The company encourages open communication and employees are encouraged to raise issues of concern and interest via various structures.

## BUSINESS PERFORMANCE



Our operating performance has been encouraging as we have steadily continued with the ramp-up of production at Booysendal. At Zondereinde, overall production was satisfactory.

# MINERAL RESOURCE AND RESERVE STATEMENT

Resources and reserves reflected in this statement are reported on a Northam attributable basis, and include those which are either from properties that are wholly owned by Northam or its wholly owned subsidiaries, or joint venture properties in which Northam holds a stake.

Mineral resources are reported inclusive of mineral reserves.

## SCOPE OF REPORTING

Resources and reserves reflected in this statement include those from the following properties:

- **Zondereinde**, the company's wholly owned PGM mine, located in the Thabazimbi area of the Limpopo province and within the northern portion of the western limb of the Bushveld Complex. This includes both the Zondereinde and Middeldrift portions of the property;
- **Booysendal**, 100% owned by Northam's wholly owned subsidiary, Booysendal Platinum Proprietary Limited (previously Micawber 278 Proprietary Limited) and situated in the southern portion of the eastern limb of the Bushveld Complex;
- **Dwaalkop**, located in the northern portion of the eastern limb of the Bushveld Complex, in which Northam holds a 50% stake through its wholly owned subsidiary Mvelaphanda Resources. Dwaalkop is managed by Lonmin plc (Lonmin); and
- **Pandora**, located in the Brits area of North West province and within the southern portion of the western limb of the Bushveld Complex, in which Northam holds a 7.5% stake. Pandora is managed by Lonmin.

## KEY POINTS AND SIGNIFICANT REVISIONS FROM LAST YEAR

- The reassignment of Merensky resource to, together with the estimation of Merensky reserve in, the Booysendal UG2 North mine (BY UG2 mine), which has consequently been renamed Booysendal North mine. This follows the completion of a feasibility study for mining of Merensky reef in the Booysendal North area.
- The reassignment of resources between Booysendal North and Booysendal South. This follows an amendment to the internal Booysendal resource boundaries to align to future mining plans. This reassignment does not result in a change to the combined Booysendal resource content outside of the Booysendal North Mine area.
- The estimation of Merensky and UG2 reserves to 18 level on Zondereinde mine. This follows an amendment to reporting procedures at Zondereinde mine, which previously permitted only the inclusion of reserves from accessed mining levels (to 16 level), and now includes reserves from areas for which there is committed capital for infrastructure to support a mining plan.
- The inclusion of an indicative content for the Everest mining right. This is informed by the resource and reserve estimated by AQPSA and follows the acquisition by Northam of the Everest mine assets from AQPSA. An estimate of the Everest resource and reserve will be included upon completion of transfer of the Everest mining right to Northam.

## REGULATORY COMPLIANCE

The mineral resource and mineral reserve statements for Northam have been prepared under the guidance of the company's lead competent persons who are duly registered with The Engineering Council of South Africa (ECSA; Private Bag X691, Bruma, 2026, South Africa; www.ecsa.co.za) and/or with the South African Council for Natural Scientific Professions (SACNASP; Private Bag X540, Silverton, 0127, South Africa; www.sacnasp.org.za). This ensures that the mineral resource and mineral reserve statements comply with the provisions of the South African Code for Reporting of Mineral Resources and Mineral Reserves of 2007, revised in 2009 (SAMREC 2009). The company's competent persons have taken cognisance of definitions included in the code. The mineral resource and mineral reserve quantities reported here are considered to be fully compliant in all material respects with the requirements of the code, and the lead competent persons have given written confirmation of such.

Definitions of the various mineral resource and mineral reserve categories as well as the requirements for reporting of exploration results may be found at www.samcode.co.za/downloads/SAMREC2009.pdf.

## STATUS OF MINERAL RIGHTS

Resources reflected in this statement include those of the Zondereinde and Booysendal concessions which are wholly owned by Northam or its wholly owned subsidiaries. In addition, Northam holds a 7.5% stake in the Pandora joint venture and a 50% stake in the Dwaalkop joint venture, both of which are managed by Lonmin, through its subsidiaries, Eastern Platinum Limited and Western Platinum Limited respectively.

Northam holds new order mining rights over both the Zondereinde and Booysendal mines.

The Pandora mine operates under a new order mining right which was converted from an old order right in 2013.

The Dwaalkop joint venture holds a new order prospecting right over the Dwaalkop prospect. This right is subject to a renewal application. An application for a new order mining right was submitted in 2009 and is being processed.

Northam further holds eight new order prospecting rights over the Kokerboom prospect, granted in 2009. Kokerboom is an iron oxide copper gold and massive sulphide copper zinc exploration prospect covering some 1 000 000 hectares of the Northern Cape province of the Republic of South Africa. A prospecting work programme is currently in progress and no resource or reserve has yet been estimated.

# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

Northam entered into an agreement with AQPSA on 9 February 2015 to transfer the new order mining right (127MR) in respect of Everest mine. In this regard, an application for consent by the Minister of Mineral Resources for AQPSA to this transfer terms of section 11 of the MPRDA is in process.

## CONTINUING OPERATIONS

The company confirms that it is not aware of any legal or arbitration proceedings, either pending or threatened, which may have or have had a material effect on the financial position of the company and its subsidiaries.

Further to this, the risk management section on pages 34 of this report analyses potential risks which may impact the company's ability to continue its activities.

## ENVIRONMENTAL LIABILITIES

The company's environmental obligations are managed in terms of approved environmental management plans. Compliance with the plans is audited by independent external parties on a regular basis. Details of the environmental liabilities are contained in note 20 to the 2015 annual financial statements and details of the funding of the environmental liabilities are contained in notes 10 and 11 to the 2015 annual financial statements.

## GROUP RESOURCES AND RESERVES

The following tables summarise the mineral resources and reserves attributable to Northam for both the current and previous year. Notes on the reporting criteria are pertinent, together with specific notes to this section.

Breakdowns of the mineral resources and reserves into their respective confidence categories may be found in the sections specific to the concessions.

Installing in-stope roofbolt support at Zondereinde.

## SUMMARY OF MINERAL RIGHTS HELD AND MANAGED BY NORTHAM

| Property | Type of right | Status |
|---|---|---|
| Zondereinde mine | New order mining right | Converted mining right |
| Booysendal mine | New order mining right | Converted mining right |
| Pandora mine | New order mining right | Converted mining right |
| Dwaalkop prospect | New order prospecting right | Application for a new order mining right in process |
| Kokerboom prospect | New order prospecting rights | Eight new order prospecting rights granted |

Prospecting and mining rights are held in good order, and Northam perceives no risk to its rights to continue prospecting for and mining of minerals over any of its properties.

## NORTHAM GROUP RESOURCE ESTIMATE (COMBINED MEASURED, INDICATED AND INFERRED)

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | **Mine** | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **Merensky** | Booysendal North | 87.82 | 5.06 | 14.29 | 164.90 | 5.32 | 28.22 |
| | Booysendal South | 199.52 | 3.50 | 22.48 | 90.57 | 3.54 | 10.32 |
| | Booysendal North mine | 17.05 | 3.23 | 1.77 | 0.00 | 0.00 | 0.00 |
| | Dwaalkop[1] | 38.05 | 2.98 | 3.64 | 38.05 | 2.98 | 3.64 |
| | Pandora[1] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Zondereinde | 167.26 | 7.35 | 39.52 | 168.12 | 7.36 | 39.77 |
| | **Total** | **509.70** | **4.99** | **81.70** | **461.64** | **5.52** | **81.95** |
| **UG2** | Booysendal North | 152.65 | 4.86 | 23.87 | 328.77 | 3.61 | 38.19 |
| | Booysendal South | 320.41 | 3.27 | 33.65 | 208.10 | 3.10 | 20.74 |
| | Booysendal North mine | 43.12 | 4.52 | 6.27 | 44.13 | 4.52 | 6.41 |
| | Dwaalkop[1] | 37.56 | 4.35 | 5.25 | 37.56 | 4.35 | 5.25 |
| | Pandora[1] | 14.14 | 4.65 | 2.11 | 14.18 | 4.65 | 2.12 |
| | Zondereinde | 254.32 | 5.08 | 41.55 | 247.16 | 5.08 | 40.37 |
| | **Total** | **822.20** | **4.26** | **112.70** | **879.90** | **4.00** | **113.08** |
| **Combined** | Booysendal North | 240.47 | 4.94 | 38.16 | 493.67 | 4.18 | 66.41 |
| | Booysendal South | 519.93 | 3.36 | 56.13 | 298.67 | 3.23 | 31.06 |
| | Booysendal North mine | 60.16 | 4.16 | 8.04 | 44.13 | 4.52 | 6.41 |
| | Dwaalkop[1] | 75.61 | 3.66 | 8.90 | 75.61 | 3.66 | 8.90 |
| | Pandora[1] | 14.14 | 4.65 | 2.11 | 14.18 | 4.65 | 2.12 |
| | Zondereinde | 421.58 | 5.98 | 81.07 | 415.29 | 6.00 | 80.14 |
| | **Total** | **1331.89** | **4.54** | **194.41** | **1341.55** | **4.52** | **195.04** |

[1] *Current resources of Pandora and Dwaalkop are quoted as at 30 September 2014 while those of the previous year are at 30 September 2013.*

# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

## NORTHAM GROUP RESERVE ESTIMATE (COMBINED PROVEN AND PROBABLE)

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | **Mine** | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **Merensky** | Booysendal North | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Booysendal South | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Booysendal North mine | 14.57 | 2.92 | 1.37 | 0.00 | 0.00 | 0.00 |
| | Dwaalkop[1] | 13.66 | 2.61 | 1.15 | 13.66 | 2.61 | 1.15 |
| | Pandora[1] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Zondereinde | 25.45 | 5.35 | 4.38 | 15.96 | 5.40 | 2.77 |
| | **Total** | **53.68** | **3.99** | **6.90** | **29.62** | **4.12** | **3.92** |
| **UG2** | Booysendal North | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Booysendal South | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Booysendal North mine | 43.14 | 3.00 | 4.16 | 44.82 | 3.00 | 4.32 |
| | Dwaalkop[1] | 16.10 | 3.30 | 1.71 | 16.10 | 3.30 | 1.71 |
| | Pandora[1] | 1.29 | 4.11 | 0.17 | 1.31 | 4.11 | 0.17 |
| | Zondereinde | 47.67 | 4.06 | 6.22 | 37.25 | 4.19 | 5.02 |
| | **Total** | **108.20** | **3.52** | **12.26** | **99.48** | **3.51** | **11.22** |
| **Combined** | Booysendal North | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Booysendal South | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Booysendal North mine | 57.71 | 2.98 | 5.53 | 44.82 | 3.00 | 4.32 |
| | Dwaalkop[1] | 29.76 | 2.98 | 2.85 | 29.76 | 2.98 | 2.85 |
| | Pandora[1] | 1.29 | 4.11 | 0.17 | 1.31 | 4.11 | 0.17 |
| | Zondereinde | 73.13 | 4.51 | 10.60 | 53.20 | 4.55 | 7.79 |
| | **Total** | **161.89** | **3.68** | **19.15** | **129.09** | **3.65** | **15.13** |

[1] *Current resources and reserves of Pandora and Dwaalkop are quoted as at 30 September 2014 while those of the previous year are at 30 September 2013.*

### COMPETENT PERSONS

The resource and reserve statement for the Zondereinde and Middeldrift portions of Zondereinde mine were compiled by Charl van Jaarsveld, BSc (Hons) Geology, PrSciNat. (400268/05); chief geologist at Zondereinde mine, with 12 years' experience relevant to Bushveld-related resource and reserve estimation.

The Booysendal resource statement was compiled by Meshack Mqadi, BSc (Hons) Geology, MGSSA (966985); chief geologist at Booysendal North mine, with seven years' experience relevant to precious metal-related resource estimation.

The Booysendal reserve statement was compiled by Willie Theron, BSc (Hons) Mining, PrCertEng, ECSA (200790030); general manager at Booysendal UG2 North mine with 18 years' experience of Bushveld-related underground mining and reserve estimation.

Resource and reserve estimates for both Zondereinde and Booysendal were reviewed by Damian Smith, BSc (Hons) Geology, MSc, PrSciNat. (400323/04); principal member of Prospect Geoservices with 25 years' experience in mining and exploration geology, 19 years of which are relevant to Bushveld-related resource and reserve estimation.

The resource and reserve estimates for the Pandora joint venture were prepared by a team from both Anglo Platinum and Lonmin. Resources were signed off by J Witley (Lonmin) and P Stevenson (Anglo American Platinum), while reserves were signed off by AA Brown (Lonmin).

The resource and reserve estimates for the Dwaalkop joint venture were prepared by a team from Snowden Mining Industry Consultants (Resources) and from AMC Consulting (Pty) Limited (Reserves). Resources were signed off by D Hoffmann (Lonmin), while reserves were signed off by AA Brown (Lonmin).

Contact details for Northam's lead competent persons authorising publication of the resource estimates are contained within the notes on reporting criteria within this report.

## GEOLOGICAL SETTING – THE BUSHVELD COMPLEX

The two-billion-year-old Bushveld Complex is the largest layered igneous complex in the world, and is the repository for around 85% of known global PGM resources. Extending over an area of some 67 000km² within the north-eastern portion of the Republic of South Africa, it contains the intrusive, mafic-ultramafic Rustenburg Layered Suite (RLS), which outcrops as three main acicular limbs, namely the western, eastern and northern limbs (see figure below), and ranges in thickness from 7km to 12km.

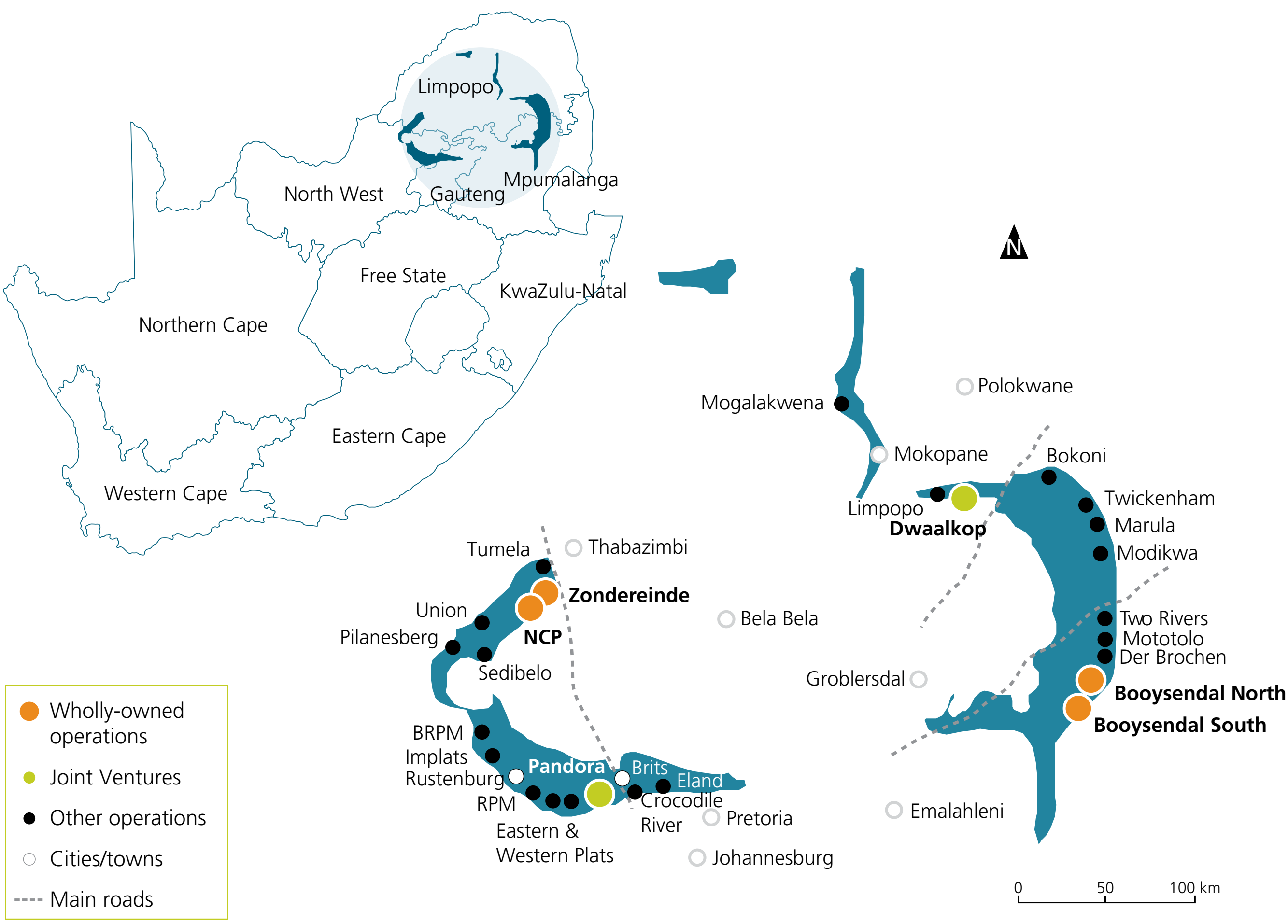
The magmatic layering in the RLS is laterally persistent and can be correlated throughout most of the complex. Layering is generally shallow dipping towards the centre of the complex. The RLS stratigraphy is sub-divided into five zones, which are, from lowest to highest, the marginal zone, the lower zone, the critical zone (which is further subdivided into a lower and upper unit), the main zone and the upper zone.

PGM and associated precious and base metal mineralisation is hosted in or adjacent to chromitite seams located within the upper critical zone of the RLS. There are two significant orebodies from which 75% of global primary PGM production is derived, these being the UG2 and Merensky reefs. The vertical separation between the UG2 and Merensky reefs is variable across the Bushveld Complex, ranging from 20m to 140m on the western limb and between 170m and 400m on the eastern limb.

Historically, PGM production was concentrated on the western limb but, in recent years, the eastern limb has been the focus of new mine development.

The two wholly-owned Northam properties, the Zondereinde and Booysendal mines, contain resources of both the UG2 and Merensky reefs.

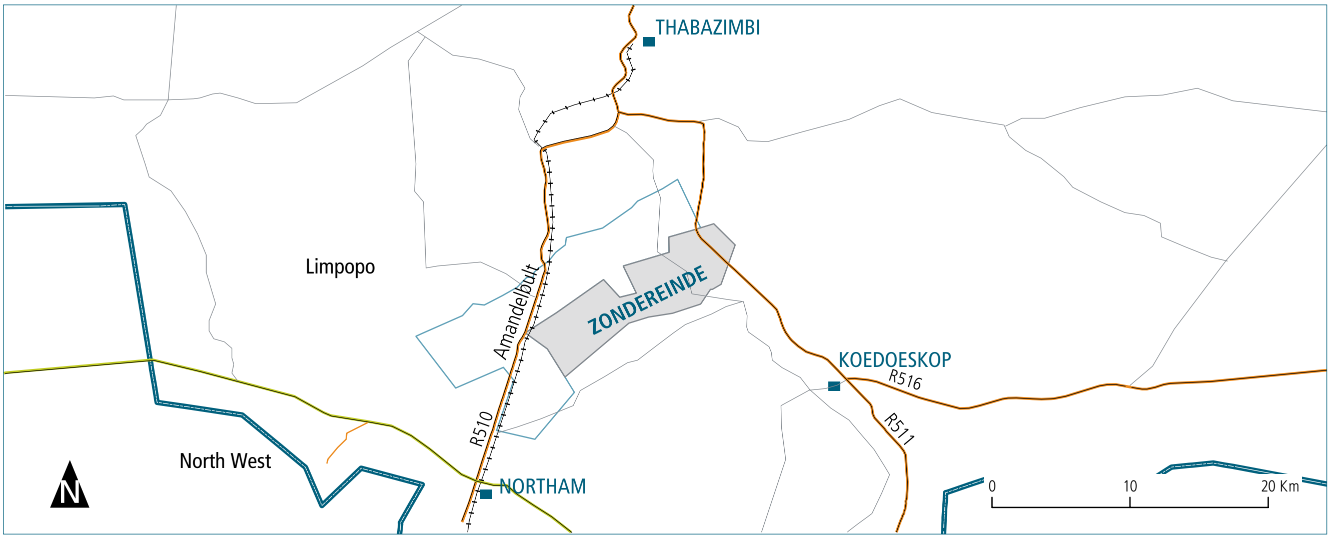
**Bushveld location indicating current PGM mining operations**



# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

## ZONDEREINDE MINE

### Zondereinde location and access routes




Zondereinde mine is situated in the northern portion of the western limb of the Bushveld Complex, approximately 30km south of the town of Thabazimbi in the Limpopo province of the Republic of South Africa. The mining concession covers some 7 625ha underlain by both the Merensky and UG2 orebodies, which dip at approximately 20˚ and extend from a depth of 1 100m to 2 900m below surface.

The company exploits both the Merensky and UG2 reefs of the upper critical zone of the Bushveld Complex. While there is lateral continuity of both reefs across the mine property, the Merensky reef displays a variety of reef types. The distribution of these is determined by a combination of surface exploration boreholes, ongoing prospect drilling from underground development and reef mapping in development and stoping. In contrast to the Merensky reef, the UG2 displays little variation in reef attributes.

The Bushveld sequence at Zondereinde is typical of the northern portion of the western limb. The critical zone stratigraphy is telescoped and dominated by mafic lithologies. Vertical separation between the UG2 and Merensky reefs is in the range of 20m to 40m.

Combined geological and extraction losses were discounted from the resources for both reefs. These comprised pothole and structural losses as well as other pillar losses. Discount losses vary per reef type and resource category, but average at 33% for Merensky reef. Discount losses for UG2 average 42% and are largely contained in regional support pillars designed to counter stress concentration resulting from mining in proximity to previously mined Merensky reef.

### History and mining activities

Development of Zondereinde mine started in 1986, following a five year exploration programme. Mining of ore, commissioning of a PGM concentrator, smelter and base metal removal plant and the sale of first PGMs came in 1993. The mine originally exploited only the Merensky reef resource but the commissioning of a UG2 concentrator in 2000, together with the necessary underground ore handling systems, allowed mining and processing of UG2 from this time onwards. The mine produces approximately 2 000 000 tonnes of ore per annum, generating in the order of 280 000oz of 4E PGE in final concentrate together with associated precious and base metal by-products.

Underground mining focuses on the exploitation of PGM ores by means of traditional narrow tabular reef drill and blast mining methods. A standard breast mining layout is used at Northam. The vertical interval (distance) between levels is 63m. With the orebody dipping at 20°, this provides a raise length of 180m allowing for six panels of 30m each per raise connection. Strike gullies are aligned at 10° above the strike direction. A dip gully handles the ore transported via the strike gullies to three orepasses situated in the original raise, all of which are fitted with radial-door control chutes. Ore is transported to the main shaft ore passes by battery powered locomotives (locos) pulling spans of eight hoppers. Broken ore is transported to a conventional shaft ore-pass system with separate rock handling facilities for Merensky reef, UG2 reef and waste.

Mining is successfully conducted using hydropowered equipment such as rock drills and high-pressure water jets in conjunction with electric scraper winches.

The underground workings are accessed from a twin shaft system. No 1 shaft extends to 13 level (2 039m below surface) and No 2 shaft serves workings down to 8 level (1 724m below surface). The shafts are 90m apart and are interconnected at an intermediate pump chamber (IPC) at 1 019m below surface, and also on levels 2, 4, 6, 7, 8 and 9. Workings below 13 level are serviced by decline access ways, designed to accommodate both people and materials, and equipped with a conveyor belt system that transports the broken rock.

## Merensky reef

The Merensky reef is a zone of mineralisation which straddles the base of the Merensky cyclic unit. In the area of Zondereinde mine, the Merensky reef consists of two sub-facies of the Zwartklip facies of the RLS, namely the normal and regional pothole sub-facies. The latter may be further subdivided into three reef types, each of which occurs at a specific stratigraphic level below that of the normal reef sub-facies. These being NP2 and P2, which constitute the main sources of ore, and FWP2 which, while not considered a primary mining target due to the undulating nature of this reef type, is successfully exploited in the south-western quadrant of the current mining area where it displays lesser disruption.

The stoping cut on the Merensky reef is dependent upon the reef type mined and the geozone in which it is located. In all stoping cuts, the Merensky chromitite is exposed with a minimum of 10cm of the overlying mineralised Merensky pyroxenite as hanging wall.

The measured resource is an estimate of the *in situ* tonnage, grade and 4E PGE ounces that have been exposed through development and are immediately available for mining. The Merensky measured resource has increased from 2.91Mt (746 000oz) in June 2014 to 3.23Mt (798 000oz) in June 2015. This is the result of an increase to the exposed Merensky resource, combined with the application of a lower resource grade owing to a higher proportion of moderate grade Normal reef in the deeper portions of the resource block.

The Merensky indicated resource has declined as a result of conversion to the measured category. The Merensky inferred resource is essentially unchanged.

## UG2 reef

The UG2 reef at Zondereinde mine is remarkably conformable when compared with the Merensky reef. Disruption, in the form of potholes and reef rolls, is extremely limited and localised. The reef consists of three chromitite seams separated by narrow pyroxenite partings. The lower seam, termed the main member, is generally in the order of 85cm thick, and is overlain by two leader seams, each in the order of 15cm thick. Total reef thickness, inclusive of a portion of mineralised reef footwall, is in the order of 150cm to 160cm. There is no basis for subdividing the UG2 reef into facies types.

Historically, UG2 mining has been limited to de-stressed areas underlying previously mined Merensky reef. Furthermore, a full reef cut is mined, which enhances metal output, hanging wall stability and safe working practices.

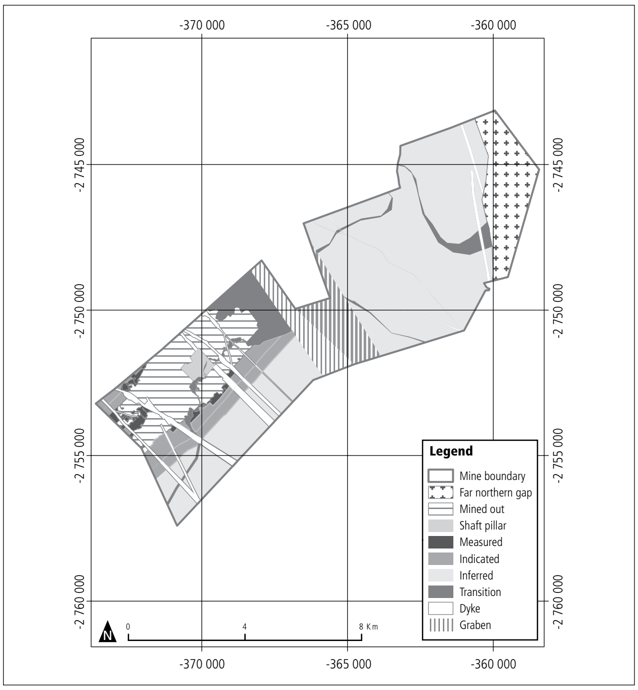
The measured resource is an estimate of the *in situ* tonnage, grade and 4E PGE ounces that have been exposed through development and are immediately available for mining. The UG2 measured resource has increased from 4.26Mt (689 000oz) in June 2014 to 5.48Mt (887 000oz) in June 2015. This is the result of an increase in exposed UG2 resource and improving extraction as UG2 mining migrates to areas where there is less influence of Merensky abutments. This is in line with mining depletion and planned development of the UG2 reef. The UG2 indicated resource has also increased as a result of development progress. The UG2 inferred resource is essentially unchanged.

It is part of our strategy to unlock constraints at the Zondereinde process plant, in order to increase the throughput of the UG2 concentrator.

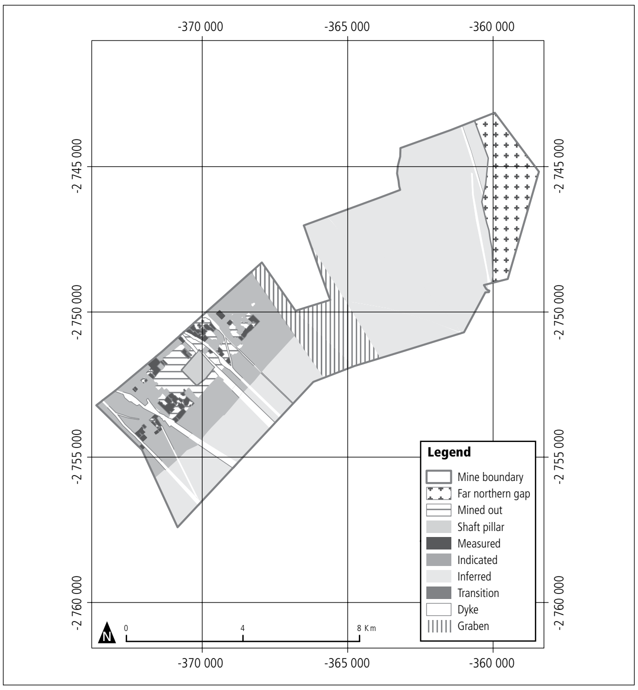
# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

## ZONDEREINDE RESOURCES AND RESERVES

### Zondereinde Merensky resource classification 2015




### Zondereinde UG2 resource classification 2015




ZONDEREINDE RESOURCE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **Merensky** | Measured | 3.23 | 7.68 | 0.80 | 2.91 | 7.98 | 0.75 |
| | Indicated | 17.48 | 7.00 | 3.94 | 18.70 | 7.03 | 4.22 |
| | Inferred | 146.55 | 7.38 | 34.79 | 146.52 | 7.39 | 34.80 |
| | **Total** | **167.26** | **7.35** | **39.53** | **168.13** | **7.36** | **39.77** |
| **UG2** | Measured | 5.48 | 5.04 | 0.89 | 4.26 | 5.03 | 0.69 |
| | Indicated | 38.50 | 5.04 | 6.23 | 35.70 | 5.03 | 5.77 |
| | Inferred | 210.34 | 5.09 | 34.43 | 207.20 | 5.09 | 33.91 |
| | **Total** | **254.32** | **5.08** | **41.55** | **247.16** | **5.08** | **40.37** |
| **Combined** | Measured | 8.71 | 6.02 | 1.68 | 7.17 | 6.23 | 1.43 |
| | Indicated | 55.98 | 5.65 | 10.17 | 54.40 | 5.71 | 9.99 |
| | Inferred | 356.89 | 6.03 | 69.22 | 353.72 | 6.04 | 68.72 |
| | **Total** | **421.58** | **5.98** | **81.07** | **415.29** | **6.00** | **80.14** |

## ZONDEREINDE RESERVE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **Merensky** | Proven | 3.97 | 5.66 | 0.72 | 3.56 | 5.77 | 0.66 |
| | Probable | 21.48 | 5.29 | 3.65 | 12.40 | 5.30 | 2.11 |
| | **Total** | **25.45** | **5.35** | **4.37** | **15.96** | **5.40** | **2.77** |
| **UG2** | Proven | 5.94 | 4.06 | 0.78 | 4.71 | 4.19 | 0.64 |
| | Probable | 41.73 | 4.06 | 5.45 | 32.53 | 4.19 | 4.38 |
| | **Total** | **47.67** | **4.06** | **6.23** | **37.24** | **4.19** | **5.02** |
| **Combined** | Proven | 9.91 | 4.70 | 1.50 | 8.27 | 4.87 | 1.30 |
| | Probable | 63.22 | 4.48 | 9.10 | 44.93 | 4.50 | 6.49 |
| | **Total** | **73.13** | **4.51** | **10.60** | **53.20** | **4.55** | **7.79** |

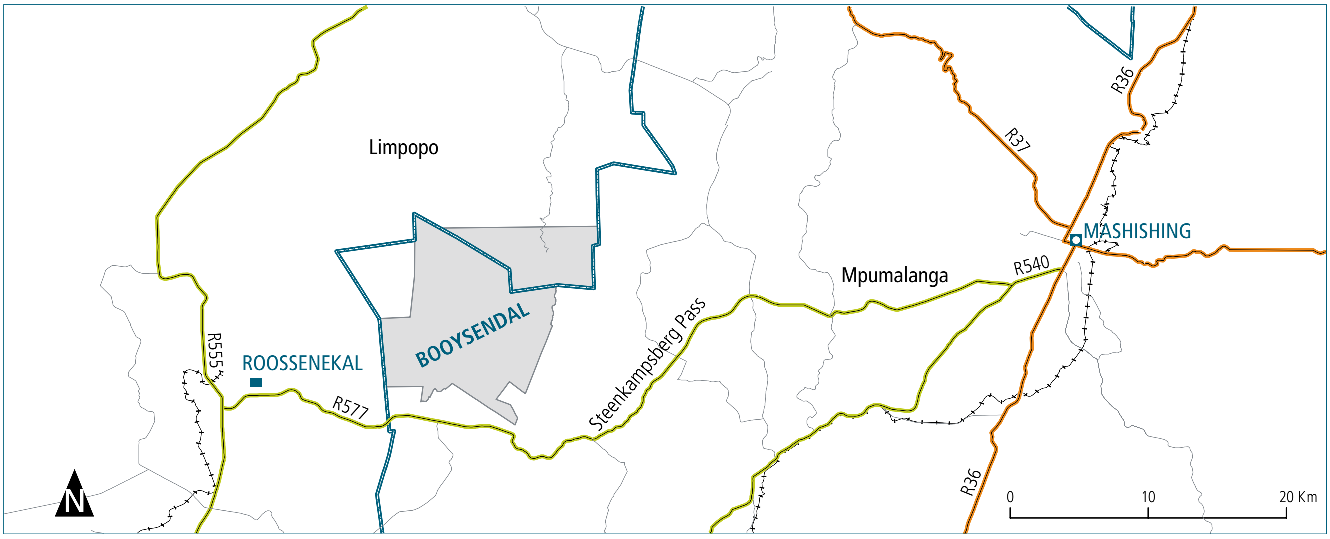
| **Prill splits %** | **Pt** | **Pd** | **Rh** | **Au** | **$Cr_2O_3$%** | **Cu%** | **Ni%** |
|---|---|---|---|---|---|---|---|
| UG2 | 57.7 | 30.9 | 10.3 | 1.0 | 27.6 | 0.021 | 0.123 |
| Merensky | 63.0 | 29.2 | 5.2 | 2.6 | 0.80 | 0.072 | 0.164 |

At end F2015, Northam held a combined resource base of 194.4 million ounces (Moz) – 19.2Moz in the reserve category – with a mining life of more than 50 years.

# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

## BOOYSENDAL MINE

### Booysendal location and access routes




The Booysendal concession is located in the southern compartment of the eastern limb of the Bushveld Complex, approximately 35km west of the town of Mashishing (formerly Lydenburg), straddling the border of Limpopo and Mpumalanga provinces in the Republic of South Africa.

The concession covers some 15 151 hectares and hosts both the UG2 and Merensky orebodies, which outcrop over a strike length of 14.5km and dip at approximately 10˚ to the west.

The resource estimate is informed by exploration data, including 297 boreholes, together with 1 206 UG2 channel samples from on-reef development and stoping within the UG2 section of the Booysendal North Mine. 90% of the exploration drilling has been conducted within 2.5km down-dip of outcrop. Drill hole spacing in this near outcrop area ranges from 150m to 350m. Channel samples are located at 15m intervals within on-reef development and stoping.

A study to determine the feasibility of mining UG2 reef within the northernmost 8km of the Booysendal strike, over a dip extent from outcrop of approximately 2km, was completed in September 2009. Development of a UG2 mine (UG2 section of the Booysendal North Mine) in the northernmost 4km of strike started in May 2010. This will reach steady state production in October 2015.

A study to determine the feasibility of mining Merensky reef over a similar footprint to the UG2 section of the Booysendal North Mine commenced in July 2014. The development of a bulk sample to augment this study is in progress. A viable mine plan has been designed.

The resource estimate for the Booysendal concession is subdivided into three sections, these being the southern section (Booysendal South); the combined UG2 and Merensky North mines (North mine); and the remainder of the northern section of the concession (Booysendal North). A mineral reserve estimate is presented for the North mine only.

The Bushveld sequence at Booysendal is similar to that found across the southern compartment of the eastern limb. The critical zone stratigraphy is fully developed, and middling between the UG2 and Merensky reefs is in the order of 175m in the northern portion of Booysendal. The sequence is, however, subject to thinning in the southern portion, which is linked to the Bushveld rocks abutting basement highs. The impact of this 'abutment' is further manifested in localised zones of disruption to surface morphology and internal structure of the two reefs. This has led to the characterisation of three geozones within the Booysendal concession, these being the normal, slump and abutment geozones. Despite this progressive disruption to the south, the continuity of the reef surfaces is robust across the property.

The internal structure of the UG2 reef is similar to that found on the Bushveld western limb, while the Merensky reef is typical of the northern portion of the Bushveld eastern limb.

The UG2 reef consists of an upper leader chromitite and a lower main chromitite with a combined thickness of some 140cm. These seams are generally juxtaposed or merged, but can display variable internal silicate partings.

The Merensky reef is the upper mineralised portion of the Merensky pyroxenite, generally extending over 110cm.

The Merensky reef is immediately overlain by a sequence of competent norites.

Resources were estimated over the reef channels. For the UG2 reef, the reef channel extends from the top of the leader chromitite to the base of the main chromitite seam. For the Merensky reef outside of the North Mine area, the reef channel extends from the top of the Merensky pyroxenite to a sample 4E PGE grade cut off of 1g/t, with a minimum mining channel width of 80cm applied. The resource channel applied to the Merensky reef of the Booysendal North Mine is 210cm thick, extending from 50cm above the top of the Merensky Pyroxenite – this is the envisaged mining channel.

Geological losses were discounted from the resources for both reefs. These, for the Booysendal North and South sections, comprised known pothole and structural losses, together with assumed pothole losses benchmarked to mean eastern limb losses. They amounted to 23% for the Merensky reef and 24% and 30% for the UG2 in the North and South sections respectively. In the UG2 section of Booysendal North Mine, ongoing mining and exploration drilling has improved confidence in known geological losses, leading to the application of 12.5% total geological loss for the UG2 reef. Furthermore, a channel cut-off 4E PGE grade of 2.5g/t was applied to estimated blocks in all three sections. In addition, a 30m thick surface oxidised zone was discounted along the lines of outcrop of both reefs.

Resource categorisation was based upon a combination of quantitative geostatistical parameters, together with a qualitative appreciation of orebody continuity informed by the resource database together with data from surrounding properties.

## MINE DESIGN AND MINING ACTIVITIES

The UG2 section of Booysendal North mine is an underground, mechanised bord and pillar mine, accessed from surface via a ramp decline system, comprising three declines on the plane of reef and one decline situated 20m into the footwall of the reef, containing a belt for ore handling.

Mining sections extend over a dip length of 144m, equating to a vertical interval of 25m. Strike drives are inclined at 5° above the line of strike, strike belts within the drives transport ore to the central decline system, tipping through an ore pass system to the footwall belt for transport to a UG2 concentrator plant on surface. Mechanised boom rigs and LHDs are employed in mining and development.

The mine is planned, with a remaining life of more then 20 years, to produce 2 250 000 tonnes of ore per annum at steady state, generating in the order of 160 000oz (4E PGE) of metals in concentrate, together with associated precious and base metal by-products. It is in build-up phase and is expected to reach steady state in H1 of F2016.

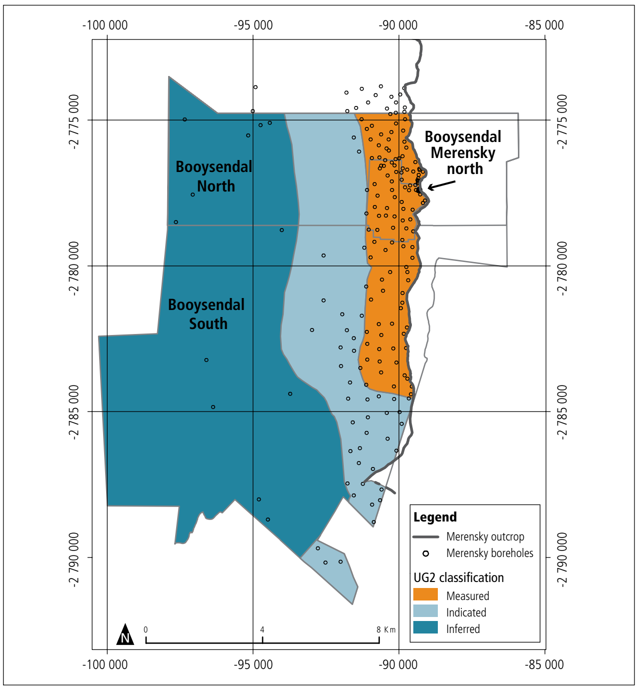
The Merensky section Booysendal North mine is essentially planned as an analog of the UG2 section, with the exception of the footwall belt decline. All development will be on-reef. Dependent upon prevailing market conditions, the mine is planned to produce at between 360 000 and 900 000 of ore per annum at steady state, generating in the order of between 30 000 and 75 000oz (4E PGE) of metals in concentrate, together with associated precious and base metal by-products.

The Booysendal mining right covers 15 151 hectares and hosts both the UG2 and Merensky orebodies.

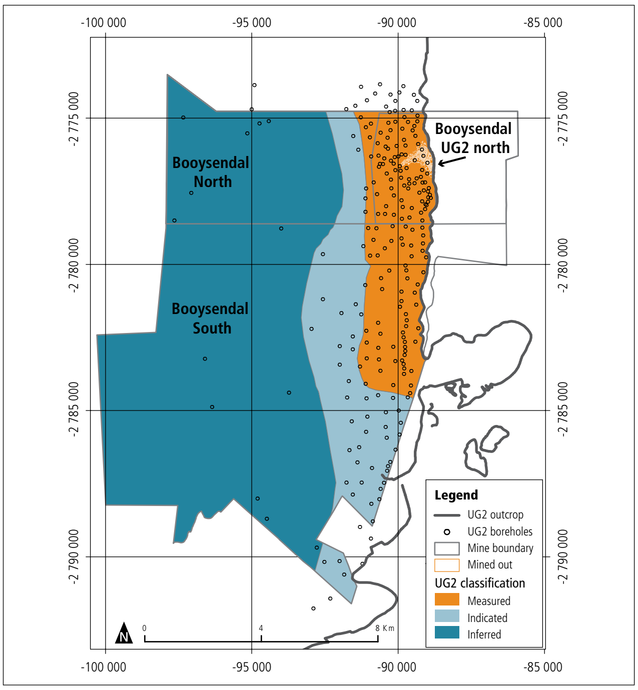
# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

## BOOYSENDAL RESOURCES AND RESERVES

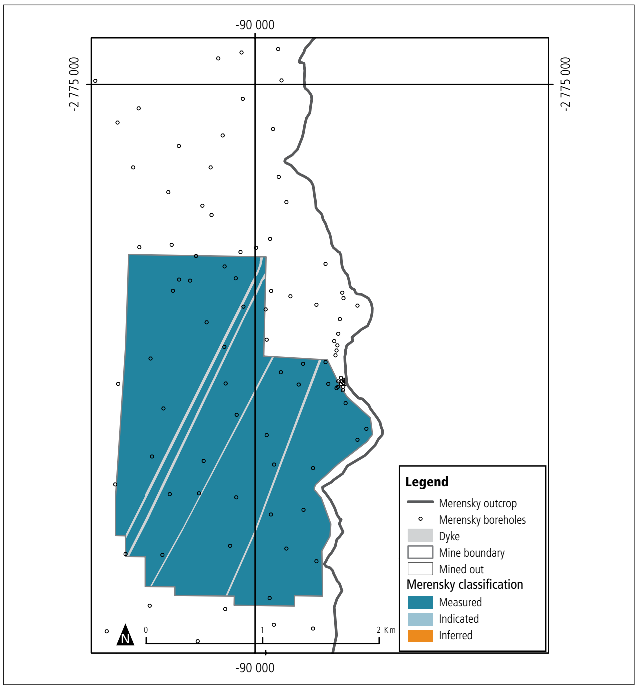
### Booysendal resource classification 2015



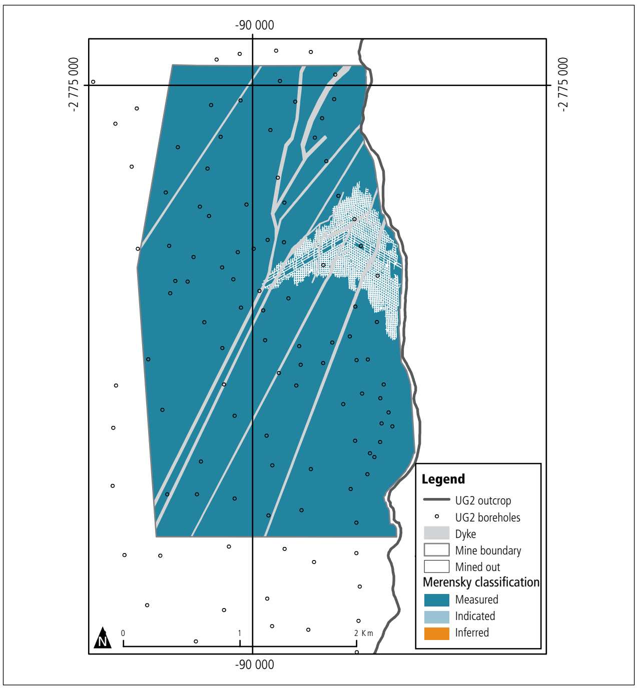

### Booysendal UG2 resource classification 2015




### Booysendal North Mine Merensky resource classification 2015




### Booysendal North Mine UG2 resource classification 2015



## NORTH MINE

### UG2 reef

The UG2 measured resource for the Booysendal North mine has decreased from 44.13Mt (6.41Moz) in June 2014 to 43.12Mt (6.27Moz) in June 2015, as a result of mining depletion.

Similarly, mining depletion has reduced the UG2 proven reserve from 44.82Mt (4.32Moz) in June 2014 to 43.14Mt (4.16Moz) in June 2015.

### Merensky reef

The Merensky measured resource for the Booysendal North mine is reported for the first time, as 17.05Mt (1.77Moz) in June 2015.

Similarly, the Merensky proven reserve is 14.57Mt (1.37Moz) in June 2015.

BOOYSENDAL NORTH MINE RESOURCE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| Reef | | Mt | g/t | Moz | Mt | g/t | Moz |
| **Merensky** | Measured | 17.05 | 3.23 | 1.77 | 0.00 | 0.00 | 0.00 |
| | Indicated | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Inferred | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **17.05** | **3.23** | **1.77** | **0.00** | **0.00** | **0.00** |
| **UG2** | Measured | 43.12 | 4.52 | 6.27 | 44.13 | 4.52 | 6.41 |
| | Indicated | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Inferred | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **43.12** | **4.52** | **6.27** | **44.13** | **4.52** | **6.41** |
| **Combined** | Measured | 60.16 | 4.16 | 8.04 | 44.13 | 4.52 | 6.41 |
| | Indicated | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Inferred | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **60.16** | **4.16** | **8.04** | **44.13** | **4.52** | **6.41** |

BOOYSENDAL NORTH MINE RESERVE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| Reef | | Mt | g/t | Moz | Mt | g/t | Moz |
| **Merensky** | Proven | 14.57 | 2.92 | 1.37 | 0.00 | 0.00 | 0.00 |
| | Probable | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **14.57** | **2.92** | **1.37** | **0.00** | **0.00** | **0.00** |
| **UG2** | Proven | 43.14 | 3.00 | 4.16 | 44.82 | 3.00 | 4.32 |
| | Probable | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **43.14** | **3.00** | **4.16** | **44.82** | **3.00** | **4.32** |
| **Combined** | Proven | 57.71 | 2.98 | 5.53 | 44.82 | 3.00 | 4.32 |
| | Probable | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **57.71** | **2.98** | **5.53** | **44.82** | **3.00** | **4.32** |

| Prill splits % | Pt | Pd | Rh | Au | $Cr_2O_3$% | Cu% | Ni% |
|---|---|---|---|---|---|---|---|
| UG2 | 57.2 | 32.6 | 9.4 | 0.8 | 25.1 | 0.008 | 0.087 |
| Merensky | 57.9 | 31.0 | 2.5 | 8.7 | 0.19 | 0.097 | 0.208 |

# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

## BOOYSENDAL NORTH AND SOUTH

All categories of the Merensky and UG2 resources for combined Booysendal North and South are unchanged from the previous reporting period. However, the internal resource boundary between the two sections has been amended to align with future conceptual mine divisions. This has resulted in an increase in the South section, extending up to the southern boundary of the North mine, and a reduction in the North section, to cover only the portion of Booysendal west of North mine.

### BOOYSENDAL NORTH RESOURCE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| Reef | | Mt | g/t | Moz | Mt | g/t | Moz |
| **Merensky** | Measured | 9.90 | 5.36 | 1.71 | 33.30 | 5.37 | 5.75 |
| | Indicated | 25.32 | 5.12 | 4.17 | 46.34 | 5.43 | 8.08 |
| | Inferred | 52.60 | 4.97 | 8.41 | 85.26 | 5.25 | 14.39 |
| | **Total** | **87.82** | **5.06** | **14.29** | **164.90** | **5.32** | **28.22** |
| **UG2** | Measured | 7.05 | 4.95 | 1.12 | 51.73 | 3.88 | 6.45 |
| | Indicated | 12.95 | 5.15 | 2.15 | 46.23 | 4.66 | 6.92 |
| | Inferred | 132.65 | 4.83 | 20.61 | 230.81 | 3.34 | 24.82 |
| | **Total** | **152.65** | **4.86** | **23.88** | **328.77** | **3.61** | **38.19** |
| **Combined** | Measured | 16.95 | 5.19 | 2.83 | 85.03 | 4.46 | 12.20 |
| | Indicated | 38.27 | 5.13 | 6.32 | 92.57 | 5.04 | 15.00 |
| | Inferred | 185.25 | 4.87 | 29.02 | 316.07 | 3.86 | 39.21 |
| | **Total** | **240.47** | **4.94** | **38.17** | **493.67** | **4.18** | **66.41** |

| Prill splits % | Pt | Pd | Rh | Au | $Cr_2O_3$% | Cu% | Ni% |
|---|---|---|---|---|---|---|---|
| UG2 | 56.8 | 33.8 | 8.6 | 0.7 | 25.8 | 0.006 | 0.085 |
| Merensky | 59.7 | 30.5 | 2.2 | 7.6 | 0.17 | 0.134 | 0.292 |

### BOOYSENDAL SOUTH RESOURCE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| Reef | | Mt | g/t | Moz | Mt | g/t | Moz |
| **Merensky** | Measured | 27.90 | 2.87 | 2.57 | 3.80 | 2.46 | 0.30 |
| | Indicated | 51.94 | 3.31 | 5.53 | 15.97 | 3.15 | 1.62 |
| | Inferred | 119.68 | 3.74 | 14.38 | 70.80 | 3.69 | 8.40 |
| | **Total** | **199.52** | **3.50** | **22.48** | **90.57** | **3.54** | **10.32** |
| **UG2** | Measured | 68.63 | 3.54 | 7.82 | 14.60 | 3.41 | 1.60 |
| | Indicated | 100.07 | 3.50 | 11.25 | 52.90 | 3.43 | 5.84 |
| | Inferred | 151.71 | 2.99 | 14.59 | 140.60 | 2.94 | 13.30 |
| | **Total** | **320.41** | **3.27** | **33.66** | **208.10** | **3.10** | **20.74** |
| **Combined** | Measured | 96.53 | 3.35 | 10.39 | 18.40 | 3.21 | 1.90 |
| | Indicated | 152.01 | 3.43 | 16.78 | 68.87 | 3.37 | 7.46 |
| | Inferred | 271.39 | 3.32 | 28.96 | 211.40 | 3.19 | 21.70 |
| | **Total** | **519.93** | **3.36** | **56.13** | **298.67** | **3.23** | **31.06** |

| Prill splits % | Pt | Pd | Rh | Au | $Cr_2O_3$% | Cu% | Ni% |
|---|---|---|---|---|---|---|---|
| UG2 | 60.6 | 28.6 | 9.5 | 1.2 | 26.0 | 0.010 | 0.071 |
| Merensky | 57.8 | 32.2 | 2.5 | 7.5 | 0.56 | 0.120 | 0.268 |

## PANDORA RESOURCES AND RESERVES

### PANDORA RESOURCE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **Merensky** | Measured | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Indicated | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Inferred | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |
| **UG2** | Measured | 1.89 | 4.80 | 0.29 | 1.94 | 4.80 | 0.30 |
| | Indicated | 10.55 | 4.61 | 1.56 | 10.55 | 4.61 | 1.56 |
| | Inferred | 1.70 | 4.73 | 0.26 | 1.70 | 4.74 | 0.26 |
| | **Total** | **14.14** | **4.65** | **2.11** | **14.19** | **4.65** | **2.12** |
| **Combined** | Measured | 1.89 | 4.80 | 0.29 | 1.94 | 4.80 | 0.30 |
| | Indicated | 10.55 | 4.61 | 1.56 | 10.55 | 4.61 | 1.56 |
| | Inferred | 1.70 | 4.73 | 0.26 | 1.70 | 4.74 | 0.26 |
| | **Total** | **14.14** | **4.65** | **2.11** | **14.19** | **4.65** | **2.12** |

### PANDORA RESERVE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **Merensky** | Proven | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Probable | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |
| **UG2** | Proven | 0.11 | 3.78 | 0.01 | 0.11 | 3.81 | 0.01 |
| | Probable | 1.18 | 4.14 | 0.16 | 1.21 | 4.14 | 0.16 |
| | **Total** | **1.29** | **4.11** | **0.17** | **1.32** | **4.11** | **0.17** |
| **Combined** | Proven | 0.11 | 3.78 | 0.01 | 0.11 | 3.81 | 0.01 |
| | Probable | 1.18 | 4.14 | 0.16 | 1.21 | 4.14 | 0.16 |
| | **Total** | **1.29** | **4.11** | **0.17** | **1.32** | **4.11** | **0.17** |

| Prill splits % | Pt | Pd | Rh | Au | $Cr_2O_3$% | Cu% | Ni% |
|---|---|---|---|---|---|---|---|
| UG2 | 60.6 | 28.0 | 11.1 | 0.3 | no data | 0.004 | 0.024 |
| Merensky | – | – | – | – | – | – | – |

# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

## DWAALKOP RESOURCES AND RESERVES

All categories of the Merensky and UG2 resources and reserves for Dwaalkop are unchanged from the previous reporting period.

### DWAALKOP RESOURCE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **Merensky** | Measured | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Indicated | 21.83 | 2.89 | 2.03 | 21.83 | 2.89 | 2.03 |
| | Inferred | 16.22 | 3.10 | 1.62 | 16.22 | 3.10 | 1.62 |
| | **Total** | **38.05** | **2.98** | **3.65** | **38.05** | **2.98** | **3.65** |
| **UG2** | Measured | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Indicated | 20.85 | 4.35 | 2.92 | 20.85 | 4.35 | 2.92 |
| | Inferred | 16.71 | 4.35 | 2.34 | 16.71 | 4.35 | 2.34 |
| | **Total** | **37.56** | **4.35** | **5.26** | **37.56** | **4.35** | **5.26** |
| **Combined** | Measured | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Indicated | 42.68 | 3.60 | 4.94 | 42.68 | 3.60 | 4.94 |
| | Inferred | 32.93 | 3.73 | 3.95 | 32.93 | 3.73 | 3.95 |
| | **Total** | **75.61** | **3.66** | **8.89** | **75.61** | **3.66** | **8.89** |

### DWAALKOP RESERVE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **Merensky** | Proven | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Probable | 13.66 | 2.61 | 1.15 | 13.66 | 2.61 | 1.15 |
| | **Total** | **13.66** | **2.61** | **1.15** | **13.66** | **2.61** | **1.15** |
| **UG2** | Proven | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Probable | 16.10 | 3.30 | 1.71 | 16.10 | 3.30 | 1.71 |
| | **Total** | **16.10** | **3.30** | **1.71** | **16.10** | **3.30** | **1.71** |
| **Combined** | Proven | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Probable | 29.76 | 2.98 | 2.85 | 29.76 | 2.98 | 2.85 |
| | **Total** | **29.76** | **2.98** | **2.85** | **29.76** | **2.98** | **2.85** |

| **Prill splits %** | **Pt** | **Pd** | **Rh** | **Au** | **$Cr_2O_3$%** | **Cu%** | **Ni%** |
|---|---|---|---|---|---|---|---|
| UG2 | 47.1 | 42.8 | 7.9 | 2.2 | no data | 0.090 | 0.140 |
| Merensky | 56.8 | 31.9 | 4.2 | 7.2 | no data | 0.110 | 0.170 |

## INDICATIVE EVEREST RESOURCE AND RESERVE

Booysendal Platinum, a wholly-owned subsidiary of Northam, acquired the Everest mine surface assets from AQPSA on 26 June 2015. An application to transfer the Everest new order mining right was submitted in April 2015 and is in process. The Everest property is underlain by only the UG2 PGM orebody. Resources and reserves for Everest will be reported as a section of Booysendal mine upon conclusion of the mining right transfer.

An indicative content for the Everest mining right is tabulated below. This is informed by the Everest resource and reserve estimated by AQPSA in June 2014.

### INDICATIVE EVEREST RESOURCE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **UG2** | Measured | 24.20 | 3.37 | 2.62 | 24.20 | 3.37 | 2.62 |
| | Indicated | 3.70 | 3.06 | 0.36 | 3.70 | 3.06 | 0.36 |
| | Inferred | 1.13 | 3.53 | 0.13 | 1.13 | 3.53 | 0.13 |
| | **Total** | **29.03** | **3.33** | **3.11** | **29.03** | **3.33** | **3.11** |

### INDICATIVE EVEREST RESERVE ESTIMATE

| | | as at 30 June 2015 | | | as at 30 June 2014 | | |
|---|---|---|---|---|---|---|---|
| | | 4E PGE | | | 4E PGE | | |
| **Reef** | | **Mt** | **g/t** | **Moz** | **Mt** | **g/t** | **Moz** |
| **UG2** | Proven | 11.83 | 2.86 | 1.09 | 11.83 | 2.86 | 1.09 |
| | Probable | 0.37 | 2.98 | 0.04 | 0.37 | 2.98 | 0.04 |
| | **Total** | **12.20** | **2.87** | **1.13** | **12.20** | **2.87** | **1.13** |

Booysendal is a shallow, fully mechanised mining operation.

# MINERAL RESOURCE AND RESERVE STATEMENT CONTINUED

## NOTES ON REPORTING CRITERIA

- Mineral resource tonnages and grades for Zondereinde are reported as estimates discounted for geological and mining pillar losses. All other mineral resources are reported as estimates discounted for geological losses.
- Mineral resource tonnages and grades are *in situ* estimates inclusive of internal waste dilution but exclusive of external waste dilution, unless otherwise stated.
- PGM grade is expressed as corrected 4E (combined platinum, palladium, rhodium and gold) grade; this being synonymous with 3PGE+Au and 4E PGE.
- PGM metal prill splits (platinum, palladium, rhodium and gold) are expressed as percentages of the combined 4E value.
- Base metal contents (chromite, copper and nickel) are expressed as weight percentages.
- Structural losses, due to faults, dykes and joints, include the volumes of expected bracket pillars required to be placed on such features.
- Kriging parameters are applied to discrete mining areas in order to estimate tonnage and metal content.
- Kriging parameters are derived from the interrogation of extensive sampling databases.
- Rounding of numbers in the tables may result in minor computational discrepancies. Where this occurs, it is deemed insignificant.
- The most reasonable mining width is assumed, based on practical mining conditions. 4E PGE grade, together with specific gravity are calculated for these widths.
- Total mineral resources and reserves attributable to Northam are listed in the summary tables.
- Mineral resources for Pandora and Dwaalkop, reflecting Northam's 7.5% and 50.0% respective attributable interests, are quoted as at the end of September 2014 and 2013 and are provided by Lonmin.
- Measured and indicated mineral resources are reported separately and include those mineral resources modified to produce proven and probable mineral reserves.
- While mineral resources are quoted as *in situ* resources, all reserves provided by Northam are quoted at run-of-mine (ROM) grades and tonnages as delivered to the concentrator plants on site and are therefore, fully diluted.
- Mineral reserves for Zondereinde mine are quoted to 18 level (2 354m below surface).
- Mineral reserves for Booysendal relate to the first planned mining module, the Booysendal North mine.
- Mineral reserves for Pandora and Dwaalkop are provided by Lonmin and reflect Lonmin's reserve modifying factors.
- All references to tonnage are to the metric unit.
- All references to ounces are troy with a conversion factor of 31.103475 used to convert from metric grams to ounces.

### Contact details for lead competent persons are:

- Mr C van Jaarsveld, chief geologist at Zondereinde mine
PO Box 441, Thabazimbi 0380
- Mr M Mqadi, chief geologist at Booysendal UG2 North mine
- Mr W Theron, general manager at Booysendal UG2 North mine
PO Box 412694, Craighall 2024
- Mr D Smith, principal member of Prospect Geoservices
PO Box 37876, Faerie Glen 0043

# FIVE-YEAR OPERATING AND FINANCIAL REVIEW

## STATEMENT OF COMPREHENSIVE INCOME – GROUP (R000)

| | 2015 | 2014 | 2013 | 2012 | 2011* |
|---|---|---|---|---|---|
| **Sales revenue** | 6 035 535 | 5 339 397 | 4 420 977 | 3 684 000 | 3 571 048 |
| Cost of sales | 5 439 722 | 5 277 915 | 3 813 301 | 3 345 311 | 3 185 754 |
| Operating costs | 4 342 571 | 3 536 002 | 2 826 094 | 2 632 926 | 2 258 548# |
| Concentrates purchased | 602 395 | 918 605 | 657 540 | 624 774 | 787 316 |
| Refining and other costs | 199 470 | 267 117 | 161 591 | 100 612 | 68 804 |
| Depreciation and write-offs | 339 949 | 445 875 | 234 690 | 190 287 | 147 838 |
| Change in metal inventories | (44 663) | 110 316 | (66 614) | (203 288) | (76 752) |
| **Operating profit** | 595 813 | 61 482 | 607 676 | 338 689 | 385 294 |
| Share of profits from associate | 28 769 | 3 464 | 13 783 | 16 602 | 7 248 |
| Investment revenue | 72 043 | 59 963 | 33 434 | 53 951 | 85 520 |
| Finance charges | (245 937) | (176 124) | (17 946) | – | – |
| Net sundry income/(expenditure) | (1 319 014) | 97 011 | 60 108 | 43 343 | 53 148 |
| **(Loss)/profit before tax** | (868 326) | 45 796 | 697 055 | 452 585 | 531 210 |
| Taxation | 165 619 | 26 199 | 169 054 | 142 073 | 182 001 |
| **Net (loss)/profit after tax** | (1 033 945) | 19 597 | 528 001 | 310 512 | 349 209 |
| **Other comprehensive income** | | | | | |
| Share of other comprehensive income (loss) from associate | (4 482) | (1 327) | (4 145) | (9 868) | – |
| **Profit/(loss) and total comprehensive income for the year** | (1 038 427) | 18 270 | 523 856 | 300 644 | 349 209 |
| **Headline (loss)/earnings** | (794 963) | 8 601 | 522 182 | 309 248 | 324 949 |
| **Normalised earnings**** | 616 123 | – | – | – | – |

* *Where appropriate, financial results have been adjusted for changes in accounting policies and adoption of IFRS.*
** *See CFO's review on pages 69 and 73.*

The Booysendal concentrator plant.

# FIVE-YEAR OPERATING AND FINANCIAL REVIEW CONTINUED

## STATEMENT OF FINANCIAL POSITION – GROUP (R000)

| | 2015 | 2014 | 2013 | 2012 | 2011* |
|---|---|---|---|---|---|
| Property, plant and equipment | 12 701 830 | 11 940 390 | 11 931 051 | 9 135 822 | 8 498 935 |
| Investment in associate | 275 847 | 496 509 | 495 498 | 505 415 | 505 327 |
| Other non-current assets | 389 371 | 308 525 | 196 440 | 189 976 | 144 278 |
| | 13 367 048 | 12 745 424 | 12 622 989 | 9 831 213 | 9 148 540 |
| **Current assets** | 5 784 288 | 1 995 572 | 1 734 675 | 1 232 339 | 2 725 916 |
| Inventories | 1 126 550 | 1 076 853 | 878 530 | 811 183 | 604 647 |
| Trade and other receivables | 498 854 | 244 672 | 547 920 | 303 268 | 410 621 |
| Cash and cash equivalents | 4 138 189 | 666 174 | 298 580 | 104 980 | 1 697 853 |
| Receiver of revenue | 20 695 | 7 873 | 9 645 | 12 908 | 12 795 |
| **Mineral resources classified as held for sale** | – | – | – | 1 180 300 | – |
| **Total assets** | 19 151 336 | 14 740 996 | 14 357 664 | 12 243 852 | 11 874 456 |
| Shareholders' equity | 9 216 425 | 11 391 872 | 10 815 635 | 10 413 247 | 10 115 352 |
| Deferred tax | 521 452 | 502 097 | 476 053 | 504 628 | 477 145 |
| Domestic medium term notes | 1 370 000 | 1 370 000 | 1 250 000 | – | – |
| Preference share liability | 6 492 655 | – | – | – | – |
| Other non-current liabilities and provisions | 296 646 | 285 365 | 271 773 | 143 972 | 107 335 |
| Current liabilities | 1 254 158 | 1 191 662 | 1 544 203 | 1 182 005 | 1 174 624 |
| **Total equity and liabilities** | 19 151 336 | 14 740 996 | 14 357 664 | 12 243 852 | 11 874 456 |

** Where appropriate, financial results have been adjusted for changes in accounting policies and adoption of IFRS.*

## STATEMENT OF CASH FLOWS – GROUP (R000)

| | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|
| **Operating cash flow** | 341 585# | 885 379# | 589 029# | 386 939# | 687 239# |
| Cash generated/(utilised) from operations | (572 323) | 555 948# | 877 529 | 595 918 | 726 807 |
| Change in working capital | (221 248) | 270 414# | (281 104) | (90 367) | 182 380 |
| Change in short term provisions | 8 315 | 14 285 | 8 204 | 12 460 | 6 073 |
| Equity settled share-base expense | 874 448 | – | – | – | – |
| Impairment of associates | 261 488 | – | – | – | – |
| Interest paid | 245 937 | 176 124 | 123 703 | – | – |
| Tax paid | (255 032) | (131 392) | (139 303) | (131 072) | (228 021) |
| **Investing cash flow** | (1 102 096)# | (765 945)# | (1 768 067)# | (1 959 298)# | (114 988)# |
| **Financing cash flow** | 4 232 644 | 248 042 | 1 372 638 | (20 514) | (61 107) |
| Dividends paid | (3 908) | (11 066) | (21 747) | (57 364) | (90 202) |
| Issue of preference share liability | 4 599 426 | – | – | – | – |
| Acquisition of non-controlling interest | (50 000) | – | – | – | – |
| Proceeds from issue of shares | – | 579 033 | 2 007 | – | – |
| Finance charges | (145 170) | (176 124) | (123 703) | – | – |
| Revolving credit facilities utilised | – | (250 000) | 250 000 | – | – |
| Domestic medium term notes issued | – | 120 000 | 1 250 000 | – | – |
| Liquidity fees paid | (163 903) | – | – | – | – |
| Other financing cash flows | (3 801) | (13 801) | 16 081 | 36 850 | 29 095 |
| **Net cash flow** | 3 472 133 | 367 476 | 193 600 | (1 592 873) | 511 144 |
| Cash and cash equivalents at beginning of year | 666 056 | 298 580 | 104 980 | 1 697 853 | 1 186 709 |
| **Cash and cash equivalents at end of year** | 4 138 189 | 666 056 | 298 580 | 104 980 | 1 697 853 |

# *Restated to include investment income in "Investing cash flow" and not "Operating cash flow".*

## OPERATING PERFORMANCE

| | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|
| **ZONDEREINDE** | | | | | |
| **Merensky** | | | | | |
| Tonnes milled | 795 885 | 803 736 | 958 211 | 884 660 | 793 490 |
| Head grade – g/tonne (3PGEs + Au) | 5.7 | 5.8 | 5.8 | 5.9 | 5.6 |
| **UG2** | | | | | |
| Tonnes milled | 1 064 499 | 920 420 | 1 157 501 | 1 049 017 | 797 355 |
| Head grade – g/tonne (3PGEs + Au) | 4.3 | 4.3 | 4.2 | 4.4 | 4.3 |
| **Combined – Zondereinde** | | | | | |
| Tonnes milled | 1 860 384 | 1 724 156 | 2 115 712 | 1 933 677 | 1 590 845 |
| Head grade – g/tonne (3PGEs + Au) | 4.9 | 5.0 | 4.9 | 5.1 | 4.9 |
| Precious metals in concentrates produced – kg | 7 950 | 7 331 | 9 041 | 8 979 | 7 779 |
| Precious metals in concentrates purchased – kg | 2 338 | 1 975 | 1 633 | 1 877 | 2 244 |
| Precious metals sold – kg | 9 636 | 9 827 | 10 704 | 9 980 | 9 872 |
| Revenue – R/kg | 409 025 | 400 381 | 365 217 | 335 325 | 323 899 |
| Operating costs – R/kg | 408 599 | 395 629 | 327 331 | 311 645 | 307 203 |
| Cash costs – R/kg | 386 117 | 358 891 | 302 048 | 283 934 | 279 118 |
| Precious metals in concentrates produced – oz | 255 595 | 235 693 | 290 675 | 288 675 | 250 100 |
| Precious metals in concentrates purchased – oz | 75 168 | 63 488 | 52 502 | 60 347 | 72 146 |
| Precious metals sold – oz | 309 801 | 315 941 | 344 128 | 320 861 | 317 392 |
| Price realised – US$/oz | 1 108 | 1 198 | 1 276 | 1 345 | 1 439 |
| Operating costs – US$/oz | 1 110 | 1 189 | 1 154 | 1 247 | 1 363 |
| Cash costs – US$/oz | 1 049 | 1 078 | 1 065 | 1 136 | 1 238 |

## OPERATING PERFORMANCE

| | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|
| **BOOYSENDAL** | | | | | |
| **UG2** | | | | | |
| Tonnes milled | 1 786 375 | 1 517 109 | – | – | – |
| Head grade – g/tonne (3PGEs + Au) | 2.6 | 2.6 | – | – | – |
| Precious metals in concentrates produced – kg | 3 809 | 2 882 | – | – | – |
| Precious metals sold – kg | 3 509 | 2 503 | – | – | – |
| Revenue – R/kg | 402 461 | 398 710 | – | – | – |
| Operating costs – R/kg | 358 554 | 361 902 | – | – | – |
| Cash costs – R/kg | 308 719 | 277 308 | – | – | – |
| Precious metals in concentrates produced – oz | 122 475 | 92 668 | – | – | – |
| Precious metals sold – oz | 112 829 | 80 476 | – | – | – |
| Price realised – US$/oz | 1 084 | 1 186 | – | – | – |
| Operating costs – US$/oz | 974 | 1 087 | – | – | – |
| Cash costs – US$/oz | 839 | 833 | – | – | – |

# FIVE-YEAR OPERATING AND FINANCIAL REVIEW CONTINUED

## GROUP SALES

| | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|
| **Group sales per metal – oz** | | | | | |
| Platinum | 253 784 | 241 831 | 212 373 | 195 735 | 196 688 |
| Palladium | 124 580 | 117 305 | 100 716 | 92 000 | 90 710 |
| Rhodium | 38 430 | 31 007 | 25 281 | 27 095 | 23 550 |
| Gold | 5 837 | 6 275 | 5 757 | 6 031 | 6 444 |
| Total – 3PGE + Au | 422 631 | 396 417 | 344 128 | 320 861 | 317 392 |
| **Group prices realised – US$/oz** | | | | | |
| Platinum | 1 248 | 1 433 | 1 568 | 1 622 | 1 698 |
| Palladium | 799 | 756 | 683 | 679 | 971 |
| Rhodium | 1 168 | 1 010 | 1 117 | 1 523 | 2 251 |
| Gold | 1 222 | 1 289 | 1 584 | 1 686 | 1 368 |
| Basket – 3PGE + Au | 1 108 | 1 198 | 1 276 | 1 345 | 1 439 |
| **Group prices realised – R/kg** | | | | | |
| Platinum | 457 794 | 478 261 | 448 004 | 404 433 | 382 245 |
| Palladium | 293 922 | 252 876 | 195 716 | 169 151 | 150 703 |
| Rhodium | 429 662 | 340 018 | 322 085 | 381 165 | 508 056 |
| Gold | 449 210 | 433 281 | 455 474 | 421 395 | 308 068 |
| Basket – 3PGE + Au | 406 812 | 400 042 | 365 217 | 335 325 | 323 899 |

## FINANCIAL PERFORMANCE – GROUP

| | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|
| Operating margin – % | 9.9 | 1.2 | 13.7 | 9.2 | 10.8 |
| Effective tax rate – % | (19.1) | 57.2 | 24.3 | 31.4 | 34.3 |
| Return on shareholders' equity – % | (11.2) | 0.2 | 5.0 | 3.0 | 3.7 |
| Return on total assets – % | (5.4) | 0.1 | 3.7 | 2.5 | 2.9 |
| Current ratio | 2.2 | 1.7 | 1.1 | 1.0 | 2.3 |
| Acid ratio | 1.8 | 0.6 | 0.2 | 0.1 | 1.4 |
| US dollar/rand exchange rate | | | | | |
| – average | 11.45 | 10.35 | 8.82 | 7.77 | 7.01 |
| – at year end | 12.29 | 10.61 | 10.01 | 8.16 | 6.78 |

## SHARE PERFORMANCE

| | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|
| Weighted average number of shares in issue – 000 | 391 835 | 390 970 | 382 561 | 382 426 | 363 088 |
| Number of shares at year end – 000 | 509 781 | 397 586 | 382 586 | 382 497 | 382 416 |
| Treasury shares at year end – 000 | 159 905 | – | – | – | – |
| Shares after adjusting for Treasury shares | 349 876 | – | – | – | – |
| Operating cash flow per share – cents | 87.2 | 226.5 | 137.0# | 114.4 | 211.9# |
| Earning/(loss) per share – cents | (264.3) | 2.4 | 132.0 | 81.2 | 96.2 |
| Headline/(loss) earnings per share – cents | (202.9) | 2.2 | 136.5 | 80.9 | 89.5 |
| Normalised earnings – cents* | 157.2 | – | – | – | – |
| Dividends per share – cents | – | – | – | 5.0 | 15.0 |
| Dividend cover | – | – | – | 16.2 | 6.0# |
| Net assets value per share – cents | 1 808.0 | 2 865.0 | 2 827.0 | 2 722.0 | 2 645.0 |
| Share price (cents) | | | | | |
| – high | 5 200 | 4 790 | 4 098 | 2 398 | 5 153 |
| – low | 3 120 | 3 186 | 2 251 | 2 281 | 3 920 |
| – at year end | 4 026 | 4 550 | 3 200 | 2 325 | 4 247 |
| Platinum sector index at year end | 26.8 | 46.8 | 37.1 | 51.2 | 69.5 |
| Compound return over 5 years – % | (2.3) | 9.0 | (13.2) | (13.0)# | 6.6 |
| Average monthly volume of shares traded – 000 | 23 619 | 14 793 | 20 257 | 23 555 | 16 289 |
| Annual liquidity (%) | 72.3 | 45.4 | 63.5 | 73.9 | 53.8 |

** See CFO's review on page 69.*

*# Restated.*

Zondereinde's twin headgears.

# FIVE-YEAR SUSTAINABILITY REVIEW

## FIVE-YEAR SUSTAINABILITY REVIEW – ZONDEREINDE

| | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|
| **SOCIAL PERFORMANCE** | | | | | |
| **Safety** | | | | | |
| Fatal injury incidence rate (FIIR) | LA 0.00 | 0.00 | 0.01 | 0.02 | 0.06 |
| Lost time injury incidence rate (LTIIR) | LA 1.31 | 1.70 | 1.50 | 1.91 | 1.34 |
| Reportable injury incidence rate (RIIR) | 0.94 | 0.86 | 0.83 | 0.88 | 0.74 |
| Number of fatalities | 0 | 0 | 1 | 2 | 5 |
| **Health** | | | | | |
| New cases of noise induced hearing loss (NIHL) | 27 | 20 | 43 | 44 | 18 |
| New cases of tuberculosis (TB) | 111 | 97 | 70 | 85 | 93 |
| Voluntary counselling and testing (VCT) encounters | 1 250 | 1 049 | 1 088 | 1 659 | 271 |
| **Employment and human rights** | | | | | |
| Average number of employees (including contractors) | 8 548 | 8 788 | 9 148 | 9 163 | 8 927 |
| Turnover rate (%) | 7 | 4 | 1 | 7 | 7 |
| HDSAs in management (%) | LA 45 | 38 | 37 | 35 | 45 |
| Women in mining (%) | LA 8 | 7 | 7 | 7 | 7 |
| HDSAs at board level (%) | 50 | 44 | 56 | 64 | 62 |
| **ENVIRONMENTAL PERFORMANCE** | | | | | |
| Rock mined (000t) | 2 070 | 1 907 | 2 276 | 2 154 | 1 802 |
| Ore milled (000t) | 1 860 | 1 724 | 2 116 | 1 934 | 1 592 |
| **Water usage (000m$^3$)** | | | | | |
| Potable water from external sources | 2 488 | 2 335 | 2 633 | 2 540 | 2 441 |
| Fissure water used | 1 155 | 1 084 | 1 493 | 1 273 | 2 392 |
| Water recycled in process | 25 664 | 25 524 | 25 909 | 24 390 | 24 308 |
| % water recycled | 91 | 89 | 91 | 91 | 91 |
| **Electricity consumption (MWh)** | | | | | |
| Energy from electricity purchased by shafts | 489 203 | 470 117 | 485 654 | 467 893 | 461 484 |
| Energy from electricity purchased by plant | 140 882 | 108 600 | 101 732 | 125 548 | 140 406 |
| Total electricity purchased | LA 630 085 | 578 717 | 587 386 | 593 441 | 601 890 |
| **Greenhouse gas emissions ($CO_2$e tonnes):** | | | | | |
| Scope 1 (direct) emissions | LA 29 743 | 23 451 | 15 509 | 15 401 | 14 365 |
| Scope 2 (indirect) emissions | LA 648 988 | 596 079 | 605 008 | 611 244 | 619 947 |
| Scope 3 (indirect) emissions | 746 | 580 | 665 | 815 | 1 089 |
| Total emissions | 679 477 | 620 110 | 621 183 | 627 460 | 635 401 |
| **Land use (hectares)** | | | | | |
| Land disturbed by mining-related activities | 137 | 137 | 137 | 137 | 137 |
| Land leased for farming purposes | 273 | 273 | 273 | 273 | 273 |
| Land protected for conservation | 800 | 800 | 800 | 800 | 800 |
| Total land under management (freehold) | 4 439 | 4 439 | 4 439 | 4 439 | 4 439 |

FIVE-YEAR SUSTAINABILITY REVIEW – ZONDEREINDE CONTINUED

| | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|
| **ECONOMIC PERFORMANCE*#** | | | | | |
| **Value distributed (R000)** | | | | | |
| **Employees** | 1 349 989 | 1 288 616 | 1 130 199 | 1 055 805 | 883 444 |
| Salaries and wages | 1 405 790 | 1 341 254 | 1 143 292 | 1 057 780 | 863 719 |
| Contributions to retirement benefit funds | 114 565 | 99 275 | 94 050 | 84 212 | 74 096 |
| Contributions to healthcare funds | 66 074 | 58 615 | 52 361 | 55 627 | 54 606 |
| Pay-as-you-earn deducted | (236 440) | (210 528) | (159 504) | (141 814) | (108 977) |
| **Government** | 391 727 | 262 992 | 384 356 | 322 617 | 342 972 |
| Mining and non-mining tax | 172 613 | 96 229 | 197 629 | 110 767 | 143 048 |
| Deferred tax | (57 182) | (70 030) | (28 575) | 27 482 | 29 933 |
| Dividend withholding tax | 12 447 | – | – | – | – |
| Secondary tax on companies | – | – | – | 3 824 | 9 020 |
| Royalties | 27 409 | 26 265 | 55 798 | 38 730 | 51 994 |
| Pay-as-you-earn deducted from employees | 236 440 | 210 528 | 159 504 | 141 814 | 108 977 |
| **Providers of capital** | | | | | |
| Dividends | 6 475 | 11 066 | 21 747 | 57 364 | 90 202 |
| Finance charges | 245 937 | 176 124 | 123 703 | – | – |
| **Broader community** | | | | | |
| Corporate social investment | 6 805 | 2 917 | 3 002 | 2 782 | 4 116 |
| **Total value distributed (R000)** | 2 000 933 | 1 741 715 | 1 663 007 | 1 438 568 | 1 320 734 |
| **Retained by company** | (695 709) | 462 424 | 748 123 | 438 474 | 411 255 |
| Depreciation and write-offs | 339 949 | 445 875 | 234 690 | 190 287 | 147 838 |
| Decommissioning provision to meet statutory obligations | 7 540 | 9 345 | 11 324 | 4 907 | (4 110) |
| Retained income | (1 047 680) | 7 204 | 502 109 | 243 280 | 259 007 |

** Based on group financial performance.*

*# Based on a value added statement on page 89.*

Note: Booysendal yearly sustainability figures will be reported here when the mine reaches steady-state.

# CHIEF FINANCIAL OFFICER'S REVIEW

*Operating profits and project margins have risen, driven by higher volumes from both mines*

## SUMMARISED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME*

| | F2015 R'000 | F2014 R'000 |
|---|---|---|
| **Sales revenue** | **6 035 535** | **5 339 397** |
| **Cost of sales** | **5 439 722** | **5 277 915** |
| **Operating profit** | **595 813** | **61 482** |
| Share of earnings from associates and joint venture | 28 769 | 3 464 |
| Investment revenue | 72 043 | 59 963 |
| Finance charges | (245 937) | (176 124) |
| Sundry expenditure | (1 587 264) | (26 724) |
| IFRS 2 share based payment expense | (874 448) | – |
| Impairment of non-core assets | (261 488) | – |
| Net BEE lock-in fee | (242 429) | – |
| Corporate action transactional costs | (172 640) | – |
| Other | (36 259) | (26 724) |
| Sundry income | 268 250 | 123 735 |
| **(Loss)/profit before tax** | **(868 326)** | **45 796** |
| Taxation | 165 619 | 26 199 |
| **(Loss)/profit for the year** | **(1 033 945)** | **19 597** |
| (Loss)/earnings per share – cents | (264.3) | 2.4 |
| Headline (loss)/earnings per share – cents | (202.9) | 2.2 |
| Weighted average number of shares in issue | 391 834 708 | 390 969 652 |
| Fully diluted number of shares in issue | 391 834 708 | 390 969 652 |
| Total number of shares in issue | 509 781 212 | 397 586 090 |
| Treasury shares in issue | 159 905 453 | – |
| Shares in issue after adjusting for Treasury shares | 349 875 759 | – |

** See full consolidated statement of profit or loss and other comprehensive income on page 148.*

## NORMALISED EARNINGS*

| | F2015 R000 | F2014 R000 |
|---|---|---|
| Profit (or loss) for the year | (1 033 945) | 19 597 |
| Less: Non-controlling interest portion | 1 704 | 10 111 |
| **Profit (or loss) for the year attributable to owners of the parent** | **(1 035 649)** | **9 486** |
| Add back: Corporate action transactional costs | 172 640 | – |
| Net lock-in fee | 242 429 | – |
| Impairment of non-core assets | 261 488 | – |
| IFRS 2 share based payment charge | 874 448 | – |
| Preference share interest | 100 767 | – |
| **Normalised earnings** | **616 123** | **9 486** |
| **Earnings per share (cents)** | **157.2** | **2.4** |
| Weighted average/fully diluted number of shares in issue | 391 834 708 | 390 969 652 |

** See normalised earnings explanations below.*

## SALES REVENUE

Group sales revenues grew by 13.0% to R6.0 billion (F2014: R5.3 billion). This is due to a combination of increases in PGM sales volumes of 6.6% to 422 631oz (F2014: 396 417oz), and a 10.6% weaker ZAR/US$ exchange rate, averaging R11.45/US$ during the year (F2014: R10.35/US$). To a degree the weaker SA currency served to offset the lower US dollar PGM prices: the average price realised in US dollars fell 7.5% to US$1 108/oz (F2014: US$1 198/oz) and 8.6% to US$1 084/oz (F2014: US$1 186/oz) at Zondereinde and Booysendal respectively.

The higher sales volumes achieved were on the back of higher production volumes for the group (including externally purchased concentrates) which were up 8.1% to 423 583oz (13 175kg) compared to 391 849oz (12 188kg) in F2014. Further, the average rand basket price realised for both mines was marginally higher in F2015 than in F2014 on account of the weaker exchange rate. Zondereinde realised an average basket price of R409 025/oz (F2014: R400 381/oz), a 2.2% improvement, whilst Booysendal's realised price improved 0.9% to R402 461/oz from R398 710/oz in F2014.

Higher sales volumes achieved were on the back of higher production volumes for the group, which were up 8.1%.

# CHIEF FINANCIAL OFFICER'S REVIEW CONTINUED

## METAL SALES AND REVENUES – COMBINED OPERATING MINES

| | F2015 | | | F2014 | | |
|---|---|---|---|---|---|---|
| | Units sold | Average price received | Revenue | Units sold | Average price received | Revenue |
| | kg | R/kg | R000 | kg | R/kg | R000 |
| Platinum | 7 894 | 457 795 | 3 613 649 | 7 522 | 478 259 | 3 597 415 |
| Palladium | 3 875 | 293 911 | 1 138 876 | 3 649 | 252 877 | 922 648 |
| Rhodium | 1 195 | 429 668 | 513 582 | 964 | 340 033 | 327 928 |
| Gold | 182 | 449 094 | 81 556 | 195 | 433 263 | 84 574 |
| **Sub-total: (3PGE+Au)** | **13 145** | **406 809** | **5 347 663** | **12 330** | **400 042** | **4 932 565** |
| Iridium | 397 | 204 174 | 80 976 | 320 | 174 909 | 55 865 |
| Ruthenium | 1 792 | 19 543 | 35 013 | 1 360 | 19 544 | 26 577 |
| Other precious metals | 203 | 6 336 | 1 288 | 149 | 6 853 | 1 019 |
| **Sub-total: precious metals** | **15 537** | | **5 464 940** | **14 159** | | **5 016 026** |
| Nickel (tonnes) | 1 322 | 172 204* | 227 567 | 1 544 | 163 551* | 252 507 |
| Copper (tonnes) | 679 | 67 749* | 45 995 | 764 | 68 967* | 52 656 |
| Chrome (tonnes) | 141 874 | 745* | 105 658 | 79 793 | 481* | 38 388 |
| Other by-product revenue | 9 | 359 550 | 3 209 | – | – | 2 749 |
| Development ounces offset against property, plant and equipment | – | | – | | | (137 687) |
| **Sales revenue – Zondereinde and Booysendal** | | | **5 847 369** | | | **5 224 639** |
| Sales revenue – other activities | | | 188 166 | | | 114 758 |
| **Total group sales revenue** | | | **6 035 535** | | | **5 339 397** |

** Rand per tonne.*

The bord and pillar mining method is used at Booysendal.

METAL SALES AND REVENUES PER OPERATING MINE – F2015

| | Booysendal mine | | | Zondereinde mine | | |
|---|---|---|---|---|---|---|
| | **Units sold** | **Average price received** | **Revenue** | **Units sold** | **Average price received** | **Revenue** |
| | **kg** | **R/kg** | **R000** | **kg** | **R/kg** | **R000** |
| Platinum | 2 157 | 460 124 | 992 360 | 5 737 | 456 919 | 2 621 289 |
| Palladium | 975 | 294 051 | 286 566 | 2 900 | 293 864 | 852 309 |
| Rhodium | 363 | 431 757 | 156 779 | 832 | 428 757 | 356 803 |
| Gold | 15 | 448 117 | 6 763 | 167 | 449 183 | 74 793 |
| **Sub-total: (3PGE+Au)** | **3 509** | **411 021** | **1 442 468** | **9 636** | **405 275** | **3 905 194** |
| Iridium | 190 | 148 639 | 28 261 | 259 | 203 750 | 52 715 |
| Ruthenium | 798 | 15 607 | 12 452 | 1 147 | 19 664 | 22 562 |
| Other precious metals | – | – | – | 203 | 6 336 | 1 288 |
| **Sub-total: precious metals** | **4 497** | | **1 483 181** | **11 245** | | **3 981 758** |
| Nickel (tonnes) | 166 | 142 784* | 23 657 | 1 185 | 172 030* | 203 910 |
| Copper (tonnes) | 83 | 55 603* | 4 635 | 610 | 67 763* | 41 360 |
| Chrome (tonnes) | 141 874 | 745* | 105 658 | – | – | – |
| Other by-product revenue | 2 | – | 335 | 8 | – | 3 089 |
| Development ounces offset against property, plant and equipment | | | | | | |
| **Sales revenue – Zondereinde and Booysendal mines** | | | **1 617 465** | | | **4 230 117** |

** Rand per tonne.*

## COST OF SALES

The 3.1% increase in group cost of sales to R5.4 billion (F2014: R5.3 billion) is largely a result of an increase in operating costs as explained below.

GROUP COST OF SALES – F2015

| | **F2015** | **F2014** |
|---|---|---|
| | **R000** | **R000** |
| Labour | 1 606 237 | 1 499 144 |
| Stores | 978 243 | 735 647 |
| Utilities | 540 507 | 443 016 |
| Sundries | 1 177 201 | 839 072 |
| Decommissioning and restoration costs | 37 002 | 9 345 |
| **Operating costs – core business activities*#** | **4 339 190** | **3 526 224** |
| Concentrates purchased | 602 395 | 918 605 |
| Refining and other costs | 199 470 | 267 117 |
| Depreciation and write-offs | 339 949 | 445 622 |
| Change in metal inventories | (44 663) | 110 316 |
| **Cost of sales – core business activities*** | **5 436 341** | **5 267 884** |
| **Cost of sales – other group companies#** | **3 381** | **10 031** |
| **Group cost of sales** | **5 439 722** | **5 277 915** |

** Core business activities refer to: Zondereinde mine, Booysendal mine and Northam Chrome Producers.*

*# The addition of these two numbers reconciles to the total group operating cost of R4 342 571 shown in the table on page 72.*

# CHIEF FINANCIAL OFFICER'S REVIEW CONTINUED

## Operating costs

Operating costs increased by 22.8% to R4.3 billion (F2014: R3.5 billion) owing to higher group production volumes (largely resulting from Booysendal's new production as it ramped up during the year), higher wage and power costs.

For comments on refining and other costs and on depreciation and write-offs, please refer to page 73.

### OPERATING COSTS BY CATEGORY AND BUSINESS UNITS – F2015

| | Zondereinde mine R000 | Booysendal mine R000 | Northam chrome producers R000 | Other group entities R000 | Total group R000 |
|---|---|---|---|---|---|
| Labour | 1 471 400 | 123 425 | 11 412 | – | 1 606 237 |
| Stores | 827 031 | 151 212 | – | – | 978 243 |
| Utilities | 443 603 | 94 739 | 2 165 | – | 540 507 |
| Sundries | 358 054 | 800 532 | 18 615 | 3 381 | 1 180 582 |
| Decommissioning and restoration costs | 14 743 | 22 259 | – | – | 37 002 |
| **Total operating costs** | **3 114 831** | **1 192 167** | **32 192** | **3 381** | **4 342 571** |
| Concentrates purchased | 602 395 | – | – | – | 602 395 |
| Refining costs | 83 408 | 116 062 | – | – | 199 470 |
| Depreciation | 165 091 | 171 961 | 2 897 | – | 399 949 |
| Change in metal inventories | (345 757) | 300 927 | 167 | – | (44 663) |
| **Cost of sales** | **3 619 968** | **1 781 117** | **35 256** | **3 381** | **5 439 722** |

## Concentrates purchased

The value of concentrate purchases declined by 34.4% to R602.4 million (F2014: R918.6 million) owing to a drop in the volumes of purchased concentrates from third party sources which amounted to 1 416kg (F2014: 1 975kg). A change in the inter-company arrangements which took effect on 30 June 2015 saw Zondereinde purchase concentrate from Booysendal rather than toll treat it. A total of 922kg of metal in concentrate was purchased by Zondereinde from Booysendal.

### ANALYSIS OF CONCENTRATES PURCHASED – F2015

| | Purchase of concentrate | Own Production | Sub-total Zondereinde mine | Booysendal mine | Northam Chrome Producers | Other group entities | Total group |
|---|---|---|---|---|---|---|---|
| **Kilograms sold (3PGE+Au)(kg)** | **1 368** | **8 268** | **9 636** | **3 509** | **–** | **–** | **13 145** |
| | R000 | R000 | R000 | R000 | R000 | R000 | R000 |
| Sales revenue | 630 558 | 3 599 561 | 4 230 119 | 1 617 466 | 184 132 | 3 817 | 6 035 535 |
| Cost of sales | 636 547 | 3 344 038 | 3 980 585 | 1 420 501 | 35 256 | 3 381 | 5 439 722 |
| • operating costs | 31 589 | 3 083 242 | 3 114 831 | 1 192 167 | 32 192 | 3 381 | 4 342 571 |
| • change in metal stocks | (371 296) | 25 540 | (345 756) | 300 927 | 167 | – | (44 663) |
| • depreciation and write offs | – | 165 091 | 165 091 | 171 961 | 2 897 | – | 339 949 |
| • freight and realisation costs | – | 19 146 | 19 146 | – | – | – | 19 146 |
| • refining costs | 13 243 | 51 019 | 64 262 | 116 062 | – | – | 180 324 |
| • concentrates purchased | 963 011 | | 963 011 | (360 616) | – | – | 602 395 |
| **Operating profit** | **(5 989)** | **255 523** | **249 534** | **196 965** | **148 876** | **436** | **595 813** |
| Treatment charges recovered | 66 040* | | | | | | |
| Contribution to operating profit | 60 051 | | | | | | |

** Treatment charges recovered are included in sundry income in the statement of profit or loss and other comprehensive income.*

## Refining and other costs

Refining and related costs were 25.3% lower at R199.5 million (F2014: R267.1 million), reflecting more normalized levels after the smelter shutdown and rebuild, along with outsourced smelting costs incurred in the prior year.

## Depreciation and write-offs

Depreciation and write-offs were lower in F2015 owing to a change in the depreciation methodology (which is a change in accounting estimate). This is evident primarily at Booysendal whereby most assets are now depreciated on a unit of production basis rather than the straight line method. This method better matches the depreciation charge to the rate of depletion of reserves at Booysendal.

## Change in metal inventories

The group change in metal inventories amounts to a net decrease of R44.7 million (F2014: R110.63 million increase). This is made up of a R345.6 million decrease in inventories at Zondereinde and a rise of R300.9 million in Booysendal mine's metal inventory levels compared to the prior year.

## Operating profit

The group achieved an operating profit of R595.8 million, higher than the F2014 operating profit of R61.5 million. Both the higher operating profit and higher operating profit margin, at 9.9% (F2014: 1.2%), are on the back of higher production volumes from both mines, higher average rand basket prices realised, lower refining and related costs and the lower depreciation and write-off charges as stated above.

## Share of earnings from associate and joint venture

The share of earnings from associates and joint ventures of R28.8 million (F2014: R3.5 million), is attributed mainly to higher earnings from Trans Hex Group Limited. Investment revenues of R72.0 million (F2014: R60.0 million) mainly comprises interest earned on the group's invested funds.

## Finance charges

Finance charges which amounted to R245.9 million (F2014: R176.1 million) were higher owing to the interest of R138.0 million paid on the domestic medium term notes and revolving credit facility secured in F2014, and R100.8 million for the preference dividends to be paid to preference shareholders of Zambezi Platinum (which is consolidated in the results) in terms of the BEE transaction. The preference dividends are payable at the end of the 10-year term of the BBE transaction.

## Sundry expenditure

Sundry expenditure amounted to R1.587.3 million (F2014: R26.7 million) reflecting accounting charges and costs associated with the two major corporate deals undertaken in the current year, the BEE transaction and the acquisition of the Everest mine from Aquarius Platinum.

Included in costs associated with the BEE transaction are the "share-based payment" charge of R874.4 million in line with IFRS 2, which is a once-off charge associated with a transaction of this nature and the R242.4 million net lock-in fee (being the gross R400.0 million lock-in fee paid to the BEE participants (collectively the ESOP Trust, the Booysendal Community Trust, the Zondereinde Community Trust, the Strategic Partners and the Women's Consortium as defined in the circular dated 17 February 2015) less taxes paid and less the portion of the lock-in fee relating to the three trusts which are eliminated on consolidation). Shareholders are referred to the *pro forma* financial effects of the said BEE transaction circular for the mechanics of the transaction.

Also included in sundry expenditure are the non-core asset impairment charges of R261.5 million for the Pandora and Dwaalkop joint ventures and the Trans Hex Group Limited investment, as well as corporate action costs of R172.6 million related mainly to the said two corporate transactions.

## Sundry revenue

The sundry income of R268.3 million (F2014: R123.7 million) incorporates the once-off proceeds of R183.8 million received from the No.1 shaft incident insurance claim.

## Hedging

The group's policy is not to hedge, thus exposing investors fully to the prevailing PGM prices; consequently there were no outstanding contracts at the end of the financial year.

## Taxation charge

The taxation charge of R165.6 million (F2014: R26.2 million) is higher than the comparative period due to the higher taxable profits earned by the group in F2015 relative to F2014.

A detailed analysis of the tax charge, including the effect of permanent and other differences is set out in note 35 to the annual financial statements on page 175.

## Total comprehensive income for the year

The group reported a net loss of R1 033.9 million (F2014: profit of R19.6 million). A loss per share of 264.3 cents was reported (F2014: profit of 2.4 cents per share) reflecting the effect of the reported loss and an increase in the weighted average number of shares in issue of 391 834 708 shares (F2014: 390 969 652).

The group's total number of shares in issue at 30 June 2015 is 509 781 212 (F2014: 397 586 090) following the issue of 112 195 122 shares to Zambezi Platinum, which is Northam's 31.4% BEE shareholder. The group has 159 905 453 treasury shares which are not accounted for in the calculation of the abovementioned loss per share. Zambezi Platinum's results are consolidated with Northam's group results.

## NORMALISED EARNINGS

(See table on page 69)

This is defined by management as earnings achieved by the underlying operational business units of the group.

A normalised earnings calculation has been performed. This excludes abnormal and or unusual costs incurred during the

# CHIEF FINANCIAL OFFICER'S REVIEW CONTINUED

financial year, by adding back (adjusting for) costs such as the BEE transaction and other corporate action costs, IFRS 2 and other charges relating to the BEE transaction and impairment charges as explained below:

- corporate action transactional costs relate to consulting, legal and various other fees paid in relation to the BEE transaction and other corporate projects during the year.
- the net lock-in fee (being the gross R400.0 million lock-in fee paid to the BEE participants less taxes paid and less the portion of the lock-in fee due to the three trusts which are eliminated on consolidation).
- impairment of non-core assets include the impairment of investments in associates and joint ventures as explained above. Dwaalkop and Pandora joint ventures have been impaired by R164.4 million and R40.5 million respectively, and the associate investment in Trans Hex Group by R34.0 million.
- the IFRS 2 share-based payment charge of R874.4 million and the preference share dividend of R100.8 million relate to the preference shares issued by Zambezi Platinum as part of the BEE transaction.

By stripping out the above-mentioned costs therefore, normalised earnings are derived based on the normal underlying operational performance of the group.

The outcome of this exercise demonstrates that earnings per share of 157.2 cents would have been achieved in F2015 (compared to the prior year's 2.4 cents).

## CONSOLIDATED STATEMENT OF CASH FLOWS

### Operating activity cash flow

Cash flows from operating activities are lower in F2015 at R341.6 million (F2014: R885.5 million) mainly due to the higher working capital requirements and higher tax payable. Higher working capital requirements emanate from higher sales and debtors and increases in total group inventory values owing to the higher production volumes.

### Investing activity cash flow

Cash flows utilised in investing activities are higher at R1.1 billion (F2014: R766.1 million) due to the higher project capital expenditure which includes the acquisition of Everest mine assets for R400.0 million.

### Financing activity cash flow

Cash flows generated from financing activities amounting to R4.2 billion (F2014: R248.0 million) are largely accounted for by the proceeds of R4.6 billion received by Northam from the issue of 112 195 122 million shares by Northam to Zambezi Platinum in terms of the BEE transaction.

### Net increase in cash and cash equivalents

The result of all operating, investing and financing cash flow activities for the year was a net cash inflow of R3 472.1 million (F2014: R367.5 million).

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

### Non-current assets

#### Property, plant and equipment

The 12.4% increase in property, plant and equipment reflects capital expenditure during the F2015 year. Additions to maintain operations were R323.0 million during the year and additions to expand operations were R779.1 million. The increase in expansion (project) capital expenditure is due to acquisition of the Everest for R400.0 million in June 2015.

#### Interest in associates and joint venture

The impairment charges for the Dwaalkop and Pandora joint ventures and the Trans Hex Group associate investment, have accounted for the lower values in F2015 compared to F2014.

There are no other changes in the physical assets owned by the group, which has interests in the following:

- 7.5% of the Pandora joint venture;
- 50% of the Dwaalkop joint venture;
- A 51% initial participatory interest in the Kokerboom joint venture (a greenfields iron oxide/gold/copper and massive sulphide exploration project); and
- 20.3% share of Trans Hex Group Limited, a diamond producer and marketer listed on the JSE Limited.

An analysis of these assets is available in Annexure 2 of these annual financial statements, on page 186.

#### Land and township development

At 30 June 2015, 375 housing units had been sold to new home owners at Mojuteng near Zondereinde mine. An additional 37 stands are being prepared for housing construction for the benefit of employees.

#### Long term receivables

This balance reflects the sales of housing to employees on an instalment sale basis, through the 100% owned housing subsidiary (Norplats Properties Proprietary Limited).

#### Northam Platinum Restoration Trust Fund and Environmental Guarantee Investment

The R2.6 million increase in the combined balance of these funds is mainly due to interest earned on funds invested.

#### Deferred tax asset

The deferred tax asset arises out of the tax benefits that are expected to arise in future as a result of the capital expenditure incurred during the development of the Booysendal mine.

#### Buttonshope Conservancy Trust

The trust was established in 2011 as part of an initiative in collaboration with the Mpumalanga Parks and Tourism Agency to retain a portion of the freehold land adjacent to the Booysendal mine as an environmental conservancy. The group contributed an amount of R10.0 million to the trust in F2012.

## Current assets

### Inventories

Inventories increased due to the higher unit cost of stock values and higher quantities held at year end.

### Trade and other receivables

The significantly higher balance reflects the increase in sales revenues, on the back of a 6.6% increase in PGM sales volumes and a weaker ZAR/USD exchange rate (averaging R11.45 to the US dollar during the year compared to last year's average of R10.35 to the US dollar).

### Cash and cash equivalents

The total cash resources of the group at the year-end were R4 138.2 million (F2014: R666.1 million). The rise in this balance is mainly due to the raising of funds through a share issue as a result of the BEE transaction.

## Non-current liabilities

### Deferred tax liability

The increase in the deferred tax liability has arisen owing to the movement in tax values of mainly inventory and property plant and equipment (fixed assets). In terms of IAS 2 inventory is carried at the lower of cost or net realisable value whilst for tax purposes inventory is carried at cost), Fixed assets also have differences of treatment resulting in deferred tax liabilities.

### Long term provisions

The balance has increased by R44.5 million mainly due to the increase in the mine's decommissioning provision based on the latest third party assessment of the provision as at 30 June 2015.

### Share-based payment liability

This balance represents the liability arising from the 30 June 2015 balance of outstanding options and incentive shares granted to employees in terms of the group's share option scheme and share incentive plan. The liability has declined, reflecting the lower share price year on year, and the effect of the drop in staff complement.

### Domestic medium term notes

This balance represents the R1.25 billion finance for the continued development of Booysendal mine raised during F2013 plus the R120 million tap issue raised in F2014, through the issue of three year senior unsecured floating rate notes at a rate of Jibar plus 350 basis points.

### Long term loans

The loan was raised from a Dutch organization, Nederlandse Financierings–Maatschappij voor Ontwikkelingslanden N V (FMO), to fund the group's affordable home ownership initiative for employees. The short term portion of this loan amounts to R3.8 million and is disclosed under current liabilities.

## Current liabilities

### Trade and other payables

The increase in trade and other payables is due to the stricter adherence to payment terms as part of cash management strategies implemented to conserve cash.

### Short term provisions

This liability relates to leave accrued to employees and is higher due to the rising salary and wages expenditure and higher accumulated leave days.

### Revolving credit facilities

The revolving credit facility was repaid in full during the year and the total R1.0 billion facility was available to be drawn at 30 June 2015.

## Capital expenditure

### Booysendal mine

Capital expenditure of R798.8 million was spent on the development of the mine during F2015 (F2014: R539.6 million) including R400.0 million for the acquisition of Everest assets from AQPSA. Stay in business capital is estimated at R112.5 million with project capital estimated at R250.0 million in F2016.

### Zondereinde mine

Capital expenditure was R303.2 million in F2015 (2014: R351.5 million). Stay in business capital in F2016 is estimated at R303.0 million. This includes R130.0 million for the deepening project in F2016 with similar amounts being expended over the five year project.

Project capital is estimated at R95 million which includes R60 million for increasing the UG2 concentrators throughput, and R35 million for initial work on the planned R20MW furnace for expanding the smelter complex, a project estimated to cost R750 million over three years.

**Ayanda Khumalo**

Chief financial officer

25 September 2015

# OPERATIONAL REVIEW

## ZONDEREINDE

The Zondereinde mine is operating at steady state, and its performance during the year under review reflects this stability and our confidence in its sustainability. Despite the No.1 shaft incident early in the financial year, and the one-week work stoppage in January, Zondereinde delivered 795 885 tonnes (F2014: 803 736 tonnes) of Merensky reef to its processing plant at a head grade of 5.7g/t (F2014: 5.8g/t). UG2 tonnages came in at 1 064 499 tonnes (F2014: 920 420 tonnes) to the processing plant at a head grade of 4.3g/t (F2014: 4.3g/t).

This blend of reef resulted in the overall head grade falling to 4.9g/t (F2014: 5.0g/t). Metals produced from underground increased to 7 950kg (F2014: 7 331). Concentrates purchased were 2 338kg (F2014: 1 975kg) including 922kg purchased (internally) from Booysendal. At the year's end available ore reserves on the Merensky reef were sufficient for 20 months' production and on the UG2 reef for 24 months'.

Overall the Zondereinde mine operated well during the year. However, mining flexibility on the Merensky reef horizon remains constrained owing to challenging geological conditions, particularly in the north-west quadrant of the mine. Production from the UG2 horizon is relatively easier. With planned modifications to the processing plant, the smelter will be in a position to accommodate a higher proportion of UG2 reef. Future production from Zondereinde is consequently planned at a 65:35 UG2: Merensky ratio for 21 years.

Construction of the decline section has progressed satisfactorily with the conveyor decline on the 16 level elevation and good progress being made in developing the barrels of the material incline between 14 and 16 levels. An underground refrigeration plant was commissioned during the year on 13 level which has improved environmental conditions in the deepening section of the mine markedly. The completion of this suite of infrastructure will provide access to good quality Merensky reef and increase the life of Zondereinde to more than 20 years.

Wage negotiations got underway in May 2015 and were successfully concluded after the year end when a three-year agreement was signed with the National Union of Mineworkers.

### Health and safety

At Zondereinde, three million fatality free shifts were recorded during March this year for the first time. The management team and all employees are to be congratulated on this milestone achievement. The total number of injuries recorded declined year on year resulting in an improved lost time injury incidence rate (LTIIR). Overall the operation's LTIIR was LA 1.31 (F2014: 1.70) per 200,000 hours worked and the reportable injury incidence rate (RIIR) was 0.94 (F2014: 0.86).

Shaft steelwork was damaged during a rope-change exercise at Zondereinde's No.1 shaft in July last year. The incident put the shaft out of commission for six weeks. Repairs were carried out successfully and safely.

### Costs and capital expenditure

Zondereinde's total operating costs were R3 114.8 million against R2 690.9 million in F2014. The value of externally purchased concentrates decreased by 34.4%, to R602.4 million, whilst the quantum purchased externally feel by 28.3% to 45 525oz (1 416kg) (F2014: 63 488oz (1 975kg)), illustrating lower purchase prices of concentrates as PGM prices fell during the year.

Unit operating and cash costs at Zondereinde were 3.3% and 7.6% higher at R408 599/kg (F2014: R395 629/kg) and R386 117/kg (F2014: R358 891/kg) respectively, reflecting higher operating costs as mentioned above and the impact of six-week interruption of production associated with the No.1 shaft incident in July 2014, and the one-week work stoppage in January 2015.

In the light of the current weakness of platinum prices, we have adopted a cautious approach to capital spending. While we had planned to spend more in the year under review, certain expenditure was deferred resulting in total spend of R303.2 million, including the deepening project.

We cannot, however, defer capital projects indefinitely and we shall persist with projects that are of strategic importance to the business.

This will include the construction of a new furnace, an upgrade to the UG2 concentrator to increase throughput and continuing the development of mining infrastructure to 18 level to extend the life of the mine. The annual cost of this five-year deepening project is expected to run at R130 million and is included in Zondereinde's F2016 stay in business capital estimate of R303.2 million.

## OUTLOOK AT ZONDEREINDE

With the mine's life of mine extended to over 20 years, and the installation of additional smelting capacity to deal with a greater quantity of UG2 ore, management has unlocked significant value at Zondereinde. The operation is now well placed to improve its position on the cost curve and to remain in production for at least another 20 years.

### Processing and refining

The group's processing and refining capability is a strategic advantage. The review we embarked on last year highlighted a number of options which we have pursued in the intervening period.

Production of UG2 at Zondereinde is planned to increase over time. Therefore the decision has been made to increase the throughput of the UG2 concentrator from the current 90 000 tonnes per month. The mine is carrying out certain test work before finalising the design parameters for the upgrade. This project is expected to cost R60 million.

Whilst the board has approved capital expenditure for the installation of an additional 20MW furnace as part of the smelter expansion and de-risking programme a sum of R10.0 million has been committed to date for design and drawing work for the new furnace. This project, estimated at R750.0 million, is expected to be completed over the next three years, market conditions allowing. The additional capacity will add significant mining flexibility, allowing for higher volumes of UG2 ore to be mined and treated. The additional capacity will support the growth in production from Booysendal.

A new autoclave with sufficient capacity to match the potential throughput from the expanded smelter facility was installed and commissioned at the base metal removal plant earlier this year at a cost of R31.0 million.

## BOOYSENDAL

Booysendal continued the ramp-up to its annual steady-state PGMs production target of 160 000oz planned to be reached in the first half of F2016.

Operationally good progress is being made with the equipping of the last two production sections, scheduled for October 2015, to complete the original capital footprint. The concentrator performed well above its nameplate capacity in the last three months of the year, achieving an average recovery of 86%. The plan to exploit the Merensky reef from the existing footprint advanced well with the box cut completed and the development of the declines in progress to extract a bulk sample for metallurgical test work. This work is expected to be complete in the second half of F2016 following which a decision will be made on developing a Merensky mining module.

During the new financial year conceptual design work on exploiting the Booysendal South orebody (including the former Everest mine infrastructure) will be progressed to a feasibility study. The decision to begin construction of new mining modules will be taken against the background of current and expected PGM market conditions and the potential return on investment. The feasibility is expected to cost R22.0 million and will be completed by May 2016.

For the year as a whole Booysendal's run-of-mine production totalled 1 670 437 tonnes (F2014: 1 233 089 tonnes) with the tonnage milled increasing to 1 786 375 tonnes (F2014: 1 517 109 tonnes) at a head grade of 2.6g/t (F2014: 2.6g/t).

### Health and safety

As underground production ramped up, safety statistics regressed compared to the preceding year. The LTIIR rose to LA 0.54 (F2014: 0.27) per 200 000 hours worked while the RIIR was also higher at 0.41 (F2014: 0.21). Safety awareness remains a key focus area for management at Booysendal. The mine continues to deliver a good safety performance with a key differentiator being the mechanised mining method.

### Costs and capital expenditure

As the mine has progressed towards steady state, costs have approached the sort of levels we might expect when underground operations are delivering fully to the mill. Less material will be drawn from the surface stockpile to augment underground material. Booysendal's total operating costs were R1 192.2 million against R806.8 million in F2014 with unit operating costs 0.9% lower at R358 554/kg (F2014: R361 902/kg) and cash costs 11.3% higher at R308 719/kg (F2014: R277 308/kg).

The 0.9% drop in unit operating cost in F2015 at Booysendal results from the lower depreciation charge incurred by the mine following the change in depreciation methodology mentioned in the CFO's review on page 68.

The higher rand per tonne milled operating cost of R765/ton (F2014: R688/ton) and cash cost of R658/ton (F2014: R527/ton) at Booysendal is attributable to the fact that in the prior year a higher proportion of milled tonnage was sourced from the pre-production stockpile.

As Booysendal reaches its design capacity capital expenditure levels have declined accordingly. Total expenditure excluding the Everest mine asset acquisition for the year came in at R398.8 million, below the planned level of R483.4million (F2014: R539.6 million). Booysendal's F2016 stay in business capital is estimated at R112.5 million, with project capital estimated at R250.0 million. Project capital will be spent on the continued development of the Merensky decline to extract a bulk sample and the completion of the current UG2 decline. Total capital expenditure since the start of the phase 1 Booysendal mine development is expected to close out at R4.5 billion.

## OUTLOOK AT BOOYSENDAL

With steady state production on track, the original capital footprint should be completed by December 2015. There is potential to add two additional production levels by continuing the development of the primary decline system, thereby increasing the production profile in a very capital efficient manner.

# MATERIAL ISSUES

This year we are reporting in terms of our material issues – those issues that are most material to the business and stakeholders, and which fundamentally influence the assessments and decisions of stakeholders. In the pages that follow we discuss those material issues which, by their very nature, touch on all aspects of our business and its sustainability.

## MATERIAL ISSUE 1:

### ENSURING THE SUCCESSFUL DELIVERY AND EXECUTION OF OUR BUSINESS STRATEGY

***It is the responsibility of executive management to set realistic and achievable strategic targets for the business (see business model and strategy on page 7 and 8). As a public company, the success of this strategy affects shareholders, or the providers of capital, and a range of other stakeholders, most importantly the group's employees. In terms of this material issue we discuss these challenges and our response.***

### CHALLENGES

**Demand and prices for PGMs**

At the end of the financial year the dollar prices for PGMs were:

- Pt: US$1 078/oz (2014: US$1 480/oz)
- Pd: US$677/oz (2014: US$844/oz)
- Rh: US$875/oz (2014: US$1 115/oz)

The average price realised over the year, for Northam's basket of metals (Pt, Pd, Rh, Au) was US$1 108/oz (2014: US$1 198/oz) for Zondereinde and US$1 084/oz (2014: US$1 186/oz) for Booysendal.

The rand 4PGE basket price per unit increased by only 2.2% and 0.9% at Zondereinde and Booysendal respectively, yet unit cash costs increased by 7.6% and 11.3% at the respective mines.

The downtrend in prices resulted from the broadly lacklustre demand for PGMs, together with continuing steady supplies of metal from primary producers, above-ground stocks, and recycling.

Demand for PGMs remains dependent upon global economic conditions. In the autocatalyst sector in particular, projected increases in global sales of motor vehicles and tightening missions legislation are forecast in the longer-term to underpin increasing consumption of PGMs.

### RESPONSE

Northam, like all producers, has little or no influence over demand and metal prices, and is essentially a price-taker.

However, the group contributes towards a number of industry-led initiatives to stimulate various avenues of demand. Most notable is the Platinum Guild International (PGI), which serves as a platform for consumer and trade markets for platinum jewellery.

Northam has also been supportive of the establishment of the World Platinum Investment Council (WPIC) during 2014, which seeks to promote investment in physical PGM stocks.

## CHALLENGES

**Escalating costs**

The entire industry is faced with inescapable cost increases. The effect of wage increases, combined with soaring electricity tariffs is likely to add approximately 10% per annum to Northam's current cost base in the foreseeable future.

Although the sustained weakening of the rand against the US dollar has the effect of partially offsetting the decline in dollar prices for PGMs, a weak currency ultimately adds to imported input costs.

## RESPONSE

Management has initiated a group-wide cost cutting exercise. Each and every manager has had to examine budgets and come up with cost-saving ideas.

Given that labour accounts for such a high proportion of the cost base, we keep a tight rein on recruitment, and only appoint additional employees in critically important positions.

At the deep-level Zondereinde mine, unit mining costs at R386 117/kg are uncomfortably close to the R409 025/kg realised.

Shareholders and lending institutions need a level of comfort to fund companies like Northam, which are looking to bring new mines into production, and make up for the diminishing primary supply from South Africa.

At Northam the strategy is to shift production towards the shallow and mechanisable orebody at the Booysendal property, with its lower cost profile.

Over the next few years, the new Booysendal South mine (previously Everest) will be developed to complement the existing North mine.

In South Africa, electricity is supplied by Eskom, the national electricity supplier. In recent years, Eskom's tariffs and supply shortages have increased steadily, by 16% in 2012, 8% in 2013, 9% in 2014 and 13% in 2015. In F2015, Northam's electricity spend totalled R517.1 million (84% at Zondereinde and 16% at Booysendal).

These sustained increases in electricity costs have already spawned a number of energy efficiency and saving programmes. Certain intensive usage functions have been shifted to off-peak periods. However, Zondereinde has no further capacity for introducing any additional energy conservation measures without constituting a risk to employees.

# MATERIAL ISSUES CONTINUED

## CHALLENGES

### Industrial action

## RESPONSE

The group remains vulnerable to any potential strike action and community service delivery protests.

In January this year a LA work stoppage at the Zondereinde mine resulted in five days' lost production. Zondereinde, with its relatively high cost profile, is particularly vulnerable to any slippage in tonnages, which has a deleterious effect on unit costs and ultimately on the profitable operation of the mine. For this reason (and others) employee and union relations need to be very carefully managed. The five-month strike in the PGM sector in 2014 was instructive, with the emergence of AMCU, a union to rival the NUM.

The three-year wage agreement concluded in July 2015 with the NUM signals some stability going forward. (See *Material issue 3*)

## CHALLENGES

### Smelting capacity

Northam's processing facilities were built in 1987/88, when the mine was first established. At the time the smelter was designed to smelt concentrate containing base metal sulphides, typically associated with Merensky ore.

With the advent of the UG2 expansion in 2000, and the current profile of the ore mix, the existing 15MW furnace has reached its nameplate capacity, and is also limited in terms of the concentrate's $Cr_2O_3$ levels.

Given that production growth will be mainly from UG2 orebodies, the constrained smelting facilities could pose an operating risk on the one hand, and could impair the company's ability to execute its expansion strategy on the other, primarily in the UG2-rich eastern limb.

## RESPONSE

The company's processing and refining capability represents a clear strategic advantage, which could be further developed and exploited.

Following a detailed review of the group's requirements, and the available technology, a 20MW AC furnace has been selected as the preferred option, thereby increasing smelter capacity by 600 000oz per annum.

Importantly, the operating risk will be mitigated by a second processing stream which will be able to process UG2 concentrate.

With board-approved capital expenditure of R750.3 million, a sum of R10 million has been committed to date for design and drawing work. This project is expected to be completed over the next three years.

# MATERIAL ISSUE 2:

## CREATING AND MAINTAINING SAFE WORKPLACES THAT SUPPORT OUR EMPLOYEES' AND CONTRACTORS' HEALTH AND LIVELIHOODS

***We aim to create and maintain safe and healthy environments for our employees and contractors. We will do this by continuously seeking to reduce injuries, applying appropriate technologies, through communication and training, and reinforcing operational standards and responsibility.***

### HEALTH AND SAFETY

The health and safety of Northam employees is of paramount importance and takes precedence over all production objectives. We are guided by extensive legislation and regulations, notably the Mine Health and Safety Act No 29 of 1996. (For details, please go to our *Material issue 5* on page 102.)

Key features of our health and safety structure and systems:

- The health, safety and environmental (HSE) board sub-committee is responsible for overseeing compliance with health and safety laws and regulations that may have an impact on the company.
- Operational health and safety is the responsibility of the general manager at each operation.
- Day-to-day safety management is delegated to the operational managers, who are supported by the mine health and safety departments.
- Operational and joint management and employee health and safety committees meet, at a minimum, on a monthly basis.
- The operations maintain policies and procedures, detailed records and reports on safety matters, accidents and their severity, transgressions and remediation work. This information is analysed and used to improve safety performance.
- Reports on health and safety are submitted to the HSE committee, which is tasked with health and safety matters for further interrogation and oversight.
- All employees and contractors receive safety induction training on an annual basis, and intermittently during the year, for example, when they return from leave.
- Personal protective equipment (PPE) is supplied to employees and a comprehensive code of practice guides the allocation of PPE for occupational-specific requirements.

#### Participatory approach

Northam encourages the participation of employees and management in all health and safety matters. Employees may participate in the union's health and safety committees through their elected officials.

**At Zondereinde, the joint management and employee-represented health and safety committee** meets on a monthly basis or more frequently if required. The committee is responsible for the identification of critical issues that may have an effect on the health and safety of employees and the environment as well as for inspections, audits and accident investigations, identifying areas for training and development, and providing personal protective equipment. The committee's main focus is on empowering employees to take responsibility for their own health and safety, and the health and safety of others, by identifying and reporting potentially hazardous situations.

**Both Zondereinde and Booysendal have operational HSE committees** which hold monthly meetings and are chaired by each operation's general manager and attended by two full-time health and safety representatives who have been elected by employees. Safety representatives attend mine production meetings where safety concerns are discussed and receive training in safety. In total, 72 safety representatives were trained at the new on-mine training centre at Booysendal during the year. Zondereinde's HSE committee aligns its activities with the joint health and safety committee.

**Booysendal** also has a **concentrator plant HSE committee**, which meets monthly, and a **special health and safety committee**, which meets every quarter to discuss unresolved issues raised at business unit level. At this quarterly committee meeting, incidents and accidents are discussed and reviewed and common risks are identified and deliberated as a preventative measure.

#### Safety performance in F2015

All safety-related incidents are considered very seriously at Northam, and continuous efforts are made to reinforce operational standards and responsibility.

Analysis of safety incidents indicates that injuries are generally associated with the following activities and/or materials:

- Material handling
- Trucks and tramming
- Falls of ground
- Winches and rigging
- Slips and falls
- Moving machinery
- Hydropower
- Ventilation
- Explosives

# MATERIAL ISSUES CONTINUED

Traditionally, handling of materials and falls of ground have been the main contributors to injuries at Zondereinde – with employees involved in construction, development and stoping activities most at risk. Focused training and disciplinary measures manage the prevalence of behaviour-based safety transgressions. Disciplinary measures include counselling; verbal and written warnings; suspension without pay; and dismissal. The Du Pont safety management programme, instituted in 2012, is to be discontinued and will be replaced by the Chamber of Mines' recommended safety system in F2016.

No fatalities were reported during the year under review (F2014: 0).

Northam defines a lost time injury (LTI) as an injury which results in one to 13 days of lost time while a reportable injury (RI) is an injury which results in lost time of 14 days or more. The LTI and RI incidence rates are based on 200 000 man-hours worked.

## Zondereinde

In F2015, Zondereinde achieved three million fatality free shifts. 96 LTIs were reported, of which 69 were reportable. The primary causes of LTIs in F2015 were related to the manual handling of material and minerals and to falls of ground.

Whilst the total number of injuries recorded declined year on year resulting in an improved lost time injury incidence rate (LTIIR), the severity of injuries sustained resulted in an increase in the reportable injury incidence rate (RIIR). Overall the operation's LTIIR was LA 1.31 per 200,000 hours worked (2014: 1.70) and the RIIR was 0.94 (2014: 0.86).

Nobody was injured when shaft steelwork was accidentally damaged during a rope-change exercise at Zondereinde's No.1 shaft on July 28 last year. The accident did, however, put the shaft out of commission for six weeks.

The DMR imposed six Section 54 safety-related work stoppages at Zondereinde during the year under review. The stoppages were all section or incident specific, relating to a range of safety issues.

### FATALITIES – ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 0 | 0 | 1 | 2 | 5 |

### LOST TIME INJURY INCIDENCE RATE PER 200 000 HOURS WORKED - ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| LA 1.31 | 1.70 | 1.50 | 1.91 | 1.34 |

### REPORTABLE INJURY INCIDENCE RATE PER 200 000 HOURS WORKED - ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 0.94 | 0.86 | 0.83 | 0.88 | 0.74 |

### FATAL INJURY INCIDENCE RATE PER 200 000 HOURS WORKED - ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| LA 0.00 | 0.00 | 0.01 | 0.02 | 0.06 |

To date, Zondereinde has applied the following Mining Industry Occupational Safety and Health (MOSH) preventative measures:

- Hearing-protection devices
- Netting with bolting
- Entry examinations and making safe
- Proximity detection system

## Booysendal

At the end of F2015, Booysendal achieved 1,917,768 million fatality-free shifts, No fatalities have been recorded since inception of the mine in 2010. Booysendal's LTIIR was LA 0.54 (F2014 0.27) and the RIIR was 0.41 (F2014 0.21).

There were two safety-related work stoppages at the operation during F2015. On February 10, 2015 a Section 54 stoppage was imposed on the mine. The mine's Merensky boxcut development project was affected for six days, but this did not affect production. Another Section 54 stoppage was imposed on June 12, 2015, following a serious fall of ground related accident. The North mine was stopped and production lost for two days.

In F2015 Booysendal recorded 12 LTIs of which nine were reportable. The primary causes of LTIs for F2015 were falls of ground, trucks and tramming and materials handling. Compliance with standards and procedures remains a challenge. In order to mitigate this, we employ a high visibility of safety staff who work irregular shifts. We also conduct extensive coaching as part of our Hlokomela Tau! – Watch out for the Lion (danger)! – campaign.

The *Think fall of ground* initiative continued to be one of the key focus areas during 2015 and has resulted in significant improvements in examination techniques. The initiative involves officials going underground every Monday and Friday morning to ensure that employees are entering their worksites safely. Any deviations are rectified immediately and superior performance rewarded.

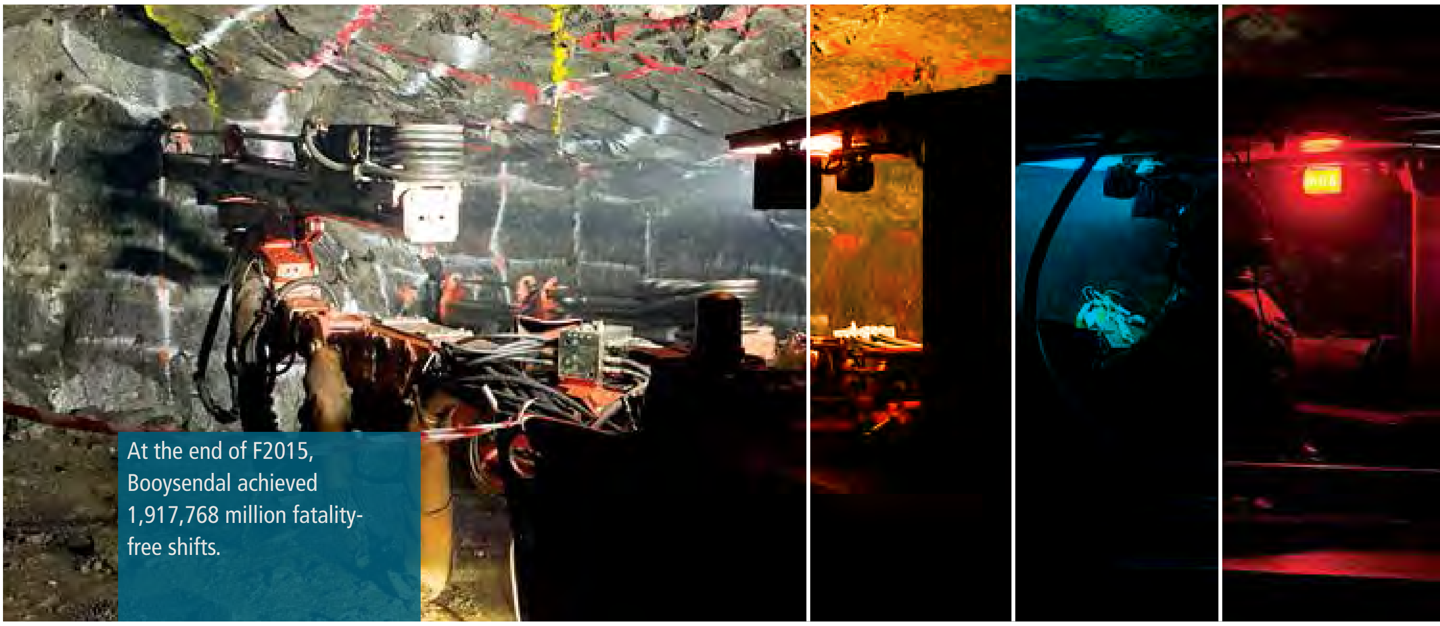
Other safety related features of F2015 included bringing about an increased compliance by contractors and sub-contractors with Northam's safety standards and incorporating the trigger action response plan into the early morning examination process.

### LOST TIME INJURY INCIDENCE RATE PER 200 000 HOURS WORKED - BOOYSENDAL

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| LA 0.54 | 0.27 | 0.53 | 0.19 | 0.65 |

### REPORTABLE INJURY INCIDENCE RATE PER 200 000 HOURS WORKED – BOOYSENDAL

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 0.41 | 0.21 | 0.33 | 0.05 | 0.22 |



At the end of F2015, Booysendal achieved 1,917,768 million fatality-free shifts.

# MATERIAL ISSUES CONTINUED

## Health performance in F2015

Northam is subject to stringent health and safety laws and regulations. The company seeks to comply fully with applicable health and safety legislation, and to ensure that all employees adhere to group safety standards. (For more details, please go to our *Material issue 5* on page 102.)

The primary occupational health risks identified at Northam in F2015 were tuberculosis (TB), noise induced hearing loss (NIHL) and occupational lung disease, and these constituted our key focus areas. We aggressively target HIV/Aids and TB with emphasis on prevention, through education initiatives and community involvement, as well as a monitored employee wellness programme, which includes the provision of anti-retroviral treatment (ART). We also concentrate efforts on drug and alcohol abuse, and their effects on employee performance.

## Healthcare services

We provide our employees and contractors with an integrated and holistic healthcare service, for primary and occupational health, through the Platinum Health medical aid scheme (the Suremed® scheme terminated on 31 December 2014, with the Platinum Health scheme becoming active on 1 January 2015).

Healthcare services are offered to all employees and contractors who belong to the scheme and to their families. A network of doctors, specialists and dentists is contracted to the scheme. As well as localised health care, scheme members also have access to the Netcare® and Life® networks countrywide.

Programmes designed specifically for occupational health include:

- Wellness
- Medical surveillance
- Injury-on-duty management
- Occupational and chronic disease management
- Rehabilitation and back-to-work programmes
- Emergency care

At Zondereinde, healthcare services are provided on site and at a network of medical facilities where employees reside. Five hospitals are available to employees in the area. The service also provides on-site paramedics with emergency response vehicles, social workers and physiotherapists. In addition, Platinum Health administers a comprehensive TB and HIV/Aids management programme at the operation.

Booysendal's medical facilities are located at the Mashishing medical station, some 90 kilometres from the mine. The scheme's healthcare services include:

- An on-site emergency facility with four full-time 24/7 paramedics available for the treatment of accidents, injuries and minor health issues
- Two on-site ambulances on permanent standby with a backup facility at Dwarsrivier and Thorncliffe, approximately 15 and 12.5 kilometres respectively from Booysendal mine
- Access to helicopter services
- Medical centres in Mashishing, Middelburg and Nelspruit

Through the Platinum Health scheme, families in Mashishing, Middelburg, Nelspruit, Burgersfort and Steelpoort areas have access to these facilities.

## HIV/AIDS

Northam has a comprehensive HIV/AIDS policy in place which covers employee care, education programmes, information confidentiality and promotes non-discrimination. All Northam employees have access to professional counselling and support including voluntary counselling and testing (VCT) and anti-retroviral therapy (ART).

The Northam HIV/ AIDS programme focuses on the following:

- Encouraging employees who are HIV-negative not to participate in high-risk behaviour through, the mass distribution of condoms, the treatment of sexually transmitted infections (STIs) and a peer education programme
- Early detection and identification of HIV to limit high-risk behaviour among those infected and to start them on a treatment regime that can prolong healthy living (the VCT programme underpins this objective and provides the necessary counselling)
- Encouraging infected employees to participate in the wellness programme, which includes the provision of ART. Comprehensive counselling is provided to ensure that employees understand and accept the long term implications of participating in the ART programme.

### Zondereinde

Zondereinde's HIV/ AIDS programme comprises:

- Health education
- Campaigning
- Clinical management (VCT, pre- and post-test counselling, adherence testing and counselling, prevention of mother-to-child transmission, and HIV treatment)
- Laboratory investigations

In F2015, 1 250 employees were registered on the VCT programme (F2014: 1 049). Of these, 249 tested positive. A total of 144 employees currently participate in the HIV/AIDS wellness programme.

Zondereinde's peer educator programme includes 20 employees who form part of the support structure that provides counselling and training for employees infected and affected by HIV/AIDS.

VCT ENCOUNTERS – ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 1 250 | 1 049 | 1 088 | 1 659 | 271 |

### Booysendal

Booysendal implemented a wellness and disease management policy and programme in March 2015. The programme is an effective method to promote health and wellness amongst our employees as well as our mining and processing contractors.

Our programme promotes a healthy lifestyle and addresses chronic or life-threatening diseases such as HIV/AIDS and TB. In addition, injuries which have may result in a medical disability or occupational incapacity such as sexually transmitted infections, cancer, heart diseases, chronic obstructive airways diseases, diabetes, asthma and hepatitis.

Our wellness programme consists of a variety of activities such as health education, medical screening, health coaching, weight management programmes, wellness newsletters and fitness educational information.

Booysendal's HIV/Aids peer education group is managed by contractor, Minopex. The contractor aims to educate employees about chronic illness, the spread of contagious diseases and prevention measures. Minopex encourages employees to undergo VCT and ensures that effective intervention, assistance and referral systems are in place. They manage the proper distribution and supply of preventative promotion material.

VCT is done under the auspices of the wellness programme. Information about the numbers of employees registered on the VCT programme and taking ART medication is kept confidential. Employees requiring treatment are referred to the relevant medical practitioner.

## TUBERCULOSIS

TB is a serious opportunistic infection and is the leading cause of death for people living with HIV. Northam runs a highly effective, directly observed treatment regime, which is aligned with the TB guidelines of the World Health Organisation.

### Zondereinde

In F2015, 111 new cases of TB (F2014: 97) were identified at Zondereinde. A total of 79 employees were discharged from the programme. A total of 60 employees remained on TB treatment at the end of F2015 (F2014: 68)

NEW CASES OF TB – ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 111 | 97 | 70 | 85 | 93 |

### Booysendal

In F2015, four (F2014: six) new cases of TB were identified at Booysendal – all of whom are receiving treatment.

NEW CASES OF TB – BOOYSENDAL

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 4 | 6 | 2 | 3 | – |

## NOISE INDUCED HEARING LOSS

Excessive noise exposure is one of the most pervasive health hazards in mining. Prolonged exposure to hazardous noise causes loss of hearing acuity, which occurs gradually and is known as noise-induced hearing loss (NIHL). Northam ensures that it is legally compliant by guaranteeing that the noise associated with underground equipment is contained to below 110dBA. All Northam employees are issued with personal protective equipment (PPE) to ensure that any exposure to noise levels above 85dBA over an extended period of time is limited.

Training in the use of PPE and prevention of NIHL is ongoing and forms part of the mines' hearing conservation programme overseen by a hearing conservation committee.

### Zondereinde

In F2015, 27 incidences of NIHL were detected and referred for compensation (F2014: 20), of which 9 were compensable (F2014: 2).

NEW CASES OF NIHL – ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 27 | 20 | 43 | 44 | 18 |

### Booysendal

Booysendal has a hearing awareness campaign in place, as well as a hearing conservation committee, which holds quarterly meetings. In F2015, 18 incidences of NIHL were detected (F2014: 41) of which one received compensation (F2014: 1).

NEW CASES OF NIHL – BOOYSENDAL

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 18 | 41 | 28 | 19 | 17 |

## OCCUPATIONAL LUNG DISEASE

The use of hydropowered mining equipment at Zondereinde helps to reduce employee exposure to both noise and dust. Bushveld Complex rock does not contain quartz, thereby eliminating the threat of silicosis and occupational lung disease. Neither Zondereinde nor Booysendal reported any such cases.

## DRUG AND ALCOHOL TESTING

Drugs and alcohol are not tolerated in the workplace. Tests are conducted on a daily basis, and particularly after any safety incident. Employees who test positive are subject to disciplinary procedures with assistance and rehabilitation offered to overcome dependency.

# MATERIAL ISSUES CONTINUED

## MATERIAL ISSUE 3:

**ESTABLISHING AND MAINTAINING CONSTRUCTIVE COMMUNICATION CHANNELS WITH OUR EMPLOYEES AND THEIR REPRESENTATIVE BODIES**

***We understand the importance of establishing and maintaining constructive communication channels with our employees and their representative bodies, both for our employees' sake and that of the sustainability of our business. We do this through stakeholder engagement and sound employee relations based on direct channels of two-way communication.***

Northam encourages open communication and employees are encouraged to raise issues of concern and interest via the formal and informal structures in place, including through human resources structures, line management and union structures. Relations with employees and organised labour are governed by recognition agreements and conditions of employment by legislation.

### HUMAN RESOURCE STRUCTURES

A senior manager, tasked with overseeing the operation's human resources function, is in place at each operation and reports to a general manager. The general managers and chief executive are ultimately responsible for the management of human capital while the SE&HR committee assumes board level oversight of the management of human capital.

The SE&HR committee is also responsible for ensuring that employees are equitably and fairly rewarded in alignment with company standards and industry peers. The committee complies with the Companies Act in terms of its social and ethical obligations. It is also responsible for governance of employment contracts and the remuneration packages of senior management, ratifying their appointments, setting mandates, approving short term incentive schemes and bonuses, and overseeing shares in line with the Northam SIP.

Mine-based human resources departments are responsible for the implementation and achievement of human resource priorities, including all aspects of the Mining Charter:

- Training and development
- Mentorship and talent management
- Recruitment and retention
- Succession planning
- Career plans
- Employment equity programmes
- Labour relations
- Human resource development
- Stakeholder and compliance management

The chief executive and executive: human resources are tasked with overall responsibility for employment equity and are, therefore, responsible for providing strategic direction and priorities in respect of equity and transformation.

### FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

All employees, contractors and suppliers have the right to freedom of association and to act out this freedom within the bounds of the law, collective agreements and the rights of others. Employees and their elected representatives must shoulder the duties and responsibilities that pertain to this right.

Wages and other conditions of service are negotiated on an annual basis, or less frequently, as determined by the wage agreement in place. At Northam operations, unions registered with the DoL, which represent at least 15% in any particular bargaining unit, receive organisational rights including:

- Access to the workplace, allowing qualifying unions to recruit members and host meetings on mine property outside of working hours
- Access to payroll deduction facilities
- The opportunity to elect employee representatives for internal disciplinary processes
- Paid leave for representatives to allow them to carry out union-related duties

When a registered union reaches a representative threshold of 33.3% within a bargaining unit, it acquires the right to bargain for that particular unit. The company aims to engage in good faith to reach agreement on matters such as wages, conditions of service and other matters of mutual interest.

At Zondereinde, employees are divided into three bargaining units. Category 2 to 8 comprises operator level employees, Category 9 miners and artisans, and Category 10 officials. A total of 85% of the workforce in these bargaining units is covered by collective bargaining agreements. AMCU disputed their 13% representation via the CCMA and upon hearing the matter, the CCMA ordered that AMCU participate in a verification process to determine its ultimate representation at Zondereinde.

At Booysendal, Murray & Roberts Cementation Proprietary Limited (MRC) is currently unionised and holds regular structured meetings with NUM and AMCU while Minopex holds employee forum meetings from time to time. A total of 32.8% of the workforce is covered by collective bargaining agreements.

### RECOGNISED UNION REPRESENTATION AT ZONDEREINDE F2015 (PERMANENT EMPLOYEES)

| | Category 2 to 8 | | Category 9 | | Category 10 | | Total | |
|---|---|---|---|---|---|---|---|---|
| Complement | 5 504 | | 374 | | 371 | | 6 448 | |
| NUM | 4 736 | 86.0% | 147 | 39% | 133 | 36% | 5 016 | 78% |
| Solidarity | 16 | 0.3% | 66 | 18% | 105 | 28% | 187 | 3% |
| UASA | 22 | 0.4% | 93 | 25% | 67 | 18% | 182 | 3% |
| Total | 4 774 | 86.7% | 306 | 82% | 305 | 82% | 5 385 | 84% |

### RECOGNISED UNION REPRESENTATION AT BOOYSENDAL F2015 (PERMANENT EMPLOYEES)

| | Category 2 to 8 | | Category 9 | | Category 10 | | Total | |
|---|---|---|---|---|---|---|---|---|
| Complement | 59 | | 8 | | 83 | | 150 | |
| NUM | 25 | 42% | 0 | 0% | 0 | 0% | 25 | 17% |
| Total | 25 | 42% | 0 | 0% | 0 | 0% | 25 | 17% |

At Zondereinde, Northam has formal structures in place to facilitate consultation with organised labour including:

- **An employee equity and training committee**, which is consulted on issues relating to employment equity and human resource development, to review the company's employment equity, recruitment, and training and development policies, to ensure equity and transparency within these procedures.
- **A six-a-side committee**, comprising management and organised labour, tasked with the smooth progress of the hostel de-intensification programme.
- **A corporate social investment (CSI) committee**, which oversees all initiatives relating to mine community and rural development, including review and approval of all applications regarding CSI, local economic development (LED) and socio-economic development.
- **A joint health and safety structure**, which is a statutory component of the Mine Health and Safety Act No 29 of 1996, with organised labour participating in this process to ensure that the company adheres to safe operating practices.

## WAGE AND CONDITIONS OF SERVICE NEGOTIATIONS

Northam management actively and continually seeks to build constructive and progressive relationships, and to avoid unnecessary work stoppages, which would inevitably have a negative impact on the company's performance and the welfare of employees. The company has an established protocol and communication strategy in place to deal with industrial action, which includes maintaining open channels of communication with unions, employees, shareholders and investors, labour relations experts, mediators and facilitators, security services and the media.

The company also acts in compliance with the Labour Relations Act No 66 of 1995 and may use established processes, inclusive of legal relief when necessary, to bring any form of strike action to a swift resolution. The company is committed to engage and negotiate with any union that achieves the necessary representation levels.

## PERFORMANCE IN F2015

The last two years have been challenging for the industry in the area of labour relations. Management's approach has been to increase and intensify the engagement process with unions and to deal swiftly with any issues arising.

There was a one-week unprotected work stoppage at Zondereinde at the beginning of the calendar year, when Northam's urgent application for an interdict was granted by the Labour Court. The two-year wage agreement which was reached on 21 January 2014 after the 11-week strike at Zondereinde remained in place until June 2015 when F2016 negotiations began at this operation. Post financial year end, a three-year wage settlement was reached which provides certainty and stability at this operation for a sustained period.

At Booysendal, mining and plant contractors signed two-year agreements in July 2013 and no major labour difficulties are expected on the eastern limb. Nevertheless, civil unrest (frequently the result of heightened expectations among communities in the area) took place post the year end in July this year. Employees were unable to travel to work safely, and this resulted in three days of production losses at Booysendal as a result of road blockages and threatening behaviour.

The current leadership model is being reviewed to determine what aspects can be adjusted to accommodate the changing labour climate, with an emphasis on succession and communication.

# MATERIAL ISSUES CONTINUED

## HUMAN RIGHTS AND CODE OF ETHICS

Northam upholds the basic labour rights of the Fundamental Rights Convention of the ILO, through the implementation of fair employment practices. Our policies and practices comply with South Africa's employment equity requirements. All employees are treated fairly, irrespective of origin, race or gender.

Northam's SE&HR committee monitors support and respect for the protection of internationally proclaimed human rights, ensuring that Northam is not complicit in human rights abuses. Systems are in place to deal with issues of discrimination and human rights breaches.

Northam's code of ethics clearly safeguards the rights of all employees to a working environment free of discrimination on the basis of race, gender, sexual orientation, religious belief, political affiliation, age or disability. Effective grievance and disciplinary procedures are supported by a sexual harassment policy. In F2015, no incidents of sexual harassment were reported.

All Northam employees are expected to adhere to our code of ethics. Supervisors and managers are required to take all reasonable steps to ensure that the people for whom they are responsible are aware of and uphold the guidelines set out in the code. These steps include consistent demonstration of exemplary behaviour, activities to foster a culture in which employees understand their responsibilities and feel comfortable to raise concerns without fear of retaliation or victimisation, ensuring mandatory policies, standards and procedures are accessible and understood, and responding promptly to legitimate concerns.

All our employees are treated fairly, irrespective of origin, race or gender.

# MATERIAL ISSUE 4:

## ENSURING THAT OUR STAKEHOLDERS BENEFIT, WHERE APPROPRIATE AND POSSIBLE, FROM THE VALUE CREATED BY OUR COMPANY

***We create value for stakeholders in many ways, including increasing production and sales; increasing earnings and growth; through taxes and royalties; transformation; salaries and wages; training and development; housing and accommodation; and investing in communities in the form of local economic development, preferential procurement and corporate social investment. We recognise that stakeholders, be they shareholders, employees or communities, have certain expectations of the company, not all of which may be appropriate or possible to meet. We need to understand and manage these expectations through credible and effective stakeholder engagement.***

### VALUE ADDED STATEMENT

| | FY2015 | | FY2014 | |
|---|---|---|---|---|
| | % | R'000 | % | R'000 |
| Sales revenue | | 6 035 535 | | 5 339 397 |
| Less: Purchase of goods and services in order to operate and produce refined metals | | (3 435 581) | | (3 294 369) |
| Value added by operations | 199.8 | 2 599 954 | 92.8 | 2 045 028 |
| Add: Share of earnings from associate | 2.81 | 28 769 | 0.1 | 2 137 |
| Investment revenue | 5.4 | 72 043 | 2.7 | 59 963 |
| Net sundry (expenditure)/income | (107.3) | (1 395 542) | 4.4 | 97 011 |
| **Total value added** | **100.0** | **1 300 742** | **100.0** | **2 204 139** |
| **Value distributed** | | | | |
| **EMPLOYEES** | 103.7 | 1 349 989 | 58.5 | 1 288 616 |
| Salaries and wages | 108.1 | 1 405 790 | 60.9 | 1 341 254 |
| Contributions to retirement benefit funds | 8.7 | 114 565 | 4.5 | 99 275 |
| Contributions to health-care funds | 5.1 | 66 074 | 2.7 | 58 615 |
| Pay-as-you-earn deducted | (18.2) | (236 440) | (9.6) | (210 528) |
| **GOVERNMENT** | 30.0 | 391 727 | 11.9 | 262 992 |
| Mining and non-mining tax, including capital gains tax | 13.3 | 172 613 | 4.4 | 96 229 |
| Deferred tax | (4.4) | (57 182) | (3.2) | (70 030) |
| Dividend withholding tax | 0.9 | 12 447 | | |
| Royalties | 2.0 | 27 409 | 1.1 | 26 265 |
| Pay-as-you-earn deducted from employees | 18.2 | 236 440 | 9.6 | 210 528 |
| **PROVIDERS OF CAPITAL** | | | | |
| Dividends | 0.5 | 6 475 | 0.5 | 11 066 |
| Finance charges | 18.8 | 245 937 | 8.0 | 176 124 |
| **BROADER COMMUNITY** | | | | |
| Corporate social responsibility | 0.5 | 6 805 | 0.2 | 2 917 |
| **Total value distributed** | **153.8** | **2 000 933** | **79.1** | **1 741 715** |
| **RETAINED BY COMPANY** | (53.8) | (695 709) | 20.9 | 462 424 |
| Depreciation and write-offs | 26.1 | 339 949 | 20.2 | 445 875 |
| Decommissioning provision to meet statutory obligations | 0.6 | 7 540 | 0.4 | 9 345 |
| Retained income | (80.5) | (1 047 680) | 0.3 | 7 204 |
| | 100.0 | 1 300 742 | 100.0 | 2 204 139 |

# MATERIAL ISSUES CONTINUED

## CREATING VALUE FOR SHAREHOLDERS

The empowerment transaction has served as a catalyst for the launch of the group's business strategy. A new group of shareholders now stand to gain from the positive returns we intend to extract from the business, both in terms of share price growth and dividend flow.

## CREATING VALUE FOR EMPLOYEES

### Employment practices

Northam is committed to fair and progressive employment practices where long term employment opportunities are provided to employees to grow and develop their potential. Remuneration practices take account of the demanding skills required in the mining industry, as well as the difficulty of attracting skilled HDSAs to work in remote locations.

Northam's employment practices and policies are governed by South African legislation and regulations such as the Mine Health and Safety Act, the Employment Equity Act No 55 of 1998, the Skills Development Act No 97 of 1998, the Skills Development Levies Act No 9 of 1999, the Basic Conditions of Employment Act No 75 of 1997, the Labour Relations Act, the MPRDA, collective bargaining and recognition agreements with organised labour.

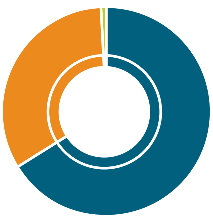
A formal grievance policy is in place, providing for both individual and group grievances. During F2015, 40 grievances were submitted, all of which were addressed and resolved.

Full-time Northam employees receive the following benefits:

- Membership of pension and provident funds
- Death benefits
- Access to medical care
- Housing and living-out allowances
- Study assistance
- Maternity and paternity leave

Minimum notice periods prior to the implementation of significant operational changes that could substantially affect employees are prescribed by legislation.

**Total employment 2015**



| | |
|---|---|
| Full-time employees | **6 610** |
| Contractors | **3 446** |
| Corporate office | **24** |

### Zondereinde

In F2015, Zondereinde employed 6 426 full-time employees and 2 122 contractors (F2014: 6 638 full-time employees and 2 150 contractors) and the operation's total employee turnover was 433 (6.7%).

Given the emphasis on local employment, engagement with the Thabazimbi municipality provides a platform for management to discuss required skills levels and competencies amongst the local populace.

Zondereinde's migrant labour contingent comprises 32.3% of its permanent workforce (including contractors) – meaning that they are sourced from South African provinces other than Limpopo and the North West. The operation's foreign labour workforce, drawn from beyond South Africa's borders, comprises 30.6% of permanent employees.

NUMBER OF EMPLOYEES AND CONTRACTORS – ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 8 548 | 8 788 | 9 148 | 9 163 | 8 927 |

EMPLOYEE TURNOVER RATE (%) – ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 7 | 4 | 1 | 7 | 7 |

### Booysendal

In F2015, Booysendal employed 184 full-time employees and 1 324 contractors (F2014: 174 fulltime employees and 1 247 contractors). The operation's total employee turnover was 10.7%.

Booysendal's employment policies and those of its contractors give preference to local employees and South African citizens as part of its commitment outlined in its social and labour plan (SLP). Booysendal has recruited an average of 60% of its workforce from local communities as part of its stated SLP commitment.

All contractors on site are obliged to commit to the company's local recruitment targets, and they are required to submit a monthly report detailing the number of local employees, resignations and terminations. The employment of migrant labourers is discouraged at Booysendal, particularly in the mine's unskilled categories. The company takes local employment very seriously, given the depressed economic conditions in the area and its potential impact on the company's operations.

NUMBER OF EMPLOYEES AND CONTRACTORS – BOOYSENDAL

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 1 508 | 1 421 | 1 915 | 2 468 | Not reported |

## Employee remuneration

Employees at the group's operations are remunerated in line with remuneration practice throughout the industry. For a significant period the wages of mineworkers have been under scrutiny.

Northam's remuneration model takes account of the demanding skills required in the industry. Benchmarking studies have demonstrated that entry-level mineworker wages in general, and those of Northam employees in particular, compare favourably with other sectors.

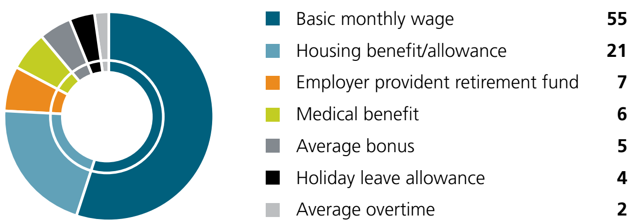
Wages and conditions of service are negotiated through engagement with employee representative bodies (labour unions recognised by the South African Department of Labour) who can prove 33.3% representation among the bargaining unit, to reach agreement on wages and other conditions of service. These negotiations are conducted at the end of the period for which the wage agreement is struck.

On 30 July 2015, Zondereinde management reached a three-year agreement with the National Union of Mineworkers.

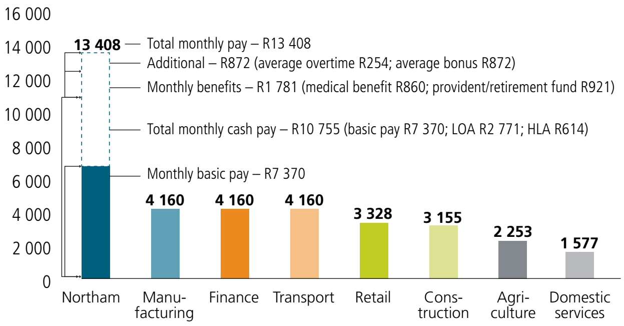
### ANALYSIS OF AVERAGE PAY FOR NORTHAM UNDERGROUND EMPLOYEES AS AT 1 JULY 2015

| | % of monthly average | Entry level Cat 02-08 |
|---|---|---|
| Basic monthly wage | 55.0 | 7 370 |
| Employer provident/retirement fund | 6.9 | 921 |
| Medical benefit | 6.4 | 860 |
| Housing benefit/allowance | 20.7 | 2 771 |
| Holiday leave allowance | 4.6 | 614 |
| Average overtime | 1.9 | 254 |
| Average bonus | 4.5 | 618 |
| **Total monthly average** | **100.00** | **13 408** |
| Per annum (underground employee) | | 160 894 |

**Northam: breakdown of remuneration (%)**




**Across-sector comparison of entry-level remuneration**




**Source:** National Minimum Wage Research Initiative (Wits) 2014 data
**Note:** No evidence of benefits/quantum of benefits in other sectors

## Employment equity and transformation

South African employment equity legislation is aimed at redressing the imbalances of the past through equal opportunity, non-discrimination and affirmative action. To rectify these imbalances, Northam focuses on the participation of black South Africans and women. The Mining Charter requires 40% of management to comprise HDSA employees by 2014, and for 10% of those to be women. Northam achieved a 51% HDSA level of management in F2015 with LA 45.01% at Zondereinde (F2014: 39%) and LA 68% at Booysendal (F2014: 64%).

Northam's chief executive and executive: human resources are responsible for employment equity, strategic direction and the priorities of equity and transformation. However the implementation of these practices is a line management function, while the SE&HR board committee oversees this aspect.

Northam's employment equity plan is compliant with the requirements of the Mining Charter and the Employment Equity Act. The company submits its employment equity plans and progress reports to the Department of Labour annually.

The employment equity and training committee structure, although equitably and transparently constituted, has had significant challenges in achieving its objectives. The company engaged with recognised organised labour structures and officials from the Department of Labour in order to address these challenges and realise requisite goals and targets.

A Future Forum has been established at Booysendal and comprises representatives of management, organised labour, the women in mining committee and the health and safety committee to assist with amendments to the workplace skills plan and employment equity plan and the monitoring of their implementation on a quarterly basis.

### HDSAS IN MANAGEMENT (%) – GROUP

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| LA 51 | 45 | 37 | 35 | 45 |

# MATERIAL ISSUES CONTINUED

## HDSAS AT BOARD LEVEL (%) - GROUP

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 50 | 44 | 56 | 64 | 62 |

## HDSAS AND WOMEN IN MANAGEMENT IN F2015

| | Occupational levels | Total workforce (number) | Target (%) | | Actual (%) | |
|---|---|---|---|---|---|---|
| | | | HDSAs | Women in mining | HDSAs | Women in mining |
| **Zondereinde** | Senior management | 8 | 40 | 10 | 25 | 13 |
| | Middle management | 68 | 40 | 10 | 44 | 9 |
| | Junior management | 200 | 40 | 10 | 46 | 9 |
| **Booysendal** | Senior management | 6 | 40 | 10 | 67 | 0 |
| | Middle management | 25 | 40 | 10 | 44 | 12 |
| | Junior management | 68 | 40 | 10 | 76 | 32 |

In F2015, Northam employed a total of 755 women, 70% of whom were working in the core disciplines of mining, metallurgy and engineering.

## Women in mining

Northam's engagement and consultation with women is undertaken by the employment equity and training committee at Zondereinde and the Future Forum at Booysendal, and is informed by consultation with local branch structures of the NUM.

The following major barriers and challenges have been identified by these structures:

- Scarcity of skills in the management category
- Perceptions about women in mining
- The suitability of protective equipment for the needs of women
- Underground facilities for women in the workplace

To address these challenges, Northam has implemented the following interventions:

- Women are actively sourced for bursaries and learnerships
- A talent pipeline aimed at developing women for positions in which they are under-represented
- Changing perceptions using training programmes for a diverse workforce
- Sourcing suppliers able to provide suitable protective equipment for female employees
- Identifying and discussing women's requirements and establishing appropriate arrangements and facilities

In F2015, Northam employed a total of 755 women (F2014: 537), 70% of whom were working in the core disciplines of mining, metallurgy and engineering. Women made up 8% of the workforce at Zondereinde (F2014: 7%) and 17% at Booysendal (F2014: 20%).

WOMEN IN MINING (%) – ZONDEREINDE

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 8 | 7 | 7 | 7 | 7 |

WOMEN IN MINING (%) – BOOYSENDAL

| F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|
| 17 | 20 | Not reported | Not reported | Not reported |

## Training and development

Northam's training and development programme aims to ensure that employees have the support they need to improve their competence and knowledge in the workplace and to grow as individuals. This programme includes:

- Legislative training (skills, health and safety)
- Learnerships
- External specialised training
- Bursaries and study assistance
- Adult education and training (AET)
- Mentorship
- Succession planning

Northam's training and development policy stipulates that emphasis be placed on the competence and competitiveness of employees as well as their personal development. The impact of training and development interventions is assessed in order to ensure that these interventions positively influence workplace behaviour.

Once Booysendal has moved from build up to steady state phase, each employee will have a personal development plan with reviews taking place on an annual basis. Zondereinde's personal development plans are being reviewed in F2016.

In F2015, the company spent a total of R21.8 million on training and development at Zondereinde (F2014: R16.7 million) and R3.3 million at Booysendal (F2014: R1.8 million). This is equivalent to 1.9% of the total wage bill (F2014: 2.1%).

Given the operations' employee requirements for the medium term, no portable skills training was conducted during F2015.

## Zondereinde

Literacy is important to Northam as it improves employees' ability to communicate effectively and clearly.

AET is available to all employees on a part-time basis and the company is accredited to offer AET up to General Education and Training Certificate (GETC) level or National Qualifications Framework (NQF) Level 1. In F2015, 349 employees (F2014: 268) attended the AET programme at Zondereinde.

Northam offers electrical, plater/boilermaker, rigging, underground mining and rock-breaking learnerships to all employees. In F2015, 13 employees (F2014: 16) participated in these learnership programmes.

Zondereinde's bursary programme offers bursaries to second-year students in the fields of mining, electrical, mechanical and metallurgical engineering. Zondereinde also offers in-service training to participating individuals during their vacations. Successful bursars are subsequently entered into a two-year graduate internship programme before they are appointed to the Northam workforce.

In F2015, eight students received support to the value of R916 653 for mining-related engineering degrees (F2014: eight students supported at a cost of R719 875).

# MATERIAL ISSUES CONTINUED

The current bursary programme includes eight black females in line with the company's strategy to increase female participation in professional occupations. To date, a total of R455 994 was paid for tuition, accommodation and other costs.

### ZONDEREINDE – LEARNING ASSISTANCE BREAKDOWN F2015

| | Expenditure (R) | Number of people | HDSAs % | Women % |
|---|---|---|---|---|
| AET | 2 738 275 | 349 | 59 | 6 |
| Learnerships | 696 238 | 13 | 69 | 15 |
| Bursaries | 916 653 | 8 | 100 | 100 |
| Study grants | – | – | – | – |
| Study assistance refunds | – | – | – | – |
| External training and skills development | 5 303 453 | 674 | 43 | 7 |
| Internal training and skills development | 12 136 748 | 6 258 | 55 | 7 |
| Total | LA 21 791 367 | 7 302 | 65 | 27 |

## Booysendal

A study of the literacy levels at Booysendal has revealed that contractors have an average minimum AET level 4 or Grade 9 qualification. AET is, therefore, not considered necessary on the mine. Northam has prioritised the facilitation of AET classes for local community members in order to improve their access to employment opportunities in the future. An independent service provider from the local community provides these classes.

In F2015, 10 community members were enrolled into AET and five completed the course (F2014: 10 and 5). A total of 21 employees participated in learnerships (16 men and 5 women) in the fields of mining, engineering and processing.

Booysendal's bursary programme offers bursaries to first year students in the fields of mining, electrical, mechanical and rock engineering and mine survey, areas of study that support the company's SLPs. These bursaries place emphasis on assisting students from Booysendal's surrounding communities. In F2015 six bursaries at a value of R900 000 (F2014: five and R391 612) were planned in terms of the revised SLP, for which approval is still pending.

### BOOYSENDAL – LEARNING ASSISTANCE BREAKDOWN F2015

| | Expenditure (R) | Number of people | HDSAs % | Women % |
|---|---|---|---|---|
| AET | 154 000 | 10 | 100 | 80 |
| Learnerships | 1 173 697 | 21 | 100 | 28 |
| Bursaries | 94 812 | 5 | 100 | 20 |
| Study grants | – | – | – | – |
| Study assistance refunds | – | – | – | – |
| External training and skills development | 1 421 594 | 88 | 58 | 29 |
| Internal training and skills development | 433 378 | 187 | 79 | 24 |
| Total | LA 3 277 481 | 311 | 87 | 36 |

Adult education and training (AET) is available to all employees on a part-time basis.

# MATERIAL ISSUES CONTINUED

## ACCOMMODATION AND HOUSING

The living conditions of employees is a key concern for Northam. The MPRDA and the Mining Charter provide the company with direction in respect of the provision of accommodation and housing for employees and contractors.

## REVIEW OF ACCOMMODATION STRATEGY

Northam began a review of its accommodation strategy in F2014. In F2015, the company began laying the foundation for a comprehensive roll out of enduring accommodation solutions. To this end, in February 2015 the board of directors approved a comprehensive strategy to provide further accommodation opportunities to employees of the Zondereinde and Booysendal mines. The strategy will focus the group's efforts for the next five years.

## ACCOMMODATION STRATEGY 2020

- The strategy promotes home ownership as the preferred sustainable tenure option while acknowledging that rental, residence units and company accommodation will also be required. Northam cannot provide any one accommodation type in isolation, something that is further necessitated by the geographic diversity of our mines.
- The role of Northam is that of a facilitator, creating an opportunity for employees and using its financial and other resources to secure best prices and quality. It is up to employees to choose to take up these opportunities.
- Accommodation provided to staff must be secure, decent and affordable. An employee must be confident that his or her tenure is legally secure, that it is affordable on his/her salary and that it is well designed and of quality construction.

The strategy recognises the economic conditions prevailing in the industry and has thus adopted a prudent five-year implementation roll out. Building programmes will be demand driven within the constraints of the company's financial position. The strategy represents a commercially and financially prudent use of group resources.

## ELEMENTS OF THE STRATEGY

Elements of the strategy include:

- the continued refurbishment of existing residences at Zondereinde into single rooms, upgrade of the visiting quarters and the improvement of social amenities around the residences
- the building at Zondereinde and Booysendal of
  - freehold home ownership units for Northam employees
  - freehold home ownership units for public participation
  - freehold rental units for Northam employees
- various loan options.

## PROGRESS TO DATE

### Zondereinde

The majority of Zondereinde's workforce comes from labour-sending areas – other countries, provinces and regions where they have their primary homes and families – and most employees have indicated that they would not like to be permanently housed in the area. A total of 2 568 employees are provided with a living-out allowance while another 3 016 live in residences provided by Northam. The living-out allowance for each category forms part of the annual wage negotiations between Northam and organised labour.

#### Residences

Our residence improvements will be the highlight of our accommodation efforts for the forthcoming financial year. We have prioritised the completion of our residence apartment upgrades and the density target of one man per room will be met by the end of 2016.

Some 1 828 single units have been created in terms of the residence conversion programme. During F2015 alone, the company spent R11.7 million on upgrading residences. A further 1 040 rooms are to be completed by December 2016.

Employees in residence accommodation are provided with meals, which are overseen by a dietician who draws up meal plans and monitors energy, macro and micro nutrient content. An average of 7 500 meals were offered to employees every day during F2015.

#### Housing

In 2005 Northam introduced the Mojuteng Home Ownership Scheme to promote home ownership among its Zondereinde employees. Employees are offered a home loan, a debt consolidation facility and a structured housing subsidy, which helps employees to increase disposable income levels and results in higher home loan approval rates.

A total of LA 375 housing units have been sold to employees in the Mojuteng suburb of Northam, 22 kilometres from Zondereinde. An additional 37 stands are currently being prepared for the construction of houses for the benefit of employees. In F2015, Northam paid R261 315 to the Thabazimbi Municipality for services in the Mojuteng township. The project is managed by Norplats Properties Proprietary Limited (Norplats) and costs incurred are debited to the cost of sales. Norplats has a loan account with Northam, which is repaid based on the number of houses sold to employees. We will also meet short term demand by purchasing, for resale, 24 free-standing units in Mogwase.

### Booysendal

Booysendal employees and contractors live predominantly in the towns and villages surrounding the operation, including Mashishing (formerly Lydenburg), Steelpoort, Burgersfort, Ngwaabe and Jane Furse. The mine only provides single unit accommodation for employees and core contractors at Tshufi residence where a total of 154 employees and contractors currently live (F2014: 185). The remaining employees and contractors opt to receive living-out allowances.

Home ownership solutions as part of the new housing strategy will be directed at permanent staff and contractors and take into account that the Booysendal South operations will ramp up towards the end of the decade requiring additional labour.

## FUTURE PLANS

Northam has acquired well situated land parcels in Mashishing and Northam and the land use rights process will commence shortly. This will place the company in a position, subject to timeous local government approvals, to commence construction of home ownership and rental units towards the end of F2016. These units are intended for the employees who receive the living out allowance. We will actively engage with the local municipalities to ensure adequate bulk services are made available for the various developments.

The company will continue to review the level of funds locked up in company owned housing to determine whether such housing can be made available to staff for home ownership.

## END GOALS

The successful conclusion of the accommodation strategy, combined with Northam's efforts to date, means that the majority of the workforce will have access to decent accommodation opportunities by the close of F2020. The provision of this tenure will promote our employees' interest and workplace contribution to Northam. The strategy will ensure that the group exceeds its Mining Charter obligations, create significant social capital and should enhance Northam's standing as an employer of preference.

# MATERIAL ISSUES CONTINUED

## CREATING VALUE FOR COMMUNITIES

### Approach and structure

Northam recognises its responsibility to contribute to local communities, providing project and infrastructural support in pursuit of socio-economic upliftment. The company seeks to mitigate any negative impacts on local communities. We maintain open and proactive communication channels with community structures and other stakeholders in order to deal with community concerns, expectations and developments.

In compliance with the requirements of the MPRDA and the Mining Charter, Northam's operations focus on contributing to mine, community and rural development. The company, therefore, pays significant attention to the establishment of LED projects identified in SLPs.

Northam's SLPs are aligned with the integrated development plans (IDPs) of local municipalities to address community needs effectively. In addition to local economic development, the company also supports several projects that are not necessarily in the ambit of its SLPs but are considered worthy causes.

Compliance with aspects of the Mining Charter relating to local economic development and related issues is the responsibility of the executive: human resources under the guidance of the SE&HR committee, which also oversees compliance at board level.

Our corporate social investment (CSI) committee comprises three members of management and one representative from each of the organised employee representative bodies. It meets on a monthly basis to identify, prioritise and allocate resources to sustainable projects. Key interventions are planned with local municipalities.

A community and rural development strategy is applied in identifying and implementing community projects. The strategy includes stakeholder mapping, an analysis of expectations and immediate risks, as well as protocol for constructive engagement with government and related stakeholders to ensure a co-ordinated approach to community development.

### F2015 performance

Northam's community development programme focuses on contributing to the social upliftment of communities surrounding its operations and those within major labour-sending areas. The programme aims to empower these groups economically in a sustainable manner.

In F2015, a total of R10.5 million was spent on CSI and LED (F2014: R2.9 million).Expenditure at Zondereinde was R6.8 million during the year. (F2014: a total of R1.5 million). At Booysendal, expenditure amounted to R3.7 million (F2014: R1.4 million).

### Zondereinde

Zondereinde engages with three municipalities:

- Thabazimbi Local Municipality in Limpopo
- Moses Kotane Local Municipality in North West Province, a labour-sending municipality
- OR Tambo District Municipality in the Eastern Cape, also a labour-sending municipality

The identification of suitable local economic development projects and CSI activities in the areas surrounding the mine is guided by the Zondereinde SLP and the operation's CSI committee.

In addition a mining forum has been established in order to improve communication and coordination between the mines and municipal representatives on large-scale projects to improve infrastructure and delivery in the area. The lack of service delivery and poor follow-up and support from local municipalities remains a significant challenge, with the company having to contribute to service delivery instead of focusing on economic growth.

ZONDEREINDE CORPORATE SOCIAL INVESTMENT AND LOCAL ECONOMIC DEVELOPMENT INITIATIVES IN F2015

| Project | Objectives | Location | Spend |
|---|---|---|---|
| Thabang feeding scheme | To feed destitute children | Thabazimbi municipality | R67 493 |
| Computer centre services | Maintenance and updating of software for computers donated to schools | Thabazimbi and Moses Kotane municipalities | R337 837 |
| Koedoeskop Laerskool and Girls and Boys Town | Donations towards upkeep | Thabazimbi municipality | R125 000 |
| Deo Gloria Primary School | Building new classrooms | Thabazimbi municipality | R1 248 971 |

## Booysendal

Booysendal mine is located in a remote region of the Limpopo province where there are limited economic opportunities. Agriculture, forestry, mining and tourism are the region's primary activities. A major challenge is the low level of literacy and education in the area, which is rated among the lowest in South Africa.

Booysendal's local economic development and CSI activities are co-ordinated by the divisional human resources manager, who is also responsible for oversight of community engagement in the area.

Stakeholder identification and engagement at Booysendal has been ongoing since the mine's inception, but this is complicated by the scale, proximity and needs of local communities, and by historic interests in landholdings. Booysendal has sound working relationships with its stakeholders and engages with them mainly through the following structures:

- Sekhukhune District Municipality (SDM)
  - Executive mayor's office
  - ArcelorMittal South Africa Socio-Economic Development Managers Forum
- Greater Tubatse Local Municipality
  - LED Forum
  - Greater Tubatse Mining Forum
  - Southern Cluster Mining Community Development Committee
- Thaba Chweu Local Municipality
  - Executive mayor's office

A stakeholder engagement policy is in place and several forums have been set up in the area where Booysendal operates. The forums provide structures and channels for Booysendal to facilitate the flow of meaningful benefits to communities, help the mine to keep abreast of concerns among community members and to address any issues raised.

The forums include the following:

- The **Booysendal Community Forum** comprises 15 identified families, who traditionally lived within the footprint of the mine. The forum has a constitution, meets monthly with management representatives and strives to:
  - Promote economic growth, employment and advancing the socio-economic welfare of the identified core communities.
  - Substantially and meaningfully expand social development opportunities for HDSAs and women.
  - Provide for the facilitation of consultation within the spirit of the MPRDA and the Broad-Based Black Economic Empowerment Amendment Act No 53 of 2003 to promote sound relations.
- The **Stakeholder Engagement Forum** for all interested and affected stakeholders, including, but not limited to local municipalities, the DMR, provincial government and other community forums meets bi-monthly. This forum's constitution is in line with the group's sustainable development policy which focuses strongly on social and economic upliftment of local communities through positive engagement and contributions in support of sustainable projects and programmes.
- The **Local Chiefs Forum** provides an engagement platform for communities within a 50km radius of the mine, and meets quarterly.
  - These meetings generally deal with matters such as local recruitment; supply chain business opportunities and supporting local entrepreneurs; training opportunities including bursaries and learnerships and infrastructure development. Booysendal management has contributed towards establishing a skills and supplier database in the area.

# MATERIAL ISSUES CONTINUED

## BOOYSENDAL CORPORATE SOCIAL INVESTMENT AND LOCAL ECONOMIC DEVELOPMENT INITIATIVES IN F2015

| Project | Objectives | Location | Spend |
|---|---|---|---|
| Environmental and HIV/AIDS community awareness project. | To bring awareness to our local communities about environmental issues and health matters related to HIV/AIDS | Greater Tubatse Municipality | R6 732 |
| Rusoord golf day | To raise funds for an old age home in Lydenburg | Thaba Chweu Municipality | R5 803 |
| SDM Executive Mayor marathon. | To encourage communities to participate in sport activities for health purposes | Greater Tubatse Municipality | R20 000 |
| Mandela Day | Care for people living with disabilities | Greater Tubatse Municipality | R9 774 |
| R577 road maintenance. | To repair and maintain the road which is in a bad state | Thaba Chweu Municipality. | R1 065 668 |
| Rooidraai substation. | To minimise the impact of load shedding | Thaba Chweu Municipality | R15 137 |
| Ngwaabe Secondary Schools soccer tournament. | Sports development for local secondary schools | Greater Tubatse Municipality | R33 816 |
| Dinalane early childhood development centre. | Provide infrastructure for children | Greater Tubatse Municipality | R1 063 479 |
| Ngwaabe community multipurpose centre. | Infrastructure facilities to provide health services, social development services and educational services | Greater Tubatse Municipality | R1 498 509 |

## LOCAL EMPLOYMENT

A major challenge faced by mines in remote and underdeveloped areas where the level of education and skills is frequently low, is the community's unrealistic expectations in terms of employment opportunities and the availability of resources. Northam works closely with municipal officials to manage these expectations and has assisted in identifying economic targets which could be developed by way of SMEs or SMMEs in collaboration with local entrepreneurs.

### Zondereinde

In F2015 20% of permanent employees came from the Limpopo province, with 37% originating from the Limpopo and North West provinces.

In order to limit the dependence of communities on the mining industry for jobs, Zondereinde has prioritised key economic areas to be developed through the contributions of small businesses and local entrepreneurs. These areas include:

- Environment and waste management
- Agriculture
- Construction

Ongoing engagements are held with local community structures, with representation of municipal councillors wherein specific issues of sustainable small business development and establishment of local economies are considered.

### Booysendal

As a single, shallow and mechanised operation, Booysendal is not labour-intensive, and it is unlikely that the mine will ever be able to meet the expectations and needs of everyone in the surrounding communities. As at the end of June 2015 an average of 60% of the total workforce of Booysendal mine came from the local community.

In collaboration with the local municipalities around Booysendal, a dynamic database was established for the recruitment of local employees with the necessary skills and experience, particularly in the fields of engineering, trackless mining and plant operations. This database continues to provide a sound base for the recruitment of local labour.

Booysendal is committed to hire people from the host communities at all levels of the workforce and encourages contractors to do the same in support of local development.

The key economic areas to be developed in the Booysendal area as articulated in the Greater Tubatse and Sekhukhune District Municipalities IDPs are:

- Water and sanitation
- Electricity
- Roads
- Education, especially mathematics and science
- Income generation and job-creation projects, with the primary focus on women and people with disabilities

The mine strives to provide meaningful support to small and medium-sized businesses in nearby communities as well as those who are already providing services to the mine so that they can contribute to the development of the local economic base.

Booysendal supports some 13 SMMEs who provide a range of services including transport, change house maintenance, landscaping, and printing.

### Preferential procurement

Northam accords preferred-supplier status to HDSA suppliers subject to commercial competitiveness. Northam spent R3.4 billion in F2015 (F2014: R3.1 billion) on procurement, of which 61.7% or R2.1 billion was allocated to BEE suppliers.

In compliance with the Mining Charter, Northam is committed to giving preference to local businesses in the communities surrounding its operations. Northam's procurement policy accordingly gives local BEE companies preferred supplier status.

In pursuit of developing a local supplier base, a supplier forum has been established at Zondereinde, with mining companies and municipal officials represented on the steering committee.

## LOCAL COMMUNITIES

Northam enjoys a reasonably healthy and professional working relationship with all its stakeholders. However, these relationships should be seen in the context of very low education and economic activity levels. Post the year end Booysendal employees were adversely affected by civic unrest in the area, where roads were blocked and were sometimes too dangerous to travel on.

Booysendal did not incur any significant fines or other non-monetary sanctions. Furthermore there were no cases referred for dispute resolution in F2015.

At Zondereinde, the company engages local municipalities as conduits towards ensuring that priority areas are targeted with key interventions. However, councillors and traditional leaders do collaborate with the mine in respect of key interventions such as local recruitment, CSI and LED projects. Engagements with communities are on a needs basis and relationships to date can be reported as constructive and fruitful.

HDSA EXPENDITURE – F2015

| | BEE equity % | Capital R | Services and contractors R | Consumables R | Total R | % spend R |
|---|---|---|---|---|---|---|
| **Actual spend** | | **70.83%** | **74.43%** | **59.76%** | **68.87%** | |
| HDSA owned | Greater than 50% | 34 159 894 | 85 663 276 | 106 279 983 | 226 103 153 | 8.08 |
| HDSA empowered | 25% to 50% | 342 459 948 | 909 691 953 | 449 698 587 | 1 701 850 488 | 60.79 |
| HDSA influenced | 5% to 25% | 0 | 0 | 0 | 0 | 0.00 |
| | | **376 619 841** | **995 355 229** | **555 978 571** | **1 927 953 641** | **68.87** |
| Exempt micro enterprise | Exempt micro enterprise | 6 123 631 | 60 761 544 | 16 155 599 | 83 040 774 | |
| Multinational enterprises | Multinational company | 58 017 847 | 1 763 444 | 41 095 510 | 100 876 801 | 3.60 |
| **Measured HDSA spend** | | **440 761 319** | **1 057 880 217** | **613 229 679** | **2 111 871 216** | **72.47** |
| Without HDSA | No BEE shareholding | 96 381 911 | 337 943 601 | 264 963 744 | 699 289 256 | 24.98 |
| Black influenced | Less than 25% shareholding | 709 486 | 2 200 794 | 68 334 738 | 71 245 018 | 2.55 |
| **Total discretionary spend** | | **537 852 717** | **1 398 024 612** | **946 528 161** | **2 882 405 490** | **100.00** |
| **Non-discretionary spend** | | | | | | |
| Electricity | | | | | 510 490 162 | |
| Water | | | | | 27 020 795 | |
| Municipal services | | | | | 2 915 879 | |
| **Total spend** | | | | | **3 422 832 326** | |

# MATERIAL ISSUES CONTINUED

## MATERIAL ISSUE 5:

**MAINTAINING OUR LEGISLATIVE AND REGULATORY COMPLIANCE, AND IN SO DOING, PROTECTING OUR LICENCE TO OPERATE**

***We recognise that we do business within the legal framework of the various South African government departments. We aim for full compliance with the laws of the land. In terms of this material issue we discuss the most relevant aspects of legislation as they apply to Northam and its operations. Given the nature of our business these remain the MPRDA and the associated Mining Charter.***

In the South African context the issue of economic participation in the equity ownership of mining companies is fundamental and is an imperative. In terms of the MPRDA and the ancillary Mining Charter, companies were given 10 years (in 2004) to work towards satisfying the 26% ownership requirement by historically disadvantaged South Africans in the company's equity.

### EMPOWERMENT MILESTONES

Northam's empowerment journey started in 2000, when Mvelaphanda Holdings took control of 22% of the group's equity, acquired from the majority shareholder at the time, Anglo Platinum. In a further series of transactions starting in 2007, Mvelaphanda Resources (Mvela Res) lifted its share in Northam to 63%. After a three-way transaction between Mvela Res, Anglo Platinum and Afripalm Resources, Northam's empowerment shares were held in similar numbers (approximately 21% and 22%) between Afripalm Resources and Mvela Res. In 2011 Mvela Res unbundled its holdings to its residual shareholders, Afripalm and Mvela which then became the largest holders in Northam, before these empowerment shareholders were compelled, by prevailing economic and financial circumstances, to dispose of their holdings, leaving Northam with only 4% empowerment equity credits.

The principle of 'once empowered always empowered' remains a highly contestable one in the South African mining context. Northam's view on this issue has for a considerable period of time been to proactively resolve its empowerment status, and to use this as a catalyst for growth and consolidation in the sector.

HDSA ownership levels in the company are pegged at 35.4% following the conclusion of the R6.6 billion BEE transaction referred to on page 4 of this integrated report.

### ENSURING COMPLIANCE

Northam is a public, listed company with a body of shareholders and stakeholders. Ensuring compliance with legislation and observing regulations are critical elements of sound governance and responsible corporate citizenship. The board and its sub-committees are ultimately responsible for oversight of compliance. In line with evolving corporate governance requirements Northam has constituted a nominations committee, with the brief of overseeing senior appointments.

Apart from meeting the ownership requirements of the Mining Charter, management closely monitors compliance with the remaining requirements of the Charter, and achievement of the targets as articulated in its SLPs. Where there are shortfalls, such as in the area of employee housing and accommodation, management engages with the authorities and employees through their representatives to resolve these issues progressively over time.

### ACCOMMODATION AND HOUSING

A thorough review of the group's housing facilities and requirements has prompted a renewed housing and accommodation programme, known internally as the Accommodation Strategy 2020. The strategy is overseen by the SE&HR committee, and has recently been approved by the board. The strategy is underpinned also by clear policies, approved by the board in February 2015.

### ENVIRONMENT

As a producer of PGMs with underground mining and surface processing operations, Northam is subject to a plethora of laws and regulations to regulate its use of natural resources and to protect the environment against adverse impacts generated by its activities. The HSE committee oversees this function, while operational management is responsible for the day to management of these processes, and for engagement with the relevant authorities in certain areas. The company has not received any censure or incurred any punitive fines for any transgressions in these areas. For details of our environmental compliance, go to *Material issue 6* on page 104.

## CUSTOMER HEALTH AND SAFETY

Northam's products and services are subject to a number of voluntary codes and practices and given that Northam's product, both in concentrate and in final form is transported by air, aviation authorities' rules apply, with a strong focus on accompanying verifying information.

Customers are assured that there are no material health and safety complications related to the final products produced and sold by Northam with the exception of nickel sulphate, which is managed as a hazardous material and accompanied by relevant safety and health documentation.

There were zero incidents of non-compliance with voluntary codes concerning the health and safety of products and services in F2015.

Northam is subject to comprehensive laws and regulations to protect the environment against any adverse impacts generated by company activities. Here water samples are being taken at Booysendal.

# MATERIAL ISSUES CONTINUED

## MATERIAL ISSUE 6:

**ACTING AS RESPONSIBLE ENVIRONMENTAL STEWARDS AND CONSERVING RESOURCES**

***We understand the importance of being responsible environmental stewards. As responsible environmental stewards, we make optimal use of and conserve our natural resources (our focus is on water and energy, areas where we are most exposed); we make every effort to minimise our environmental impacts; where possible we conserve land; and we seek to comply strictly with all environmental legislation.***

### OUR ENVIRONMENTAL STRUCTURES

The HSE committee is responsible at board level for overseeing environmental matters. Environmental management issues are reported to the operational general managers and the chief executive on a monthly basis, and on a quarterly basis to the board's HSE committee. The chief executive and general managers of Zondereinde and Booysendal have final accountability for environmental compliance and performance.

At Zondereinde and Booysendal, environmental issues are dealt with by a specific management team. At Zondereinde, in particular, the environmental management function and engineering services work in tandem, given the Zondereinde operation's reliance on technology, which is applied in many instances, specifically to creating environmentally safe working areas. The engineering department oversees this function under the guidance of the engineering manager who is supported by the environmental officer. At Booysendal the safety, health and environmental manager heads this process, supported by environmental staff.

At Booysendal, the mine management team is responsible for looking after only approximately 8% of the mine's freehold area. The balance of the land (approximately 6 200 hectares) is managed by a dedicated land manager and, of this, 960ha is under the custodianship of the Buttonshope Conservancy Trust. For more information, see Land management and biodiversity on page 110.

### LEGISLATION AND COMPLIANCE

South Africa has a strict environmental legislative framework and this is governed by the following:

- Constitution of the Republic of South Africa No. 108 of 1996
- Mineral and Petroleum Resources Development Act No. 28 of 2002 (MPRDA)
- National Environmental Management Act No. 107 of 1998 (NEMA)
- National Environmental Management: Waste Act No. 59 of 2008
- National Environmental Management: Biodiversity Act No. 10 of 2004
- National Heritage Resources Act No. 25 of 1999
- National Environmental Management: Air Quality Act No. 39 of 2004
- National Water Act No. 36 of 1998

Care has been taken to uphold Northam's compliance with South Africa's environmental and mining legislative framework. The company is committed to prudent practices and usage of natural resources, in accordance with NEMA, and this is outlined in its environmental policy, which may be found at www.northam.co.za/governance/policies-andprocedures.

At Zondereinde and Booysendal, a precautionary environmental approach has been taken – aligned with NEMA and Northam's own environmental management systems (EMS).

Management at both operations engage regularly with regulatory authorities including the DMR and the Department of Water Affairs (DWA) and other relevant departments. New mining projects are subject to environmental impact assessments (EIAs) which involve thorough public participation and many studies to assess environmental aspects such as air, water, land, flora and fauna. These EIAs become part of the mines' approved environmental management plans or EMPs. EMPs provide guidance in monitoring, addressing and mitigating environmental impacts. Routine audits are undertaken to ensure compliance with the EIAs and EMPs. Northam has the requisite permits for Zondereinde and Booysendal in terms of new order mining rights and integrated water use licences.

In 2014 Zondereinde completed a revised EMP application in line with the DMR's requirement to consolidate its original document and three amendments for the UG2 stockpile, coal-fired boilers and the slag dump. Approval is awaited from the DMR.

In compliance with the amendment to the NEMA: Air Quality Act, which came into effect in 2013, Northam has submitted an application for an atmospheric emission licence for the

Zondereinde operations as well as a request for exemption from the requirement to reduce sulphur dioxide ($SO_2$) emissions by 2020, based on affordability and the historic dispersion of $SO_2$ at Zondereinde which has been significantly lower than the licensed limits. The company is waiting for feedback from the DEAT.

Northam is a member of the South African Waste Information System (SAWIS) developed by the DEA, and both Zondereinde and Booysendal are registered with SAWIS. The company complies with the monitoring and management processes of hazardous waste in terms of recovery, recycling, treatment, disposal and exportation.

Northam LA did not receive any significant fines or non-monetary sanctions for non-compliance with environmental laws and regulations.

No grievances regarding environmental impacts were received during the year.

## ISO14001

Northam has adopted the ISO14001 standard as the basis for its EMSs. The Zondereinde mine has been ISO14001-certified since 2011. A re-certification process conducted in February 2014, identified seven non-conformances. These were rectified and recertification was issued on 12 May 2014 until 2017.

Procedures, aspect and impact identification are currently underway for the implementation of ISO14001 at the Zondereinde metallurgical complex. A gap analysis will be conducted mid 2016 and an application for certification of the plant will be submitted as soon as identified shortcomings have been addressed.

While the ISO14001 standard is taken into account in managing environmental issues at Booysendal, a formal ISO14001-compliant EMS is not yet in place at this operation.

## F2015 ENVIRONMENTAL PERFORMANCE

### Zondereinde

Water and energy consumption continue to be the most pressing environmental management concerns at Zondereinde. Efforts to reduce consumption are assessed and implemented continuously.

Zondereinde was granted a waste licence for the salvage yard although local interested and affected parties did raise concerns about community job creation. An external audit was conducted during August 2014. A minor non-compliance was raised as a result of hydrocarbon spills from day-to-day activities.

Zondereinde recorded zero reportable environmental incidents in the year under review.

### Booysendal

During F2015, Booysendal implemented a number of projects to reduce the impact of operational activities on the environment.

In order to ensure that hydraulic and motor oil is not released into the surrounding area and water system, extra sumps have been installed into the storm water system to capture the oil and separate it from the system before the surface water run-off reaches the pollution control dams. Certain design changes are in the process of being implemented to make the system more efficient.

Biodegradable tablets, known as ECO tablets, have been introduced into the main pollution control dam. These tablets assist in maintaining water quality of the dam within the required limits of the water use licence. Monitoring the effects of the ECO tablets is ongoing in order to determine the optimum dosage.

Four audits were conducted at Booysendal during the year, these include:

- An annual performance assessment of the EMP as required by the MPRDA
- A performance assessment of the EIA as required by NEMA
- An annual audit of the water use licence.
- A compliance audit by the regional Department of Water and Sanitation. The aim of the audit was to gather information regarding best practice measures being implemented on site to prevent pollution in terms of the NWA. No significant issues arose from the audit and the mine was nominated to be showcased for good waste water management during the annual enforcement month.

Nine reportable environmental incidents were recorded at Booysendal during the year.

## RESOURCE UTILISATION

As a mining company, Northam is reliant on natural resources – water, energy and bulk materials. The conservation and optimal use of these resources are of paramount importance to Northam as the company strives to maintain the sustainability of the business while minimising its environmental impact. Bulk materials comprise mined and processed rock, liquid fuels, coal, grease, steel, timber, lubricating and hydraulic oils as well as diesel. Zondereinde and Booysendal take pride in utilising resources efficiently and recycling materials like plastics, steel, timber and scrap.

# MATERIAL ISSUES CONTINUED

## MATERIALS USED AT ZONDEREINDE IN F2015

| | Unit | F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|---|---|
| Rock mined | 000t | 2 069 | 1 907 | 2 276 | 2 154 | 1 801 |
| Ore milled | 000t | 1 860 | 1 724 | 2 116 | 1 934 | 1 591 |
| Timber use (bulk support) | $m^3$ | 2 748 | 2 412 | 1 573 | 827 | 754 |
| Cartridge explosives | tonne | 2 465 | 2 076 | 2 401 | 2 552 | 2 010 |
| Oxygen | tonne | 2 227 | 1 722 | 1 561 | 2 018 | 2 461 |
| Sulphuric acid | tonne | 876 | 586 | 520 | 769 | 747 |
| Sulphur dioxide | tonne | 89 | 61 | 56 | 82 | 90 |
| Grease | tonne | 40 | 34 | 47 | 47 | 41 |
| Lubricating and hydraulics oils | litre | 128 985 | 130 618 | 130 270 | 135 155 | 112 311 |
| Diesel | litre | LA 662 319 | 648 709 | 635 739 | 576 079 | 500 639 |

## MATERIALS USED AT BOOYSENDAL IN F2015

| | Unit | F2015 | F2014 | F2013 |
|---|---|---|---|---|
| Rock mined | 000t | 1 670 | 1 233 | 755 |
| Ore milled | 000t | 1 786 | 1 517 | 261 |
| Emulsion explosives | t | 2 512 | 960 | 284 |
| Lubricating and hydraulics oils | l | 1 240 100 | 640 192 | 83 314 |
| Diesel | l | LA 2 080 968 | 1 830 066 | 1 745 435 |

## MATERIALS RECYCLED AT ZONDEREINDE IN F2015

| | Unit | F2015 | F2014 | F2013 | F2012 | F2011 |
|---|---|---|---|---|---|---|
| Plastic | tonne | 61 | 53 | 42 | 108 | 62 |
| Steel | tonne | 1 628 | 2 182 | 1 640 | 2 053 | 759 |
| Timber | $m^3$ | 2 540 | 2 015 | 2 380 | 4 601 | 5 874 |
| Scrap metal | $m^3$ | 0 | 0 | 0 | 1 995 | 2 526 |
| Rubber | tonne | 134 | 197 | 153 | 134 | 156 |
| Industrial waste | tonne | 1 343 | 1 246 | 1 419 | 1 955 | 2 526 |

## MATERIALS RECYCLED AT BOOYSENDAL IN F2015

| | Unit | F2015 | F2014 | F2013 |
|---|---|---|---|---|
| General waste to landfill | $m^3$ | 491 | 552 | – |
| Hazardous waste | $m^3$ | 198 | 204 | – |
| Timber | $m^3$ | 62 | – | – |
| Scrap metal | $m^3$ | 271 | – | – |

## WATER USE

A large volume of water is used for the mining and processing of minerals. Northam recognises the importance of optimising its water usage through reuse and recycle processes. The vital role water plays is highlighted in regular water awareness campaigns.

Two primary water sources provide for Northam's water consumption at Zondereinde and Booysendal, namely industrial and potable water. Zondereinde's source of potable and industrial water is from Magalies Water and Booysendal receives its water from the Lebalelo Water User Association. Northam has contracts with both companies.

WATER USAGE (000m$^3$)

| | Zondereinde | | | | Booysendal | | |
|---|---|---|---|---|---|---|---|
| | F2015 | F2014 | F2013 | F2012 | F2015 | F2014 | F2013 |
| Potable water from external sources | 2 488 | 2 335 | 2 633 | 2 540 | 569 | 513 | 429 |
| Fissure water used | 1 155 | 1 084 | 1 492 | 1 273 | – | – | – |
| Borehole water used | – | – | – | – | 87 | – | – |
| Water recycled in process | 25 664 | 25 524 | 25 909 | 24 390 | 1 479 | – | 237 |
| % water recycled | 91 | 89 | 91 | 91 | 72 | – | 36 |

### Zondereinde

Water is fundamentally important for Zondereinde mine, not only from an environmental and permitting perspective, but also operationally. Through a shaft-based hydropower system, the mine uses water as its primary source of energy for its underground mining operations. These technical innovations were pioneered at Northam and refined over time. Hydropowered equipment has the advantage of reducing temperatures in working areas. This technology, used in conjunction with the strategic application of backfill, helps to lower underground temperatures by reducing heat ingress from worked-out areas while also reducing the size of the area to be cooled by 65%.

Zondereinde endeavours to run a zero discharge operation and closely monitors any potential impact of its operations on surface and groundwater sources. The water bodies that could be affected by surface water discharges are the Crocodile River and the Bierspruit River.

Extensive monitoring is undertaken and a comprehensive groundwater model, developed and maintained by a third party consultant, has been in place for a decade. This consultant also monitors and advises on surface and groundwater quality control.

There was no significant water discharge during the year. In terms of the water use licence, 1 000 000m$^3$ of water is allowed to be discharged annually.

Subsequent to the granting of Zondereinde's integrated water licence in 2012, the mine applied for a relaxation of certain standards and requirements. In 2013, the DWA conducted a compliance audit on Zondereinde's water use licence and the mine submitted an annual water management report to the DWA. Further information requested by the DWS has been submitted.

### Booysendal

Water allocation is also of critical importance at Booysendal. Integrated water use licence requirements guide water management processes, especially in terms of water allocation. Licences are reviewed every five years from the date of issue. Water quality at Booysendal is monitored on a continuous basis and compared with the original base line study information.

The Lebalelo pipeline is the main source of industrial and potable water at Booysendal, which can be supplemented with on-site boreholes. The mine currently holds a 20-year licence to extract water from boreholes should additional water be required. The Groot Dwarsrivier is the only water source that could potentially

# MATERIAL ISSUES CONTINUED

be affected by the withdrawal of borehole water. However, as a limited volume of water is currently being drawn from this source, there is no risk.

Management is vigilant about the potential for any contamination risk, and closely monitors the conservation processes and water reduction practices, along with checking water levels in the pollution control dams, which could result in discharges or run-off.

The Groot Dwarsrivier and the Der Brochen Dam are the only at-risk water bodies. Management has an emergency preparedness programme in place to address any run-off or spillages, which includes a stakeholder schedule along with emergency remediation measures. Three water evaporators are installed at the pollution control dams to mitigate the effects of excessive rainfall during the rainy season.

Industrial water at Booysendal is maintained within a closed circuit and recycled on an ongoing basis.

## ENERGY CONSUMPTION

Northam's long term strategy is based on energy efficiency rather than energy reduction as the mines continuously strive to replace ore reserves and require more energy for production. The energy efficiency strategy is continuously reviewed in order to optimise its effectiveness.

In South Africa, electricity is supplied by Eskom, the national electricity supplier. In recent years, Eskom's tariffs and supply shortages have increased steadily, by 16% in 2012, 8% in 2013, 9% in 2014 and 12.7% in 2015. For F2015, Northam's electricity spend totalled R517.1 million (84% at Zondereinde and 16% at Booysendal).

### Zondereinde

At current capacity at Zondereinde, Eskom's supply is sufficient. Nevertheless, our power requirements will not remain static, given the deepening project, the smelting of additional material from Booysendal and our new 20MW smelting furnace due for completion over the next three years. With this in mind, a number of energy efficiency initiatives have been implemented, such as an underground refrigeration plant at 13 level and fan clipping.

With the refrigeration plant being moved underground, water is not required to be pumped to surface, which immediately provides some savings: one refrigeration machine fulfils the function of two 2MW pumps. It is estimated that R22.8 million could be saved annually.

The company's use of hydropower has also reduced its reliance on Eskom as the primary energy source. As a result, less electricity is required for production than other platinum mines on compressed air to power underground equipment. The use of hydropowered equipment and backfill has led to annual power savings of 31 506MWh.

In F2015, total indirect non-renewable energy consumption of electricity sourced from the national grid at Zondereinde increased by 9% to LA 630 085MWh (F2014: 578 717MWh).

### Booysendal

Booysendal currently has sufficient power to continue operating, with one incoming Eskom line and transformers capable of sustaining 80MVA. The maximum demand at the moment is 29MVA. However, given the strain on South Africa's energy utility Eskom, energy efficiency has and will continue to be a priority at Booysendal.

A panel management system which assists with the protection and annual testing of the medium voltage network, and fault analysis has been fully implemented and operational since June 2014. A monthly report on the findings is presented by the engineering department. Going forward, this system will allow Booysendal to identify areas where electricity savings may be affected.

A solar-aided water heating system at the mine's change house is in place to conserve energy.

In F2015, total indirect non-renewable energy consumption from electricity sourced from the national grid increased by 24% to LA 115.386MWh (F2014: 92 766MWh) owing to the ramp-up.

### Power factor correction equipment

Power factor correction equipment is in place at both Zondereinde and Booysendal to reflect the correct power consumption and reduce the overall electricity bill. Power factor correction was upgraded at Zondereinde at a cost of R4.0 million. At Booysendal, power factor correction equipment was installed during the construction phase.

A study conducted by DRA Mineral Projects indicates that the annual estimated saving per substation is between R1.3 million to R2.0 million.

For more information please see our Energy conservation projects on page 109.

ELECTRICITY CONSUMPTION (MWH)

| | Zondereinde | | | | Booysendal | | |
|---|---|---|---|---|---|---|---|
| | F2015 | F2014 | F2013 | F2012 | F2015 | F2014 | F2013 |
| Energy from electricity purchased by shafts | 489 203 | 470 117 | 485 654 | 461 484 | 43 362 | 35 251 | 6 726 |
| Energy from electricity purchased by plants | 140 882 | 108 600 | 101 732 | 125 548 | 72 023 | 57 515 | 7 533 |
| Total electricity purchased | LA 630 085 | 578 717 | 587 386 | 593 441 | LA 115 385 | 92 766 | 14 259 |

## CLIMATE CHANGE AND EMISSIONS

At Northam, climate change has been assessed as a moderate risk which is managed primarily through the company's energy conservation initiatives. In addition, PGMs are used in the production of technologies to reduce emissions thus limiting the climate change risk.

Northam has considered the risks and opportunities relating to climate change, including the financial implications, in its seventh consecutive voluntary submission to the Carbon Disclosure Project (CDP), which may be found at www.cdp.net/en-US/Results/Pages/Company-Responses.aspx?company=13459.

Northam reports on emissions of carbon dioxide ($CO_2$) and $SO_2$, which are the most significant of its emissions.

In F2015, LA 5 734 tonnes of $SO_2$ were emitted by the Zondereinde operations attributed to direct emissions from the smelter. These emissions comprise $SO_2$ (directly from the smelting operations), $CO_2$ (both direct and indirect), potential discharges to water courses and dust from tailings dams. Gas cleaning equipment for $SO_2$ abatement will be required by 2020. Zondereinde is awaiting a response from the DEAT on its application for a five-year exemption.

Zondereinde's energy efficiency programmes have reduced the mine's GHG emissions.

### ENERGY EFFICIENCY PROJECT AT ZONDEREINDE – F2015

In F2015, three new residence blocks were built and a decision was made to install solar hot water systems to reduce the consumption of electricity from the grid.

The solar hot water systems comprise 1 000 litre tanks with a 37 KW capacity. By using solar energy to heat the water during the day, we estimate that we will be drawing on grid electricity for just 30 minutes each day, relative to an assumed base case of six hours per day. This is part of an ongoing initiative, with four additional hostel blocks (and solar hot water systems) due to be commissioned in the near future.

Tailings storage facility at Booysendal.

# MATERIAL ISSUES CONTINUED

## GREENHOUSE GAS EMISSIONS ($CO_2E$ TONNES)

| | Zondereinde | | | | | Booysendal | |
|---|---|---|---|---|---|---|---|
| | F2015 | F2014 | F2013 | F2012 | F2011 | F2015 | F2014 |
| Total Scope 1 emissions (direct emissions) | 29 743 | 23 451 | 15 509 | 15 401 | 14 432 | 6 337 | 4 912 |
| Total Scope 2 emissions (indirect emissions) | 648 988 | 596 079 | 605 008 | 611 244 | 619 947 | 118 847 | 95 549 |
| Total Scope 3 emissions (indirect emissions | 746 | 580 | 665 | 815 | 1 089 | – | – |
| Total emissions | 679 477 | 620 110 | 621 183 | 627 460 | 635 468 | 125 184 | 100 565 |

### DUST MANAGEMENT

Due to the nature of its operations, Zondereinde monitors dust fall-out and its stakeholder engagement programme is effective in dealing with any incidents and complaints logged. Since inception, Zondereinde has had no such complaints.

The tailings dam is continuously revegetated to reduce dust entrainment, and to minimise wind and water erosion.

Previously exposed areas at Booysendal have been paved, tarred or grassed, and the few areas where dust could be produced, are monitored and dust suppression is conducted as needed.

Continuous dust fall-out monitoring at Booysendal is conducted at potential receptor sites around the operation. Monitoring results indicate that dust fall-out within these areas is well within residential dust fall-out limits.

The mine's location in a valley surrounded by mountains means that dust dispersion into the surrounding communities is limited. No community or stakeholder complaints were received regarding dust emissions during the year.

### LAND MANAGEMENT AND BIODIVERSITY

Northam acknowledges that biodiversity entails careful land management, especially with mining processes that could have an adverse impact on the environment. Careful planning for new mining projects, engagement with stakeholders and the surrounding community, and compliance with legislation adds value to the mining process and benefits land management.

## REHABILITATION FUND (Rm)

| | Provision at 30 June 2015 | Investments held at 30 June 2015 | Unfunded probability at 30 June 2014 |
|---|---|---|---|
| Booysendal | 72.7 | 18.4 | 54.3 |
| Zondereinde | 114.5 | 82.8 | 31.7 |
| Total | 187.2 | 101.2 | 86.0 |

Northam acknowledges that biodiversity entails careful land management, especially with mining processes that could have an adverse impact on the environment.

## Zondereinde

Northam's land ownership of Zondereinde is larger than the actual mining operations, with a surface freehold of approximately 4 439 hectares. Land management and conservation at Zondereinde is simpler than it is at Booysendal for a number of reasons, including the fact that the required policies and practices have been established and entrenched over the years.

No animals or plants in the area are listed on the IUCN's Red List of Threatened Species nor the Red Data list.

While Zondereinde's operational footprint has been reduced, including the processing of waste rock, the unused footprint has not been rehabilitated. Several years ago, the borrow pits at the village and turn-off to the smelter plant were rehabilitated, and rubble heaps at the entrance to Setaria were levelled and covered with topsoil so that the area could be rehabilitated to a more natural state.

Final rehabilitation of Zondereinde's tailings storage facility will only take place after closure. However, ongoing rehabilitation continues for dust management as well as aesthetic reasons. The total rehabilitation and closure costs for F2015 were R90.8 million.

## Booysendal

Booysendal's host area, the Dwarsrivier Valley, is situated within the Sekhukhuneland Centre of Plant Endemism (SCPE) and the Roossenekal Subcentre of Endemism. The Booysendal property encompasses several landscape types, which are critically important for conservation action and are prioritised by Mpumalanga's conservation authorities.

The Dwarsrivier Valley landscape includes forests, small wetlands, seepages and grasslands. Certain protected mammals and species of fish have also been recognised as endemic to this habitat. Research has also indicated that the threatened SCPE is not formally protected, and that more land needs to be incorporated within reserves to protect the province's biodiversity.

In the spirit of preserving the biodiversity of the area, Northam has set aside an offset area specifically for conservation and biodiversity purposes. A creative approach was adopted to generate long term funding to support the protection of the environment surrounding Booysendal. A key result was the Buttonshope Conservancy Trust, which funds Booysendal's conservation, offset management and expansion. (See the 2012 and 2013 sustainable development reports for details on governance and funding of this offset area – http://www.northam.co.za/investors-and-media/publications/sustainable-development-reports).

Rehabilitation and closure costs at Booysendal amounted to R72.7 million in F2015.

### LAND USE (HECTARES)

| | Zondereinde | | | Booysendal | | |
|---|---|---|---|---|---|---|
| | F2015 | F2014 | F2013 | F2015 | F2014 | F2013 |
| Land disturbed by mining and related activities | 136 | 137 | 137 | 521 | 521 | 521 |
| Land leased for farming purposes | 273 | 273 | 273 | n/a | n/a | n/a |
| Land protected for conservation | 800 | 800 | 800 | 960 | 960 | 960 |
| Total land under management (freehold) | 4 439 | 4 439 | 4 439 | 6 773 | 6 773 | 6 773 |