MINERALS COUNCIL
SOUTH AFRICA

FACTS AND FIGURES POCKETBOOK 2024

#MiningMatters

Foreword

Mining plays a significant role in the lives of our people and the economy of our nation

Richards Bay Minerals

Cover: Anglo American

The Minerals Council provides insights into the importance and relevance of mining for the South African economy and its citizens in our latest *Facts and Figures.* This pocketbook demonstrates why #MiningMatters.

Accurate and credible statistics allow us to fulfil our mandate as the trusted representative of mining in South Africa. In addition, these statistics help South Africans to develop a better, and more nuanced understanding of the current state of the mining industry. The *Facts and Figures* publication assists all stakeholders to understand the positive impact and important role of mining in the economy and the benefits that flow through to broader society. It highlights the need to nurture and grow the mining industry so that it can increase its relevance and contribution to society.

The Minerals Council's economics team plays a key role in gathering the data.

This pocketbook is published in February each year. We depend on the latest, but incomplete, 2024 official data as published by various primary sources. This will result in subsequent revisions to the preliminary estimates and/or published numbers as additional or more complete data becomes available.

The comprehensive *Facts and Figures 2024* publication, which will contain these revisions and data additions, will be published in the third quarter of 2025.

In compiling this Facts and Figures *publication, the Minerals Council relies on various primary data sources such as Statistics South Africa (Stats SA), the Department of Mineral Resources and Energy (DMRE), the South African Reserve Bank (SARB), the South African Revenue Services (SARS), the World Bank, the International Monetary Fund (IMF) and the United States Geological Survey.*

The Minerals Council South Africa has 72 members, representing around 90% of South Africa's mineral production. Total industry turnover was valued at around R1 trillion in 2024. Members are engaged in a diverse range of minerals, with many companies involved in mining multiple minerals.

15	Platinum group metals
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2	Zinc
1	Vanadium
1	Investment

The mining sector in 2024

474,876
people employed[1]

R432.7 billion
contributed to GDP[2]

R43.6 billion
contributed in taxes to South Africa[3]

1. The average workforce size in the mining sector, calculated from data for the first three quarters of 2024.
2. The annual figure is estimated by an extrapolation based on the average from the first three quarters of 2024.
3. Mining corporate income tax data reported by SARS for the 2023/24 financial year.

Foreword

OUR VISION

To ensure mining matters for South Africa.

OUR MISSION

To lead in enabling the South African mining sector to achieve its full potential through investment, growth, transformation and development in a socially and environmentally responsible manner.

OUR VALUES

Members are obliged to conduct their business according to the agreed Minerals Council values, which dictate the minimum standards of conduct required of them in order to become or remain a member of the Minerals Council. The five values of the Minerals Council are:

- **Responsible citizenship**
- **Respect**
- **Trust**
- **Honesty**
- **Accountability**

Message from the CEO

The South African Mining Sector: Building Momentum Amid Challenges for a Stronger Future

Following severe post-COVID-19 challenges in 2022 and 2023 that diminished mining's sizeable contribution to the South African economy, the industry remained under pressure in 2024. However, some positive developments started to lay the foundation for mining to reach its true potential in the years ahead.

These building blocks include the absence of mining electricity load-curtailment since late-March 2024 and logistics improvements as Transnet Freight Rail railed more than 50 million tonnes of coal. In a boost to business, consumer and investor confidence, the government of national unity (GNU) that was formed after the free and fair elections in May 2024 continued the structural reforms started under the previous (sixth) administration. This included progress on opening the freight logistics industry to private sector participation through the publication of a mining-friendly network statement in late-2024. Along with lower general inflation in South Africa and the rest of the world, the rate of increase for mining input costs moderated notably in 2024. As expected at the start of 2024, less concern about inflation saw central banks across the globe, including the South African Reserve Bank, reduce borrowing costs.

"Real mining production in 2024 is on course for the first positive calendar year increase since 2021."

On the safety front, stats released by DMRE in January 2025 indicate a record-breaking year for the domestic mining sector with industry fatalities declining by 24% year-on-year to an all-time low of 42, continuing the welcome trajectory over many years. The previous record was in 2022 when the industry reported 49 fatalities. The number of serious mining-related injuries declined by a similar percentage as fatalities. There was also a notable decline in the number of occupational health diseases reported to the Minerals Council. In terms of transformation in the mining sector, surveys conducted by the Minerals Council in 2024 indicated good progress on inclusive procurement, complemented by equally progressive supplier and enterprise development. In addition, women now comprise approximately 19% of the mining workforce. This *Facts and Figures* booklet for 2024, which is our flagship annual overview of the sector, provides more detail on several other developments.

Against a backdrop where domestic constraints started to ease, real mining production in 2024 is on course for the first positive calendar year increase since 2021. However, at a projected rise of 1%, the rate of growth is modest. The implication is that by the end of 2024, the level of real mining production remained below the pre-COVID level. This highlights that despite the progress in 2024, there are several remaining constraints that are inhibiting faster growth and the competitiveness of the mining sector. Amongst others, these include sustained high levels of crime, regulatory hurdles, continued above-inflation electricity tariff increases, as well as worsening water provision in parts of the country that go together with weak local government capacity to deploy capital budgets.

Besides the remaining domestic roadblocks to growth, the mining sector faces several global uncertainties at the start of 2025. These include ongoing geopolitical tensions that could impact mineral supply chains and commodity prices, as well as the outlook for the resource-hungry Chinese economy where the authorities are chasing growth of 'around' 5%. At the same time, prices in the PGMs industry, the largest subsector of mining in South Africa, remain depressed. Because of these existing and potential headwinds, it is incumbent on all local mining stakeholders to fully exploit the window of opportunity provided by the progress made in 2024. This implies doubling down on the reforms that will drive higher confidence, investment, growth and employment in the mining sector.

In terms of expected milestones during 2025, we are looking forward to the launch of the new online mining cadastre system, most likely in the second half of the year. This will be an important catalyst to unlock the appetite for mining exploration in South Africa. Other milestones in 2025 include the publication of a critical minerals list for South Africa, as well as the next iteration of the Minerals and Petroleum Resources Development Act (MPRDA). These are both expected in the early part of the year. The MPRDA sets the 'rules of engagement' for mining in South Africa. On safety and health, which remains our number one priority, we look forward to building on the progress made in 2024 and the milestones from the past ten years. All these activities will be in a year when South Africa hosts the G20 summit in late-2025. Given this opportunity to showcase the best of our country, there is no room for complacency and dwelling on past (initial) successes.

The Minerals Council South Africa remains a critical participant in the South African mining industry and national economy. We will continue to play our part to drive mutually beneficial change for our members and society through collaboration with social partners, as well as informing and demonstrating to our stakeholders that #MiningMatters, as evidenced in this publication.

Mzila Mthenjane
Chief Executive Officer

February 2025
#MiningMatters

Rio Tinto - Richards Bay Minerals

MINING AT A GLANCE

Snapshot 2024:

Industry turnover	Direct GDP contribution[4]	Percentage contribution to GDP[4]	Total primary sales	Minerals exports	Employment[5]
R1 trillion (-9.0%)	**R432.7 billion** (-2.6%)	**6.0%**	**R800.9 billion** (+0.8%)	**R774.3 billion** (-0.7%)	**474,876** (-0.9%)
(2023: R1.1 trillion)	(2023: R444.2 billion)	(2023: 6.3%)	(2023: R794.2 billion)	(2023: R779.8 billion)	(2023: 479,228)

Employee earnings	PAYE by mining employees*	VAT (payments)*	Company tax paid*	Royalties*
R195.3 billion (+2.2%)	**R36.1 billion** (+4.9%)	**R21.5 billion** (-24%)	**R43.6 billion** (-49%)	**R16.0 billion** (-36.8%)
(2023: R191.1 billion)	(2023: R34.4 billion)	(2023: R28.3 billion)	(2023: R85.5 billion)	(2023: R25.3 billion)

[4] Based on current market prices. The annual figure is estimated by extrapolating based on the average from the first three quarters of 2024.
[5] Full-year employment average based on the data for the first three quarters of 2024.
** Tax data reported by SARS for the 2023/24 financial year.*

Overview: the state of mining 2024

Global context

US exceptionalism prevails

At a projected 3.2%, real global GDP growth in 2024 is expected to be largely unchanged when compared to growth in 2023. Even so, the international environment was somewhat more favourable for the domestic mining sector in 2024. A big plus was the continued moderation of price pressures, with consumer inflation in some countries returning to central bank targets. This came as some relief after inflation spiked in 2022, driven higher by a combination of post-COVID-19 reopening effects and the Russian invasion of Ukraine.

The combination of lower inflation, and in some countries also concern about GDP growth dynamics, led to several leading central banks reducing policy interest rates. In a notable move, the US Federal Reserve Bank (Fed) started its rate cutting cycle with a 50-basis point (bps) reduction in September 2024, followed by further modest cuts of 25-bps in November and December. This was after the European Central Bank (ECB) already cut rates by 25-bps in June, with others such as the Bank of England and the People's Bank of China also easing the interest rate burden on consumers and business.

Financial market expectations about the pace and scale of relative interest rate moves between countries was again an important driver of global currency volatility. In the wake of Donald Trump's victory in the US Presidential election in early November, the US dollar strengthened significantly. This reflected the view that if enacted, Trump's pre-election pledges would result in higher inflation and fiscal deficits in the US, limiting the future scope for aggressive Fed interest rate cuts. The stronger dollar meant that currencies like the rand ended 2024 on the back foot.

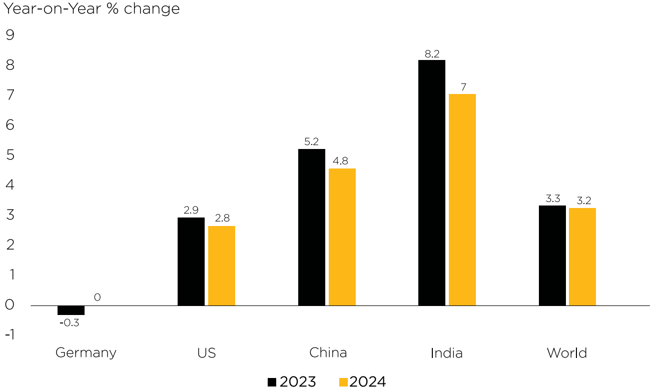
Even so, relative to many other emerging market currencies, the rand had a solid year in 2024 as the formation of the government of national unity boosted investor sentiment towards South Africa.

As was also the case in 2023, there was a stark divergence in the growth performance between important regions and countries. This was especially evident between the US that continued to show resilience and parts of Europe, most notably Germany, where growth faltered.

In China, the latest indications are that real GDP growth in 2024 will be slightly below the government's target of 5%. Fairly aggressive fiscal and monetary policy stimulus measures in the second half of the year provided some growth impetus. Importantly, stainless steel demand continued to grow in China. This supported the demand for South African mineral exports, including iron ore, chrome and manganese. While China's real GDP growth momentum continued to slow, India remained the fastest growing (large) economy in the world as real GDP expanded by a projected 6.5%

Overview: the state of mining 2024 continued

Growth diverged in major economies during 2024



Sources: IMF World Economic Outlook, October 2024

Commodity price trends: Gold (again) shot the lights out

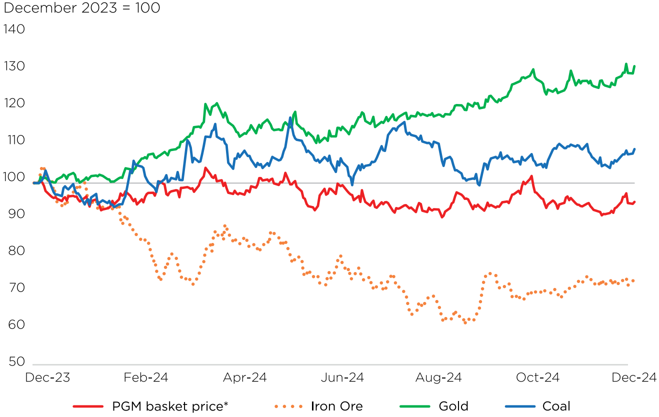
The price trends of South Africa's major mineral exports were again mixed in 2024. In **precious metals,** the experience of 2023 was largely repeated. For the second year running, the dollar **gold price** outperformed, ending the year more than 27% higher (relative to the final trading day of the previous year). In late October, gold reached an all-time record high in nominal terms of just below US$2,800/oz. Gold was supported by sustained strong global central bank buying and perhaps also some risk hedging before the US elections in November. The yellow metal retreated from these lofty levels later in the year when a stronger US dollar weighed on the price. The firm dollar also pushed the rand weaker, which shielded the local currency price of gold.

It was a vastly different story for the **PGMs** basket price. In rand terms, it remained depressed,

ending 5% lower in 2024 following a difficult 2023 when the basket price (in dollar terms) declined by more than 40%.

The 'good' news was that the overall PGMs basket prices were relatively stable for most of the year. An important factor behind this was the slowdown in electric vehicle (EV) adoption and the realisation that future EV sales would not grow as fast as previously envisaged. Unlike vehicles with internal combustion engines (ICEs), PGMs are not used in EVs. However, hybrid vehicles, which provide a bridge between ICEs and EVs, are becoming more popular. On the margin, lower global inflation and interest rates may have also helped to stabilise PGM prices.

Iron ore lagged other SA-focused commodity prices in 2024



Sources: DataStream, Minerals Council SA
**Basket consists of platinum, palladium and rhodium*

The prices of major bulk commodities moved in opposite directions. The **iron ore** price was under pressure for most of the year amid concerns that the Chinese authorities were not doing enough to support growth in the commodity-hungry country. After a brief price rally in October after more aggressive Chinese stimulus measures, concerns about the global trade and GDP growth implications of a Trump presidency undermined the iron ore price once again.

In contrast and notwithstanding price volatility throughout the year, the Richard Bay **coal price** performed better, ending the year in positive territory (relative to the end of 2023). The global narrative on coal has been more nuanced after the European energy crisis in 2022. There is now greater recognition that although the energy transition is an absolute imperative, coal will still have a role to play for some time in providing baseload power. This is especially true in developing countries, including South Africa.

Sustained strong Chinese demand supported **chrome prices** in the first half of 2024, but this faded later in the year. Weather-related output disruptions in Australia saw **manganese prices** spike in the second quarter of 2024, but these gains evaporated in the second half on softer demand and expectations that Australian supplies would bounce back in the fourth quarter.

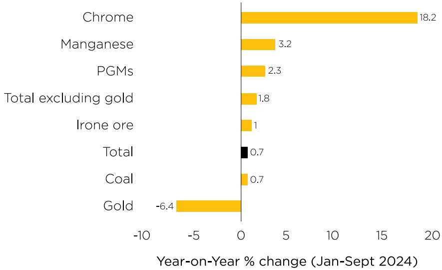
South African mining output has stabilised, though it remains below pre-COVID levels.

Revised data from Stats SA indicated that total real mining production declined by a stark 7.8% in 2022. Output barely budged from this depressed level in 2023, increasing by just 0.1%. Production improved in 2024, but with an expected increase of 0.7%, it remained anaemic. The muted recovery is emphasised by the fact that the level of real mining output in

December 2024 was still somewhat below the pre-COVID level at the end of 2019. Given the absence of mining load-curtailment since March 2024, this is a disappointing outcome. However, it does highlight the myriad other factors still constraining the performance of the mining sector.

Production growth of the major mining subcomponents varied significantly in 2024

In addition, the subdued overall mining production growth in 2024 masks significant divergence in the production of the major mining subcomponents. Despite the sustained rise in the gold price, gold production looks set to decline by more than 6% in 2024 - the only one of the major subsectors where production declined. Gold's drag on total mining production is reflected by the increase in non-gold mining production of almost 2% in 2024. It continues a long-running trend in South African mining where a deep structural decline in the gold sector distorts the overall mining output figures.



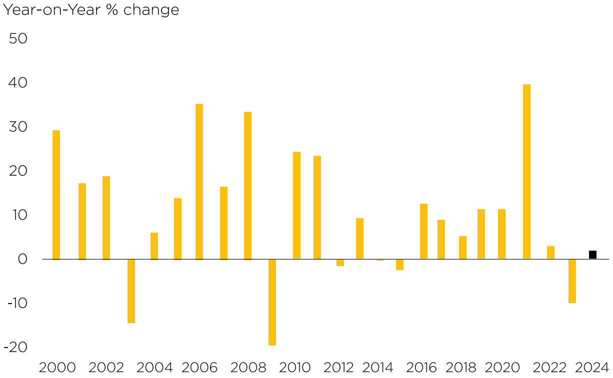
Sources: Stats SA

In terms of the sectors where there was growth in 2024, chrome stands out. Production of **chrome ore and concentrates**, with a weighting[6] of 3.8% in overall mining production, is on track to surge by almost 20% in 2024. Assisted by significant trucking, this has driven by another strong year for chrome ore exports as Chinese demand remained strong. Sectors such as coal and iron ore where Transnet rail and port inefficiencies remain a major constraint delivered much more subdued production growth. That said, there was a notable improvement in the tonnages of coal railed in the latter stages of 2024.

Gold's impact on **mineral sales** (measured in nominal terms) was in total contrast to its drag on mining production volumes. Here the elevated gold price provided a large boost to overall mineral sales. Notably, excluding gold from total mineral sales results in a smaller increase compared to when gold is included.

[6]Based on data from 2019 to 2021, Stats SA released revised weightings for the value add of the major mining subcategories in November 2024. In sum, this showed that the contribution of gold and coal to total mining production has declined. The weightings of iron ore and PGMs increased, with the latter now responsible for 30% of total mining output.

Mineral sales back in (slight) positive terrain during 2024



Sources: Stats SA

Profitability remained under pressure

Relative to other sectors, the underperformance of the mining sector was evident in Stats SA's **gross operating surplus** (GOS) figures. Measured in nominal terms, these provide a broad measure of profitability in the major sectors of the economy. The data indicated that mining sector profits declined by 0.9% year-on-year in the first nine months of 2024. In stark contrast to this, profits in the non-mining sectors increased by 5.8% year-on-year during the corresponding period. This starkly illustrates the profitability squeeze in important subsectors of the mining sector. Amid depressed prices, this is most notable in PGMs The one area where mining again outpaced the non-mining sectors was on **compensation of employees.** This increased by 6% year-on-year in the in the first nine months of 2024 for mining versus a lower rise of 3.2% in the rest of the economy. The increase in mining employee compensation handsomely exceeded the 4.9% annual rise in headline consumer inflation (CPI) during January to September 2024.

Mining export volumes starting to inch higher

Transnet has a target to rail 170 million tonnes of goods in its 2024/25 financial year ending in March 2025. This is up from 151.7 million tonnes in 2023/24. The latest data on bulk commodity exports suggest that there was a welcome **improvement in rail performance** in the second half of 2024. As an example, coal railed to the privately owned and operated Richards Bay Coal Terminal (RBCT) improved to around 52 million tonnes in 2024, up from 47.9 million tonnes in 2023. Although a positive development, this is still significantly below the levels of more than 70 million tonnes Transnet railed annually to RBCT

Overview: the state of mining 2024 continued

between 2017 and 2020. This highlights the significant effort still needed to address logistics constraints in the mining sector. In addition, despite the improved rail performance, overall coal export volumes (through RBCT and other ports) are set to be lower in 2024 than 2023. This reflects reduced trucking in the coal sector.

Iron ore export volumes improved in 2024 (see table for details), but are still below the installed capacity of the iron ore railway line. Chrome and manganese export volumes increased significantly in 2024. Here it is a combination of the continued use of trucking and some Transnet operational improvement. The chrome export numbers which will be a new record for a calender year of above 19 million tonnes, would have been even more impressive if not for a serious derailment on the chrome line to Maputo in October, as well as periodic border closures between South Africa and Mozambique since November 2024 amid post-election protests and violence in Mozambique.

Trucking supporting chrome and manganese export volumes

Export tonnes (million)	Jan-Nov 2023	Jan-Nov 2024	Y-o-Y %
Iron ore	53.5	55.5	3.8
Manganese	20.6	22.2	7.5
Chrome	**16.3**	**19.0**	**16.9**
Coal*	66.6	64.5	-3.2
Total bulk	**157.1**	**161.3**	**2.7**

Source: SARS customs data

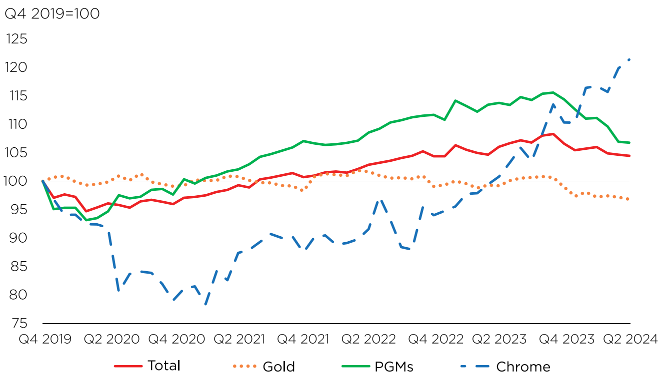
**Exports handled by RBCT (rail) and other ports (rail & road)*

Mining employment under pressure

Formal sector employment in the mining sector declined by 1,785 workers to 471,882 in the third quarter of 2024. This is according to Stats SA's latest Quarterly Employment Statistics (QES). The Q3 decline for mining follows the start of retrenchments in parts of the industry during the first half of 2024, implying a third consecutive quarter of job losses in the mining sector. Cumulatively, in the first three quarters of the year, the mining sector lost almost 10,000 (9,893) jobs.

Stats SA provides a split between gold and non-gold employment, which indicated that 93% of the mining job losses so far in 2024 were in the non-gold mining industry. Based on publicly available information, we know that these retrenchments have mainly been in the PGMs sector. The constraints in the PGMs sector have been well documented and mainly relate to sustained low metal prices, which have weighed heavily on profitability in the sector. Ultimately, the (delayed) response to this was restructuring and cost cutting, including the rightsizing of the labour force as a last resort. It must be said the other parts of the mining industry have been increasing employment of late, including in primary chrome mining where production and exports continue to perform well.

As with production, gold and chrome on opposite ends of employment dynamics



Source: Stats SA, Minerals Council SA

Signs of a pickup in mining fixed investment

Real gross fixed investment by mining was poor in 2023, increasing by a mere 0.1% year-on-year in real terms. Based on Stats SA's Quarterly Capital Expenditure survey, there was some improvement in 2024. Adjusted for inflation, we estimate that mining sector capital expenditure on new assets increased by 7.1% year-on-year in the three quarters of 2024.

Going forward, mining sector fixed investment should be boosted by outlays on renewable energy projects. In Operational Vulindlela's (OV) latest progress update, the pipeline of confirmed utility-scale renewable energy projects is estimated to be more than 130. This amounts to approximately 22,500MW, with an estimated investment value of R390 billion. OV's tracker suggests that about 70% of these projects are related to the mining sector.

This means that there are about 90 projects in mining, totalling almost 15,800MW. The estimated investment value is R275 billion over the next several years. The bottom line is that while there may not be significant green field mining investment in the foreseeable future, mining companies will be investing to future-proof existing operations.

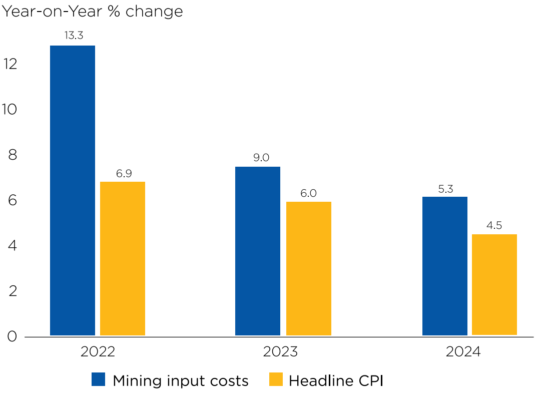
In addition, spending on mining exploration should improve once the DMRE implements a functioning mining cadastre system. It is hoped that this process will be completed in the second half of 2025.

Input cost pressures continued to ease

After surging in 2022 in the wake of higher energy (oil and coal) prices, the rate of increase for mining input costs moderated through most of 2023. This positive trend was sustained in 2024. In the third quarter (Q3) of 2024, mining

input inflation settled at 5% year-on-year, a reduction from the 7% recorded during the same period in 2023. Among key commodities, gold continued to experience the highest rise in input costs, reaching 6.5% in Q3, down from 8.5% in 2023. For the entire 2024, mining input costs increased by 5.3%, easing from an increase of 9% in 2023.

Mining input costs moderated but again averaged above general inflation



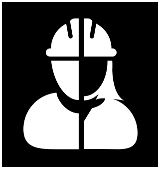
Source: Stats SA, Minerals Council SA


Sishen Iron Ore

Our metals and minerals

COAL

Coal is South Africa's most significant mining commodity by production volume, with annual output reaching approximately 235 million tonnes.



98,425
Direct employees

Coal remains the backbone of South Africa's energy sector. Bituminous coal dominates production, accounting for 99% of total output, with anthracite making up the remaining 1%.

In 2024, the majority of coal sales volumes were destined for the domestic market, with Eskom alone consuming roughly 100 million tonnes to power its coal-fired stations. SARS data indicates that approximately 65 to 70 million tonnes of coal were exported in 2024. Nearly 95% of South Africa's coal export volumes are handled through the Richards Bay Coal Terminal (RBCT) and the Port of Richards Bay, with the remaining 5% shipped via the Port of Durban. According to SARS data, Asia was the largest export destination, accounting for 83% of total exports. India stood out as Asia's top importer, purchasing around 44% of South Africa's coal exports. Europe accounted for 9% of export volumes, a significant drop from the 28.1% recorded in 2022, when the continent scrambled to find alternative energy sources when it was cut off from Russian gas amid the Ukraine war.

Industry developments in 2024:

- Coal production is projected to be relatively flat at +0.6% compared to the previous year, registering 235 million tonnes. Compared to 2019, the year before the COVID-19 pandemic, production is expected to be 9.1% lower in 2024.
- Total coal sales are expected to increase approximately 1.2% in 2024 compared to 2023. This flatlining is mostly driven by a 13.8% reduction in coal prices, which fell to US$106/metric tonnes (mt) in 2024 from around US$122/mt in 2023, adversely impacting export revenues.
- Following record-high thermal coal prices in 2022/23, driven by the Russian invasion of Ukraine and the ensuing energy crisis in Europe, coal prices have now eased to normalised levels. As a result, coal exporters must streamline their operations to remain competitive in this adjusted market environment.
- The coal sector faces mounting pressure on employment as companies grapple with lower prices, rail transport constraints and a global decline in coal demand.

Industry constraints:

- The coal industry has supported efforts to improve

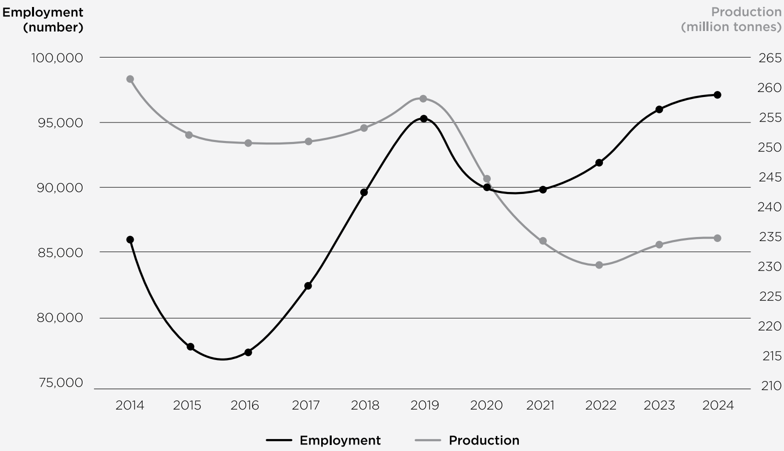
rail exports by contributing to the purchase of critical locomotive parts and the provision of security for Transnet. While current coal prices no longer justify extensive use of road transport for export, where it is still utilised, road transportation contributes to infrastructure damage, air pollution and other negative externalities. Enhancing rail performance therefore remains a priority, with a need to build on the improved coal rail volumes seen in the final months of 2024.
- Persistent challenges in rail performance - such as outdated operational systems, cable theft, derailments and vandalism - continue to disrupt coal transport and exports. Despite some progress driven by the collaborative efforts of the Transnet Freight Rail Industry Recovery Team, criminal activity and aging infrastructure remain significant obstacles to achieving consistent and efficient rail performance.

Industry outlook:
- Coal companies continue to work closely with Transnet to secure the 600 km rail line from the coal fields to Richards Bay, aiming to mitigate the impact of cable theft and vandalism that act as a constraint to exports. This collaboration has delivered positive outcomes, significantly reducing the frequency of such incidents. Despite the costs and the sector's normalised price levels, the enhanced security of the coal corridor provides substantial benefits to collieries.
- In Europe and Japan, high coal inventory levels and an increasing reliance on alternative energy sources have dampened demand for South African coal. Meanwhile, coal phase-out policies in markets such as the US, Europe and Russia further constrain demand. Although the Asian market remains robust, strong supply from Australia and Indonesia has intensified competition, reducing demand for South African coal in the region. South Africa's challenges in exporting efficiently and cost-effectively put the country at risk of losing market share to the aforementioned countries.
- Global sentiment against coal has curtailed long-term investment in the industry. At the COP29 conference in November 2024, Eskom committed to transitioning from coal to renewable energy. To support this shift, Eskom established a Just Energy Transition (JET) office and secured an initial tranche of US$2.6 billion in funding. This will facilitate the transformation of Hendrina, Grootvlei and Camden power stations - set to be decommissioned by 2030 - into renewable energy hubs. Consequently, Eskom expects coal usage to decline by around 30 million tonnes by 2030.

Our metals and minerals continued

COAL

Coal industry – employment and production



COAL	2024	% change on prior year (2024 vs. 2023)	2024 % change on 2019 (pre-COVID)
Direct employees	**98,425**	2.4%	3.2%
Employee earnings (rand billion)	**36.4**	4.2%	24.9%
Royalties (rand billion)	**3.8**	-55.9%	82.7%
Production (million tonnes)	**235.0**	0.6%	-9.1%
Total sales (rand billion)	**195.6**	1.2%	38.9%
Percentage of value exported	32.0%		

Our metals and minerals

PLATINUM GROUP METALS

PGMs consist of six noble metals i.e., platinum, palladium, rhodium, ruthenium, osmium and iridium. Platinum, palladium, rhodium and iridium are the primary metals of significant economic value.

174,515
Direct employees

PGMs have found their way into a wide range of applications. One of the most prominent uses is in the production of jewellery and in the automotive industry where their catalytic properties are highly valued. PGMs are also used in fuel cells, where they help to convert chemical energy into electrical energy. In addition, they are commonly used for investment purposes in the form of coins, bars and exchange traded funds due to their intrinsic value and scarcity.

Moreover, PGMs are widely used in various industrial applications for their unique properties such as high melting points, excellent conductivity and corrosion resistance. They are also frequently used in medical and electronic applications due to their biocompatibility and electrical properties. In medical applications, they are used for implants, diagnostic tools and radiation therapy. In the electronic industry, they are used for semiconductors, capacitors and transistors, among other things.

Industry developments in 2024:

- The PGM industry has become the second-largest contributor to total mining sector sales, overtaken by coal, which last led commodity sales in 2020. Nevertheless, South Africa retains its position as the world's leading producer of PGMs.
- PGM production in 2024 is estimated to have declined by 2.1%, totalling approximately 248 tonnes. The sustained pressure on the PGM basket price is forcing miners to restructure operations, including workforce adjustments, leading to lower levels of production. Production levels remain approximately 7.6% below pre-COVID levels.
- After a sharp and rapid decline, PGM basket prices have seemingly bottomed out. However, total PGM sales for 2024 fell by around 15% compared to the previous year, following a significant 34.3% drop in 2023.

PGM prices:

- PGM prices in 2024 were lower than in 2023, with the dollar basket price averaging US$1,273.9 down 18.6% compared to 2023. All metals recorded average price declines, except for

PLATINUM GROUP METALS

iridium.

- Platinum averaged US$964.9 per ounce, reflecting a modest year-on-year decrease of 1.7%.
- Palladium prices fell sharply, averaging US$995.5 per ounce - a 26.9% year-on-year decline, down from a peak of US$2,635.9 per ounce in March 2022. While the palladium price saw brief rallies in 2024, the overall trend remained downward.
- Rhodium experienced a significant price drop, with a year-on-year decline of 31.2%, averaging US$4,636.4 per ounce. This is a notable decrease from its 2022 average of US$15,501 per ounce.
- Among the minor PGMs, iridium was the only metal to see a price increase, averaging US$4,761.7 per ounce - a 1.7% rise compared to 2023. In contrast, ruthenium averaged US$437.2 per ounce, marking a 5.9% decline over the same period.

PGM average prices 2024

	R/troy ounce	US$/troy ounce
Platinum	-2.3%	-1.7%
Palladium	-27.2%	-26.9%
Rhodium	-31.0%	-31.2%
Iridium	1.1%	1.7%
Ruthenium	-6.5%	-5.9%

Source: Johnson Matthey, Minerals Council SA

Industry constraints:

- The persistently low PGM basket price poses a significant challenge to the sector. Due to contractual obligations to supply PGMs and the high fixed costs of production, the low basket price continues to strain profitability, negatively impacting employment within the industry.
- South African PGM miners face increasingly complex and, at times, conflicting expectations from key stakeholders, including host communities, government authorities, organised labour and investors. A critical issue is the competition for scarce water resources where PGM mines operate, which directly impacts the industry's social license to operate. This challenge is exacerbated by the poor state of local government water infrastructure.
- Attracting and retaining highly skilled labour remains a significant challenge for PGM miners, further complicated by weak PGM prices. These market conditions have prompted labour restructuring across all major PGM producers.
- The majority of PGM production occurs in deep -level underground operations, which are both costly (large fixed costs associated with ventilation, cooling and pumping) and labour intensive. The high costs associated with converting these operations limit the feasibility of mechanisation and modernisation of equipment, machinery and other capital investments.

Industry outlook:

- Platinum jewellery continues to account for approximately

Our metals and minerals continued

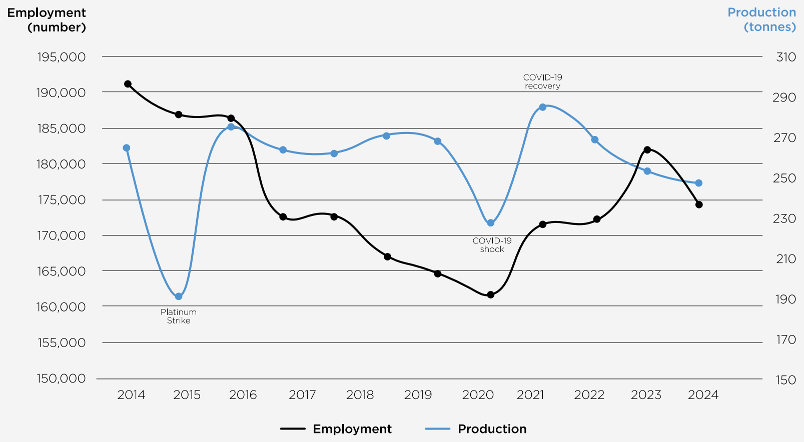
25% of total demand, yet it remains an often-underappreciated demand driver. There are early indications that the market may be emerging from its current downturn. According to the World Platinum Investment Council, global platinum jewellery demand is projected to rise by 5% year-on-year to 1,951 koz in 2024.

- In the automotive sector, platinum demand is forecast to decline by 2% year-on-year to 3,173 koz (-49,000 ounces) in 2024. Automotive demand has been revised lower due to a reduction in absolute vehicle production forecasts as cost headwinds have negatively impacted vehicle sales and production (particularly in Europe). Nevertheless, the theme of slowing battery electric vehicles (BEVs), growth resulting in higher-for-longer ICE demand remains unchanged. Economic pressures appear to be amplifying affordability barriers for BEVs, alongside other market concerns. There is also a renewed focus on hybrid electric vehicles, which require substantial quantities of PGMs in their catalytic converters.
- The hydrogen economy holds significant potential to boost PGM demand in the coming years, particularly as the world intensifies efforts to reduce carbon emissions. As a clean and versatile energy carrier, hydrogen is gaining traction across various applications, from fuel cells in transportation to power generation. PGMs - such as platinum, palladium, ruthenium and iridium - play a critical role as catalysts in hydrogen fuel cell technology. If hydrogen technologies continue to advance and scale up, they could become a major driver of future demand for PGM metals.

Our metals and minerals continued

PLATINUM GROUP METALS

PGM industry – employment and production



Source: DMRE, Minerals Council SA

PGM	2024	% change on prior year (2024 vs. 2023)	2024 % change on 2019 (pre-COVID)
Direct employees	**174,515**	-4.6%	6.0%
Employee earnings (rand billion)	**76.7**	-0.1%	38.2%
Royalties (rand billion)	**3.6**	-59.8%	220.2%
Production (tonnes)	**247.8**	-2.1%	-7.6%
Total sales (rand billion)	**167.4**	-14.6%	23.0%
Percentage of value exported	97.0%		

Source: DMRE, Minerals Council SA and SARS

Our metals and minerals

GOLD

Gold remains one of the world's most coveted metals as it is revered for its beauty and symbolism, and it is held as a store of value. This versatile metal is malleable, conductive and does not tarnish, making it ideal for use in jewellery and many industrial applications. Central banks buy and hold gold as a currency reserve.

91,932
Direct employees

Gold prices continue their upward trajectory given its importance in acting as a critical inflation and geopolitical hedge. Gold prices stood at US$2,652 in November 2024 and given geopolitical tensions, the uncertainty surrounding a new Trump administration and the continued demand from central banks, with some bullish forecasts projecting gold to reach US$3,000 in the first half of 2025.

Industry developments in 2024:

- The average price of gold in 2024 increased by 22.9% in US dollar terms, reaching approximately US$2,387 an ounce on average, while rand-denominated prices rose by 22.1% year-on-year. In October 2024, the gold price had peaked at US$2,689 an ounce.
- The rise in gold prices has allowed South African producers to sustain operations at marginal deposits as the higher prices improve profitability. This favourable price environment has also supported the extension of some shafts and continued investment in low-cost tailings treatment across the industry.
- Despite an approximate 19.5% increase in gold sales to around R137 billion, South African gold production is projected to decline by more than than 6.0% to approximately 90 tonnes in 2024. While the high gold price is beneficial, the industry continues to face structural challenges. South Africa's gold reserves are deep, costly to mine and most operations have been active for decades. Although reserves and resources remain substantial, accessing them is both difficult and expensive – constraining factors in an internationally competitive industry.
- Export and local gold sales volumes are expected to rise by 1.9% and 8.4%, respectively, as smelters like Rand Refinery process both stockpiled and newly mined gold ore to meet demand in domestic and international markets.

Industry constraints:

- South Africa's gold sector is defined by deep-level, labour-intensive underground mining, which presents significant risks and challenges. Maintaining strict adherence to high safety and health standards is essential to manage these risks. Additionally, high temperatures and humidity at deep mining levels create challenging working conditions, negatively impacting labour productivity.

- The industry also faces the burden of high electricity costs, which are particularly onerous for deep-level gold mining operations. Eskom has applied for National Energy Regulator of South Africa (NERSA) approval of its proposed MYPD 6 tariff increases, which include a 36.15% hike for FY26 and over 56% from FY26 to FY28. Whether approved at these levels or lower, the impact will be threefold:
  - **Increased electricity** costs reduce profitability, prompting mining operations to invest heavily in efficiency measures and alternative energy sources, such as solar and wind power, and battery storage.
  - **Shortened mine lifespans,** as higher electricity costs make grade mixing economically unviable. This forces operations to focus on high-grade deposits, leading to earlier mine closures as lower-grade reserves become too expensive to extract.
  - **Increasing fixed cost,** as gold mining operations require continuous pumping, cooling and ventilation, even when ore extraction is not taking place. As a result, a significant portion of operating expenditure of up to 20% is allocated to electricity, further straining profitability.

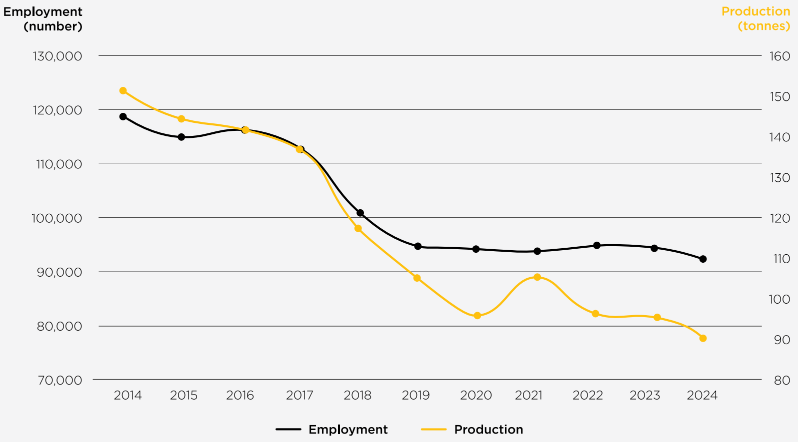
Industry outlook:

- Gold companies are strategically directing capital expenditure towards sustaining higher-grade operations, including exploration activities. However, gold exploration within South Africa remains minimal, with significant investment redirected to more favourable jurisdictions such as Australia, Chile and Peru. Given that gold is often found alongside copper (in copper-gold porphyry deposits), many companies are diversifying into copper mining, a commodity currently experiencing robust demand.
- As at the end of 2024, several factors including higher bond yields and a firmer US dollar, increased risk appetite in equity markets, a boost in cryptocurrency valuations, and easing geopolitical tensions, could lead to a near-term pullback in gold prices.
- Finally, without urgent structural reforms to address South Africa's electricity affordability crisis, the sector's investment outlook will likely remain pessimistic. Electricity constitutes a substantial share of intermediate input costs due to the energy-intensive nature of deep-level mining, and the steep trajectory of electricity tariffs poses a significant challenge. For South Africa, which ranks third globally in gold reserves, competitive electricity costs are crucial to remain viable against other resource-rich jurisdictions like Australia and Canada. High energy costs and the general elevated cost of operating mines in South Africa threaten to undermine the country's ability to attract investment and capitalise on its substantial reserves.

Our metals and minerals continued

GOLD

PGM industry – employment and production



Source: DMRE, Minerals Council SA

GOLD	2024	% change on prior year (2024 vs. 2023)	2024 % change on 2019 (pre-COVID)
Direct employees	**91,932**	-2.2%	-3.0%
Employee earnings (rand billion)	**35,5**	1.6%	33.8%
Royalties (rand million)	**905**	117.9%	214.7%
Production (tonnes)	**90.0**	-6.9%	-14.5%
Total sales (rand billion)	**136.8**	19.5%	78.5%
Percentage of value exported	95.1%		

Source: DMRE, Minerals Council SA and SARS

Our metals and minerals

IRON ORE

Iron is the most common element on earth, comprising most of the planet's inner and outer core. Around 95% of South Africa's iron ore production is high-quality hematite (Fe2O3) which is sought after for steelmaking.

Globally, approximately 98% of iron ore is used in steel production, a material vital to construction, infrastructure, transportation and various manufacturing industries.

In the construction industry, steel is integral to buildings, bridges, roads and other infrastructure projects. In manufacturing, steel derived from iron ore plays a critical role in producing vehicles, ships, trains and other transportation equipment, as well as machinery, appliances, tools and a wide range of equipment.

22,715
Direct employees

Industry developments in 2024:

- Iron ore production is expected to grow by 3.3% in 2024 to 65.3 million tonnes with total sales for the year expected to decrease by around 7.1% to around R95 billion. Iron ore prices on average were down by 7.7% in 2024 relative to 2023, at around US$111/dry metric tonne unit (dmtu).
- Apart from price effects on sales, Transnet's rail performance on the Sishen-Saldanha line continued to be constrained by derailments and equipment failures. This meant that there were at least 8 million tonnes of finished iron ore stock awaiting export in 2024. As for the Saldanha Bay port, Transnet's performance was mainly affected by stacker-reclaimer reliability issues and adverse weather conditions at the Western Coast port. Overall, Transnet remained the single biggest constraint to iron ore exports in 2024.
- According to SARS data, around 60.6 million tonnes of iron ore were exported in 2024 compared to 59 million tonnes in 2023. Of this total, approximately 70% was destined for Asia (with 54% shipped to China, 5.2% to Japan and 8.8% to the Republic of Korea). Europe accounted for 17.6% of exports, while 11.0% went to Africa.
- In 2024, the Port of Saldanha Bay handled approximately 81% of South Africa's iron ore exports. The Transnet Port of Richards Bay facilitated 7.4%, while around 12% of exports were transported via the Komatipoort land border en route to the Port of Maputo.

Industry constraints:

- The weak state of rail infrastructure and inefficiencies at ports,

Our metals and minerals continued

IRON ORE

exacerbated by frequent equipment breakdowns at Saldanha Bay and adverse weather, have limited iron ore export volumes in 2024. As a result, companies have had to reduce their production targets, as the existing rail network and port operations cannot support higher production and export levels.

- Access to water and the upkeep of water infrastructure remain critical challenges in the Northern Cape. Water is essential for mining operations, and without a reliable supply, production remains under threat.
- The Minerals Council's Northern Cape Mines Leadership Forum continues to work with the Northern Cape provincial government and the Department of Water Affairs to establish a collaborative framework for securing a sustainable, cost-effective water supply from the Vaal Gamagara Water Supply Scheme (VGGWSS). This scheme is vital for the region's mining operations, including those for iron ore and manganese. However, the current state of water infrastructure and ongoing maintenance challenges pose significant risks to operations in the province.

Industry outlook:

- The iron ore industry is actively involved with engagement both between Transnet and the Government through the National Logistics Crisis Committee (NLCC) to improve rail performance and allow for private sector participation on the corridors.

Progress on Logistics Reforms 2023/24.

- Freight Logistics Roadmap and private sector participation (PSP) framework adopted in December 2023
- Economic Regulator of Transport (ERT) bill signed by president
- Public consultation on network access concluded
- Private partner for Durban terminal bid process finalised (outcome pending court proceedings)
- Transnet infrastructure manager established in october 2024
- World bank advisory support provided to Transnet
- Mining-friendly final network statement published in December 2024

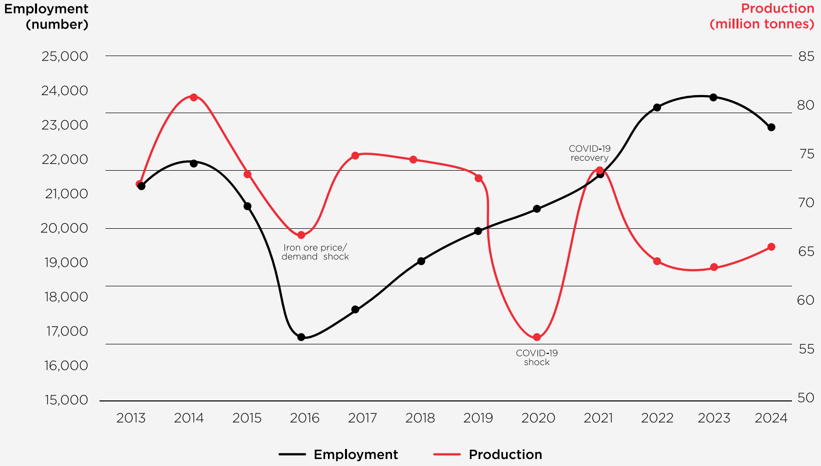
Focus areas going forward.

- Establish Ports Authority
- Capacitate PSP unit within Transnet/BUSA
- Establish independent Transport Economic Regulator
- Develop National Rail Bill enabling a robust legislative framework for rail reform

Our metals and minerals continued

IRON ORE

Iron Ore industry – employment and production



Source: DMRE, Minerals Council SA

IRON ORE	2024	% change on prior year (2024 vs. 2023)	2024 % change on 2019 (pre-COVID)
Direct employees	**22,715**	-4.4%	14.9%
Employee earnings (rand billion)	**10.6**	4.6%	50.5%
Royalties (rand billion)	**4.1**	12.6%	95.4%
Production (million tonnes)	**65.3**	3.3%	-9.9%
Total sales (rand billion)	**95.0**	-7.1%	34.5%
Percentage of value exported	94.5%		

Source: DMRE, Minerals Council SA and SARS

Our metals and minerals

CHROME

South Africa maintained its position as the world's leading producer of chromite ore in 2024, with output exceeding 22 million tonnes.

Chromite ore, mined in South Africa, undergoes further processing to extract chrome. This chrome is then combined with other materials and smelted in an electric arc furnace to produce ferrochrome; a high-chromium alloy often mixed with iron. Ferrochrome is a critical input in stainless steel production, which is widely used in applications ranging from kitchenware to industrial machinery.

Chromium has diverse applications across various industries. It is used in chrome plating to create a protective layer on surfaces and in the production of catalytic converters for automobiles. Chromium compounds also serve as pigments in paints, inks and plastics, and act as catalysts in chemical processes, including the manufacture of plastics and synthetic rubbers.

25,421
Direct employees

Industry developments in 2024:

- In 2024, production rose by approximately 16.5% year-on-year, reaching around 22.9 million tonnes. Sales increased by 13.9% compared to 2023, climbing to R65.1 billion from the previous year's R57.2 billion.
- Although the average chrome price declined year-on-year per metric tonne, higher production volumes drove a corresponding increase in sales, aligning with the rise in output.
- According to SARS data, in the first 11 months of 2024, South Africa exported 19 million tonnes of chrome ore - an all-time high for a calendar year, surpassing the 17.8 million tonnes exported in 2023. Of this, approximately 48% was shipped directly to China, while 41% was recorded as exports to Africa, followed by 1% to the European Union. However, the export data for Africa may be somewhat misleading, as a substantial volume of chrome ore is transported via the Komatipoort land border to Mozambique's Maputo Harbour, an intermediary route before reaching its ultimate destinations, primarily in Asia.

Industry constraints:

- Transnet continues to face challenges in transporting chrome through the Port of Richards Bay at contracted levels. Although there was an improvement compared to 2023, only around 4 million tonnes of chrome ore were moved via rail through this port in 2024, accounting for approximately 22% of total chrome exports.

- Increasingly, companies are turning to containerising chrome and ferrochrome exports, utilising private operators through the Port of Durban, which handled 24.9% of exports in 2024. The largest share, approximately 50%, was transported by road along the N4 corridor through Komatipoort, bound for the Port of Maputo in Mozambique.
- Amid significant improvements in cross-border movement and coordination by SARS customs and other government departments, the increased efficiency of truck-based exports via Komatipoort has reduced the incentive to use South African ports. This has contributed to substantial revenue losses for the Transnet run ports, which are unable to handle higher export volumes.
- Security, including ongoing incidents of cable theft, remains a critical issue along the chrome rail lines from the North West and Limpopo provinces to Richards Bay and the Port of Durban. The lack of visibility and control over high-value ferrochrome during transit has discouraged companies from using rail, favouring road transport through Komatipoort instead.

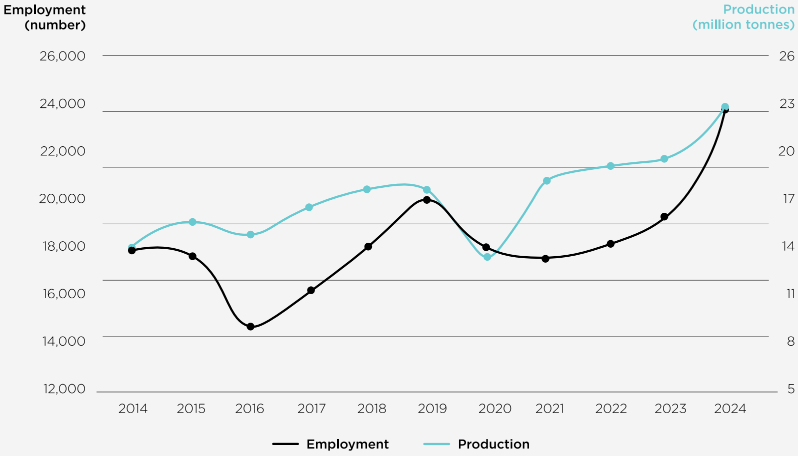
Industry outlook:

- Chrome exports are expected to continue growing, driven by road transport to Maputo, as rail and operational challenges at Transnet persist. However, road transport is approximately 40% more expensive than rail, making the profitability of this mode of export highly sensitive to fluctuations in commodity prices. Additionally, recent social unrest and the resultant disruptions to business operations in Mozambique following the disputed October 2024 general election have introduced uncertainty to domestic exporters that use the port of Maputo. Both in 2023 and in 2024, more than 50% of South Africa's total export tonnages of chrome went through Maputo.
- Most of South Africa's chrome demand comes from China, which has experienced slower economic growth. According to IMF forecasts, China's growth rate is expected to decline from 4.8% in 2024 to 4.5% in 2025. An interesting dynamic in 2024 was sustained strong Chinese import demand for South African chrome despite weaker real GDP growth. This may be tied to geopolitics as China builds inventories of strategic minerals as a safeguard against possible future trade or other disruptions. As inventories increase, the sustainability of Chinese demand is in question if underlying stainless steel demand does not pick up.

Our metals and minerals continued

CHROME

Chrome industry – employment and production



Source: DMRE, Minerals Council SA

CHROME	2024	% change on prior year (2024 vs. 2023)	2024 % change on 2019 (pre-COVID)
Direct employees	**25,421**	16.2%	21.9%
Employee earnings (rand billion)	**8.9**	18.0%	39.9%
Royalties (rand million)	**N/A**	-	-
Production (million tonnes)	**22.9**	16.5%	29.8%
Total sales (rand billion)	**65.1**	13.9%	193.4%
Percentage of value exported	52.7%		

Source: DMRE, Minerals Council SA and SARS

Our metals and minerals

MANGANESE

South Africa is home to approximately 80% of the world's known manganese resources, and boasts the largest proven reserves globally. The country is also the world's leading producer of manganese ore, accounting for about 40% of the global export market.

Manganese is essential in the steelmaking process, where it enhances the strength and toughness of steel by reducing brittleness. It also acts as a powerful deoxidiser, prevents corrosion, improves abrasion resistance and increases the hardenability of steel. Steelmaking alone drives approximately 90% of global manganese demand.

The second-largest application for manganese is in aluminium production. Adding small amounts of manganese improves aluminium's corrosion resistance. Aluminium-manganese and aluminium-manganese-magnesium alloys are widely used in various applications, including kitchenware, roofing, car radiators, transportation and, most notably, beverage cans.

11,771
Direct employees

Beyond metallurgy, manganese is critical in electric vehicle battery manufacturing. It plays a significant role in lithium-manganese-nickel-oxide (LMNO) and lithium-ion batteries, where it can enhance capacity by up to 20% in the latter. Additionally, manganese is utilised in several other battery chemistries, underscoring its growing importance in energy storage technologies.

Industry developments in 2024:

- In 2024, an estimated 20.3 million tonnes of manganese was produced with sales for the year at R54.6 billion. That translates to a more than 6% improvement in production compared to 2023 with a 16.6% improvement in sales over the same period.
- SARS data indicates that an estimated 24 million tonnes of ore was exported in 2024. Of this export *volume*, approximately 94% went to Asia (64% to China, 15.7% to India, 3.5% to Singapore, 3.5% to Malaysia and 2.4% to Japan) followed by the European Union at 5.5%. This is mostly driven by the demand for steel in these countries with China, Japan and the Republic of Korea, for example, hosting more than 90% of the world's merchant shipbuilding capacity – a steel-intensive process.
- In terms of employment, the manganese sector is estimated to have maintained

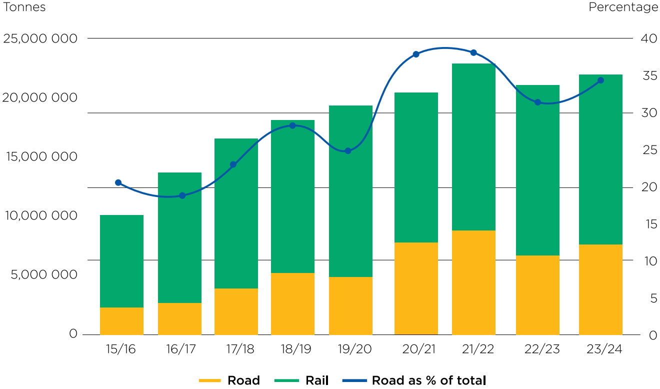
MANGANESE

employment levels at 11,771 in 2024 with employee earnings growing an estimated 7.7% to R5.6 billion compared to 2023.

Industry constraints:

- Persistent constraints on the manganese rail corridor have significantly increased the volume of manganese transported by road, especially to the port of Gqeberha. This shift has intensified negative externalities, including heightened air pollution in Gqeberha, particularly around back-of-port operations.
- Transnet's rail network currently has the capacity to transport approximately 16 million tonnes of manganese ore annually. However, with total annual exports reaching about 23 million tonnes, 7 million tonnes of manganese ore are diverted to road transport.
- Operational disruptions and inefficiencies at Transnet Port Terminals (TPT) in Gqeberha and Saldanha, which handled approximately 66% and 29% of manganese exports respectively in 2024, continue to undermine export performance. These challenges are compounded by deteriorating infrastructure and outdated, unreliable sampling equipment.

Manganese industry – estimated road-rail split in exports



Source: SARS customs data, Minerals Council SA

Industry outlook:

- China remains the largest consumer of South African manganese. However, its economy faced significant headwinds in 2024, including a sustained downturn in the property market and weak domestic consumer demand. While the Government has announced extensive policy easing measures - amounting to US$1.4 trillion over the next three years - these are unlikely to fully offset China's structural challenges. Persistent issues such as an ageing population, a prolonged period of debt deleveraging and efforts

Our metals and minerals continued

MANGANESE

to de-risk global supply chains are expected to constrain Chinese industrial activity. Consequently, demand for industrial minerals, particularly steel, which heavily influences manganese consumption, is projected to remain subdued over the medium- to long term.

- Despite the significant rise in road transportation over the years, if sustained, the second half of 2024 decline in manganese prices is expected to make road transport less viable moving forward. There were already indications of reduced manganese trucking in late 2024. This shift is driven by a downturn in Chinese carbon steel production and ample manganese stockpiles at Chinese ports.
- According to the IMF, Asia's economic growth is forecasted to slow slightly from 5.3% in 2024 to 5.0% in 2025. China's growth is expected to moderate to 4.5%, while India is projected to expand to 6.5%. In contrast, Europe's growth is forecasted at just 1.2% in 2025. Given that Asia accounts for the majority of South African manganese exports, these growth rates indicate that while recent Asian demand has been strong, its sustainability remains uncertain, assuming no major disruptions. The region's steady economic performance, particularly in India, could help balance the softer demand from China.
- Domestically, some niche manganese producers are expected to focus more on the production of high-grade manganese suitable for battery manufacturing, driven by growing global demand for the commodity in emerging technologies, particularly those supporting the green transition.

Our metals and minerals continued

MANGANESE

Manganese industry – employment and production

Source: DMRE, Minerals Council SA

MANGANESE	2024	% change on prior year (2024 vs. 2023)	2024 % change on 2019 (pre-COVID)
Direct employees	**11,771**	2.2%	4.9%
Employee earnings (rand billion)	**5.6**	7.7%	43.4%
Royalties (rand million)	**412**	-46.4%	-48.6%
Production (million tonnes)	**20.3**	6.5%	19.3%
Total sales (rand billion)	**54.6**	16.6%	21.1%
Percentage of value exported	96.7%		

Source: DMRE, Minerals Council SA and SARS

Our metals and minerals

INDUSTRIAL MINERALS

South Africa is richly endowed with a vast and diverse array of minerals, making it a global leader in both the quantity and variety of minerals available.

In 2024, the total sales of industrial minerals amounted to R27.8 billion, reflecting a 8.2% increase over 2023.

Non-metallic sales increased in 2024 with sales 8.9% higher than in 2023 at R14 billion. This sector, which includes minerals such as silica, vermiculite and feldspar, contributed 50.4% to total sales of industrial minerals.

This was followed by the aggregate and sand sector, and the limestone and lime sector each contributing 29.3% and 16% respectively.

11,596
Direct employees


Rio Tinto - Richards Bay Minerals

Our metals and minerals continued

INDUSTRIAL MINERALS

Industrial minerals industry – employment and production

Source: DMRE, Minerals Council SA

INDUSTRIAL MINERALS	2024	% change on prior year (2024 vs. 2023)	2024 % change on 2019 (pre-COVID)
Direct employees	**11,596**	-0.5%	-7.5%
Employee earnings (rand billion)	**2.6**	3.7%	12.2%
Royalties (rand million)	**577**	17.8%	148.3%
Production (million tonnes)	**50.1**	-3.3%	-7.2%
Total sales (rand billion)	**27.8**	8.2%	55.6%
Percentage of value exported	31.3%		

Source: DMRE, Minerals Council SA and SARS

Our metals and minerals continued

INDUSTRIAL MINERALS

Industrial mineral category	Non-metallic other	Limestone and lime	Aggregate and sand	Special clays	Dimension stone	Brickmaking materials	Salt	Building material
Contribution to total sales (%)	**50.4%**	**16.0%**	**29.3%**	**0.5%**	**1.8%**	**0.5%**	**1.4%**	**0.1%**
COMMODITY	Feldspar	Limestone	Aggregate	Attapulgite	Granite	Clay brick making	Salt coarse	Shale for cement
	Feldspar: Lumpy	Limestone: ROM	Aggregate: Base (g1-g)	Bentonite	Granite: Blocks	Shale brickmaking	Salt processed	
	Feldspar: Ground	Limestone: Dolomitic ROM	Aggregate: Sub-base (g4-g)	Fireclay	Granite: Sawn slabs	Building materials other		
	Gypsum	Limestone: Cement	Aggregate: Over 26mm	Flint clay	Granite: Any	Shale for cement		
	Mica	Limestone: Agricultural	Aggregate: Between 13mm to 26mm	Plastic clay	Slate			
	Phosphate concentrate	Limestone: Fluxing	Aggregate: Between 4.75mm to 13mm	Kaolin				
	Pyrophyllite	Limestone: Any	Aggregate: Sand crusher					
	Silica	Lime	Aggregate: Crusher run					
	Silica: Crude	Lime: Quicklime pyrometallurgical	Aggregate: Any					
	Silica: Processed	Lime: Quicklime chemical	Sand natural					
	Sodium sulphate	Lime: Hydrated lime water purification						
	Sulphur	Lime: Hydrated lime chemical						
	Talc	Lime: Hydrated lime any						
	Talc: Crude							
	Vermiculite							

The industry employed **11,596** people in 2024, who in turn earned R2.6 billion. The industry's employment has remained relatively flat over the last decade.


Impala Platinum

Our metals and minerals

DIAMONDS

Diamonds are the hardest natural substance on earth. Their hardness is measured on the Mohs scale, from one to 10, and diamonds score a perfect 10.

The primary use of diamonds is in jewellery. They are highly valued for their brilliance, fire and durability. Diamonds are commonly used in engagement rings, necklaces, earrings and other forms of high-end jewellery. Their hardness makes them ideal for cutting and drilling industrial processes.

Diamonds are used in medical equipment such as surgical blades and drills due to their sharpness and durability. They are also used in certain medical imaging devices.

14,519
Direct employees

The last time diamond production in South Africa exceeded 10 million carats was in 2008. After the Global Financial Crisis this declined to single-digit numbers and only in 2022 did production reach an excess of 10 million carats again.

Industry developments in 2024:

- Following a difficult 2023, diamond production stabilised at approximately 5.8 million carats in 2024, reflecting a year-on-year decrease of 0.9%. Compared to pre-COVID levels in 2019, production is expected to be 18.7% lower.
- The total value of diamond sales in 2024 is projected to decline by 21% compared to 2023, driven primarily by weaker demand and lower international prices. Diamond stockpiles are at highs last seen during the 2008 financial crisis and 2024 sales are anticipated to be 1.1% lower than in 2019.

Our metals and minerals continued

DIAMONDS

Industry constraints:

The industry faces several challenges such as the Diamond Export Levy Act, the role of the State Diamond Trader (SDT) and the Diamond Exchange and Export Centre (DEEC), and the Section 74 Exemption in the Diamond Act, among others.

- For example, regarding the Diamond Export Levy Act, the view of the Minerals Council is that it, unfortunately, does not consider the economic circumstances of the downstream cutting and polishing industry. There have been instances where downstream players would buy diamonds on dealer licenses and then export the diamonds without beneficiation.

The Minerals Council continues to engage the National Treasury and SARS on the removal of the following:

- the requirement for a provisional VAT on imported rough diamonds which would aid the cash flow position of beneficiators.
- VAT payment on the local sale of diamond jewellery purchases exceeding R10,000 by tourists. This will mean that tourists will not have to go through the highly administrative process of claiming back VAT by submitting proof of where the tourists obtained the cash - whether it be from an ATM, a bank or a Bureau de Change. The process limits the amount of diamond sales the local industry can make to tourists.
- provisional VAT payments on temporary imports to SA which applies to shipments higher than R14,000. SARS requires jewellery firms from neighbouring countries to pay this amount upfront. The result is that neighbouring firms are dissuaded from acquiring domestic services for repairs, warranty claims, sending gemstones for grading and sending sweeps and filings.

Industry outlook:

- Weak demand is expected to persist in the near term due to elevated midstream inventories mostly due to reduced consumer spending on luxury goods in China. However, a gradual recovery is anticipated in 2025 as demand from the United States, India and other markets helps to draw down these inventories. Improving macroeconomic conditions (lower inflation and interest rates) and rising consumer confidence are also expected to support growth in the luxury jewellery sector.
- To this end, actions taken by producers to manage supply are expected to lead to an improvement in pricing in 2025.
- The wholesale prices of lab-grown diamonds continue to decline, driven by increasing stockpiles in India. This trend is expected to further solidify consumer awareness of the key distinctions between lab-grown and natural diamond jewellery. As the economic

Our metals and minerals continued

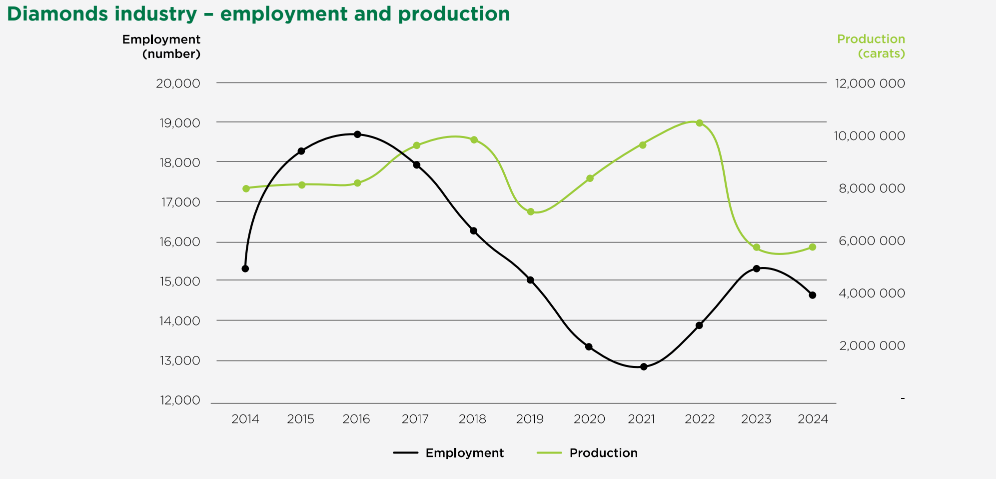
DIAMONDS

viability of selling lab-grown diamonds deteriorates, some US retailers are reportedly shifting their focus back to natural diamonds.

- Additionally, there is a growing emphasis on diamond provenance, which could bolster demand for ethically sourced rough diamonds. This trend is likely to gain momentum with the G7's enhanced sanctions on Russian diamond exports, which took effect in September 2024.
- In South Africa, the Venetia mine (the largest in the country) is currently processing lower-grade surface stockpiles as it transitions to underground mining. This phase will continue as underground production gradually ramps up following the first production blast in mid-2023. The operation is expected to reach a steady-state output of approximately 4 million carats per year over the next few years.

Our metals and minerals continued

DIAMONDS



Source: DMRE, Minerals Council SA

DIAMONDS	2024	% change on prior year (2024 vs. 2023)	2024 % change on 2019 (pre-COVID)
Direct employees	**14,519**	-5.4%	-3.8%
Employee earnings (rand billion)	**6.8**	-1.6%	37.4%
Royalties (rand million)	**43**	-81.3%	-88.3%
Production (million carats)	**5.8**	-0.9%	-18.7%
Total sales (rand billion)	**13.0**	-21.0%	-1.1%

Source: DMRE, Minerals Council SA and SARS


Petra Diamonds

Junior and emerging miners

While junior mining generally refers internationally to prospecting companies involved in the early stages of mining development, in South Africa the term is used more broadly to include exploration as well as small- to mid-tier producers.

The Minerals Council represents various such miners, including member organisations such as ASPASA, the Clay Brick Association of South Africa and the South African Diamond Producers Organisation (SADPO).

Emerging miners is also a South African term that refers to smaller new entrants to the industry typically being black economic empowerment companies.

Based on data available for the first three quarters of 2024, the latest estimates of the size of this sector indicate that the overall revenue and expenditure of the junior and emerging mining sector in South Africa is:

Revenue	R million
Turnover	**82,507**
Interest received	1,028
Dividends received	115
Royalties received	53
Received rental on land and buildings	947
Received rental on plant and machinery	773
Profit on assets	537
Other income	1,311
Total income	**87,271**

Source: Stats SA and Minerals Council SA

Expenses	R million
Purchases	3,380
Employment costs	17,831
Interest paid	1,929
Royalties paid	263
Paid rental on land and buildings	1,908
Paid rental on plant and machinery	2,800
Depreciation	3,464
Losses on assets	538
Other expenditure	25,332
Total expenditure	**85,445**

Source: Stats SA and Minerals Council SA

Junior and emerging miners continued

Based on the performance of the sector for the first three quarters of 2024, indications are that the sector is likely to grow income by around 15% compared to 2023. In addition, the sector employs approximately 48,000 people in direct jobs, which is about 10% of the total industry workforce. In terms of the commodities mined, the highest concentration is in industrial minerals followed by diamonds, coal, iron ore and manganese, gold, chrome and PGMs.

While in South Africa the junior sector comprises mainly smaller producers, there is a tiny exploration sector. This sector has become the target of the Minerals Council's focus to attract more investment into exploration and ensure the longevity of the South African mining industry. The establishment of the R400 million joint IDC/DMRE exploration fund underscores the strong appetite for exploration activity in South Africa. The IDC has publicly stated that it has received approximately 114 applications, totalling over R3 billion in value, further highlighting the sector's potential and enthusiasm for exploration. A favourable policy environment could help ensure this demand translates into increased exploration activity. Over the past 10 years, South Africa's share of global exploration dollars has dropped from 2% to below 1%. This contrasts with countries such as Canada and Australia, which attract anything between 5% and 7% of global exploration dollars annually.

This is also reflected in the various stock exchanges: the Johannesburg Stock Exchange (JSE) has less than 10 listed junior mining companies, whereas the Toronto Stock Exchange (TSX) has over 1,200 listed junior companies.

The Minerals Council is involved in active lobbying efforts with the DMRE, the Council for Geoscience, National Treasury and the JSE to garner support from the financial services industry for more funding for exploration in South Africa. Part of this involves a tax incentive to promote exploration in the country.

AfriSam

Health

Occupational diseases, tuberculosis (TB) and HIV (human immunodeficiency virus) reported to the Minerals Council

Through the Minerals Council's flagship Masoyise Health Programme, performance against the industry occupational health milestones is monitored and reported on in this section.

In 2024, 114 companies representing 416,545 employees registered on the Minerals Council Occupational Health Information Management System. This accounted for 401 mines in South Africa, which represent about 87.3% of the estimated 474,876 employees in the mining industry.

Occupational disease, TB and HIV statistics

There has been a steady increase in the reporting of occupational diseases both to the DMRE and to the Minerals Council SA. Simultaneously, there has also been a sharp decline in the number of diseases as can be seen in the table below.

Occupational diseases reported to Minerals Council per commodity

Commodity	Silicosis		Pulmonary TB		Silicosis and TB		Noise-induced hearing loss (NIHL)		Total	
	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024
Gold	160	63	449	209	0	0	2	109	611	381
Platinum	8	3	355	143	4	0	162	171	529	317
Coal	0	0	80	38	1	0	12	10	93	48
Diamonds	0	0	9	6	0	0	5	0	14	6
Chrome	0	0	34	10	0	0	1	1	35	11
Manganese	0	0	9	9	0	0	1	0	10	9
Iron ore	0	0	30	23	1	0	2	1	33	24
Others	0	0	15	10	0	0	1	0	16	10
Total	**168**	**66**	**981**	**448**	**6**	**0**	**186**	**292**	**1 341**	**806**

All mines report annually to the DMRE on occupational diseases, TB and HIV. The provisional statistics from the Minerals Council SA up to Q3 of 2024 are reported on.

Occupational diseases reported to the Minerals Council 2024

Reports from all mines showed a decrease of 39.9% in the total number of occupational diseases reported by mines, from 1,341 cases in 2023 to 806 cases in 2024.

We note that 2024 figures are up to Q3 and are subject to change.

TB and HIV reported to Minerals Council for 2023

Mines are required to report on TB and HIV. In 2023, 396 mines representing approximately 416,545 employees had reported. This is compared to 394 mines representing approximately 447,420 employees that reported in 2022/2023.

HIV counselling and TB screening were 71% and 67% in 2024 Q3, respectively. This is still low in comparison with 90% and 93% respectively, noted at year end 2023. There has been an improvement in TB incidence rates year-on-year for most commodities except gold compared to the national TB incidence.

Milestone performance

Performance against the industry and Masoyise occupational health milestones is monitored, and it is reported on below.

Health performance milestones 2023 vs 2024

Milestone	2023	2024 Q3
Employees screened for TB	93%	71%
Employees counselled for HIV	90%	67%
Hypertension screening	94%	77%
Diabetes screening	92%	71%
Obesity screening	94%	73%
Cholesterol screening	35%	22%
Mental health screening	12%	44%
Pneumoconiosis in novices	2%	0%
Standard threshold shift (NIHL)	41%	273%

Occupational hygiene milestones

During the 2014 Mine Health and Safety Council (MHSC) Summit, all stakeholders agreed that the industry should accelerate the reduction of exposure to respirable crystalline silica dust, respirable coal dust, respirable platinum mine dust and equipment noise as part of the journey toward the elimination of occupational diseases related to these hazards.

The Minerals Council's members further agreed to aspirational targets for each milestone per year to progress towards achieving the agreed milestones by December 2024.

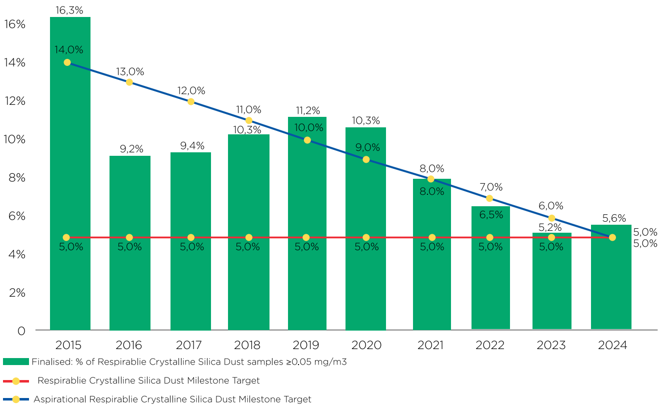
The data reported on the following page is from the Occupational Health Reporting System of the Minerals Council SA.

Respirable crystalline silica dust milestone

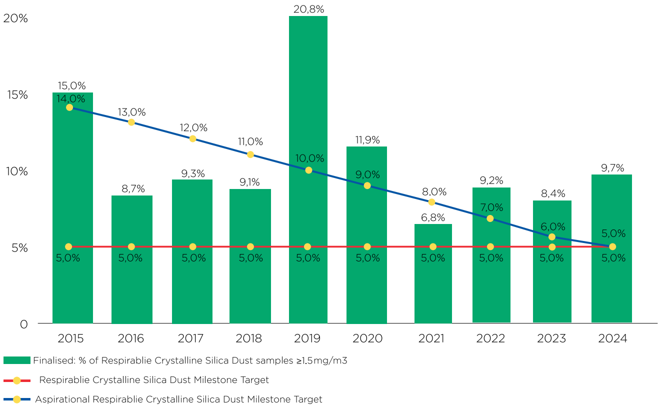
By December 2024, 95% of all exposure measurement results will be below the milestone level for respirable crystalline silica of 0.05mg/m3.

The data reported within the Occupational Health Reporting System of the Minerals Council SA indicate that the industry has progressed well towards the achievement of the Respirable Crystalline Silica Dust milestone and almost achieved the milestone target of 5% at the end of 2024. The graph below depicts the industry performance on the Respirable Crystalline Silica Dust milestone for the period from 2015 to 2024.

% of respirable crystalline silica dust samples ≥ 0.05mg/m³



% of respirable coal dust samples ≥ 1.5mg/m³



Health continued

Coal dust milestone

By December 2024, 95% of all exposure measurement results will be below the milestone level of coal dust respirable particulate of 1,5mg/m3.

The data reported within the Occupational Health Reporting System of the Minerals Council SA indicate that the industry progressed well towards the achievement of the respirable coal dust milestone, up to 2021, when the aspirational target of 8% was met at the end of 2021. The performance unfortunately regressed during 2022, and the industry has not been able to achieve the aspirational target since 2021. The graph on page 51 depicts the industry performance on the respirable coal dust milestone for the period from 2015 to 2024.

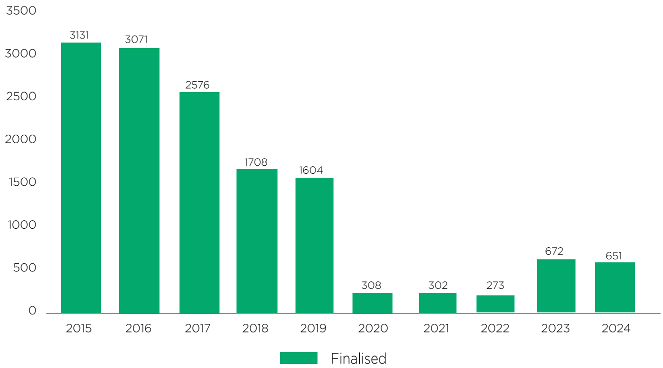
Noise-induced hearing loss milestone

By December 2024, the total operational or process noise emitted by any equipment must not exceed a milestone sound pressure level of 107dB(A).

The data reported within the Occupational Health Reporting System of the Minerals Council SA indicate that the industry progressed well towards the achievement of the Equipment Noise milestone, up to 2022, with the number of pieces of equipment emitting noise reduced from 3,131 down to 273. The industry however recorded a regression in the number of pieces of equipment reported to exceed the Equipment Noise Milestone, with the number of pieces of equipment increasing from 273 to 651 in 2024 Q3. This increase is attributed to maintenance challenges experienced at shallow platinum shafts, resulting in the damaging of the mufflers installed on rockdrills due to them freezing.

The graph on the left depicts the industry performance on the Equipment Noise Milestone for the period from 2015 to 2024.

Total number of individual pieces of equipment ≥ 107dB(A)




Kumba Iron Ore

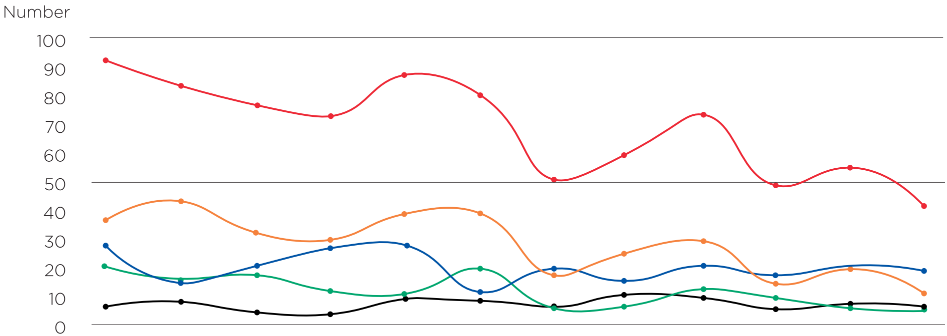
2024: A landmark year for safety and progress in mining

The record-low number of fatalities and improvements in health on South African mines in 2024 reflect the collaboration of all stakeholders who share the vision of Zero Harm. These advancements are driven by industry-wide commitment and the interventions developed by the Minerals Council SA in partnership with its members.

The widespread safety improvements across commodities and risk areas demonstrate strong leadership, collaboration, and dedication to eliminating fatalities. Key initiatives, such as the Fall of Ground Action Plan (FOGAP) and the Transportation & Mining projects, have played a pivotal role in reducing incidents.

Official data from the DMRE, released on 23 January 2025, confirms a 24% year-on-year decline in overall fatalities, with 42 recorded in 2024 compared to 55 in 2023. The table below details fatalities by commodity, highlighting the impact of ongoing safety efforts.

Number of fatalities by commodity



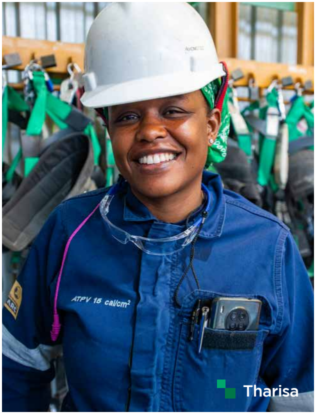
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Gold	37	44	33	30	39	40	18	26	30	15	20	11
Platinum	28	15	21	27	28	12	20	16	21	18	21	19
Coal	7	9	5	4	10	9	7	11	10	6	8	6
Other	21	16	18	12	11	20	6	7	13	10	6	6
All	93	84	77	73	88	81	51	60	74	49	55	42

Source: DMRE

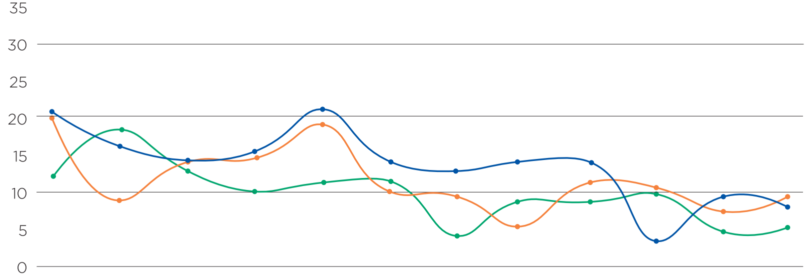
Safety

In 2024, the platinum and gold sectors accounted for the highest number of fatalities, with 19 and 11 deaths recorded, respectively. This marks the third consecutive year in which fatalities in the platinum sector have exceeded those in the gold sector. The coal sector reported six fatalities, while other commodities collectively accounted for an additional six deaths.

Encouragingly, fatalities from falls of ground declined by 13% dropping from 15 fatalities in 2023 to 13 in 2024. However, transportation and mining incidents increased by 25%. There were 12 incidents reported in 2023 versus 15 in 2024. There were also slight setbacks in fatalities linked to machinery, electricity and heat-related illnesses.



Number of fatalities per classification



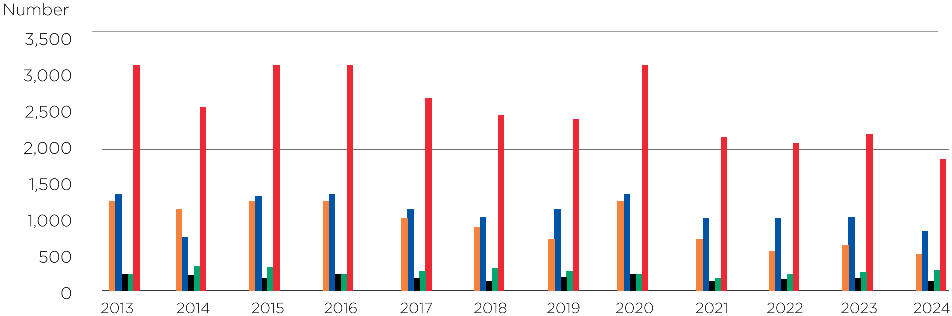
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Fall of ground/rockfall	32	25	22	24	33	22	20	22	22	6	15	13
Transportation and mining	31	14	22	23	30	16	15	9	18	17	12	15
General	19	29	20	16	18	18	7	14	14	16	8	9

Source: DMRE

Safety continued

Serious injuries in the mining sector declined by 16% to 1,841 in 2024, down from 2,181 in 2023. The gold, coal and platinum sectors recorded reductions of 21%, 20% and 19%, respectively. However, injuries in other commodities increased by 13%.

Injuries per commodity



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Gold	1,252	1,142	1,249	1,200	1,018	905	732	621	738	586	656	518
Platinum	1,344	771	1,328	1,140	1,156	1,049	1,151	782	1,027	1,030	1,043	846
Coal	263	2,49	206	189	200	169	224	145	170	180	207	166
Other	267	372	354	317	290	324	299	265	208	260	275	311
All	3,126	2,534	3,138	2,846	2,664	2,447	2,406	1,811	2,143	2,056	2,181	1,841

Source: DMRE

Rio Tinto - Richards Bay Minerals

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