

2016 sustainability report



Sustainability report

Overview

Sustainable development issues remain material to the business operations of Assore Limited (Assore) and extend beyond the level of mere legal compliance. We recognise that the long-term viability of our business depends on Assore taking a proactive role in shaping and enhancing the economic, social and environmental performance of our business, as well as anticipating current and future issues that may present opportunities or risks to the group's business. Our approach to sustainability is founded on a strong governance system and informed by ongoing stakeholder engagement.

Scope of this report

This sustainability report covers all of the entities in which the Assore group has an interest, other than portfolio investments, and distinguishes between the Assmang Proprietary Limited (Assmang) operations and the Assore operations as defined in the "scope and boundary" (refer to the contents page of the Assore integrated report). As Assore follows a decentralised management model, we report in terms

of each operation to give stakeholders a clearer understanding of our sustainability performance.

At year-end, we announced the acquisition of African Rainbow Minerals' (ARM's) indirect interest in the Dwarsrivier Chrome Mine (Dwarsrivier), held through Assmang, which will be reported under Assore operations in our 2017 report. Going forward, reporting will also cover the performance of the Sakura Ferroalloys smelting plant in Malaysia, in which Assmang holds a 54,36% interest.

About this report

The report covers our sustainable development policies, practices and performance for the 12-month period from 1 July 2015 to 30 June 2016 (F2016).

The group reports on sustainability performance and is guided by the Global Reporting Initiative (GRI) G3.1 guidelines and the associated metals and minerals sector disclosures. A suite of reporting indicators has been selected on the basis of their materiality to the specific risk

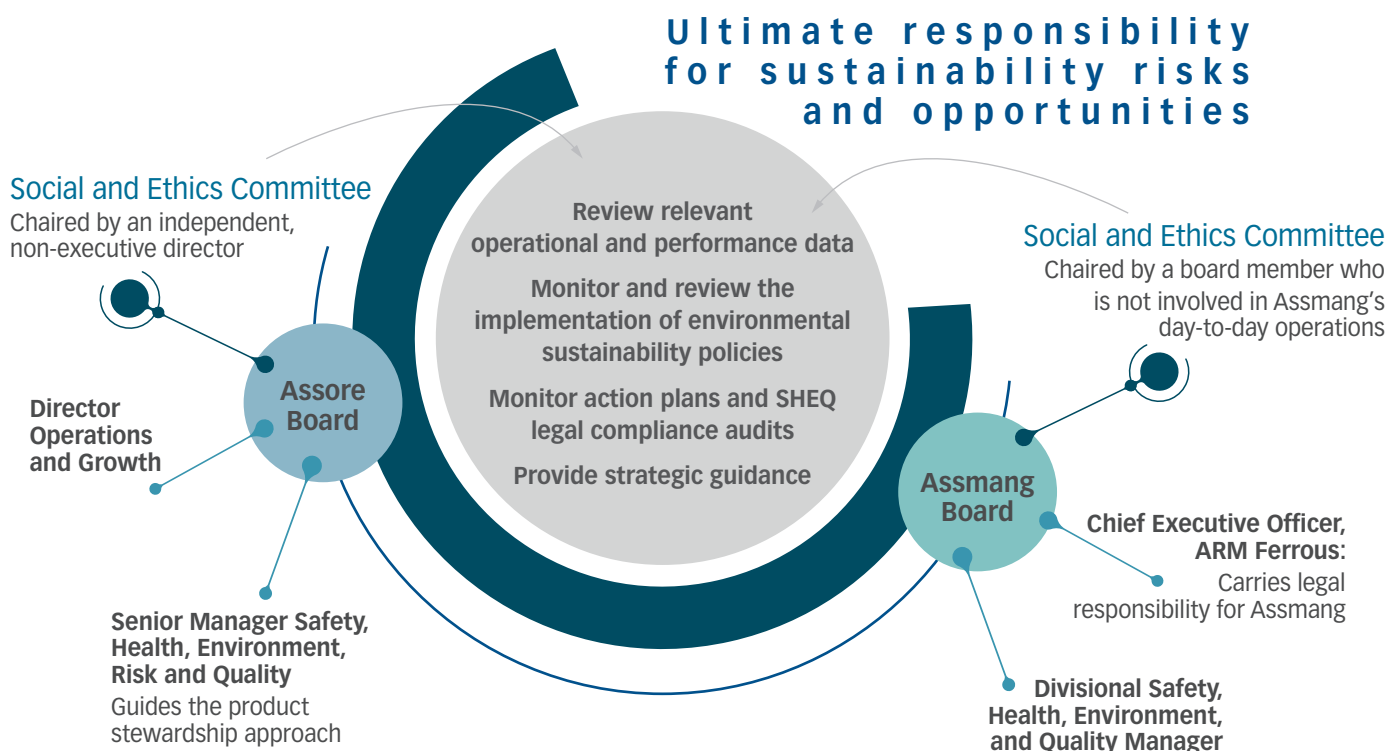
profiles of the operations. We shall consider our options for transitioning to the new GRI standards going forward.

The group's established sustainability management systems control the ongoing collection and verification of pertinent data sets, which are assured in accordance with the processes outlined on page 33. Analysis of these data sets serves to inform management decision-making with respect to health, safety, training, environmental and other sustainability considerations.

Sustainability management systems

The group's sustainability risk management systems form part of the group's overall enterprise risk management system and are designed to inform and guide group strategy and business performance. As set out in the diagram below, the boards of Assore and Assmang are ultimately responsible for establishing policy and guiding responsible management of sustainability risks and opportunities associated with the group's operations.

Sustainability management approach and structures



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Product stewardship

As the company responsible for marketing the group's products, Assore's wholly owned subsidiary, Ore & Metal Company Limited (Ore & Metal), has a responsibility to proactively manage financial and reputational risk by positively influencing the business and social environment in which we operate. Accordingly, the group plays an active role in industry associations that aim to promote the use and sustainability of the commodities they produce, and to foster cooperation between peer companies to address issues of common concern. The group also monitors national and international legislation that could impact our business.

Playing an active role in industry associations

- **Energy Intensive User Group (EIUG):** Assore's interests are communicated via Assmang who is represented by a Group Electrical Engineer appointed by ARM to attend regular meetings and discuss any issues raised within the forum. The EIUG acts as a vehicle for industry to discuss, debate and negotiate on any energy-related issues such as energy security, pricing and the potential impact of carbon tax on the industry. The group, through Assmang, is a member of the EIUG.
- **International Manganese Institute (IMnI):** An Ore & Metal representative currently serves on the Occupational Health, Environment and Safety (OHES) Committee of the IMnI. As an active member of IMnI, Assore attends meetings regularly and actively participates in the development of lifecycle assessments and further studies that establish a platform for understanding the environmental impacts associated with the production of manganese which can be used as a tool for the development of business and engagement strategies to manage and mitigate the impact of climate change.
- **International Chromium Development Association (ICDA):** Priorities for the HSE (Health, Safety and Environment) Committee of the ICDA

include continued environmental performance monitoring and the management of environmental risks associated with the production of chromium, as well as regulatory risks like carbon tax.

- **Ferroalloys Producers' Association (FAPA):** This national association represents the interests of the South African ferroalloys industry and is involved in the development of energy efficiency initiatives as well as active participation in the public consultation on upcoming legislation such as the carbon tax, national greenhouse gas (GHG) reporting regulations, carbon budgets and national pollution prevention plans. Assmang holds the deputy chairmanship of FAPA and representatives from both the Machadodorp Works and Cato Ridge Works smelters sit on the Environmental, Technical and Logistics committees. The group attends regular meetings to discuss and actively participate in the development and implementation of industry-wide initiatives to address common challenges.

Responding to changes in national and international legislation

Assore, in collaboration with various industry associations such as the IMnI and ICDA, monitors and responds to changes in national and international legislation that could influence the mining, beneficiation, sale, transport or usage of our products.

An important area of IMnI's focus in recent years has been the revision of the International Maritime Organisation's (IMO) codes, which have implications for the categorisation of the company's products. To address the requirements of the revised International Maritime Solid Bulk Cargoes (IMSBC) code, test work has been undertaken during the year to confirm that Assmang's manganese and iron ore fines products do not have the potential to liquefy in transit. IMnI has also been active in lobbying the IMO for the revision of the IMSBC code for silicomanganese alloy, which will see the

commodity re-categorised from a Group B cargo (defined as a cargo possessing a chemical hazard that could give rise to a dangerous situation on a ship) to a lower risk Group C cargo.

Assore continues to track the implementation of "REACH type" initiatives in key markets such as China, Japan, South Korea, India and Turkey which may require registration of its products. Similarly, it monitors changes to the requirements of the Globally Harmonised System (GHS) of hazard classification which may require modifications to product labelling and safety data sheets.

Commitment to international certification

All Assmang operations, as well as Assore's Rustenburg Minerals Development Company (Rustenburg Minerals), Wonderstone Limited (Wonderstone) and Wonderstone Grader Road operations are certified to both the International Organization for Standardization (ISO) 9001 quality and ISO 14001 environmental standards. In addition, all Assmang operations – with the exception of Black Rock Manganese Mines (Black Rock) – are certified to the Occupational Health and Safety Assessment Series (OHSAS) 18001 health and safety standard. Black Rock's OHSAS certification was planned for February 2016 but was postponed to November 2016 due to a review of the entire safety management system.

The quality and environmental system documentation has been updated at Wonderstone and Wonderstone Grader Road in order to align these operations with the new ISO 9001: 2015 and the ISO 14001: 2015 standards.

The ISO 9001 and ISO 14001 certifications at Rustenburg Minerals will be allowed to lapse when the cycle ends in December 2016 due to the downsizing and imminent placement of the operation on Care and Maintenance.

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Commitment to legal compliance

The achievement and maintenance of legal compliance is at the core of the group's environmental, health and safety policies and is the primary objective of the group's environmental, health and safety procedures.

Legal compliance remains a minimum performance requirement for the group's operations and is determined by an ongoing programme of internal and external auditing. As part of their ISO-based management systems, each operation maintains a site-specific legal register detailing the applicable legislation with which the operation needs to comply. Legal compliance is also periodically reviewed by external service providers.

Legal compliance status

As required by law, all mining operations within the group have approved environmental management plans (EMPs) which are periodically reviewed and revised to reflect changes to operational practices and infrastructure on the sites.

Neither Assmang nor the Assore operations were prosecuted for any anti-competitive behaviour or anti-trust monopolistic practices over the current financial year. Similarly, neither Assmang nor its operating divisions received any fines for non-compliance in respect of legislation concerning the provision and use of products and services. While four administrative fines in terms of section 24G of the National Environmental Management Act (No 107 of 1998) (NEMA) were imposed on Assore operations, these

were not material. All issued fines were settled within a 30-day period of receiving the penalties. Environmental authorisations have been granted for activities pertaining to two of the penalties issued. The outstanding two administrative penalties are awaiting records of decision (RoDs) from the Department of Rural Environment and Agricultural Development (READ).

Engagement with our stakeholders

Our ability to establish and maintain strong relationships with a diversity of stakeholders is integral to our sustainability. Accordingly, we continue to seek, develop and strengthen mutually beneficial partnerships with key stakeholders through a variety of mechanisms in order to support our business strategy.

Stakeholder group	Ongoing material issues	Key issues in 2016	Method of engagement
Shareholders and the investment community	<ul style="list-style-type: none"> – Profitability – optimise prices and tonnages sold per segment – Regulatory compliance – Financial and non-financial risk management – Outlook for the base alloys/metals market – Performance against targets – Long-term sustainability of the business 	<ul style="list-style-type: none"> – Acquisition by Assore of ARM's 50% indirect interest in the Dwarsrivier Chrome Mine (Dwarsrivier) held through Assmang for R450 million. – Announcement by Sakura Ferroalloys that the first of its two 81MVA furnaces located in Sarawak, Malaysia had been successfully hot commissioned. 	Annual and six monthly reports, SENS announcements, press statements
Industry associations <ul style="list-style-type: none"> – Chamber of Mines – Ferroalloy Producers' Association – International Council on Metals and Mining – International Manganese Institute – International Chromium Development Agency – Energy Intensive User' Group 	<ul style="list-style-type: none"> – Worker safety – Occupational health – Environmental issues – Carbon-related issues (including carbon taxation) – Trends in national and international legislation – Logistics – Risks associated with land tenure and nationalisation. 	Further details of worker safety and occupational health and environmental and carbon-related issues on pages 12 to 21 of this report.	Representation on the executive bodies of these associations, as well as task groups established in terms of their strategic work.

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Stakeholder group	Ongoing material issues	Key issues in 2016	Method of engagement
Employees and organised labour <ul style="list-style-type: none"> – National Union of Mineworkers – National Union of Metalworkers of South Africa – Solidarity – Association of Mineworkers and Construction Union 	<ul style="list-style-type: none"> – Remuneration and benefits – Conditions of service – Job security – Career development – Accommodation – Worker safety – Occupational health – Transformation and employment equity 	<p>There was a 19,2% reduction in staff numbers in F2016, discussed in further detailed on page 6 of this report.</p>	<p>Staff meetings at all levels, “toolbox talks”, inductions, safety, health, environment, quality (SHEQ) meetings, internal publications, notice boards, union negotiations, career path planning.</p>
Host communities	<ul style="list-style-type: none"> – Employment – Safety and health considerations – Preferential procurement – Small and medium enterprise development – Social upliftment – Land management – Mine closure and rehabilitation 	<p>Black Rock Between March and July 2016, Black Rock experienced an unprecedented level of community activism around unemployment, skills deficit and diminishing opportunities for economic participation.</p> <p>The community was demanding accelerated employment opportunities, increased investment in skills development and increased social spend.</p> <p>The mine lost many hours of production, as well as revenue.</p> <p>Following extensive engagement, the stand-off was amicably resolved. Parties, under the facilitation of the Provincial Policing Forum, have identified processes to address issues going forward and stakeholders have committed to engaging further.</p> <p>Rustenburg Minerals As the resources allocated to this operation’s mining rights have been depleted, we are engaging with local communities regarding the use of resources on their land. We are engaging with the DMR and the surrounding communities regarding this issue. Should the groundbreaking transaction go ahead, it would be an 100% black-owned entity.</p> <p>Dwarsrivier Over the past financial year, Dwarsrivier has experienced community issues including the dissolution of stakeholder engagement forums. The Thaba Moshare agreement rebellion intensified the community infighting. Community meetings were marked by intimidation and violent community task teams.</p> <p>The mine neutralised the impact of these activities on its business through its positive contribution to its host communities, including the construction of Burgersfort market stalls, the construction of an Early Childhood Development Centre at Malekane Village, the construction of school toilets at Masago Primary School, the construction of a home-based care centre, water supplies at Mohlarekoma and Shaga Schools and a short-term water supply at Kalkfontein Village. Corporate social investments included sponsoring a community-based athletics club, National Water Week, crime awareness, a career exhibition, Mandela Day celebration and HIV/Aids and TB awareness.</p>	<p>Public meetings, public participation process for environmental impact assessments (EIAs), participation in local economic development initiatives, funding of corporate social responsibility initiatives.</p> <p>At Rustenburg Minerals, we have improved on engagement with the communities by having regular focus groups and community meetings, thereby giving communities the platform to voice their grievances and give the company the opportunity to explain their processes and systems.</p>

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Stakeholder group	Ongoing material issues	Key issues in 2016	Method of engagement
Customers	<ul style="list-style-type: none"> – Production quality – Product pricing – Matching of customers' needs with available mineral resources and production facilities – Development of new products – Adherence to delivery schedules – GHG-related issues – Product stewardship – Compliance with REACH/GHS requirements for product registration and labelling 		Customer site visits, contract negotiations, quality management system, conference attendance. Use of customer feedback to influence annual report content.
Joint venture partners <ul style="list-style-type: none"> – African Rainbow Minerals – Sumitomo – Mampa Investment Holdings – China Steel 	<ul style="list-style-type: none"> – Profitability – Regulatory compliance – Financial and non-financial management – Outlook for the base metals/alloys market – Performance against targets – Long-term sustainability of the business – Roles and responsibilities within the respective joint ventures 		Representation on the Assmang board and Exco, board meetings for individual Assore operations and active participation in industry associations.
National, provincial and municipal government <ul style="list-style-type: none"> – Department of Mineral Resources – Department of Water and Sanitation – Department of Environmental Affairs – Department of Labour – Department of Trade and Industry – Receiver of Revenue – Various provincial and municipal authorities 	<ul style="list-style-type: none"> – Regulatory compliance, in particular with the requirements of the Mining Charter, with a particular emphasis on BBBEE – Fulfilment of statutory meeting requirements – GHG-related issues – Land management – Mine closure (including adequate financial provision for rehabilitation) – Pollution prevention – Conservation of surface and groundwater resources – Employee health and safety – Workforce transformation and employment equity – Preferential procurement – Tax payment 		Statutory reporting, inspections by government representatives, permit applications, legal compliance audits, public participation process for environmental impact assessments (EIA), engagement on targeted issues.

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Stakeholder group	Ongoing material issues	Key issues in 2016	Method of engagement
Parastatal service providers <ul style="list-style-type: none"> – Eskom – Transnet 	<ul style="list-style-type: none"> – Continuity of electricity supply – Power and freight tariffs – Availability of rail berths – Upgrade of port facilities – Negotiation of mutually beneficial contracts and service agreements 		
Contractors and other service providers <ul style="list-style-type: none"> – Mining contractors – Transport companies – Construction contractors – Consultants – Healthcare providers – Shipping companies – Insurance companies 	<ul style="list-style-type: none"> – Procurement practices (including preferential procurement) – Terms and conditions of contracts (including penalties) – Regulatory compliance – Occupational health and safety – Environmental management 		Contract negotiations, tender processes, safety inductions, health and safety meetings, site inspections and audits, performance review, ISO certification
Non-governmental organisations <ul style="list-style-type: none"> – Groundwork – Benchmarks Foundation 	<ul style="list-style-type: none"> – Pollution prevention – Conservation of surface and groundwater resources – Employee health and safety 		Engagement through established open forums created for general engagement with host communities

Economic management

Assore's fundamental goal is to generate financial returns for shareholders, investors and other providers of capital. This economic imperative is balanced with a responsible approach to the environmental and social aspects of our business to ensure that all our stakeholders benefit from the value created by the business.

Social management Our people

We strive to continuously create an open, diverse workplace which attracts the best talent and to establish an environment in which employees are empowered to reach their full potential. This includes promoting health and safety, investing in our employees' skills and capabilities and ensuring fair, ethical working practices.

Our people policies aim to promote equality and eliminate unfair discrimination on the basis of gender, race, religion, age, disability and sexual orientation.

We focus on sourcing labour from the communities close to our areas of operation. In Malaysia, for example, while we have government permission for 54% of our staff complement to comprise of foreign skills, over 85% of our workforce comprises of local nationals.

At year-end, the number of contractors and permanent employees at Assore and Assmang combined, amounted to 400 and 11 441 people respectively which meant Assore accounted for 3,37% of the total workforce, while Assmang accounted for 96,63%.

The group had a total operational staff of 11 841 (2015: 14 655), comprising 5 861 permanent employees and 5 980 contractors.

The 19,2% reduction in staff numbers for the group as a whole was primarily the result of a restructuring of the organisational model and shift system at Black Rock which resulted in a section 189 process. There were also retrenchments and voluntary severance packages (VSPs) at Khumani Iron Ore Mine (Khumani), Zeerust and Rustenburg Minerals operations. Zeerust went onto Care and Maintenance during September 2015, while Rustenburg Minerals is preparing to go onto Care and Maintenance and underwent two section 189 retrenchment processes, one in January 2016 and the other in May 2016. The first process affected 70 employees whose service was terminated in April, while the second affected 54 permanent and nine limited duration contract employees.

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Assore has at all times complied with the requirements of section 189 of the Labour Relations Act (LRA), in terms of which employers must:

- have a good reason for the need to retrench;
- use fair criteria in deciding which employees are to be retrenched; and
- follow a detailed consultation procedure aimed primarily at seeking ways of avoiding retrenchment.

At Rustenburg Minerals, Assore applied the 60-day notice period stipulated by the Labour Relations Act (LRA) to allow for consultation with the representative union and entered into a collective agreement with the union regarding the termination of employees based on operational requirements.

Assore provides support to career endings by:

- making social worker counselling services available, thereby enhancing financial and emotional coping skills;
- providing records of service;
- assisting in claiming employee benefits;
- facilitating access to portable skills training as/if identified during consultation; and
- making Assore group vacancies available to employees.

Workforce composition

Operation	Permanent employees 2016	Temporary/ contract employees 2016	Contractors as a proportion of the total workforce (%) 2016	Permanent employees 2015	Temporary/ contract employees 2015	Contractors as a proportion of the total workforce (%) 2015
Beeshoek	674	601	47,1	675	622	48,0
Khumani	1 671	2 294	57,9	1 742	1 664	48,9
Black Rock	1 844	1 895	50,7	2 173	4 607	67,9
Cato Ridge Works	308	342	52,6	478	–	–
Dwarsrivier	1 129	597	34,6	1 100	554	33,5
Machadodorp Works	60	26	30,2	104	–	–
Total Assmang operations	5 686	5 755	50,3	6 272	7 447	54,3
Wonderstone	82	–	–	82*	1	1,2*
Wonderstone Grader Road	25	–	–	24	–	–
Rustenburg Minerals	63	215	77,3	264	468	63,9
Zeerust	5	10	66,7	47	50	51,5
Total Assore operations	175	225	56,3	417*	519	55,4*

*Restated.

Operation	Permanent employees 2014	Temporary/ contract employees 2014	Contractors as a proportion of the total workforce (%) 2014
Beeshoek	623	802	56,3
Khumani	1 657	2 991	64,4
Black Rock	2 268	1 829	44,6
Cato Ridge Works	491	412	45,6
Dwarsrivier	1 123	504	31,0
Machadodorp Works	375	53	12,4
Total Assmang operations	6 537	6 591	50,2
Wonderstone	94	8	7,8
Wonderstone Grader Road	29	–	–
Rustenburg Minerals	245	389	61,4
Zeerust	21	120	85,1
Total Assore operations	389	517	57,1

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Transformation

The principles of transformation are integrated into our human resources strategy to ensure that it continues to effectively support the representation of historically disadvantaged South Africans

(HDSAs), with an emphasis on black women, into our workforce.

In addition, Assore is committed to promoting the inclusion of all South Africans into the mainstream of the

economy in general and the mining industry in particular, by identifying and developing business opportunities and by making them available to BBBEE suppliers at all our operations. Further details are available on page 40 of our 2016 integrated annual report.

Employment equity: Women in mining (WIM) and historically disadvantaged South Africans (HDSAs)

Operation	WIM % 2016	WIM % 2015	WIM % 2014	HDSAs in management % 2016	HDSAs in management % 2015	HDSAs in management % 2014
Beeshoek	9	8	13	62	57	57
Khumani	5	7	8	57	56	13
Black Rock	4	3	3	54	46	44
Cato Ridge Works	15	14	16	50	50	40
Dwarsrivier	13	13	15	66	59	75
Machadodorp Works	8	7	16	33	39	33
Wonderstone	25	26	22	30	24	39
Rustenburg Minerals	–	15	12	29	48	53
Zeerust	–	–	9	–	15	50

At Rustenburg Minerals, there was a 15% decline in WIM and a 19% drop in HDSAs in management, while at Zeerust there was a 15% decrease in HDSAs in management. These decreases can be attributed to the fact that the Rustenburg Minerals operation will be going onto Care and Maintenance in the near future and Zeerust has already been placed on Care and Maintenance. Most Assmang operations saw an increase in the number of WIM and HDSAs in management because of a concerted focus on encouraging the development of women, including:

- a recruitment action plan for women;
- emphasis on women in succession planning processes;
- ensuring access of women to coaching, mentoring and leadership development

programmes (21 women were enrolled in the latter in 2016); and

- affording women opportunities for line experience and delegating them to core business roles.

Labour relations

We recognise the right to collective bargaining. Labour relations in F2016 were stable. As in 2014 and 2015, there was no employee strike action at any of the Assmang or Assore operations and no production days were lost.

At Rustenburg Minerals, there was some strike action that involved the mining contractors on site. This was in reaction to a new shift pattern introduced by the mining contractor, whose employees did

not accept the shift change, resulting in a dispute which led to a “lock-out” period over five day and six night shifts, which was ultimately resolved. No production losses were experienced. Once an agreement with the contractor employees had been reached, additional hours were worked on Saturdays to make up for lost production.

Community unrest at Black Rock (discussed in the stakeholder table on page 4 of this report) resulted in the production loss of seven shifts, while the community unrest at Dwarsrivier (also discussed in the stakeholder table on page 4 of this report) resulted in 11 days lost production.

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Union representation breakdown by group company

	% membership 2016	% membership 2015	% membership 2014
NUM: Assmang operations	46	61	48
NUMSA: Assmang operations	5	6	23
Solidarity: Assmang operations	15	15	15
AMCU: Assmang operations	23	–	–
NUM: Assore operations	37	22	52
AMCU: Assore operations	9	40	–

Union representation breakdown per operation

Operation	AMCU membership total 2016 (AMCU as a percentage of total workforce) 2016	NUM membership total 2016 (NUM as a percentage of total workforce) 2016	NUMSA membership total 2016 (NUMSA as a percentage of total workforce) 2016	Solidarity membership total 2016 (Solidarity as a percentage of total workforce) 2016	Total union membership percentage 2016
Beeshoek	257 (38,13)	211 (31,31)	–	89 (13,20)	82,64
Khumani	502 (30,04)	534 (31,96)	–	411 (24,6)	86,59
Black Rock	562 (30,48)	811 (43,98)	–	299 (16,21)	90,67
Cato Ridge Works	–	29 (9,42)	226 (73,38)	28 (9,09)	91,88
Dwarsrivier	–	1 002 (88,75)	–	–	88,75
Machadodorp Works	–	2 (3,33)	35 (58,33)	19 (31,67)	93,33
Total Assmang operations	1 321 (23,23)	2 589 (45,53)	261 (4,59)	846 (14,88)	88,23
Wonderstone	–	55 (67,07)	–	–	67,07
Rustenburg Minerals	14 (22,22)	1 (1,59)	–	–	23,81
Zeerust	–	–	–	–	–
Total Assore operations	14 (9,33)	56 (37,33)	–	–	46,67

Training and development

Our skills development programmes include internal and external Adult Basic Education Training (ABET) courses, training courses, learnerships, internal and external bursaries and study assistance. We view our investment in these programmes as essential to enhancing our employee value proposition, and as an important facilitator for continuous improvement in productivity and safety performance.

Training spend as a percentage of payroll dropped because of the decline in workforce numbers at two of the Assore operations, where training has now been restricted to legal training. The drop in

training spend at Assmang operations was also due to the reduced number of employees, especially in the lower levels of employment.

The significant 1 000% increase in learnerships at Assore is attributable to 10 learnerships having been completed at Wonderstone operations during F2016, while the 76% decrease in bursaries at Assore is due to the downscaling of operations at Rustenburg Minerals and the fact that no bursaries were awarded at Zeerust, due to the operation being on Care and Maintenance. There was a small decrease in learnerships awarded at Assmang and a 41% increase in bursaries awarded.

Overall, there was an insignificant decrease in literacy levels (1% at Assmang and 3% at Assore), attributable to a reduction in employee numbers at Beeshoek, particularly at the lower levels; a movement of staff at Wonderstone and a decline in literate employees occupying semi-skilled jobs at Zeerust, which has been placed on Care and Maintenance.

Percentage of payroll spend on training over three years

Group company	2016	2015	2014
Assmang operations	8,7	9,4	10,0
Assore operations	4,0	6,0	4,0

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Learnerships and bursaries awarded over three years

Group company	Learnerships 2016	Bursaries 2016	Learnerships 2015	Bursaries 2015	Learnerships 2014	Bursaries 2014
Assmang operations	137	169	143	285	114	141*
Assore operations	11	4	1	17	2	21

*Restated.

Literacy levels over three years

Operation	% of workforce literate 2016	% of workforce literate 2015	% of workforce literate 2014
Beeshoek	95	96	92
Khumani	100	98	97
Black Rock	100	99	97
Cato Ridge Works	100	100	100
Dwarsrivier	94	91	91
Machadodorp Works	100	100	97
Wonderstone	71	76	73
Wonderstone Grader Road	100	96	97
Rustenburg Minerals	84	73	72
Zeerust	60	81	86

Housing

Map of Northern Cape showing Kathu, Kuruman, Postmasburg



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Map of Mpumalanga showing Mashishing (Lydenburg)



We strive to facilitate processes that promote the ownership of affordable housing by employees at our operations. Through the housing strategy and policy, we support initiatives to provide quality housing for people residing and working in mining towns, in line with government policy. Our strategy is to ensure that mining towns with great potential for future mining, in line with the life of mine, will be prioritised in this regard while the practice is to ensure that every employee has decent accommodation in line with the relevant legislation.

Assmang has a property development and housing finance unit that assists with the provision of housing for employees in the Northern Cape, in identified local

communities. Accommodation is supported through a combination of mine rented accommodation and housing subsidies.

In F2015, a housing survey covering more than 3 000 employees was held at Beeshoek Iron Ore Mine (Beeshoek), Black Rock and Khumani to better understand employees' living conditions and preferences, and to ensure that the current housing scheme/subsidy is having a positive impact.

The housing market in the region remains subdued due to the impact of the low commodity prices on the mining industry in the Northern Cape area. In Uitkoms Home Owners' Association in Kathu a total

of seven owner houses and one speculative house was completed during the financial year. One owner house is under construction and is nearing completion.

Three owner houses and 14 speculative duets were completed in Rooisand, while at Kuruman one owner house, one speculative house and 13 speculative townhouses were completed and there were no houses under construction at year-end. In Postmasburg, one owner house and 35 speculative houses were completed, while at year-end there were three owner houses and six speculative houses under construction.

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Housing scheme totals in 2016

Housing scheme	Extension 3 Kathu	Uitkoms Kathu	Rooisand Kathu	Kuruman	Postmasburg	Mashishing	Total
Houses completed	327	104	532	196	344	33	1 536
Houses sold	298	95	396	108	226	–	1 123
Rental units	29	9	136	88	118	33	413
Under construction	–	1	–	–	9	–	10

Housing scheme totals in 2015

Housing scheme	Extension 3 Kathu	Uitkoms Kathu	Rooisand Kathu	Kuruman	Postmasburg	Mashishing	Total
Houses completed	327	96	515	181	308	33	1 460
Houses sold	301	87	384	98	208	–	1 078
Rental units	26	9	131	83	100	33	382
Under construction	–	9	17	14	32	–	72

Housing scheme totals in 2014

Housing scheme	Extension 3 Kathu	Uitkoms Kathu	Rooisand Kathu	Kuruman	Postmasburg	Mashishing	Total
Houses completed	327	88	515	155	203	33	1 321
Houses sold	294	80	328	37	125	–	864
Rental units	33	8	187	118	78	33	457
Under construction	–	7	–	26	50	–	83

Safety performance

Safety achievements at Assmang operations in F2016

- Black Rock Mine completed 4 million fatality-free shifts during September 2015.
- Beeshoek and Dwarsrivier mines each completed 3 million fatality-free shifts.
- Cato Ridge Works completed 2 million fatality-free shifts on 18 February 2016.

To achieve our goal of zero harm, we have a strong, proactive safety culture in terms of which safety is the responsibility of every individual employee. Contractors are treated as employees as regulated by the Mine Health and Safety Act (MHSA) and the Occupational Health and Safety Act (OHSA) for the purposes of safety reporting and they receive the same training as employees.

In terms of our decentralised management structure, each operation has their own approach to safety. Accordingly:

- the operational executives oversee the implementation of functional, suitable safety systems at each of the operations;

- the Senior General Manager or General Manager and his/her management team are primarily responsible for the implementation, review and maintenance of these safety systems while ensuring compliance with the requirements of the MHSA;
- against this backdrop, each Senior General Manager or General Manager is empowered to develop and implement a health and safety system suitable to the size and nature of his/her operation; and
- the Operational Executive is responsible for implementing a governance system to monitor the implementation of health and safety systems at each operation.

Sustainability report continued

Despite this decentralised approach, there is a common safety framework across all operations:

- all employees and contractor employees undergo safety induction;
- each operation and task is subject to a baseline risk assessment;
- employees are represented on health and safety committees;
- safety toolbox talks are held on a daily basis before each shift;
- lost-time injuries and near misses are reported to senior management teams and to the Social and Ethics Committees (SECs) in order to facilitate follow up and remediation;
- safety policies and strategies are embedded in our working practices through continual training and re-training of the workforce as well as through continuous safety and health awareness campaigns; and

- compliance is assessed and areas for improvement identified through annual internal and external audits of operating procedures and safety practices, external legal compliance and certification audits (OHSAS 18001) as well as external safety, health and environment (SHE) legal compliance audits which are facilitated every second year by the corporate office.

There were no fatal accidents during the past financial year and there was a pleasing decrease of 22% in lost-time injuries (LTIs) and 15% in lost-time injury frequency rates (LTIFRs) across the Assmang operations. Similarly, there was a decrease of 22% in LTIs at Assore and the LTIFR at Wonderstone improved significantly when compared to 2015. The 100% decrease at Zeerust is attributable to the operation being on Care and Maintenance which means that currently, there are only five personnel on site.

As mine vehicles are a leading cause of mining fatalities, the implementation of a proximity detection systems (PDS) on trackless mobile machinery (TMM) can play an important role in enhancing safety and is a Department of Mineral Resources (DMR) requirement. The main aim of the PDS is to ensure that the proximity of pedestrians and/or other vehicles to the TMM are detected automatically and that the operator is made aware of such proximity in order to prevent accidents and collisions. Black Rock has completed the installation on all its TMMs as required. However, as we are still monitoring the impact, we cannot make a reliable deduction on the role the systems have played in enhancing safety.

Lost-time injury (LTI) and lost-time injury frequency rates (LTIFR)

Operation	LTIs 2016	LTIs 2015	LTIs 2014	LTIFR* 2016	LTIFR* 2015	LTIFR* 2014
Beeshoek	1	1	–	0,07	0,07	–
Khumani	5	10	4	0,17	0,29	0,10
Black Rock	13	14	14	0,35	0,35	0,44
Cato Ridge Works	1	3	1	0,17	0,38	0,12
Dwarsrivier	4	4	10	0,17	0,18	0,45
Machadodorp Works	1	–	2	0,55	–	0,32
Total Assmang operations	25	32	31	0,22	0,26	0,25
Wonderstone	1	4	–	0,99	3,97	–
Wonderstone Grader Road	–	–	1	–	–	1,76
Rustenburg Minerals	13	12	9	2,66	1,62	1,23
Zeerust	–	2	1	–	1,49	1,35
Total Assore operations	14	18	11	1,99	1,72	1,15

* Weighted.

Note: LTIFR calculated on a basis of 200 000 hours (figures include contractors).

Sustainability report continued

A total of six (2015: six) and three section 54 (2015: three) notices were issued at Assmang (one at Black Rock and five at Dwarsrivier Mine) and Assore operations (one at Wonderstone and two at Rustenburg Minerals) respectively. These resulted in 11 and one shifts lost respectively.

There was one section 55 notice served on the Assmang operations (at Dwarsrivier Mine) and nine served on Assore (six at Wonderstone and three at Rustenburg Minerals). None of these notices resulted in lost shifts.

No prohibition notices were served on any of the Assmang or Assore operations in terms of the OHS Act during F2016.

Occupational health and wellness

Assmang operations have implemented integrated policies on Human immune-deficiency virus (HIV), Tuberculosis (TB) and Sexually transmitted infections (STIs) as required by the National Strategic Plan 2012 to 2016 and the Mining Charter. Each Assmang operation has a site clinic that offers primary healthcare services to employees and contractors. Rustenburg Minerals also has a site clinic offering basic medical services. Employees are referred to the local hospital for further treatment if and when required.

The following mandatory codes of practice (COPs) were submitted to the DMR in 2016:

- minimum standards of fitness to work at a mine;
- management of medical incapacity due to ill health and injury;
- mandatory COP for occupational health on thermal stress; and
- mandatory COP on the right to refuse dangerous work and leave a dangerous area.

A corporate standard on medical surveillance of employees exposed to manganese at the smelters and Black Rock mine was finalised and implemented.

A gap analysis audit was conducted at the Northern Cape Mining operations to assess the level of compliance with recent changes in reporting requirements (in particular regarding reporting of pulmonary TB) by the Northern Cape Department of Mineral Resources. A corporate standard detailing reporting procedures to various regulatory and statutory bodies was drafted and is now being implemented.

Certification

Beeshoek was successfully certified in terms of the South African National Standard (SANS 16001: 2013) on its disease and wellness management programme joining Khumani, which received certification in F2014.

Black Rock is preparing for certification in terms of the South African National Standard on Wellness and Disease Management, SANS 16001: 2013. A gap analysis was performed to guide Black Rock towards successful implementation, planned for November 2016.

At Dwarsrivier, we have been conducting internal gap analysis audits to prepare the mine for certification. Currently, the smelter operations do not have the capacity for this standard.

Khumani received an award at the annual Mine Safe Award conference in August 2015, in the Occupational Health and Wellness category, for leading as one of the first mining operations in South Africa to successfully implement the South African National Standard, SANS 16001 on wellness and disease management.

HIV/Aids

HIV counselling is a compulsory part of any medical surveillance but HIV testing is voluntary – this is referred to as the Counselling and Voluntary Testing (CVT) policy. Screening for sexually transmitted infections (STIs) is part of the overall HIV counselling and testing process.

As a result of the CVT policy, 10 609 (F2015: 10 184) employees received counselling for HIV/Aids, 1 386 elected to be tested (F2015: 2 454) and 1 940 received anti-retroviral treatment (ARVs) compared to 1 203 in F2015. ARVs are provided through the individual employees' medical aid schemes and through the government ARV programme for the contractor employees.

In terms of our Assmang operations, the HIV prevalence rate for Cato Ridge Works was the same as in the past financial year as no new survey was done for 2016. At our Assore operations, there was a drastic decrease in the workforce at Rustenburg Minerals because of retrenchments during F2016. Of the remaining personnel on site, a total number of 35 people opted to be tested for HIV, none of whom tested positive. At Wonderstone, only 33 employees opted to be tested for HIV this year, with one person testing positive. Given that there were only five employees at Zeerust for the purpose of Care and Maintenance, no survey was undertaken during the 2016 financial year.

Sustainability report continued

HIV prevalence rates per operation

Operation	HIV prevalence rate	HIV prevalence rate	Source
Assmang operations			
Calendar year 2015		Calendar year 2014	
Beeshoek	7,2%	2,6%	UGM Wellness
Khumani	7,3%	3,4%	UGM Wellness
Black Rock	6,9%	7,2%	Life Occupational
Cato Ridge Works	20%	20%	ILIFU
Dwarsrivier	16,9%	11,7%	Careways
Machadodorp Works	9,4%	13,9%	HCT campaign conducted by DoH
Assore operations			
Financial year 2016		Financial year 2015	
Wonderstone	1,2%	13,8%	Discovery Health
Rustenburg Minerals	0%	11,1%	Discovery Health
Zeerust	11,1%	11,1%	Discovery Health

DoH = Department of Health.

Tuberculosis

According to research, TB is costing the mining industry US\$570 million in productivity costs, while miners lose US\$320 million annually in wages¹. Against this backdrop, we take TB screening and reporting very seriously. A standard TB reporting process is in place that includes workplace investigations and compulsory TB screening for those in contact with TB infected employees at the workplace, as required by the DMR and the Department of Health (DoH). Assmang's TB management programme was recently expanded in line with the National Strategic Plan 2012 to 2016 to incorporate

the new forms and guidelines distributed by the DMR and the broader requirements for monitoring TB, multi-drug resistant TB (MDR TB) and extreme drug resistant TB (XDR TB).

There was a significant decline in MDR TB across Assmang and Assore operations -67% and -33% respectively. This can be attributed to good workplace TB management and control at the operations (Khumani and Beeshoek) which have signed Memoranda of Understanding (MoUs) with the DoH regarding identification, treatment and monitoring, (including management of transfer-ins.) Both Khumani and Beeshoek have

dedicated TB management nurses to manage TB.

Two cases of MDR TB were reported: one at Beeshoek and one at Black Rock. Both cases were admitted to special MDR TB hospitals for further management as required by the DoH and their progress is being monitored.

Beeshoek, in partnership with the Northern Cape Department of Health, organised a TB screening campaign at the ZF Mgcawu District in the Postmasburg area, where almost 1 000 people were screened and some put on treatment.

¹ <http://www.mining-technology.com/featurethe-tb-epidemic-through-south-africas-mines-4182343/>

Sustainability report continued

TB statistics

Operation	Number of new TB cases 2016	Number of pulmonary TB cases 2016	Number of MDR TB cases 2016	Number of new TB cases 2015	Number of pulmonary TB cases 2015	Number of MDR TB cases 2015
Beeshoek	2	12	1	1	1	–
Khumani	7	18	–	2	2	1
Black Rock	6	17	1	4	4	5
Cato Ridge Works	–	–	–	–	–	–
Dwarsrivier	2	5	–	–	–	–
Machadodorp Works	–	–	–	1	1	–
Total Assmang operations	17	52	2	8	8	6
Wonderstone	1	–	1	–	–	–
Rustenburg Minerals	3	2	1	6	3	3
Zeerust	–	–	–	1	1	–
Total Assore operations	4	2	2	7	4	3

Noise induced hearing loss (NIHL)

Hearing conservation programmes to prevent noise induced hearing loss (NIHL) are a key component of the occupational health management programme at all group operations in order to meet the DMR's milestones for the elimination of NIHL in the workplace. The hearing conservation programmes that have been implemented across the group to control occupational noise exposure are a combination of noise reduction strategies, monitoring of occupational noise levels,

issuing of personal protective equipment (PPE) – with disciplinary action being taken against employees found not to be wearing hearing protection in designated noise areas – and mandatory audiometric testing as part of routine medical surveillance.

Hearing conservation remained a focus at all Assmang and Assore operations, with 15 909 audiometric tests conducted, including both employees and contractors, during the financial year. Of these, 45 cases

(F2015: 98) were referred for further investigation.

The 11% increase at Black Rock in terms of the number of medicals performed and of referrals is due to the high number of contractor employees who underwent entry medicals and exit medical examinations that included audiometric testing. There was an increase in the number of exit medicals due to the section 189 processes at some of the operations.

Occupational health surveillance 2016/2015

Operation	Number of medicals performed 2016	Number of audiometric surveillance tests performed 2016	Number of cases referred 2016	Number of cases submitted for compensation 2016	Number of medicals performed 2015	Number of audiometric surveillance tests performed 2015	Number of cases referred 2015	Number of cases submitted for compensation 2015
Beeshoek	2 143	2 289	26	3	2 930	3 082	51	13
Khumani	4 618	5 096	3	1	5 912	6 419	17	1
Black Rock	5 722	4 325	12	–	5 161	4 759	5	2
Cato Ridge Works	882	913	–	–	1 013	980	–	–
Dwarsrivier	2 038	1 858	–	–	2 393	2 557	4	–
Machadodorp Works	224	237	–	–	815	782	2	–
Total Assmang operations	15 627	14 718	41	4	18 224	18 579	79	16
Wonderstone	95	95	–	–	97	97	13	–
Wonderstone Grader Road	68	71	–	–	31	31	–	–
Rustenburg Minerals	986	986	4	2	1 161	1 161	6	3
Zeerust	39	39	–	–	142	142	–	–
Total Assore operations	1 188	1 191	4	2	1 431	1 431	19	3

Sustainability report continued

Environmental management

Environmental aspects are identified, monitored and reported on at an executive level. At site level, aspects and impacts are identified as per process flow activities, facilities, products and services. A pre- and post-mitigation impact assessment is done on the basis of the resultant impact rating. If an impact is still deemed a significant impact according to the impact matrix, a management plan is developed and implemented to mitigate the impact to an acceptable level. The impact assessment also includes monitoring and measurement of existing controls according to the frequency determined by the impact profile. A mini-impact assessment is done and used as an issue-based impact assessment on all new activities, facilities, products and services as well as on all infrequent activities.

Energy consumption and carbon emissions

We have been quantifying our greenhouse gas emissions (GHGs) since 2009 to inform the development of the group's energy and emissions management strategy. During the period under review, progress was made in improving the reliability of energy consumption data, and on starting to calculate energy intensity for the group's operations. This information will input to the development of a carbon budget for the company in line with the evolving requirements of South African environmental legislation.

Corporate carbon footprint

In line with the methodology laid down in the Greenhouse Gas Protocol – Corporate Standard – as well as ISO 14064, GHG emissions are reported under three categories:

- Scope 1: Direct GHG emissions which occur from sources that are either owned or controlled by the company (eg emissions resulting from diesel consumption by mine vehicle fleets, consumption of reductants in furnaces and burning of liquid petroleum gas).
- Scope 2: Indirect GHG emissions from the generation of purchased electricity consumed by the company, purchased from Eskom, whose power is predominantly generated by coal-fired power stations.

- Scope 3: GHG emissions that are a consequence of the company's activities, but occur from sources not owned or controlled by the company (eg product transportation and business travel) which are not reported on in this document.

During the 2016 financial year, submissions to the Carbon Disclosure Project (CDP) were made for the Assore operations and joint venture partners in respect of the Assmang operations.

For the second year running, an external consultant was commissioned to provide independent assurance in respect of identified energy use and GHG emissions in accordance with the GHG Protocol. This assurance was guided by the International Standard on Assurance Engagements (ISAE) 3000, and reviewed energy consumption and GHG emissions in respect of the Khumani and Cato Ridge Works operations.

In order to manage the risks related to carbon taxation, current plans include more detailed monitoring of energy and electricity consumption in order to establish areas of focus for reduction initiatives/targets to reduce emissions. Assmang – in which Assore holds a 50% share and which contributes over 95% to the group's footprint – has already implemented and/or are investigating initiatives to drive energy efficiency and reduction within the business.

These include actions to mitigate the risk of rising energy (electricity, diesel, gas) prices through the implementation of a number of initiatives that also reduces the carbon footprint, for example, installing energy efficient LED lighting replacements at Beeshoek and Black Rock, capping of historic iron chrome baghouse dust in a lined facility at Machadodorp Works reducing transport emissions, installing variable speed drives and installing a solar photovoltaic plant at Khumani.

The Group Electrical Engineer focuses on enhanced efficient and optimal use of allocations as well as exploring alternative (renewable) energy sources. The group has measures in place to mitigate production losses when Eskom requests mines to

reduce consumption. This includes approximately 12MW of diesel generator capacity at Black Rock which is synchronised to the grid. This does come at a significant financial cost (although it is better than reducing production) and results in higher levels of GHG emissions as the electricity from diesel generation is more carbon intensive than the current grid average. Other measures include generator capacity installed at all mines and the smelters. This capacity enables the critical systems to continue running.

In F2016, both scope 1 and scope 2 emissions at Assore operations dropped by 41%, while at Assmang, scope 1 emissions declined by 35% and scope 2 emissions by 19%.

A reduction in both diesel and energy usage during F2016 was evident at the Assmang operations. The significant decrease in terms of both diesel (24%) and electricity (93%) usage at the Machadodorp Works was due to the operation being placed on Care and Maintenance in the previous financial year. Beeshoek saw a 23% decline in diesel usage because of a reduction in production and at Cato Ridge Works both diesel and electricity consumption dropped by 24% and 22% respectively, because one of the furnaces was shut down.

Black Rock showed a 5% reduction in diesel consumption, because of a shaft that was closed for upgrades during F2016. The 2% increase in electricity usage was brought on by the operational expansion project.

In terms of our Assore operations, diesel and electricity usage dropped by 27% and 31% respectively as the operations started scaling down production at Rustenburg Minerals in preparation of the site going onto Care and Maintenance. There was a drop of over 80% in both diesel and electricity consumption at Zeerust as the site was placed on Care and Maintenance in September 2015. At Wonderstone, a 27% decrease in electricity usage can be attributed to the fact that the ball mill was utilised less because of a downward trend in demand for ceramic and spray-dried products.

Sustainability report continued

Diesel and electricity usage

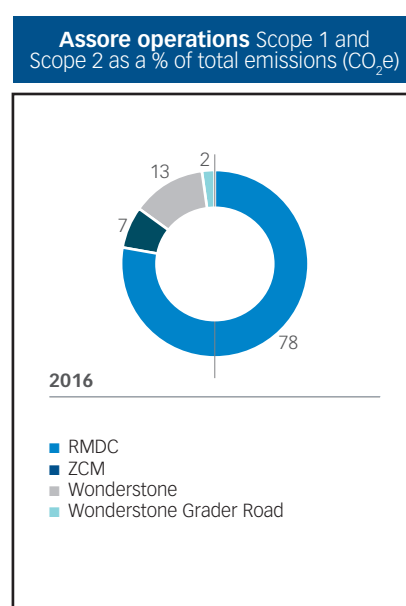
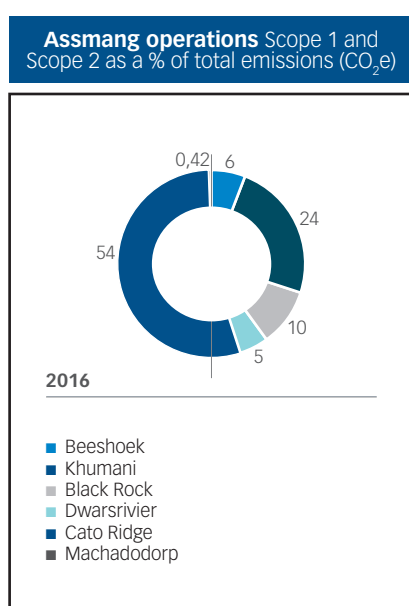
Operation	Diesel use 2016 ('000ℓ)	Diesel use 2015 ('000ℓ)	Diesel use 2014 ('000ℓ)	Electricity usage MWh 2016	Electricity usage MWh 2015	Electricity usage MWh 2014
Beeshoek	13 584	17 562	12 619	35 627	38 396	38 970
Khumani	32 575	32 474	34 050	200 131	186 112	175 213
Black Rock	5 027	5 271	4 529	108 039	105 739	102 881
Cato Ridge Works	404	530	515	473 292	608 273	639 712
Dwarsrivier	1 950	1 763	1 500	58 122	56 218	50 872
Machadodorp Works	596	787	804	12 171	169 480	207 973
Total Assmang operations	54 137	58 387	54 017	887 383	1 164 218	1 215 621
Wonderstone	165	163	159	1 585	2 168	2 083
Wonderstone Grader Road	76	79	95	152	146	150
Rustenburg Minerals	2 395	3 297	4 330	7 339	10 617	9 618
Zeerust	250	1 426	752*	518	3 232	3 123
Total Assore operations	2 887	4 965	5 336*	9 594	16 163	14 974

* Restated.

Scope 1 and 2 emissions in CO₂e tons

	Scope 1 CO ₂ e tons	Scope 2 CO ₂ e tons	Total emissions CO ₂ e tons
2016			
Assmang operations	344 412	887 274	1 231 686
Assore operations	7 617	8 972	16 589
2015			
Assmang operations	533 014	1 094 366	1 627 380
Assore operations	13 019	15 114	28 133
2014			
Assmang operations	507 210*	1 142 684	1 649 895*
Assore operations	13 901*	14 003	27 905*

* Restated.



Sustainability report continued

Water management

Minimising the impact of the group's operations on water quality is a priority, particularly for operations located in catchments that are challenged by declining water quality. Extensive surface and groundwater quality monitoring programmes are being undertaken by all operations to demonstrate compliance with the conditions of their water use licences and other environmental authorisations, and the group also takes an active role in the catchment management authorities where its sites are located.

The group's mines are located in arid regions and the provision of a reliable water supply to sustain mining and processing remains an ongoing challenge. In order to combat this challenge, opportunities for improved water efficiency are being identified and implemented across all operations.

Overall water security in the Northern Cape continues to be a material risk that challenges both the sustainability of current mining operations and constrains potential future growth throughout the region. Water availability in this area has been compromised in recent years both as a result of shifts in rainfall patterns, and also by a deterioration in the integrity of water distribution infrastructure across the region. Assmang is proactively engaging with Sedibeng Water – the local water authority – and authorities at provincial and national level, to address this challenge, and participates in regional forums to ensure that the interests of its mines are represented.

The sites have developed management tools such as water balances to allow them to optimise the usage and management of water. Discharges only take place in line with permit conditions after periods of extreme precipitation. At Machadodorp Works, an alternative mitigation/control that would be available is to bring in a portable reverse osmosis plant. The plant can treat the water and then release the water into the river. This is not a current control but rather a possible alternative. At Dwarsrivier the risk is currently managed through containment and the mine is actively investigating water treatment options.

Year on year, water consumption at our Assmang operations increased by 6%, and declined by 10% at our Assore operations. At Black Rock and Khumani, water consumption increased because of increased production. The 30% decrease

at Dwarsrivier is attributable to reduced underground water dewatering and groundwater abstraction. In terms of underground dewatering, the amount of water infiltrating the mine is reducing every year as confirmed by the groundwater model and groundwater abstraction has reduced because of process changes that use storm water instead of groundwater. The 25% drop in water consumption at Cato Ridge Works is largely due to the recycling of impacted storm water at the operation, while the 67% decrease at Machadodorp Works was the result of the operation being placed on Care and Maintenance.

Similarly, the decline at Zeerust of 30% is because this operation has also been placed on Care and Maintenance. At Wonderstone Grader Road, the 56% decrease in water consumption is because of successful water-saving initiatives.

Water consumption (m³)

Operation	2016	2015	2014
Beeshoek	5 023 349	5 237 869	6 608 293
Khumani	4 634 128	3 647 534	3 440 654
Black Rock	1 129 808	877 478	916 126
Cato Ridge Works	242 051	322 400	394 247
Dwarsrivier	449 792	639 268	290 175
Machadodorp Works	34 599	105 799	52 261
Total Assmang operations	11 513 727	10 830 348	11 701 756
Wonderstone	29 669	30 622*	28 240*
Wonderstone Grader Road	666	1 523	1 230
Rustenburg Minerals	251 870	233 277	264 002
Zeerust	156 644	222 690	292 750
Total Assore operations	438 849	488 112*	586 222*

* Restated.

Sustainability report continued

Waste management

Waste rock and process waste (including tailings from the mines and slag from the smelter operations) are the largest waste streams generated by the group's operations.

All Assmang operations have waste inventories that describe the source, the volume, and the type of waste generated by each process at the operation, as well as the disposal method. Typically, waste such as used oil is recycled through third-party service providers, while other hazardous waste such as oil-contaminated material and used filters is sent to registered waste-disposal facilities which issue safe disposal certificates. All Assmang operations are registered on the South African Waste Information System (SAWIS) and report on a monthly basis on both volume and type of waste generated and disposed.

While the smelters have always included slag in their waste inventories, mine residue has historically been excluded but is now included under the new waste regulations. Accordingly, all Assmang

mining operations are currently in the process of updating their waste inventories.

Assore operations make use of third-party service providers to remove hazardous waste materials such as ball mill grease, used oil, used oil rags, contaminated soil, oil contaminated sawdust and fluorescent tubes. Print cartridges and used batteries are returned to the suppliers who dispose of them, while steel offcuts are removed by recycling companies.

There was a 25% reduction in waste rock at Beeshoek, because capital waste stripping at the East Pit was completed and village waste stripping declined due to reduced production. The 11% increase in tailings at the same operation is because of an increase in feed to the jig plants. The 30% increase in waste rock at Khumani was the result of an increase in production flowing from the operation's expansion project. The 62% increase of waste rock at Black Rock can be attributed to the fact that in F2016, reporting included waste rock that was hauled to surface as well as waste rock that was left underground – as opposed to previous years where only waste rock

hauled to surface was reported on. The 56% decrease in tailings at Black Rock resulted from the shutdown of the Nchwaning 2 shaft due to further development and operational expansion. At Cato Ridge Works, the drop of 21% in slag was the result of some of the furnaces being switched off during the past financial year. For the same reason, slag sales at the operation declined by 9% when compared with 2015 (F2016: 304 127t vs F2015: 334 262t).

The 11% decrease in waste rock at Rustenburg Minerals in the year under review was due to a dramatic downscaling in production on the back of the depressed chrome market, while the plant's 46% increase in tailings was because of the increase in total feed to the plant in comparison to the previous financial year. At Wonderstone, there was an 18% reduction in waste rock – the result of strained market conditions which resulted in subdued product demand and lower production. At Zeerust, the 100% reduction in both waste rock and tailings was due to the operation being placed on Care and Maintenance.

Waste generated by operations

Operation	Waste rock 2016 m ³	Tailings/Slag/ Discard waste 2016 (Tonnes)	Waste rock 2015 m ³	Tailings/Slag/ Discard waste 2015* (Tonnes)	Waste rock 2014 m ³	Tailings/Slag/ Discard waste 2014* (Tonnes)
Beeshoek	22 790 147	1 003 885	30 378 392	903 037	49 648 892	722 343
Khumani	34 287 143	2 953 102	26 370 969	2 627 668*	29 227 913	2 693 916
Black Rock	381 939	60 066	236 096*	137 521*	40 926	211 871
Cato Ridge Works	Not applicable	93 953	Not applicable	119 411	Not applicable	122 042
Dwarsrivier	–	711 081	–*	647 751*	–*	531 896*
Machadodorp Works	Not applicable	–	Not applicable	33 389*	Not applicable	27 213
Total Assmang operations	57 459 229	4 822 087	56 985 457*	4 468 777*	78 917 731*	4 309 281*
Wonderstone	45 320	Not applicable	55 044	Not applicable	48 568	Not applicable
Rustenburg Minerals	1 985 874	67 629	2 233 021	46 435	1 626 859	46 055
Zeerust	–	–	1 475 737	53 948	663 764	22 723
Total Assore operations	2 031 194	67 629	3 763 802	100 383	2 339 191	68 778

* Restated.

Sustainability report continued

Land management and financial provision for closure

All Assmang sites have biodiversity action plans which are used to inform land management practices and post-operational land use alternatives. At Khumani, a condition of the Environmental Management programme (EMPR) approval was the establishment of a biodiversity offset agreement to compensate for clearance of priority species. A biodiversity offset area adjacent to an existing conservation area has been identified and negotiations for the purchase of the site were concluded in F2016.

Up-to-date closure plans are in place for each of the group's operational sites, which inform the financial quantum required for the eventual rehabilitation and closure of each site at the end of its operational life. Independent consultants

are used to calculate financial provisions for closure in line with the requirements of the Mineral and Petroleum Resources Development Act (MPRDA). These closure provisions constitute the single largest environmental liability for the group's operations, totalling R723 976 million for the Assmang operations (2015: R700 158 million) and R26 million for the Assore operations (2015: R21 million).

The 10% year-on-year increase in total liability at Black Rock is linked to operational expansion. The Assore purchase of Dwarsrivier necessitated an independent review of the existing provision for closure evaluation by an external consultant hence the 84% increase in liability due to:

- the results of the independent review which found that some infrastructure had previously been excluded – this was added;

- changes to the rates used in the quantum to align it with DMR requirements; and
- expansion at the north shaft operation and waste tailings area.

At Rustenburg Minerals, there was an 11% decrease in total liability – the result of an extensive rehabilitation programme conducted over the year and a reduction in production due to the fact that the operation is preparing to go onto Care and Maintenance. At Zeerust, there was a 49% reduction in total liability, due to the operation having been on Care and Maintenance since 2015.

Assmang and Assore operations – rehabilitation and closure provisions

Operation	Total liability 2016 R'000	Environmental fund 2016 R'000	Guarantees in place 2016 R'000	Total liability 2015 R'000	Environmental fund 2015 R'000	Guarantees in place 2015 R'000
Beeshoek	128 322	75 435	51 359	119 273	70 327	51 009
Khumani	307 228	71 354	254 566	320 784	66 518	254 266
Black Rock	231 009	64 001	158 062	209 506	59 664	149 842
Dwarsrivier	89 289	9 836	39 363	48 533	9 169	39 363
Assmang operations sub-total	755 848	220 626	503 350	698 096	205 678	494 480
Cato Ridge Works	132 722	–	–	119 705	–	–
Machadodorp Works	203 158	–	–	204 095	–	–
Total Assmang operations	756 184	220 626	503 350	698 420	205 678	494 480
Wonderstone	3 636	–	4 500	3 605	–	4 500
Rustenburg Minerals	14 241	–	18 000	15 987	–	13 000
Zeerust	1 751	–	3 500	3 452	–	3 500
Total Assore operations	19 628	–	26 000	23 044	–	21 000

Sustainability report continued

Community economic development (CED)

We recognise that we have a responsibility to social upliftment in the communities in which we operate. Accordingly, we seek to respond to the challenges of livelihood support and economic diversification in a manner that is appropriate for the different socio-economic and geographical settings of our operations.

Structure of the CED function

The Assore group's Community Economic Development programme is structured to encompass aspects of corporate social investment (CSI), social economic development (SED) and enterprise development (ED). These three activities are aimed at directing financial and other resources so that economic opportunities and social conditions in host communities can be sustainably improved.

Assore's CSI expenditure is primarily funded by the Boleng Trust and the Chairman's Fund, with a particular emphasis on education. Funding for SED is principally sourced from the Boleng Trust, with some contribution from the Assore

operations, whereas ED is funded only by the Assore operations. Similarly, Assmang's SED initiatives are funded at an operational level to meet commitments made to skills development, capacity building, social upliftment and poverty alleviation.

The complex reporting requirements around aspects of SED performance are critical in maintaining the company's social licence to operate. These include reporting to the DMR in terms of Social and Labour Plans (SLPs), the Mining Qualifications Authority (MQA) with respect to skills development and the Department of Trade and Industry (dti) in terms of the dti codes

of good practice (which focus mainly on issues related to BBBEE).

In accordance with the requirements of the Mining Charter, the group has prioritised identifying and supporting enterprise development projects, which present the most sustainable opportunities for social upliftment and poverty alleviation in communities surrounding our operations.

Both Assmang and Assore significantly increased CED spend in 2016, the former by 68,75% (total: R180,9 million) and the latter by just under 117% (total: R33,2 million).

Community economic development (CED) expenditure (total)

	Total CED expenditure 2016 R'000	Total CED expenditure 2015 R'000	Total CED expenditure 2014 R'000
Assmang operations	180,9	107,2	136,4
Assore operations	33,2	15,3	23

Sustainability report continued

Community economic development (CED) expenditure per operation

Operation	Rand value of infrastructure development spend	Rand value of education spend	Rand value of health spend	Rand value of basic needs and social development spend	Rand value arts and culture spend	Rand value of social economic development spend	Rand value of enterprise development spend	Rand value of other spend
Beeshoek	51 907 951	–	255 382	204 087	–	3 806 238	5 314 210	3 195 743
Khumani	19 131 182	1 865 563	–	–	–	6 960 909	14 263 938	6 684 761
Black Rock	24 289 412	339 675	21 180	–	122 052	4 487 704	7 159 778	396 065
Cato Ridge Works	–	4 775 811	–	338 036	–	–	–	405 460
Dwarsrivier	12 191 158	1 904 519	69 330	1 203 410	101 100	2 999 830	3 894 576	2 373 760
Machadodorp Works	–	110 000	27 690	–	–	17 655	29 096	11 000
Total Assmang operations	107 519 703	8 995 568	373 582	1 745 533	223 152	18 272 336	30 661 598	13 066 789
Boleng Trust	12 245 273	1 718 391	500 000	185 464	–	–	–	–
Chairman's Fund	15 836 052	–	–	372 965	–	–	–	–
Wonderstone	–	470 833	–	–	–	151 324	44 641	81 452
Rustenburg Minerals	–	342 693	–	–	–	363 860	464 294	81 452
Zeerust	–	207 900	–	–	–	30 431	–	81 452
Total Assore operations	28 081 325	2 739 817	500 000	558 429	–	545 615	508 935	244 356

Sustainability report continued

Snapshot of community initiatives

Community development

Name and description of project

Water project to provide water to one side of Kalkfontein Village which had no water



Name of funding provider and operation where the project is located

Dwarsrivier (funder)

Focus

To provide water and prevent villagers from having to cross a busy road to fill their water containers.

Support provided

The mine surveyed and drilled for boreholes and then installed water pumps and tanks at easily accessible points around the village.

Current status

Completed – in May 2016, the project was handed over to the community, Sekhukhune District Municipality and the Greater Tubatse Municipality.

Name and description of project

Makgophe Primary School Transport project



Name of funding provider and operation where the project is located

Rustenburg Minerals (funder)

Focus

To provide safe, reliable transport to and from the school on a daily basis.

Support provided

Payment for transport

Current status

Ongoing

Sustainability report continued

Snapshot of community initiatives, continued

Community development, continued

Name and description of project

The Tsolonang (meaning “caring for each other”) Disability Centre was initiated in 2001 to care for disabled children. The municipality donated two stands to the projects for infrastructure. The Social Department provide meals and external donors provide salaries to the staff



Name of funding provider and operation where the project is located

Boleng Trust – Rustenburg Minerals

Focus

To care for 29 disabled children between the ages of 5 and 16.

Support provided

Funded the establishment of a R4,6 million centre which was officially opened in February 2016. The centre comprises three fully equipped classrooms, a therapy room, kitchen, office and play area. Also provided funding for equipment and toys.

Current status

The building of the infrastructure is complete but our support of the project is ongoing.

Name and description of project

Garden Cleaning Service project
A company called Ofbon has been tasked with cleaning of the gardens on the mine, at the Makgophe School and sports facility. This company was given the opportunity after being identified from the value chain of the mine



Name of funding provider and operation where the project is located

Rustenburg Minerals (funder)

Focus

The opportunity will provide Ofbon with a valuable reference to procure contracts from similar operations in the surrounding areas.

Support provided

The CED department supplies the project with cleaning materials on a monthly basis.

Current status

Completed in June 2015.

Sustainability report continued

Snapshot of community initiatives

Community development, continued

Name and description of project

Waste management – During phase 1 of this project, Wonderstone donated a waste removal truck and 3 300 wheelie bins to service households in Letsopha



Name of funding provider and operation where the project is located

Chairman's Fund – Wonderstone

Focus

Aimed at addressing a situation where Letsopha in Tswaing Municipality lacked waste removal services due to budget constraints.

Support provided

The second phase of this project was also completed. It included adapting the truck to empty waste skips, placing 30 skips throughout Letsopha for additional waste management solutions and supplying private bins to the new wards developed.

Current status

Phase 3. As we have completed most of the items listed for phase 2 except that we are awaiting the delivery of 12 more skips. The project is thus ongoing.

Name and description of project

Mmasebudule Primary School Vegetable Garden, established 2015



Name of funding provider and operation where the project is located

African Mining and Trust Company (AMT) – Zeerust

Focus

To feed the children at the school

Support provided

Paid for an agricultural consultant to assist in the establishment and maintenance of the vegetable garden.

Current status

Will be completed at the end of December 2016

Sustainability report continued

Snapshot of community initiatives, continued

Enterprise development

Name and description of project

The Ba Dira Mmogo (“We work together”) project began in 2011 with a land donation from the mine and is essentially a vegetable cooperative farming cabbage, beetroot, spinach and tomatoes



Name of funding provider and operation where the project is located

Rustenburg Minerals (funder)

Focus

To support a project which would ultimately become self-sustaining.

Support provided

Since 2005 the mine has funded an agricultural consultant to train the project workers and has also provided the materials needed for growing the vegetables.

Current status

The project was officially handed over to the five members of the cooperative in March 2016. A bakkie and trailer were also handed over.

Name and description of project

Business Development Enterprise programme



Name of funding provider and operation where the project is located

Rustenburg Minerals (funder)

Focus

To improve entrepreneurs’ chances of accessing funds and markets, deliver business training, facilitate business registrations and assist with business compliance certificates.

Support provided

The mine developed a model called “The six-stage Business Restoration Practice” which comprises two phases: organising the business, which takes six months; and mentoring, monitoring and reporting which takes 12 months. The first workshop took place in December 2015 and was attended by 65 entrepreneurs.

Current status

Ongoing

Sustainability report continued

Snapshot of community initiatives, continued

Enterprise development, continued

Name and description of project

Job seekers' workshop

Name of funding provider and operation where the project is located

Rustenburg Minerals (funder)

Focus

To enhance employability.

Support provided

To provide attendees with job-hunting skills, CV writing techniques, interview tactics and general professional etiquette. 100 job seekers a day attended over two days.

Current status

Ongoing

Name and description of project

Candle-making project This project has five beneficiaries



Name of funding provider and operation where the project is located

Wonderstone (funder)

Focus

To promote entrepreneurship.

Support provided

Provision of raw materials and rent.
The project has expanded its business to include soap making and moved into new premises in Ottosdal town.

Current status

Ongoing

Sustainability report continued

Snapshot of community initiatives

Education

Name and description of project

Makgophe Crèche and Primary School Support is provided in a number of areas, including educational intervention training and infrastructure support in the form of:

- **a sports facility which is maintained by the mine and utilised not just by this particular school, but also by other surrounding schools in the area which hold their annual sports days at the facility**
- **a media centre equipped with 40 new computers and incorporating a library and lecture hall. The centre services both the school and the local community. It provides CAMI educational training at the school for English, mathematics and perceptual skills for the students and also provides basic computer training for the teachers which is facilitated by Thatakakitso**



Name of funding provider and operation where the project is located

Rustenburg Minerals (funder)

Focus

To enhance teaching skills and improve the quality of education offered; upgrading of the facility to enhance the learning experience.

Support provided

The mine supports the crèche and primary school financially in order to assist some of the parents with affording the education of their children. All the expenses including the teacher's salary are covered by RMDC. Imfundo Likusalethu and Thatakakitso (teaching upliftment programmes), continued to provide educational intervention training to both the teachers and students from grades one to seven as well as the crèche.

Thatakakitso continued to assist the crèche and grade R educators at Makgophe Primary School with English language intervention. They are conducting weekly visits to work extensively with both teachers and students doing writing exercises and various spelling, vocabulary and art activities that are related to a particular theme.

Current status

Ongoing

Sustainability report continued

Snapshot of community initiatives

Education, continued

Name and description of project

Tertiary Education Preparatory programme (TEPP)

The programme began in February 2016. Students attend weekly classes in mathematics, physical science, computer application training, entrepreneurial skills, personal and career development and English, aimed at academic development



Name of funding provider and operation where the project is located

Boleng Trust – Wonderstone

Focus

To prepare and support 20 students academically for the National Senior Certificate exams.

Support provided

Funding for teachers, the provision of a bus and a hostel in Ottosdal in which the students live. The hostel incorporates 10 bedrooms, four bathrooms, a living area, kitchen and patio area.

Current status

Ongoing

Name and description of project

ECD facilitator training

A joint project with the Love Trust which provides training for current and future Early Childhood Development (ECD) facilitators which was established in July 2015



Name of funding provider and operation where the project is located

Boleng Trust – Wonderstone

Focus

To enable 20 ECD practitioners to qualify for a level 4 SAQA accredited qualification in 2017.

Support provided

Accredited Early Childhood Development training was provided to current and future ECD teachers. All the participants are taken through a curriculum with assessments in order to prepare them for being ECD educators.

Current status

Ongoing

Sustainability report continued

Snapshot of community initiatives

Education, continued

Name and description of project

Rainbow Crèche

This year the school had a number of maintenance issues covered as well as a new jungle gym installed as the old one was not sufficient for the 94 learners between the ages of one month and five years at the crèche



Name of funding provider and operation where the project is located

Wonderstone (funder)

Focus

To enhance the physical learning environment as well as teaching outcomes.

Support provided

We continue to assist with maintenance as well as the provision of the Thatakakitso teaching intervention.

Current status

Ongoing

Name and description of project

The Natanja Christian School



Name of funding provider and operation where the project is located

Wonderstone (funder)

Support provided

The second phase of the construction of the (Natanja TVET College) has been completed. The project includes an artisan training centre and TVET College. The college is now equipped with electrical engineering and fitting equipment, catering and hospitality supplies for the hospitality classroom and sewing machines, as well as printing and embroidery equipment for the clothing manufacturing facility. Our support is ongoing in the form of a proposed new sports facility and the Thatakakitso teaching intervention.

Current status

Ongoing

Sustainability report continued

Snapshot of community initiatives

Education, continued

Name and description of project

Mmasebodule Primary School
The school was opened in 2015



Name of funding provider and operation where the project is located

Boleng Trust – Zeerust

Focus

To provide quality education for primary school learners

Support provided

The Boleng Trust funded the construction of the entire new school building. The school houses seven classrooms, admin block, ablution facilities as well as a kitchen and canteen. Support is provided in the form of maintenance and Thatakakitso teaching intervention.

Current status

Ongoing

Independent Assurance Report to the Directors of Assore Limited

Introduction

IBIS Environmental Social Governance Africa Proprietary Limited ("IBIS Consulting") has been engaged by the directors of Assore Limited ("Assore") to perform an independent assurance engagement in respect of identified electricity and diesel used, as well as greenhouse gas (GHG) emissions for the year ended June 2016 (1 July 2015 to 30 June 2016). This assurance report is produced in accordance with the terms of our engagement letter dated 7 July 2016.

IBIS Consulting permits the use of this assurance report, to enable the directors to demonstrate that they have discharged their governance responsibilities by commissioning an independent assurance report in connection with the selected data reported.

We do not accept or assume responsibility to any third parties ie other than the directors and the company, for our work or for this report to the fullest extent permitted by law, save where such third parties have obtained our prior written consent.

Scope and subject matter

The subject matter in the scope of the assurance engagement was limited to Assore Assmang's electricity and diesel used, as well as the "scope 1" and "scope 2" GHG emissions as defined by the GHG Protocol: A Corporate and Accounting Standard – Revised Edition (WRI & WBCSD, 2004) ("GHG Protocol") (page 42). IBIS Consulting's responsibilities did not extend to any other information.

Responsibilities of the directors of Assore

The directors of Assore are responsible for the generation, collection and reporting of the selected data in accordance with the GHG Protocol.

Responsibilities of the independent assurance provider

IBIS Consulting's responsibilities were to conduct an assurance engagement and to report its conclusions to the directors in accordance with the assurance procedures followed.

The assurance methodology followed was guided by the International Standard on Assurance Engagements (ISAE) 3000, *Assurance engagements other than audits or reviews of historical financial information* issued by the International Auditing and Assurance Standards Board, which standard inter alia requires that the assurance practitioner follows due process and comply with ethical requirements.

Summary of work performed

IBIS Consulting applied the GHG Protocol as audit criteria in respect of the underlying data in the scope of the assurance engagement.

IBIS Consulting's *limited assurance* procedures consisted of:

- interviewing relevant management personnel at the Khumani and Cato Ridge operations;
- evaluating the mentioned operations' process of data determination;
- testing key controls in the reporting process at the operations;
- analysing and reviewing the relevant data and calculations on a sample selective basis at the operations; and
- reviewing the reported data for consistency with the work performed by IBIS Consulting.

Inherent limitations

The evidence gathering procedures for *limited assurance* are more restricted than those applicable to reasonable assurance. *Limited assurance* per definition thus provides less assurance than reasonable assurance.

Conclusion

We believe that the information provided by Assore and the work performed by IBIS Consulting are sufficient and appropriate to form a basis for our *limited assurance* conclusion.

In our opinion, and on the basis of our *limited assurance* procedures, nothing has come to our attention which has caused us to believe that the amount of electricity and diesel used, as well as the "scope 1" and "scope 2" GHG emissions prepared for Assore's Assmang operations for the year ended June 2016, are not fairly represented in all material respects.



Petrus Gildenhuys

Director: IBIS ESG Assurance

IBIS Environmental Social Governance
South Africa Proprietary Limited

Johannesburg, 21 October 2016



IBIS Consulting is an independent provider of environmental, social and governance consulting and assurance services. More information is available at <http://ibisconsulting.com/#who-we-are>

Glossary

ABET	Adult Basic Education and Training
Aids	Acquired immune deficiency syndrome
AMCU	Association of Mineworkers and Construction Union
AMT	African Mining and Trust Company Limited
ARM	African Rainbow Minerals
ARVs	Anti-retrovirals
Assmang	Assmang Proprietary Limited
Assore	Assore Limited
BBBEE	Broad-based black economic empowerment
Beeshoek	Beeshoek Iron Ore Mine
Black Rock	Black Rock Manganese Mines
CDP	Carbon Disclosure Project
CED	Community Economic Development
CO₂e	Carbon dioxide equivalent
COP	Code of practice
CSI	Corporate social investment
CVT	counselling and voluntary testing
DEA	Department of Environmental Affairs
DMR	Department of Mineral Resources
DoH	Department of Health
dti	Department of Trade and Industry
Dwarsrivier	Dwarsrivier Chrome Mine
ECD	Early Childhood Development
ED	Economic development
EIA	Environmental impact assessment
EIUG	Energy Intensive Users Group
EMPR	Environmental Management programme
FAPA	Ferroalloys Producers' Association
GHG	Greenhouse gas
GHS	Globally Harmonised System
GRI	Global Reporting Initiative
HDSA	Historically disadvantaged South African
HSE	Health/Safety/Environment
HIV	Human immuno-deficiency virus
ICDA	International Chrome Development Association
IMni	International Manganese Institute
IMSBC	International Maritime Solid Bulk Cargoes Code
IMO	International Maritime Organisation
ISAE	International Standard on Assurance Engagements
ISO	International Organization for Standardization
Khumani	Khumani Iron Ore Mine
LED	Light emitting diode
LTI	A lost-time injury is any work-related injury that results in a worker being unable to perform their normal duty or similar work on the calendar day following the day of the injury is reported as a LTI
LTI FR	The lost-time injury frequency rate indicates the number of injuries per 100 employees per 200 000 hours (based on the calculation that 200 000 hours is the hours worked by 100 employees for 50 weeks per annum at 40 hours per week)

Glossary continued

LRA	Labour Relations Act
m³	Cubic metre
MDR TB	Multi-drug resistant tuberculosis
MHSA	Mine Health and Safety Act
MPRDA	Mineral and Petroleum Resources Development Act
MoU	Memorandum of Understanding
MQA	Mining Qualifications Authority
MVA	Megavolt Ampere
NEMA	National Environmental Management Act
NIHL	Noise induced hearing loss
No	Number
NUM	National Union of Mineworkers
NUMSA	National Union of Metalworkers of South Africa
OHES	Occupational, Health, Environment, Safety
OHSA	Occupational Health and Safety Act
OHSAS	Occupational Health and Safety Assessment Series
Ore & Metal	Ore & Metal Company Limited
PDS	Proximity Detection System
PPE	Personal protective equipment
Prohibition notice	This is issued in terms of the Occupational Health and Safety Act when serious hazards are found by a safety inspector. The notice can prohibit the use of certain machines, equipment, hazardous substances or processes; or prohibit certain actions until the hazardous situation is shown to have been remediated
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RoD	Record of decision
Rustenburg Minerals	Rustenburg Minerals Development Company Proprietary Limited
SANS	South African National Standard
SAQ	South African Qualifications Authority
SEC	Social and Ethics Committee
Section 54 notice	This is issued in terms of the Mine Health Safety Act when an inspector has reason to believe that any occurrence, practice or condition at a mine endangers or may endanger the health or safety of any person at the mine, the inspector may give any instruction necessary to protect the health and safety of persons at the mine
Section 55 notice	As above
SED	Social economic development
SENS	Stock Exchange News Services
SHEQ	Safety, Health, Environment, Quality
SLP	Social and Labour Plan
SAWIS	South African Waste Information System
STI	Sexually transmitted infection
TB	Tuberculosis
TEPP	Tertiary Education Preparatory Programme
TMM	Trackless Mobile Machinery
TVET	Technical and Vocational Education and Training
VSP	Voluntary severance package
WIM	Women in mining
Wonderstone	Wonderstone Limited
XDR TB	Extreme drug resistant TB
Zeerust	Zeerust Chrome Mines Limited