 2017, PT Agincourt Resources spent \$1.78 million implementing the PTAR Community Management Plan. Of this, \$1.72 million was spent directly on projects and programs.

### **Community Development Investments**



This assistance was largely focused on the continuation of existing programs, summarised as follows:

### **Community Health**

- Support for "infants and toddlers" Posyandu<sup>1</sup> in local villages, including visits to 23 clinics, funding of supplementary food supplies and free medical testing. More than 2,300 mothers and their children directly benefited from this program.
- Support for "elderly" Posyandu in local villages including visits to 15 clinics, funding of supplementary food supplies, and free medical testing.
- Provision of free fitness classes for the elderly in 11 villages, attended by more than 300 people.

<sup>1.</sup> Posyandu are community health clinics for the elderly, children, mothers and pregnant women.



Recipients of free cataract operations under the program supported by PTAR together with PTAR staff, including Linda Siahaan (Deputy President Director) front center and Katarina Hardono (Senior Manager Corporate Communications).

- Support for a National Elderly Day attended by 456 elderly people, including entertainment and delivery of free medical testing and medicines.
- Support for government accreditation of a Puskesmas<sup>1</sup> in Batangtoru, including construction of medical waste processing facility, provision of medical equipment and improvement of facilities. The accreditation was received in May 2017.
- Support for an adolescent health program involving 7 schools and 140 students.

- Support for a Clean and Healthy Schools Competition involving 31 local schools.
- Support for Global Handwashing Day events attended by 1,500 students from 31 local elementary schools. This program promoted handwashing with soap, the benefits of eating fruits, and clean and healthy behaviours.
- Support for a community-based sanitation program aimed at improving access to properly constructed toilets.
- ► Training for 25 Tuberculosis cadres.

<sup>&</sup>lt;sup>1.</sup> Puskesmas are community health centers.



- Delivery of free medical services for five remote areas, with assistance provided for 794 people, including dental check-ups, general medical consultations, maternity assessments and the weighing and assessment of infants.
- A seminar for women's groups and teachers on HIV/AIDS, attended by 119 people.
   Voluntary Counseling and Testing was provided by Health Office of South Tapanuli at this event.
- A health seminar for local health workers and doctors attended by 128 people.

- A team-building workshop attended by 91 local health workers from Puskesmas Batangtoru and Muara Batangtoru.
- Donation of an ambulance to Puskesmas Muara Batangtoru.

In addition to these programs and projects focused on local villages, the Company maintained its support for a free cataract surgery program for people in North Sumatra in partnership with A New Vision and the District Military Area Command. During October 2017, 1,100 people received free eye examinations and 627 of these participants received free eye surgery under this program. A total of 6,200 people have received free surgery under this program since commencement in 2011.



### Education

- Support for 14 "reading gardens", or Taman Baca Anak, in local villages. There were over 66,000 visits to these reading gardens in 2017. This included coaching for staff of these facilities.
- Funding for building renovation at two local schools and the construction of a multifunction sport field at a third.
- Donation of 12 computers to a local school.
- Support for a student festival promoting participation in higher levels of education.

- Support for National Teacher Day with an education "Olympics" involving teachers from local junior high schools.
- Support for a children's performing arts festival involving 136 local children and attended by around 500 people.
- Support for a scholarship program in which 90 local students received achievement awards and 40 students received scholarships.



### Infrastructure Improvement

- Implementation of five signature projects in Batangtoru:
  - Construction of "Sopo Daganak", a large amphitheater for hosting educational, arts and cultural events.
  - Provision of a waste truck to the government of South Tapanuli.
  - Construction of an irrigation system for watering 80 hectares of paddy fields.
  - Construction of a rice milling facility.
- Development of Batangtoru Camat (local government) offices and public facilities.

- Renovation of various other government buildings.
- Road construction and improvement at four villages and renovation of three bridges.
- Construction and renovation of mosques, churches and associated ablution facilities in seven villages.
- Construction and renovation of public toilets and ablution facilities in three villages.
- Repair of drinking water distribution infrastructure.
- Construction of a blower house and storage areas for a paddy breeding facility.

### **Local Business Development**

- Assisting two small-business entrepreneurs and five cooperatives with technical and management training.
- Support for the development of paddy breeding, organic farming plots and corn plantations.
- Development of the Aek Pahu Eco Farming Area, a facility for displaying organic farming methods.
- Support for composting and aquaponics projects in two local villages.
- Capacity-building for local farmers through training, field trips and the supply of seed, fertiliser and machinery.
- Assistance for the establishment and development of five agricultural cooperatives.
- Support for the promotion and marketing of local products and services at regional, provincial and national exhibitions.
- Support for a farmer's festival involving local farmer groups and cooperatives.

### **Community Relations:**

- Hosting visits to the Martabe Gold Mine for 1,500 local people to explain water management practices at the site.
- Distribution of emergency provisions to flood affected communities.
- Support for a range of youth development and sporting events.
- Delivery of capacity-building training for members of the Martabe Consultative Committee (LKMM).
- Support for Kartini Day at 23 villages.
- Support for a range of religious activities and events.
- Support for an art and cultural event attended by over 1,500 people.
- Support for a local customary ritual for the protection of fish and rivers with the release of 20,000 fingerlings in a local river.





Masrayuni Rambe from Napa village at an organic eggplant farming demonstration plot supported by PTAR.

1 800

1

110

# LOOKING FORWARD



## LOOKING FORWARD

Managing for sustainability at a gold mining operation is a complex undertaking requiring the careful allocation of resources in support of the three pillars of sustainable development; economic progress, environmental protection and community development. Irrespective of past successes, there will always be opportunities to improve the management of sustainability at the Martabe Gold Mine, by taking into account advances in industry practice, site operational experience, and the needs and expectations of stakeholders.

In support of ongoing improvement in its implementation of sustainable development, the Company has identified the following key objectives for 2018:

- Further reduction in the risk of safety incidents, specifically, taking actions to address the findings of the Critical Controls safety audit of December 2017.
- Continued implementation of the PTAR Community Management Plan, remaining focused on the areas of education, health, community relations, local economic development and infrastructure support.
- Maintaining protection of the environment and environmental compliance.

- Providing greater opportunities for local employment through the Marsipature Program.
- Ongoing implementation of gender diversity initiatives to increase employment opportunities for women in all levels of the organisation.
- Continuation of capacity building for employees through training and skills development.
- Further optimization of the operational and financial performance of the Martabe Gold Mine in support of increased benefits for all stakeholders.
- Continuation of an active exploration program with the aim of identifying additional Reserves and Resources to extend mine life.
- Maintaining effective stakeholder engagement, and the trust and support of our local communities in particular.

The Company looks forward to reporting on progress in meeting these challenges in the next Sustainability Report.

Grinding balls used in the ball mill at the Martabe Gold Mine. Over 8,000 tonnes of grinding balls are consumed each year at the site, purchased from Indonesian suppliers.

2

# APPENDICES

## **APPENDIX ONE**

### THE PROCESS APPLIED FOR DEFINING REPORT CONTENT

### **INTRODUCTION**

As with PTAR's previous sustainability reports, this report has been drafted in accordance with guidance provided by the Global Reporting Initiative (GRI). The Company's first three sustainability reports were drafted with reference to the GRI G-4 Guidelines. This report was drafted with reference to the GRI Standards. Preparing a report with reference to the GRI Standards helps ensure that the report provides a full and balanced account of the organisation's significant impacts on the economy, the environment, and society, and how these are being managed.

If an organisation wants to demonstrate that their sustainability report is in accordance with the GRI Standards, it must declare how this has been achieved. This is the purpose of this section. Beyond basic reporting requirements such as clarity and accuracy, the key content requirements under the GRI Standards are laid out in the following Reporting Principles for defining report content:

- Stakeholder Inclusiveness
- Sustainability Context
- Materiality
- Completeness

The following sections explain how these Standard Reporting Principles have been met in this report.

### STAKEHOLDER INCLUSIVENESS

Key stakeholder groups for the PTAR and the Martabe Gold Mine include:

- Directly Affected Villages (DAVs). The AMDAL for the Martabe Gold Mine identified 15 local villages as likely to be affected in some way by construction and operation of the mine. These communities are called Directly Affected Villages (DAVs) and together comprise the scope of the current PTAR Community Management Plan (CMP).
- Employees. At the close of 2017, 2,663 people were directly employed at the Martabe Gold Mine, of which 74% live in local communities. Apart from the Martabe Gold Mine, opportunities for permanent employment in the local area are limited and unemployment is relatively high.
- Regulators. From the project stage, government agencies at the regency, provincial and national levels have been significant stakeholders of the Martabe Gold Mine through involvement in a wide range of processes and activities. These include, for example, issue and administration of the Contract of Work, AMDAL assessments, issue and administration of environmental approvals and permits, administration of royalty and company taxes, site inspections, incident investigations, compliance audits, and assessment processes such as the PROPER program.

Local Government. The Regency and Provincial governments are important stakeholders of the Martabe Gold Mine for a range of reasons. They are the elected representatives of local communities around the mine, they are recipients of fiscal benefits from the Company, they have accountabilities in regards to the issuing of approvals and permits and the monitoring of compliance with the same, and Company community development programs are developed in consultation with local government in support of community services such as health care and education.

Under the GRI Standards, sustainability reporting should take into account the reasonable expectations and interests of its stakeholders. As described under *Materiality* below, an initial list of material topics was compiled in 2014 based on information collected through many forms of stakeholder engagement conducted by the Company since commencement of the project. In the same year, this list was validated by consultants against Company records.

### SUSTAINABILITY CONTEXT

PTAR has only one operational site, and the scale of the Martabe Gold Mine is small compared to surrounding land uses. Environmental and social impacts resulting from operations at the site, both positive and negative, are not significant at a regional or national level. However, where data is available to the Company, sustainability performance has been compared with local or national data, or placed in context with mining industry practice generally. Examples include:

- All-in Sustaining Cost (AISC) of gold production.
- Fiscal contributions.
- Local employment.
- Community Management Plan (CMP).
- ► Lost-time Injury Frequency Rate.
- Minimum wage.

- ▶ PTAR HSE management system.
- ► PTAR Sustainability Policy.
- Acid mine drainage (AMD) management program.
- Design and operation of the Tailings Storage Facility (TSF).

### MATERIALITY

The GRI Standards require that sustainability reporting addresses an organisation's material topics (formerly known as material aspects). These are defined as the organisation's activities associated with significant economic, environmental and social impacts; or that substantively influence the assessments and decisions of its stakeholders. Reporting should enable stakeholders to assess the organisation's performance in managing these impacts.

A multi-staged approach has been applied in determining the material topics to be included in PTAR's sustainability reporting, as follows:

- In 2014, the Company began this process by listing the aspects of its operations already identified as being of particular interest or concern to its stakeholders through many forms of stakeholder engagement since project commencement. This took into account both actual and potential impacts, with particular emphasis on those impacts relevant to local communities around the Martabe Gold Mine. This preliminary list of material aspects, was independently validated by consultants against Company records of stakeholder engagement.
- To ensure materiality from a broader perspective, this list of material topics was then compared with topics commonly included in sustainability reporting for mining companies in general. The Sustainability Topics for Sectors: What Do Stakeholders Want to Know? guide produced by GRI Research and Development was utilised for this purpose.

- This work produced an extensive list of material topics and groupings. This list was then prioritised by ranking each topic in terms of importance from the perspective of both stakeholders and the Company. This ranking was then presented to Company executives for review and approval. From this process, the material topics for the Company were identified as:
  - Economic benefit.
  - Environmental Compliance.
  - Disposal of tailings.
  - Disposal of waste rock.
  - Site water discharge.
  - Site rehabilitation and mine closure.
  - Biodiversity.
  - Occupational health and safety.
  - Local employment.
  - Employee development.
  - Community development.
- Following determination of these material topics, a company workshop was carried out to identify the Indicators to be reported for each topic. A total of 44 Indicators from GRI-G4 Specific Standard Disclosures were identified as relevant and able to be reported, and on this basis were included in the scope of the 2014 Sustainability report. As a separate exercise, General Standard Disclosures were selected to meet the Core option of GRI-G4.
- In 2015, this work was reviewed on the basis of additional information on local stakeholder concerns provided by a stakeholder mapping study and an economic impact assessment. These studies confirmed the selection of material topics applied to the 2014 Sustainability Report, and for reasons of continuity, these topics and their associated Indicators were carried over into subsequent reports.

- An additional material topic was included in the Company's 2016 sustainability report, namely greenhouse gas emissions, in response to interest expressed by a loan provider.
- Two additional material topics were included in this report:
  - Gender diversity was added, given the growing recognition of the importance of gender diversity in maximising the potential of organisations, the poor implementation of gender diversity in the mining industry generally, and a decision by the Company to commence a gender diversity program in 2016.
  - Management of hazardous industrial wastes ("B3 wastes") was added, given the ongoing attention given to this issue by government at district, provincial and national levels, and the challenge in ensuring ongoing compliance by both PTAR and site contractors.

### COMPLETENESS

The GRI Standards require sustainability reports to include coverage of material topics and their boundaries sufficient to reflect significant economic, environmental, and social impacts, and to enable stakeholders to assess the reporting organisation's performance in the reporting period. These requirements have been verified by the Company as follows:

### **Material Topics**

The completeness of the material topics presented in this report has been verified by comparison with several independent references:

Topics commonly included in sustainability reporting for mining companies in general. The Sustainability Topics for Sectors: What Do Stakeholders Want to Know? guide produced by GRI Research and Development was utilised by consultants for this purpose in 2014.

- The significant environmental and social impacts identified in the Martabe Gold Mine AMDAL and subsequent amendments.
- Key environmental and social impacts identified for the site in *Environmental* and Social Due Diligence Report, Martabe Gold Mine (2017). This third-party study assessed the site against the Equator Principles and IFC Performance Standards for this purpose.

### **Boundaries**

Under the GRI Standards, the topic Boundary is a description of where the impacts occur for a material topic, and the organisation's involvement with those impacts. Organisations might be involved with impacts either through their own activities or as a result of their business relationships with other entities. An organisation preparing a report in accordance with the GRI Standards is expected to report not only on impacts it causes, but also on impacts it contributes to, and impacts that are directly linked to its activities, products or services through a business relationship. The boundaries for the material topics described in this report are generally limited to the local area around the Martabe Gold Mine, including 15 local villages assessed as "Directly Affected" and local waterways receiving mine water discharge. One key exception is logistics activities, in particular, the transport of dangerous goods to site from suppliers, and the transport of B3 waste from site to licensed waste processors. Although PTAR does not directly manage these activities, and legal liability for any incidents rests with the contractor involved, the Company does exert some control over the activities and associated risk management through contractual conditions. Other exceptions include fiscal benefits and employee benefits, both with significant positive impacts away from site.

### SUMMARY OF MATERIAL TOPICS AND BOUNDARIES

The following table summarises the preceding discussion on material topics and their boundaries for PTAR sustainability reporting.

Material Topic	Main Class of Impact	Boundary <sup>1</sup>
Environmental compliance	Environmental	Local
Disposal of tailings	Environmental	Local
Disposal of waste rock	Environmental	Local
Management of hazardous industrial wastes	Environmental	Local and Supply Chain
Protection of water resources	Environmental	Local
Rehabilitation & mine closure	Environmental	Local
Protection of biodiversity	Environmental	Local
Health and safety	Social	Local
Local employment	Social	Local
Gender diversity	Social	Local
Employee development	Social	Local
Community development	Social	Local
Fiscal and economic benefits	Economic	National

### Material Topics and Boundaries Applied to this Report

### CORE AND COMPREHENSIVE REPORTING OPTIONS

With regards to reporting content, the GRI Standards allow organisations to choose between two in accordance options, Core or Comprehensive, based on which best meets their needs and those of their stakeholders. These options do not relate to the quality of the report or to the performance of the organisation, but simply reflect the degree to which the GRI Standards have been applied. In this report, as for previous reports, sufficient information has been reported to substantively meet the requirements of the Core option. The Core option contains the essential elements of a sustainability report and provides the background, against which an organisation communicates its economic, environmental, social, and governance performance and impacts.

Appendix 3 contains a matrix that maps the relationship between the contents of this report and the requirements for reporting against GRI Universal Standards and Topic Specific Standards.

### **REPORTING PERIOD**

Information on the material topics for the 2017 reporting period is presented in this report at *Our Performance in 2017*. Appendix 2 presents a complete set of 2017 data in support of the selected specific disclosures for each material topic, together with 2015 and 2016 data for comparison.

<sup>&</sup>lt;sup>1.</sup> BBOP or Business and Biodiversity Offsets Program is an international collaboration between companies, financial institutions, government agencies and civil society organisations. The members are developing best practice in following the mitigation hierarchy to achieve no net loss or a net gain of biodiversity.

## **APPENDIX TWO**

### **GRI STANDARDS PERFORMANCE INDICATOR DATA TABLES**

Performance Indicator	Unit	2015	2016	2017
CATEGORY: ECONOMIC				
ASPECT: ECONOMIC PERFORMANCE				
Disclosure 201-1 : Direct Economic Value Generated and	Distributed			
Total Economic Value Generated – Revenues (A)	USD '000	394,774	426,440	484,438
Total Economic Value Distributed (B)	USD '000	319,412	330,121	334,871
Total Operating Costs	USD '000	261,937	254,934	246,565
Wages and Benefits to Employees and Directors	USD '000	25,403	26,487	28,295
Community Investments	USD '000	1,329	1,233	1,771
Total Expenses to Government	USD '000	30,743	47,467	58,240
Royalties Expense	USD '000	2,348	2,390	2,698
Other Taxes	USD '000	3,976	3,726	3,675
Tax Expenses	USD '000	24,419	41,351	51,867
Total Economic Value Retained (A – B)	USD '000	75,362	96,319	149,567

NOTES:

- Economic Value Retained = Economic Value Generated - Economic Value Distributed.

 Amounts include revenues and costs determined on an accruals basis, consistent with the audited financial statements.

- Operating costs exclude employee wages and benefits, payments to governments and community investments.

- Dividends totalling of USD 7,709,200 were paid to PTAR's non-controlling shareholders in 2017.

### Disclosure 201-2 : Financial Implications and Other Risks and Opportunities for Organisation's Activities Due to Climate Change

No significant impacts, other risks and opportunities identified for PTAR's activities due to climate change.

#### **ASPECT: MARKET PRESENCE**

Disclosure 202-1: Ratios of Standard Entry Level Wage by Gender Compared to Local Minimum Wage

#### PTAR employees entry level wage ratio to the local minimum wage

	•			
Male	Ratio	1	1	1
Female	Ratio	1	1	1

NOTES:

- Data applies only for PTAR National employees.

Disclosure 202-2: Proportion of senior management hired from the local community					
Percentage Local	%	4	3	7	

NOTES:

- Senior Management is defined as Managers and above.

- Local is defined as residing in South and Central Tapanuli.

Performance Indicator	Unit	2015	2016	2017
ASPECT: INDIRECT ECONOMIC IMPACTS				
Disclosure 203-1: Infrastructure investments and service	es supported			
Total Community Investment	USD '000	1,329	1,233	1,770
Community Relations	USD '000	63	75	47
Community Development:	USD '000	1,266	1,158	1,723
Health	USD '000	231	269	281
Education	USD '000	120	135	253
Local Business and Economic Development	USD '000	109	209	199
Social and Cultural Identity	USD '000	7	9	16
Community Support	USD '000	114	133	158
Public Infrastructure:	USD '000	685	403	816
Total Number of Projects	Number	33	47	48
Total Duration of Projects	Days	2,266	2,044	2,515

- 2014: Converted from IDR, with USD 1 = IDR 12,821.

- 2015: Converted from IDR, with USD 1 = IDR 13,640.

- 2016: Converted from IDR, with USD 1 = IDR 13,454.

- 2017: Converted from IDR, with USD 1 = IDR 13,569.

- Investments have been provided in the form of cash and in-kind. Pro bono contributions have not been included in this table.

### **ASPECT: PROCUREMENT PRACTICES**

Disclosure 204-1: Proportion of Spending on Local Suppliers				
Local	%	7	7	10
National	%	73	76	74
International	%	20	17	16

#### NOTES:

- Local is defined as suppliers with their business registered in South and Central Tapanuli.

- National is defined as suppliers with their business registered in Indonesia, other than South and Central Tapanuli.

### **ASPECT: ANTI CORRUPTION**

Disclosure 205-2: Communication and training about and	ti-corruption polic	ies and procedu	res	
Communication of anti-corruption policies and procedur	es			
Total governance body members	Number	0	0	0
Total governance body members by percentage	%	0	0	0
Employees that have signed the Code of Ethics and Business Conduct				
Total employees	Number	695	734	780
Senior management	Number	17	18	25
Middle management	Number	39	46	45
Functional teams	Number	639	670	710
% employees that have signed the Code of	%	97	99	99

Performance Indicator	Unit	2015	2016	2017
Organisations that have signed the Supplier/ Service Providers Code of Conduct				
Business partners by percentage	%	100	100	100
Any other persons or organisations (Suppliers)	%	0	0	0

- Anti-corruption policies and procedures are described in the company's Code of Ethics and Business Conduct.
- Clauses related to anti-corruption are included within the General Terms and Conditions for Suppliers.
- Anti-Corruption is covered during the HR Induction presentation. Employees are required to sign the Code of Conduct as part of the HR Induction.

### **CATEGORY: ENVIRONMENTAL**

### **ASPECT: MATERIALS**

Disclosure 301-1: Materials used by weight or volume				
Non-renewable materials				
Raw Materials				
Milled Ore (Dry)	tonne	4,220,000	4,840,116	5,353,388
Associated process materials				
Process Reagents	tonne	16,100	18,619	19,754
Grinding Media	tonne	9,893	9,055	8,393
Oils and Lubricants	tonne	31	43	38
Other Chemicals	tonne	52	38	47
NOTES:				

- All materials are non-renewable.

0	0	0
_	0	0 0

### **ASPECT: WATER**

Disclosure 303-1: Water withdrawal by source				
Total volume of water withdrawn - Operational site	m³/annum	16,101,482	16,101,339	16,126,737
Surface water	m³/annum	0	0	0
Wetland	m³/annum	0	0	0
River	m³/annum	0	0	0
Lake	m³/annum	0	0	0
Ocean	m³/annum	0	0	0
Ground water	m³/annum	101,482	101,339	126,737
Rainwater (Direct or stored)	m³/annum	16,000,000	16,000,000	16,000,000
Waste water from another organisation	m³/annum	0	0	0
Municipal water supply	m³/annum	0	0	0
Public/private water utilities	m³/annum	0	0	0

NOTES:

- Rainwater input is as predicted for an average year based on site water balance modelling. It cannot be directly measured.

- Groundwater withdrawal is metered.



Performance Indicator	Unit	2015	2016	2017		
Disclosure 303-2: Water sources significantly affected by withdrawal of water						
Total number of water sources significantly affected by withdrawal by type						
Water Sources						
Aek Pahu	m³/h	1,826	1,826	1,826		

- This is the average reduction of flow to the Aek Pahu stream as determined by site water balance modelling, and represents water intercepted by the TSF and sediment ponds. This water is released to the Batangtoru River after treatment at the Water Polishing Plant.
- This water source has no Protected Area status

Disclosure 303-3: Water recycled and reused				
Volume water recycled	m³/h	Greater than	Greater than	Greater than
		451	451	451
Percentage of water recycled	%	Greater than	Greater than	Greater than
		60	60	60
Volume water reused	m³/h	0	0	0
Percentage water reused	%	0	0	0

NOTES:

These are the percentages and total volumes of water recycled by transfer from the TSF to the process plant for an average year as determined by site water balance modelling.

### **ASPECT: BIODIVERSITY**

Disclosure 304-1: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas					
Number of Sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	Count	1	1	1	
Position in relation to the Protected Area	km	Adjacent	Adjacent	Adjacent	
Size of operational Site	km <sup>2</sup>	3.77	3.90	4.60	

NOTES:

- Site has nil subsurface and underground land.
- Mine footprint is approximately 4 km at closest point to Protected Forest.
- The majority of the landscape within the Mining footprint before construction was forest, degraded forest, plantation, cleared land and tracks. Due to the close proximity of villages, townships and extensive plantation areas the area had experienced significant previous disturbance including the presence of numerous walking tracks used by workers to access rubber plantations.

Disclosure 304-3: Habitats protected or restored				
Total area of habitat protected	ha	0	0	0
Total area of habitat restored	ha	0	0	0

NOTES:

- Areas that have been rehabilitated on-site are not yet fully restored.

Performance Indicator	Unit	2015	2016	2017
ASPECT: EMISSIONS				
Disclosure 305-1: Direct (Scope 1) GHG emissions				
Total Direct GHG Emissions		157,575	169,940	143,064
Fuel Consumption	tonne $\rm CO_2$ eq	34,975	40,020	34,899
Electricity Consumption (Own Power Plant)	tonne $\rm CO_2$ eq	97,318	99,030	87,747
Refrigeration Use	tonne $\rm CO_2  eq$	3,997	3,997	4,920
Chemicals Use	tonne $\rm CO_2$ eq	3,926	3,876	4,068
Blasting	tonne $\rm CO_2$ eq	371	434	367
Land Clearing / Revegetation	tonne $\rm CO_2$ eq	16,988	22,583	11,064

- Based on data from the Martabe project.

- The IFC Carbon Emissions Estimation Tool 2014 was used to calculate the GHG emissions.

- For fuel and electricity consumption the following gasses were included:  $CO_2$ ,  $CH_4$ ,  $N_2O$ .

Disclosure 305-2: Energy indirect (Scope 2) GHG emissions				
Total Energy Indirect GHG Emissions	tonne CO <sub>2</sub> eq	2,979	2,761	3,824
Electricity Purchase from PLN	tonne CO <sub>2</sub> eq	447	147	164
Domestic and International Flights	tonne CO <sub>2</sub> eq	2,532	2,614	3,659
NOTES				

NOTES:

- Based on data for the Martabe site only.

- The IFC Carbon Emissions Estimation Tool 2014 was used to calculate the GHG emissions, meeting the "location based" component of GRI Standards GHG reporting.

Disclosure 305-3: Other indirect (Scope 3) GHG emissions				
Total Other Indirect GHG Emissions				
Other relevant Indirect GHG emissions identified	Number	0	0	0

Disclosure 305-4: GHG emissions intensity				
Overall GHG emissions intensity	CO <sub>2</sub> eq per 1,000 oz Au	532	555	414
Total GHG Emissions (Scope 1 + 2)	tonne CO <sub>2</sub> eq	160,554	172,701	146,888
Total Direct GHG Emissions (Scope1)	tonne $CO_2$ eq	157,575	169,940	143,064
Total Energy Indirect GHG Emissions (Scope 2)	tonne $CO_2$ eq	2,979	2,761	3,824
Total Gold Produced	oz ('000)	302	311	355

NOTES:

- Calculated based only on gold production (excluding silver)

Performance Indicator			Unit	2015	2016	2017			
ASPECT: EFFLUENTS & WASTE									
Disclosure 306-1: Water discharge by quality and destination									
Total planned water discharges	Discharge destination	Treated/	m³/annum	12,826,258	16,295,776	14,686,828			
Clean Water Discharge from Water Polishing Plant (WPP)	Batangtoru River	Treated	m³/annum	12,813,667	16,283,517	14,666,974			
Domestic Discharge	A minor stream	Treated	m³/annum	12,591	12,259	19,854			

- Clean Water is treated at the Water Polishing Plant, then discharged into the Batangtoru River.

- All water is discharged into natural waterways rather than being directly provided to other parties for use.

- Volumes shown are metered volumes.

- Release of general site runoff water is not included in the above table.

- Domestic Discharge shows discharge from the site Sewerage Treatment Plant.

#### Disclosure 306-2: Waste by type and disposal method

#### Total Weight of Waste by Type and Disposal Method

Total Hazardous Waste	tonne	569	473	522
Reuse	tonne	0	0	0
Recycling	tonne	193	0	0
Composting	tonne	0	0	0
Recovery	tonne	267	264	279
Incineration	tonne	0	0	0
Deep Well Injection	tonne	0	0	0
Landfill (Offsite)	tonne	109	209	244
On-site Storage	tonne	0	0	0
Total Non-Hazardous Waste	tonne	1,683	1,619	1,532
Reuse	tonne	0	0	0
Recycling	tonne	0	0	0
Composting	tonne	14	13	11
			10	
Recovery	tonne	0	0	0
Recovery Incineration	tonne	0	0 70	0
Recovery Incineration Deep Well Injection	tonne tonne tonne	0 52 0	0 70 0	0 42 0
Recovery Incineration Deep Well Injection Landfill	tonne tonne tonne tonne	0 52 0 1,617	0 70 0 1,536	0 42 0 1,479

#### NOTES:

- On site tailings disposal data is excluded, which is documented in MM3.

- From 2015, a large proportion of domestic waste, which was previously incinerated and composted, was disposed of by a third party.

- A monthly tally of waste disposal quantities is maintained by the Environmental staff. Off-site disposal is regulated by contract. All hazardous waste is disposed by licensed waste disposal companies subject to regulation by Government.

Performance I	Indicator	Unit	2015	2016	2017
Disclosure 30	6-3: Significant spills				
Total Number	of Spills	Number	7	9	11
Total Volume	of Spills	litre	35	680	329
Oil:	Soil	litre	35	225	78
	Water	litre	0	0	0
Fuel:	Soil	litre	0	244	230
	Water	litre	0	0	0
Waste:	Soil	litre	0	0	0
	Water	litre	0	0	0
Chemical:	Soil	litre	0	11	20
	Water	litre	0	0	1
Other:	Soil	litre	0	0	0
	Water	litre	0	200	0

- All reported spills are regarded as significant.
- All reported spills occurred at the Martabe Site.
- No significant impacts have resulted from spills that occurred, and all spills were fully cleaned up.

Disclosure 306-4: Transport of hazardous waste				
Weight of Transported, Imported, Exported, or Tre	ated Waste Deemed Haza	rdous		
Transported	tonne	569	473	522
Imported	tonne	0	0	0
Exported	tonne	0	0	0
Treated	tonne	0	0	0
Shipped Internationally	%	0	0	0

NOTES:

- All waste identified under regulation as hazardous or toxic (B3) waste is transported off-site to a licensed waste processor.

#### Disclosure 306-5: Water bodies affected by water discharges and/or runoff

Identity water bodies and related habitats that are significantly affected by water discharges and/or run-off, including information on:

Water Body and Related Habitats	Number	0	0	0
Size	-	-	-	-
Protected Status (Nationally/internationally)	-	-	-	-
Biodiversity Value	-	-	-	-

NOTES:

- Impacts on receiving waters are assessed by means of an independent monitoring program conducted by the University of North Sumatra.

Performance Indicator	Unit	2015	2016	2017
<b>CATEGORY: SOCIAL - LABOR PRACTIC</b>	ES & DECE	NT WORK		
ASPECT: EMPLOYMENT				
Disclosure 401-1: New employee hires and employee tu	nover			
Total Number and Rates of New Employee Hires and Em	ployee Turnover	· by Age Group a	nd Gender	
Total New Hires	Number	77	97	90
Male	Number	66	83	55
Female	Number	11	14	35
Age <30	Number	34	27	43
Age 30-50	Number	35	53	42
Age > 50	Number	8	17	5
Local	Number	29	35	33
Non-Local	Number	48	62	57
Hiring Rate	%	10	13	11
Male	%	11	13	9
Female	%	9	10	21
Age <30	%	20	16	24
Age 30-50	%	7	10	8
Age > 50	%	22	33	8
Local	%	7	8	7
Non-Local	%	15	19	17
Total Turnover	Number	87	71	48
Male	Number	82	62	42
Female	Number	5	9	6
Age <30	Number	16	15	11
Age 30-50	Number	50	40	30
Age > 50	Number	21	16	7
Local	Number	25	24	10
Non-Local	Number	62	47	38
Turnover Rate	%	12	9	6
Male	%	14	10	7
Female	%	4	7	4
Age <30	%	9	9	6
Age 30-50	%	10	7	5
Age > 50	%	57	31	12
Local	%	6	6	2
Non-Local	%	20	14	11

- Rates are calculated using the total number of employees in the given category at the end of the year.

Performance Indicator	Unit	2015	2016	2017	
Disclosure 401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees					
Benefits Provided to Full-Time Employees that are Not Provided to Temporary or Part-Time Employees					
Count	Number	N/A	N/A	N/A	

- PTAR does not have Part-Time Employees.
- Benefits provided to National Full-Time Employees include: Life Insurance, Health Care, Disability Coverage, Parental Leave, Retirement Provision.
- Expatriate employees are employed under contract with tailored benefits.

Disclosure 401-3: Parental leave				
Return to Work and Retention Rates After Parental Leave				
Entitled to Parental Leave	Number	129	134	163
Parental Leave Taken	Number	15	12	22
Return to Work After Parental Leave	Number	15	12	22
Return to Work After Parental Leave Still Employed Twelve Months After Their Return to Work	Number	15	12	22
Retention Rates After Parental Leave	%	100	100	100

#### NOTES:

- Based on maternity leave only (does not take into account leave available for fathers at time of birth).

- Data applies only for PTAR National female employees.

#### **ASPECT: OCCUPATIONAL HEALTH & SAFETY**

Disclosure 403-1: Workers representation in formal joint management–worker health and safety committees					
Workforce Represented in Formal Joint Management-Worker Health and Safety Committees					
Number of Workforce Represented	Number	513	570	633	
Percentage of Total Workforce Represented	%	70	75	80	

NOTES:

- Numbers correspond to PTAR employees from departments that have H&S Committees.

- Percentage is the ratio between number of employees represented and the total PTAR employees.

### Disclosure 403-2: Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities

For Employees (Total employees + supervised workers)

Type of Injuries				
First aid Injuries	Number	14	23	16
Male	Number	12	18	15
Female	Number	2	5	1
Total Lost Time Injuries (LTI)	Number	1	0	0
Male	Number	1	0	0
Female	Number	0	0	0
Total Medical Treatment Injuries (MTI)	Number	10	6	8
Male	Number	10	6	8
Female	Number	0	0	0



Performance Indicator	Unit	2015	2016	2017
Total Recordable Injuries (TRI)	Number	11	6	8
Male	Number	11	6	8
Female	Number	0	0	0
Injury rate (IR)				
Male	Per Million	2.20	1.18	1.39
	Man-Hours			
Female	Per Million	0.00	0.00	0.00
	Man-Hours			
Occupational disease rate (ODR)				
Male	Number	0	0	0
Female	Number	0	0	0
Absentee rate (AR)				
Total Absentee Rate		0.50	0.54	0.58
Male	%	0.50	0.54	0.60
Female	%	0.49	0.51	0.55
Work related fatalities				
Male	Number	0	0	0
Female	Number	0	0	0
All workers excluding employees (Independent contract	ors working on-s	site)		
Type of Injuries				
First aid Injuries	Number	15	17	20
Male	Number	15	14	18
Female	Number	0	3	2
Total Lost Time Injuries (LTI)	Number	1	0	1
Male	Number	1	0	1
Female	Number	0	0	0
Total Medical Treatment Injuries (MTI)	Number	10	3	15
Male	Number	10	3	15
Female	Number	0	0	0
Total Recordable Injuries (TRI)	Number	11	3	16
Male	Number	11	3	16
Female	Number	0	0	0
Work related fatalities				
Male	Number	0	0	0
Female	Number	0	0	0

- Injury data applies for the total workforce (including contractors).

- Absentee rate applies only for PTAR National employees.

- PTAR uses LTIFR and TRIFR measures for injury rates.

Performance Indicator	Unit	2015	2016	2017	
Disclosure 403-3: Workers with high incidence or high risk of diseases related to their occupation					
Workers with High Incidence or High Risk of Diseases Re	Workers with High Incidence or High Risk of Diseases Related to Their Occupation				
High incidence or high risk of occupational diseases.   Number   0   0					
NOTES:					

- NA

Disclosure 403-4: Health and safety topics covered in formal agreements with trade unions				
Health and Safety Topics Covered in Formal Agreements	with Trade Unions	6		
Coverage of health and safety topics in formal	%	100	100	100
agreements with trade union.				

NOTES:

- Data applies for PTAR employees.

- A Collective Labour Agreement is in place between PTAR and the Trade Union within the Organization, which includes relevant health and safety articles.

### **ASPECT: TRAINING & EDUCATION**

Disclosure 404-1: Average hours of training per year per employee

Average Hours of Training per Year per Employee

Average Training Time by Gender				
Male	hours	45	45	47
Female	hours	39	33	37
Average Training Time by Employee Category				
Managers & Above	hours	19	31	33
General Staff	hours	52	49	42
Non-Staff	hours	38	40	50

NOTES:

 Only includes training delivered by the PTAR Training & Development Department. Does not include Departmentbased training.

Disclosure 404-2: Programs for upgrading employee skills and transition assistance programs

Types of Internal	Training	Delivered	

Health & Safety	Number	32	60	54
Mobile Equipment	Number	33	33	27
Technical	Number	20	6	2
Developmental	Number	29	13	15
Language	Number	3	6	4

NOTES:

- Transition assistance programs provided to assist employees in managing career endings are not included in the above table.

- Only includes training delivered by the PTAR Training & Development Department. Does not include Departmentbased training.

Performance Indicator	Unit	2015	2016	2017	
Disclosure 404-3: Percentage of employees receiving regular performance and career development reviews					
Percentage of Employees Receiving Regular Performanc Category	e and Career De	evelopment Revi	ews, by Gender	and Employee	
Gender					
Male	%	100	100	100	
Female	%	100	100	100	
Employee Category					
Managers & Above	%	100	100	100	
General Staff	%	100	100	100	
Non-Staff	%	100	100	100	

- Data applies for PTAR National employees.

### ASPECT: DIVERSITY & EQUAL OPPORTUNITY

Disclosure 405-1: Diversity of governance bodies and employees

#### Percentage of Individuals within Governance Bodies, by Gender and Age Group

Total Percentage				
Male	%	87	89	89
Female	%	13	11	11
Age <30	%	0	0	0
Age 30-50	%	44	50	33
Age >50	%	56	50	67
Percentage of Employees per Employe	e Category, by Gender and Age Group	p		
Total Percentage				
Male	%	82	82	79
Female	%	18	18	21
Age <30	%	24	22	23
Age 30-50	%	71	71	71
Age >50	%	5	7	6

NOTES:

- Percentage of Employees per Employee Category, by Gender and Age Group applies for all PTAR employees.

ASPECT: EQUAL REMUNERATION FOR WOMEN & MEN Disclosure 405-2: Ratio of basic salary and remuneration of women to men				
All Staff (General Staff, Managers & Above)	%	88	85	86
Non-Staff	%	99	97	95

NOTES:

 Data applies for PTAR National employees. Gender pay gap reviews have been conducted and recommendations implemented. Differences in renumeration generally exist as a result of differences in skills, experience and length of service.

Performance Indicator	Unit	2015	2016	2017	
CATEGORY: SOCIAL - SOCIETY					
ASPECT: LOCAL COMMUNITIES					
Disclosure 413-1: Operations with local community engagement, impact assessments, and development programs					
Total Number of Operations	Number	1	1	1	
Operations with Implemented Community Programs	Number	1	1	1	
Percentage of operations with implemented local community engagement, impact assessments, and/or development programs.	%	100	100	100	
NOTES:					

- This indicator is explained in the narrative of the report.

Disclosure 413-2: Operations with significant actual and potential negative impacts on local communities Operations with Significant Actual and Potential Negative Impacts on Local Communities

NOTES:

- This indicator is explained in the narrative of the report.

### **CATEGORY: MINING & METALS SECTOR - ENVIRONMENTAL**

### **ASPECT: BIODIVERSITY**

MM1: Land Disturbed and Rehabilitated				
Total Land Disturbed and Not Yet Rehabilitated at the Beginning of the Year	ha	370.5	376.0	389.0
Area Disturbed	ha	9.4	13.0	72.0
Area Rehabilitated	ha	3.9	0.0	1.0
Total Land Disturbed and Not Yet Rehabilitated at the	ha	376.0	389.0	460.0
End of the Year				
Area Disturbed Area Rehabilitated Total Land Disturbed and Not Yet Rehabilitated at the End of the Year	ha ha <b>ha</b>	9.4 3.9 <b>376.0</b>	13.0 0.0 <b>389.0</b>	72. 1. <b>460</b> .

NOTES:

- NA

MM2: Sites Requiring Biodiversity Management Plans

PTAR has one site and that site has a Biodiversity Management Plan.

NOTES:

- NA

### **ASPECT: EFFLUENTS & WASTE**

MM3: Total Amounts of Overburden, Rock, Tailings, and Sludges					
Total Amounts of Overburden, Rock, Tailings, and Sludges					
Overburden	tonne	7,174,414	8,068,686	5,332,293	
Tailing	tonne	4,219,528	4,840,031	5,254,981	
Sludges	tonne	0	0	0	

NOTES:

- Amounts of tailings are calculated as the weight of dry tonnes milled (rock/ore) less the weight of precious metals extracted.


Performance Indicator	Unit	2015	2016	2017
CATEGORY: MINING & METALS SECTOR - SOCIETY				
ASPECT: LOCAL COMMUNITIES				
MM6: Significant Disputes Relating to Land Use, Customary Rights of Local Communities and Indigenous People				

	_						
Significant dispute	es related	to land use, cu	istomary	Number	0	1	2
rights and indigen	ious peopl	es.					

#### NOTES:

- The disputes reported for 2017 (above) were in relation to claimed traditional land ownership.

MM7: Extent to Which Grievance Mechanisms Were Used to Resolve Disputes Relating to Land Use, Customary Rights of Local Communities and Indigenous People Significant disputes related to land use, customary Number 0 1 2

rights and indigenous peoples.

#### NOTES:

- The disputes reported for 2017 (above) were addressed by due legal process in courts of law.

USD '000	1,478	4,386	7,342
USD '000	1,478	5,864	13,206
	USD '000 USD '000	USD '000 1,478 USD '000 1,478	USD '000 1,478 4,386 USD '000 1,478 5,864

NOTES:

- PTAR has one operation, which has a Closure Plan in place.

- The total Mine Closure Guarantee is USD 23,456,541.



## **APPENDIX THREE**

## **GRI STANDARDS REFERENCE TABLE**

#### **General Standard Disclosures**

Disclosure	Description	Page number(s) or explanation
1 Organizatio	onal Profile	
102-1	Name of the organization	12
102-2	Activities, brands, products and services	12
102-3	Location of headquarters	12
102-4	Location of operations	14-15
102-5	Ownership and legal form	12
102-6	Markets served	20
102-7	Scale of the organization	12
102-8	Information on employees and other workers	73
102-9	Supply chain	19
102-10	Significant changes to the organization and its supply chain	20
102-11	Precautionary Principle or approach	24
102-12	External initiatives	24
102-13	Membership of associations	25
2 Strategy		
102-14	Statement from senior decision-maker	4-7
102-15	Key impacts, risks, and opportunities	21
3 Ethics and	Integrity	
102-16	Values, principles, standards, and norms of behaviour	26
102-17	Mechanisms for advice and concerns about ethics	26
4 Governanc	e	
102-18	Governance structure	27-28
5 Stakeholde	er Engagement	
102-40	List of stakeholder groups	30, 87-88
102-41	Collective bargaining agreements	102
102-42	Identifying and selecting stakeholders	30
102-43	Approach to stakeholder engagement	30
102-44	Key topics and concerns raised	31

Disclosure	Description	Page number(s) or explanation
6 Reporting F	Practice	
102-45	Entities included in the consolidated financial statements	42
102-46	Defining report content and topic boundaries	41, 87-91
102-47	List of material topics	41, 87-91
102-48	Restatements of information	20
102-49	Changes in reporting	88-89
102-50	Reporting period	62
102-51	Date of most recent report	The most recent report was pub- lished in 2016
102-52	Reporting cycle	2
102-53	Contact point for questions regarding the report	119
102-54	Claims of reporting in accordance with the GRI Standards	2
102-55	GRI content index	106-112
102-56	External assurance	The cost of external assurance and the associated delay in finalisation of reporting would be significant for PTAR, given the broad range of material aspects or topics being addressed, the specialised technical nature of some of these topics, and the relative remoteness of the site. This is the first year that the Company is reporting against the GRI Standards, and in support of ongoing improvement in report- ing, the Company is planning to

## **General Standard Disclosures (continued)**

## **Topic-Specific Disclosures: Economic**

Disclosure	Description	Page number(s) or explanation
103	Management Approach	
201	Economic performance	63
203	Indirect economic impacts	42
204	Procurement practices	20
205	Anti-corruption	Anti-corruption policies and procedures are described in the company's Code of Ethics and Business Conduct

implement external assurance for its 2018 sustainability report.

Disclosure	Description	Page number(s) or explanation			
GRI 201 Econor	nic Performance				
201-1	Direct economic value generated and distributed	92			
201-2	Financial implications and other risks and opportunities due to climate change	92			
201-3	Defined benefit plan obligations and other retirement plans	42			
201-4	Financial assistance received from the government	64			
GRI 202 Market	Presence				
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	92			
202-1	Proportion of senior management hired from the local commu- nity	92			
GRI 203 Indired	t Economic Impacts				
203-1	Infrastructure investments and services supported	93			
GRI 204 Procur	ement Practices				
204-1	Proportion of spending on local suppliers	93			
GRI 205 Anti-C	GRI 205 Anti-Corruption				
205-2	Communication and training about anti-corruption policies and procedures	93			

## **Topic-Specific Disclosures: Economic (continued)**

## **Topic-Specific Disclosures: Environmental**

Disclosure	Description	Page number(s) or explanation
103	Management Approach	
303	Water	47-48
304	Biodiversity	50
306	Effluents and waste	43-47
307	Environmental compliance	40-42
GRI 301 Materia	als	
301-1	Materials used by weight or volume	94
301-2	Recycled input materials used	94
GRI 303 Water		
303-1	Water withdrawal by source	94
303-2	Water sources significantly affected by withdrawal of water	95
303-3	Water recycled and reused	95
GRI 304 Biodive	ersity	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	95
304-3	Habitats protected or restored	95



109

Disclosure	Description	Page number(s) or explanation
GRI 305 Emis	sions	
305-1	Direct (Scope 1) GHG emissions	96
305-2	Energy indirect (Scope 2) GHG emissions	96
305-3	Other indirect (Scope 3) GHG emissions	96
305-4	GHG emissions intensity	96
GRI 306 Efflu	ents and Waste	
306-1	Water discharge by quality and destination	97
306-2	Waste by type and disposal method	97
306-3	Significant spills	98
306-4	Transport of hazardous waste	98
306-5	Water bodies affected by water discharges and/or runoff	98
GRI 307 Envir	ronmental Compliance	
307-1	Non-compliance with environmental laws and regulations	65

## **Topic-Specific Disclosures: Environmental (continued)**

## **Topic-Specific Disclosures: Social**

Disclosure	Description	Page number(s) or explanation
103	Management Approach	
401	Employment	52-53
403	Occupational health and safety	50-52
404	Training and education	53
405	Diversity and equal opportunity	52
406	Non-discrimination	52, 103
407	Local communities	53-55
GRI 401 Emplo	yment	
401-1	New employee hires and employee turnover	99
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	100
401-3	Parental leave	100
GRI 403 Occup	ational Health and Safety	
403-1	Workers representation in formal joint management–worker health and safety committees	100
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	100-101
403-3	Workers with high incidence or high risk of diseases related to their occupation	96
403-4	Health and safety topics covered in formal agreements with trade unions	102

## **Topic-Specific Disclosures: Social (continued)**

Disclosure	Description	Page number(s) or explanation
GRI 404 Trainin	g and Education	
404-1	Average hours of training per year per employee	102
404-2	Programs for upgrading employee skills and transition assis- tance programs	102
404-3	Percentage of employees receiving regular performance and career development reviews	103
GRI 405 Diversi	ty and Equal Opportunity	
405-2	Ratio of basic salary and remuneration of women to men	103
GRI 413 Local (	Communities	
413-1	Operations with local community engagement, impact assess- ments, and development programs	104
413-2	Operations with significant actual and potential negative im- pacts on local communities	36, 104

111

## **APPENDIX FOUR**

## **GLOSSARY – GENERAL TERMS**

All-in Sustaining Cost (AISC)	A standardised way to measure the cost of gold production introduced by the World Gold Council in 2013. It includes direct mining and processing costs (cash costs) plus mining lifecycle costs related to sustaining production from exploration to closure.
Analytical Laboratory	A testing facility for measurement of the physical, chemical and/or biological properties of water, soil, rock or other materials.
Biodiversity	The variety of plants and animals within an eco-system, and the way they live and interact.
Business and Biodiversity Offsets Programme (BBOP)	An international collaboration between companies, financial institutions, government agencies and civil society organizations. The members are developing best practice in following the mitigation hierarchy to achieve no net loss or a net gain of biodiversity.
Biodiversity Offsets	Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development and persisting after appropriate avoidance, minimization and restoration measures have been taken.
Contractors	Providers of services to an organisation or company based upon agreements written in a contract.
Corporate Governance	Corporate governance can be defined as the system of rules, practices and processes by which a company is directed and controlled in order to ensure accountability, fairness and transparency in its relationships with its stakeholders.
Downstream Waters	Rivers, streams and lakes that receive flow from a defined area.
Environmental Impact Assessment (AMDAL)	One of the key regulatory approvals required in Indonesia for a mine to proceed. The AMDAL consists of several documents including the Terms of Reference, Environmental Impact Statements (ANDAL) and Environmental Management and Monitoring Plans (RKL & RPL).
Equator Principles	The Equator Principles (EPs) is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects, and is primarily intended to provide a minimum standard for due diligence and monitoring to support responsible risk decision-making.
Geological Core Sheds	A facility where rock samples (cores) produced by exploration drilling are stored, catalogued and analysed.
Haul Roads	Roads designed for use by large dump trucks at mine sites.
High Voltage Switchyard	A facility for the control and transmission of high voltage power. At a mine site, normally located between a power station and equipment requiring electricity.
International Cyanide Management Code	The Cyanide Code is a voluntary initiative for the gold and silver mining industries and the producers and transporters of the cyanide used in gold and silver mining. It is intended to complement an operation's existing regulatory requirements.
IFC Performance Standards on Environmental and Social Sustainability	Environmental and Social Performance Standards define International Finance Corporation (IFC) clients' responsibilities for managing their environmental and social risks. They use the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) as a technical source of information during project appraisal. The IFC Performance Standards are referenced by the Equator principles and are often used as the basis for assessing a projects implementation of sustainable development.

Lost Time Injuries (LTI)	A work related injury that causes the employee to miss the next regularly scheduled work shift.
Lost Time Injury Frequency Rate (LTIFR)	A ratio of the number of LTIs per million hours worked: LTIFR = LTIs X 1,000,000 / total hours worked.
Mineral Resource	The quantity of gold or silver in defined deposits for which there are reasonable prospects for eventual economic extraction. A mineral resource is determined from exploration and sampling.
Mine Closure Plan	A plan that documents all the rehabilitation, revegetation and other activities that are needed to make a former mine site safe, stable and productive to an agreed standard following mine closure. Includes tabulation of costs associated with mine closure.
Operating Permits	Permits issued by various levels of government which allow exploration and mining operations to operate under certain terms and conditions.
Ore Reserve	The economically mineable part of the mineral resource. It is the ore reserve that determines mine life, together with production rate.
Oxidation	Reaction of a material typically due to exposure to oxygen and water (rust is a result of oxidation).
Plant Nursery	A facility where trees and plants are propagated and grown to a size good for planting.
Processing Plant	The facility where ore is processed to extract metals such as gold and silver.
Raw Water Storage Tanks	Tanks for the storage of clean water (e.g. rainwater runoff or water from streams or rivers).
Rehabilitation	The process of reclaiming land disturbed by mining activities to a safe, stable and productive state.
Remuneration	Basic wage or salary plus any additional amounts paid to employees such as bonuses, overtime and special allowances.
Rock Slurry	A mixture of finely ground rock particles and water (like a mud).
Sediment Dams	Dams used to hold water for a period to allow sediments (fine soil and rock particles) to settle out.
Social licence to operate	A refers to a local community's acceptance or approval of a company's project or ongoing presence in an area.
Subaerial Tailings Deposition	The systematic deposition of tailings in thin layers, allowing each layer to settle, drain and partially air-dry before covering with an additional layer.
Suppliers	Organizations or people that provide a product or service used by another organization or company.
Surface Mining	Method of extracting minerals located near the surface of the ground, by mining from an open pit (as opposed to underground mining using shafts and tunnels).
Sustainability	Development which meets the needs of current generations without compromising the ability of future generations to meet their own needs.
Tailings	The fine rock slurry that remains after the minerals of value has been recovered in a processing plant.
Tailing Storage Facility (TSF)	A structure for the permanent storage of tailings (typically comprising an embankment or wall enclosing the tailings).
TSF design freeboard allowance	The spare capacity required in a TSF to safely accommodate an extreme rainfall event.
Waste Rock	Rock mined from a pit that contains insufficient mineralisation for treatment and has no economic value.

Water Balance	A calculation of total water held within a system or structure taking into account water inflows and water outflows over time.
Water Diversion Drains	Drains that direct runoff water around areas or structures.
Water Polishing Plant	The facility at the Martabe Gold Mine that removes any contamination from site processing water so that it is safe to release.
World Gold Council (WGC)	The market development organisation for the gold industry. Its purpose is to provide industry leadership and stimulate demand for gold.

## GLOSSARY – GRI TERMS

Disclosures	Information about a company and its relationship with its stakeholders reported in its sustainability report.
General Disclosures	Disclosures that set the overall context for a sustainability report, providing a description of the organization and its reporting process. They apply to all organizations irrespective of their identified material Aspects.
Global Reporting Initiative (GRI)	An international not-for-profit organization promoting the use of sustainability reporting as a way for companies and organizations to become more sustainable and contribute to a sustainable global economy.
Impact	The effect an organization has on the economy, the environment, and/or society, which in turn can indicate its contribution (positive or negative) to sustainable development.
Indicators	GRI reporting requirements dealing with specific issues of the material Aspects.
Material Topic	Those aspects of an organisation that reflect its significant economic, environmental and social impacts; or that substantively influence the assessments and decisions of stakeholders.
Stakeholders	Stakeholders are defined as groups or individuals that can reasonably be expected to be significantly affected by an organization's activities, products, and services; and whose actions can reasonably be expected to affect the ability of an organization to successfully implement its strategies and achieve its objectives.

113

# PTAR SUSTAINABILITY REPORT FEEDBACK FORM

## PTAR SUSTAINABILITY REPORT FEEDBACK FORM

We look forward to suggestions as to how to improve our sustainability reporting so that it can best meet the interests and concerns of our stakeholders. Please use this form to let us know what works well and what can be improved. All submissions will remain anonymous, and results will be reported in the next Sustainability Report.

#### **Report Coverage**

This report focuses on 13 material Aspects (below). These are the potential economic, environmental and social impacts associated with the Martabe Gold Mine that that we understand to be of most interest to our stakeholders.

- Please add to the list below any other Aspects that you think we should be reporting on.
- Please mark with a cross the five Aspects that you think are of most importance for the Martabe Gold Mine (you may include Aspects that you have added)

Fiscal and Economic Benefit		Health
Environmental Compliance		Local
Disposal of Tailings		Gende
Disposal of Waste Rock		Emplo
Management of Hazardous Industrial Wastes		Comm
Protection of Water Resources		
Rehabilitation and Mine Closure		
Protection of Biodiversity		

Health and Safety	
Local Employment	
Gender Diversity	
Employee Development	
Community Development	

#### Level of Detail and Technical Content

PTAR Sustainability Reports are intended to be a useful source of information for all our stakeholders. We try to communicate important information in a way that can be easily understood by most people, including those with no experience of the mining industry.

#### • Please tick one of the boxes for each question below.

Questions	Yes	No	Unsure
Overall, was there sufficient information in this report to meet your needs?			
Overall, did you find the report easy enough to read and understand?			
The data presented in Appendix 2 is based on the GRI Standards. Did you find it of use in understanding the Company's management of sustainability?			

 Please indicate below what additional numerical data (if any) you would like to see reported year-byyear in PTAR Sustainability Reports.

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#### **Accuracy and Balance**

 Did you find this report reasonably balanced and accurate? We would appreciate if you could explain any concerns that you may have in this regard below:

#### **Report Layout and Design**

• Do you have any suggestions regarding report layout and/or design that would help make the next report easier and/or more interesting to read?


#### **Some Information About You**

Some basic information about you will help us analyse and report on the data collected:

#### Please tick the box that best describes you.

Where do you call home?	Tapanuli Selatan					
	Elsewhere in Sumatra					
	Elsewhere in Indonesia					
	Outside of Indonesia					
Are you employed at the Martabe Gold Mine or otherwise employed by PTAR?	Yes No					
Which of these terms best describes you:	School educated					
	College/University educated					
	Other					
Which age group do you belong to?	Below 18 years					
	18 to 55 years					
	Above 55 years					

#### How to Submit this Form

- 1) Scan or photograph and email to: martabe.sustainability@agincourtresources.com
- Mail or deliver to our office in Jakarta: DGM Business Services Wisma Pondok Indah 2 Jl. Sultan Iskandar Muda Kav V-TA, Pondok Indah Jakarta 12310
- Deliver to the Martabe Gold Mine: DGM Business Services Martabe Gold Mine Batangtoru



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