

# LETŠENG

## 2018 in review

- **Recovery** of the **910 carat** Lesotho Legend, largest Letšeng diamond ever recovered, sold for **US\$40.0 million**
- **Recovered 15 diamonds larger than 100 carats** at Letšeng, a record for the mine
- Life of mine plan **revised** with steeper inter-ramp slope angles **implemented**
- Average price of **US\$2 131 per carat achieved**
- **Retained ISO 14001** certification and obtained **ISO 45001 certification** (previously OHSAS 18001)
- Recorded **four LTIs**

## Operational performance

During 2018, Letšeng reduced its waste tonnes mined by 3.9 million to 25.8 million tonnes. This reduction was achieved through improved drilling and blasting techniques enabling the incorporation a number of Business Transformation initiatives, most notably the steeper inter-ramp slope angles. This steepening has resulted in significantly lower life of mine (LoM) stripping ratios while increasing and bringing forward the ore tonnage mined from the higher-value Satellite pipe, considerably increasing the mine's LoM net present value (NPV).

Tonnes treated during 2018 increased to 6.5 million tonnes, of which Letšeng's plants treated 5.4 million (2017: 5.3 million), with the remaining 1.1 million tonnes treated by Alluvial Ventures (AV) the third party contractor (2017: 1.1 million). The contract with AV has been extended to mid-2020. The contribution from the higher-value Satellite pipe material increased by 3% to 2.2 million tonnes. Of the total ore treated, 61% was sourced from the Main pipe, 33% from the Satellite pipe and 6% from the Main pipe stockpiles.

Both Letšeng plants were stopped during May for planned major maintenance work, adversely affecting the availability of the plants during H1 2018. The planned replacement of the scrubber shell in Plant 2 was completed on schedule. However,

## Operational performance

	2018	2017	% change
Waste tonnes mined	<b>25 809 076</b>	29 718 985	(13)
Ore tonnes mined	<b>6 139 077</b>	6 717 905	(9)
Ore tonnes treated	<b>6 532 596</b>	6 439 299	1
Carats recovered – all sources <sup>1</sup>	<b>126 875</b>	111 811	13
Grade <sup>1</sup> recovered (cpht)	<b>1.94</b>	1.74	11
Carats sold	<b>125 111</b>	107 152	17
Average price per carat (US\$)	<b>2 131</b>	1 930	10

<sup>1</sup> Based on carats produced from the Letšeng Plants, Alluvial Ventures (AV) plant and recovery tailings treatment.



an unexpected and significant repair to its concrete foundation delayed the shutdown by 10 days. The impact of this additional downtime was mitigated by the temporary installation of a scrubber bypass conveyor. Following this extensive maintenance and the enhanced efficiencies resulting from various Business Transformation initiatives, the plant's runtime improved. This resulted in a significant increase in the tonnage treated during H2 2018. Furthermore, attention was given to ensuring that feed rates were well-controlled and consistent to enable process stability, with the objective being value over volume. Workstreams are in place to continue with plant improvements to enhance value.

Overall grade for 2018 was 1.94cph, due in part to the Business Transformation initiative to re-treat tailings material through a mobile XRT sorting machine. This machine recovered 11 905 carats in 2018, of which 6 233 related to historical (pre-2018) tailings material. Carats recovered from all sources in 2018 totalled 126 875, representing an increase of 13% from 2017.

The safety and integrity of dams is an area of high focus for Letšeng management. There are three dams at Letšeng, namely the Patiseng tailings storage facility (TSF) which is in continual use, the old TSF which is only used as a standby facility, and the Mothusi Dam which is used as a fresh water facility only.

In addition to inhouse monitoring, involving stringent safety checks and inspections conducted on a daily, weekly and monthly basis, audits by external consultants are routinely

performed every year, or more often as required. Any identified risks are mitigated and any required remedial steps immediately implemented. An early-warning system, involving communication and alarm systems together with community training and awareness programmes, is tested and used to ensure the emergency readiness of potentially affected communities.

Letšeng has reviewed the construction methods, operating procedures and inspections of old and recently constructed slimes and water dams both internally and with independent expert consultants. The Letšeng dams have each been constructed using the "downstream" method. The emergency procedures and actions in the event of a wall failure have also been reviewed and several drills involving the mine site and downstream communities are regularly held. (For further detail on how the Group ensures the highest standards of dam safety management, refer to the Sustainable Development Reporting Platform [www.gemdiamonds.com](http://www.gemdiamonds.com).)



### Large diamond recoveries

Letšeng recovered a record 15 diamonds greater than 100 carats during 2018, including the magnificent 910-carat Lesotho Legend, which was the largest diamond ever recovered at Letšeng and the fifth largest gem-quality diamond recovered globally. The trend for improved recoveries in 2018 was consistent across all size categories, with a 21% increase from 2017 for the total number of diamonds recovered greater than 20 carats.

Number of large diamond recoveries	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
>100 carats	15	7	5	11	9	6	3	6	7	6	7
60 – 100 carats	22	19	21	15	21	17	17	22	11	11	18
30 – 60 carats	83	74	70	65	74	60	77	66	66	79	96
20 – 30 carats	137	113	83	126	123	82	121	121	101	111	108
<b>Total diamonds &gt;20 carats</b>	<b>257</b>	213	179	217	227	165	218	215	185	207	229

### Capital projects

In line with the continuing strategy of early detection of large diamonds and diamond damage reduction, the construction of a c.US\$3 million pilot plant, by Gem Diamonds Innovation Solutions, at Letšeng was approved during the year. Construction has commenced and is due to be commissioned in Q2 2019. For more detail, refer to the Technology and Innovation section on page 35.

To facilitate the expansion of the open pits, the construction of the Letšeng mining complex was completed on schedule and below budget. The c.US\$13.7 million capital project for the extension of the tailings storage facility was approved in November 2017 and is on track to be completed during H1 2020. During 2018, US\$8.8 million was spent on this project, bringing total spend to c.US\$9.7 million by the end of 2018.

Details of overall costs and capital expenditure incurred at Letšeng during the year are included in the Group Financial Performance section on pages 21 to 26.

### Mineral resources and reserves

The core drilling programme that commenced in September 2017 was concluded in December 2018. It included 12 drill holes (3 151 metres) in the Main pipe and 16 drill holes (3 962 metres) in the Satellite pipe. The aim of the programme was to gather additional data on the distribution of the subdomains within each of the main historical domains and to improve confidence in the external pipe morphologies to a depth of 300 metres below the current pit floors in both pipes.

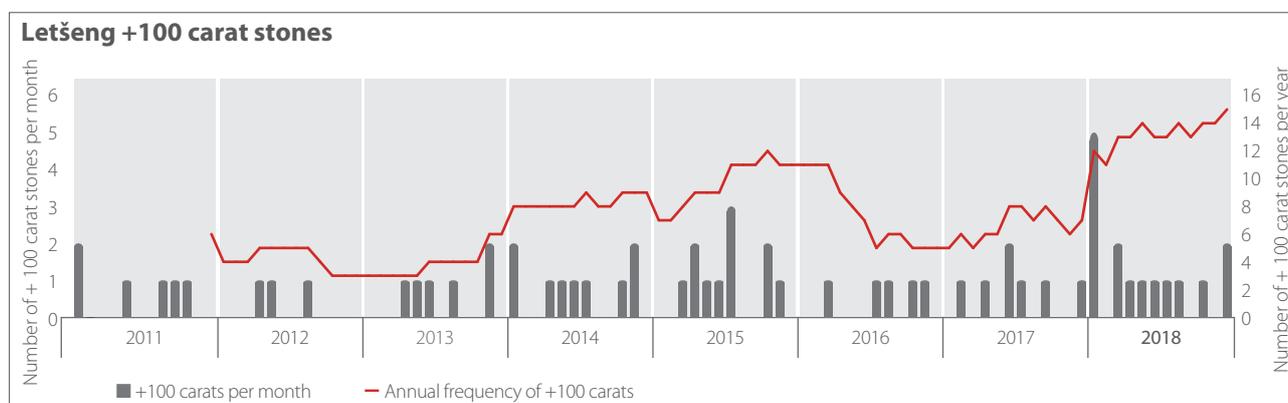
Independent resource and mining specialists, SRK Consulting Canada, were appointed to assist with the design, quality



control, logging and interpretation of the drilling programme, as primary inputs to the broader project related to updating the Resource and Reserve Statement. Core logging and sampling for petrography and mineral chemistry analyses have been completed, and work has commenced on updating the 3D geological models. Once these elements have been completed and the distribution of the subdomains are defined, the investigation will proceed to sampling and processing of core, both historical and recent core, for microdiamond analysis in 2019 and 2020.

Preliminary models, based on the recent core drilling, suggest that both pipe shell morphologies and volumes to 300 metres below the pit floor are in line with expectations.

An additional three core holes were drilled for geotechnical purposes (1 252 metres), in support of the mine plan incorporating steeper inter-ramp slope angles. Recovered grades were in line with expected grades per domain, achieving an overall Mine Call Factor (MCF) of 99%.



## Health, safety, social and environment (HSSE)

Letšeng's occupational health, safety and environmental management systems underwent independent audits during 2018 to evaluate its performance against the standards published by the International Standards Organisation (ISO). Following these audits, the operation retained its ISO 14001 certification for environmental management for the fourth consecutive year and was awarded ISO 45001 certification for occupational health and safety management. The ISO 45001 standard has replaced the OHSAS 18001 standard.

The operation recorded four LTI's during Q1 2018 and subsequently re-affirmed its commitment to identifying and mitigating potential health and safety risks. The protection of the natural environment, within which Letšeng operates, is key to the sustainable success of the organisation, and the operation recorded no major or significant environmental incidents during 2018.

Letšeng is committed to working closely and in collaboration with its stakeholders, and no major or significant stakeholder incidents were recorded during 2018. The operation's project affected communities (PACs) play a vital role in the success of the operation and Letšeng is committed to ensuring that PACs benefit from the operation. In accordance with this commitment, Letšeng invested c.US\$0.8 million towards community projects. Investments in projects are made following an inclusive stakeholder consultation process. The majority of

this investment was allocated towards infrastructure, including a footbridge that allows year-round access for several communities to crucial services and local infrastructure, and to small and medium enterprise development associated with our flagship dairy project. To mark the recovery of the Lesotho Legend, the 910 Community Project was initiated. In line with the agricultural focus of many of our other social initiatives, it was determined that the project would entail the construction and development of a commercial poultry and egg farming co-operative. A feasibility study has been commissioned to better understand the potential socio-economic impact of this endeavour and the investment required.

## 2019 focus

- Continue to enhance efficiency and implement cost reduction initiatives, as identified on pages 27 to 29 (Business Transformation)
- Focus on value over volume by continuing with well-controlled and consistent feed rates to enable process stability
- Commission the pilot plant to validate the technology for the early detection of large diamonds
- Further review the mine plan to lower the stripping ratios and enhance the mine's NPV
- Continue to focus on enhancing the mining fleet and activities to reduce diesel consumption





# SALES, MARKETING AND MANUFACTURING

## 2018 in review

- **Letšeng** achieved an average price of **US\$2 131 per carat**
- The **910 carat** Lesotho Legend, the fifth largest gem quality diamond ever recovered, was sold for **US\$40 million**
- **44 diamonds sold** for more than US\$1.0 million for a total **value** of **US\$137.2 million**
- **138.20 carat** achieved US\$60 428 (highest dollar per carat achieved for a Letšeng white rough diamond since 2015)

Gem Diamonds continues to invest in its sales, marketing and manufacturing operations to pursue ways of maximising revenue through a combination of marketing channels, including tenders, strategic partnerships and extractions for manufacturing to capture additional margins further along the diamond pipeline.

### Sales and marketing

The Group's rough diamond production is marketed and sold by Gem Diamonds Marketing Services in Belgium. Letšeng's rough diamonds are viewed and sold through an open tender in

Antwerp and viewings for large diamond tenders are also held in Tel Aviv, Israel. All rough diamonds are sold on tender, unless extracted for either manufacturing or strategic partnerships.

Following viewings by clients in Antwerp and Tel Aviv, Gem Diamonds' electronic tender platform allows clients the flexibility to participate in each tender from anywhere in the world. The tender process is managed in a transparent manner and combined with professionalism and focused client care and management, it has led to a unique Gem Diamonds experience, securing client loyalty and supporting the objective to achieve highest prices for the Group's rough diamonds.

Select rough diamonds from Letšeng which have been manufactured into polished diamonds are sold by Gem Diamonds Marketing Services through direct selling channels to prominent high-end clients.

### Operational performance

During the year, the Group continued to build its premium client base. Currently, the Group has 496 approved clients. Eight large, high-value rough diamond tenders and four small rough diamond tenders were held for Letšeng during the year, all of which were very well attended, with an average attendance of 139 clients per tender. The Group continually engages with its clients to understand their challenges and needs and, where possible, accommodates these in its marketing strategy. In this regard, viewings in Tel Aviv which were piloted in H2 2017, has now become a regular viewing destination for Letšeng's large diamond tenders.

Prices achieved for Letšeng's large, high-value diamonds remained firm during the year. The recovery and timely sale of the 910 carat Lesotho Legend and the flexible marketing

# SALES, MARKETING AND MANUFACTURING CONTINUED

channels used in the sale of Letšeng's high-quality diamonds contributed to achieving an average price of US\$2 131 per carat in 2018.

## **Rough diamond analysis and manufacturing**

Baobab's advanced mapping and analysis of Letšeng's large exceptional rough diamonds supports the Group in analysing and assessing the value of Letšeng's rough diamonds that are presented for sale on tender, sold into strategic partnerships with select clients or extracted for manufacturing. This ensures that robust reserve prices are set for the Group's high-value diamonds at each tender and informs strategic selling, partnering or manufacturing decisions.

To attain highest value for Letšeng's top-quality diamonds, certain high-value rough diamonds are selected for manufacturing.

## **Operational performance**

Baobab continued to provide specialised services to the Group and to third-party clients. Services to third-party clients contributed additional revenue of US\$0.2 million to the Group.

To take advantage of the stronger rough diamond market experienced during the year, no diamonds were extracted for manufacturing during 2018. This illustrates the benefit of a flexible marketing strategy to capitalise on the fluctuation of the rough and polished diamond markets.

## **2019 focus**

- Continue to build on the unique Gem Diamonds marketing experience.
- Development and implementation of an enhanced electronic tender platform.





## TECHNOLOGY AND INNOVATION

### 2018 in review

- **Installation** of the **non-mechanical liberation unit** at Letšeng, as a non-mechanical means of liberating diamonds
- **Proof of concept validation** for detecting diamonds within kimberlite host rock
- Capital allocation for the **construction of a pilot plant**, incorporating the proof of concept technology

Gem Diamonds Innovation Solutions was established in Cyprus in 2017 to house all the Group's innovation and technology research and development projects.

### Operational performance

Diamond damage is ubiquitous among producers of larger high-value gem diamonds. Furthermore, the Letšeng mine has a unique diamond distribution with a significant portion of its revenue held in the +5mm fraction (greater than two carats). The Group has been working to mitigate the impact of diamond damage on Letšeng's production for many years. While incremental improvements have been achieved through optimising operating practices and various technological enhancements, tweaking conventional technology will not realise the step changes required to significantly reduce diamond damage.

The potential changes for significantly improving revenue through reducing diamond damage are:

- the early identification of liberated diamonds;
- identification of diamonds within kimberlite; and
- a non-mechanical means of liberating these diamonds within kimberlite.

Gem Diamonds has made significant progress on the identification, validation and testing of technologies from various industries to complement its innovation drive of early detection and non-mechanical means of liberating diamonds.

### Diamond detection

Gem Diamonds successfully validated the detection of diamonds within kimberlite using scanning technology in conjunction with proprietary imaging and sorting algorithms. Following the successful proof of concept, the Company approved US\$3 million for the construction of a pilot plant at Letšeng. The design and construction of the plant remains on target to be commissioned during Q2 2019.

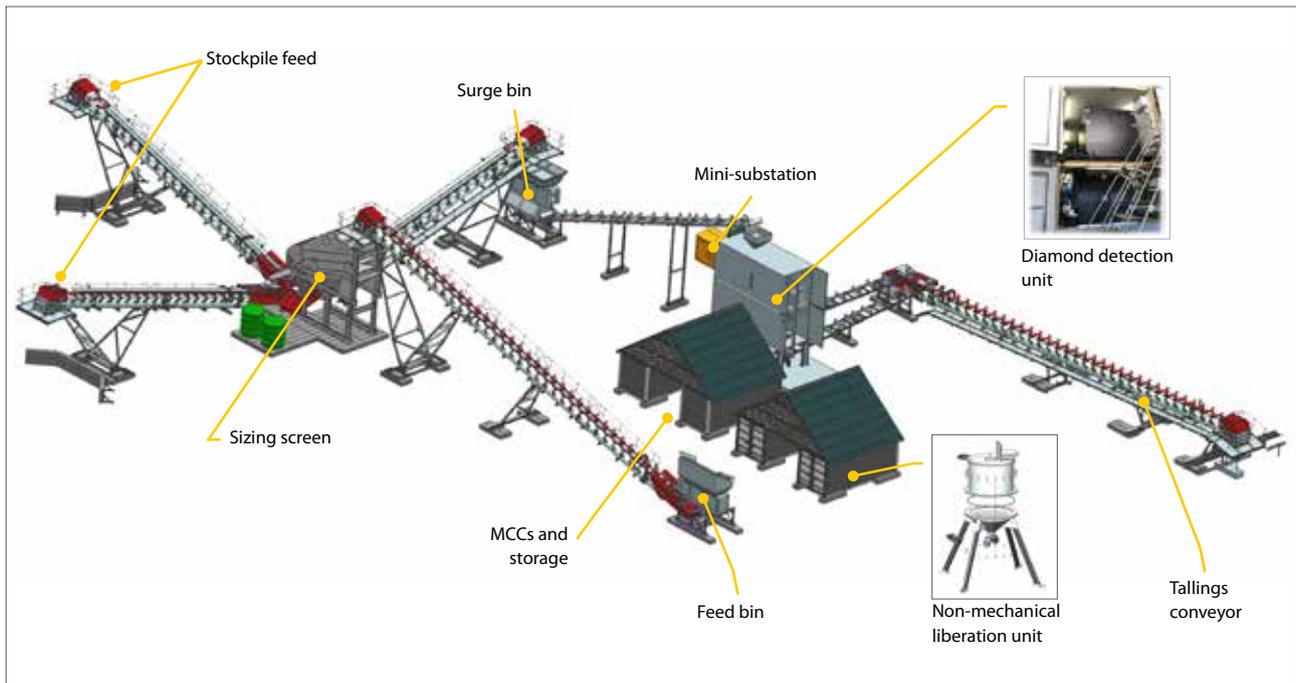
### Diamond liberation

Once a diamond has been identified within the kimberlite, the next step is to liberate this diamond without causing any damage. A non-mechanical liberation unit was developed inhouse, that utilises high voltage pulse power for the selective fragmentation of composite materials, as a means of liberating the encapsulated diamonds. Testing of this unit at Letšeng mine commenced in the beginning of 2018, at altitude, with substantial progress made throughout the year. The pilot project will also include the use of the non-mechanical diamond liberation unit.

For more information around this process, please go to [www.gemdiamonds.com](http://www.gemdiamonds.com). 

# TECHNOLOGY AND INNOVATION CONTINUED

The info-graphic below illustrates the draft design of the pilot plant to be constructed at Letšeng mine, incorporating the diamond detection unit and the non-mechanical liberation unit with its associated infrastructure.



## 2019 focus

- Construction and commission of pilot plant at Letšeng during Q2 of 2019
- Extended testing of the pilot plant and technology in a production environment
- Enhancement and upscaling of detection technology to process particles up to 150mm in size
- Non-mechanical means of fragmenting even larger particles to liberate detected diamonds



# SUSTAINABLE DEVELOPMENT

## 2018 in review

- **Zero fatalities**
- **Four LTIs** recorded
- Group-wide **AIFR of 1.45**
- **Zero major or significant stakeholder incidents**
- **Zero major or significant environmental incidents**

## Managing the Group's material matters

Material matters are considered to have a direct or indirect impact on the Group's ability to create, preserve or erode economic, environmental and social value for the organisation, its stakeholders and society at large. The Gem Diamonds' material matters include risks that must be managed as well as opportunities that could be captured to enhance the viability of the business in the short, medium and long term.

Underpinning the way in which the Group mines diamonds are the following five sustainability pillars:

- financial and operational;
- governance and ethics;
- employees;
- social; and
- environmental.

The Group's material matters have been organised under these five sustainability pillars. It is by monitoring these matters and remaining flexible in its approach that the business drives sustainable results, and that its impact on the places and communities where it operates is positive and any environmental damage is appropriately mitigated.

This Sustainable Development Review provides a summary of the information contained on the 2018 Sustainable Development Reporting Platform, available on Gem Diamonds' website ([www.gemdiamonds.com](http://www.gemdiamonds.com)). In 2017 the Group migrated the sustainable development reporting from annual printed reports to an online reporting platform. Readers are encouraged to read the information below in conjunction with the content on the Sustainable Development Reporting Platform.



# SUSTAINABLE DEVELOPMENT CONTINUED

## Financial and operational

The Group strives to take a holistic view of business performance and integrate sustainability into how it operates, and integrity is demanded and expected at all levels of the business.

Gem Diamonds continued driving Business Transformation during 2018 and remains on track to achieve its cumulative objective of US\$100 million in incremental revenue, productivity improvements and cost savings by 2021. The BT process prioritises sustainability and no changes will be implemented that compromises the pursuit of zero harm. Organisational health is a vital driver of the BT process and a second organisational health survey was conducted in 2018 which demonstrated that a significant improvement to organisational health had been achieved.

The Group's sales and marketing operation is tasked with developing the Letšeng brand and expanding its customer base. Following the successful viewings in Tel Aviv, which were piloted in the second half of 2017, regular viewings at Tel Aviv have been introduced for Letšeng's large diamond tenders. Challenging conditions in the diamond market carried over into 2018 and the sales and marketing team in Antwerp has confirmed their expertise in achieving top prices for Letšeng's diamonds.

For more information refer to pages 21 to 29 and 33 to 36.

## Governance and ethics

The value of diamonds is partially derived from the perception consumers hold of mining practices within the diamond industry. The Group is committed to mining in a manner that is ethically sound and ensures integrity and governance is demanded throughout the business cycle. The ethical and legal mining of diamonds not only reinforces the Group commitment to be a responsible diamond mining organisation, but also contributes to the perceived value of its product. For more information on Governance, refer to pages 46 to 93.

## Protecting human rights

Gem Diamonds is committed to contribute to the socio-economic upliftment or development of the areas in which it operates, and therefore aims to mine and trade diamonds in a responsible and transparent manner thus eliminating the potential for human rights violations and conflict.

The Group condemns human rights violations, and training is provided to employees on human rights to eliminate gender, age and racial injustices in the workplace. During 2018 a total of 858 (2017: 38) employees received human rights training.

The Group is committed to the fair treatment of employees through policies relating to remuneration practices, health and safety, non-discrimination, procurement and supply chain

management. These policies strengthen the Group's existing controls to prevent child or forced labour and to ensure the supply chain does not enable slavery or human trafficking. In 2018 the Group reaffirmed its adherence to the requirements of the United Kingdom Modern Slavery Act through its "Human Rights Statement". None of the Group's operations have engaged in the relocation or resettlement of any PACs during the reporting period.

## Prioritising business integrity

Gem Diamonds recognises that its regulatory and social licence to operate is dependent on how its diamonds are mined and distributed. The Group aims to supply rough and polished diamonds whilst operating in a manner that meets its requirements as an ethical and accountable organisation.

The Group supports the Kimberley Process that aims to eliminate the Global trade of conflict diamonds. All Gem Diamonds' rough diamond exports comply with the provisions of the Kimberley process, and are certified in accordance with the certification scheme.

The Group commitment to upholding the highest ethical standards means complying with the relevant government regulations as well as voluntary best practice codes for labelling, product and service information. Gem Diamonds also works to ensure that the Group's diamonds reach the market through the correct channels and strict controls are applied with regards to potential clients and the marketing and sales process.

Participation in the sales and marketing process is by invitation only and potential clients are subject to a screening process which includes validating their good standing and compliance with anti-money laundering protocols. During the sales and marketing process the Group maintains the highest levels of transparency and integrity. Diamond viewing opportunities are made available to clients prior to the conclusion of a tender. No warranties in respect of the diamonds are issued. Client confidentiality is protected in all instances and tenders are governed by conditions agreed to by clients. A complete list of the winning bids is electronically circulated to all tender participants on the close of the tender, ensuring a transparent tender process.

## Raising standards across the pipeline

The Gem Diamonds business processes are supported by multi-layered supply chains that comprise goods and service delivery throughout various business cycles.

A whistleblowing policy was established by the Group in order to identify and mitigate the risks of unethical activity taking place. In addition to the whistleblowing policy, strict procurement policies are in place. The procurement policies ensure rigid vetting processes are followed. Potential risk areas



are scrutinised, and goods and services are only procured from reputable companies that adhere to the Group's ethical policies.

Gem Diamonds has adopted a zero-tolerance approach to bribery and corruption. The Group is committed to upholding and complying with the requirements of the UK Bribery Act. Reviews of the Group's anti-bribery and corruption policy are regularly carried out by the internal audit department, to ensure continued compliance with the UK Bribery Act requirements. All customers and third parties with whom business is transacted are required to adopt the same zero-tolerance approach to bribery and corruption as implemented by the Group.

## Employees

The Group focuses on the well-being of employees and takes the duty of care seriously in providing a work environment that prioritises safety, health and well-being.

### Providing a safe working environment

Gem Diamonds bases its approach to health and safety management on the principles of ISO 45001 and international best practice standards. To assist the Group in its pursuit of zero harm, the health and safety systems at Letšeng are independently audited on an annual basis. These independent audits ensure that the operation remains compliant and provides the operation with opportunities for improvement of the health and safety systems.

Gem Diamonds once again reported a fatality-free year, however it recorded four LTIs, an increase from one in 2017. The four LTIs resulted in a Group-wide lost time injury frequency rate (LTIFR) of 0.15 (2017: 0.04).

Proactive safety management forms a critical part of the strategy implemented to mitigate the risk to employee health and safety. During 2018, 64 952 (2017: 74 666) proactive safety management actions were implemented. The reduction in the number of proactive safety actions can be attributed to a decrease in activity at Ghaghoo and a shift at Letšeng from internal inspections to job hazards analysis, risk assessments and planned task observations.

The Group recorded an AIFR of 1.45 (2017: 2.02), the lowest AIFR ever recorded by the Group.

### Attracting and retaining qualified people

The relationship between skilled employees and business performance is clear within the global natural resource sector. Gem Diamonds aims to attract and retain talented employees through market-related salaries, supportive working environments and meaningful developmental opportunities.

At the end of the year the Group employed 401 (2017: 412) own employees and 1 740 (2017: 1 581) contractor employees. The

average number of own employees during 2018 was 412 (2017: 408), while the average number of contractor employees was 1 777 (2017: 1 682). The workforce size at Ghaghoo remained stable throughout 2018 while the operation remains on care and maintenance.

High staff turnover and absenteeism reduces productivity and can result in a loss of intellectual capital. The Group-wide absenteeism rate decreased to 1.6 (2017: 2.1) days per person in 2018. The Group-wide staff turnover remained stable at 8.7% (2017: 8.7%) during 2018. The turnover percentage takes into consideration voluntary turnover and does not include retrenchments. Voluntary turnover increased marginally during the year, the Group will monitor the turnover rates and other indicators of employee satisfaction to ensure, to the best of its ability, that quality people are retained.

The Tsoelopele organisational health campaign ran successfully during 2018, building on the momentum achieved during 2017. Organisational health and well-being are vital drivers of business efficiency and success. A second organisational health index survey was conducted during 2018 demonstrating that the initiatives implemented following the first organisational health survey in 2017 were successful in addressing the priority areas. The results from the 2018 survey inform the way the Group engages with employees to improve organisational health.

Group-wide hours per capita vocational training in 2018 decreased by one hour per employee when compared to 2017. Gem Diamonds has a policy of remunerating male and female employees in the same grade at the same level. Employees at all the Group's operations are remunerated in line with market-related salaries. The lowest graded employees continue to receive higher remuneration than the respective host country's minimum wage standards.

In Lesotho, there is no prescribed minimum wage in the mining sector. Therefore, the construction industry minimum wage is used as a standard. In 2018, the lowest graded permanent employees at Letšeng were remunerated at 54% above this minimum wage. In total, 8.6% (2017: 0.2%) of the workforce at Letšeng were compensated at the operation's minimum wage. Labour rates are determined in line with market-related rates, with external factors such as availability of skills, qualification, seniority and work experience being taken into consideration. Minimum requirements regarding remuneration are contractually stipulated with principal labour contractors.

The Group's employees are offered benefits and incentives in addition to basic remuneration. During 2018, US\$36.1 million (2017: US\$36.3 million) was spent on employee wages, benefits and incentives. This figure includes contractor employees.



# SUSTAINABLE DEVELOPMENT CONTINUED

The shift configurations and rosters applied by the Group comply with local legislative requirements, as well as operational and market demands.

At Letšeng, 100% of Basotho nationals employed subscribe to the mandatory government retirement provision scheme. Letšeng contributes 7.5% of the annual salary per employee to this scheme, the employee also contributes 7.5%. Employees at the Belgian operations also form part of a mandatory government retirement scheme, where 32% of the annual salary

per employee is contributed to this scheme. Employees at Ghaghoo receive a gratuity payment upon completion of their contract, which equates to 15% of their monthly basic salary for each month of employment.

All other operations and offices remunerate employees on a cost-to-company basis, and employees are free to elect their retirement schemes and contributions.

## Group staff demographics (%)

Employee level	% male	% female	% local citizens	% age <30	% age 31 to 50	% age >50
<b>2018</b>						
Governance Committee Board*	100	0	25	0	55	0
Senior management	89	11	83	6	50	44
Middle management	82	18	87	7	77	16
Total workforce	80	20	96	12	76	14
<b>2017</b>						
Governance Committee Board*	100	0	26	0	41	59
Senior management	92	8	69	0	46	54
Middle management	78	22	84	1	81	18
Total workforce	81	19	97	14	74	12

\* Includes subsidiaries.

## Providing skills development opportunities for employees

Investing in the development of employee skills through the provision of training opportunities throughout the Group, enables employees to develop both personally and professionally.

During 2018, the total hours of training provided to employees were:

- senior management: 641 (2017: 379 hours);
- middle management: 2 474 (2017: 457 hours); and
- non-management: 15 145 (2016: 15 989 hours).

Performing annual career reviews at all its operations remains a goal across the Group. In 2018 the Group recorded an increase in career reviews performed from 26% in 2017 to 28% in 2018. Of the female workforce, 60% (2017: 72%) received career and performance reviews, and 20% (2017: 20%) of male employees received reviews.

## Ensuring employees remain healthy

We are committed to providing an environment that actively promotes and supports our employees' health and well-being. Our on-site clinics and medical stations provide emergency,

occupational and primary healthcare to treat employees at our remote locations.

In addition to reactive medical treatment, we believe in a proactive approach to employee health management. During the induction programme for new operational employees, we facilitate a complete medical examination to proactively promote their care and well-being. When an employee leaves our operations, we perform exit medical examinations.

In 2018, Letšeng achieved a 100% (2017: 100%) pre-employment medical and 100% (2017: 100%) exit medical rate.

A total of 8 241 (2017: 8 437) medical cases were recorded across the Group in 2018, 6.6% (2017: 7.9%) of these cases related to occupational or environmental diseases. The majority of cases treated at the mining operations were primary healthcare cases. A total of 8 611 (2017: 6 464) serious disease prevention and management interventions were carried out during the year. The interventions consisted of educational interventions and counselling, as well as prevention and risk control measures.



## Social

Our mines are in complex socio-economic environments that existed before and will continue to exist beyond the life of our operations. We partner with project affected communities (PACs) and our host governments to create a legacy that will last long after the resources we mine have been depleted.

### Safeguarding our communities

Tailings storage facilities are an essential part of mining, that present a significant potential hazard to the communities and environments surrounding the Gem Diamonds operations. The Group conforms to established safety, management and monitoring practice for the construction and operation of its tailings storage facilities ensuring structural stability and integrity.

The Group recognises the risk that both tailings storage facilities and raw water dams pose and therefore the storage facilities are managed according to international best practice. Stringent safety checks are conducted through internally and externally conducted inspections and audits at regular intervals throughout the year. Risk assessments, resistivity surveys and flow model studies are also carried out to ensure the facilities are managed in a responsible manner. For more information on how the Group manages the potential risk posed by its tailings storage facilities and raw water dams, please see the online Sustainable Development Reporting Platform.

Emergency management plans have also been put in place to ensure PACs and operations are ready to respond in the case of compromised dam integrity. The emergency readiness planning consists of an alarm and communication system, community training and awareness campaigns.

Zero cases of compromised dam integrity were recorded during 2018.

### Ensuring positive stakeholder engagement with our local communities

Along with excellent social, economic and environmental practice, engagement is the primary means of maintaining our social licence to operate. The Group strives to foster mutually beneficial partnerships with its stakeholders through meaningfully supporting and enhancing PACs and their economic and social potential.

The Group's operations have developed frameworks for stakeholder consultation that ensures all stakeholders are engaged regularly. Acknowledging the unique cultural and traditional context of our communities is essential to ensuring engagement takes place in a transparent and respectful manner.

No major or significant stakeholder incidents occurred at any of Gem Diamonds' operations during 2018 (2017: none). There were also no incidents (2017: none) involving any violation of the rights of the indigenous people on whose land the Group operates.

### Minimising potential negative social impact

Gem Diamonds recognises the risk of its operations threatening the well-established cultures and social structures in the communities surrounding our mines.



Milk produced by Letšeng Dairy Project

# SUSTAINABLE DEVELOPMENT CONTINUED

Our approach to community engagement is informed by our operation specific social and environmental impact assessments (SEIA) and community need analyses. The SEIAs and community needs analysis are informed by extensive public participation, host country legislation and international best practice guidelines such as the World Bank Equator Principles and the International Finance Corporation's Performance Standards on Environmental and Social Performance.

Our SEIAs involve biodiversity surveys, soil, water and air quality studies, and our communities are closely involved from inception to minimise negative impacts and identify opportunities for positive outcomes.

## **Working with communities to understand and meet their needs**

Mutually beneficial relationships with our PACs is central to the long-term sustainability of the business, and the Group aims to leave a positive legacy while meeting our PAC needs.

During 2018 the Group invested US\$0.8 million (2017: US\$0.5 million) towards corporate social investment (CSI) initiatives. Infrastructure development was recorded as the category receiving the most investment as a result of the Letšeng Dairy Project, the construction of classrooms and a footbridge in Pae-La-Ithastoa as well as the construction of a police station in Phutha-lichaba.

## **Supporting communities through localisation to create shared value**

The remote locations of our PACs limit the employment opportunities available for these communities. Localisation is a priority for the Group, and a key driver of shared value. The operations' aim to match available skills in the PACs with the skills requirements on site in order to drive local recruitment.

Gem Diamonds utilises its localisation and procurement policies to assist with the socio-economic upliftment of the PACs. Local recruitment and procurement through local business drives the creation of shared value and positive contribution within the PACs while meeting the needs of our business. During 2018 98% (2017: 97%) of the workforce at Letšeng comprised Basotho nationals.

Total in-country procurement by the Group during 2018 amounted to US\$159.3 million (2017: US\$189.7 million). In-country procurement at Letšeng amounted to US\$152.3 million in 2018 (2017: US\$174.3 million). Letšeng also reports on PAC and regional procurement to show the extent of shared value created. During 2018 US\$2.1 million (2017: US\$2.0 million) was allocated to procurement from PACs. An additional US\$32.3 million in goods and services was procured from regional communities around Letšeng and increase from US\$27.9 million in 2017. Procurement at Ghaghoo is focused at national level, as the extreme remoteness of the operation does not allow for PAC or regional procurement. During 2018 US\$4.3 million (2017: US\$9.8 million) was spent on



*Patiseng Valley*



in-country procurement at Ghaghoo, this decrease reflects the reduction of operational expenditure during care and maintenance.

Gem Diamonds does not report on local procurement for the offices and facilities located in Johannesburg, Antwerp and London; a decision based on the size and complexity of city-based economies.

### Environmental

2018 marked the ninth consecutive year that the Group recorded zero major environmental incidents. It was also the eighth consecutive year that no fines were incurred as a result of environmental transgressions or non-compliance with host country environmental legislation.

Gem Diamonds actively invests in various environmental protection and mitigation measures to safeguard the natural environment. A total of US\$0.6 million (2017: US\$4.7 million) was invested towards environmental training, specialist consultation, research and development, green purchases, and other environmental protection measures.

Whilst the Group recorded zero major or significant environmental incidents, it did record 981 (2017: 966) minor environmental incidents, of which the majority related to very small hydrocarbon spills.

### Water supply and quality

Corporate water stewardship has allowed the Group to identify and manage its water-related business risks, find ways to mitigate its water impacts, and contribute to the sustainable management of the catchment areas in which it operates. Water footprint studies provide an integrated understanding of water abstraction and water use. A water footprint can be defined as a measure of freshwater appropriation underlying a certain product, including fresh surface water, groundwater incorporated into the product, or lost during the manufacturing of the product. The Group's 2018 total water footprint was 37.6m<sup>3</sup>/carat (2017: 42.9m<sup>3</sup>/carat), this decrease can be attributed to a 7% year on year decrease in water consumption and a year on year increase on carats recovered.

The Group continuously monitors the water quality at its operations and endeavours to address any usage inconsistencies in a timely manner. Nitrates management remained a key challenge at Letšeng during 2018. Letšeng commissioned a feasibility study to understand the implications of a full-scale bioremediation plant, a treatment method that has proven successful at the operation.

### Managing carbon emissions and waste

The negative effects of carbon and other greenhouse gas (GHG) emissions present a long-term risk to global climate stability, and Gem Diamonds recognises the need to apply every effort towards their mitigation.

The Group makes it a point to monitor and measure its carbon footprint to develop and implement initiatives to mitigate its impact in this regard. The Group also tracks the tonnes of CO<sub>2</sub> emitted per employee and per carat recovered to consider its impact in isolation from the size of its operations.

In 2018, the total carbon footprint for the Group was 161 491tCO<sub>2</sub>e (compared to 155 106tCO<sub>2</sub>e in 2017), primarily driven by electricity consumption and mobile and stationary fuel combustion. This figure includes the direct greenhouse gas (GHG) emissions (Scope 1), energy indirect GHG (Scope 2) emissions, and material Scope 3 emissions, and was calculated with boundaries clearly defined by the GHG Protocol Corporate Accounting and Reporting Standard. The observed increase in the total carbon footprint can be attributed to an increase in mobile diesel combustion as a result of longer ore haul distances in 2018 as well as a greater reliance on grid electricity to power capital projects such as the mining complex.

Careful waste management remains a priority for the Group and can lower operational costs and reduce the risk of non-compliance with environmental regulation, as well as protect our social licence to operate. Gem Diamonds' operations produce various types of waste, including domestic and general waste, medical waste, mineral waste and small volumes of hazardous waste. The Group worked to implement innovative management strategies to minimise the production of waste and reduce the volume of waste that is ultimately disposed. Letšeng entered into partnerships to reuse and recycle waste tyres, air and oil filters and other identified waste products.

### Dealing with extreme natural events at mining sites

Both Letšeng and Ghaghoo are in environments that are characterised by extreme weather conditions. In order to remain resilient to these extreme temperatures and precipitation, the operations plan in advance and implement systems and procedures to ensure that the effects of extreme weather do not pose unnecessary risk to employees. Gem Diamonds recognises that these extreme weather conditions may change or worsen in future due to climate change. Climate change-related impacts could include flooding or inadequate water supplies, changes in temperature and increased prevalence of disease, or climate change could affect stakeholder relationship due to competition for resources. The Group aims to assess on a regular basis the potential impacts climate change could have on the business and prepare appropriately to lessen the impact on the business.



# SUSTAINABLE DEVELOPMENT CONTINUED

Both mining operations may also be exposed to extreme natural events such as earthquakes at Ghaghoo and blizzards at Letšeng. This necessitates that the Group plans and adapts its operations to remain safely operational while facing these extreme natural events.

Letšeng ensures that the operation maintains a two-week supply of food for employees and diesel for the generators. This allows for the operation to keep operating in cases of extreme weather or natural events that could cut off access to roads. Medical teams have been trained in high-altitude rescues and are equipped to deal with extreme weather and provide medical treatment under extreme conditions.

Water management systems at both mines also cater for excess or too little water due to extreme weather conditions.

## **Ensuring consistent electricity supply and minimising energy usage**

The current global reliance on environmentally inefficient fossil fuels for energy supply is not sustainable. Gem Diamonds prioritises the monitoring of energy usage to better understand consumption patterns within the Group. Understanding the consumption patterns allows the Group to identify opportunities to implement energy-efficient initiatives.

The Group believes that by continually searching for opportunities to reduce this consumption in new and innovative ways, it is protecting its long-term viability.

The Group consumed 1 172 244 gigajoules (GJ) of energy (2017: 1 140 784GJ). Letšeng saw a 2.5% increase in total energy consumption and reported a 4% increase in grid supplied electricity consumption. The increased carats recovered and energy efficiency initiatives implemented in 2018 resulted in a

Group energy intensity improvement. The minor increase in energy consumption can be attributed to a 6% increase at Letšeng in ore haul distance which resulted in higher diesel consumption, as well as several capital projects requiring grid electricity.

## **Planning for mine closure**

The Group is committed to rehabilitating the natural environment, within which it operates, at the end of the lifespan of its mines. Rehabilitation requirements are included in the decision-making processes to ensure that current mining activities do not hinder future rehabilitation efforts. The Group, on an annual basis, undertakes a review of its rehabilitation plans to ensure its rehabilitation liability is a true reflection of the investment needed for the eventual restoration of land. The 2018 Group rehabilitation provision amounted to US\$17.9 million (2017: US\$17.3 million).

The Group leased 6 174ha (2017: 6 174ha) of land during 2018, approximately 159ha was disturbed during 2018 (2017: 12.45ha) as a result of mining activities. This brings the total disturbed land leased by Gem Diamonds to 7 36ha (2017: 577 ha).



# SIGN OFF OF STRATEGIC REPORT

Our strategic report, as set out on pages 1 to 44, has been reviewed and approved by the Board of Directors on 12 March 2019.

**Harry Kenyon-Slaney**

*Non-Executive Chairman*

12 March 2019

