

# ANNUAL REPORT 2023/24



## Mine Health and Safety Inspectorate



mineral resources  
& energy

Department:  
Mineral Resources and Energy  
REPUBLIC OF SOUTH AFRICA







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# PREFACE

This document is a report by the Chief Inspector of Mines (CIOM) on health and safety at mines, and the activities of the Mine Health and Safety Inspectorate (MHSI) compiled as required by Section 49(1)(j) of the Mine Health and Safety Act, 1996 (Act 29 of 1996) as amended (MHSA).

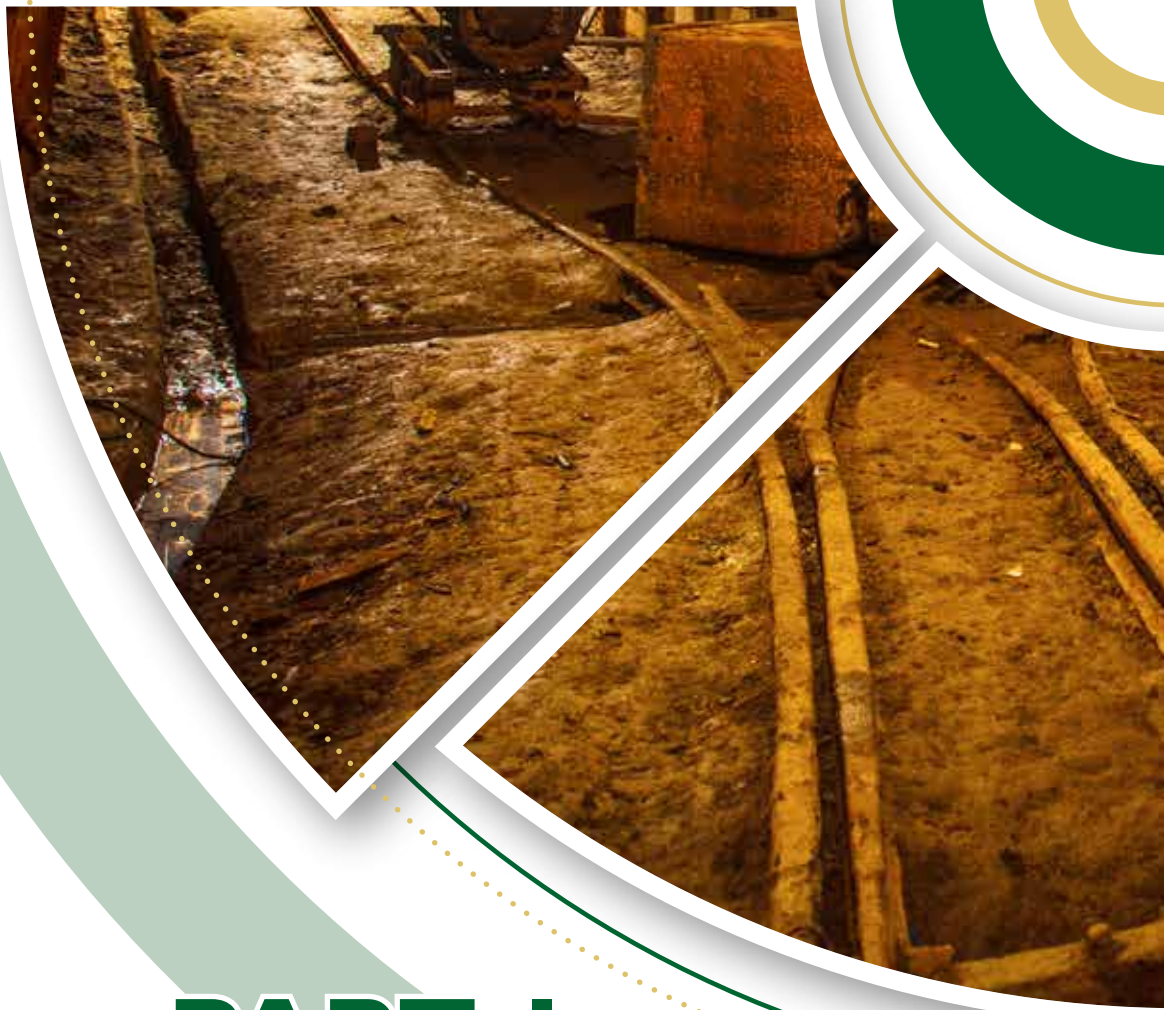
The MHSI, established in terms of the MHSA, has the responsibility of protecting the health and safety of persons working at mines or those affected by mining activities.

The CIOM also has the responsibility of leading the tripartite structures formed in terms of the MHSA as the Chairperson of the Mine Health and Safety Council (MHSC), and the Mining Qualifications Authority (MQA).

The MHSC consists of representatives of the state, organised labour, and employer organisations. The Council was established to advise the Mineral Resources and Energy Minister on health and safety issues, and to promote a healthier and safer culture in the mining industry.

The MQA is the Sector Education and Training Authority (SETA) for the minerals and mining sector and is responsible for the education and training needs of the South African mining industry. The MQA was established under the Skills Development Act, 1998 (Act 97 of 1998).

The activities of the above-mentioned two bodies are intricately linked with those of the MHSI and their accounts are captured in their respective annual reports.



# **PART I**

## **GENERAL INFORMATION**

# I. GENERAL INFORMATION

## I.1. Mission statement

The MHSI strives towards a safe and healthy mining industry. This is to be achieved by reducing mining-related deaths, injuries and occupational diseases through the formulation of national policy and legislation, the provision of advice and the application of systems that monitor and enforce compliance with the law in the mining sector.

## I.2. Legislative mandate

The MHSI was established in terms of the MHSA for the purpose of executing the statutory mandate of the MHSI in safeguarding the health and safety of mine employees, and communities affected by mining operations.

## I.3. Submission of the annual report to the executing authority

Mr. S.G. Mantashe, MP,

Mineral Resources and Energy Minister

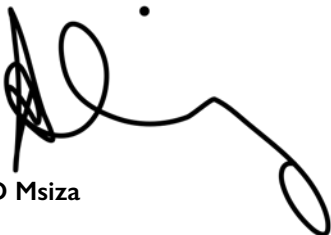
Republic of South Africa

Dear Minister

I am pleased to present to you the Mine Health and Safety Inspectorate Annual Report for the 2023–2024 financial year.

This report is in accordance with the requirements of Section 49(1)(j) of the Mine Health and Safety Act, 1996 (Act 29 of 1996), as amended.

Yours sincerely



**D Msiza**

Chief Inspector of Mines

Mine Health and Safety Inspectorate



# **PART 2**

## **EXECUTIVE SUMMARY**

## 2. EXECUTIVE SUMMARY

It is with great honour and pleasure that I present the report on the state of health and safety in the South African mining industry and the activities of the MHSI for the 2023–2024 financial year.

### 2.1. Establishment of the Inspectorate

The establishment of the Inspectorate provides for 283 posts of which 243 are currently filled, 39 posts are frozen with one post vacant. The demographics of the Inspectorate were as follows:

**TABLE 2.1:** MHSI establishment for the period 1 April 2023 to 31 March 2024

GENDER	AFRICAN	ASIAN	COLOURED	WHITE	TOTAL
Male	121	0	0	8	129
Female	103	0	7	4	114
<b>TOTAL</b>	<b>224</b>	<b>0</b>	<b>7</b>	<b>12</b>	<b>243</b>

### 2.2. Occupational health performance of the South African mining industry

The MHSI requires employers to submit statutory reports to the respective Principal Inspectors (PIs) detailing information of personal exposure-monitoring for occupational hygiene stressors. The South African mining industry continues to face ongoing challenges regarding the exposure of employees to occupational health hazards that exceed the occupational exposure limits (OELs).

#### 2.2.1. Occupational medicine

Sections 2 and 16 of the MHSI calls for preparation and submission of annual medical reports (AMRs) by all operating mines in South Africa.

During 2023, the mines submitted 931 AMRs – an increase of 1.7% from 915 reports submitted during the previous year covering a total of 560 391 employees.

The total number of occupational diseases cases reported from the submitted AMRs decreased by 16.5% – from 2 233 in 2022 to 1 864 in 2023. Most occupational diseases reported were as result of noise-induced hearing loss (NIHL) 702 cases, pulmonary tuberculosis (PTB) 754 cases, silicosis 230 cases and other occupational diseases 123 cases. The other occupational diseases include chronic obstructive airway disease (COAD); occupational asthma; occupational lung cancer; occupational skin disease; platinum salt sensitivity (PSS); musculoskeletal disorders (MSDs); progressive massive fibrosis; extra pulmonary tuberculosis (EPTB); miliary tuberculosis (MTB); sarcoidosis; bronchiectasis; anthracosis; etc.

Coal workers' pneumoconiosis (CWP) dropped to 12 cases in 2023 from 73 cases the previous year; asbestosis remained at two cases, while silica-tuberculosis (Sil+TB) cases increased significantly to 41 cases compared to 20 cases from the previous year.

The occupational diseases cases from KwaZulu-Natal, Eastern Cape, Western Cape, Free State, Mpumalanga, Rustenburg in North West, and Limpopo regions decreased while the number of cases from Klerksdorp in North West, Northern Cape, and Gauteng regions increased.

The analysis of these occupational disease cases during the reporting period in 2023 showed a slight increase from the following commodities mined: gold, coal, chrome, manganese, and other mines when compared to cases reported in 2022. Despite a general slight increase of occupational diseases noted from the above-mentioned mines, cases from platinum, diamonds, copper, and iron ore mines decreased year on year.

The analysis of medical incapacity due to occupational disease incidence rates decreased in 2023 compared to 2022, while the medical incapacity due to non-occupational diseases also showed a significant decrease in 2023 compared to 2022.

A significant increase was noted in 14 cases of deaths due to work-related diseases reported in 2023 compared to 2 cases in 2022. The respiratory-related diseases were noted as the major cause of death due to work-related diseases.

The natural deaths showed a decrease from 1 146 cases in 2022 to 881 cases in 2023.

### **2.2.2. Medical surveillance**

The analysis of medical surveillance incidence rates per 10 000 employees showed an increase in the periodic medical examinations conducted by mines during 2023, while a decrease was noted in the initial and exit medical examinations compared to 2022.

### **2.2.3. Medical appeals**

The mining industry is a hazardous working environment, and it is important to assess employees for fitness to work in different environments. Fitness to work is assessed by mine doctors known as occupational medical practitioners (OMPs). The decisions made regarding fitness may be disputed by the employees, and Section 20 of the MHSA gives such employees recourse to dispute the decision of the OMP regarding unfitness status.

The disputes are lodged with the Medical Inspector and for the reporting period of 2023, a total of 141 appeals were finalised. Coastal regions did not contribute to appeals received, and the commodities noted below were responsible for the conditions dealt with a marked rise in non-communicable diseases. Findings were such that out of 141 appeals finalised, 18% of employees were found fit, while 36% were found unfit.

Challenges experienced regarding Section 20 medical appeals involved all stakeholders in the process ranging from employees, employers, and service providers. The challenges will be addressed accordingly, and by training new health and safety representatives to ensure continuous knowledge transfer to understand Section 20 of the MHSA.

Most of the medical appeals received during the reporting period in 2023 were from the Gauteng, Mpumalanga, and North West regions. These were from gold, platinum, and coal mines. The medical appeals from the Free State region dropped from 14 to nine cases year on year. Diseases associated with the medical appeals were associated with non-communicable diseases like epilepsy, diabetes, and hypertension. Visual impairment, and injury-related appeals also increased significantly compared to 2022. Appeals associated with occupational diseases like silicosis, PTB, and asthma remained low.

### **2.2.4. Human Immunodeficiency Virus (HIV), Acquired Immune Deficiency Syndrome (AIDS) and tuberculosis (TB) in the mining industry**

The South African mining industry submits tuberculosis (TB) and HIV data to the Department of Mineral Resources and Energy (DMRE) 164 forms in line with a CIOM instruction. The data required covers compliance of mines in respect of TB and HIV performance of mines in South Africa.

During the reporting period 2023, there were 881 mines that submitted the DMRE 164 data to the department, an increase from 816 mines in 2022. Most mines performed well in terms of having an integrated TB and HIV policy at around 93%. The poorest performance from the mines was on monitoring and evaluation which remained at 51%.

HIV counselling and TB screening improved during the reporting period 2023, taking into consideration the different commodities that have contributed to the data contained in the DMRE 164 forms. This has subsequently resulted in an increase in employees diagnosed with TB and HIV.

## **2.3. Occupational safety performance of the South African mining industry**

### **2.3.1. Fatalities and injuries-related accident trends**

The health and safety of mine workers remain at the centre of the work we do. Owing to our strategic partnership with our social partners we have improved our performance towards the zero-harm goal. This is demonstrable in the decline in mine fatalities and injuries, as evidenced by the 49 fatalities and 2 065 injuries, respectively, being the lowest on record in 2022.

Although we had set our sights on beating this record in 2023, the regrettable disaster at Impala Rustenburg that killed 13 mineworkers and other fatalities contributed to the regression, resulting in 55 fatalities and 2 180 injuries reported in 2023. Prior to the regrettable accident, the sector went for about five years without a mine disaster.

Despite the above misstep on safety performance in 2023, the South African mining industry has made commendable strides in enhancing occupational safety conditions, reflecting a commitment to protecting the health and well-being of its workforce. In the past 30 years, between 1994 and 2023, there has been an 89% and 75% reduction in the number of fatalities and injuries, respectively, from 484 to 55 fatalities; and 8347 to 2 180 injuries. Also, it is encouraging that there has been a 20% reduction in the number of fatal accidents from 46 during 2022 to 37 in 2023. The fatal accidents are the accidents that lead to the loss of life in the sector.

The fatality frequency rate (FFR) per region regressed by 20% from 0.05 in 2022 to 0.06 in 2023. The Eastern Cape, KwaZulu-Natal, Northern Cape and North West's Klerksdorp regions had no change in the number of fatalities during the reporting period. A decrease of 20% were noted in the Free State from three fatalities in 2022 compared to two fatalities in 2023 and 75% in Limpopo from five fatalities in 2022 compared to one fatality in 2023, respectively.

From the analysis of the data, it was noted that the casualty classifications with the highest percentage of fatalities were accidents involving falls of ground (FOG) at about 27%, conveyance accidents with 24%, and transportation and mining (T&M) fatalities at around 22%.

During the reporting period the injury frequency rate (IFR) for all mines increased from 2.12 in 2022 to 2.20 in 2023 which is a regression of 3.8% in the number of injuries reported year on year. There was an improvement in the KwaZulu-Natal, Limpopo, Klerksdorp in North West, and Western Cape regions of 54.1%; 6.1%; 19.5%; and 53.8%, respectively. The highest percentage change in the IFR were in the Eastern Cape with an increase of 70.1%.

The number of reported injuries by casualty classification increased by 6% during the reporting period from 2 065 injuries in 2022 to 2 180 injuries in 2023. A decrease was noted in the number of injuries for machinery-related accidents, general-type accidents with, electricity (not causing fire), miscellaneous, and occupational diseases (non-diving).

It is concerning to note the number of injuries due to conveyance accidents increased from 22 injuries in 2022 to 101 injuries in 2023, explosive accidents increased from two injuries in 2022 to 10 injuries in 2023, while fires and heat sickness accidents also increased.

We have also noted with great concern the emerging trend of fatalities related to motor accidents and disasters involving illegal miners. To this end, the department has entered into an agreement with the industry on the development of minimum standards and guidelines to mitigate against road fatalities, while intensifying the fight against illegal mining.

### 2.3.2. Disaster-type accidents

A major contributor to the fatalities and regression on safety performance of the mining sector was a major disaster accident, leading to multiple deaths and serious injuries that occurred on 27 November 2023 at Impala Platinum Mines, Rustenburg. A total of 86 mineworkers were inside a personnel conveyance cage hoisting them to the surface of the mine when the accident occurred. The conveyance unexpectedly reversed direction and began descending down the shaft and crashed at the bottom of the shaft. The accident killed 13 miners and injured 73.

## 2.4. Women in mining (WIM)

One woman was fatally injured in 2023 compared to three women in 2022. This translates to a decrease of 67% in fatalities for WIM year on year. There has been an increase in the number of injuries involving WIM. The injuries reported involving women were mostly in the general classification (66%). These accidents were linked to slipping and falling, material handling, and being struck by an object.

## 2.5. Training and examinations

During the reporting period a total of 50 MHSI officials attended technical and non-technical training courses as well as conferences, while two officials attended an Emerging Management Development Programme (EMDP) and one official attended the Executive Development Programme (EDP).

The DMRE had six Assistant Inspectors at the commencement of the reporting period of which only one passed their respective Government Certificate of Competency (GCC) examination during the period under review.

There were no MHSI bursary holders during the reporting period.

## 2.6. Strategies to address occupational mine health and safety challenges

In addressing mine health and safety challenges, the MHSI will continue to implement the following strategies to address key focus areas on health and safety matters at all mines.

- Collaboration with organised labour and employers to enhance the concerted efforts in eradication of mine deaths.
- Implementation of the Mine Health and Safety Tripartite Summit Commitments.
- MHSC Women in Mining Health and Safety programmes to ensure improvement in the sector.
- Timely adoption of technology and leading practice to protect the health and safety of all mineworkers.
- Enhancing health and safety culture to prevent harm to the mineworkers.
- Implementation of the MQA education and skills development programmes.
- Ensure that all mines collaborate with the Department of Mineral Resources and Energy (DMRE) and organised labour to have health and safety days and campaigns to raise awareness about the importance of adhering to health and safety protocols.
- Dissemination of information and ensure that Regional Tripartite Forums are held to engage on health and safety matters.



**Mr D Msiza**

Chief Inspector of Mines





# **PART 3**

## **PROGRAMME PERFORMANCE**

## 3. PROGRAMME PERFORMANCE

### 3.1. Aim of the programme

The aim of the programme is to carry out the constitutional mandate of the DMRE to protect the health and safety of persons working at mines and people residing in nearby communities directly affected by mining activities. It consists of two subprogrammes: Governance, Policy and Oversight; as well as Mine Health and Safety (regions).

The MHSI are responsible for statutory inspections and audits, the enforcement of the MHSA and its regulations, as well as conducting investigations and inquiries at South African mines. The programme also administers the GCC for the South African mining sector.

### 3.2. Purpose of the programme

The purpose of the programmes is to execute the statutory mandate of the DMRE to protect the health and safety of mine employees and people affected by mining activities.

### 3.3. Service delivery objectives and indicators

The strategic plan and achievements of the Inspectorate are outlined in the table below. This is an account of the progress achieved during the period under review against the annual targets set for achieving the strategic objectives of the MHSI.

**TABLE 3.3:** Progress achieved against annual targets

OUTPUT INDICATOR	TARGET	ACTUAL INPUT	REASON(S) FOR DEVIATION	CORRECTIVE MEASURES	COMMENTS
Percentage reduction in occupational fatalities compared to the previous year.	10%	<b>NOT ACHIEVED</b> A total of 53 fatalities from April 2023 to March 2024 compared to 47 fatalities in the same period of the previous financial year. <b>CALCULATION</b> $(53-47)/47 \times 100\% = 13\%$	A major disaster accident leading to multiple deaths and serious injuries occurred on 27 November 2023 at Impala Platinum Mines, Rustenburg. A total of 86 mineworkers were inside a personnel conveyance cage hoisting them to the surface of the mine when the accident occurred. The conveyance unexpectedly reversed direction and began descending down the shaft and crashed at the bottom of the shaft. The accident killed 13 miners and injured 73.	More focus will be given to inspections and audits in the new financial year to ensure compliance to health and safety rules. CIOM issued a health and safety directive to all mines in March 2024. All employers and employees were reminded of their legislative mandate regarding health and safety issues in the workplace, while remaining alert to the increased number of mine fatalities and injuries reported so far during the year 2023. This directive was issued to urge all mines to be vigilant of disaster-type accidents including rockfalls/ rockbursts, fires, explosions, shafts and winders.	The branch will continue monitoring and ensuring compliance with MHSA in the mining sector.
Percentage reduction in occupational injuries compared to the previous year.	5%	<b>NOT ACHIEVED</b> During April 2023-March 2024, a total of 2 155 occupational injuries were reported compared to 2 099 injuries reported during the same period in 2022/23. <b>CALCULATION</b> $(2\ 155 - 2\ 099)/2\ 099 \times 100\% = 3\%$	There were 2 155 injury accidents that occurred during the 4th quarter versus 2 099 in the same period last year due to machinery accidents, conveyance accidents, fires, explosives, electricity accidents, fall of ground, and conveyor belt.	More focus will be given to inspections and audits in the new financial year to ensure compliance to health and safety rules. The above-mentioned directive by the CIOM is also applicable to reduction of occupational injuries to mineworkers.	The branch will continue monitoring and ensuring compliance with MHSA in the mining sector.
Percentage reduction in occupational diseases (including TB) compared to the previous year.	10%	<b>NOT ACHIEVED</b> During April 2023-March 2024, a total of 1 456 occupational diseases were reported compared to 1 592 cases reported during the same period in 2022/23. <b>CALCULATION</b> $(1\ 456 - 1\ 592)/1\ 592 \times 100 = -9\%$	There was an increase in the total number of occupational diseases in Q4 of the current financial year which could be related to more employees screened during their medical surveillance. Diseases were mainly due to NIHL, TB, silicosis.	2023/2024 improvement strategy for occupational medicine will be implemented towards the elimination of occupational lung diseases and noise-induced hearing loss. The CIOM also issued a directive to all mines urging them to be vigilant on health and safety.	Audits and inspections in mines with high rate of occupational diseases will be conducted.

OUTPUT INDICATOR	TARGET	ACTUAL INPUT	REASON(S) FOR DEVIATION	CORRECTIVE MEASURES	COMMENTS
Percentage investigations completed ( <i>initiated vs completed</i> ).	80%	<b>ACHIEVED</b> A total of 633 accident-initiated investigations and 637 were completed from April 2023 to March 2024. <b>CALCULATION</b> (637/633)*100 = 101%	Availability of witnesses and strictly monitoring of accident files allocated to inspectors and ensuring investigations are completed timely.	None	None
Percentage inquiries completed ( <i>initiated vs completed</i> ).	80%	<b>ACHIEVED</b> A total of 37 accident-initiated inquiries and 41 were completed from April 2023 to March 2024. <b>CALCULATION</b> (41/37)*100 = 111%	None	None	None
Number of qualitative inspections conducted ( <i>cumulative including individual and group audits</i> ).	8000	<b>ACHIEVED</b> The cumulative inspections and audits conducted during the period under review were 8 865 exceeding the overall target with 865 inspections and audits.	More inspections and audits were conducted during the period under review to ensure compliance with the MHSA and improvement in health and safety at the mines.	None	None
Number of MHSI Annual Reports submitted to Parliament.	1	<b>ACHIEVED</b> A total of 1 MHSI Annual Report was produced and submitted to Parliament as required. <b>CALCULATION</b> (1/1) * 100 = 100%	None	None	None
Percentage of identified necessary Service-Level Agreements (SLAs) entered to improve health and safety in mining.	100%	<b>ACHIEVED</b> The MHSI was involved at the launch of the Rescue Borehole at Mines Rescue Services (MRS) on 15 November 2023 at the Evander Rescue Station.	None	None	None

OUTPUT INDICATOR	TARGET	ACTUAL INPUT	REASON(S) FOR DEVIATION	CORRECTIVE MEASURES	COMMENTS
Percentage adherence to prescribed timeframes for the CIOM's appeals.	100%	<b>ACHIEVED</b> All statutory instructions to deal with unsafe working conditions or to order compliance in terms Sections 54 and 55 instructions issued by Inspectors during the period under review did not attract appeals. Hence there were no CIOM appeals received in the 4th quarter.	None	None	None
Percentage adherence to prescribed timeframes for medical appeals.	100%	<b>ACHIEVED</b> A total of 112 appeals received and 103 were completed. <b>CALCULATION</b> (103/112) * 100= 92%	Reason for performing above target of 80% is that we received reports from OMPs in time.	None	None
Percentage adherence to the prescribed timeframes for the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA) applications.	80%	<b>ACHIEVED</b> A total of 1815 applications were received and 1816 were completed during the period under review. <b>CALCULATION</b> (1816/1815) * 100= 103%	Applications received met all the requirements and there were no challenges.	None	None
Percentage of the administration of the GCC examination policy.	100%	<b>ACHIEVED</b> All five steps for the certificate of competency model have been implemented namely: 1) Set the papers. 2) Write the examination. 3) Mark the examination. 4) Moderate the results. 5) Release the results. <b>CALCULATION</b> 5/5*100=100%	None	None	None

### 3.5. Service delivery improvement plan

**TABLE 3.4:** Service delivery improvement plan against annual targets

KEY SERVICE	SERVICE BENEFICIARY	DESIRED STANDARDS		PROGRESS AS AT 31 MARCH 2024
<p>Address health and safety risks in mining through:</p> <ul style="list-style-type: none"> <li>The number of inspections and audits conducted.</li> <li>The number of investigations conducted.</li> <li>The number of inquiries completed.</li> <li>Percentage adherence to the prescribed timeframes for the MPRDA applications.</li> </ul>	Mining operations	Quantity	<p>100% of planned inspections and audits as per capacity.</p> <p>80% of planned investigations as per capacity.</p> <p>80% of planned inquiries as per capacity.</p> <p>80% of planned reduction in occupational fatalities.</p>	<p>108% of planned inspections and audits as per capacity.</p> <p>101% of planned investigations as per capacity.</p> <p>111% of planned investigations as per capacity.</p> <p>103% of planned reduction in occupational fatalities.</p>
		Quality	Implementation and compliance to standardised policies and procedures.	Achieved
		Consultation	Quarterly consultation with mining operations.	Achieved
		Open and transparent	Policies and procedures are public documents.	Achieved
		Information	Information is shared monthly with mines.	Achieved
		Value for money	Ensure the optimum utilisation of voted funds.	Achieved



# **PART 4**

## **STATE OF OCCUPATIONAL HEALTH**

## 4. STATE OF OCCUPATIONAL HEALTH

### 4.1. Occupational medicine

The analysis of medical surveillance incidence rates per 10 000 employees showed an increase in the periodic medical examinations conducted by mines during 2023, while a decrease was noted on the initial and exit medical examinations compared to 2022.

During 2023, the mines submitted 931 AMRs, an increase of 1.7% from 915 reports submitted in 2022. An increase on the AMRs submitted was noted from the Northern Cape, Eastern Cape, KwaZulu-Natal, Western Cape, Limpopo, and Gauteng regions. The AMRs submitted from the Free State, Rustenburg in North West, Klerksdorp in North West, and Mpumalanga regions have decreased. A total of 104 mines that submitted AMRs in 2022 did not submit reports in 2023, mainly due to closure and non-operational reasons. Furthermore, a decrease of 44.4% was noted on the non-submissions due to non-compliance from 27 in 2022 to 15 in 2023. The submission of AMRs by all operating mines is mandatory, and regions should continue with the enforcement of the legislative requirements of the MHSA.

The total number of employees covered in the AMRs increased by 1.4%, from 552 598 in 2022 to 560 391 in 2023.

The total number of occupational diseases reported have decreased by 16.5% from 2 233 in 2022 to 1 864 in 2023. The cases reported from the KwaZulu-Natal, Eastern Cape, Western Cape, Free State, Mpumalanga, Rustenburg in North West, and Limpopo regions have decreased while the number of cases from Klerksdorp in North West, Northern Cape and Gauteng regions increased. The analysis of occupational disease incidence rates showed a decreased rate of 33.3 in 2023 compared to a rate of 40.4 in 2022. A decrease was noted in occupational diseases reported from iron ore, coal, other mines, platinum, and chrome mines when compared to cases reported in 2022. Despite a general decrease noted, cases from diamonds and copper mines have increased; while cases from the manganese mines remained unchanged at 10 cases for both reporting years.

A total of 117 other occupational diseases were reported in 2023 compared to 144 cases in 2022. The cases comprised 89 occupational lung diseases (OLDs), 26 cases of MSDs, and two cases of occupational skin disease.

The analysis of medical incapacity due to occupational disease incidence rates showed a decreased rate of 7.9 in 2023 compared to a rate of 10.2 in 2022. The medical incapacity due to non-occupational diseases showed a significant decreased rate of 58.0 in 2023 compared to a rate of 78.6 in 2022.

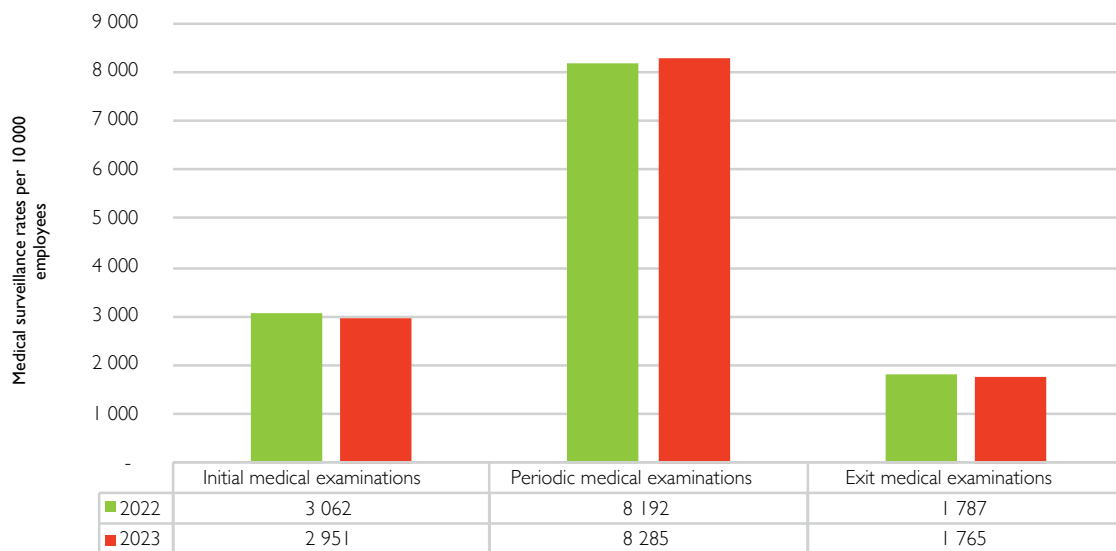
A significant increase was noted on 14 cases of deaths due to work-related diseases reported in 2023 compared to two cases in 2022. The analysis of deaths due to work-related disease incidence rate showed an increased rate of 0.2 in 2023 compared to a rate of 0.0 in 2022. Respiratory-related diseases were noted as causes of death due to work-related diseases.

Natural deaths showed a decrease from 1 146 cases in 2022 to 881 cases in 2023, with a decreased rate of 15.7 in 2023 compared to a rate of 21.5 in 2022.

#### 4.1.1. Medical surveillance conducted

The analysis of medical surveillance incidence rates per 10 000 employees showed an increase in the periodic medical examinations conducted by mines during 2023, while a decrease was noted in the initial and exit medical examinations compared to 2022, as illustrated in the figure below.

**FIGURE 4.1.1:** Medical surveillance reported



#### 4.1.2. Annual medical reporting

##### 4.1.2.1. AMRs received per region and by commodity

The mines submitted a total of 931 AMRs in 2023, an increase of 1.7% from 915 reports submitted in 2022 as outlined in the table below. An increase on the submitted AMRs was noted from the Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, the Northern Cape and the Western Cape regions. The AMRs submitted from the Free State, Klerksdorp in North West, Rustenburg in North West, and Mpumalanga regions have decreased. A total of 104 mines that submitted AMRs in 2022 did not submit reports in 2023 mainly due to closure and non-operational reasons. Furthermore, a decrease of 44.4% was noted in non-submissions due to non-compliance from 27 in 2022 to 15 in 2023. The submission of AMRs by all operating mines is mandatory and regions should continue with the enforcement of the legislative requirements of the MHSA.

TABLE 4.1.2.1: AMRs received per region and by commodity

	GOLD		PLATINUM		COAL		DIAMONDS		COPPER		CHROME		IRON ORE		MANGANESE		OTHER MINES*		TOTAL		PERCENTAGE CHANGE	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023		
Eastern Cape	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	61	57	61	7.0%
Free State	18	17	0	0	2	2	3	2	0	0	0	0	0	0	0	0	0	20	17	43	38	-11.6%
Gauteng	19	22	0	0	1	0	1	1	0	0	0	0	0	0	0	0	74	73	95	96	1.1%	
KwaZulu-Natal	0	0	0	0	11	13	0	0	0	0	0	0	0	0	0	0	41	42	52	55	5.8%	
Limpopo	3	2	11	11	4	4	2	2	1	1	16	19	1	0	0	0	47	47	85	86	1.2%	
Mpumalanga	7	6	2	2	128	130	0	0	0	0	0	0	0	0	1	1	24	21	162	160	-1.2%	
Northern Cape	0	0	0	0	0	0	50	60	3	2	0	0	9	13	23	24	23	27	108	126	16.7%	
North West: Klerksdorp	11	13	0	0	0	0	62	51	0	0	0	0	0	0	1	1	22	29	96	94	-2.1%	
North West: Rustenburg	0	0	70	60	0	0	1	1	0	0	25	27	1	2	0	0	28	29	125	119	-4.8%	
Western Cape	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	91	95	92	96	4.3%	
<b>TOTAL</b>	<b>58</b>	<b>60</b>	<b>83</b>	<b>73</b>	<b>146</b>	<b>149</b>	<b>118</b>	<b>120</b>	<b>4</b>	<b>3</b>	<b>41</b>	<b>46</b>	<b>11</b>	<b>15</b>	<b>25</b>	<b>26</b>	<b>427</b>	<b>441</b>	<b>915</b>	<b>931</b>	<b>1.7%</b>	

\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.2.2. Total number of employees reported from the AMRs per region and by commodity

The total number of employees covered in the AMRs increased by 1.4% from 552 598 in 2022 to 560 391 in 2023 as outlined in the table below.

**TABLE 4.1.2.2:** Total employees reported from AMRs per region and by commodity

	GOLD		PLATINUM		COAL		DIAMONDS		COPPER		CHROME		IRON ORE		MANGANESE		OTHER MINES*		TOTAL		PERCENTAGE CHANGE	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023		
Eastern Cape	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 573	1 279	1 573	1 279	-18.7%
Free State	27 403	24 661	0	0	3 828	3 828	682	79	0	0	0	0	0	0	0	0	0	538	454	32 451	29 022	-10.6%
Gauteng	50 979	52 145	0	0	93	0	1 788	2 028	0	0	0	0	0	0	0	0	0	4 843	4 872	57 703	59 045	2.3%
KwaZulu-Natal	0	0	0	0	4 438	4 397	0	0	0	0	0	0	0	0	0	0	0	7 866	8 185	12 304	12 582	2.3%
Limpopo	98	512	33 908	39 183	7 242	7 217	12 272	6 705	5 258	5 546	14 181	17 453	71	0	0	0	0	7 146	6 215	80 176	82 831	3.3%
Mpumalanga	7 740	8 655	7 917	7 584	94 599	105 504	0	0	0	0	0	0	0	0	53	67	1 912	998	112 221	122 808	9.4%	
Northern Cape	0	0	0	0	0	0	7 599	8 359	118	74	0	0	24 351	24 174	16 201	17 627	6 235	7 569	54 504	57 803	6.1%	
North West: Klerksdorp	15 750	16 745	0	0	0	0	876	835	0	0	0	0	0	0	22	32	4 693	3 480	21 341	21 092	-1.2%	
North West: Rustenburg	0	0	149 148	14 1808	0	0	192	184	0	0	18 022	18 006	245	735	0	0	5 644	5 957	173 251	166 690	-3.8%	
Western Cape	0	0	0	0	0	0	133	120	0	0	0	0	0	0	0	0	6 941	7 119	7 074	7 239	2.3%	
<b>TOTAL</b>	<b>101 970</b>	<b>102 718</b>	<b>190 973</b>	<b>188 575</b>	<b>110 200</b>	<b>120 946</b>	<b>23 542</b>	<b>18 310</b>	<b>5 376</b>	<b>5 620</b>	<b>32 203</b>	<b>35 459</b>	<b>24 667</b>	<b>24 909</b>	<b>16 276</b>	<b>17 726</b>	<b>47 391</b>	<b>46 128</b>	<b>552 598</b>	<b>560 391</b>	<b>1.4%</b>	

\*Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock; for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

### 4.1.3. Occupational diseases trends

#### 4.1.3.1. Occupational diseases trends per region

The total number of occupational diseases reported have decreased by 16.5% from 2 233 in 2022 to 1 864 in 2023 as illustrated in the table below. The cases reported from the Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, Rustenburg in North West, and the Western Cape regions have decreased while the number of cases from the Gauteng, Northern Cape, and Klerksdorp in North West regions increased.

**TABLE 4.1.3.1:** Total number of occupational diseases reported per region

	SILICOSIS		SIL+TB		PTB		CWP		ASBESTOSIS		NIHL		OTHER OC-CUPATIONAL DISEASES*		TOTAL		PERCENTAGE CHANGE
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	
Eastern Cape	0	0	0	0	3	2	0	0	0	0	2	0	0	0	5	2	-60.0%
Free State	116	122	15	4	167	125	3	1	0	0	101	61	34	21	436	334	-23.4%
Gauteng	56	44	3	2	122	166	0	0	0	1	205	177	18	16	404	406	0.5%
KwaZulu-Natal	0	1	0	0	27	8	67	0	0	0	20	2	7	0	121	11	-90.9%
Limpopo	2	0	0	0	33	36	0	0	0	0	44	45	7	3	86	84	-2.3%
Mpumalanga	5	2	0	0	118	95	3	11	1	1	92	56	44	37	263	202	23.2%
Northern Cape	5	0	0	0	17	36	0	0	0	0	12	5	6	3	40	44	10.0%
North West: Klerksdorp	42	50	2	18	86	109	0	0	0	0	60	50	9	16	199	243	22.1%
North West: Rustenburg	22	11	0	17	265	175	0	0	1	0	339	297	35	27	662	527	-20.4%
Western Cape	0	0	0	0	1	2	0	0	0	0	16	9	0	0	17	11	-35.3%
<b>TOTAL</b>	<b>248</b>	<b>230</b>	<b>20</b>	<b>41</b>	<b>839</b>	<b>754</b>	<b>73</b>	<b>12</b>	<b>2</b>	<b>2</b>	<b>891</b>	<b>702</b>	<b>160</b>	<b>123</b>	<b>2 233</b>	<b>1 864</b>	<b>-16.5%</b>

\* Other occupational diseases include COAD, occupational asthma, occupational lung cancer, occupational skin disease, PSS, MSDs, progressive massive fibrosis, EPTB, MTB, sarcoidosis, bronchiectasis, anthracosis

#### 4.1.3.2. Occupational diseases incidence rates per region

The analysis of occupational diseases incidence rates showed a decreased rate of 33.3 in 2023 compared to a rate of 40.4 in 2022 as outlined in the table below.

**TABLE 4.1.3.2:** Occupational diseases incidence rates per region

	SILICOSIS		SIL+TB		PTB		CWP		ASBESTOSIS		NIHL		OTHER OC-CUPATIONAL DISEASES*		TOTAL		PERCENTAGE RATE CHANGE
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	
Eastern Cape	0.0	0.0	0.0	0.0	19.1	15.6	0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0	31.8	15.6	49.2%
Free State	35.7	42.0	4.6	1.4	51.5	43.1	0.9	0.3	0.0	0.0	31.1	21.0	10.5	7.2	134.4	115.1	85.7%
Gauteng	9.7	7.5	0.5	0.3	21.1	28.1	0.0	0.0	0.0	0.2	35.5	30.0	3.1	2.7	70.0	68.8	98.2%
KwaZulu-Natal	0.0	0.8	0.0	0.0	21.9	6.4	54.5	0.0	0.0	0.0	16.3	1.6	5.7	0.0	98.3	8.7	8.9%
Limpopo	0.2	0.0	0.0	0.0	4.1	4.3	0.0	0.0	0.0	0.0	5.5	5.4	0.9	0.4	10.7	10.1	94.5%
Mpumalanga	0.4	0.2	0.0	0.0	10.5	7.7	0.3	0.9	0.1	0.1	8.2	4.6	3.9	3.0	23.4	16.4	70.2%
Northern Cape	0.9	0.0	0.0	0.0	3.1	6.2	0.0	0.0	0.0	0.0	2.2	0.9	1.1	0.5	7.3	7.6	103.7%
North West: Klerksdorp	19.7	23.7	0.9	8.5	40.3	51.7	0.0	0.0	0.0	0.0	28.1	23.7	4.2	7.6	93.2	115.2	123.6%
North West: Rustenburg	1.3	0.7	0.0	1.0	15.3	10.5	0.0	0.0	0.1	0.0	19.6	17.8	2.0	1.6	38.2	31.6	82.7%
Western Cape	0.0	0.0	0.0	0.0	1.4	2.8	0.0	0.0	0.0	0.0	22.6	12.4	0.0	0.0	24.0	15.2	63.2%
<b>TOTAL</b>	<b>4.5</b>	<b>4.1</b>	<b>0.4</b>	<b>0.7</b>	<b>15.2</b>	<b>13.5</b>	<b>1.3</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>16.1</b>	<b>12.5</b>	<b>2.9</b>	<b>2.2</b>	<b>40.4</b>	<b>33.3</b>	<b>82.3%</b>

\* Other occupational diseases include COAD, occupational asthma, occupational lung cancer, occupational skin disease, PSS, MSDs, progressive massive fibrosis, EPTB, MTB, sarcoidosis, bronchiectasis, anthracosis

### 4.1.3.3. Occupational diseases trends by commodity

A decrease was noted in occupational diseases reported from the platinum, coal, chrome, iron ore and other mines when compared to cases reported in 2022. Despite a general decrease noted, cases from the diamond and copper mines have increased while cases from manganese mines remained unchanged at 10 cases for both reporting years as illustrated in the table below.

**TABLE 4.1.3.3:** Total number of occupational diseases reported by commodity

	SILICOSIS		SIL+TB		PTB		CWP		ASBESTOSIS		NIHL		OTHER OCCUPATIONAL DISEASES*		TOTAL		PERCENTAGE CHANGE	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023		
Gold	218	218	20	24	383	406	0	0	0	0	1	357	291	59	51	1 037	991	-4.4%
Platinum	24	11	0	17	277	197	0	0	1	1	1	376	313	38	29	716	568	-20.7%
Coal	0	1	0	0	129	79	73	12	0	0	0	71	43	51	37	324	172	-46.9%
Diamonds	0	0	0	0	6	26	0	0	0	0	0	7	3	2	2	15	31	106.7%
Copper	0	0	0	0	2	1	0	0	0	0	0	7	10	0	0	9	11	22.2%
Chrome	1	0	0	0	19	21	0	0	1	0	0	26	21	4	0	51	42	-17.6%
Iron ore	4	0	0	0	1	3	0	0	0	0	0	4	1	4	1	13	5	-61.5%
Manganese	0	0	0	0	7	7	0	0	0	0	0	2	1	1	2	10	10	0.0%
Other mines**	1	0	0	0	15	14	0	0	0	0	0	41	19	1	1	58	34	-41.4%
<b>TOTAL</b>	<b>248</b>	<b>230</b>	<b>20</b>	<b>41</b>	<b>839</b>	<b>754</b>	<b>73</b>	<b>12</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>891</b>	<b>702</b>	<b>160</b>	<b>123</b>	<b>2 233</b>	<b>1 864</b>	<b>-16.5%</b>

\* Other occupational diseases include COAD, occupational asthma, occupational lung cancer, occupational skin disease, PSS, MSDs, progressive massive fibrosis, EPT, MTB, sarcoidosis, bronchiectasis, anthracosis

\*\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

### 4.1.3.4. Occupational diseases incidence rates by commodity

The analysis of occupational disease incidence rates showed decreased rates of 4.1 for silicosis, 13.5 for PTB and 12.5 for NIHL in 2023 compared to the rates of 4.5, 15.2 and 16.1 in 2022, respectively as illustrated in the table below.

**TABLE 4.1.3.4:** Occupational disease incidence rates by commodity

	SILICOSIS		SIL+TB		PTB		CWP		ASBESTOSIS		NIHL		OTHER OCCUPATIONAL DISEASES*		TOTAL		PERCENTAGE RATE CHANGE
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	
Gold	21.4	21.2	2.0	2.3	37.6	39.5	0.0	0.0	0.0	0.1	35.0	28.3	5.8	5.0	101.7	96.5	94.9%
Platinum	1.3	0.6	0.0	0.9	14.5	10.4	0.0	0.0	0.1	0.1	19.7	16.6	2.0	1.5	37.5	30.1	80.3%
Coal	0.0	0.1	0.0	0.0	11.7	6.5	6.6	1.0	0.0	0.0	6.4	3.6	4.6	3.1	29.4	14.2	48.4%
Diamonds	0.0	0.0	0.0	0.0	2.5	14.2	0.0	0.0	0.0	0.0	3.0	1.6	0.8	1.1	6.4	16.9	265.7%
Copper	0.0	0.0	0.0	0.0	3.7	1.8	0.0	0.0	0.0	0.0	13.0	17.8	0.0	0.0	16.7	19.6	116.9%
Chrome	0.3	0.0	0.0	0.0	5.9	5.9	0.0	0.0	0.3	0.0	8.1	5.9	1.2	0.0	15.8	11.8	74.8%
Iron ore	1.6	0.0	0.0	0.0	0.4	1.2	0.0	0.0	0.0	0.0	1.6	0.4	1.6	0.4	5.3	2.0	38.1%
Manganese	0.0	0.0	0.0	0.0	4.3	3.9	0.0	0.0	0.0	0.0	1.2	0.6	0.6	1.1	6.1	5.6	91.8%
Other mines**	0.2	0.0	0.0	0.0	3.2	3.0	0.0	0.0	0.0	0.0	8.7	4.1	0.2	0.2	12.2	7.4	60.2%
<b>TOTAL</b>	<b>4.5</b>	<b>4.1</b>	<b>0.4</b>	<b>0.7</b>	<b>15.2</b>	<b>13.5</b>	<b>1.3</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>16.1</b>	<b>12.5</b>	<b>2.9</b>	<b>2.2</b>	<b>40.4</b>	<b>33.3</b>	<b>82.3%</b>

\* Other occupational diseases include COAD, occupational asthma, occupational lung cancer, occupational skin disease, PSS, MSDs, progressive massive fibrosis, EPT, MTB, sarcoidosis, bronchiectasis, anthracosis

\*\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.4. [Other occupational diseases](#)

##### 4.1.4.1. [Other occupational lung diseases by commodity](#)

Statistics showed a total of 89 other OLD cases reported in 2023 compared to 94 cases in 2022 as illustrated in the table below.

**TABLE 4.1.4.1:** Other occupational lung diseases by commodity

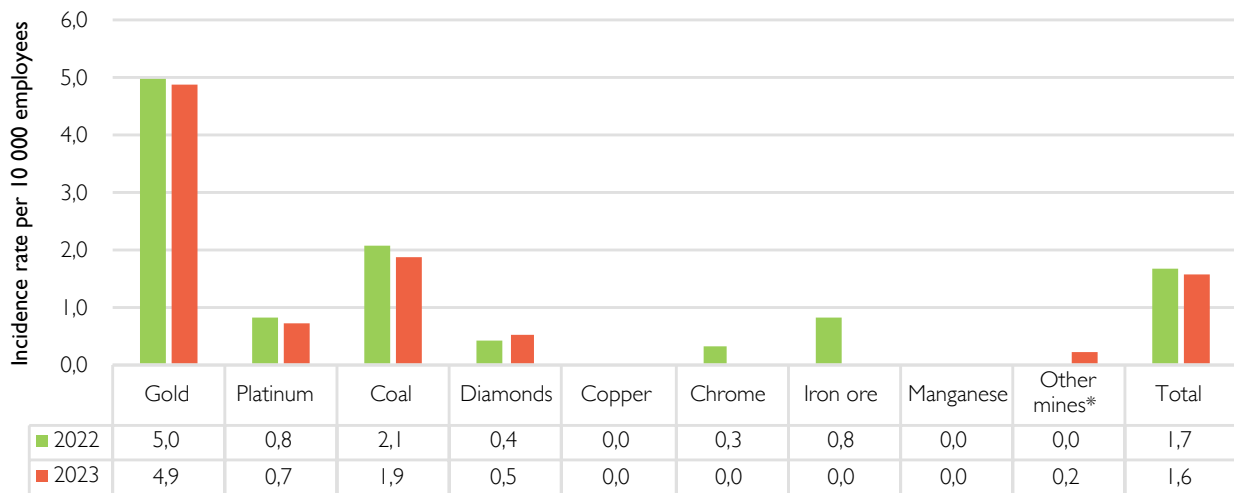
	GOLD		PLATINUM		COAL		DIAMONDS		COPPER		CHROME		IRON ORE		MANGANESE		OTHER MINES*		TOTAL	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Anthraxosis	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Bronchiectasis	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
COAD	49	35	14	14	14	18	0	0	0	0	0	0	0	0	0	0	0	1	77	68
Fibrosis secondary to other lung disease	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Occupational asthma	1	2	2	0	7	3	1	1	0	0	0	0	2	0	0	0	0	0	13	6
Progressive massive fibrosis	1	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	13
Pulmonary sarcoidosis	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>TOTAL</b>	<b>51</b>	<b>44</b>	<b>16</b>	<b>14</b>	<b>23</b>	<b>23</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>94</b>	<b>89</b>

\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica; and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.4.2. Other occupational lung diseases incidence rate per 10 000 employees by commodity

The analysis of other OLD incidence rates showed a slight decreased rate of 1.6 in 2023 compared to a rate of 1.7 in 2022 as outlined in the figure below.

**FIGURE 4.1.4.2:** Other occupational lung diseases incidence rate per 10 000 employees by commodity



\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica; and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.4.3. Work-related musculoskeletal disorders (WMSDs)

The analysis showed 26 cases of WMSDs reported in 2023 compared to 43 cases in 2022 as outlined in the table below.

TABLE 4.1.4.3: WMSDs by commodity

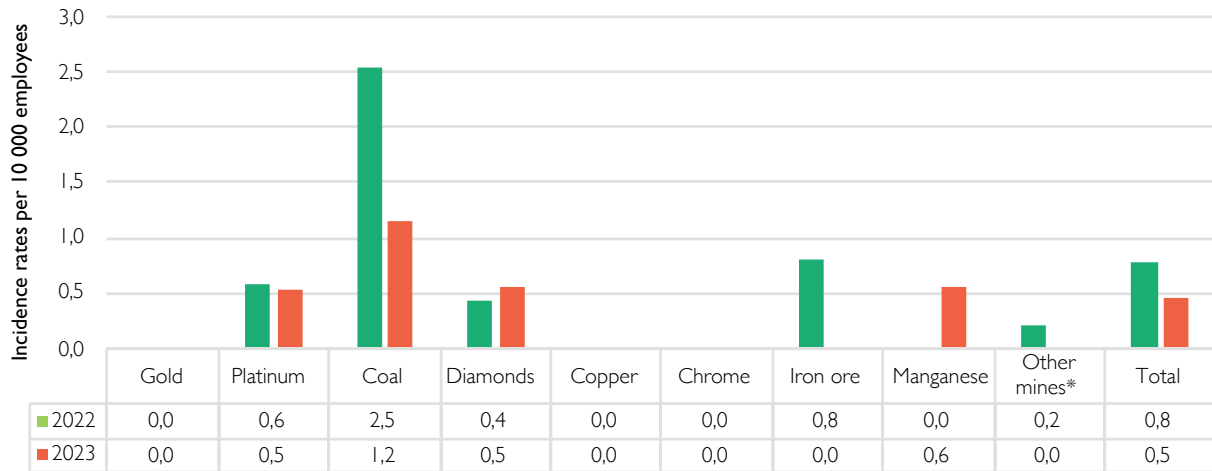
	GOLD		PLATINUM		COAL		DIAMONDS		COPPER		CHROME		IRON ORE		MANGANESE		OTHER MINES*		TOTAL	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Lumbar spondylosis	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lumber stenosis	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Carpal tunnel syndrome	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
WMSD	0	0	11	10	28	10	1	0	0	0	0	0	0	0	0	0	1	0	41	20
WMSD upper limb (arthritis -right and left shoulder)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Whole body vibration	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Work-related upper-limb disorder (WRULD)	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>10</b>	<b>28</b>	<b>14</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>43</b>	<b>26</b>

\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica; and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.4.4. WMSD incidence rates by commodity

The analysis of WMSDs incidence rates showed a slight decreased rate of 0.5 in 2023 compared to a rate of 0.8 in 2022 as illustrated in the figure below.

**FIGURE 4.1.4.4:** WMSDs incidence rates by commodity



\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.4.5. Occupational skin diseases

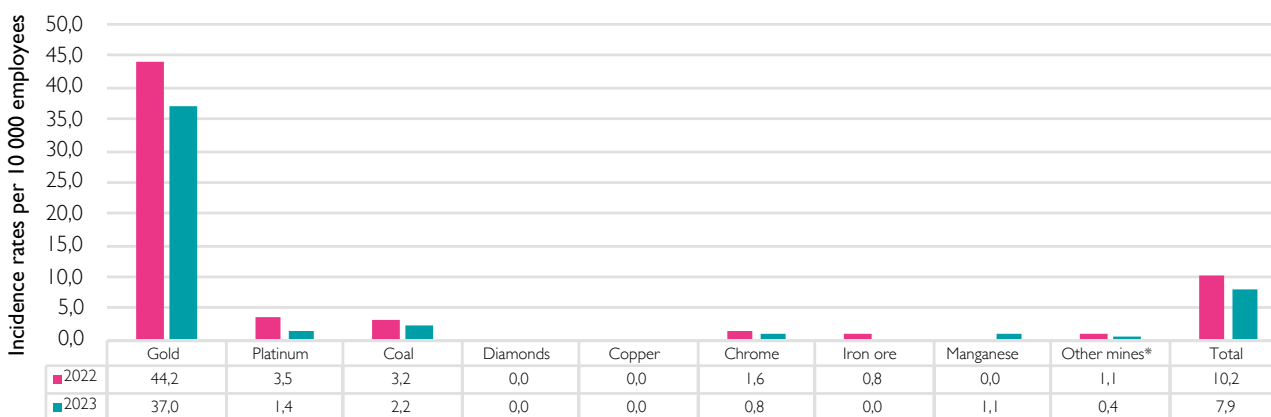
Platinum mines reported two cases of occupational skin diseases during 2023 compared to seven cases in the previous year which is a rate of 0.4 for 2022 and 0.1 for 2023, respectively.

#### 4.1.5. Medical incapacity due to occupational and non-occupational diseases

##### 4.1.5.1. Medical incapacity incidence rates due to occupational diseases by commodity

The analysis of medical incapacity incidence rates due to occupational disease showed a decreased rate of 7.9 in 2023 compared to a rate of 10.2 in 2022 as outlined in the figure below.

**FIGURE 4.1.5.1:** Medical incapacity incidence rates due to occupational diseases by commodity

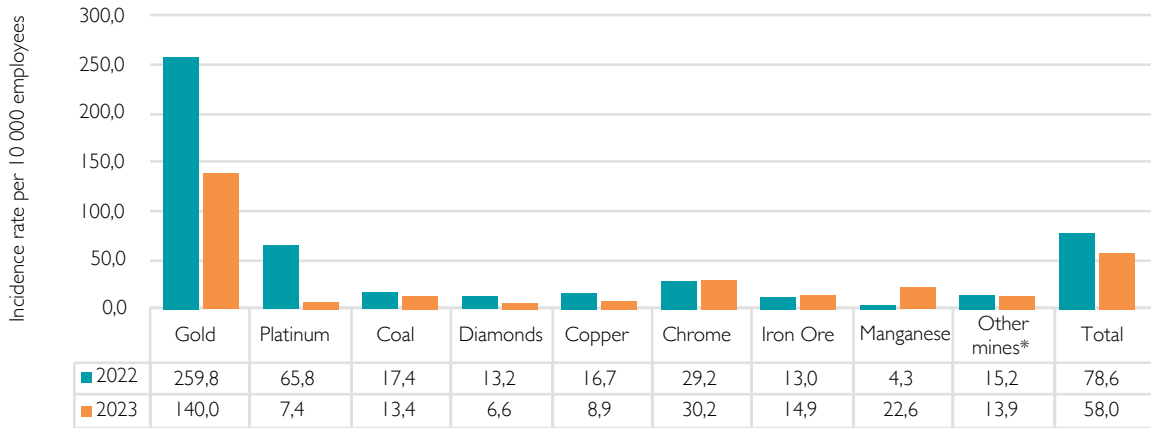


\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.5.2. Medical incapacity incidence rates due to non-occupational diseases by commodity

The medical incapacity incidence rates due to non-occupational diseases showed a significant decreased rate of 58.0 in 2023 compared to a rate of 78.6 in 2022 as outlined in the figure below.

**FIGURE 4.1.5.2:** Medical incapacity incidence rates due to non-occupational diseases by commodity



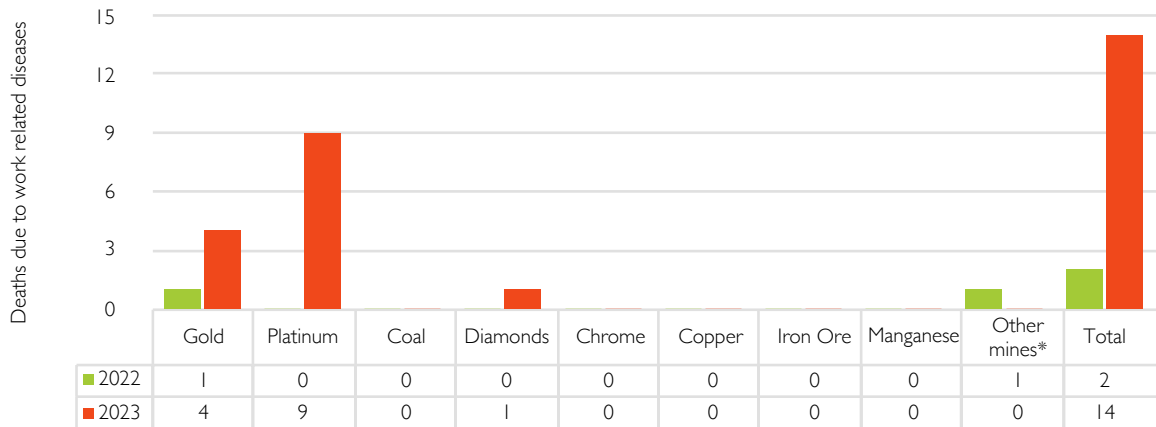
\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.6. Deaths due to work-related diseases

##### 4.1.6.1. Deaths due to work-related diseases by commodity

Statistics showed a significant increase of 14 cases of death due to work-related diseases reported in 2023 compared to two cases in 2022 as outlined in the figure below.

**FIGURE 4.1.6.1:** Deaths due to work-related diseases by commodity

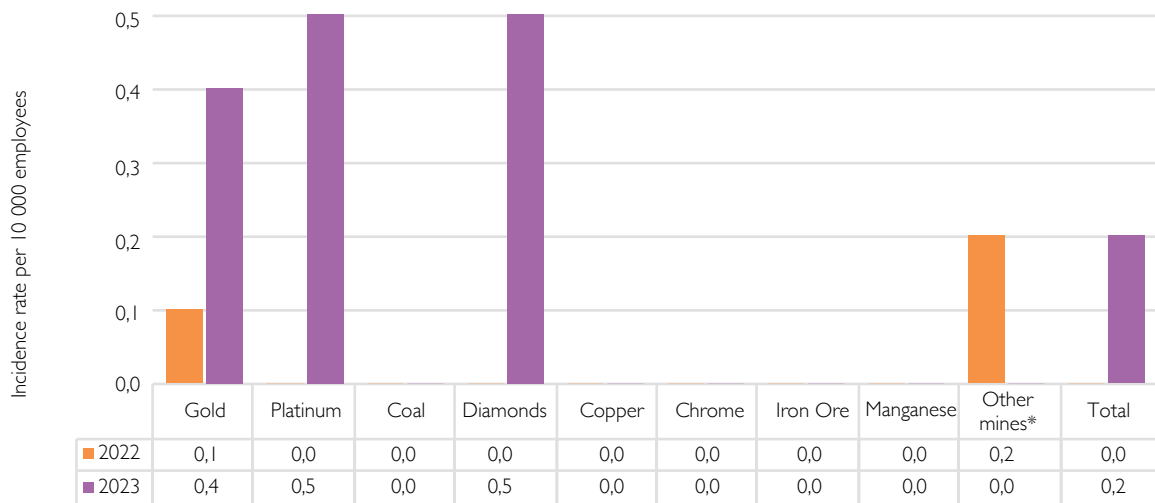


\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.6.2. Death incidence rates due to work-related diseases by commodity

The analysis of death incidence rates due to work-related disease showed an increased rate of 0.2 in 2023 compared to a rate of 0.0 in 2022 as illustrated in the figure below.

**FIGURE 4.1.6.2:** Deaths due to work-related diseases incidence rates by commodity

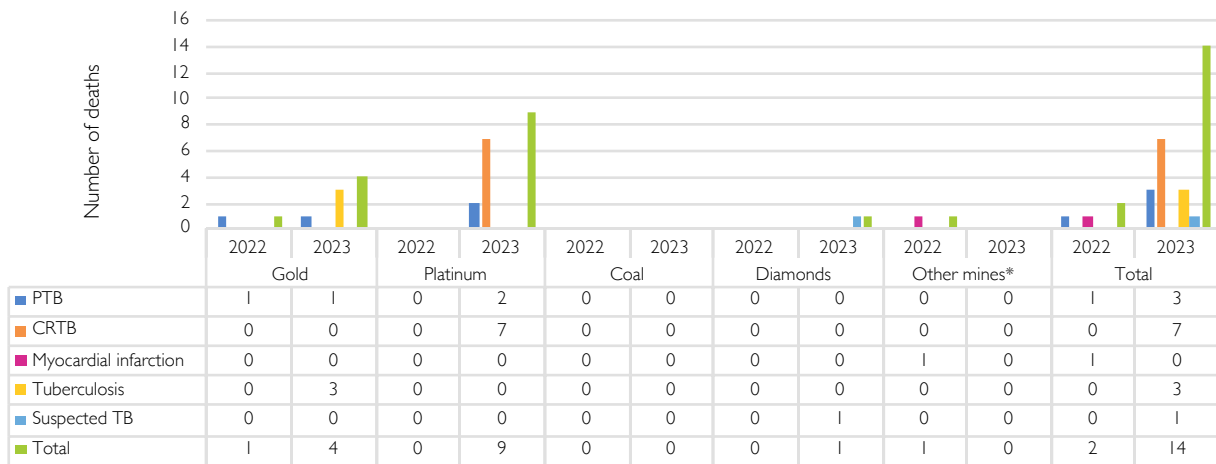


\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

#### 4.1.6.3. Causes of deaths

Respiratory-related diseases were noted as cause of death due to work-related diseases as outlined in the figure below.

**FIGURE 4.1.6.3:** Causes of deaths



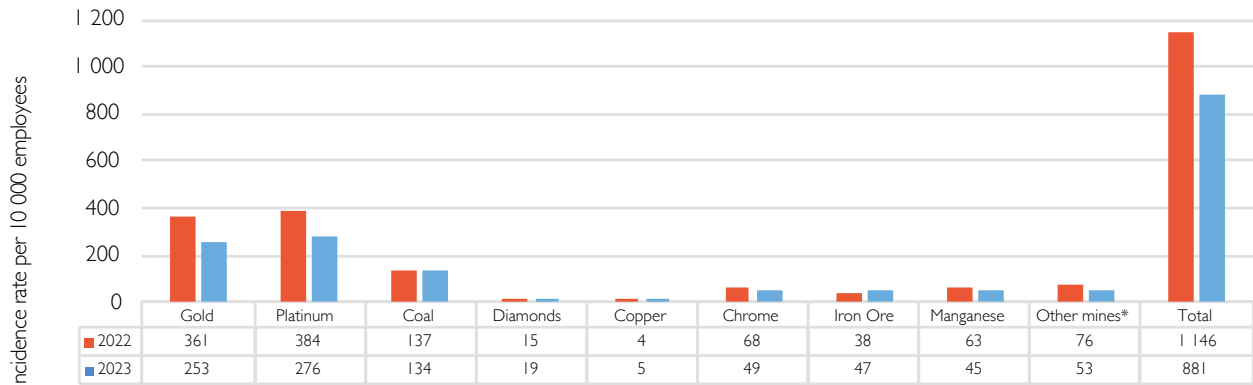
\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

## 4.1.7. Natural deaths

### 4.1.7.1. Natural deaths by commodity

The analysis of natural deaths showed a decrease from 1 146 cases in 2022 to 881 cases in 2023 as outlined in the figure below.

**FIGURE 4.1.7.1:** Natural deaths by commodity

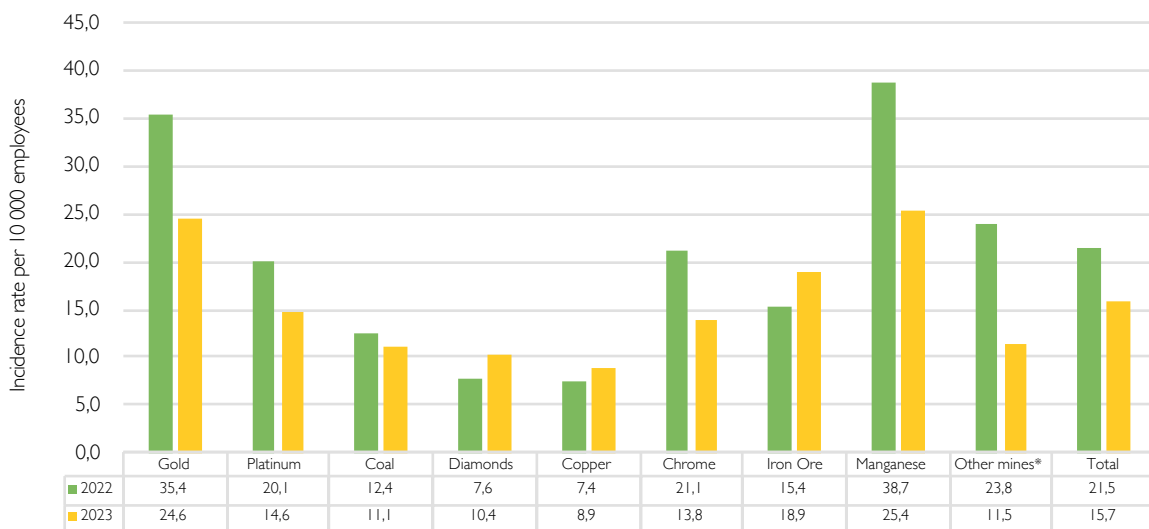


\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

### 4.1.7.2. Natural death incidence rates by commodity

The analysis of natural death incidence rates showed a decreased rate of 15.7 in 2023 compared to a rate of 21.5 in 2022 as illustrated in the figure below.

**FIGURE 4.1.7.2:** Natural death incidence rate by commodity



\* Other mines include hard rock, for example: cobalt, dolerite, granite, limestone, magnesite, mica and soft rock, for example: clay, dolomite, salt, sand, shale, titanium, vanadium, etc.

## 4.2. Medical appeals

The mining industry is a hazardous working environment and it is therefore important to assess employees for fitness to work in different environments. Fitness to work is assessed by OMPs and the decisions taken regarding the fitness of an employee may be disputed by the employee. Section 20 of the MHSA gives an employee recourse to dispute the decision of the OMP regarding their fitness status.

The disputes were lodged with the Medical Inspector for the period under review; the Medical Inspector received 141 medical appeals. Findings were such that of the 141 appeals handled by the Medical Inspector, 18.4% of employees were found fit and 35.5% were found unfit while 46.1% of the appeals were categorised as complaints, withdrawals, and compensation matters.

Challenges experienced regarding Section 20 medical appeals involve all stakeholders involved in the process, ranging from employees, employers, and service providers. The challenges will be addressed accordingly, and through the training of new health and safety representatives to ensure continuous knowledge transfer to understand Section 20 of the MHSA.

### 4.2.1. Medical appeals received and finalised

For the period under review, the Medical Inspector processed a total of 141 medical appeals. A total of 46.1% of the appeals received did not meet the requirements of a Section 20 medical appeal in terms of the MHSA. During the first six months of the year less appeals were processed compared to the last six months of the year.

**FIGURE 4.2.1:** Total number of medical appeals received and finalised

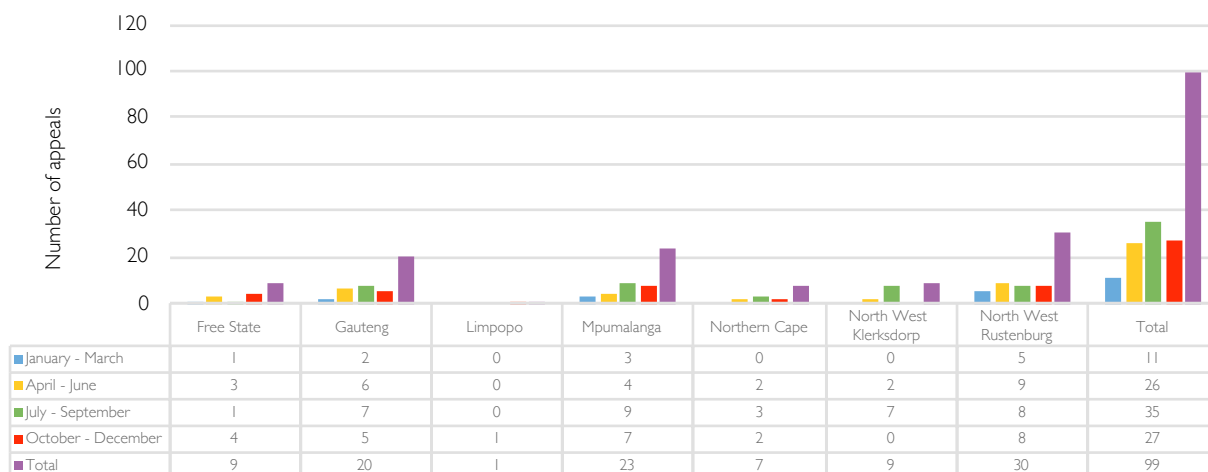


## 4.2.2. Medical appeals received per region and by commodity

### 4.2.2.1. Medical appeals received per region

Most of the medical appeals received were from the Gauteng, Mpumalanga, and Rustenburg in North West regions. From the below figure it is noted that the highest number of medical appeals were received during the July to September and October to December quarters. The number of medical appeals received from the Free State region reduced from 14 appeals in 2022 to nine appeals in 2023.

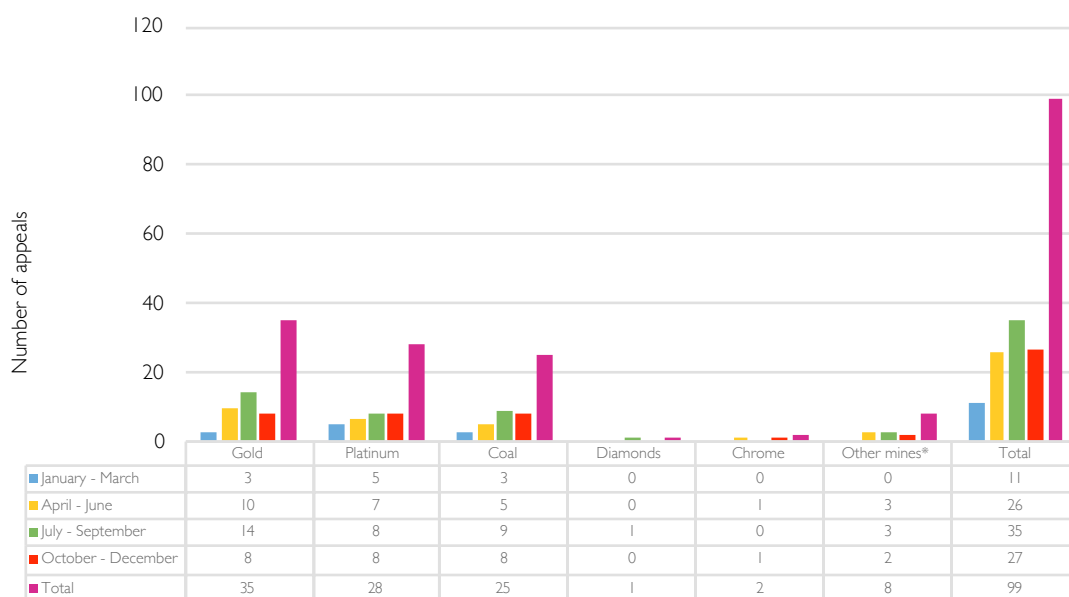
**FIGURE 4.2.2.1:** Number of medical appeals received per region



### 4.2.2.2. Medical appeals received by commodity

The gold, platinum, and coal sectors remain the highest contributors to medical appeals received in 2023. These commodities correspond to the regions responsible for most of the appeals received in the same period. Once again, the busiest months were from July to December.

**FIGURE 4.2.2.2:** Number of medical appeals received by commodity

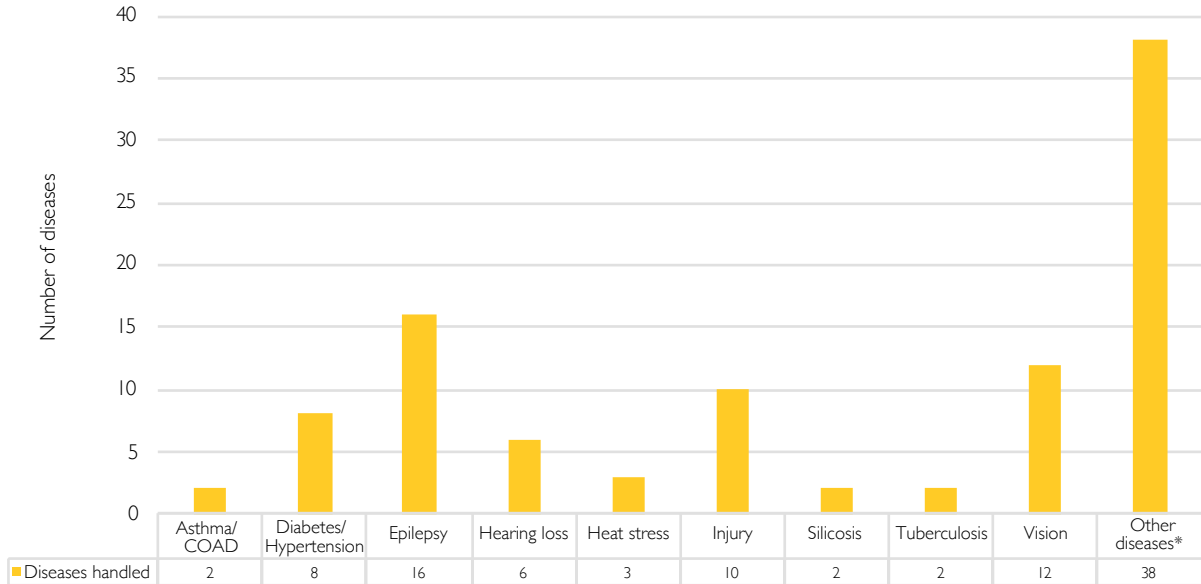


\* Other mines include iron ore, concentrates and manganese

### 4.2.3. Diseases associated with the medical appeals received

There was an increase in the number of appeals associated with non-communicable diseases such as epilepsy, diabetes, and hypertension. Visual impairment and injury-related appeals have increased significantly when compared to 2022. Appeals associated with occupational diseases such as silicosis, PTB, and asthma have remained low with no increases noted.

**FIGURE 4.2.3:** Diseases associated with medical appeals received



\* Other diseases include musculoskeletal conditions, carcinomas, dermatological conditions, cardiopulmonary conditions, osteoarthritis and gastrointestinal conditions

### 4.2.4. Medical appeal findings

Section 20 of the MHS Act gives the Medical Inspector the right to confirm, vary or set aside a decision of the OMP. From the 141 cases processed by the Medical Inspector, 26 cases were found to be fit, 50 cases were found to be unfit, while 65 cases did not fall into any of the two mentioned categories. These 65 cases were processed and concluded differently, and employees advised accordingly.

**FIGURE 4.2.4:** Medical appeal findings



\* Other findings include complaints, compensation matters and withdrawals.

#### 4.2.5. Challenges to the medical appeal process

The following are challenges identified among the different role-players and it should be noted that some of these challenges have remained constant over the years. Each year the health and safety representatives are trained to ensure continuous knowledge transfer to understand Section 20 of the MHSA.

##### 4.2.5.1. Employees

- Some employees consult their preferred practitioners for a second opinion as allowed by the MHSA. However, these employees do not necessarily lodge a Section 20 medical appeal and do not provide the Medical Inspector with the report. Employees then expect the Medical Inspector to intervene and ensure that the employer adheres to the findings of the second opinion medical practitioner.
- Many lodged appeals fell outside the timeframe stipulated by the MHSA. Some employees claimed not to have been informed of their rights to lodge a Section 20 medical appeal, while other employees claim they were advised to wait for the medical incapacity process to be completed before they can lodge an appeal.
- Employees were under the impression the Medical Inspector is responsible for investigating any medical complaints between employees and employers, including matters relating to the non-payment of disability payouts.

##### 4.2.5.2. Employers

- Some mines did not have a section in the Certificate of Fitness (COF) indicating that the employee was informed of the right to lodge a Section 20 medical appeal.
- Some of the mines' medical incapacity policies still state that if an employee was not satisfied with the outcome or findings of the medical incapacity committee, the employee could lodge a Section 20 medical appeal with the Medical Inspector. This is not correct since the Medical Inspector does not handle matters pertaining to labour relations.
- Some OMPs did not indicate whether the employee was made aware of their rights to lodge a Section 20 medical appeal if disputing unfitness status by having the employee sign an acknowledgement.

##### 4.2.5.3. Second opinion doctors

- Unavailability of second opinion health professionals in other regions delays the ruling by the Medical Inspector.
- There is a limited number of second opinion health professionals in certain regions that are able to assist the Medical Inspector and therefore results in referrals to second opinion health professionals in other regions.

##### 4.2.5.4. Section 20 of the MHSA

- Misinterpretation of Section 20 of the MHSA results in employees believing they can consult privately without lodging a medical appeal. They then expect the Medical Inspector to endorse the findings and recommendations of the private practitioner.

### 4.3. Reporting on HIV and TB

In line with the instruction issued by the CIOM, the South African mining industry submits TB and HIV data to the department by submitting the required DMRE I 64 forms. The data covers the compliance as well as the TB and HIV performance of the mining industry.

#### 4.3.1. Compliance for all mines

During 2023, 881 mines submitted data to the department compared to 816 mines in 2022. Most mines performed well in terms of having an integrated TB and HIV policy at 92.5%; the poorest performance from the mining industry was monitoring and evaluation at 51.2%.

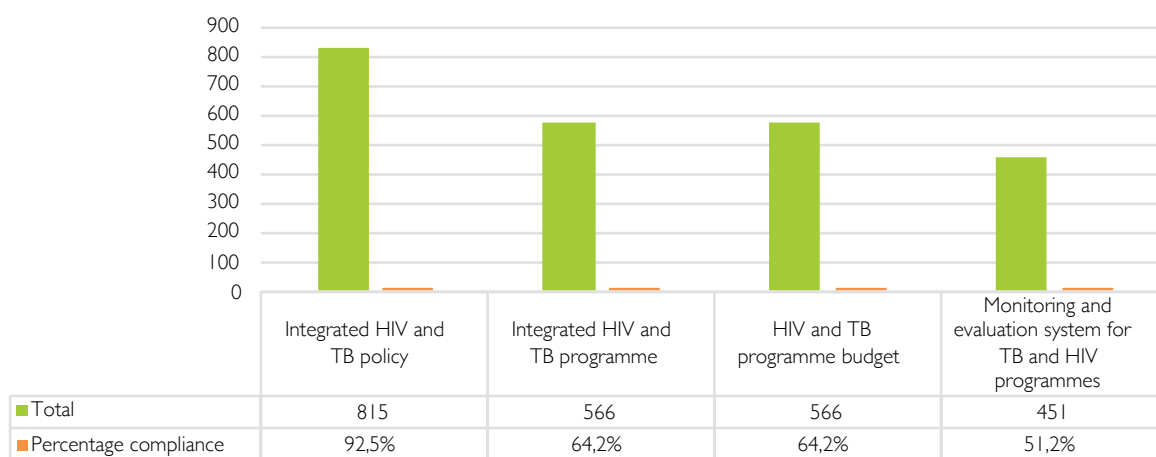
There was an increase in the total compliance by mines pertaining to having an integrated HIV and TB policy from 89.5% in 2022 to 92.5%. A significant change in the HIV and TB programme budget was noted during the reporting period with an increase from 46.7% for the past three years to 64.2% in 2023.

Once again, the platinum sector is the overall best performer for 2023 based on achieving above 95.0% for all measures under compliance. Unfortunately, the diamond sector only managed to perform well with reference to the integrated TB and HIV policy but performed poorly in all other measures.

**TABLE 4.3.1:** Compliance for all mines by commodity

MEASURE	GOLD	PLATINUM	COAL	DIAMONDS	OTHER MINES	TOTAL
	NUMBER OF MINES					TOTAL MINES
	50	77	141	117	496	881
	NUMBER OF EMPLOYEES					TOTAL EMPLOYEES
	100 482	211 064	114 711	18 170	166 273	610 700
Integrated HIV and TB policy	49	76	136	116	438	815
	<b>98,0%</b>	<b>98,7%</b>	<b>96,5%</b>	<b>99,1%</b>	<b>88,3%</b>	<b>92,5%</b>
Integrated HIV and TB programme	44	74	123	19	306	566
	<b>88,0%</b>	<b>96,1%</b>	<b>87,2%</b>	<b>16,2%</b>	<b>61,7%</b>	<b>64,2%</b>
HIV and TB programme budget	44	74	123	19	306	566
	<b>88,0%</b>	<b>96,1%</b>	<b>87,2%</b>	<b>16,2%</b>	<b>61,7%</b>	<b>64,2%</b>
Monitoring and evaluation system for HIV and TB programmes	40	74	97	21	219	451
	<b>80,0%</b>	<b>96,1%</b>	<b>68,8%</b>	<b>17,9%</b>	<b>44,2%</b>	<b>51,2%</b>

**FIGURE 4.3.1:** Compliance for all mines by commodity



### 4.3.2. Trends for HIV counselling and testing (HCT) services and TB programmes

Generally, there was an increase in HIV counselling, HIV testing and TB screening in the South African mining industry during the reporting period. The co-infection rate for diagnosed TB cases has decreased and multidrug resistant TB (MDR-TB) cases remained constant. TB and HIV programmes are no longer influenced by other pandemics, resulting in some improvement in HIV counselling and TB screening in the South African mining industry. Of note is that all employees diagnosed with TB were put on treatment and that will contribute to achieve the End TB strategy.

**TABLE 4.3.2:** Trends for HCT services and TB programmes

MEASURE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	TOTAL LABOUR									
Counselled for HIV	465 923 (55,7%)	476 625 (62,9%)	455 681 (65,7%)	473 972 (69,5%)	493 054 (73,2%)	449 246 (70,2%)	482 068 (73,5%)	480 742 (65,7%)	498 765 (74,4%)	610 700 (82,0%)
Tested for HIV	<b>259 297</b>	<b>299 566</b>	<b>299 444</b>	<b>329 562</b>	<b>360 994</b>	<b>315 381</b>	<b>354 466</b>	<b>315 716</b>	<b>371 231</b>	<b>500 818</b>
HIV positive	<b>183 202</b> (70,7%)	<b>191 333</b> (63,9%)	<b>192 517</b> (64,3%)	<b>206 033</b> (62,5%)	<b>205 596</b> (57,0%)	<b>210 456</b> (66,7%)	<b>209 315</b> (59,1%)	<b>229 811</b> (72,8%)	<b>236 480</b> (63,7%)	<b>331 665</b> (66,2%)
Co-infected with TB and HIV	<b>19 084</b> (10,4%)	<b>21 913</b> (11,5%)	<b>16 243</b> (8,4%)	<b>16 293</b> (7,9%)	<b>15 630</b> (7,6%)	<b>13 101</b> (6,2%)	<b>10 684</b> (5,1%)	<b>10 137</b> (4,4%)	<b>11 632</b> (4,9%)	<b>13 820</b> (4,2%)
Living with HIV and on antiretrovirals (ARVs)	<b>2 820</b> (63,2%)	<b>3 063</b> (72,7%)	<b>2 359</b> (62,1%)	<b>1 719</b> (66,6%)	<b>1 441</b> (69,7%)	<b>895</b> (63,8%)	<b>699</b> (40,4%)	<b>568</b> (52,4%)	<b>636</b> (53,0%)	<b>579</b> (47,4%)
Screened for TB	<b>24 740</b> (80,8%)	<b>27 272</b> (88,7%)	<b>38 804</b> (96,0%)	<b>39 308</b> (96,0%)	<b>42 002</b> (96,2%)	<b>12 858</b> (97,3%)	<b>85 418</b> (93,3%)	<b>51 656</b> (91,9%)	<b>53 415</b> (92,7%)	<b>62084</b> (96,7%)
Diagnosed with TB	<b>376 718</b>	<b>422 670</b>	<b>437 436</b>	<b>455 242</b>	<b>474 429</b>	<b>437 199</b>	<b>449 815</b>	<b>441 882</b>	<b>462 515</b>	<b>590 513</b>
On TB treatment	<b>4 461</b> (1,2%)	<b>4 211</b> (1,0%)	<b>3 799</b> (0,9%)	<b>2 581</b> (0,6%)	<b>2 066</b> (0,4%)	<b>1 403</b> (0,3%)	<b>1 726</b> (0,4%)	<b>1 083</b> (0,2%)	<b>1 228</b> (0,27)	<b>1 222</b> (0,2%)
Diagnosed with MDR-TB	<b>3 999</b> (4,3%)	<b>4 367</b> (2,7%)	<b>3 687</b> (3,2%)	<b>2 414</b> (4,4%)	<b>1 899</b> (3,4%)	<b>1 729</b> (6,1%)	<b>1 676</b> (2,7%)	<b>1 084</b> (2,6%)	<b>1 200</b> (3,2%)	<b>1 222</b> (3,8%)
Diagnosed with extensively drug-resistant TB (XDR-TB)	<b>190</b> (0,4%)	<b>112</b> (0,3%)	<b>123</b> (0,3%)	<b>114</b> (0,5%)	<b>71</b> (0,4%)	<b>86</b> (0,6%)	<b>46</b> (0,6%)	<b>28</b> (0,2%)	<b>38</b> (0,6%)	<b>46</b> (0,0%)
	<b>18</b> (0,4%)	<b>14</b> (0,3%)	<b>13</b> (0,3%)	<b>12</b> (0,5%)	<b>8</b> (0,4%)	<b>8</b> (0,6%)	<b>11</b> (0,6%)	<b>2</b> (0,2%)	<b>7</b> (0,6%)	<b>0</b> (0,0%)

### 4.3.3. HCT services and TB programmes

HIV counselling and TB screening have improved during the reporting period taking into consideration the different commodities that have contributed to the data contained in the DMRE164 forms. This has subsequently resulted in an increase in employees diagnosed with TB and HIV. The 90/90/90 strategy has now been revised to 95/95/95 achievement in terms of TB and HIV.

**TABLE 4.3.3:** HCT services and TB programmes by commodity

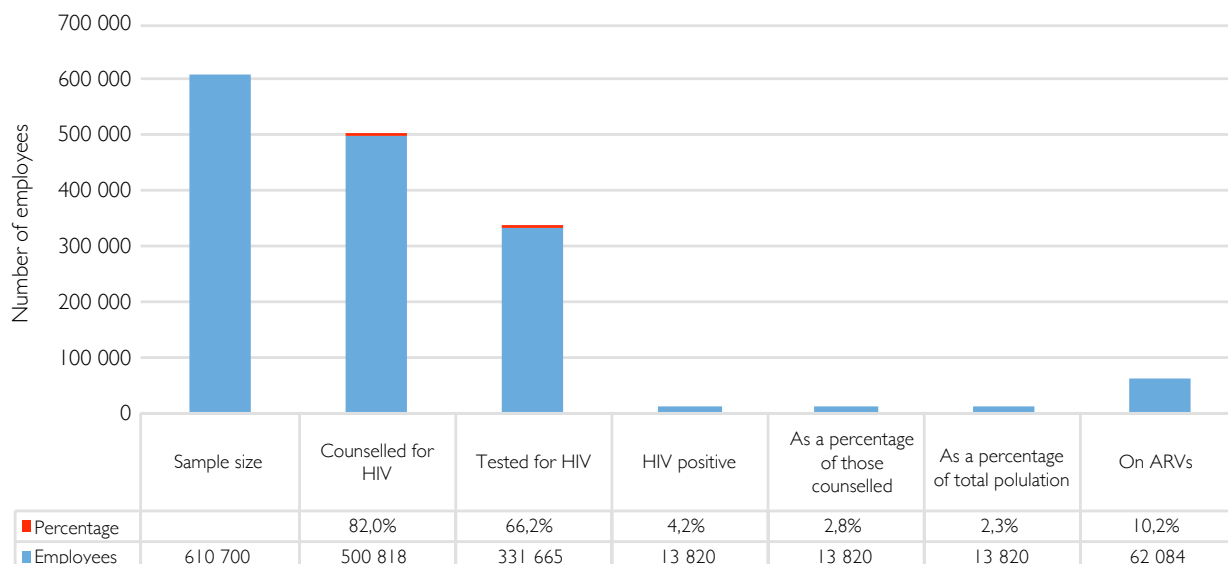
MEASURE	GOLD	PLATINUM	COAL	DIAMONDS	OTHER MINES	TOTAL
	NUMBER OF MINES					TOTAL MINES
	50	77	141	117	496	881
	NUMBER OF EMPLOYEES					TOTAL EMPLOYEES
	100 482	211 064	114 711	18 170	166 273	610 700
Counselled for HIV	88 621	170 994	91 502	15 766	133 935	500 818
	<b>88,2%</b>	<b>81,0%</b>	<b>79,8%</b>	<b>86,8%</b>	<b>80,6%</b>	<b>82,0%</b>
Tested for HIV	53 014	122 830	57 631	10 588	87 602	331 665
	<b>59,8%</b>	<b>71,8%</b>	<b>63,0%</b>	<b>67,2%</b>	<b>65,4%</b>	<b>66,2%</b>
HIV positive	1 012	7 644	1 729	224	3 211	13 820
	<b>1,9%</b>	<b>6,2%</b>	<b>3,0%</b>	<b>2,1%</b>	<b>3,7%</b>	<b>4,2%</b>
Co-infected with TB and HIV	297	161	48	7	66	579
	<b>57,2%</b>	<b>42,6%</b>	<b>38,7%</b>	<b>21,2%</b>	<b>39,3%</b>	<b>47,4%</b>
Living with HIV and on ARVs	14 324	29 532	8 917	677	8 634	62 084
Screened for TB	96 769	203 985	111 239	18 170	160 350	590 513
	<b>96,3%</b>	<b>96,6%</b>	<b>97,0%</b>	<b>100,0%</b>	<b>96,4%</b>	<b>96,7%</b>
Diagnosed with TB	519	378	124	33	168	1 222
	<b>0,5%</b>	<b>0,2%</b>	<b>0,1%</b>	<b>0,2%</b>	<b>0,1%</b>	<b>0,2%</b>
On TB treatment	519	378	124	33	168	1 222
	<b>100,0%</b>	<b>100,0%</b>	<b>100,0%</b>	<b>100,0%</b>	<b>100,0%</b>	<b>100,0%</b>
Diagnosed with MDR-TB	23	12	5	1	5	46
	<b>4,4%</b>	<b>3,2%</b>	<b>4,0%</b>	<b>3,0%</b>	<b>3,0%</b>	<b>3,8%</b>
Diagnosed with XDR-TB	0	0	0	0	0	0
	<b>0,0%</b>	<b>0,0%</b>	<b>0,0%</b>	<b>0,0%</b>	<b>0,0%</b>	<b>0,0%</b>

### 4.3.4. HCT services

#### 4.3.4.1. HCT services for all mines

In terms of the 95/95/95 strategy, the aim is to counsel at least 95% of employees for HIV. Data from 2023 on HIV counselling indicates an increase from 74.4% in 2022 to 82.0% in 2023. HIV testing has increased from 63.7% in 2022 to 66.2% in 2023. Testing for HIV is a voluntary action and those who already tested might not be interested in testing again.

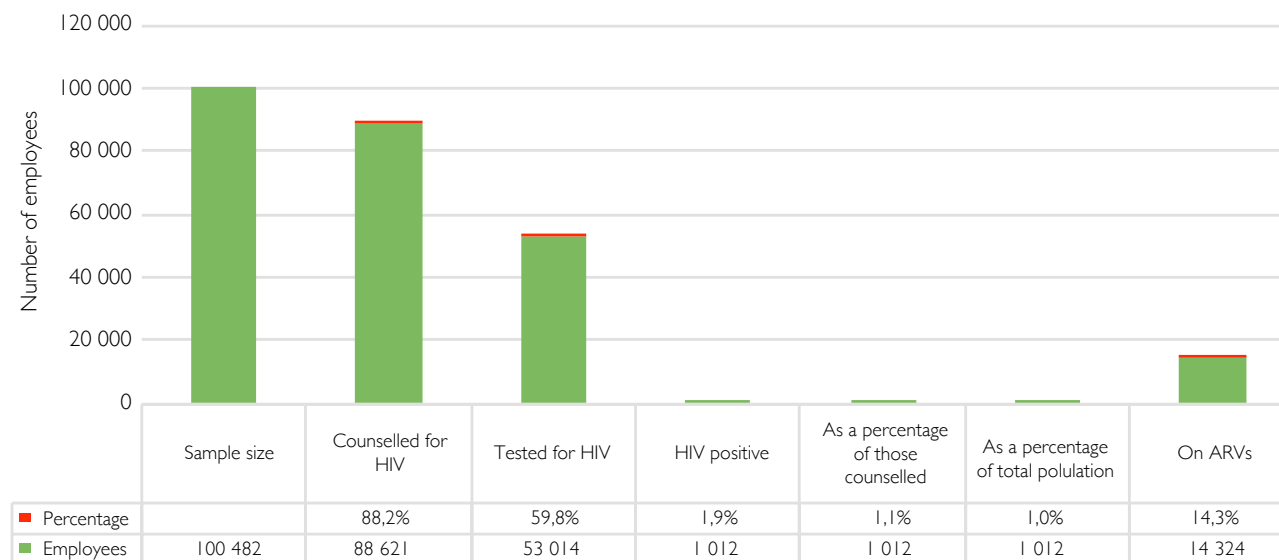
**FIGURE 4.3.4.1:** HCT services for all mines



#### 4.3.4.2. HCT services for gold mines

The performance of the gold sector decreased slightly in terms of HIV counselling from 89.2% in 2022 to 88.2% in 2023. There has been a further decrease in employees testing for HIV from 60.2% in 2022 to 59.8%. Generally, employees do not see the need to have their HIV status checked frequently and thus unlikely to test every year.

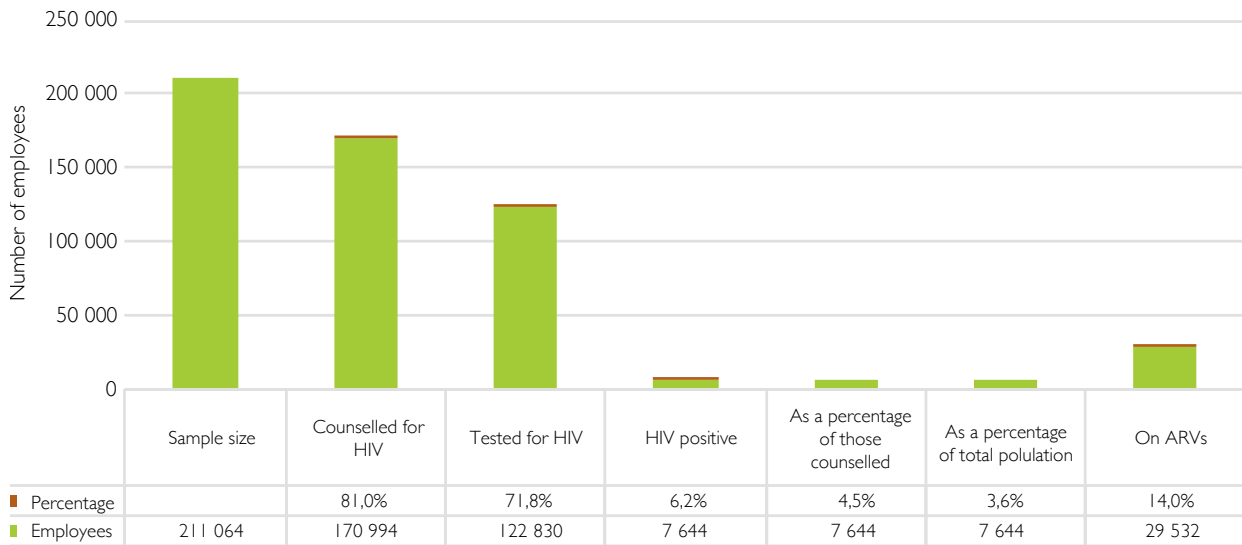
**FIGURE 4.3.4.2:** HCT services for gold mines



#### 4.3.4.3. HCT services for platinum mines

HIV counselling in the platinum sector showed an increase from 72.0% in 2022 to 81.0% in 2023. Testing rates have increased slightly from 70.2% in 2022 to 71.8%.

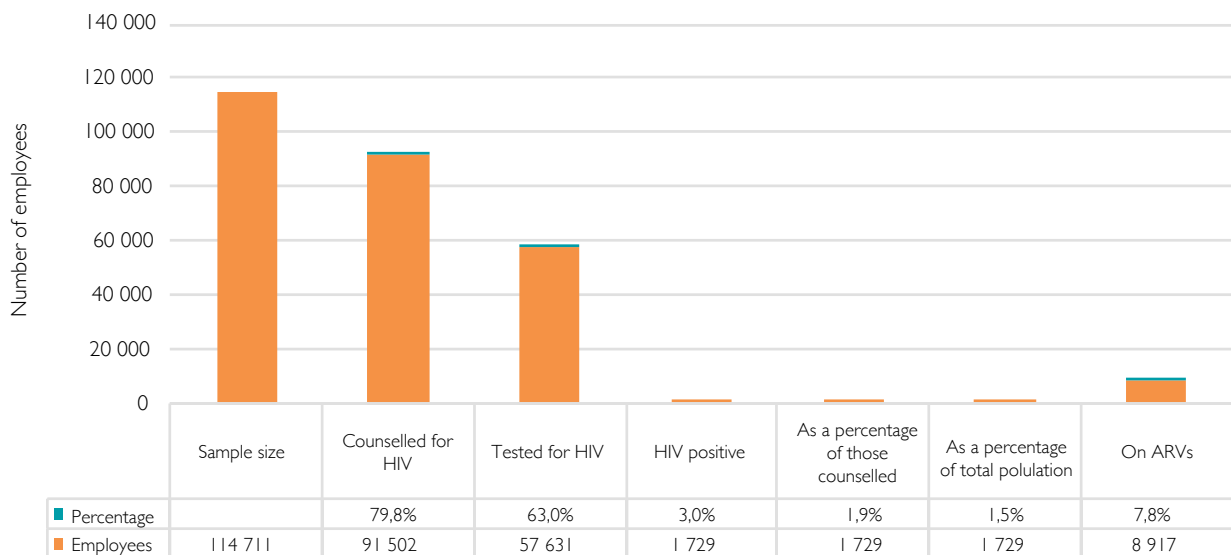
**FIGURE 4.3.4.3:** HCT services for platinum mines



#### 4.3.4.4. HCT services for coal mines

HIV counselling in the coal sector has further increased from 72.8% in 2022 to 79.8% in 2023. HIV testing also increased from 58.5% in 2022 to 63% in 2023. The increased testing has resulted in a slight increase in the positivity rate from 2.7% in 2022 to 3% in 2023.

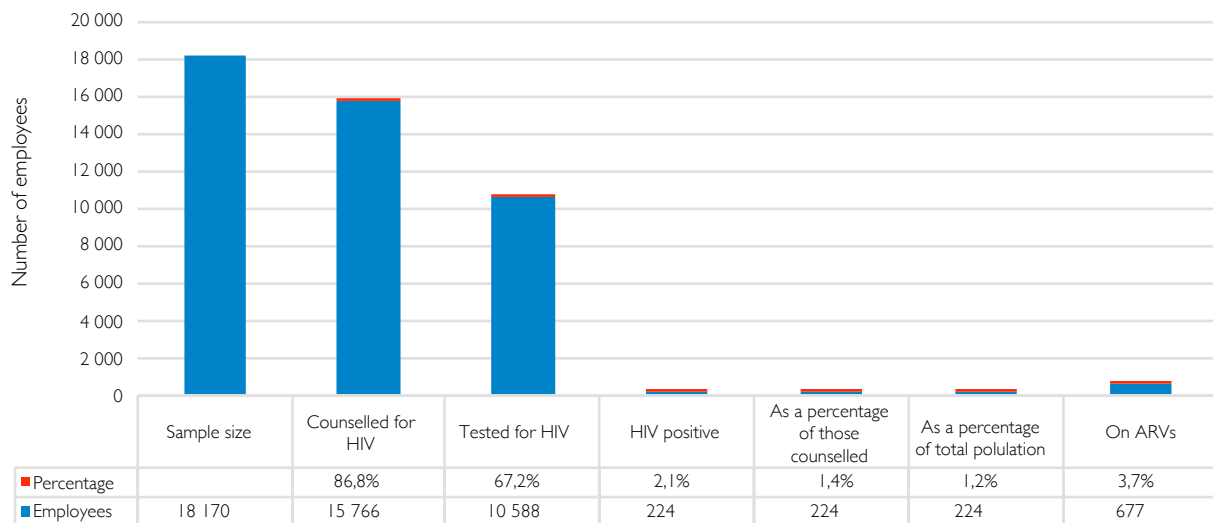
**FIGURE 4.3.4.4:** HCT services for coal mines



#### 4.3.4.5. HCT services for diamond mines

HIV counselling in the diamond sector has increased from 82% in 2022 to 86.8% in 2023. HIV testing has however decreased from 71.1% in 2022 to 67.2% in 2023.

**FIGURE 4.3.4.5:** HCT services for diamond mines



#### 4.3.4.6. HCT services for other mines

Other commodities usually comprise small mines which may have as few as three employees. The majority of these mines do not have health facilities and do not necessarily have standard HIV programmes in place. These employees are referred for the management of HIV.

The smaller mines have been advised to establish memorandums of understanding (MOUs) with the non-governmental organisations (NGOs) and the local health departments. This allows these mines to be able to provide the data required since HIV counselling and testing has remained constant at 80.6% for 65.4%, respectively.

**FIGURE 4.3.4.6:** HCT services for other mines

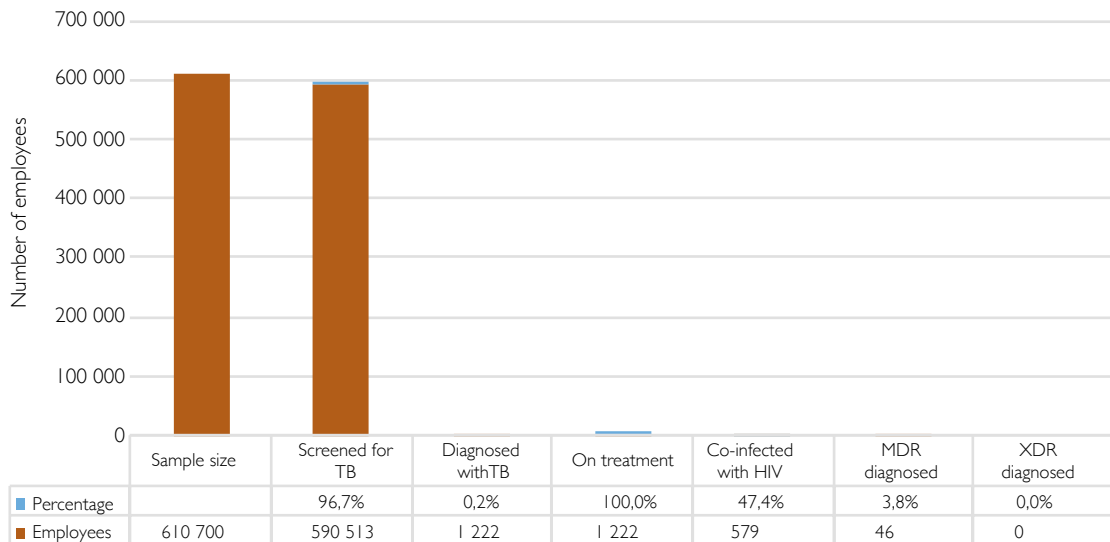


### 4.3.5. TB programme and TB/HIV co-infection

#### 4.3.5.1. TB programme and TB/HIV co-infection for all mines

TB screening for all mines has increased from 92.7% in 2022 to 96.7% in 2023 in keeping with the new 95/95/95 strategy. This improvement can be linked to the TB recovery plan that mines embarked on post-Corona Virus Infection Disease 2019 (COVID-19).

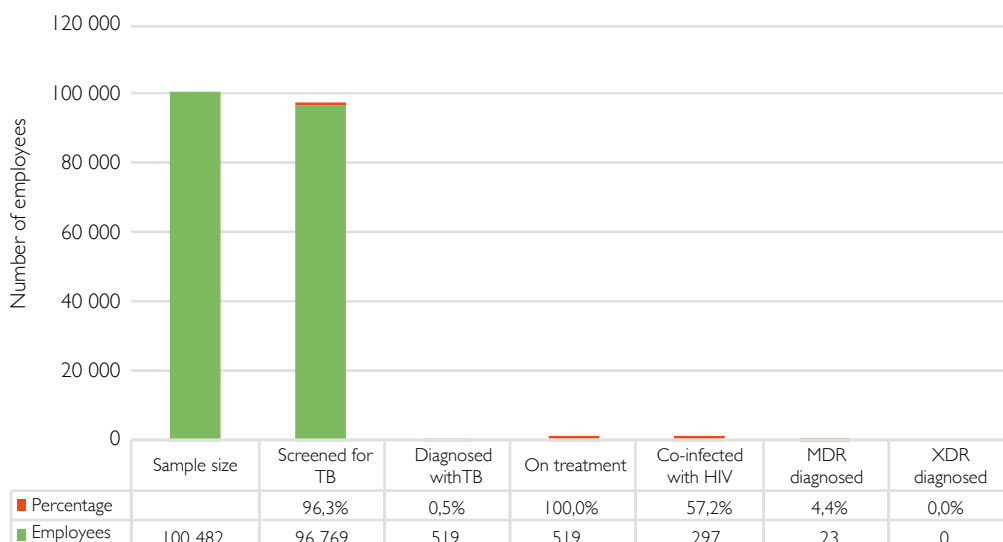
**FIGURE 4.3.5.1:** TB programme and TB/HIV co-infection for all mines



#### 4.3.5.2. TB programme and TB/HIV co-infection for gold mines

The gold sector has remained constant in terms of TB screening at 96.3% while employees diagnosed with TB have slightly reduced from 0.6% in 2022 to 0.5% in 2023. This is in line with the TB screening which has not changed significantly for the past two years, and the co-infection rate has remained constant for the same reason.

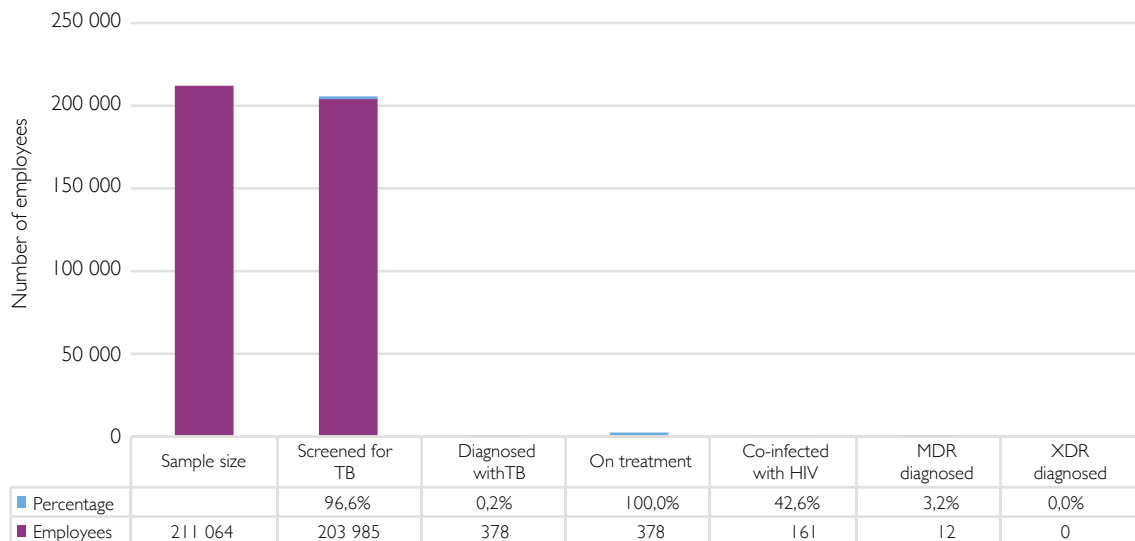
**FIGURE 4.3.5.2:** TB programme and TB/HIV co-infection for gold mines



#### 4.3.5.3. TB programme and TB/HIV co-infection for platinum mines

For 2023, TB screening in the platinum sector increased significantly from 86.9% in 2022 to 96.6%. The increased TB screening has not yielded any further TB cases, as the percentage of employees diagnosed with TB has remained unchanged at 0.2% for the past three years. The platinum sector has consistently shown very good TB performance indicating that TB programmes put in place are working well.

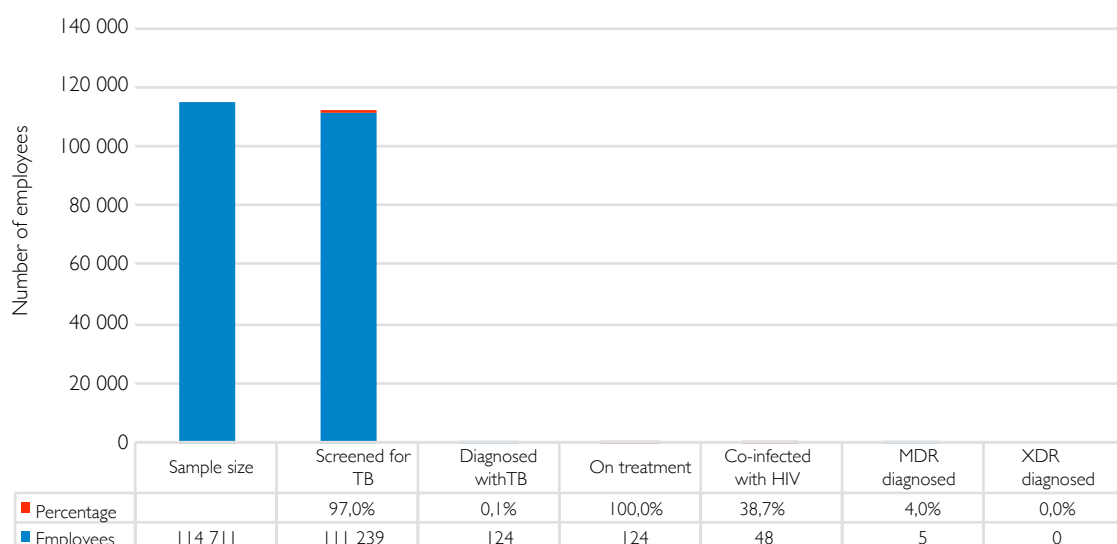
**FIGURE 4.3.5.3:** TB programme and TB/HIV co-infection for platinum mines



#### 4.3.5.4. TB programme and TB/HIV co-infection for coal mines

The coal sector has done well with an increase in TB screening from 94.7% in 2022 to 97.0% in 2023 surpassing the new target of 95% achievement in a quest by the World Health Organization (WHO) to end TB by 2035.

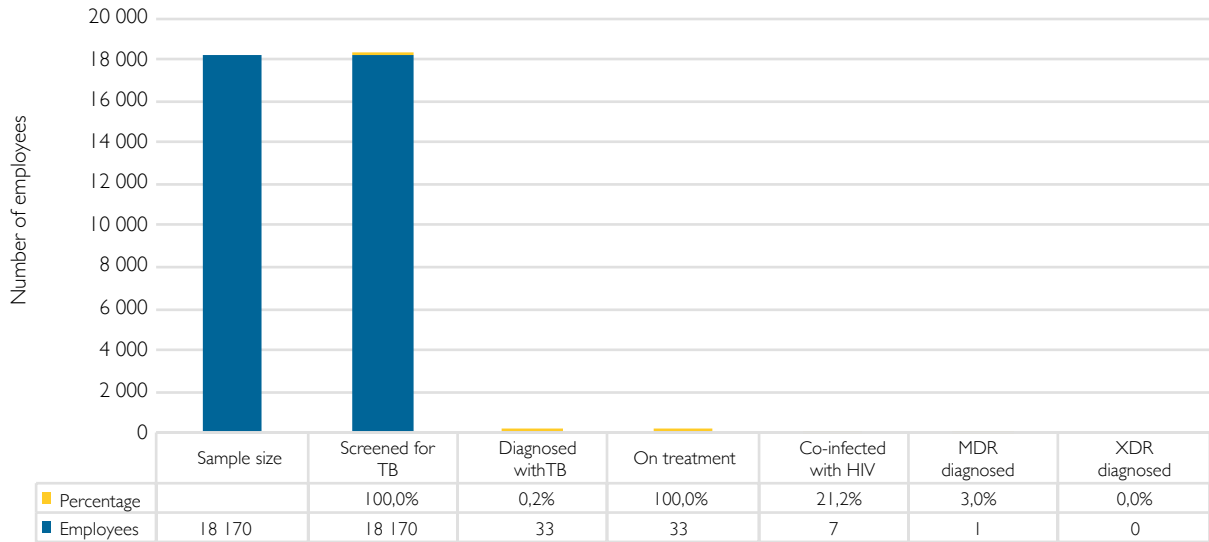
**FIGURE 4.3.5.4:** TB programme and TB/HIV co-infection for coal mines



#### 4.3.5.5. TB programme and TB/HIV co-infection for diamond mines

TB screening in the diamond sector improved from 98.4% in 2022 to 100% in 2023. The increased screening assisted in identifying more employees with TB, hence the increase in employees diagnosed with TB from 0.1% in 2022 to 0.2%. The co-infection rate has shown a slight increase from 20.0% in 2022 to 21.2%.

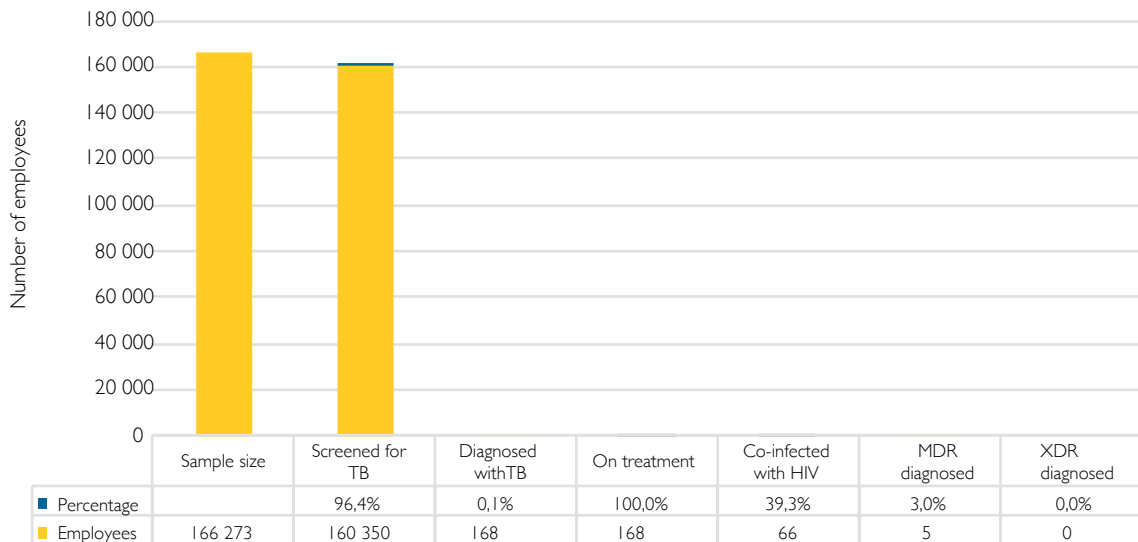
**FIGURE 4.3.5.5:** TB programme and TB/HIV co-infection for diamond mines



#### 4.3.5.6. TB programme and TB/HIV co-infection for other mines

Other mines have done relatively well in terms of TB screening at 96.4% for 2023 which is approximately 0.1% less compared to 2022. There has not been any change in terms of employees diagnosed with TB at 0.1%.

**FIGURE 4.3.5.6:** TB programme and TB/HIV co-infection for other mines







**PART 5**  
**STATE OF OCCUPATIONAL  
SAFETY**

## 5. STATE OF OCCUPATIONAL SAFETY

Although the number of fatalities in the South African mining industry has declined dramatically over the past decades, the industry is still plagued by challenges of fatalities and injuries resulting from mining activities. The South African mining tripartite stakeholders comprising the state – which regulates the mining sector – as well as the employers and employees continue to work towards an enviable state of zero harm.

The South African mining industry is required to report any accident or dangerous occurrence which may pose a significant risk to the safety of persons at a mine in the manner prescribed in Chapter 23 of the MHS Act. The data collected from the mining industry is captured onto the South African Mines Reportable Accident Statistics System (SAMRASS) database from which information is analysed, and reports are drawn. The correct description of accidents or dangerous occurrences is of the utmost importance if the statistics produced from these reports are to be meaningful.

The fatality and injury frequency rates per million hours worked is a number calculated using a rounded-off figure conversion factor of 2 200, as the mines do not report the actual hours worked. The assumption is each person works for an average of 48.9 weeks in a calendar year discounting weekends, public holidays, and annual leave days. The Basic Conditions of Employment Act, 1997 (Act 75 of 1997), requires a person to work not more than 45 hours a week.

Therefore, the conversion factor is rounded off to 2 200 hours per person per year. The rate is annualised. Therefore, for a full year it is as follows:

$$\text{Fatality/injury rate} = \frac{\left\{ \begin{array}{l} \text{Number of fatalities/injuries for a calendar year} \\ \text{Number of persons at work} \times 2\,200 \end{array} \right\}}{\text{hours}} \times 10^6$$

### 5.1. The number of employees at work

Statistics show there was an increase of 1.76% in the number of employees at work in the South African mining industry, from 443 367 in 2022 to 451 150 in 2023. Table 5.1 shows an increase of 1.41% in the gold mines, 2.19% in the platinum mines, 3.28% in the coal mines, 1.74% in the diamond mines, 5.59% in the copper mines, 8.97% in the chrome mines and 1.68% in the iron ore mines, while the manganese mines show a decrease of 8.83% and the other mines show a general decrease of 4.41%. The other mines include all other commodities not listed here.

**TABLE 5.1:** Number of employees at work

	2022	2023*	PERCENTAGE CHANGE
<b>TOTAL</b>	<b>443 367</b>	<b>451 150</b>	<b>1.76%</b>
Gold	87 478	88 715	1.41%
Platinum	157 782	161 245	2.19%
Coal	86 070	88 895	3.28%
Diamonds	14 657	14 912	1.74%
Copper	7 142	7 541	5.59%
Chrome	20 379	22 208	8.97%
Iron ore	23 122	23 511	1.68%
Manganese	12 513	11 408	-8.83%
Other mines**	34 224	32 715	-4.41%

\* Provisional data for the period 1 January – 31 December 2023

\*\* Other mines include all other commodities not listed above

## 5.2. Fatality-rate trends

### 5.2.1. FFR per region

In terms of Section 47(2) of the MHS Act, the Minister of Mineral Resources and Energy has by notice in the Government Gazette established regions in South Africa for the purpose of administering this Act. Table 5.2.1 indicates the number of fatalities reported to each of the regions of the MHSI, as well as the FFR during the calendar years 2022 and 2023. There was a regression of 12% in the number of fatalities reported to the regions year on year and a slight increase of 1.8% in the number of employees at work. The FFR regressed by 20% from 0.05% in 2022 to 0.06% in 2023.

**TABLE 5.2.1:** FFR per region

	2022			2023*			PERCENTAGE CHANGE
	Fatalities	Employees At Work	FFR	Fatalities	Employees At Work	FFR	
<b>ALL MINES</b>	<b>49</b>	<b>443 367</b>	<b>0,05</b>	<b>55</b>	<b>451 150</b>	<b>0,06</b>	<b>20%</b>
Eastern Cape	0	1 367	0	0	1 198	0,00	0%
Free State	4	26 519	0,05	2	23 367	0,04	-43%
Gauteng	10	52 602	0,09	16	55 099	0,13	44%
KwaZulu-Natal	1	11 774	0,04	1	11 541	0,04	0%
Limpopo	5	59 123	0,04	1	65 038	0,01	-75%
Mpumalanga	5	88 290	0,03	8	92 420	0,04	33%
Northern Cape	1	45 495	0,02	2	44 435	0,02	0%
North West: Klerksdorp	2	15 507	0,06	2	15 457	0,06	0%
North West: Rustenburg	20	137 570	0,07	21	137 652	0,07	0%
Western Cape	1	5 120	0,09	2	4 943	0,18	100%

\* Provisional data for the period 1 January – 31 December 2023

### 5.2.2. FFR by commodity

The FFR per commodity for the mining industry regressed by 10.0%, from 0.05% in 2022 to 0.06% in 2023, while the number of employees at work shows an increase of 1.76% from 443 367 in 2022 to 451 150 in 2023. The increase in the number of fatalities of 12% between 2022 and 2023 contributed to the increase in the FFR.

Table 5.2.2 below shows the FFR per commodity for 2022 and 2023. The FFR for diamond mines, copper mines, and chrome mines decreased by 50%, 100% and 100% respectively, while all the other mines show an increase.

**TABLE 5.2.2:** FFR by commodity

	2022			2023*			PERCENTAGE CHANGE
	Fatalities	Employees At Work	FFR	Fatalities	Employees At Work	FFR	
<b>ALL MINES</b>	<b>49</b>	<b>443 367</b>	<b>0,05</b>	<b>55</b>	<b>451 150</b>	<b>0,06</b>	<b>10%</b>
Gold	15	87 478	0,08	20	88 715	0,10	25%
Platinum	18	157 782	0,05	22	161 245	0,06	20%
Coal	6	860 70	0,03	7	88 895	0,04	33%
Diamonds	2	14 657	0,06	1	14 912	0,03	-50%
Copper	1	7 142	0,06	0	7 541	0	-100%
Chrome	4	20 379	0,09	0	22 208	0	-100%
Iron ore	0	23 122	0	1	23 511	0,02	100%
Manganese	0	12 513	0	0	11 408	0	0
Other mines**	3	34 224	0,04	4	32 715	0,06	50%

\* Provisional data for the period 1 January – 31 December 2023

\*\* Other mines include 2xgranite and 1xsalt in 2022; 1xTitanium, 1xAggregate, 1xDimension Stone, 1xLimestone in 2023)

## 5.3. Fatalities per casualty classification

### 5.3.1. Percentage fatalities per casualty classification

From the analysis of the data, it is noted that the classifications with the highest percentage of fatalities are FOG with 27%, conveyance accidents with 24% T&M with 22%, and general with 14%.

A breakdown of the fatalities by casualty classification are as follows:

#### **FOG (27%)**

There were 15 fatalities classified under FOG in 2023 compared to six fatalities in 2022. This translates to an increase of 150% year on year. These include seven gravity-induced and eight rockburst FOG accidents in 2023 compared to five gravity-induced and one rockburst accidents in 2022.

#### **Machinery (11%)**

There were six fatalities classified under machinery-conveyor belts in 2023 compared to none in 2022. This translates to an increase of 600% year on year. These include five conveyor belts and one other machinery accident in 2023 compared to none in 2022.

#### **T&M (22%)**

There were 12 fatalities classified under T&M in 2023 compared to 18 in 2022. This translates to a decrease of 33% year on year. These include three track-bound transport (TBT), three winches, and six trackless mobile machines (TMM) accidents in 2023 compared to five, three, and 10, respectively in 2022.

#### **General (14%)**

General classified accidents will be detailed under item 5.3.2 below.

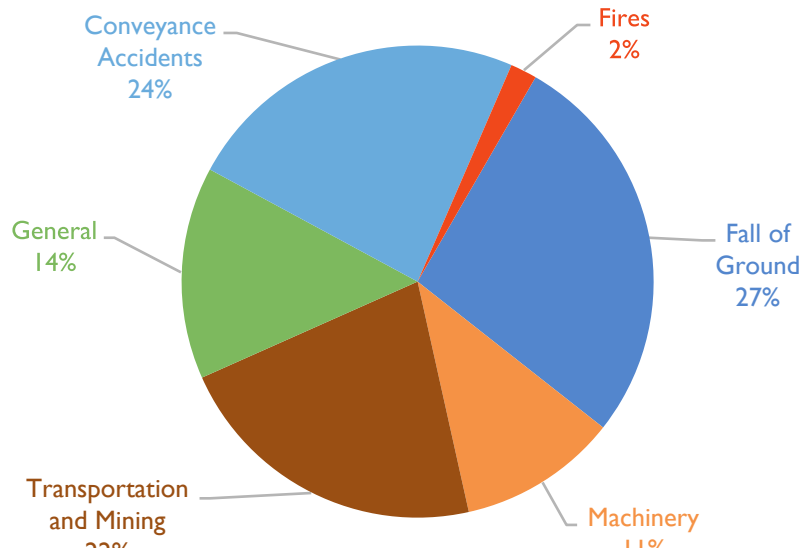
#### **Conveyance accidents (24%)**

There were 13 fatalities classified under conveyance accidents in 2023 compared to four fatalities in 2022. This translates to an increase of 225% year on year. The 13 fatalities reported in 2023 were all from a single accident that occurred at a platinum mine.

#### **Fires (2%)**

There was one fatality classified under fires in 2023 compared to one fatality in 2022. This translates to no change year on year.

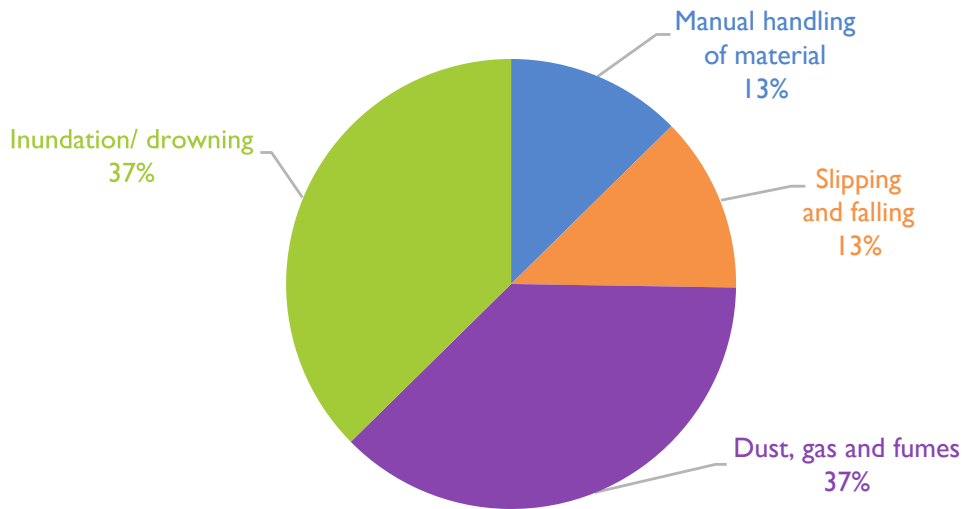
**FIGURE 5.3.1:** Percentage fatalities per casualty classification



**5.3.2. Subclassification of general-type accidents for fatalities**

There were eight fatalities classified under general accidents in 2023 compared to 16 fatalities in 2022. This translates to a decrease of 50% year on year. The subclassification of general fatalities reported in 2023 were: manual handling of material one; slipping and falling one; dust, gas and fumes three; and inundation/drowning three.

**FIGURE 5.3.2:** Subclassification of general-type accidents for fatalities



**5.3.3. Breakdown of fatalities per casualty classification**

The 55 fatalities reported in 2023 are indicated in Table 5.3.3. It is notable that fatalities due to FOG accidents were the lowest ever in the South African mining industry in 2022 at six. However, FOG fatalities were the highest among fatalities reported in 2023 at 15. The South African mining safety tripartite stakeholders will continue to work tirelessly to eliminate FOG fatalities.

**TABLE 5.3.3:** Fatalities per casualty classification

	I JANUARY TO 31 DECEMBER 2022	I JANUARY TO 31 DECEMBER 2023*	PERCENTAGE CHANGE
<b>FOG</b>	6	15	150%
Gravity	5	7	40%
Rockburst	1	8	700%
<b>MACHINERY</b>	0	6	600%
Conveyor belts	0	5	500%
Other machinery not included in TMM	0	1	100%
<b>T&amp;M</b>	18	12	-33%
<b>TBT</b>	5	3	-40%
Coupling/uncoupling	1	1	0%
Locomotive	3	1	-67%
Rocker arm shovel	1	1	0%
<b>WINCHES</b>	3	3	0%
Scraper winch installation	3	2	-33%
Single drum winch	0	1	100%
<b>TMM</b>	10	6	-40%
Coal mining machines	1	0	-100%
Mechanical loaders	3	0	-100%
Motor vehicles	0	1	100%
Transporters	4	3	-25%
T&M lifting machines	2	1	-50%
Other T&M equipment	0	1	100%
<b>GENERAL</b>	16	8	-50%
Dust, gas and fumes	0	3	300%
Falling in/from	1	0	-100%
Fall of material/rolling rock	4	0	-400%
Inundation/drowning	6	3	-50%
Manual handling of material	1	1	0%
Slipping and falling	1	1	0%
Splinters	1	0	-100%
Struck by object – manual handling	2	0	-200%
<b>CONVEYANCE ACCIDENTS</b>	4	13	225%
<b>DIVING SICKNESS</b>	1	0	-100%
<b>ELECTRICITY (NOT CAUSING FIRES)</b>	1	0	-100%
<b>EXPLOSIVES</b>	2	0	-100%
<b>FIRES</b>	1	1	0%
<b>TOTAL</b>	49	55	12%

\* Provisional data for the period 1 January – 31 December 2023

## 5.4. Analysis of injury-rate trends

### 5.4.1. IFR per region

Table 5.4.1 indicates the number of injuries reported to each of the regions of the MHSI, as well as the IFR during 2022 and 2023. There was an increase of 4% in the number of injuries reported to the regions year on year and an increase of 2% in the number of employees at work. The IFR increased from 0.05% in 2022 to 0.06% in 2023.

**TABLE 5.4.1:** IFR per region

	2022			2023*			PERCENTAGE CHANGE
	Injuries	Employees at work	IFR	Injuries	Employees at work	IFR	
<b>ALL MINES</b>	<b>2 065</b>	<b>443 367</b>	<b>2,12</b>	<b>2 181</b>	<b>451 150</b>	<b>2,20</b>	<b>4%</b>
Eastern Cape	2	1 367	0,67	2	1 198	1,14	71%
Free State	176	26 519	3,02	178	23 367	3,46	15%
Gauteng	297	52 602	2,57	380	55 099	3,13	22%
KwaZulu-Natal	22	11 774	0,85	10	11 541	0,39	-54%
Limpopo	149	59 123	1,15	154	65 038	1,08	-6%
Mpumalanga	214	88 290	1,10	249	92 420	1,22	11%
Northern Cape	89	45 495	0,89	97	44 435	0,99	12%
North West: Klerksdorp	126	15 507	3,69	101	15 457	2,97	-20%
North West: Rustenburg	981	137 570	3,24	1 005	137 652	3,32	2%
Western Cape	9	5 120	0,80	4	4 943	0,37	-54%

\* Provisional data for the period 1 January – 31 December 2023

### 5.4.2. IFR by commodity

The overall IFR per commodity increased by 4% from 2.12 in 2022 to 2.20 in 2023. Table 5.4.2 shows that the IFR for the platinum, copper, iron ore, and other mines decreased by 2%, 74%, 26% and 36% respectively, while the gold, coal, diamonds, chrome, and manganese mines have increased by 14%, 28%, 31%, 14%, 36%, respectively.

**TABLE 5.4.2:** IFR by commodity

	2022			2023*			PERCENTAGE CHANGE
	Injuries	Employees at work	IFR	Injuries	Employees at work	IFR	
<b>ALL MINES</b>	<b>2 065</b>	<b>443 367</b>	<b>2,12</b>	<b>2 181</b>	<b>451 150</b>	<b>2,20</b>	<b>4%</b>
Gold	568	87 478	2,95	656	88 715	3,36	14%
Platinum	1 041	157 782	3,00	1 043	161 245	2,94	-2%
Coal	157	86 070	0,83	207	88 895	1,06	28%
Diamonds	42	14 657	1,30	56	14 912	1,71	31%
Copper	11	7 142	0,70	3	7 541	0,18	-74%
Chrome	73	20 379	1,63	91	22 208	1,86	14%
Iron ore	40	23 122	0,79	30	23 511	0,58	-26%
Manganese	21	12 513	0,76	26	11 408	1,04	36%
Other mines**	112	34 224	1,49	69	32 715	0,96	-36%

\* Provisional data for the period 1 January – 31 December 2023

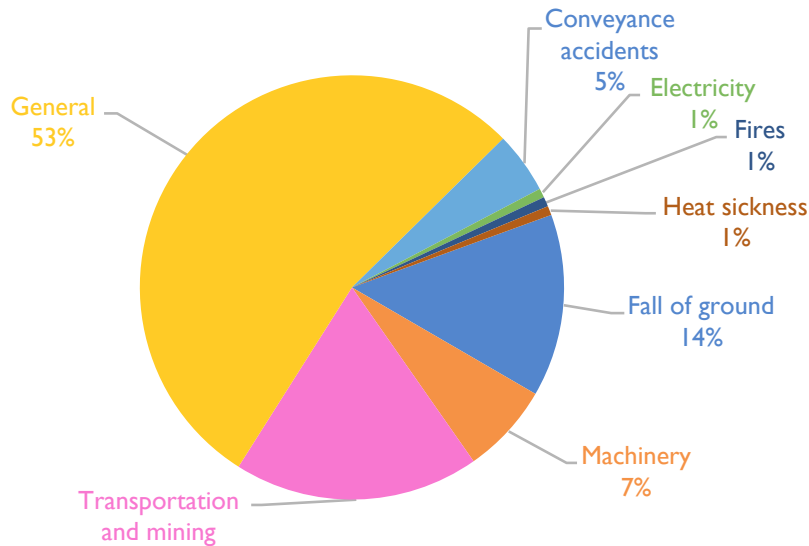
\*\* Other mines include all other commodities not listed above

## 5.5. Injuries by casualty classification

### 5.5.1. Percentage injuries per casualty classification

From the analysis of the data, it is noted that the classifications with the highest percentage of injuries are general with 53%, T&M with 18% and FOG with 14%. A breakdown of the injuries by casualty classification are as follows:

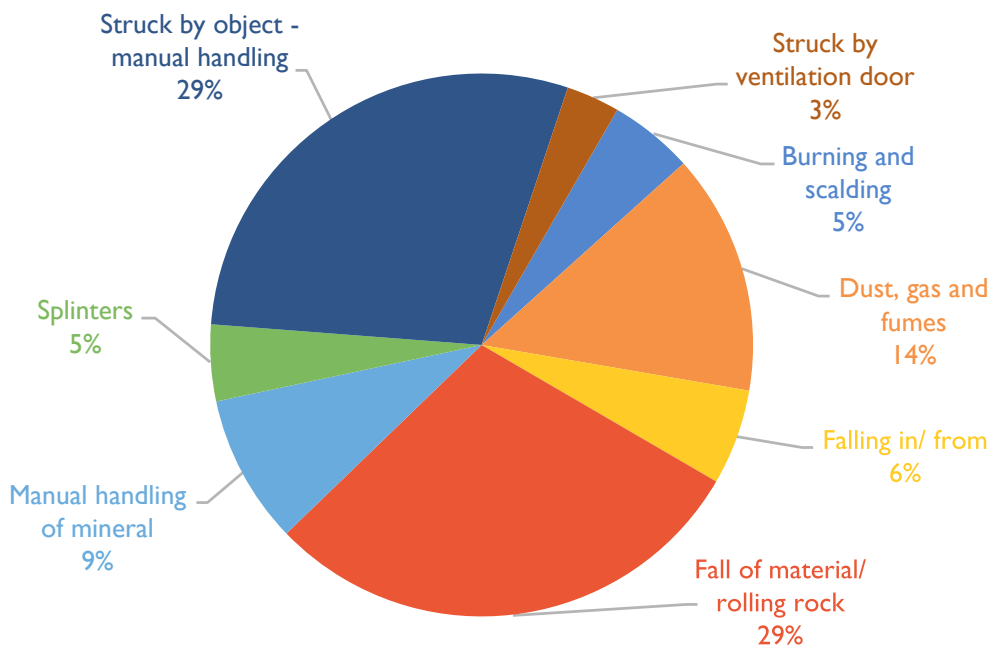
**FIGURE 5.5.1:** Percentage injuries per casualty classification



### 5.5.2. Subclassification of general-type accidents for injuries

There were 1 196 injuries classified under general-type accidents in 2022 compared to 1 082 injuries in 2023. This translates to a decrease of 10% year on year. These include manual handling of material with 295 in 2022 compared to 246 in 2023, slipping and falling with 415 in 2022 compared to 395 in 2023, and struck by object manual handling with 132 in 2022 compared to 127 in 2023.

**FIGURE 5.5.2:** Subclassification of general-type accidents for injuries



### 5.5.3. Breakdown of injuries per casualty classification

Table 5.3.3 shows a breakdown of injuries per casualty classification. There was a 2% increase in injuries from 2 065 reported in 2022 to 2 100 reported in 2023. The general type injuries need to be tackled as a matter of urgency, where 415 slipping and falling incidents were reported in 2022 compared to 395 in 2023, 159 fall of material/rolling rock reported in 2022 compared to 129 reported in 2023, and 132 struck by object manual handling reported in 2022 compared to 127 reported in 2023.

**TABLE 5.5.3:** Breakdown of injuries per casualty classification

	I JANUARY TO 31 DECEMBER 2022	I JANUARY TO 31 DECEMBER 2023*	PERCENTAGE CHANGE
<b>FOG</b>	<b>298</b>	<b>300</b>	<b>1%</b>
Gravity	241	220	-9%
Rockburst	32	53	66%
Strainburst	25	27	8%
<b>MACHINERY</b>	<b>165</b>	<b>151</b>	<b>-8%</b>
Conveyor belts	47	37	-21%
Drives, belts and chains	15	14	-7%
Portable power tools	76	73	-4%
Other machinery not included in TMM	27	27	0%
<b>T&amp;M</b>	<b>353</b>	<b>396</b>	<b>12%</b>
<b>TBT (TRACK-BOUND TRANSPORT)</b>	<b>139</b>	<b>144</b>	<b>4%</b>
Coupling/uncoupling	36	53	47%
Hand trammed	7	8	14%
Locomotive	32	21	-34%
Locomotive-drawn vehicle	24	30	25%
Personnel transport	8	5	-38%
Re-railing	16	13	-19%
Rocker arm shovel	12	14	17%
Other transport (specify)	4	0	-100%
<b>WINCHES</b>	<b>101</b>	<b>97</b>	<b>-4%</b>
Double drum winch	26	23	-12%
Mono rope/rail	10	11	10%
Scraper winch installation	59	58	-2%
Single drum winch	6	5	-17%
<b>TMM</b>	<b>113</b>	<b>155</b>	<b>37%</b>
Coal mining machines	1	3	200%
Mechanical loaders	16	17	6%
Motor vehicles	16	19	19%
Tractor/trailer	5	6	20%
Transporters	23	39	70%
T&M lifting machines	13	25	92%
T&M mobile drilling machines	32	35	9%
Other T&M equipment	7	11	57%
<b>GENERAL</b>	<b>1196</b>	<b>1082</b>	<b>-10%</b>
Burning and scalding	42	22	-48%
Dust, gas and fumes	35	63	80%
Falling in/from	43	25	-42%
Fall of material/rolling rock	159	129	-19%

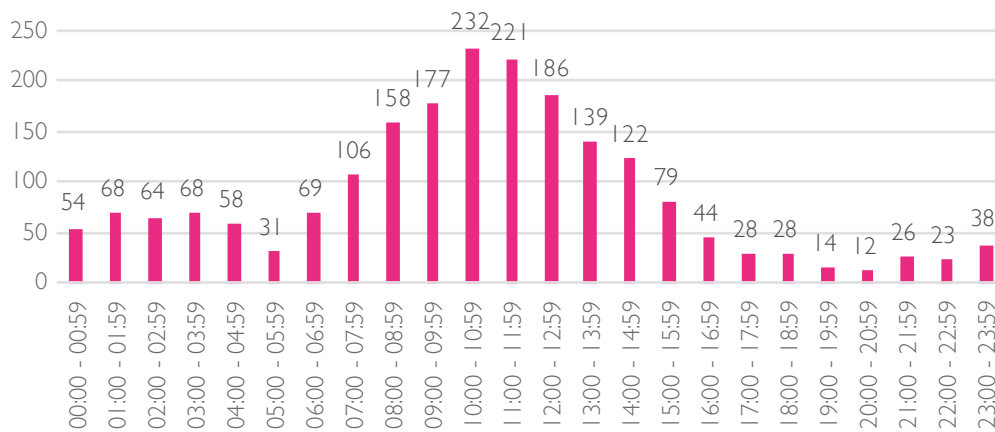
	1 JANUARY TO 31 DECEMBER 2022	1 JANUARY TO 31 DECEMBER 2023*	PERCENTAGE CHANGE
Inundation/drowning	4	2	-50%
Manual handling of material	295	246	-17%
Manual handling of mineral	40	39	-3%
Slipping and falling	415	395	-5%
Splinters	25	20	-20%
Struck by object – manual handling	132	127	-4%
Struck by ventilation door	6	14	133%
<b>CONVEYANCE ACCIDENTS</b>	<b>22</b>	<b>100</b>	<b>355%</b>
<b>DIVING SICKNESS</b>	<b>3</b>	<b>15</b>	<b>400%</b>
<b>ELECTRICITY (NOT CAUSING FIRES)</b>	<b>17</b>	<b>15</b>	<b>-12%</b>
<b>FIRES</b>	<b>6</b>	<b>16</b>	<b>167%</b>
<b>EXPLOSIVES</b>	<b>2</b>	<b>10</b>	<b>400%</b>
<b>OCCUATIONAL DISEASES (NON-DIVING)</b>	<b>1</b>	<b>0</b>	<b>-100%</b>
<b>MISCELLANEOUS</b>	<b>0</b>	<b>15</b>	<b>1500%</b>
<b>TOTAL</b>	<b>2065</b>	<b>2100</b>	<b>2%</b>

\* Provisional data for the period 1 January – 31 December 2023

## 5.6. Accidents classified by time of occurrence

Statistics show that accidents in 2023, when classified by time of occurrence, mainly took place between 08:00 and 14:00. This period is during the day shift when there are more employees at work. Most underground workers start the morning shift at 06:00, and the number of accidents peak at mid-shift between 09:00 and 11:00

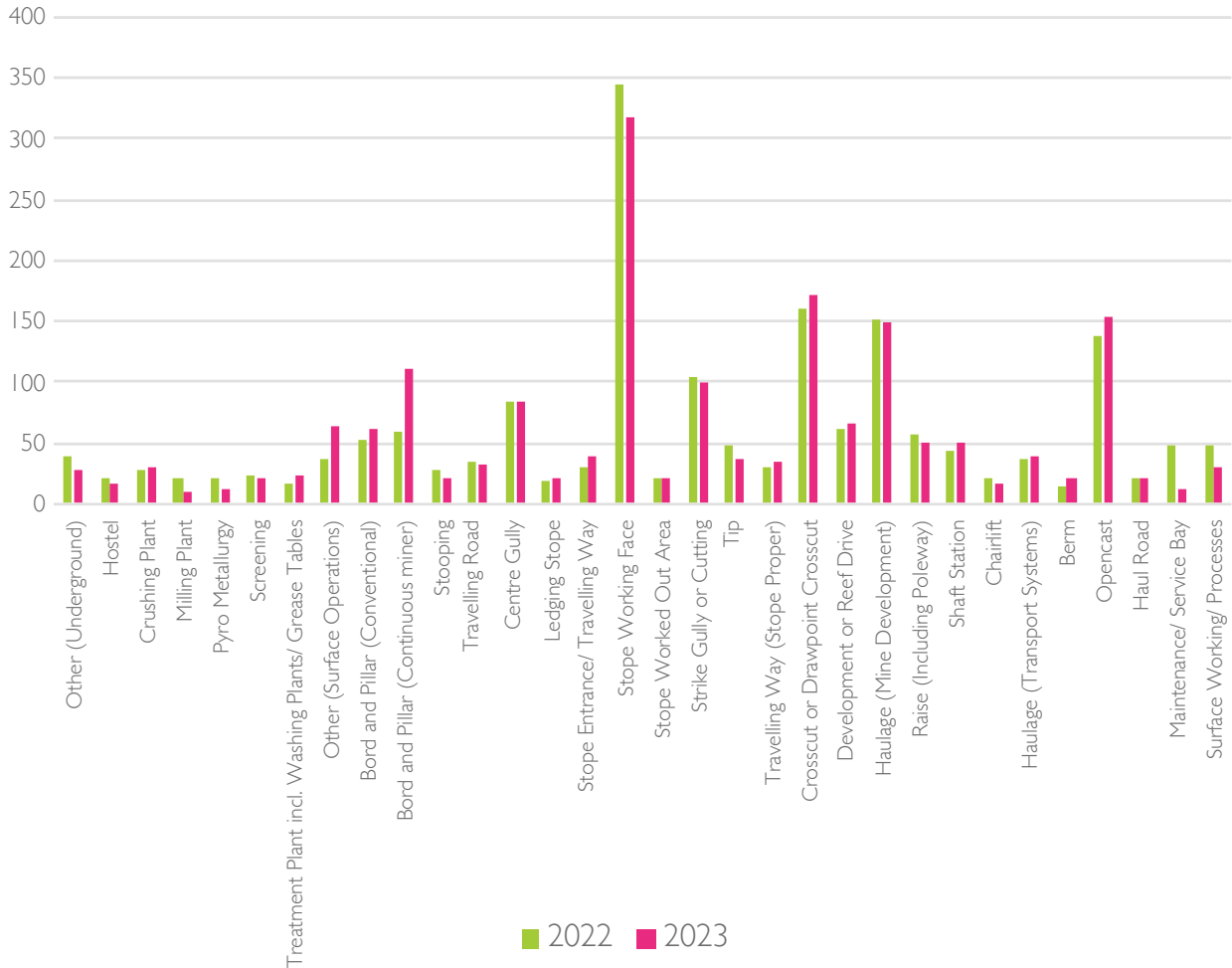
**FIGURE 5.6:** Number of accidents classified by time of occurrence



## 5.7. Accidents classified by location

Statistics show that most accidents in 2023 occurred at the stope working face, the haulage, the crosscut or draw point, the strike gully or cutting, and opencast. These are areas with a considerable concentration of employees working towards set production targets.

**FIGURE 5.7:** Number of accidents classified by location



## 5.8. Disaster-type accidents

A disaster-type accident is classified when five or more employees lose their lives in the same accident. There was one disaster-type accident reported in 2023.

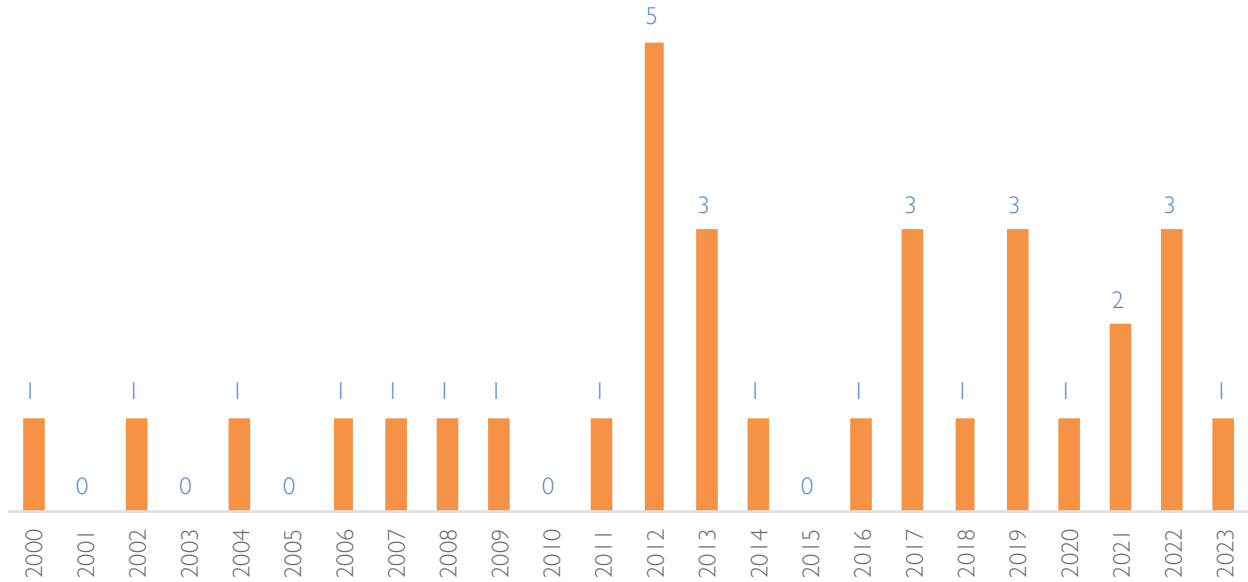
At about 16:25 on 28 November 2023, 11 employees were fatally injured when the counterweight rope of the cage they were in, together with other employees, detached and the cage moved downwards in a controlled manner at a platinum mine. The cage came to a stop at the pump station and penthouse. Two more employees succumbed to injuries sustained in hospital, bringing the total of deceased employees in this one incident to 13.

## 5.9. WIM

### 5.9.1. Actual number of fatalities for WIM

One woman was fatally injured in 2023 compared to three women in 2022. This translates to a decrease of 67% in fatalities for WIM year on year. Although a fatality of any mineworker is regrettable, irrespective of gender, Figure 5.9.1 shows that since 2000, there were no fatalities for WIM reported for 2001, 2003, 2005, 2010, and 2015.

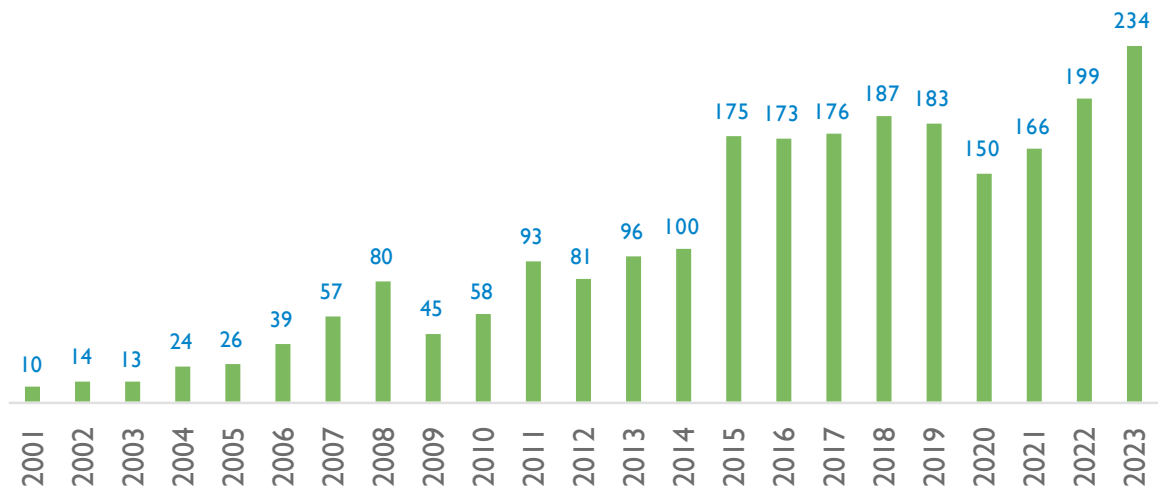
**FIGURE 5.9.1:** Number of fatalities for WIM



### 5.9.2. Actual number of injuries for WIM

There has been an increase in the number of injuries involving WIM.

**FIGURE 5.9.2:** Actual injuries for WIM

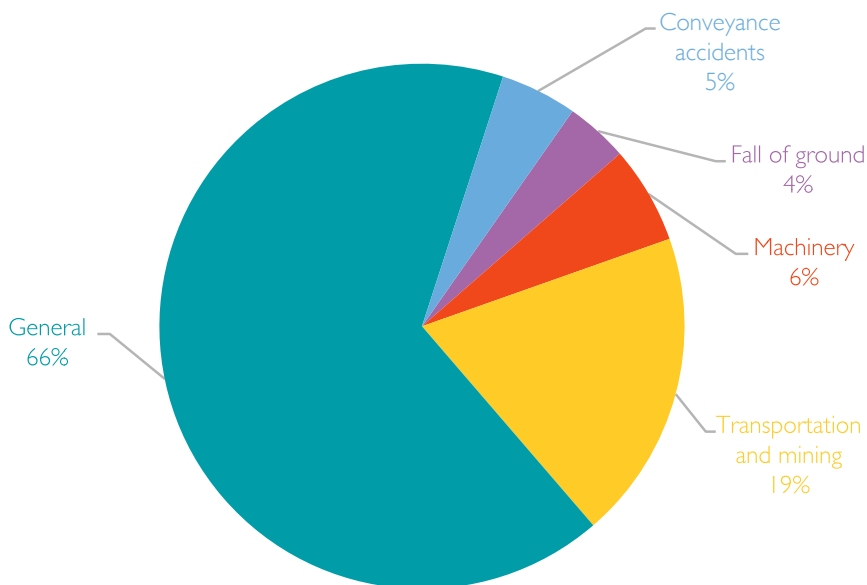


### 5.9.3. Classification of injuries for WIM

Figure 5.9.3 shows the classification of injuries to women employees across all commodities for the calendar year 2023.

The injuries reported involving women were mostly in the general classification (66%). These accidents were linked to slipping and falling, material-handling and being struck by an object.

**FIGURE 5.9.3:** Classification of injuries for WIM



## 5.10. Enforcement

### 5.10.1. Section 54 transgressions identified per category

**TABLE 5.10.1:** Number of Section 54 transgressions identified per category

CATEGORY	TOTAL IDENTIFIED	
	2022	2023
100 metres mining	1	0
Accidents	0	43
Airborne pollutants / dust	61	41
Alcohol testing	2	0
Blasting	39	61
Chairlifts	6	12
Change house / washing facilities / eating facilities	13	22
Checklist	12	9
COPs	133	88
Communications	11	22
Confined Spaces	0	4
Conveyor belts	252	161
Drilling / rigging	32	11
Drinking water	1	0
Electricity	82	98
Emergency preparedness	212	144
Exemptions / permissions / approvals / authorisations	25	46
Explosives	112	62
FOG	274	298
Fatigue management	1	1
Fires	13	44
Gas instruments	0	5
Gas detection instrument (GDI) / gases	0	12
General	0	1
Guarding	1	0
Health and safety	3	1
Highwall	0	27
Housekeeping / barring / barricade / fencing	67	60
Human resources	0	1
Induction	0	1
Isolation and lockout	0	1
Investigations	7	0
Lamp room / refuge bay	20	7
Legal appointments	130	122
Lifting equipment	49	39
Logbook and record keeping	0	5
Machinery / plant	105	154
Medical surveillance / COVID-19	35	34
Mine inspection non-compliance	8	5
Mine permit / unauthorised access	6	6
Mine plans	1	0
Mining in close proximity to community	20	51
Mining practices / SOP	271	296

CATEGORY	TOTAL IDENTIFIED	
	2022	2023
Mud-rush / inundation	24	59
No access control / perimeter fence / mine boundaries	8	0
Noise	7	23
Notices	3	7
Occupational hygiene	21	37
Offshore / Offshore certificate of fitness	0	1
Personal protective equipment (PPE)	19	15
Planned task observation	1	0
Preventative maintenance	0	1
Proximity detections system (PDS)	8	12
Rail-bound equipment (RBE)	126	159
Rehabilitation	1	0
Risk assessment	466	335
Road condition / haul roads / illumination / cross-cuts	32	40
Safe declaration	190	127
Safety devices	9	50
Self-contained self-rescuer (SCSR)	0	2
Service column	0	1
Shafts / winders	48	79
Signage	1	0
Stability-monitoring	3	2
Statutory reporting / sub-standard reports	26	18
Substandard support	172	114
Substation	3	4
Supervision	559	255
System Hooper	0	1
Thermal stress-monitoring	3	0
Tip area	7	2
TMM	565	490
Traffic management	59	26
Training	156	106
Travelling ways / haulages / crosscuts / rails	0	33
Vehicle conditions	0	1
Ventilation	152	171
Waiting place	9	17
Water drain / pipes / boreholes	5	10
Winches / winders	237	230
Winding plant	5	0
Work conditions	8	20
<b>TOTAL</b>	<b>4 938</b>	<b>4 443</b>

## 5.10.2. Section 55 transgressions identified per category

**TABLE 5.10.2:** Number of Section 55 transgressions identified per category

CATEGORY	TOTAL IDENTIFIED	
	2022	2023
Budget	1	0
Bundwall	1	0
Chairlift	0	23
Change house / laundry	6	21
Communications	1	0
Conveyor belts / plant	64	137
Codes of Practice (COPs)	302	252
Dust	28	33
Early warning system	0	1
Electricity	99	140
Emergency preparedness	136	52
Exemptions / permissions / approvals / authorisations	15	0
Explosives	27	54
Fatigue management	6	3
Fires	1	0
FOG	92	74
General / housekeeping / road conditions / barring / barricade / unsafe travelling route / haul road	39	44
Guarding	3	13
Health and safety policy	22	5
Health and safety representatives / committees	6	8
Hazard identification and risk assessment (HIRA)	5	0
Illumination	0	12
Inspector instructions / powers	1	0
Investigation	6	1
Isolation and lockout	0	4
Laboratory	0	3
Lamp room / refuge bay	1	7
Legal appointments	127	131
Logbooks / registers / record keeping	13	8
Machinery / lifting equipment / winder	75	97
Medical surveillance / COVID-19	65	63
Mine plans	9	1
Mining practices	34	34
No access control / perimeter fence / mine boundaries	2	2
Noise	7	10
Occupational hygiene	69	60
Pan	3	0
Panels and switchgears	3	2
PPE	20	48
Personnel sampling	0	1
Pre-use checklist	18	13
Poor maintenance	0	4
Poor management	0	1
RBE	36	22

CATEGORY	TOTAL IDENTIFIED	
	2022	2023
Rail switches	2	0
Refuelling bay	0	1
Reporting of issues to the office	0	2
Right for refusal to work in dangerous workplaces / areas	1	0
Risk assessment	281	190
Road traffic management	15	13
Safe declaration	60	29
SCSRs	4	0
Shafts	6	20
Standard operating procedures (SOPs)	45	71
Statutory reporting	31	33
Substation	0	20
Supervision	211	177
Support designs	10	0
Surveying	0	2
Tip area	1	0
TMM	230	184
Training	60	47
Transportation of employees	0	1
Underground water	31	0
Ventilation	33	30
Winches	18	11
Working conditions	4	7
<b>TOTAL</b>	<b>2 386</b>	<b>2 222</b>





# **PART 6**

# **STATE OF MINE SURVEYING**

## 6. STATE OF MINE SURVEYING

The Directorate: Mine Surveying administers the archiving, retrieval and safe-keeping of the prescribed mine plans, departmental copies of these plans and survey records of mines that have closed. The plans of closed-down mines are made available to the mine owners or their representatives.

The inspectors assist the regions in maintaining surveying and mapping standards by monitoring compliance by the mines to the relevant MHSA regulations. It further ensures that the departmental copies of all statutory mine plans are deposited annually at the regional offices.

Underground inspections are performed to check the measurements in restricted areas where surface structures require protection or to determine the accurate representation of such workings on the plans. During these underground visits, the inspectors also check that escape route plans are recorded and whether the refugee bays are life-sustaining as prescribed in the regulations.

Inspectors conduct surveys to determine the distances between mining operations and residential areas when complaints are lodged. The Directorate also processes, comments and makes recommendations on applications for permissions and exemptions from the provisions of the MHSA, regarding the status and safe utilisation of undermined land for township development and other purposes.

Special surveys are done to quantify the volume of minerals removed and the extent of illegal surface-mining activities. Furthermore, the inspectors verify the accuracy of survey data and plans submitted by candidates undertaking trial survey projects as part of their Mine Surveyors Certificate of Competency (MSCC) examinations.

### 6.1. Completed tasks for the Mine Surveying Directorate

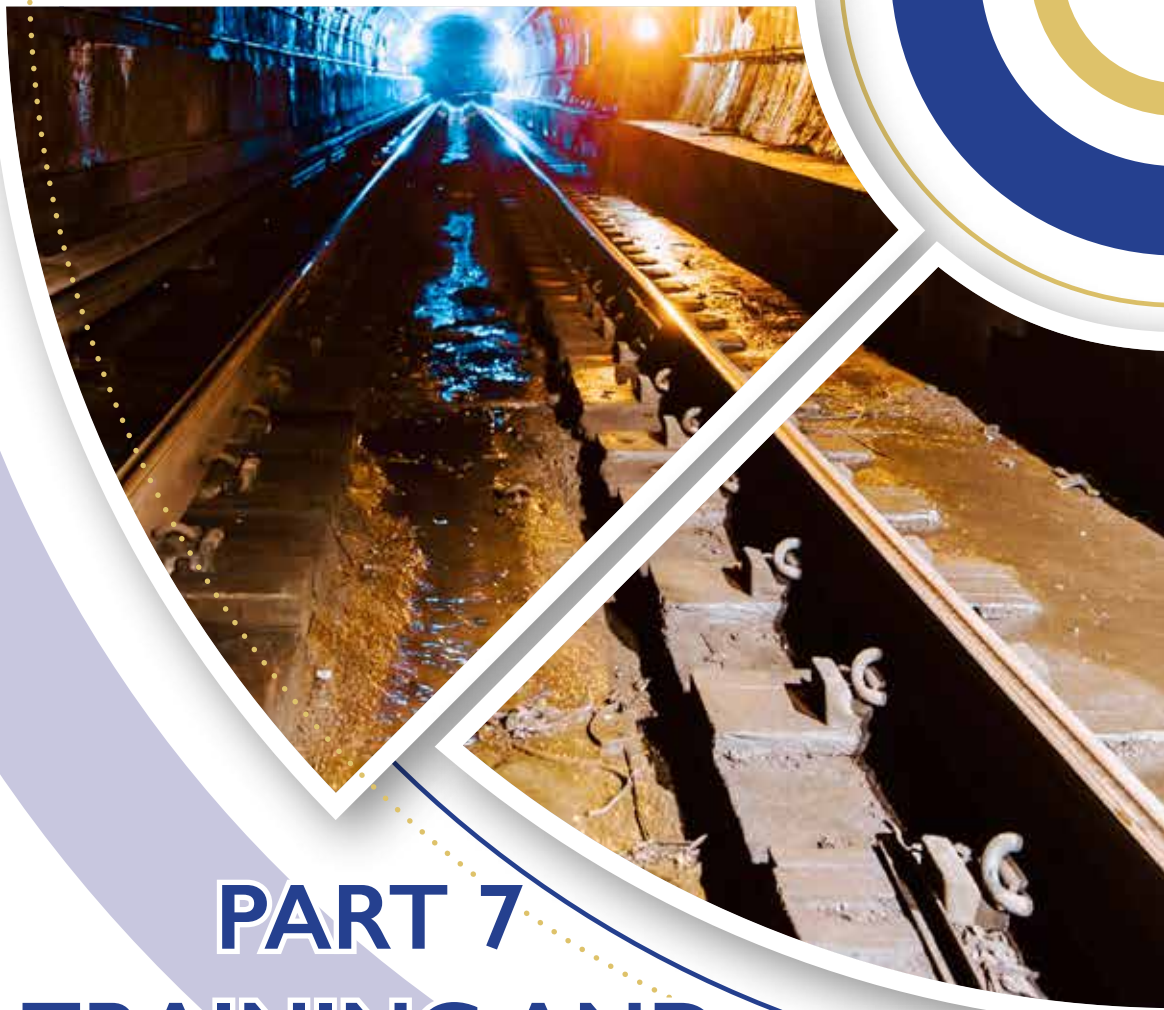
**TABLE 6.1:** Completed tasks for the current reporting period compared to the previous reporting period

ACTIVITIES	PLANNED	COMPLETED	PERFORMANCE ANALYSIS
Underground and surface-mine surveying inspections	336	337	Inspections are planned in accordance with the allocated budget.
Underground inspections for control measurements	168	170	Underground inspections focusing on the causes of fatalities were prioritised during the reporting period.
Permissions and exemptions	16	16	All applications were processed within 30 days as required. The applications received towards the end of the reporting period were carried over to the next reporting year.
Surface utilisation applications	239	239	Incomplete applications were returned to the applicants, and when the corrected applications were received towards the end of the reporting period, they were carried over to the next reporting year.

### 6.2. Section 55 instructions issued

During the reporting period, several Section 55 notices in terms of the MHSA were issued for the following contraventions:

- Non-submission of departmental plans at the regional offices.
- Mine plans out of date.
- Uncertificated acting Mine Surveyor for more than 60 days in a position that requires a certificated surveyor.
- Failure to report the resignation and appointment of certificated surveyors as contemplated in regulation 17(2)(b) of the MHSA.



# **PART 7**

# **TRAINING AND EXAMINATIONS**

## 7. TRAINING AND EXAMINATIONS

### 7.1. Implemented training

During the reporting period, the MHSI developed the skills and knowledge base of its staff as follows:

- A total of 50 MHSI officials attended technical and non-technical training courses as well as conferences.
- Two and one MHSI officials attended the EMDP and the EDP during the reporting period, respectively.

### 7.2. Training interventions

#### 7.2.1. [Assistant inspector programme](#)

The DMRE had six Assistant Inspectors at the commencement of the reporting period and only one of the Assistant Inspectors passed their respective GCC examination during the period under review.

#### 7.2.2. [Bursary scheme](#)

There were no MHSI bursary holders during the reporting period.

### 7.3. Examinations

#### 7.3.1. [Written candidates vs certificates issued per examination category](#)

**TABLE 7.3.1:** Number of certificates issued per examination category

TYPE OF CERTIFICATE	NUMBER OF CERTIFICATES ISSUED
Mine Engineer's (Electrical and Mechanical Certificate)	122
Mine Manager's Certificate	65
Mine Overseer's Certificate	104
Mine Surveyor's Certificate	3
Winding Engine Driver's Certificate	33
<b>TOTAL</b>	<b>327</b>

#### 7.3.2. [Onsetter examination](#)

A total of 97 certificates were issued for the onsetter examination category.

#### 7.3.3. [Lampsman examination](#)

A total of 36 certificates were issued for the lampsman examination category.



## **PART 8**

# **REGIONAL OPERATIONS OF THE INSPECTORATE**

## 8. REGIONAL OPERATIONS OF THE INSPECTORATE

### 8.1. Central and Coastal Regions

The Central and Coastal regional operations consist of the Gauteng and KwaZulu-Natal regions. Both provinces combined have the highest population of about 25.3 million people, which is nearly half the total population of the country, who mainly speak isiZulu, English, Afrikaans, and Sesotho.

There are approximately 166 operating mines collectively in these regions employing approximately 72 261 employees. The major commodities mined are gold, coal, diamonds, clay, sand, aggregates, and industrial minerals. The mining operations range from small, medium to large-scale enterprises operating both underground and on surface with numerous crushers, quarries, and borrow pits.

#### *Overall occupational health performance*

The total number of occupational diseases reported from the AMRs by the Gauteng and KwaZulu-Natal regions decreased from 525 cases in 2022 to 417 cases reported in 2023. The main occupational diseases reported in 2023 were NIHL, PTB, and silicosis which were 179, 174, and 45 cases, respectively.

It is encouraging to note that KwaZulu-Natal showed the best improvement of 91% on total occupational diseases reported from the AMRs year on year from 121 to 11 cases. Except for one case of silicosis reported in 2023, all other cases of occupational diseases reported dropped year on year, with NIHL dropping from 20 to two cases, PTB from 27 to eight cases, and CWP dropping from 67 to zero cases.

A slight improvement was noted in the reporting of silicosis and NIHL cases in the Gauteng region year on year, with silicosis cases dropping from 56 to 44, and NIHL dropping from 205 to 177 cases in 2023. PTB cases reported during 2023 increased from 122 to 166 cases; this showed no improvement for the reporting period.

The mines in the KwaZulu-Natal region are not fully capacitated with full-time OMPs and therefore these mines mostly employ professional practitioners on a part-time basis.

Generally, over-exposure to airborne pollutants at mines in these regions continue to lead to diseases such as silicosis and CWP, among others, while overexposure to high noise-levels lead to an increase in NIHL cases.

#### *Overall occupational safety performance*

Regrettably during the reporting period, a total of 17 fatalities were reported compared to 11 fatalities in 2023. This represents an increase in fatalities of around 55% year on year. The main classifications that contributed to the fatalities recorded included FOG, machinery, T&M, electricity and general types of accidents.

A total of 390 injuries were reported collectively during 2023 compared to 319 in 2022, corresponding to a 23% regression year on year. These injuries were mainly the result of FOG, machinery, T&M, and general-type accident classifications.

Unfortunately, some of the outstanding fatal inquiries and investigations could not be completed mainly due to the non-availability of legal representatives from mining companies as well as representatives from organised labour. The outstanding accident investigations and fatal inquiries were to be prioritised in the next financial year. The following remedial steps and measures were taken by the regions to address health and safety at the mines:

- An increased number of inspections and audits at poor-performing mines.
- The suspension of operations pending the implementation of any determined remedial steps.
- The suspension of the legal appointments of managers and supervisors in charge of working areas with poor health and safety conditions.
- Conducting meetings between mine management and inspectors in the respective regions on strategies, steps, and commitments by the mines to improve the poor state of health and safety.

- Increasing health and safety campaigns at mines with poor safety records.
- Collaboration through Regional Tripartite Forums (RTFs) to enhance concerted efforts in the eradication of mine deaths.

### **Enforcement**

During the period under review, a total of 1 702 inspections and audits were conducted at the mines in the Central and Coastal regional operations. Both regions completed a total of 75 accident investigations, and a total of 10 fatal accident inquiries.

As part of the enforcement measures during the said inspections and audits, 97 Section 54 and 94 Section 55 notices were issued in terms of the MHSA.

The notices issued under Section 54 deal with dangerous conditions at mines. Section 54 empowers an inspector to give any instruction necessary to protect the health or safety of persons at the mine, including but not limited to an instruction that:

- Operations at the mine or a part of the mine be halted.
- The performance of any act or practice at the mine or a part of the mine be suspended or halted and may place conditions on the performance of that act or practice.

Those notices issued under Section 55 order compliance to the provisions of the MHSA which stipulates that if an inspector has reason to believe that an employer has failed to comply with any provision of the MHSA, the inspector may instruct that employer in writing to take any steps that the inspector:

- Considers necessary to comply with the provision.
- Specifies in the instruction.

### **Strategies adopted to improve the status quo**

The Central and Coastal regional operations will continue to embark on zero tolerance to non-compliance and the following are some of the strategies adopted to improve health and safety performance at the mines:

- The region will continue to enforce compliance with legislation by conducting periodic inspections and audits at the mining operations.
- Collaboration with law enforcement authorities continue to ensure challenges are addressed.
- Promote employee participation and cooperation through health and safety representatives, and health and safety committees to bilateral engagements with the MHSI.
- Promote regional tripartite engagements and information-sharing sessions.
- Participate in national and local events such as World TB, HIV and AIDS day, 16 Days of Activism for No Violence against Women and Children which is a global United Nations campaign, and other health and safety campaigns.
- Recruitment and capacitating the regional inspectorate with reference to the machinery and occupational hygiene disciplines.
- Collaboration with all relevant mining operations affected by the flooding and continuously monitor mining excavations and institute measures to prevent drowning of persons and livestock.
- Underground operations are monitored to ensure access to abandoned areas is prevented and instead, more developments are explored to access reserves to retain jobs during challenging times.
- Employers are encouraged to refrain from mining in these old areas, as there are coal mines prone to methane explosions.

### 8.1.1. Gauteng

Gauteng is situated in the central part of South Africa surrounded by Limpopo, Mpumalanga, Free State and North West provinces. It is the smallest province with a land area of approximately 18 000 km<sup>2</sup> which is about 1.5% of the total land area of South Africa. The province has the highest population of about 14.2 million, nearly a quarter of the total population of the country, who mainly speak isiZulu (19.8%), English (13.3%), Afrikaans (12.4%) and Sesotho (11.6%).

There are approximately 114 operating mines in the Gauteng region that employ approximately 60 000 employees. The major commodities mined consist mainly of gold, coal, diamonds, clay, sand, and aggregates.

The mining operations range from small, medium and large-scale enterprises with ultra deep, deep, shallow and opencast mining operations. The region also has numerous crushers, quarries, and borrow pits.

#### 8.1.1.1. Topical issues and matters of interest

- Vergenoeg Mining Company recorded 31-year loss of life-free shifts.
- Nokeng Fluorspar mine achieved five years loss of life-free shifts.
- Significant improvements were noted from the Mponeng and Doornkop operations of the Harmony Gold Mining Company by achieving two million loss of life-free shifts during May and December 2023, respectively.
- Sibanye-Stillwater Gold Division reported as follows: Kloof Masimthembe achieved two million loss of life-free shifts in May 2023; Kloof Manyano achieved two million loss of life-free shifts in August 2023; Driefontein Masakhane achieved one million loss of life-free shifts in September 2023; and Kloof Thuthukani achieved one million loss of life-free shifts in December 2023.
- Goldfields South Deep Mine reported two million loss of life-free shifts in August 2023 and 2.4 million FOG loss of life-free shifts in January 2024.
- Cullinan Diamond Mine (Petra Diamonds) reported 3.5 million loss of life-free shifts in March 2024.

#### 8.1.1.2. Strategies adopted for improving the status quo

- The region will continue to enforce compliance with legislation by conducting periodic inspections and audits at the mining operations.
- Collaboration with law enforcement authorities will continue to ensure that challenges are addressed.
- Promote employee participation and cooperation through health and safety representatives and health and safety committees to bilateral engagements with the MHSI.
- Promote regional tripartite engagements and information-sharing sessions through the WIM structures, the Merafong Forum for underground operations, and the Ukhozi Tripartite Forum for small-scale and surface miners.
- Participate in national and local events such as World TB, HIV and AIDS day, 16 Days of Activism for No Violence against Women and Children campaign, and other health and safety campaigns.
- Recruitment and capacitating the regional inspectorate with reference to the machinery and occupational hygiene disciplines.

#### 8.1.1.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	960
Actual	1 110
Percentage compliance	115.6%

\* Figures include individual and group audits

#### 8.1.1.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	78	7	85
Completed	74	10	84
Percentage completed	94.8%	142.8%	98.8%

#### 8.1.1.5. Total accidents reported

Fatalities	16
> 14-day injuries	361
1 to 13-day reportable injuries	205

\* Statistical data for the period 1 January – 31 December 2023

#### 8.1.1.6. Administrative fines

No administrative fines were recommended by the PI.

#### 8.1.1.7. Land-use applications and complaints

	RECEIVED	COMPLETED	PERCENTAGE COMPLETED
Closure certificates	1	1	100%
Complaints	14	14	100%
Environmental management	20	20	100%
Mining and prospecting rights	0	0	0%
Mining permits	0	0	0%
Surface utilisation	0	0	0%
Township developments	21	21	100%

### 8.1.2. KwaZulu-Natal

KwaZulu-Natal is situated in the eastern part of South Africa surrounded by Mpumalanga, Free State, and Eastern Cape provinces and bordered by Lesotho and eSwatini. It is the third smallest province with a land area of approximately 94 000 km<sup>2</sup> which is about 7.7% of the total land area of South Africa. The province has the second highest population of about 11.1 million, which is about 19.6% of the total population of the country, who mainly speak isiZulu (77.8%) and English (13.2%).

There are approximately 52 operating mines in the KwaZulu-Natal region that employ approximately 12 261 employees. The major commodities mined consist mainly of coal and aggregates.

The mining operations range from small, medium, and large-scale enterprises with deep, shallow, and opencast-mining operations. The region also has numerous crushers, quarries, and borrow pits.

#### 8.1.2.1. Topical issues and matters of interest

- The region experiences various challenges related to mining operations, community engagements and meteorological conditions. Recent inclement weather resulted in flooding and loss of equipment at quarries, leading to financial strain and job losses.
- The majority of the mines in the region have become unprofitable and lost investors. As a result, old mining areas have become an attractive avenue to combat retrenchments but these old areas present a significant risk of intersecting dangerous gases and the accumulation of water that has the potential to flood mines. The region therefore closely monitors the situation to prevent unnecessary accidents and loss of life.
- Several mining operations have been abandoned and did not follow the correct rehabilitation and mine-closure procedures. This is resulting in health and safety risks to the communities and their livestock, especially during rainy seasons. During the reporting period four drowning incidents were reported.

- The installation of collision-prevention equipment between persons and vehicles as well as between vehicles remain a challenge in the region. Small mines are using old machinery, and the lack of engineering skills of legally-appointed persons contribute to machinery-related accidents and incidents including TMM, conveyor belts, and fixed machines.
- An escalation in shooting incidents that involve mine employees and members of the communities has been noted by the region since the bodies of the deceased persons were abandoned at mines only to be discovered by the first shift on the mine.

### 8.1.2.2. Strategies adopted for improving the status quo

- The department has collaborated with all relevant stakeholders in mining operations affected by the recent flooding in the province to continuously monitor the mining excavations and institute measures to prevent drowning of persons and livestock. These measures include intensified inspections by management as well as the implementation of policies. During routine inspections and audits, underground operations are monitored to ensure access to abandoned areas is prevented and instead, more developments are explored to access reserves to retain jobs during challenging times.
- The country's constrained economy is a concern for many businesses and mining operations, however, employers are encouraged to refrain from mining in these old areas as there are coal mines that are prone to methane explosions.
- In terms of open excavations including opencast mines and quarries, employers have been requested to intensify security patrols in and around the operations. Protection of properties in the form of fencing has proved to be challenging where parts of the fencing have been destroyed or taken out soon after installation, especially in close communities. The department has embarked on workshops to educate stakeholders on the dangers associated with the accumulation of water and the possibility of drowning, more so for children and teenagers. Communities have been encouraged to always monitor children and livestock that roam around quarries and open excavations, while employers have been advised to adopt recent technologies available to monitor and prevent these unfortunate accidents.
- The department continues to take advantage of the quarterly tripartite workshops to promote the importance of compliance with this part of the regulation. Mining operations have been engaging the department regarding risk-profiling of heavy machinery and the implementable measures specified in the MHSA. The department continues to work with all relevant stakeholders to deal with these challenges and always stay vigilant. In terms of shooting incidents, mines have employed more security personnel throughout all shifts to curb these crimes. The MHSI Inspectorate believes in the possibility of zero harm in the mining industry and ensuring employees return home safely from work and unharmed.

### 8.1.2.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	572
Actual	592
Percentage compliance	103.5%

\* Figures include individual and group audits

### 8.1.2.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	1	0	1
Completed	1	0	1
Percentage completed	100%	0%	100%

### 8.1.2.5. Total accidents reported

Fatalities	1
> 14-day injuries	10
1 to 13-day reportable injuries	6

\* Statistical data for the period 1 January – 31 December 2023

### 8.1.2.6. Administrative fines

Number of fines recommended by an Inspector	16
Value of fines recommended by an Inspector	RI 100 000.00
Number of fines set aside by the PI	8
Value of fines set aside by the PI	R600 000.00
Number of fines imposed by the PI	8
Value of fines imposed by the PI	R500 000.00
Appeals	0
Value of the fines paid	R300 000.00

### 8.1.2.7. Land-use applications and complaints

	RECEIVED	COMPLETED	PERCENTAGE COMPLETED
Closure certificates	3	3	100,0%
Complaints	0	0	0%
Environmental management	0	0	0%
Mining and prospecting rights	0	0	0%
Mining permits	0	0	0%
Surface utilisation	0	0	0%
Township developments	0	0	0%

## 8.2. Central, Coastal and North-Eastern Regions

Regional Operations: Central and North-Eastern regions consist of the Eastern Cape, Free State, Limpopo and Mpumalanga. It must be noted that this is the first report for the Chief Directorate to include the Eastern Cape. The major commodities mined are coal, platinum, gold, copper, and industrial minerals. Numerous base minerals are also mined and there are many crushers, quarries and borrow pits in these regions.

The total number of employees in the Eastern Cape, Free State, Limpopo and Mpumalanga regions was approximately 175 299 in 2022 compared to 182 023 in 2023. Limpopo had a 10% increase while the overall increase was 4%. This bodes well in the challenge of the slow economic growth, and high unemployment rate in South Africa.

### Overall occupational safety performance

There were regrettably, 14 fatalities in 2022 compared to 11 in 2023 and this corresponds to a 21% decrease year on year. There were no fatalities in the Eastern Cape which is commendable. The Free State and Limpopo had a decrease of 50% and 80.0%, respectively. Mpumalanga had an increase from five to eight fatalities, corresponding to a 60% increase. The analysis of fatalities indicated that the majority of fatalities were due to transportation and mining equipment five, FOG three, and general two fatalities. This implies that 45% of the fatalities were due to transportation and mining equipment.

The number of injuries reported was 539 in 2022 compared to 587 in 2023. This corresponded to an increase of 9%. The Eastern Cape had an increase of two to three injuries, corresponding to a 50% increase; while the second highest increase was in Mpumalanga of 18% from 213 to 252 injuries.

Major contributors for these injuries were general, T&M equipment and FOG had 314, 130 and 70 accidents, respectively. There was a significant increase in the transportation and mining equipment 27% from 102 in 2022 to 130 in 2023. General accidents include manual handling of material, slipping and falling, among others.

All three regions successfully implemented the occupational health and safety (OHS) Improvement Strategy Action Plan to enforce compliance with health and safety measures. The strategy addresses the issue of unacceptable loss of life and injuries at mines by emphasising roof fall accidents, T&M-related accidents and investigations.

Overall there were mines that performed well on safety and did not have any fatalities during the reporting period. These mines are true examples that zero harm can be achieved in the sector and all stakeholders must work together on the journey to zero harm.

### Overall occupational health performance

The total number of occupational diseases reported in these regions were 773 cases in 2022 compared to 622 cases in 2023. There was a decrease of 20% or 151 cases in the number of occupational diseases reported. The significant decrease in occupational diseases is commendable.

The main occupational diseases reported by mines were PTB with 321 cases in 2022; 258 cases in 2023; NIHL with 239 cases in 2022, and 162 cases in 2023; silicosis 123 cases in 2022, and 124 cases in 2023. There was a 32% decrease in NIHL in 2020 to 11 in 2021. First, PTB continues to be the highest reported occupational disease in these regions, except in Limpopo. Second, there was no significant decrease in the number of silicosis cases between 2022 and 2023.

The mining companies must improve their respective case findings and procure mine equipment that generates less noise and dust-levels to ensure compliance with legislation. Programmes should be implemented to ensure employees diagnosed with TB complete their treatment. It must be aligned to the national TB Strategy of 95:95:95.

### Strategies adopted to improve the status quo

The Central, Coastal and North-Eastern regional operations will continue to embark on zero tolerance to non-compliance and the following are some of the strategies adopted to improve health and safety performance at the mines:

- Convene meetings with Chief Executive Officers (CEOs) of all the mining companies, professional associations in the mining sector, and labour leadership to ensure health and safety strategies are implemented.
- Focusing on strategies to reduce noise-levels as well as exposure-levels to respirable crystalline silica by implementing effective engineering controls.
- Focusing on the mines with employees in the homogenous exposure group (HEG), an exposure group – by ensuring these companies develop engineering controls to reduce the occupational exposure-levels of those employees. This will also lead to the withdrawal of employees over-exposed to noise and silica dust.
- Improve TB case findings and encourage and monitor employees to complete their treatment courses as per the National HIV and TB strategies.

The number of candidates who wrote the legal knowledge examinations in June and November 2022 and 2023 were 178 and 297, respectively. Similarly, for plant engineering the candidates were 221 and 240, respectively. The increase in the number of candidates was 67% for legal knowledge and 9% for plant engineering. The department gazetted the increase in the examination fees in March 2022, which had a positive impact as the absenteeism rate dropped from 24% in 2022 to 10% in 2023. There was an increase of legal knowledge and plant engineering pass rates to 60% and 62%, respectively.

The number of Electrical and Mechanical Engineering Certificates of Competency issued were 58 and 67. While 23 certificates of competency were issued to females which corresponds to 18%. The number of females in the sector is currently at 16%. The number of females with Certificates of Competency is slightly higher than the national average, and engineering and training managers must ensure an increase in the number of women engineers in the sector.

During the reporting period a number of complaints were received due to mines blasting close to communities and township developments. The complaints normally include damages to properties due to ground vibration, air blasting, and dust.

The Director-General of the DMRE and the Mpumalanga Provincial Commissioner established a task team to address the scourge of illegal mining in the Mpumalanga region. This task team focuses on precious metals and coal mining. Consequently, the Mpumalanga Illicit Mining Stakeholder Forum was suspended to prevent a possible overlap or duplication of functions and resources.

The stakeholder forum consists of the DMRE, the Department of Home Affairs and Immigration, the Directorate: Priority Crime Investigation (Hawks), South African Police Service (SAPS) Barberton, Crime Intelligence, the State Security Agency, the Department of Justice, local municipalities, Community Policing Forums, organised labour and the following mining companies: Galaxy Gold Reefs Mining Gold; Barberton Mines; Evander Gold Mines; Transvaal Gold Mines Estates; and Vantage Goldfields.

### 8.2.1. Eastern Cape

The Eastern Cape province is situated in the southeastern part of South Africa surrounded by the KwaZulu-Natal, Free State, Northern Cape and Western Cape provinces and includes the former homelands of Transkei and Ciskei. It is the second largest province with a land area of approximately 170 000 km<sup>2</sup> which is about 13.8% of the total land area of South Africa. The province has the fourth highest population of about 6.4 million, which is about 11.5% of the total population of the country, who mainly speak isiXhosa (78.8%) and Afrikaans (10.6%).

There are approximately 159 operating mines in the Eastern Cape region that employ approximately 2 000 employees. The major commodities mined consist mainly of stone, aggregate, gravel, dimension stone, granite, syenite, salt and clay.

The mining operations range from small to medium-scale enterprises with surface or opencast-mining operations. The region has numerous crushers, quarries, and borrow pits.

#### 8.2.1.1. Topical issues and matters of interest

- The underground coal mine located near Indwe continues to remain closed as a consequence of ownership issues.
- Renewed interest in and prospecting for coal in the Molteno area and various other minerals including gold and copper in the Mt Ayliff area, continued during the period under review.
- The Aggregate and Sand Producers Association of Southern Africa (ASPASA) continues to assist surface mines and quarries in the region with matters relating to legal issues, engineering, WIM, as well as internal and external liaison.
- With reference to health and safety matters services as below are provided to the members of ASPASA:
  - Audits.
  - Training.
  - Transport, including TMM (collision avoidance systems), traffic management systems and Administrative Adjudication of Road Traffic Offences Act, 1998 (Act 46 of 1998).

#### 8.2.1.2. Strategies adopted for improving the status-quo

- Quarterly RTFs are held both in physical and virtual formats with strong support from the MHSC. Unfortunately meeting attendance continues to be poor, and employers and organised labour have been encouraged to improve attendance.
- The WIM Forum has been revived in the region and two meetings were held during the period under review.

#### 8.2.1.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	220
Actual	220
Percentage compliance	100%

\* Figures include individual and group audits

#### 8.2.1.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	2	0	2
Completed	2	0	2
Percentage completed	100%	0%	100%

### 8.2.1.5. Total accidents reported

Fatalities	0
> 14-day injuries	3
1 to 13-day reportable injuries	5

\* Statistical data for the period 1 January – 31 December 2023

### 8.2.1.6. Administrative fines

Although two administrative fines have been recommended by an inspector, the finalisation of these fines were still pending at the end of the period under review. Additional information was requested by the PI.

	RECEIVED	COMPLETED	PERCENTAGE
Closure certificates	6	6	100%
Complaints	0	0	0%
Exemptions, permissions, and approvals	42	42	100%
Environmental management	53	53	100%
Mining and prospecting rights	33	33	100%
Mining permits	141	141	100%
Surface utilisation	36	36	100%

### 8.2.2. Free State

The Free State province is situated in the central part of South Africa surrounded by North West, Gauteng, Mpumalanga, KwaZulu-Natal, Eastern Cape and the Northern Cape provinces. It is the third largest province with a land area of approximately 130 000 km<sup>2</sup> which is about 10.6% of the total land area of South Africa. The province has the second lowest population of about 2.8 million, which is about 5.1% of the total population of the country, who mainly speak Sesotho (64.2%) and Afrikaans (12.7%).

The operating mines in the Free State region employ approximately 30 535 employees. The major commodities mined consist mainly of gold, coal, diamonds, aggregates, bentonite, and sand.

The mining operations range from small, medium to large-scale enterprises with ultra deep, deep, shallow, and opencast-mining operations. The region also has numerous crushers, quarries, and borrow pits.

#### 8.2.2.1. Topical issues and matters of interest

- Many mines in the region have been closed and there is no known new exploration taking place.
- Illegal mining in the region has been reduced drastically as a result of the filling of old shafts with rubble and slime, therefore preventing access to these mines and restricting ventilation in the shafts.

#### 8.2.2.2. Strategies adopted for improving the status-quo

- The region is continuing with focused inspections and audits on profiled high-risk mines.
- Continued engagement in tripartite meetings and subcommittee meetings by all stakeholders.
- Mine Occupational Health and Safety (MOSH) – enforcement of in-stope roof bolting and netting at the mines.
- MOSH – enforcement of the use of winchcovers for dust.
- Enforcing and monitoring of the respective occupational hygiene and occupational medicine programmes at mines through auditing and inspections.
- Participating in working groups to monitor and mitigate occupational diseases.
- Close partnerships with other government departments, trade unions, and other key stakeholders.
- Focused audits and inspections of safety management systems and implementation thereof.

- Quarterly workshops with key stakeholders on health and safety matters.
- Enforcement instructions for the stoppages of unsafe practices and workplaces.

### 8.2.2.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	812
Actual	1 005
Percentage compliance	123.8%

\* Figures include individual and group audits

### 8.2.2.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	142	4	146
Completed	142	4	146
Percentage completed	100%	100%	100%

### 8.2.2.5. Total accidents reported

Fatalities	1
> 14-day injuries	141
1 to 13-day reportable injuries	105

\* Statistical data for the period 1 January – 31 December 2023

### 8.2.2.6. Administrative fines

Number of fines recommended by an inspector	2
Value of fines recommended by an inspector	R2 000 000.00
Number of fines set aside by the PI	0
Value of fines set aside by the PI	R0.00
Number of fines imposed by the PI	1
Value of fines imposed by the PI	R0.00
Appeals	0
Value of the fines paid	R0.00

### 8.2.2.7. Land-use applications and complaints

	RECEIVED	COMPLETED	PERCENTAGE
Closure certificates	6	6	100%
Complaints	26	26	100%
Environmental management	44	44	100%
Mining and prospecting rights	22	22	100%
Mining permits	42	42	100%
Surface utilisation	68	68	100%
Township developments	0	0	0%

## 8.2.3. Limpopo

Limpopo province is situated in the northern part of South Africa surrounded by North West, Gauteng, and Mpumalanga provinces and is bordered by Botswana, Zimbabwe, and Mozambique. It is the fifth largest province with a land area of approximately 125 000 km<sup>2</sup> which is about 10.3% of the total land area of South Africa. The province has the fifth highest population of about 5.7 million, which is about 10.2% of the total population of the country, who mainly speak Sesotho (52.9%), Xitsonga (17%) and Tshivenda (16.7%).

There are approximately 97 operating mines in the Limpopo region that employ approximately 82 428 employees. The major commodities mined consist mainly of coal, copper, chrome, platinum, and numerous base minerals.

The mining operations range from small, medium to large-scale enterprises with shallow, depth, and opencast-mining operations. The region also has numerous crushers, quarries, and borrow pits.

### 8.2.3.1. Topical issues and matters of interest

- The Mogalakwena Mine Strategic Evolution, recognised as the world's largest open-pit platinum mine is undergoing a transformative evolution through a strategic resource development plan. This strategic evolution not only redefines the operational landscape of the mine but will set a new standard for large-scale mechanised mining. The journey commenced with the inaugural blast on 6 April 2022. This project involves blending higher-grade underground ore with open-pit ore, optimising the Sandsloot resource as a high-value future underground mine aimed at unlocking the potential of underground mining at Mogalakwena.
- Venetia Mine ceased open-pit mining operations in December 2022, and De Beers embarked on an underground expansion in 2012. The mine delivered its first production from the underground operations. The highly-mechanised underground operation will deliver up to six million tonnes of kimberlite ore per year to produce between 4.5 and 5.5 million carats of diamonds annually. The overall construction project of the underground mine is 70% complete. Construction and production will continue over the next few years and benefit the South African economy and host communities until at least 2046.
- The Ivanplats Platreef Project commenced in 2016 and the first platinum production is expected in the third quarter of 2024. The concentrator is scheduled to come on line by the third quarter of 2024 with the mill mechanical installation completed in first quarter of 2024. This project endeavours to have three shaft systems with a combined hoisting capacity of 12 million tonnes per annum (Mtpa), producing 5.2 Mtpa during the second phase.
- The Der Brochen Project will bring into operation a new shaft to progressively replace the current operating Mototolo's Borwa and Lebowa shafts to extract marketable platinum and base metals from the ores which will be processed at the Mototolo Concentrator. The primary objective is to extend the economic life of the Mototolo mine by approximately 37 years as the Lebowa Shaft will reach the end of its economic life by 2028, with the Borwa Shaft reaching the end of life by 2041. The project's critical path runs through the establishment of the box-cut into the underground development as this supports the production build-up to 120 000 metric tonnes per month (ktpm). This significant milestone was achieved on 29 February 2024 with the box-cut handed over to the operational team. The first blast was taken on 5 March 2024. The focus of the project for the remainder of 2024 is to continue with earthworks, and start with the installation of the overland conveyor, surface buildings and substations.

### 8.2.3.2. Strategies adopted for improving the status quo

- The visibility of inspectors is a pro-active way to ensure compliance through a strategy to conduct purposeful inspections and audits to identify failures and weaknesses of the health and safety systems at mines. The outcomes are analysed to improve the quality of these activities and where non-compliance and substandard conditions are observed, appropriate enforcement actions are taken.
- Cooperation from mine employers, mine employees, communities affected by mining operations, and the MHSI will continue to be encouraged to ensure there are effective and efficient ways and strategies in dealing with health and safety relating to mining operations in the region.
- Mines are also encouraged to continue developing and implementing strategies and measures to deal with occupational diseases.
- The region will continue to support efforts and initiatives to combat TB and HIV/AIDS through various interventions.

### 8.2.3.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	696
Actual	836
Percentage compliance	120.1%

\* Figures include individual and group audits

### 8.2.3.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	153	3	156
Completed	153	4	157
Percentage completed	100%	133.3%	100.6%

### 8.2.3.5. Total accidents reported

Fatalities	1
> 14-day injuries	147
1 to 13-day reportable injuries	164

\* Statistical data for the period 1 January – 31 December 2023

### 8.2.3.6. Administrative fines

No administrative fines were recommended by the PI.

### 8.2.3.7. Land-use applications and complaints

	RECEIVED	COMPLETED	PERCENTAGE
Closure certificates	22	22	100%
Complaints	5	5	100%
Environmental management	13	13	100%
Mining and prospecting rights	196	196	100%
Mining permits	131	131	100%
Surface utilisation	68	68	100%
Township developments	0	0	0%

## 8.2.4. Mpumalanga

Mpumalanga province is situated in the North-Eastern part of South Africa surrounded by the Limpopo, Gauteng, Free State and KwaZulu-Natal provinces, and bordered by Mozambique and eSwatini. It is the second smallest province with a land area of approximately 79 000 km<sup>2</sup> which is about 6.3% of the total land area of South Africa. The province has the fourth lowest population of about 4.4 million, which is about 7.9% of the total population of the country, who mainly speak siSwati (27.7%), isiZulu (24.1%), Xitsonga (10.4%) and isiNdebele (10.1%).

There are approximately 162 operating mines in the Mpumalanga region that employ approximately 112 221 employees. The major commodities mined consist mainly of coal, gold, platinum, manganese, and other commodities.

The mining operations range from small, medium to large-scale enterprises with underground and opencast coal-mining operations as well as underground hardrock-mining operations. The region also has some crushers and quarries.

### 8.2.4.1. Topical issues and matters of interest

- General accidents are still a major contributor to reportable accidents. The mines are reporting a high number of slip and fall accidents, and accidents due to improper tool-handling. TMM and general-type accidents at the mines are still of great concern.

- The activities of the region will focus on the prevention of FOG accidents, slope failures, transportation in mining and machinery-related accidents with the emphasis on the enforcement of the new regulations and implementation of new COPs and directives.
- Complaints emanating from blasting operations in close proximity to communities are still a challenge, and mines are encouraged to follow their respective procedures to manage these community complaints.
- The reporting of underground coal mine conveyor-belt fires and general underground fires is still a challenge, and mines are encouraged to ensure compliance with the relevant directives issued by the department. Mines are encouraged to revisit their risk assessments to determine areas of high potential fire risk at their respective mines.
- The mines are encouraged to ensure mining operations adhere to all health and safety standards as well as comply with all relevant directives issued. This is relevant to the aging infrastructure at underground coal and hardrock mines where coal reserves are running low. These mines are mining remnants and opening sealed off areas.
- Open-cast illegal coal mining reporting has decreased but there are still reports of illegal mining for precious metals, diesel, scrap metal, and copper. Mines are encouraged to participate in all the relevant structures put in place to curb the increase of all forms of illegal mining. Mines are also encouraged to ensure all employees are protected and secured from all types of illegal mining activities.
- It has been noted that some mines in the region do not have integrated TB and HIV/AIDS programmes. Mines are encouraged to have such programmes in place.
- The on-site wellness programmes remain a challenge to the small mines and these mines are encouraged to use the local municipal clinics where possible.
- The reporting of occupational diseases such as PTB, COAD, and MSDS has increased. Mines are encouraged as per the 2024 MHSC occupational health milestones to improve their current preventive measures.
- The MHSI will endeavour to ensure that mines put strategies in place to curb the increasing number of cases of PTB and COAD among employees in the region. Mines are audited on the implementation of COPs.
- A decrease in HEG A and HEG B for both airborne and noise overexposures were reported but there is still a sizeable number of mine employees who are still exposed to airborne pollutants HEG A and HEG B. Mines identified to have issues with overexposures were inspected and relevant instructions issued in this regard.
- Occupational hygiene workshops will continue to be held and the region will continue to work with all stakeholders to assist with the implementation of strategies to reduce overexposure to airborne pollutants and noise. Mines are also advised to adopt current leading best practices available to the industry to reduce overexposures to airborne pollutants and noise.

#### 8.2.4.2. Strategies adopted for improving the status quo

- The MHSI will increase visibility at the mines as a proactive way of enforcing compliance at the mines.
- Focused inspections, audits and investigations will be conducted with the aim of identifying systems failures in terms of mine health and mine safety.
- Appropriate enforcement actions are taken if necessary.
- Mines are encouraged to revisit their risk assessment or management procedures to ensure all their safety management strategies align to their risk ratings.
- Mines are also encouraged to share learnings from previous accidents or incidents in an effort to prevent re-occurrences.
- The adoption of leading best practices and technological advancement in mines is also key in achieving the goal of zero harm.

### 8.2.4.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	1 280
Actual	1 588
Percentage compliance	124.1%

\* Figures include individual and group audits

### 8.2.4.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	77	5	82
Completed	85	8	93
Percentage completed	110.4%	160%	113.4%

### 8.2.4.5. Total accidents reported

Fatalities	7
> 14-day injuries	225
1 to 13-day reportable injuries	28

\* Statistical data for the period 1 January – 31 December 2023

### 8.2.4.6. Administrative fines

Number of fines recommended by an inspector	5
Value of fines recommended by an inspector	R0.00
Number of fines set aside by the PI	0
Value of fines set aside by the PI	R0.00
Number of fines imposed by the PI	0
Value of fines imposed by the PI	R0.00
Appeals	0
Value of the fines paid	R0.00

### 8.2.4.7. Land-use applications and complaints

	RECEIVED	COMPLETED	PERCENTAGE
Closure certificates	0	0	0%
Complaints	10	10	100%
Environmental management	0	0	0%
Mining and prospecting rights	18	18	100%
Mining permits	27	27	0%
Surface utilisation	14	14	100%
Township developments	0	0	0%

### 8.3. Western and Coastal Regions

The Western and Coastal regional operations consist of the Northern Cape, Klerksdorp in North West, Rustenburg in North West, and Western Cape regions. There are approximately 719 operating mines collectively in these regions and the major commodities mined are Platinum Group Metals (PGM), iron ore, diamonds, manganese, chrome, gold, granite, dimension stones, sand, monazite, and aggregates. The mining operations range from small, medium to large-scale enterprises operating both underground, offshore, and surface mining with numerous crushers, quarries, and borrow pits.

#### *Overall occupational safety performance*

During the reporting period 27 fatalities were reported compared to 25 fatalities in 2022. This represents an increase in fatalities of 8% year on year. The main accident classifications that contributed to the fatalities recorded were FOGs, Conveyance (Shafts), and T&M at 27%, 23% and 22%, respectively.

A total of 1 207 injuries were reported collectively during 2023 compared to 1 204 in 2022, corresponding to a 0.2% regression. These injuries were mainly the result of general, T&M, and FOGs accident classifications.

The Western and Coastal regional operations conducted 2 934 qualitative inspections, 180 investigations, and 15 inquiries.

#### *Overall occupational health performance*

The collective number of occupational diseases reported from AMRs were 825 in 2023 compared to 918 cases in 2022, which translates to a commendable 10% reduction. The main occupational diseases reported in 2023 were NIHL, PTB, and silicosis with 361, 322, and 61 cases, respectively.

During the reporting period, 49 medical appeals received from the Northern Cape, Klerksdorp in North West, Rustenburg in North West, and Western Cape regions were processed.

#### *Strategies adopted to improve the status quo*

The Western and Coastal regional operations will continue to embark on zero tolerance to non-compliance and the following are some of the strategies adopted to improve health and safety performance at the mines:

- Regular engagement sessions are held with the CEOs of mining companies.
- Enforcement of CIOM health and safety instructions and directives by all regional offices.
- All mines present the reasons for their health and safety management system failures to the office of the PI and the corresponding improvement strategies to prevent recurrence of the system failures.
- All mines are risk-profiled and classified according to the level of risk considering the type of mine, number of employees, number of accidents, repeat transgressions, and issued statutory instructions.
- Adoption of MOSH leading practices is encouraged and enforced where applicable e.g. Trigger Action Response Plans (TARPs), safety netting, buy-quiet (silence equipment), stope illumination etc.
- Empowerment of health and safety representatives through their engagement during inspections, audits, accident investigations, and fatal inquiries.
- Regional offices to compile and implement annual inspection and audit plans.
- Poor-performing mines in terms of health and safety are encouraged to hold regular health and safety campaigns.
- All regional offices continue to lead and support the regional tripartite forums and all WIM health and safety forums.
- All vacant and funded posts should be filled without any undue delay to keep the MHSI adequately capacitated.
- Review the MHSA and its regulations.
- Conducting comprehensive mine health and safety audits and inspections.
- All serious incidents and accidents should be investigated.

### 8.3.1. Northern Cape

The Northern Cape province is situated in the northern part of South Africa surrounded by the Western Cape, Eastern Cape, Free State and North West provinces and bordered by Namibia and Botswana. It is the largest province with a land area of approximately 372 000 km<sup>2</sup> which is about 30.5% of the total land area of South Africa. The province has the lowest population of about 1.2 million, which is about 2.1% of the total population of the country, who mainly speak Afrikaans (53.8%) and Setswana (33.1%).

There are approximately 189 operating mines in the Northern Cape region that employ approximately 54 000 employees. The major commodities mined consist mainly of iron ore, manganese, diamonds, copper, zinc, lead, granite, and aggregate.

The mining operations range from small, medium to large-scale enterprises with ultra deep, deep, shallow, and opencast-mining operations. The region also has numerous crushers, quarries, and borrow pits.

#### 8.3.1.1. Topical issues and matters of interest

- The region recorded zero fatalities during the reporting period and 100% reduction in occupational fatalities.
- The region recorded 101 injuries for the reporting period of which 39% were related to slip and fall incidents, and 34% were hand injuries (caught between objects).
- The region recorded 30 health incidents of which 77% were PTB.
- There was a noticeable increase in the exposure to airborne pollutants per HEG A classification band which can be attributed to the inadequate installation or insufficient maintenance of dust-suppression systems.
- The region recorded an increase in FOG accidents and the number of slope failures which can be attributed to inadequate support installations, poor blasting practices, a lack of slope-monitoring systems and inadequate quality assurance systems for opencast operations.
- The shortage of skills and high turnover rates in key managerial positions are affecting the health, safety and stability of mining operations in the region.
- Mining companies do not verify the authenticity of GCC during the recruitment process and this led to an increase in the number of supervisors working with fraudulent certificates.
- The regional office recorded an increase in TMM fire incidents which can be attributed to poor maintenance and cable routing.

#### 8.3.1.2. Strategies adopted for improving the status quo

- A risk profile of the mines within the region will be prepared and each mine will be classified according to the level of risk, considering the quantity, frequency and severity of reported incidents.
- The inspection and audit master plan will be monitored to ensure no mines are neglected and the frequency of inspections and audits at mines with a history of poor health and safety performances will be increased.
- All serious accidents and dangerous occurrences will be investigated timeously and the outcomes of these investigations will be shared with the mining industry to prevent similar occurrences.
- The region will also continue with safety campaigns in line with the risk-based approach.
- Participation in wellness workstream tripartite activities will endeavour to share health incident trends and guide the industry on improvement strategies.
- Instruct mines to install effective dust-control systems and ensure those controls are properly maintained.
- Instruct the mines in the region to install real-time monitors for noise and dust.
- Mines will be encouraged to adopt MOSH-leading practices.

- The regional office will investigate all FOG incidents or accidents as well as slope failures.
- The regional office will participate in rock-engineering workstream activities to guide and encourage the reporting of slope failures and accelerate the implementation of slope-monitoring systems.
- Encourage surface mines to adopt risk-based strategies to install aerial support whenever it is required.
- Mines to employ the services of independent personnel to conduct quality assurance on support units.
- Mines are instructed to investigate and present all fire incidents to the PI.
- Encourage mines to ensure appropriate systems for managing contractors are established and implemented.
- Issue Section 54 and Section 55 as well as administrative fines where necessary and conduct follow-up inspections.

### 8.3.1.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	624
Actual	631
Percentage compliance	101.1%

\* Figures include individual and group audits

### 8.3.1.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	44	3	47
Completed	44	2	46
Percentage completed	100%	66.6%	97.9%

### 8.3.1.5. Total accidents reported

Fatalities	2
> 14-day injuries	98
1 to 13-day reportable injuries	57

\* Statistical data for the period 1 January – 31 December 2023

### 8.3.1.6. Administrative fines

No administrative fines were recommended by the PI.

### 8.3.1.7. Land-use applications and complaints

	RECEIVED	COMPLETED	PERCENTAGE
Closure certificates	28	28	100%
Complaints	13	13	100%
Environmental management	0	0	0%
Mining and prospecting rights	240	240	100%
Mining permits	68	68	100%
Surface utilisation	84	84	100%
Township developments	0	0	0%

### 8.3.2. North West: Klerksdorp

North West province is situated in the North-Western part of South Africa surrounded by the Northern Cape, Free State, Gauteng and Limpopo provinces and bordered by Botswana. It is the fourth smallest province with a land area of approximately 104 000 km<sup>2</sup> which is about 8.6% of the total land area of South Africa. The province has the third lowest population of about 3.8 million, which is about 9.8% of the total population of the country, who mainly speak Setswana (63.4%) and Afrikaans (9%).

There are approximately 92 operating mines in North West's Klerksdorp region that employs approximately 18 595 employees. The major commodities mined consist mainly of gold, limestone, diamonds, and other commodities.

The mining operations range from small, medium to large-scale enterprises with deep, shallow, and opencast-mining operations. The region also has numerous crushers, and quarries.

#### 8.3.2.1. Topical issues and matters of interest

- Gold plants, cement operations and diamond mines recorded zero fatalities during the reporting period.
- Harmony – Moab Khotsoeng Mine achieved 2 326 000 fatality-free shifts (FFS) on 31 December 2023.
- Village Main Reef (VMR) – Tau Lekoa Mine achieved 21 fatality-free calendar months on 31 December 2023.

#### 8.3.2.2. Strategies adopted for improving the status quo

- Conducting detailed audits on noise, thermal stress, and emergency preparedness.
- Conducting investigations on fire incidents encountered at the cement factories in the region and issue appropriate instructions where necessary.
- Thoroughly interrogate all presentations by the mines in the region and ascertain that the employer has put adequate measures in place to prevent the reoccurrence of similar accidents before the upliftment of the respective statutory instructions.
- Prepare risk-profiles of the mines to enable the region to classify the mines according to the level of risk identified based on the number of accidents or incidents and prioritise these mines for inspections and audits.
- Monitor the performance of individual supervisors at the mining operations within the region to identify high-risk personnel that had more accidents or fatalities in their respective areas of responsibility.
- Ensuring that multidisciplinary comprehensive investigations are conducted and sound strategies are developed as well as implemented prior to the extraction or removal of any pillars and/or isolated blocks of ground.
- The adoption of MOSH best practices will be implemented and monitored e.g. TARP, netting, buy-quiet (silence equipment) etc.
- Empowering health and safety representatives by engaging them in inspections, audits, investigations, inquiries, and identify training gaps on Section 22 and Section 23 of the MHSA.
- Continue to encourage mines to conduct health wellness programmes including programmes to address non-communicable or occupational diseases as well as promote healthy lifestyles at mines.
- Continue issuing directives to the mines to deal with safety challenges during silly seasons by intensifying visits to the mining operations at least a month before, and two weeks after long holidays to ensure compliance with the MHSA.

#### 8.3.2.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	485
Actual	652
Percentage compliance	134.4%

\* Figures include individual and group audits

### 8.3.2.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	77	3	80
Completed	77	2	79
Percentage completed	100%	66.6%	98.8%

### 8.3.2.5. Total accidents reported

Fatalities	2
> 14-day injuries	101
1 to 13-day reportable injuries	54

\* Statistical data for the period 1 January – 31 December 2023

### 8.3.2.6. Administrative fines

Number of fines recommended by an inspector	1
Value of fines recommended by an inspector	R 100 000
Number of fines set aside by the PI	0
Value of fines set aside by the PI	R0.00
Number of fines imposed by the PI	1
Value of fines imposed by the PI	R 100 000
Appeals	0
Value of the fines paid	R0.00

### 8.3.2.7. Land-use applications and complaints

	RECEIVED	COMPLETED	PERCENTAGE
Closure certificates	24	24	100%
Complaints	16	16	100%
Environmental management	24	24	100%
Mining and prospecting rights	44	44	100%
Mining permits	21	21	100%
Surface utilisation	0	0	0%
Township developments	24	24	100%

## 8.3.3. North West: Rustenburg

North West province is situated in the North-Western part of South Africa surrounded by the Northern Cape, Free State, Gauteng and Limpopo provinces, and bordered by Botswana. It is the fourth smallest province with a land area of approximately 104 000 km<sup>2</sup> which is about 8.6% of the total land area of South Africa. The province has the third lowest population of about 3.8 million, which is about 9.8% of the total population of the country, who mainly speak Setswana (63.4%) and Afrikaans (9%).

There are approximately 224 operating mines in North West: Rustenburg region that employs approximately 142 869 employees. The major commodities mined consist mainly of platinum, chrome, iron ore, silica, and other commodities.

The mining operations range from small, medium to large-scale enterprises with deep, shallow, and opencast-mining operations. The region also has numerous concentrator plants, smelters, crushers, quarries, and borrow pits.

### 8.3.3.1. Topical issues and matters of interest

- A winding plant accident at Impala Platinum Mine Number 11 Shaft on 27 November 2023 claimed the lives of 13 employees, with 74 employees injured.
- Ageing shaft infrastructure results in the compromising of existing infrastructure and contribute to the subsequent collapse of the mine infrastructure.

- Illegal mining remains a challenge of surface chrome mines in the Witrantjie area where illegal blasting activities destabilise the ground and infrastructure and pose health and safety risks to surrounding communities. The challenges with illegal mining in operating underground mines in the Rustenburg, Marikana, and Swartklip areas causes the destruction of mine infrastructure and disruptions to the airflow in the mine. The illicit nature of these activities leads to a loss of production and places a burden on rescue services. Moreover, the involvement of armed syndicates in these incidents poses a significant risk to the safety of the workforce, regulators, and law enforcers.
- The region has been inundated with complaints from surrounding communities and other parties relating to health and safety against surface-mining operations. Complaints relating to social and labour plan matters do not fall within the scope of the MHSI and were submitted to the Mineral Regulation section in the region.
- Poor supervision and non-adherence to mining standards has been identified as a common contributor to the increase in serious injuries as a result of mine accidents in the region.

### 8.3.3.2. Strategies adopted for improving the status quo

- The region will reinforce measures and conduct intensive inspections with regard to winding plants.
- Instructions will be issued to mines to conduct structural integrity inspections and audits by qualified structural engineers to combat incidents as a result of ageing shaft infrastructure.
- The mines should institute sealing-off programmes to seal off old unused egresses and ingresses in an attempt to combat illegal mining
- Mines should increase the monitoring and surveillance of the emergency escape routes used by illegal miners to access working areas.
- Regular combined or joint audits and inspections should be conducted to deal with illicit mining.
- Mines should consider upgrading the security at mines against illegal mining and all matters relating to illicit mining should be reported to the authorities.
- The mines are advised to protect female employees and not allow women to work alone in isolated areas of the mine.
- Several interventions have been made by the region to address health and safety issues and concerns that are raised by the communities. The interventions are as follows:
  - Conducting investigations and issuing instructions to the employer in terms of the MHSA.
  - Issuing of statutory instructions through the Rustenburg Tripartite Forum to the employers of all surface operations, who conduct blasting activities to provide aerial video surveillance to monitor every blast initiated at the mine.
  - Creating platforms for engagements and presentations between the various stakeholders to address complaints received.
  - Establish safe blasting teams at the affected operations which should comprise mine management, employee representatives and community leaders. Such teams should conduct risk assessments prior to the initiation of every intended blast and must jointly consent to a written notification to be submitted to the office of the PI prior to the initiation of any blast.
  - Issuing of the approval of the risk assessment, restrictions and conditions in terms of regulation 4.16(2) of the MHSA in relation to the intent to conduct surface-blasting activities within a horizontal distance of 500 metres from identified communities and affected structures.
- Supervision and safety performance based on lost time injuries is monitored monthly to ensure appointed supervisors are competent. The mines present their performance to the region and are monitored with regard to their legal duties and responsibilities.

### 8.3.3.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS
Planned	1 212
Actual	1 258
Percentage compliance	103.8%

\* Figures include individual and group audits

### 8.3.3.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	42	9	51
Completed	42	9	51
Percentage completed	100%	100%	100%

### 8.3.3.5. Total accidents reported

Fatalities	21
> 14-day injuries	1 005
1 to 13-day reportable injuries	328

\* Statistical data for the period 1 January – 31 December 2023

### 8.3.3.6. Administrative fines

No administrative fines were recommended by the PI.

### 8.3.3.7. Land-use applications and complaints

The land-use applications are handled by the North West: Klerksdorp Regional Office.

	RECEIVED	COMPLETED	PERCENTAGE
Complaints	216	187	86.6%

## 8.3.4. Western Cape

The Western Cape province is situated in the South-Western part of South Africa surrounded by the Northern Cape and the Eastern Cape provinces. It is the fourth largest province with a land area of approximately 129 000 km<sup>2</sup> which is about 10.6% of the total land area of South Africa. The province has the third highest population of about 6.5 million, which is about 11.5% of the total population of the country, who mainly speak Afrikaans (49.7%), isiXhosa (24.7%) and English (20.3%).

There are approximately 210 operating mines in the Western Cape region that employ approximately 5 000 employees. The major commodities mined consist mainly of diamonds, clay, sand, rock, lime, salt, ilmenite, and gas.

The mining operations range from very small, small, medium to large-scale enterprises with an offshore gas installation and opencast-mining operations. The region also has numerous crushers, quarries, and borrow pits.

### 8.3.4.1. Topical issues and matters of interest

- The region has an old dormant underground mine where monazite and rare earth was mined. The plan is to reopen this mine and use a mining contractor to do the mining.
- The gas fields supplying gas to the refinery near Mossel Bay have declined substantially.

### 8.3.4.2. Strategies adopted for improving the status quo

- There are a few vacant inspector positions in the region that need to be filled.
- More focus and attention are placed on the bigger mines in the region where the risk to health and safety is greater.
- The enforcement of the MHSA needs to continue through inspections and audits.
- Meetings and tripartite meetings will continue to be held with employers and employees regarding health and safety matters.

### 8.3.4.3. Inspections and audits

CATEGORY	QUALITATIVE INSPECTIONS*
Planned	480
Actual	420
Percentage compliance	87.5%

\* Figures include individual and group audits

### 8.3.4.4. Investigations and inquiries

	INVESTIGATIONS	INQUIRIES	TOTAL
Initiated	11	2	13
Completed	11	2	13
Percentage completed	100%	100%	100%

### 8.3.4.5. Total accidents reported

Fatalities	2
> 14-day injuries	4
1 to 13-day reportable injuries	0

\* Statistical data for the period 1 January – 31 December 2023

### 8.3.4.6. Administrative fines

No administrative fines were recommended by the PI.

### 8.3.4.7. Land-use applications and complaints.

	RECEIVED	COMPLETED	PERCENTAGE
Closure certificates	19	19	100%
Complaints	0	0	0%
Environmental management	0	0	0%
Mining and prospecting rights	23	23	100%
Mining permits	9	9	100%
Surface utilisation	29	29	100%
Township developments	0	0	0%



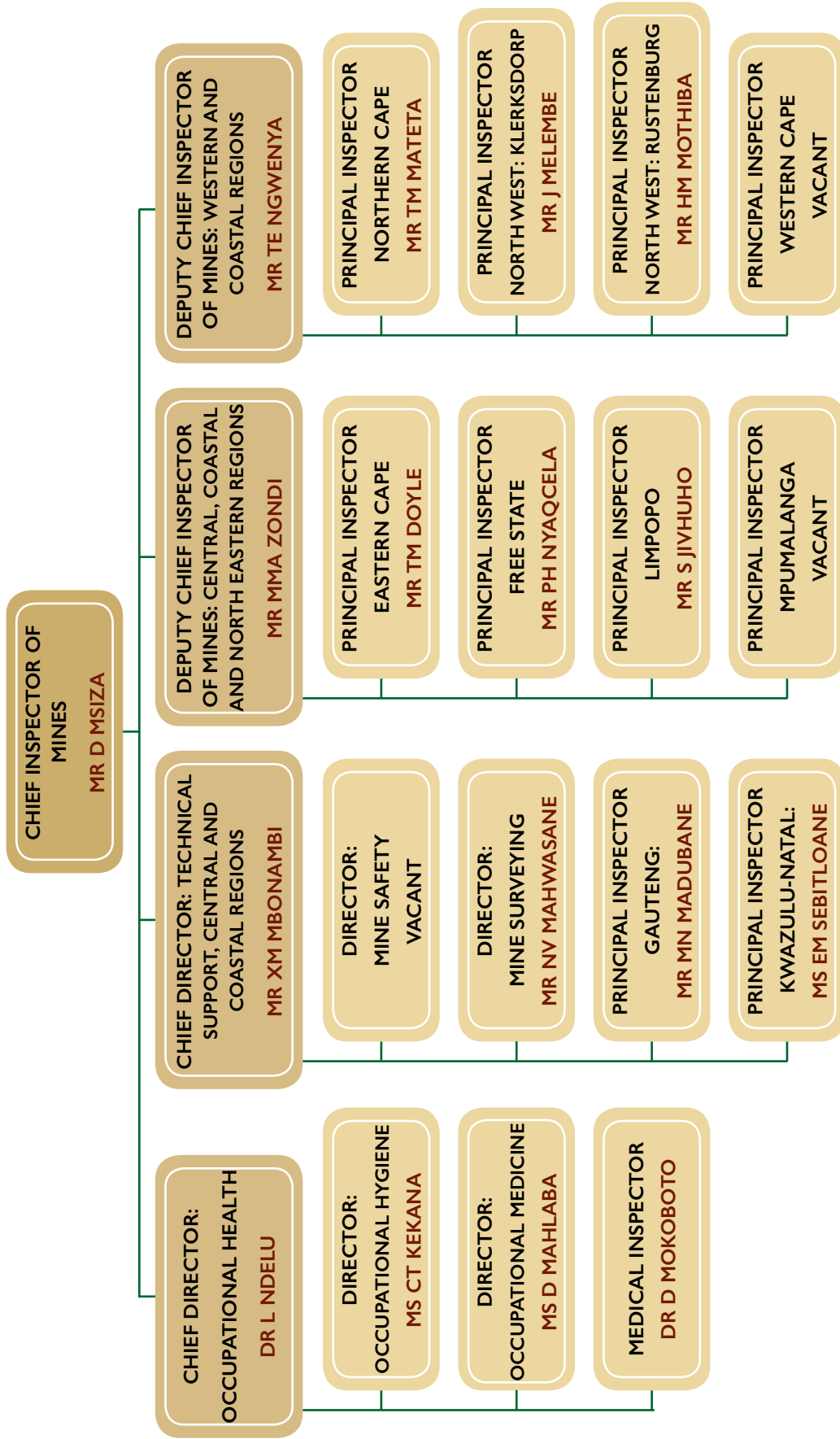


# **PART 9**

# **ANNEXURES**

## 9. ANNEXURES

### 9.1. Annexure A: Organogram for the MHSI for the period ending 31 March 2024



## 9.2. Annexure B: Contact list of the MHSI for the period ending 31 March 2024

CHIEF INSPECTOR OF MINES			
Position	Official	Contact Details	Postal Address
Chief Inspector of Mines	Mr D Msiza		Private Bag X59 ARCADIA 0007
Executive Assistant	Ms S Nzimande	+27 (0) 12 444 3970 Sithembile.nzimande@dmre.gov.za	Private Bag X59 ARCADIA 0007
Personal Assistant	Ms P Rambau	+27 (0) 12 444 3639 Phumudzo.rambau@dmre.gov.za	Private Bag X59 ARCADIA 0007
DEPUTY CHIEF INSPECTORS OF MINES/CHIEF DIRECTORS			
Position	Official	Contact Details	Postal Address
<b>DEPUTY CHIEF INSPECTOR OF MINES:</b> Central, Coastal and North-Eastern Regions	Mr MMA Zondi	+27 (0) 12 444 3663 Mthokozisi.zondi@dmre.gov.za Lindiwe.sekwati@dmre.gov.za	Private Bag X59 ARCADIA 0007
<b>DEPUTY CHIEF INSPECTOR OF MINES:</b> Western and Coastal Regions	Mr T Ngwenya	+27 (0) 12 444 3547 Thabo.ngwenya@dmre.gov.za Daphneysekgobela@dmre.gov.za	Private Bag X59 ARCADIA 0007
<b>CHIEF DIRECTOR:</b> Technical Support, Central and Coastal Regions	Mr X Mbonambi	+27 (0) 12 444 3676 Xolile.mbonambi@dmre.gov.za Arista.muller@dmre.gov.za	Private Bag X59 ARCADIA 0007
<b>CHIEF DIRECTOR:</b> Occupational Health	Dr L Ndelu	+27 (0) 12 444 3667 Lindiwe.ndelu@dmre.gov.za Trevia.kungoane@dmre.gov.za	Private Bag X59 ARCADIA 0007
			Trevenna Campus 70 Meintjes Street Sunnyside PRETORIA
			Trevenna Campus 70 Meintjes Street Sunnyside PRETORIA
			Trevenna Campus 70 Meintjes Street Sunnyside PRETORIA
			Trevenna Campus 70 Meintjes Street Sunnyside PRETORIA

DIRECTORS				
Position	Official	Contact Details	Postal Address	Physical Address
<b>DIRECTOR:</b> Occupational Hygiene	Ms CT Kekana	+27 (0) 12 444 3646 Constance.kekana@dmre.gov.za Anesia.matjokane@dmre.gov.za	Private Bag X59 ARCADIA 0007	Trevenna Campus 70 Meintjies Street Sunnyside PRETORIA
<b>DIRECTOR:</b> Occupational Medicine	Ms D Mahlaba	+27 (0) 12 444 3785 Duduzile.mahlaba@dmre.gov.za Rudzani.moshapo@dmre.gov.za	Private Bag X59 ARCADIA 0007	Trevenna Campus 70 Meintjies Street Sunnyside PRETORIA
<b>MEDICAL INSPECTOR</b>	Dr D Mokoboto	+27 (0) 12 444 3614 Dipaesa.mokoboto@dmre.gov.za Pertunia.makhubela@dmre.gov.za	Private Bag X59 ARCADIA 0007	Trevenna Campus 70 Meintjies Street Sunnyside PRETORIA
<b>DIRECTOR:</b> Mine Safety	Vacant	+27 (0) 12 444 3649 Freda.seema@dmre.gov.za	Private Bag X59 ARCADIA 0007	Trevenna Campus 70 Meintjies Street Sunnyside PRETORIA
<b>DIRECTOR:</b> Mine Surveying	Mr NV Mahwasane	+27 (0) 12 444 3789 Ndivudza.mahwasane@dmre.gov.za Goitsemang.sekwati@dmre.gov.za	Private Bag X59 ARCADIA 0007	Trevenna Campus 70 Meintjies Street Sunnyside PRETORIA
PRINCIPAL INSPECTORS				
Position	Official	Contact Details	Postal Address	Physical Address
<b>PRINCIPAL INSPECTOR:</b> Eastern Cape	Mr TM Doyle	+27 (0) 41 403 6640 Terence.doyle@dmre.gov.za Megan.singh@dmre.gov.za	Private Bag X6076 GOEBERHA 6000	Pier 11 Shopping Centre 444 Govan Mbeki Avenue GOEBERHA
<b>PRINCIPAL INSPECTOR:</b> Free State	Mr PH Nyaqcela	+27 (0) 57 391 1373 Pule.nyaqcela@dmre.gov.za Puleng.mofokeng@dmre.gov.za	Private Bag X33 WELKOM 9460	The Strip Building 314 Stateway Street WELKOM
<b>PRINCIPAL INSPECTOR:</b> Gauteng	Mr MN Madubane	+27 (0) 11 358 9776 Max.madubane@dmre.gov.za Portia.sokhulu@dmre.gov.za	Private Bag X5 BRAAMFONTEIN, 2017	222 Smith Street Braamfontein JOHANNESBURG

<b>PRINCIPAL INSPECTOR:</b> KwaZulu-Natal	Ms EM Sebitloane	+27 (0) 31 335 9626 Matshidiso.sebitloane@dmre.gov.za Sindy.dlamini@dmre.gov.za	Private Bag X54307 DURBAN 4000	Durban Bay House 333 Smith Street DURBAN
<b>PRINCIPAL INSPECTOR:</b> Limpopo	Mr S Jivhuho	+27 (0) 15 287 4705 Sollyjivhuho@dmre.gov.za Nancy.montana@dmre.gov.za	Private Bag X9467 POLOKWANE 0700	Brool Building 101 Dorp Street POLOKWANE
<b>PRINCIPAL INSPECTOR:</b> Mpumalanga	Vacant	+27 (0) 13 653 0514 N/a Sbongile.mokoena1@dmre.gov.za	Private Bag X7279 EMALAHLENI 1035	Saveways Crescent Centre Mandela and OR Tambo Drive EMALAHLENI
<b>PRINCIPAL INSPECTOR:</b> Northern Cape	Mr TM Mateta	053 807 1735 Tumelo.mateta@dmre.gov.za Dorothy.goliath@dmre.gov.za	Private Bag X6093 KIMBERLEY 8300	Telkom Building 41 Schmidtsdrift Street KIMBERLEY
<b>PRINCIPAL INSPECTOR:</b> North West: Klerksdorp	Mr J Melembé	018 487 4316 Jose.melembé@dmre.gov.za Elizabeth.mmota@dmre.gov.za	Private Bag A1 KLERKSDORP 2570	Vaal University of Technology Building Voortrekker and Margaretha Prinsloo Street KLERKSDORP
<b>PRINCIPAL INSPECTOR:</b> North West: Rustenburg	Mr HM Mothiba	014 594 9240 Monageng.mothiba@dmre.gov.za Tintswalo.baoyi@dmre.gov.za	P O Box 150 TLHABANE 0309	Propcor Building 254 Beyers Naude Street RUSTENBURG
<b>PRINCIPAL INSPECTOR:</b> Western Cape	Vacant	021 427 1004 N/a Ntombikayise.ntlenzi@dmre.gov.za	Private Bag X9 ROGGE BAY 8012	Atterbury House Corner of Lower Brug and Riebeeck Streets CAPE TOWN
TRIPARTITE INSTITUTIONS				
Position	Official	Contact Details	Postal Address	Physical Address
<b>MINE HEALTH AND SAFETY COUNCIL</b> General Manager	Mr D Mamphitha	+27 (0) 11 656 1797 ext: 112 Ysethlapelo@mhsc.org.za	Private Bag X11 WENDYWOOD 2144	Western Woods Office Park 145 Western Service Road Woodmead JOHANNESBURG
<b>MINING QUALIFICATIONS AUTHORITY</b> Chief Executive Officer	Mr T Mashongoane	+27 (0) 11 547 2600 Rochelle.m@mqa.org.za	Private Bag X1118 MARSHALLTOWN 2107	7 Anerley Road Parktown JOHANNESBURG

### 9.3. Annexure C: Abbreviations and acronyms

<b>A</b>	<b>AIDS</b>	Acquired Immune Deficiency Syndrome	
	<b>AMR(S)</b>	Annual Medical Report(s)	
	<b>ARVS</b>	Antiretrovirals	
	<b>ASPASA</b>	Aggregate and Sand Producers Association of Southern Africa	
<b>C</b>	<b>CEO(S)</b>	Chief Executive Officer(s)	
	<b>CIOM</b>	Chief Inspector of Mines	
	<b>COAD</b>	Chronic obstructive airway disease	
	<b>COF</b>	Certificate of fitness	
	<b>COP(S)</b>	Code(s) of Practice	
	<b>COVID-19</b>	Corona Virus Infection Disease 2019	
	<b>CWP</b>	Coal workers' pneumoconiosis	
<b>D</b>	<b>DMRE</b>	Department of Mineral Resources and Energy	
<b>E</b>	<b>EDP</b>	Executive Development Programme	
	<b>EPTB</b>	Extra pulmonary tuberculosis	
	<b>EMPD</b>	Emerging Management Development Programme	
<b>F</b>	<b>FFR</b>	Fatality frequency rate	
	<b>FFS</b>	Fatality-free shifts	
	<b>FOG(S)</b>	Fall(s) of ground	
<b>G</b>	<b>GCC</b>	Government Certificate of Competency	
	<b>GDI</b>	Gas detection instrument	
<b>H</b>	<b>HCT</b>	HIV counselling and testing	
	<b>HEG(S)</b>	Homogenous exposure group(s)	
	<b>HIRA</b>	Hazard identification and risk assessment	
	<b>HIV</b>	Human Immunodeficiency Virus	
<b>I</b>	<b>IFR</b>	Injury-frequency rates	
<b>K</b>	<b>KTPM</b>	Thousand metric tonnes per month	
<b>M</b>	<b>MDR-TB</b>	Multidrug-resistant TB	
	<b>MHSA</b>	Mine Health and Safety Act, 1996 (Act 29 of 1996), as amended	
	<b>MHSC</b>	Mine Health and Safety Council	
	<b>MHSI</b>	Mine Health and Safety Inspectorate	
	<b>MOSH</b>	Mine Occupational Safety and Health	
	<b>MOU</b>	Memorandum of Understanding	
	<b>MPRDA</b>	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)	
	<b>MQA</b>	Mining Qualifications Authority	
	<b>MRS</b>	Mine Rescue Service	
	<b>MSCC</b>	Mine Surveyors Certificate of Competency	
	<b>MTB</b>	Miliary tuberculosis	
	<b>MTPA</b>	Million tonnes per annum	
	<b>N</b>	<b>NGO(S)</b>	Non-governmental organisations

<b>NIHL</b>	Noise-induced hearing loss
<b>O</b>	
<b>OEL(S)</b>	Occupational exposure limit(s)
<b>OHS</b>	Occupational health and safety
<b>OLD(S)</b>	Occupational lung disease(s)
<b>OMP(S)</b>	Occupational medical practitioner(s)
<b>P</b>	
<b>PDS</b>	Proximity detection system
<b>PGM(S)</b>	Platinum group metals
<b>PI(S)</b>	Principal Inspector(s) of Mines
<b>PPE</b>	Personal protective equipment
<b>PSS</b>	Platinum salt sensitivity
<b>PTB</b>	Pulmonary tuberculosis
<b>R</b>	
<b>RBE</b>	Rail-bound equipment
<b>RTF(S)</b>	Regional Tripartite Form(s)
<b>S</b>	
<b>SAMRASS</b>	South African Mines Reportable Accident Statistics System
<b>SAPS</b>	South African Police Service
<b>SCSR(S)</b>	Self-contained self-rescuer(s)
<b>SIL+TB</b>	Silico-tuberculosis
<b>SLA(S)</b>	Service-level agreement(s)
<b>SOP(S)</b>	Standard operating procedures
<b>SETA</b>	Sector Education and Training Authority
<b>T</b>	
<b>T&amp;M</b>	Transportation and mining
<b>TARP(S)</b>	Trigger action response plan(s)
<b>TB</b>	Tuberculosis
<b>TBT</b>	Track-bound transport
<b>TMM</b>	Trackless mobile machines
<b>V</b>	
<b>VMR</b>	Village Main Reef
<b>W</b>	
<b>WHO</b>	World Health Organization
<b>WIM</b>	Women in mining
<b>WMSD(S)</b>	Work-related musculoskeletal disorder(s)
<b>WRULD</b>	Work-related upper limb disorder
<b>X</b>	
<b>XDR-TB</b>	Extensively drug-resistant TB











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