## Glossary of terms

ABET Adult Basic Education and Training, aimed at improving literacy levels and providing learners

with nationally recognised qualifications.

Acquired Immune Deficiency Syndrome, a disease of the immune system caused by HIV infection. HIV & AIDS pose serious challenges for the government and the industry, as South

Africa is one the countries worst affected by the pandemic.

Available-for-sale A financial asset that has been designated as available-for-sale or a financial asset other than those classified as loans and receivables, held-to-maturity investments or derivative instruments.

**By-products** Any products that emanate from the core process of producing gold, including silver and

uranium in South Africa and copper, silver and molybdenum in Papua New Guinea.

Calc-silicate rock A metamorphic rock consisting mainly of calcium-bearing silicates such as diopside and

wollastonite, and formed by metamorphism of impure limestone or dolomite.

Capital expenditure Expenditure on tangible assets which includes ongoing and project capital. In particular, capital

expenditure includes that on on-going development, abnormal expenditure, shaft projects and major projects, and covers expenditure aimed at both sustaining and growing operations.

Carbon-in-leach (CIL) Gold is leached from a slurry of gold ore with cyanide in agitated tanks and adsorbed on to

carbon granules in the same circuit. The carbon granules are separated from the slurry and

treated in an elution circuit to remove the gold.

**Carbon-in-pulp (CIP)**Gold is leached conventionally from a slurry of gold ore with cyanide in agitated tanks. The leached slurry then passes into the CIP circuit where carbon granules are mixed with the slurry

and gold is adsorbed on to the carbon. The granules are separated from the slurry and treated

in an elution circuit to remove the gold.

Cash costs

Total cash costs include site costs for all mining, processing and administration, reduced by

contributions from by-products and are inclusive of royalties and production taxes. Amortisation, rehabilitation, corporate administration, retrenchment, capital and exploration costs are excluded. Total cash costs per ounce are the attributable total cash costs divided by

the attributable ounces of gold produced.

Carbon Disclosure Project is an independent not-for-profit organisation which acts as an

intermediary between shareholders and corporations on all climate change-related issues, providing primary climate change data from the world's largest corporations, to the global

market place.

 ${
m CO_2}$  emissions are calculated from direct emissions generated from petrol and diesel

consumption and indirect emissions generated from electricity consumption and expressed

in tonnes.

**CSR** Corporate social responsibility

**Cyanide Code** International Cyanide Management Code for the Manufacture, Transport and use of Cyanide in

the production of Gold. The aim of the code is to promote responsible management of cyanide used in gold mining; to enhance the protection of human health and to reduce the potential for

environmental impacts.

**Cut-off grade**The minimum grade at which a unit of ore will be mined to achieve the desired economic outcome.

**Depletion** The decrease in quantity of ore in a deposit or property resulting from extraction or production.

**Development**The process of accessing an orebody through shafts and/or tunnelling in underground mining

operations.

## Glossary of terms cont.

**Discontinued operation** A component of an entity that, has been disposed of or abandoned or is classified as held for

sale until conditions precedent to the sale have been fulfilled.

**EBITDA** Earnings before interest, tax, depreciation and amortisation

**Effective tax rate**Current and deferred taxation as a percentage of profit before taxation.

**Elution** Recovery of the gold from the activated carbon into solution before zinc precipitation or

electro-winning.

**Energy consumption** Energy use calculated from electricity purchased and diesel and petrol consumed during the

reporting period.

**Equity** Shareholders' equity adjusted for other comprehensive income and deferred taxation.

FIFR Fatal injury frequency rate, the number of fatal injuries per million man hours worked.

Financial asset Cash or cash equivalents, an equity instrument, a contractual right to receive cash, or a

contractual right to exchange a financial instrument under favourable conditions.

Financial liability A contractual obligation to pay cash or transfer other benefits or a contractual obligation to

exchange a financial instrument under unfavourable conditions. This includes debt.

GHG A greenhouse gas is any gas, such as carbon dioxide

Gold produced Refined gold as derived from the mining process that is measured in either ounces or

kilograms in a saleable form.

Grade The quantity of gold contained within a unit weight of gold-bearing material generally

expressed in ounces per short ton of ore (oz/t), or grams per metric tonne (g/t).

Global Reporting Initiative is a multi-stakeholder governed institution collaborating to provide

the global standards in sustainability reporting. These standards set out the principles and indicators that organisations can use to measure and report their economic, environmental,

and social performance.

**HAART** Highly active anti-retroviral therapy

resource

resource

HDSAs Historically disadvantaged South Africans defined as all persons and groups who have been

previously discriminated against on the basis of race, gender and disability as per the

MPRDA definition

Indicated mineral An 'indicated mineral resource' is that part of a mineral resource for which tonnage, densities,

shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or

grade continuity but are spaced closely enough for continuity to be assumed.

Inferred mineral An 'inferred mineral resource' is that part of a mineral resource for which tonnage, grade

and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain

quality and reliability.

**Interest cover** EBITDA divided by finance costs and unwinding of obligations.

JSE Limited

**Measured mineral** 

resource

Kina Papua New Guinean Kina

King Code South African King Code on Corporate Governance, 2002

King III King III is the abbreviated name for the King Report on Corporate Governance for South Africa

published in 2010 in South Africa.

Leaching Dissolution of gold from crushed or milled material, including reclaimed slime, prior to

adsorption on to activated carbon.

Local economic development

Life of mine (LOM) Number of years that an operation is scheduled to mine and treat ore, and is based on the

current mine plan.

Loans and receivables A financial asset with fixed or determinable repayments that are not quoted in an active

market, other than, a derivative instrument, or a financial asset classified as available for sale.

LTIFR Lost time injury frequency rate, per million hours and refers to work- related injuries which

result in the employee being unable to attend work on the day following the day of the injury.

A 'measured mineral resource' is that part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and

grade continuity.

**Metallurgical plant** A processing plant erected to treat ore and extract gold.

Milling A process of reducing broken ore to a size at which concentrating can be undertaken.

Mine call factor

The ratio, expressed as a percentage, of the total quantity of recovered and unrecovered mineral product after processing with the amount estimated in the ore based on sampling.

Mineral deposit A mineral deposit is a concentration (or occurrence) of material of possible economic interest

in or on the Earth's crust.

Mineral resource A 'mineral resource' is a concentration or occurrence of material of intrinsic economic interest

in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral resources are subdivided, in order of increasing geological

confidence, into inferred, indicated and measured categories.

**Mineral reserve** A 'mineral reserve' is the economically mineable part of a measured and/or indicated mineral resource. It includes diluting materials and allowances for losses, which may occur when the

material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate that at the time of reporting, extraction could reasonably be justified. Mineral

reserves are sub-divided in order of increasing confidence into probable ore reserves and proved ore reserves.

## Glossary of terms cont.

Mining Charter This is the Broad-Based Social-Economic Empowerment Charter for the South African Mining

Industry. The goal of the charter is to bring about an industry that reflects the promise of a non-

racial South Africa.

MMJV Morobe Mining Joint Ventures, the 50:50 partnership between Harmony and Newcrest Mining

Company Limited.

NGOs Non-governmental organisations

Ounce (oz) (troy) Used in imperial statistics. One kilogram is equal to 32.1507 ounces. One troy ounce is equal to

31.1035 grams.

Pay limit The grade of a unit of ore at which the revenue from the recovered mineral content of the ore

is equal to the total cash cost including ore reserve development and stay-in-business capital. This grade is expressed as an in-situ value in grams per tonne or ounces per short ton (before

dilution and mineral losses).

Probable mineral reserve A 'probable mineral reserve' is the economically mineable part of an indicated, and in some

circumstances, a measured mineral resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could

reasonably be justified.

**Productivity** An expression of labour productivity based on the ratio of grams of gold produced per month

to the total number of employees in underground mining operations

**Proved reserve** A 'proved mineral reserve' is the economically mineable part of a measured mineral resource.

It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time

of reporting that extraction could reasonably be justified.

Project capital Capital expenditure to either bring a new operation into production; to materially increase

production capacity; or to materially extend the productive life of an asset.

**Pwc** PricewaterhouseCoopers, the independent auditors.

**Reclamation** In the South African context, reclamation describes the process of reclaiming slimes (tailings)

dumps using high-pressure water cannons to form a slurry which is pumped back to the

metallurgical plants for processing.

**Recovered grade**The recovered mineral content per unit of ore treated.

Reef A gold-bearing sedimentary horizon, normally a conglomerate band that may contain

economic levels of gold.

**Refining** The final purification process of a metal or mineral.

**Rehabilitation** The process of reclaiming land disturbed by mining to allow an appropriate post-mining use.

Rehabilitation standards are defined by country-specific laws that address among other issues, ground and surface water, topsoil, final slope gradient, waste handling and revegetation issues.

**Related party** Parties are considered related if one party has the ability to control the other party or exercise

significant influence over the other party in making financial and operating decisions.

Seismic event A sudden inelastic deformation within a given volume of rock that radiates detectable seismic

energy.

Shaft A vertical or sub-vertical excavation used for accessing an underground mine; for transporting

personnel, equipment and supplies; for hoisting ore and waste; for ventilation and utilities;

and/or as an auxiliary exit.

Smelting A pyro-metallurgical operation in which gold is further separated from impurities.

On-going capital Capital expenditure to maintain existing production assets. This includes replacement of

vehicles, plant and machinery, ore reserve development and capital expenditure related to

safety, health and the environment.

**Stope** Underground excavation where the orebody is extracted.

**Stoping** The process of excavating ore underground.

Stripping ratio The ratio of waste tonnes to ore tonnes mined calculated as total tonnes mined less ore tonnes

mined divided by ore tonnes mined.

Tailings Finely ground rock of low residual value from which valuable minerals have been extracted.

**Tailings dam**Dam facilities designed to store discarded tailings.
(slimes dam)

**Tonne** Used in metric statistics. Equal to 1 000 kilograms.

Ton Used in imperial statistics. Equal to 2 000 pounds. Referred to as a short ton.

**Tonnage** Quantity of material measured in tonnes or tons.

Waste Material that contains insufficient mineralisation for consideration for future treatment and, as

such, is discarded.

Weighted average number of ordinary

shares

The number of ordinary shares in issue at the beginning of the year, increased by shares issued during the year, weighted on a time basis for the period during which they have participated in the income of the group, and increased by share options that are virtually

certain to be exercised.

Yield The amount of valuable mineral or metal recovered from each unit mass of ore expressed as

ounces per short ton or grams per metric tonne.