SUSTAINABILITY

SAFETY

0 FATALITIES	**0.00** FATALITY FREQUENCY RATE	**5 Years Fatality Free** SAFETY MILESTONES
22 MEDICAL TREATMENT CASES	**4** LOST-TIME INJURIES	**0.00** TARGET LTIFR

HEALTH

3 842 EMPLOYEES AND CONTRACTORS VOLUNTARILY TESTED FOR HIV/AIDS	**504** EMPLOYEES WHO TESTED POSITIVE FOR HIV/AIDS	**14%** HIV/AIDS PREVALENCE RATE AMONG EMPLOYEES AND CONTRACTORS
10 724* NUMBER OF COVID-19 SCREENINGS	**4 715** EMPLOYEES AND CONTRACTORS SCREENED FOR TB/SILICOSIS (VIA MEDICAL SURVEILLANCE PROGRAMME)	**4 715** EMPLOYEES AND CONTRACTORS WHO UNDERWENT HEARING TESTS (VIA MEDICAL SURVEILLANCE PROGRAMME)

ENVIRONMENT

185 807 MWh TOTAL ENERGY CONSUMPTION	**82 829 tCO_2e** TOTAL CO_2 EMISSIONS (SCOPE 1)	**US$17.3 m** CUMULATIVE REHABILITATION PROVISION
1 290 346 m^3 TOTAL WATER CONSUMPTION	**38.2 m litres** TOTAL DIESEL USAGE	**637.4 tonnes** DOMESTIC WASTE

Data is applicable to Tharisa Minerals for FY2020
Medical surveillance programme includes initial, periodic and exit medicals for employees and contractors

** As at 1 December 2020*

The goal of zero harm is of the utmost importance to Tharisa and takes precedence over all production objectives. In order to achieve this, the business is reliant on sound safety, health and environmental monitoring systems and procedures, and a competent, trained and committed workforce. Tharisa in turn is committed to explore, mine, process, market and distribute our products to customers and stakeholders without compromising on our goal of zero harm.

Tharisa Minerals continued to deliver an exemplary safety performance during FY2020. Tharisa Minerals achieved its four million fatality-free shifts on 19 June 2020. The Mine in total celebrated its five-year fatality-free performance on 28 September 2020. The Process division celebrated 6 000 fatality-free production shifts on 28 April 2020.

Tharisa is pleased to report that there have been no fatalities during FY2016, FY2017, FY2018, FY2019 and FY2020.

At 30 September 2020, Tharisa Minerals achieved 38 545 082 fatality-free hours and 4 335 571 fatality-free shifts.

Although there was uncertainty in the 2020 financial year after the COVID-19 pandemic outbreak, Tharisa Minerals rose to the challenge. While there was a shift in focus for the larger part of the year, Tharisa continued to ensure employees and contractor employees remained compliant in terms of company procedures and requirements. Tharisa established a COVID-19 Committee to ensure compliance with newly required regulations with regards to COVID-19.

No stone was left unturned to ensure a safe, healthy, and compliant environment for all employees and to ensure employees remain focused during these trying times. A status quo shift was required with a COVID-19 Command Centre established and a COVID-19 Officer being appointed to monitor compliance of the workforce as regulated by the Disaster Management Act. All employees went through rigorous screening and COVID-19 induction, prior to return to work after the COVID-19 lockdown period.

A COVID-19 quarantine facility and clinic were established where employees with COVID-19 symptoms could be tested and quarantined until their results could be obtained. This added to the success rate, as employees with symptoms, as well as co-contacts, could be quarantined to prevent the spread of the disease. Tharisa also adopted a zero-tolerance approach in this regard. Any possible contact was immediately blocked from site and quarantined at the onsite facility or self-quarantined until the results were available and the employee was declared fit to return to work by the Occupational Medical Practitioner.

Tharisa Minerals introduced their onsite Occupational Health Centre, with state-of-the-art medical equipment, on 1 August 2020, where employees could undergo medical examinations to ensure compliance with its annual medical surveillance programme. All mining and processing employees, including contractors, undergo an annual medical fitness examination and complete annual induction training to ensure they stay abreast of any changes in procedural requirements.

Tharisa Minerals has taken extra care to ensure its processes and policies are adhered to and that employees are kept well informed of potential health and safety hazards through continual communication and training. On return to work after the lockdown, supervisory training and holding supervisors accountable for their actions continued. Throughout the year, the focus was on the quality of incident investigations and ensuring that all incidents were reported for investigation in order to ensure that corrective and preventive actions focused and on eliminating, redesigning and

SUSTAINABILITY CONTINUED

separating risks in line with the hierarchy of controls. Where injuries occurred, Tharisa Minerals' focus was on completing effective investigations and root cause analysis to prevent repeat incidents. For full details on all the preventative measures Tharisa has implemented, please go to https://www.tharisa.com/pdf/covid-19/covid-19-presentation-of-compliance.pdf.

The Group employs a safety management system. The system requires a baseline risk assessment to identify the major risks at the operations. These risks are then examined further by conducting issue-based risk assessments and continuous risk assessments with the identification of appropriate control measures to mitigate these risks. Measures include standards and procedures updates, operating checklists, as well as training lesson plans. To ensure compliance, a system of "over-inspection" by supervisors and safety staff is implemented. Further mitigation measures include visible felt leadership and ongoing training.

As required by South African regulations, Tharisa Minerals has established a mine Safety, Health and Environment (SHE) Committee. The SHE Committees, at both the holding company and operating subsidiary levels, are responsible for overseeing compliance with health and safety legislation and policies. The committees approve and implement all mandatory codes of practice and procedural requirements as determined through the risk assessment process and ensure relevant training is conducted on these requirements. Safety staff oversee inspections of workplace performance and site conditions, and identify and allocate any necessary corrective actions.

Tharisa remains committed to the health of its employees and has implemented a number of programmes to facilitate wellbeing among those who work for the Group. Chief among these programmes is Tharisa Minerals' occupational health programme, which has as its key focus tuberculosis (TB), HIVV/AIDS, dust exposure and noise-induced hearing loss. TB and HIV/AIDS are being addressed via a strong focus on prevention through education and awareness initiatives. Antiretroviral treatment (ARV) is offered through state-funded and medical aid-funded resources to eligible persons. The programme is managed through Tharisa's wellness service provider.

The HIV prevalence rate among Tharisa Minerals' own employees is 14%. The prevalence rate including contractors is also at 14%. This information is derived from medical examinations, which all employees undertake (initial, periodical and exit medicals) including contractors, and are encouraged to undergo voluntary counselling and testing (VCT). Due to COVID-19, Tharisa Minerals did not host a Wellness Day this year and VCT was offered to employees during annual medical examinations. Every employee who tests positive is provided with counselling and is encouraged to participate in the ARV programme.

The Tharisa Minerals Thusanang Wellness Programme has been running since December 2011 with the aid of Calibre Clinical Consultants (Calibre). "Thusanang" is a Setswana word meaning "helping each other". The programme was designed to provide support, counselling and training to employees, their families, and the community about their lifestyle, wellbeing and work environments. During the COVID-19 pandemic, the Wellness Programme was utilised to assist employees and their families through a COVID-19 Hotline. Employees could utilise this Hotline to receive information on COVID-related symptoms and obtain assistance on what to do if they experience any symptoms. Counselling and support was offered through this programme to employees and family members exposed to COVID-19.

The Tharisa Minerals' Peer Educator Programme was launched in September 2012. The course trains a group of employees who champion the programme and provide further wellness education to employees and the community. Tharisa Minerals has 30 active peer educators and 42 trained peer educators. In 2020, the peer educators underwent annual refresher training, as well as COVID-19-related training in order to raise awareness and to support employees.

HEARING

The Mine Health and Safety Committee (MHSC) 2025 Health and Safety Milestones stipulate that no employee's standard threshold shift (STS) should exceed 25 dB from the baseline when

averaged over 2 000 Hz, 3 000 Hz and 4 000 Hz in one or both ears from December 2016. This milestone is monitored during annual medical examinations. High-noise zone areas have been identified and Tharisa Minerals ensures that personnel working in these high-risk areas are issued with personalised hearing protection. These high-noise zones are assessed and updated regularly. The issuing of personalised hearing protection has been extended to the medium-risk areas. Safety staff oversee inspections of the high-noise zones to ensure compliance with the wearing of hearing protection in the zones identified.

All cases of noise-induced hearing loss have been investigated and reported to the DMRE as per the legislated requirements.

The MHSC has also set a December 2024 target where the total operational or process noise emitted by any equipment must be below 107 dB (A). Tharisa Minerals has achieved this target. Continuous hygiene monitoring is done to ensure compliance. Procurement and Engineering staff continue to ensure that all new equipment meets this requirement.

TUBERCULOSIS

The Tharisa Minerals Thusanang Wellness Programme actively campaigns for the awareness of TB and its symptoms. These campaigns encourage all employees, including contractors, to participate in screening.

The MHSC's 2025 milestones aim to reduce the rate of TB among mineworkers to the national incident rate or below.

Tharisa Minerals' interventions to address and reduce TB among its workforce include increased TB screening, TB awareness campaigns, questionnaires to identify symptoms, and the enlisting of trade union involvement in and commitment to improving TB awareness and lowering incident rates among employees and their families.

TB screening is done on an ad-hoc basis and during the occupational medical examinations. Sputum tests are conducted on employees who are potentially at risk of having TB.

To further prevent the spread of TB, contact screening is done on employees who may have been exposed to the disease by being in contact with other employees working in the same exposure group.

All cases of TB have been reported to the Medical Bureau of Occupational Diseases, Compensation for Occupational Injuries and Diseases, and the DMRE as per the legislated requirements.

HIV

As legislated, HIV testing at Tharisa Minerals is voluntary; however, all employees undergo counselling, prior to voluntary testing. Tharisa Minerals actively campaigns to increase awareness of HIV, its cause, its symptoms and treatment. All employees, including contractors, are encouraged to participate in the screening.

All of Tharisa Mine's employees are offered haematocrit blood tests annually, through the medical surveillance programme, and all eligible employees are counselled and asked whether they would like to join an ARV programme, which is run and managed by the third-party service provider, Calibre. Tharisa Minerals, the Occupational Medical Practitioner, and Calibre work together to increase the uptake of ARV. These interventions include pre- and post-test counselling, awareness programmes, and roadshows and are a focus of the Peer Educator Programme. HIV statistics are based on HIV testing done during medical examinations.

Tharisa Minerals Community Peer Educator continues to conduct home visits in the community and health campaigns are conducted in the community by the service provider. The main objective is to help prevent the spread of HIV in our community. This is done through community outreach and the distribution of HIV and TB information, as well as information on where to seek assistance. The Tharisa Mine also distributes condoms in places like community shops and taverns.

SILICOSIS

In compliance with the MHSC 2025 Health and Safety Milestones, levels of respirable crystalline silica have to be reduced in 95% of all individuals (not averages) to below occupational exposure limits (OEL) of 0.05 mg/m3 by December 2024. Tharisa Minerals is monitoring respirable crystalline silica levels through its Occupational Hygiene monitoring programme and by issuing quality dust masks to its workforce. Mask wearing is monitored during visible field leadership and SHE inspections. Tharisa Minerals complies with the 95% milestone as stipulated.

WELLNESS CAMPAIGNS

Focus was on COVID-19 training and awareness campaigns, while other interventions include:

Sexually transmitted infection (STI) and HIV awareness presentation	February 2020
TB	March 2020
Hypertension	August 2020
Cholesterol	September 2020

AN INNOVATIVE APPROACH TO SAFETY PERFORMANCE

Over the last four years, Tharisa has evolved its safety culture from one of compliance to one that places the individual at the heart of safety, as part of a system, which sees safety driven by values. This innovative approach differs from industry norms in that it allows individuals to own their safety programme. Tharisa's focus for 2020 was moved from SLAM (Stop, Look, Analyse and Manage) to SLAF (Stop, Look, Assess and Fix), where employees pledged: "IF IT IS NOT SAFE I WILL NOT DO IT!". Employees were encouraged to take a stance on safety and own their safety in the workplace. Tharisa Minerals introduced #proudlyTharisa to their workforce in order for employees to take pride in their work and their compliance. This campaign is monitored through SHE compliance audits and a disciplined approach.

By following this innovative approach over the last four years, Tharisa Minerals achieved a lost-time injury frequency rate (LTIFR) of 0,06/200 000 man hours

SUSTAINABILITY CONTINUED

worked. We endeavour to continue on this road in order to achieve our goal of Zero Harm.

ENVIRONMENT

Mining by its very nature has an impact on the environment. Tharisa aims to manage and mitigate its impacts in an environmentally responsible manner and to ensure the wellbeing of all stakeholders. Growing regulatory and social pressures, increasing demands for limited and threatened natural resources, and changing energy and water costs all highlight the business imperative of responsible environmental management.

TOTAL ENERGY CONSUMPTION
185 807 MWh
TOTAL CO_2 EMISSIONS (SCOPE 1)
82 829 tCO_2e
CUMULATIVE REHABILITATION PROVISION
US$17.3 m
TOTAL WATER CONSUMPTION
1 290 346 m^3

Environmental management involves taking measures not only to address security of resource supply (through efficiency and recycling), but also to actively minimise the Group's impacts on natural resources and on the communities around its operations. Taking such measures has direct benefits in terms of reduced costs and liabilities, enhanced resource security, and improved security of its licence to operate.

Tharisa Minerals' Environmental Management Programme (EMP) aims to minimise its impact on the natural environment and reduce its consumption of scarce natural resources. Tharisa believes that its commitment to responsible mining and beneficiation helps it achieve its strategic goals and also establishes a sustainable competitive advantage.

A precautionary approach is exercised in all processes and include the exploration, planning, licensing, construction, operation, closure and rehabilitation stages of all operations and projects.

Tharisa Minerals has the relevant and applicable environmental authorisations required for its operating licence to operate,including an approved and amendedEMP in terms of the MPRDA, a positiveRecord of Decisions in terms of theNational Environmental Management Act(No. 107 of 1998) (NEMA) and an Integrated Water Use Licence (IWUL) under the National Water Act (No. 36 of 1998) (NWA).

Tharisa's material environmental matters are:

- Resource management, particularly energy use and water availability
- Land management, including biodiversity conservation, rehabilitation, and closure planning
- Environmental compliance – ensuring that operations remain legally compliant with new and incoming legislation requirements
- Managing and minimising waste streams
- Implementation of the new regulations on financial provisions for rehabilitation
  - ensuring compliance and appropriate funding mechanisms to adequately provide for concurrent rehabilitation, as well as rehabilitation at mine closure and post-closure stages, to be implemented by February 2021 (as per the South African regulations)
- Climate change and the effects thereof
  - greenhouse gas emissions and carbon tax.

Water management remains a key challenge for Tharisa Minerals' operations. While water scarcity is currently not a challenge, it does pose a potential constraint on production and future expansion. Water availability is also a concern for local communities. The reliability of current water infrastructure and the long lead-time in rolling out new infrastructure is a risk for current operations and future expansion plans. Tharisa Minerals is also dependent on a reliable and sufficient supply of energy with applicable internal energy efficiency plans in case of emergency or unplanned cut-offs. Interruptions to energy supply have the potential to affect production efficiencies and can affect the safety of workers.

The potential reputational and financial implications of non-compliance with the rapidly evolving environmental regulatory framework are significant, as are the direct and indirect costs of ensuring compliance. Proposed legal developments, among others, that are likely to have a significant impact on the business include the Carbon Tax Bill, the Greenhouse Gas Reporting Regulations, Company level carbon budgets, delays in issuing critical authorisations/permits by applicable competent authorities, newly promulgated regulatory requirements/ acts/regulations such as the Disaster Management Act, and the financial provisions for rehabilitation and closure.

Climate change is recognised in the mining industry as one of the most material issues to have a potential impact on the industry's ability to achieve its milestones through the effects on energy prices, access to natural resources, weather-related production disruptions and related impacts on the industry's value chain.

The Board is ultimately responsible for sustainable development and delegates the monitoring of this area to the SHE Committees at both the Tharisa Group and the Tharisa Minerals Board level. The Environmental Coordinator, together with the SHE Manager, are responsible for managing and reporting on environmental performance, impacts and mitigation, as well as ensuring that all operations are legally compliant with the applicable environmental legislation and associated regulations. This is further driven through the functional reporting structure where the SHE Manager reports to the Head: Sustainable Development, who has a direct reporting line to the Group Chief Technical Officer and the Group Chief Operating Officer. The SHE policy is reviewed annually and was most recently revised and signed off by the Chief Technical Officer and union representatives on 30 October 2020.

Employees and contractors receive environmental training at their initial induction and regular refresher courses, internal awareness and job-specific training are part of effectively implementing this policy.

Tharisa Minerals monitors its environmental compliance on an ongoing basis, including the status of its EMPR through Internal and External Environmental Performance Assessments conducted every second year, Environmental Authorisations ('EA') annual internal audits, Integrated Water Use Licence ('IWUL') through annual internal and external WUL audits and environmental impact assessments ('EIAs'). In addition to internal operational compliance, monitoring is conducted as part of the Board's instruction to monitor compliance in areas of safety, occupational health, and environmental management.

Environmental expenditure for measuring, monitoring and mitigating risks and impacts represents a sizeable proportion of the operations' operating and capital budgets. In the year under review, ZAR9 million was spent on environmental management including, among others, pollution control and prevention and environmental operational expenditure (2019: ZAR12.1 million).

WATER MANAGEMENT

Water is used at the Tharisa Minerals operations for milling, beneficiation and for dust suppression during blasting, on haul roads and at ore transfer points. The operation is situated in a water-scarce region of the North West province of South Africa, where water conservation is a priority for all the mining houses in the area. Tharisa Mine has undertaken to educate the community and employees on the importance of conserving water as a natural resource, and security of supply is the mine's prioritised business risk. This is achieved through the use of posters and banners strategically placed inside the mine and in the neighbouring community of Mmaditlhokwa, Lapologang and Mamba, which has assisted in creating a greater awareness of this invaluable resource.

Water for the Tharisa Mine operation is sourced from boreholes strategically drilled within the mining right area, an allocation from the Buffelspoort Irrigation Scheme (strictly for agricultural usage), a portion from Randwater and water pumped from the open pits during mining.

All water is reused and recycled as far as practically possible to achieve effective and efficient utilisation of water resources based on reducing water demand, reusing process water and preventing any discharges into the environment. Dirty and clean water are separated, and Tharisa Minerals implements a hierarchy of water use to ensure that "dirty" or process water is recycled for reuse in the operations before clean water is abstracted from the natural environment.

Water consumption is metered as required by Tharisa's IWUL and regular reporting of the quality and quantities of the mine's water is submitted where applicable, monthly, quarterly and annually or as per the requirements, to the DHSWS.

During drought conditions, which are experienced regionally, the mine experiences a serious drop in water contained in surface impoundments. This has required Tharisa Minerals to be more reliant on groundwater and thus increase its borehole water consumption during the year under review.

Tharisa Minerals submitted an application to amend its IWUL, which includes both minor amendments to the licence, as well as new water uses. The final technical report in support of this amendment application was submitted to the DHSWS in September 2017 and the amended IWUL was received in the second half of 2020.

Tharisa Mine provides water for the nearby community of Mmaditlhokwa for domestic purposes by drilling and equipping boreholes. The pumped water is then piped and purified using on-site purification systems (mini reverse osmosis) located in the community.

Water quality is monitored to assess the impact on the receiving environment, to immediately warn management when mitigation action is required and to measure compliance with the IWUL conditions. Ground and surface water levels and quality are monitored regularly by biomonitoring of aquatic/riverine environments as appropriate and as stipulated in the IWUL conditions.

MATERIALS

Measuring explosives used is important, as explosives contribute to greenhouse gas (GHG) emissions. The following materials were consumed at Tharisa Minerals' operations during the year:

Consumed materials	FY2020	FY2019
Explosives (t)	15 763	10 597

ENERGY

A consistent supply of electricity is critical for efficient operations. Electricity is sourced from Eskom, the state-run electricity utility. From Tharisa Mine's on-site substation, power is distributed throughout the operations. The most significant impact electricity supply interruptions have on the operations are on workplace safety, production efficiencies and diesel consumption with resulting emissions when generators are used to supply electricity to critical functions.

Tharisa Minerals' direct and indirect energy consumption has been calculated as part of its GHG inventory in December 2019. Fuels consumed in operations include diesel, acetylene and liquid petroleum gas (LPG). Diesel was the most used fuel at 38.2 million litres in FY2020 and accounts for 99% of carbon emissions from fuel use.

Tharisa Minerals' indirect energy consumption is from grid electricity. For the year 2020, Tharisa Minerals used 185 807 110 MWh of electricity. Managing energy consumption also reduces GHG emissions since electricity for South African operations is generated mainly from fossil fuels and is included in Scope 2 emissions below.

CARBON EMISSIONS

The GHG inventory for Tharisa Minerals was calculated for the base year in December 2016. These calculations have been updated for FY2019 and will be used to conduct energy optimisation studies and to set practical energy and emission targets to drive reductions in the operations. These calculations are based on the Greenhouse Gas Protocol – Corporate Standard (GHG Protocol), published by the World Resources Institute and World Business Council for Sustainable Development in March 2004.

SUSTAINABILITY CONTINUED

GHG emissions are measured and reported in terms of Scope 1, Scope 2 and Scope 3 emissions. Direct GHG emissions (Scope 1) are emissions from sources that are owned or controlled by Tharisa Minerals. These include the emissions generated by the fuels that are purchased and subsequently combusted by the Tharisa Mine. Energy indirect GHG emissions (Scope 2) are from the consumption of grid electricity.

Other indirect GHG emissions (Scope 3) are the emissions (other than energy indirect GHG emissions) that are created as a result of Tharisa Minerals' activities but occur at sources owned or controlled by another company. These emissions will include the emissions generated by the mining contractors onsite, by the combustion of fuels that they purchase (emissions from explosives) and fuel consumption. Other indirect emissions can either occur upstream or downstream of business operations. Upstream emissions are typically related to purchased or acquired goods and services. Downstream indirect GHG emissions are those pertaining to sold goods and services.

The GHG inventory for FY2019 is provided in the infographic below. The assessment for FY2020 will be conducted from April 2021.

Scope 1

Tharisa Minerals' direct emissions for FY2019 amounted to 82 829 tCO_2e. Diesel purchased and consumed directly by the mine decreased by 1% in FY2019 when compared to FY2018.

Scope 2

Energy indirect emissions amounted to 182 343 tCO_2e. Electricity consumption increased by 12% between FY2018 and FY2019. This was due to the increase in electricity consumption and an increase in the grid emission factor.

Scope 3

Overall, Tharisa Mine's emissions decreased by 1% to 2 285 059 tCO_2e in FY2019 compared to FY2018. This is due to the increased purchasing of mining equipment, especially large earth moving equipment.

CARBON TAX

South Africa is a significant global emitter of GHG, with an ongoing reliance on fossil fuels. The country is therefore required to honour international emission reduction commitments and reduce its GHG emissions in line with the National Development Plan (NDP) policy framework.

As part of these commitments, the South African Carbon Tax Act was passed in Parliament on February 19, 2019. The Act includes a ZAR120 per tonne carbon tax for primary GHG emitters, a carbon tax on liquid fuels, economic incentives for energy efficiency and carbon offsets to reduce the tax burden and it will be introduced in a phased approach.

Investor sentiment around the impact of the tax has been largely muted for Phase 1, owing to carbon allowances and offsets, which will result in an effective tax rate of between ZAR6 and ZAR48 per tonne. Phase 2, from 2022 onwards, will see a higher tax as the programme aligns with global rates.

Tharisa commissioned a report from advisory firm Deloitte to fully understand the possible impact of carbon tax on the business. The key finding is that: "Tharisa Minerals will not have a carbon tax liability, as all emissions from diesel consumption will be paid as part of the fuel levy paid at the pump." However, Tharisa has registered to SARS as a carbon taxpayer and will be submitting their Carbon Tax returns annually as prescribed by the South African Revenue Service rules.

AIR QUALITY

Dust originating from mining and processing operations is rigorously and continuously monitored, both in terms of occupational health (dust that may contain silica and that is harmful to health) and fall-out dust (particulate matter/fugitive dust). Fugitive dust is monitored at various locations within the operation, as well as specific sites in neighbouring areas, to ensure compliance with applicable legislation. A dust suppression spray system through the use of water bowsers reduces fugitive dust levels from the respective crushers, conveyors and transfer points. In addition, Tharisa Minerals applies a dust suppressant on its access roads to further reduce the mine's dependence on water for dust suppression.

WASTE MANAGEMENT

Tharisa Minerals manages its activities to ensure compliance with the relevant waste legislation and to minimise its impact on the natural environment and surrounding communities. Tharisa Minerals' current activities and infrastructure do not trigger the requirements for a Waste Management Licence (WML) as stipulated in the National Environmental Management Waste Act (NEMWA) as they are regulated under the MPRDA. However, for the planned expansion projects an application for a WML will be submitted to the relevant regulatory authorities in case a WML is triggered.

Domestic waste generated at the operations is disposed of in licenced municipal landfill sites. Hazardous waste such as used oil is recycled through specialist service providers while other hazardous waste such as oil contaminated material and used filters is sent to registered waste disposal facilities and safe disposal certificates are obtained.

Mineral waste produced by the operations includes tailings and waste rock. Waste rock is non-ore bearing rock removed in the mining process and is disposed of on waste rock dumps or used to backfill open pit workings to rehabilitate and minimise aesthetic impact. Tailings generally consist of finely milled waste material suspended in water and are disposed of in tailings dams.

These dams are lined appropriately to prevent pollution of groundwater. Groundwater around tailings disposal facilities is closely monitored and groundwater modelling assists in predicting the potential impact of tailings disposal on aquifers.

Ongoing monitoring of surface water runoff and groundwater in the vicinity of the infrastructure alerts operations to any negative impact from waste disposal. Tharisa Minerals has the relevant authorisations for the disposal and storage of both tailings and waste rock.

Waste inventories describing the source, volume, and type of waste generated by each process at the operation, as well as the disposal method, are being managed and give management a better sense of volumes of waste generated onsite to effectively manage the waste generated.

Waste produced	Unit	FY2020	FY2019
Waste rock	Mm^3	**16.1**	11.1
Tailings	Mm^3	**3.7**	3.5
Domestic waste	t	**637.4**	697.6
Hazardous waste: used oil	kℓ	**357.8**	319.9
Hazardous waste: other	t	**356.386**	258.9

Tharisa applied for authorisation to upgrade the current sewage treatment plant. The mine has grown significantly from 2012 when the current sewage plant was constructed. The original sewage plant catered for process employees only, as mining was outsourced, with the contractor using septic tanks. The upgrade will incorporate both process and mining in one sewage plant, prompting the proposed authorisation application, which commenced end 2018. In August 2020 Tharisa received the authorisation from DMRE and construction work is scheduled to commence in November 2020. Completion is planned between the 2nd and 3rd quarter of 2021.

BIODIVERSITY

Mining has a direct impact on the physical environment and both mining and beneficiation can affect the biomes in their vicinity. Ensuring that the processes and controls are in place to safeguard the biodiversity in the biomes in which Tharisa Minerals operates is an important aspect of its sustainability model. Biodiversity Action Plans (BAPs) are in place at the operations and were compiled as part of the initial EIA process. Tharisa Minerals is implementing the biodiversity management programmes. The BAPs include commitments to conserve protected areas such as wetlands, zones of endemism, archaeological and heritage sites and protected and endangered species.

The EIA and the EMP include land-use planning that involves engagements with community forums, local municipalities and other affected stakeholders.

Awareness training is planned for employees, contractors and communities regarding sensitive and endangered species around the operation.

ENVIRONMENTAL REHABILITATION

Tharisa Minerals considers the impact of its operations on local landscapes at each stage of the mining cycle from initial exploration to construction, operation and eventual decommissioning and closure. Operations rehabilitate concurrently with ongoing mining activities wherever possible.

The cost of rehabilitation and closure is assessed annually by independent specialists in alignment with the requirements of relevant legislation, EMPR closure commitments and applicable good practice. Financial provision is then made in the form of a financial guarantee, which is submitted to the DMRE.

The total cumulative mine closure and environmental rehabilitation provision for the year 2019-2020 is R 283 520 665

The regulations in terms of NEMA pertaining to financial provision for rehabilitation and closure for prospecting, exploration, mining or production operations were published in November 2015. These regulations have significant financial implications for the mining industry and the Mineral Council of South Africa is engaging with the DMRE around this impact and the industry's concerns.

These regulations require mines to provide for ongoing expenses after mine closure and effectively freeze the existing provisions for rehabilitation and closure, requiring further provisions to be made from operating expenses. Assessments aligned to these regulations need to be completed and submitted to the DMRE by February 2021.

EMPR AMENDMENT

Due to the ever-evolving environment and the growing mining footprint, Tharisa has again applied for an amendment to the EMPR. The application was triggered by the following activities:

- The need for an increase in diesel capacities
- Change in the current mining waste footprint (tailings and waste rock dumps)
- The need for an additional waste rock storage area
- The inclusion of portion 113, which was not part of the mining right

The application for authorisation in this regard was submitted at the end of 2019. Due to lockdown regulations and the fact that Tharisa had submitted multiple individual applications, the DMRE requested Tharisa to re-submit a consolidated application in August 2020.

HUMAN RESOURCES

Introduction

As emanated from the concluded wage negotiations post FY2018, the Harmonisation Task Team consisting of management and majority trade union stakeholders finalised the terms of reference and submitted its final report to management in October 2020 with harmonised conditions of employment and other issues of mutual interest. The two-year wage agreement concluded in