

## ABOUT DISCOVERY METALS LIMITED

Discovery Metals Limited is a copper and silver concentrate producer from its 100% owned Boseto Copper Project in north-west Botswana.

Around 550 people are employed directly at the Boseto operations, along with a number of service contractors. In 2013 the operation produced 37,813 tonnes of metal concentrate @ 39.4% Cu and 554 g/t Ag containing 14,888 tonnes copper and 20,894 kilograms of silver with a net sales value of USD101,982,000.

The Company's environmental obligations to the Government and people of Botswana are embodied in an Environmental Management Plan which formed part of the approved Environmental Impact Assessment and the Boseto Mining Licence approval. These obligations are comprehensive and are subject to annual review and reporting to the Government of Botswana.

Discovery Metals has adopted best practice risk management, safety and environmental standards in accordance with the Minerals Council of Australia 'Enduring Value – The Australian Minerals Industry Framework for Sustainable Development', the Equator Principles and IFC Performance Standards.

Headquartered in Brisbane, Australia, Discovery Metals is listed on the Botswana Stock Exchange (BSE:DML) and the Australian Securities Exchange (ASX:DML). The Company also manages the Dikoloti Nickel Project (28% at 30 June 2013) in north-east Botswana under a Joint Exploration Agreement with The Japan Oil, Gas & Metals National Corporation (JOGMEC).

Discovery Copper Botswana is a member of the Botswana Chamber of Mines and BOCCIM, a multi-industry body that represents the private sector and engages with government on all matters of mutual interest.

## ABOUT OUR REPORT

This is Discovery Metals' second annual Sustainability Report, prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (Version 3.1), for the financial year ending 30 June 2013. The Report aims to provide an overview of the Company's efforts in creating a sustainable and ethical operation. The Report focuses on Discovery Metals' Boseto Operations and Exploration activities in Botswana. It does not include Australian corporate or Botswana administration offices, with the exception of related financial information.

The Report aims to address Discovery Metals' key sustainability risks and opportunities. Internal and external factors have been used to determine whether information is material, including the Company's sustainability policies and management plans, Environmental and Social Impact Assessment findings and licence requirements. Content has been prioritised to reflect the information needs of our key stakeholder groups. Whilst we have not sought external assurance for the 2013 Sustainability Report, the numerical data in this Report has been verified within Discovery Metals and the data management and reporting systems are subjected to regular review.

The Sustainability Report meets the requirements for GRI Self-Declared Application Level B. The Report also addresses all performance disclosure requirements of the GRI Mining and Metals Sector Supplement. The GRI Indicator Protocols have generally been used as the basis for data measurement and calculation. Greenhouse gas emissions from the Boseto operation have been reported for the first time in 2013, based on the Greenhouse Gas Protocol.

Discovery Metals intends to report annually on its sustainability performance. A statement about Discovery Metals' sustainability performance and commitments was included in the 2013 Annual Report (released in October 2013) and there are no significant re-statements of the information provided last year, or significant changes in the scope, boundary or measurement methods used. The Company's most recent Sustainability Report was released in October 2012 and can be viewed on the Company website at www.discoverymetals.com/sustainabilityreports.

#### **FEEDBACK**

Discovery Metals welcomes your feedback on the Sustainability Report. Please contact us regarding the Report or its contents:

Email: sustainability@discoverymetals.com Mail: GPO Box 3261, Brisbane QLD 4001

Phone: +61 7 3218 0222 Fax: +61 7 3218 0233



## CHAIRMAN'S MESSAGE

Discovery Metals Limited is committed to ensuring that our activities are socially responsible and conducted in a way that is sustainable for our ongoing existence, the environment and the greater community.

The Boseto Operations suffered one fatality during the reporting period when a male contractor mechanic was trapped under the tracks of a drill rig in motion. This was a terrible accident and one we regret immensely. A number of key learnings came from the investigation into the accident and we are working hard to ensure such an accident does not occur again.

As we moved from commissioning to full operation this year, sustainability has been at the forefront of our efforts. From our relentless focus on workplace safety and progressive employment and labour practices, to our ongoing engagement and support of local community, we aim to be recognised as a world-class mining company from an environmental perspective.

Our extensive environmental monitoring and management programmes have continued to deliver on the stringent expectations outlined in the Boseto Project's Environmental Impact Statement. For example, groundwater use for Boseto production and amenities has had no discernible impact on local and regional aquifers, biodiversity or livelihoods. We have reported on our greenhouse gas emissions for the first time this year and have plans to significantly expand our onsite waste and sewage treatment systems as we move towards accommodating most of our Boseto employees on site.

The past 12 months has also been an extremely difficult period for shareholders and other stakeholders, as the Company has responded to a takeover proposal and financing offers. There have also been major operational challenges at Boseto. Discovery Metals has remained steadfast, weathered these challenges and Boseto is now an operating copper mine. The corporate and operational challenges have not swayed our continued focus on sustainability performance and the development of productive relationships with all stakeholders. These relationships will stand us in good stead for the life of our Boseto asset.

I would like to thank all Discovery Metals employees and contractors for their commitment and contribution to our health and safety, environmental and social performance during the operational challenges of the past year.

Cearl

**Jeremy Read** Chairman

## SUSTAINABILITY RISKS AND OPPORTUNITIES

After our first year of full operation, our understanding and management of key sustainability risks and opportunities are governed by the findings of the Operation's Environmental Impact Statement (EIS), approved and released in September 2010 at the outset of construction. These risks and opportunities are captured in regulator-approved management plans, the Boseto Risk Register, and are subject to six-monthly reviews by the Boseto banking syndicate. They are:

#### **MAJOR RISKS**

- > Vehicle incidents
- > Injury to employees and contractors
- > Equipment damage
- > Local and regional aquifer dewatering
- > Groundwater impacts from the tailings dam
- > Increased incidence of HIV/AIDS and other sexually-transmitted diseases

#### **OPPORTUNITIES**

- > Economic production and output
- > Employment opportunities
- > Community development

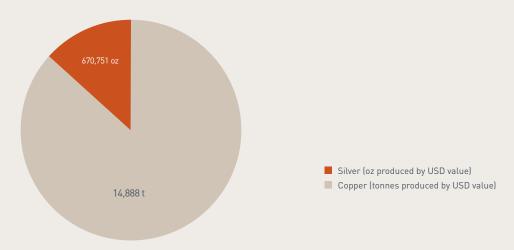
Processes are in place to prioritise and address these risks and opportunities, and our 2013 performance in these areas is detailed throughout this Report. We will continue to review and monitor our material sustainability risks and opportunities throughout the life of the mining operation and as our management systems mature.

## PERFORMANCE AT A GLANCE

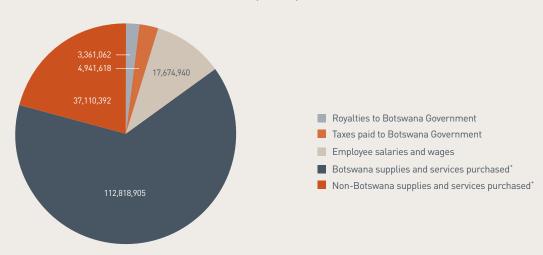
2013 PERFORMANCE HIGHLIGHTS



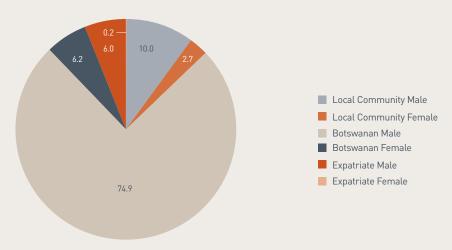
## COPPER AND SILVER PRODUCTION (BY USD VALUE)



## **ECONOMIC CONTRIBUTIONS (USD)**



## EMPLOYMENT BY GENDER AND ORIGIN (%)



<sup>\*</sup> Purchases include items for completion of Process Plant construction

## CORPORATE GOVERNANCE

The Board of Directors of Discovery Metals Limited is committed to best practice corporate governance principles appropriate for the size, type and activity of Discovery Metals. The Board oversees the Company's sustainability strategy and performance. Our Board included four non-executive Directors, including the Chairman, Mr John Shaw. Subsequent to the 2013 reporting period, the Board has had significant change and Mr Jeremy Read now holds the position of Chairman and is supported by two other non-executive Directors. Shareholders and employees have the opportunity to provide recommendations or directions to our Board via annual general meetings and internal grievance processes, respectively. Read more about our corporate governance arrangements at www.discoverymetals.com/corporate-governance.

## CODE OF CONDUCT

All permanent employees and contractors are trained in Discovery Metals' Code of Conduct at the commencement of employment. Annual refresher training is to be implemented in 2014. The Code of Conduct addresses key performance expectations including equal opportunity, discrimination, fraud, corruption and bribery and adherence to the laws and legal obligations of each country where we operate. The Company's zero tolerance approach to incidences of bribery and corruption is included in all personnel contracts.

#### **RISK MANAGEMENT**

Risk assessments, including fraud and corruption risk, have been conducted across the Boseto site and administration areas. All risks are contained in a Risk Register, assigned owners and corrective and preventative actions, reviewed every six months and reported to the Audit & Risk Management Committee. No incidents of corruption were identified or reported in 2013.



## MANAGEMENT APPROACH

Safety performance is a major and ongoing focus of Discovery Metals. In 2013 the Company continued to further develop safety management and incident reporting systems to provide comprehensive safety, health and risk management for the operations in compliance with AS4801 and ISO 31000, ensuring effective management and follow-up of incidents, including preventative and corrective actions and reporting.

An Incident Reporting System is in place to capture safety, health, environmental and community incidents. The level of investigation and management sign-off required for incidents escalates in accordance with the severity of the incident, as required under the Company's risk management system. The development of the Incident Reporting System further progressed this year and training continues across the Company. Employees are also incentivised to work safely through a bonus scheme.

A health, safety and environment (HSE) team is employed on site to implement Discovery Metals' safe working systems and procedures. Discovery Metals has taken significant steps to enhance HSE compliance activities with a HSE Manager employed in 2013 to improve safety leadership at Boseto. The site HSE Coordinator, Safety Officer, Environmental Officer and support staff work together with the HSE Manager.

Our Health and Safety Policy is available on our website.

## INJURIES AND INCIDENTS

Discovery Metals encourages employees and contractors to report injuries incurred on or off site, regardless of severity.

Regrettably, the Boseto operations suffered one fatality during the reporting period when a male contractor mechanic was caught under the tracks of a drill rig being towed. Investigations into the root causes were conducted by the Company, the Inspector of Mines and police. It was found that despite several warnings to stay clear of the drill rig, the mechanic was caught when he decided to inspect the damage under the drill rig when it had temporarily stopped during the towing process. Training in detailed risk assessment processes, supervision of tasks and hand signals has since been instigated across the site.

In the year to 30 June 2013, the combined all injury rates for employees at the Boseto and exploration sites was 4.95 per 200,000 hours worked, the lost day rate was 1.93 and the occupational disease rate was zero. There were no Lost Time Injury (LTI) days at the Boseto Operations, while 25 were recorded in the Exploration Division. These lost time days included all days when employees were not able to perform their normal role i.e. days on restricted duties but it does not include days lost for a fatality or sick days.

## 2014 SUSTAINABILITY OBJECTIVES AND TARGETS

Objective	2014 Target
Zero Harm to Employees and Contractors	Zero Lost Time Injuries Zero Fatalities
Sustainable saline water production	Extract saline water within licence limits
Minimise social and environmental impacts	Nil disruptions of operations due to community issues Nil environmental incidents above minor consequence rating
Support local Botswanan employment opportunities – target	95% Botswanan employees including 10% women, and maximum of 5% expatriates
Create a significant economic contribution	Royalties, taxes to government as per licencing agreements and Botswanan law. Minimum 70% local Botswanan purchases
Regular consultation and engagement with community	Regular quarterly updates on operations, weekly informal contacts and consultation forums as required
Support HIV/AIDS awareness	Conduct training, voluntary testing, provide counselling and support for Boseto employees in co-operation with Government authorities.

There were 64 injuries reported at the Boseto Operations and Exploration Divisions. Of these, male employees reported 44 injuries (25 at Boseto Operations and 19 at Exploration) and female employees reported 20 injuries (11 at Boseto Operations and 9 at Exploration), the bulk of which were first aid injuries. At Boseto Operations there were; one fatality (male contractor), zero Lost Time Injuries, eight Medical Treatment Injuries (seven male, one female) and 27 first aid injuries (17 male, 10 female), while Exploration had zero fatalities, three Lost Time Injuries (two male, one female), three Medical Treatment Injuries (three female) and 22 first aid injuries (17 male, five female). There were no occupational diseases reported by any employees during the reporting period. Boseto personnel were absent for 1,710 days of the planned 237,135 days (0.72%) and Exploration personnel were absent for 347 days of the planned 17,518 days (1.98%).

Of the 364 incidents recorded, 17.6% or 64 involved injury. Most of the injuries (94%) were minor and involved the use of tools, equipment or vehicles and 15% were insect bites.

Zero Lost Time Injuries occurred this year at Boseto Operations and three at Exploration. There were a total of 11 Medical Treatment Injuries reported. In response to these serious injuries, truck driver training has been refreshed, procedures for maintaining ramps have been modified, wildlife risks have been emphasized and Company expectations regarding housekeeping, the wearing of appropriate personal protective equipment (PPE) and the safe use of tools have been reinforced.

A majority of incidents (70.6% or 257) resulted in plant or equipment damage; 15.5% or 40 of which involved vehicles. Vehicle incidents posed the highest potential risk in 2013, with five incidents involving minor injuries, and 8 involving collision with wildlife or cattle. Incident reviews found that dust and poor light were contributing factors in all cases. Dust suppression on roads near the mine is now completed daily and awareness training has been introduced to reinforce lowered speed limits and the need to drive to the conditions. Speed monitoring is conducted regularly and disciplinary action is enforced for breaches.

Table 1: Injury Data for Boseto and Exploration Operations – Year to June 2013

Employees (& contractors)	Exposure hours	(Number of Injuries), Rate per 200,000 hours		(Number of LTIs), Rate per 200,000 hours		(Number of Days Lost to injury), Rate per 200,000 hours		Absentee Day Rate per 200,000 hours
Boseto Males 448+(382) = 830	1,936,171	(25),	2.58	(0),	0.00	(0),	0.00	
Boseto Females 47+(37) = 84	195,950	(11),	11.2	(0),	0.00	(0),	0.00	
Boseto Total 495+(419) = 914	2,132,121	(36),	3.38	(0),	0.00	(0),	0.00	0.0072
Exploration Males 30	144,938	(19),	26.2	(2),	2.76	(15),	20.7	
Exploration Females 17	82,132	[9],	21.9	(1),	2.44	(10),	24.4	
Exploration Total 47	227,070	(28),	24.7	(3),	2.64	(25),	22.0	0.0198
Operations Males; 860	2,314,448	[44],	3.80	(2),	0.17	(15),	1.30	
Operations Females; 101	271,813	(20),	14.7	(1),	0.74	(10),	7.36	
Total Operations; 961	2,586,261	(64),	4.95	(3),	0.23	(25),	1.93	0.0080

## INJURIES AND INCIDENTS (CONT.)

Table 2 details the number and type of incidents, near misses, unsafe acts and hazards reported in the Incident Reporting System during the year to 30 June 2013 for the Boseto Operations and Exploration teams. There has been a significant increase in the number of incidents reported this year due to a continued focus on the active encouragement of reporting of incidents and a programme of daily workplace inspections and audits.

Table 2: Safety, health and environmental incidents reported to 30 June 2013

Type of Report	Number Reported	(% all injuries)
Incident – Injury - Fatality	1	
Incident – Injury – Lost Time (LTI)	3	(0.8%)
Work Days Lost due to LTIs	25	
Total Recordable Injury Frequency Rate (per 200,000 hours worked)	1.16	
Incident – Injury – Medical Treatment	11	(3.0%)
Incident – Injury – First Aid	49	(13.5%)
Occupational Diseases	Nil reported	
Incident - Environmental	42	
Incident - Property Damage	257	
Incident - Community	Nil	
Production Loss	9	
Near Misses	37	
Unsafe Acts	91	
Hazards	267	

## **TRAINING**

Extensive safety induction, training and awareness programmes are in place for all employees and contractors working on our sites. External training was provided during the reporting period on Fitness for Work and Basic Emergency Response. Safety issues and performance expectations are regularly communicated using posters, pre-start safety meetings, toolbox talks, hazard identification, job safety analysis, and incident reporting, monitoring, investigation and follow-up management. Read more about our approach to employee training in the *Community Development > Training* section.



## MANAGEMENT APPROACH

The Boseto Project's Environmental Management Plan (EMP) describes how we manage our environmental obligations to the Government of Botswana. The EMP is a key part of the approved Environmental Impact Assessment and the Boseto Mining Licence approval. These obligations are comprehensive and are subject to annual review and reporting to the Government of Botswana.

In addition, the Company has adopted best practice environmental standards in accordance with the Equator Principles, International Finance Corporation (IFC) Performance Standards and ISO 14001:2004 Environmental Management Systems. We are committed to certification to ISO14001 standards by the end of 2014. An Environmental Management System is being established to support compliance with these standards and is subject to six monthly reviews by the Boseto banking syndicate. An independent review by the banking syndicate against international lender compliance requirements found that the Project is compliant with required standards during the reporting period.

An extensive programme of monitoring of environmental, production and regional cattle rancher bores, groundwater modelling and biodiversity is in place. The development of water, land and waste management plans has been substantially completed.

Our Environmental Policy is available on our website.

## **COMPLIANCE**

The Company's activities comply with the laws and regulations of Botswana and Australia. In 2013, Discovery Metals was not subject to any fines or penalties for non-compliance with environmental standards in these countries. Social, environmental and operational audits were conducted during the year by external, third party specialists and the Botswana Department of Environmental Affairs, with no significant issues identified which were not already being actioned. Regular reviews by the Boseto banking syndicate found that the development of systems and practices to meet IFC performance standards was substantially complete this year.

## SPILLS AND INCIDENTS

Discovery Metals utilises induction training to ensure employees are educated about our environmental responsibilities and monitoring activities. They are actively encouraged to report environmental incidents in Boseto's safety, health, environment and community Incident Reporting System. No major spills or other environmental incidents were recorded in 2013. Of the 42 minor environmental incidents recorded in the Incident Reporting System this year, 18 were minor hydrocarbon spills; generally oil spills of less than 20 litres, typically associated with failure of hydraulic hoses or maintenance issues with equipment. There were 12 other minor spills recorded involving slurry, reagent, sewage and concentrate. Other recorded incidents related to housekeeping or wildlife in or near the tailings dam. All incidents were ranked as moderate or lower in accordance with Discovery Metals' Risk Consequence matrix. All were cleaned up in accordance with standard procedures. Employee awareness training was continued this year to highlight the risks of environmental pollution and reinforce the employees' roles and responsibilities in environmental management. Boseto employees have been trained in spill response using special kits made available on site.

## ENERGY AND GREENHOUSE GAS EMISSIONS

Diesel fuel is used to operate mobile fleet and vehicles and to generate electricity for the Boseto operation. Eight diesel generator units are used on site, each nominally of 2.1MW (down-rated from 2.5MW due to altitude and frequency rating). A preventative maintenance programme is in place to ensure the units operate efficiently and minimise emissions. Improvements to the generator units this year included the commencement of the upgrade of cooling systems, turbo chargers and fuel injectors.

In 2013, total power consumed within Boseto was 0.269 PJ [74,831 MWh]. Of this 0.061 PJ [17,023 MWh] of energy was purchased or consumed from hired diesel generators controlled by the Company. No indirect energy was purchased or consumed. Options to convert to the national electricity grid depend on the construction of an extension to the national grid which is currently under consideration by the Government of Botswana.

Greenhouse gas emissions associated with the Boseto operations are reported for the first time this year. Total direct [Scope  $1^2$ ] emissions for the 2013 reporting period was 129,231 tonnes of  $CO_2$  equivalent.<sup>3</sup> There are no indirect (Scope  $2^4$ ) emissions.

The planned installation of an automatic monitoring system for wind, rain, temperature, humidity, particulate matter, nitrous oxides and sulphur oxides was delayed until July 2013.

 $<sup>^{2}</sup>$  Discovery Metals applies the Greenhouse Gas Protocol's definition of Scope 1 emissions.

<sup>&</sup>lt;sup>3</sup> Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>-e) is a measure for describing how much global warming a given type and amount of greenhouse gas may cause, using the functionally equivalent amount or concentration of carbon dioxide (CO<sub>2</sub>) as the reference.

<sup>&</sup>lt;sup>4</sup> Discovery Metals applies the Greenhouse Gas Protocol's definition of Scope 2 emissions.

## MATERIALS USE

Discovery Metals endeavours to use materials efficiently at the Boseto Project. Processing operations and production of concentrate continued throughout 2013. Key materials consumed or conserved at the Boseto site during the reporting period are listed in Table 3.

Table 3: Key materials used at Boseto in the year to 30 June 2013

Materials	Total Consumption 2013
Ore processed	2,054,299 tonnes
Diesel Fuel - Electricity	19.95 megalitres
Diesel Fuel - Mobile Fleet and Vehicles	20.43 megalitres
Explosives	7,372.5 tonnes
Grinding Media	1,272 tonnes
Collector	326 tonnes
Frother	141 tonnes
Sulphidiser	539 tonnes
Flocculant	86 tonnes
Saline Water from local Ecca Graben aquifer	1.7 million cubic metres
River Water from Nhabe River	178,608 cubic metres
Volume of Water Recycled from Tailings Dam	42,184 cubic metres
% Water recycled	2.5%
Topsoil stored for rehabilitation works	97,368 cubic metres
Greenhouse gas emissions (Scope 1)	108,000 tonnes of CO <sub>2</sub> equivalent

## WASTE AND RECYCLING

#### **PRODUCTION WASTE**

Discovery Metals is actively working to minimise waste from the outset of normal operations and use resources efficiently. Boseto's major waste streams are effectively managed through the implementation of a Waste Management Plan.

Recycling of plastic, scrap metals, oil, food refuse and paper has been widely promoted and separate bins are provided across the Boseto site to collect waste. A total of 440 tonnes of non-hazardous/general waste was disposed of through Government certified waste management contractors in 2013, including 335.5 cubic metres of used oil and 6.3 cubic metres of used grease. About 27,607 cubic metres of sewage water was treated during the reporting period, including some from the Boseto operation and also water treatment backwash water from the site Reverse Osmosis (RO) Plant. The majority of treated sewage water was reused for irrigation and dust suppression at the mine site.

#### WASTE ROCK STOCKPILES AND TAILINGS DAM

All waste rock is stored in engineered waste rock stockpiles with a maximum height of 30 metres. These stockpiles will be rehabilitated with a soil cover and vegetation when construction is complete. Overburden is progressively captured and stored for rehabilitation purposes. Samples are collected and tested to determine the waste rock's propensity to produce acid rock drainage (ARD) and to support the development of an appropriate management plan. Thirty-eight waste rock and pit floor

samples from Zeta pit were tested by October 2012 and a further 62 from Zeta and Plutus pits were tested by June 2013. The results of these tests and tests completed during the Bankable Feasibility Studies indicate that the risk of ARD is low. There were 29,623,039 tonnes of waste rock added to the stockpiles in 2013.

During the reporting period, the Boseto plant processed 2,054,299 tonnes of ore. The tailings dam received 2,016,487 dry tonnes of sludge. All overflow water from the process plant tailings thickener is recycled in the process plant. The partially dewatered tailings (58-65% solids) are then pumped to the tailings dam and water is recovered for re-use as process water. The tailings storage is designed as a single, unlined circular cell providing an area within the embankment of approximately 130 ha. There is, therefore, no effluent from the tailings dam and the high local evaporation rate of 800mm per year ensures rapid drying of the tailings in the dam. Monitoring bores located around the tailings dam did not detect any contaminated seepage from the dam in 2013.

A comprehensive ARD Monitoring Procedure was developed and implemented in 2013. The main objective of the procedure is to predict the drainage chemistry and determine the type, magnitude, location and timing of measures required to minimise significant environmental impacts. The procedure and testing will confirm and build on existing ARD data, help to refine mine water and waste management practices and enable development of appropriate data to inform closure management measures.

### WATER MANAGEMENT

All water consumed in Boseto's process plant and associated support infrastructure is pumped from six production bores, all within approximately 13 kilometres of the Boseto production plant. The bores source water from the Ecca Graben aquifer to the north-west of the mine footprint. The aquifer is deep and saline, with total dissolved solids around 35,000mg/l. 1.7 million cubic metres of saline groundwater was consumed during the annual period of process operations to 30 June 2013 as shown in Figure 1 and is within the Botswanan Government's Water Apportionment Board (WAB) limit on a monthly basis. Process water is discharged to a tailings dam where tailings settle and the supernatant water is recovered and recycled. Any water from sewerage treatment plants is irrigated on land or disposed of through a registered waste disposal agent.



Figure 1: Actual monthly abstraction of Saline Production Water vs Water Apportionment Board (WAB) Limit

Groundwater modelling indicates that the Ecca Graben aquifer has sufficient capacity to supply the Boseto Project's water needs and that there will be no impact on surrounding cattle rancher bores (which typically tap into separate, fresh, shallow aquifers).

Groundwater monitoring and modelling is conducted on a network of 29 bores across the region to detect impacts of pumping saline water for use in the process plant. The locations of the various bores are given in Figure 2. Bore water levels and chemistry are monitored.

Water is also sourced from the Nhabe River for Discovery Metals' Accommodation Village in the nearby community at Toteng, 25 kilometres from the mine. The Government of Botswana has granted permits to take water from the river and treat it for human consumption. 25,630 cubic metres of surface water was consumed during the 12 month period from August 2012 to July 2013. No surface water is used in the Boseto processing plant but some is used in dust suppression on the access roads to the mine.

Pit dewatering has commenced and provides water for dust suppression activities around the mine site. In November 2013, water is planned to be recovered from the Plutus pit and recycled to the process plant to reduce demand on the production borefield.

#### WATER LEVEL MONITORING

Last year Discovery Metals constructed 33 new monitoring boreholes (16 environmental boreholes around the mine and 17 wellfield monitoring boreholes) to monitor the impacts of saline water abstraction for Boseto's mineral processing plant. The water level monitoring program includes the Ecca Graben Aquifer (source of saline water for production), shallower Lebung Group aquifer, the Ghanzi aquifer, farmer boreholes and surface water bodies. Figure 3 details the results of the water level monitoring programme in 2013.

No impacts are discernible from these production water pumping activities to date either on water levels or chemistry; however, the groundwater model will be regularly updated to monitor any potential impacts.

No changes are noted in the regional/wellfield monitoring boreholes located away from the pumping areas. Most of the farmers' boreholes are situated south, west and east of the mining complex dominated by the Ghanzi Group of formations. As presented in Figure 4, water levels in Ghanzi Group monitoring boreholes remain unchanged and show no impact from either wellfield pumping or mining activities.

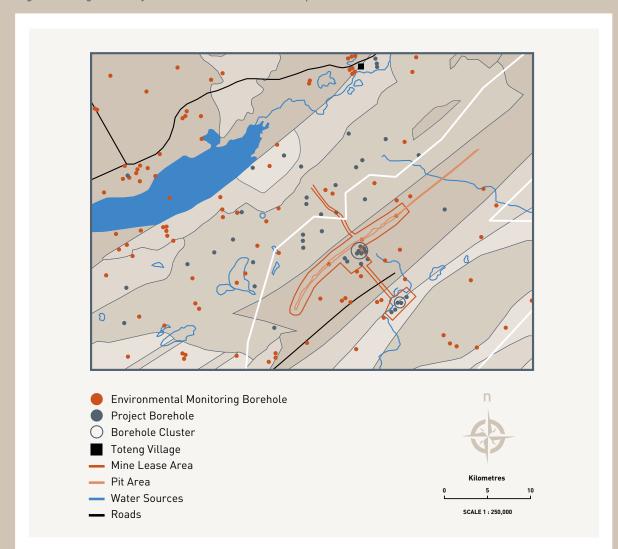


Figure 2: Integrated Project Area Borehole Location Map

#### WATER QUALITY

Hydrochemical analyses results show that groundwater from all monitoring boreholes is brackish to saline with high concentration of total dissolved solids. The groundwater is mainly used as process water for the mine plant and is generally not suitable in its natural state for drinking or for livestock watering. The intention of monitoring these boreholes is mainly to study the possible extent of any impacts that the plant or the mine will have on the surrounding area and any potential contamination on the groundwater regime.

Hydrochemical water samples are collected and analysed every six months.

The results indicate that Na-Cl Type waters form the basic type of groundwater found in the area, indicative of slow groundwater movement which allows for water rock interaction and little flushing with fresher waters.

The analytical results also record high fluoride levels (13 to 145 mg/l) together with high chlorides (3,500 to 29,400 mg/l) and high sodium (3,180 to 18,570 mg/l). The high levels of TDS are indicative of the regional salinity in the area, which is higher in the Ecca aquifer (30,000 to 46,100 mg/l) than in the other aquifers.

Analysis of rare earth elements in the groundwaters was also undertaken. The results indicate that Cadmium (Cd), Nickel (Ni), Arsenic (As), Selenium (Se), and Mercury (Hg) have concentrations <0.01 mg/l i.e. below detection limits. Values for the other elements were obtained e.g. Cobalt (Co, 0.01 to 0.04 mg/l), Copper (Cu, <0.01 to 0.02 mg/l), Lead (Pb, 0.22 to 0.34 mg/l), Zinc (Zn, zero to 0.2 mg/l), and Ammonia (NH $_3$ , 0.8 to 11 mg/l). More recent results from the newly drilled monitoring boreholes show that of these trace metals only Zinc and Aluminium were detected at levels between 0.03 – 0.06 mg/l and 0.01 – 0.08 mg/l respectively.

Surface water samples collected from the nearby Lake Ngami area indicate stable conditions with no traces of salinity.

Figure 3: Monitoring impact of local water abstraction for Boseto production – Ecca Graben Aquifer



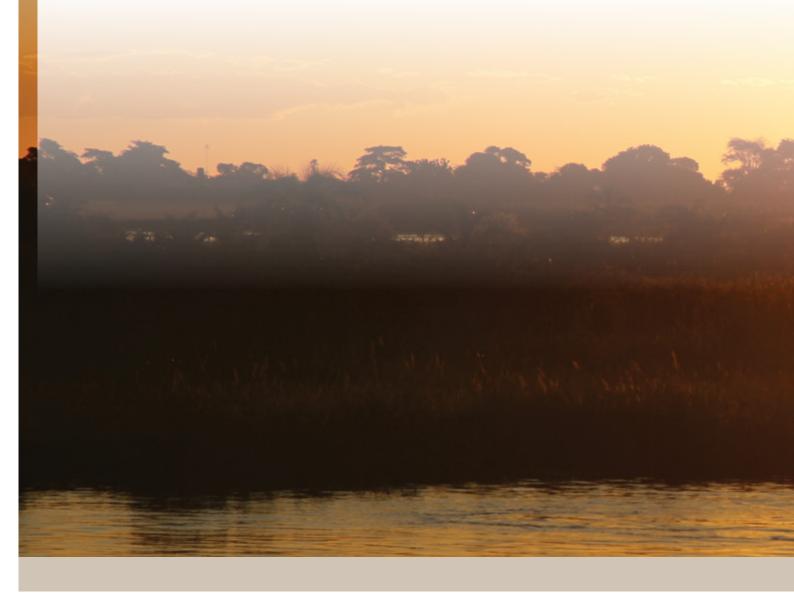
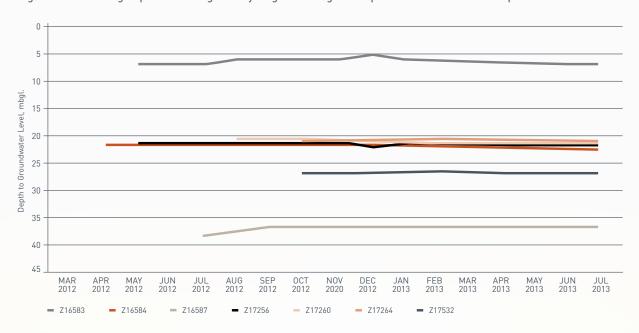
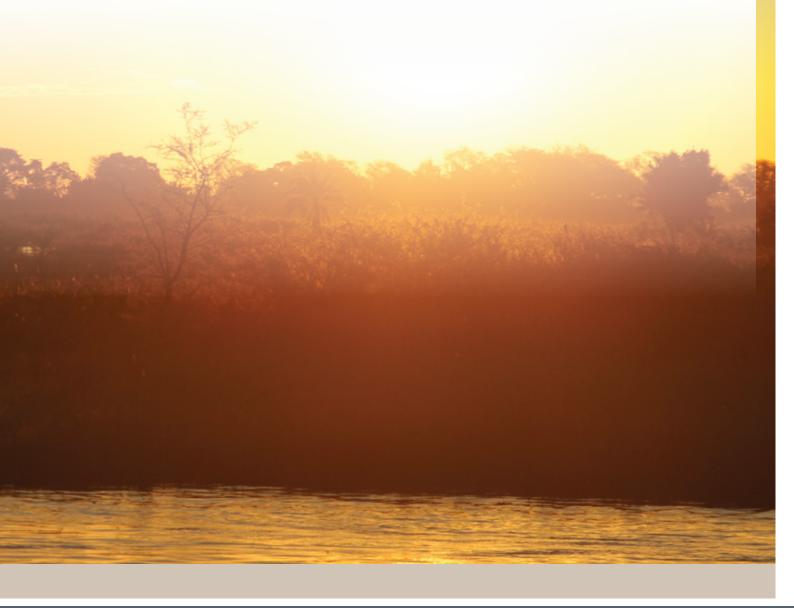


Figure 4: Monitoring impact of mining activity on general regional aquifer levels – Ghanzi Group





## **BIODIVERSITY**

A Biodiversity Management Plan has been implemented for the Project and biodiversity monitoring is undertaken in both the wet and dry seasons.

The Boseto Project area is located in the Kalahari Desert in north-western Botswana, within the 8,877 square kilometre prospecting area granted to Discovery Metals by the Government of Botswana. The area is predominantly used for grazing and is surrounded by cattle posts and game ranches. There are no pristine natural habitats in and around Boseto due to the impacts of the livestock sector. Two critical habitats occur within close proximity to the Boseto Project Area but are not directly impacted by the mining operations as they lie outside of the Mining Lease Area. They are:

- > Kgwebe Hills has biodiversity features that are culturally important to the Nharo people who used to live there; and
- > Tale Pan has a high biodiversity value due to the large number and great diversity of wetland bird species that occur there when it holds water.

Though outside the Project Area, Lake Ngami is also included in the Company's monitoring activities as it is listed as a semi-pristine environment, an important birding site and is awaiting declaration as a Nature Reserve.

The only endangered species that occur around the Boseto Project area are wild dogs (Lycaon pictus). Bull elephants are listed as 'Vulnerable' on the IUCN Red Data List and frequently visit the Boseto Project area. Their movement into the Boseto area is in conflict with the existing land use (livestock) and may potentially conflict with the operation of the mine, namely the tailings dam. Elephants are therefore an important focus of the Biodiversity Management Plan.

The most significant potential impact associated with the Boseto Project activities is secondary habitat disturbance. This may potentially occur when Boseto Project staff and vehicles move beyond the Boseto Project site and disturb surrounding areas. To address this potential impact, Discovery Metals has limited the area to be cleared (including roads, power line and pipeline routes) to only that necessary for operational activities. Signs have been erected to clearly mark the boundaries of the Boseto Project. Boseto employees and contractors receive induction training about their roles and responsibilities in biodiversity protection. Other potential impacts addressed in the Management Plan include weeds and invasive species, pest and problem animals, fire management and the Nharo People's access to Kgwebe Hills.

## LAND MANAGEMENT

The total land area disturbed by the Boseto Project was 496.4 hectares in 2013, being only 11.9% of the total mine lease area of 4,137.3 hectares. Rehabilitation works have been undertaken to date on a borrow pit of 1.8 hectares.

Topsoil has been collected from all areas disturbed during construction of the mine and infrastructure. This material has been stored for later use in the rehabilitation of the engineered stockpiles, tailings dam walls and other disturbed areas no longer required for the operations. Seed collection from local native species is planned and a nursery will be established to provide seedlings for rehabilitation works. Further rehabilitation programmes are expected to commence in the next reporting period. A rehabilitation management plan has been developed to guide progressive rehabilitation of disturbed areas where work has totally ceased. Preparations for rehabilitation trials on waste dumps are underway.

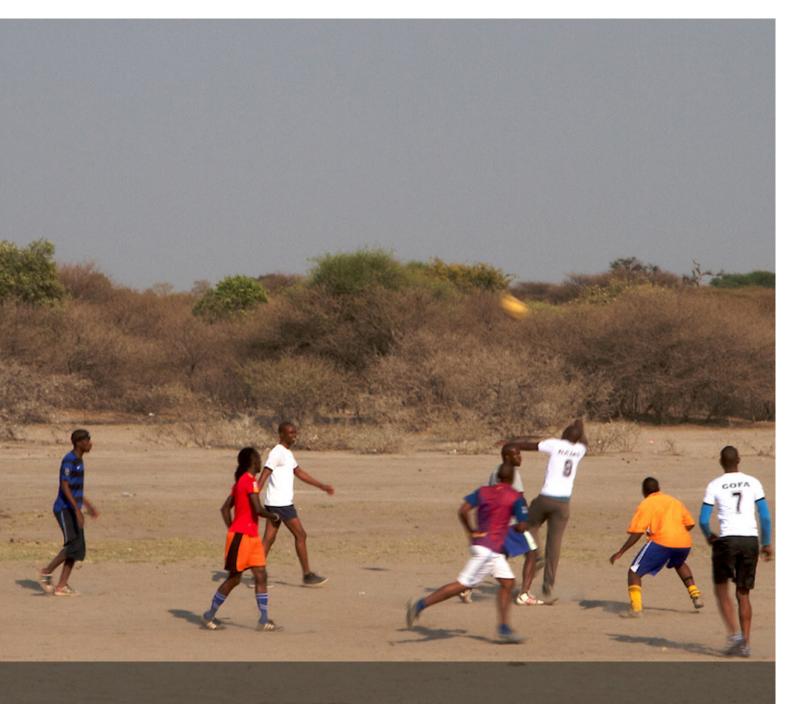
A mine closure plan was developed during the Bankable Feasibility Study and will be updated in 2014. Read more about our financial provision for closure on page 48 of the 2013 Annual Report (Note 2 (l) Mine rehabilitation and environmental expenditure).

## AIR QUALITY AND NOISE MONITORING

Discovery Metals are committed to minimising emissions and dust in the environment caused by mining and processing operations. Preventative maintenance programmes have been implemented on mobile equipment and the best available technology is used for controlling dust from the ore processing operations. Dust extraction controls have been installed at transfer points in the process plant and water sprays are also used at the crusher feed ore bin. Dust suppression with water sprays has been used on all gravel roads around the mine site. Sandy areas around the plant have been gravelled to minimise airborne dust.

An occupational hygienist conducted a full site Baseline Health Risk Assessment, including noise tests on mining and processing operations in 2012. An integrated monitoring plan has been implemented, with dust and noise monitoring commencing in 2013. Improvements have been made during the reporting period to reduce noise generated by the operations, together with designation of plant areas where hearing protection is required.

An air quality and weather monitoring programme has been implemented from July 2013 with the installation of an automatic monitoring station. A dust management plan and training package have been developed to support Boseto's air quality management objectives.



# COMMUNITY RELATIONS

Our relationship with the Botswana community and Government is fundamental to our business. Discovery Metals is committed to meaningful engagement with employees and local communities for shared benefits. Our guiding principles are that:

- > we engage openly listen and respond-
- > our communities are our partners and key stakeholders; and
- > benefits created for our stakeholders outweigh impacts.

## MANAGEMENT APPROACH

The Boseto Project is located in the remote Ngamiland District of Botswana, approximately 80 kilometres south west of the town of Maun. Boseto is the first mining activity in the district, providing a range of socio-economic benefits to our employees and contractors and their families, including direct employment and opportunities to supply goods and services directly to the Boseto Operations.

Discovery Metals is committed to implementing appropriately resourced systems and setting targets to continuously improve our social performance. Emergency response procedures have been developed and implemented to support local communities as required.

## CONSULTATION AND ENGAGEMENT

We consider any person or group who may be impacted by our operations, or may themselves impact our operations, to be a key stakeholder. They are:

- > Shareholders:
- > Employees and contractors;
- > Local community;
- > Cattle ranchers;
- > Government officials and agencies;
- > Selected banks and financial institutions;
- > Suppliers of goods and services to the Company;
- > Buyers of our concentrate; and
- > Any person or group that may be impacted by our operations.

A programme of regular communication has been established to update these stakeholders on the activities and plans of the Company and to receive feedback.

Since exploration by the Company commenced in the district in 2006, Discovery Metals has maintained regular consultation and engagement with the communities in the vicinity of the mine, the regional community and government in Maun, and the relevant government departments in the nation's capital of Gaborone.

Regular consultation and engagement, primarily with local community representatives, affected landholders, local politicians and government agencies continued throughout 2013. The main contact reasons related to farmer land compensation, water bore and access issues, employment opportunities, community consultation meetings and forums, Government administration interactions, exploration access to farms, mine tours by various community and Government groups, requests for support and complaints on blasting noise as shown in Table 4. Operational updates are also included in the consultation.

Table 4: Stakeholder engagement in 2013

Stakeholder	No. Contacts	Percent	Main Reason for Contact
Local Community	104	71	Community consultation, land compensation, farm access, bores, exploration access, roads
Employees and Contractors	18	12	Employment, casual labourers, employee welfare
Government & Agencies	18	12	Land compensation, mine opening, mine tours, work permits, wild dogs
Other Interested and Affected Parties	7	5	Donations and requests
Total	147	100	

A structured Stakeholder Consultation and Engagement Plan and a Community Contacts Management Register have been developed to formalise this stakeholder interaction. The Register supports responsible management of all requests, complaints, concerns or issues raised by stakeholders and tracks the implementation of approved responses. Matters raised through this process are reviewed by the HR and Community Manager and escalated to the site General Manager Operations and Managing Director as required, based on potential risk to the Company.

A Community Liaison Office has been established in Toteng, the nearest town to the Boseto operations, where some of the operating workforce is housed in the Company-constructed accommodation.

#### COMPENSATION FOR AFFECTED LANDHOLDERS

Compensation procedures are in place to support local landholders affected by the Boseto Operations and due process is being undertaken by Discovery Metals wholly through the recognised Government channel of the Tawana Land Board (TLB). All grievances are handled by the TLB and there is no negotiation by farmers directly with the Company. Four out of nine affected landholders have been compensated in accordance with rates set by the local TLB. Delays in finalising compensation are due to Land Board procedural issues, land ownership disputes subject to court actions, and on-going negotiations with affected farmers by the TLB. Discovery Metals is committed to continuing dialogue and grievance reviews with the TLB and affected landholders in 2014.

## COMMUNITY DEVELOPMENT

Through employment, business opportunities and targeted community development projects, Discovery Metals strengthens the livelihoods and wellbeing of local communities affected by the Boseto operations.

Discovery Metals is working with local communities and leaders to design a community development programme for the operational phase of the Boseto Project. The first project, implemented in October 2011, was the US\$191,907 upgrade of the Semelo RO Plant. The RO Plant is located 60 kilometres from the Boseto operation and supplies potable water to six communities in the district; Bodibeng, Sehitwa, Bothatogo, Kareng, Legothwana and Toteng. The Company continues to support this RO Plant through quarterly inspections and supply of treatment chemicals.

Another significant project is the planning for an upgrade of the local Health Clinic in Toteng. In late 2013 we commenced discussions with the Botswana Department of Health and local nursing staff to identify a range of improvements in lighting, hot water supply, storage cupboards and shelving, building conditions and a covered space for patients waiting for treatment. A programme is being developed co-operatively with the local authority to gradually rectify these limitations to the local health service facilities over the next few years as funds become available.

## COMMUNITY DEVELOPMENT FUND AND COMMUNITY ADVISORY COUNCIL

In 2013, work progressed on the development of a framework and charter for a Community Development Fund which will manage the community development programme from 2014. The establishment of the Fund has been formally approved by the Discovery Metals Board and will progress when funds become available. The Fund will support a wide range of community development needs that have been identified in consultation with stakeholders, primarily in the areas of health, education, capacity building and water supply. A Community Advisory Board will be established to advise on how projects shall be prioritised for funding.

## ARCHAEOLOGY AND HERITAGE

The Project area is potentially rich in sites of archaeological, historical and cultural significance. A number of sites in the Project area have been registered with the Botswana National Museum. Archaeological approval for the Boseto Project was granted by the National Museum in March 2009. An archaeologist accredited by the National Museum participated in all land clearances and disturbance at the Boseto site. For example, during construction, linear infrastructure route planning and selection was based on the requirement to avoid important archaeological sites near Toteng.

To ensure Discovery Metals manages the significance of this site appropriately, employee induction includes training on actions required if an archaeological object or site is detected. A Chance Finds Procedure has been implemented, requiring pre-work surveys and assessment and reporting of any finds to the National Museum.

There were no artefacts or cultural finds on the Project site or along preferred infrastructure routes during the reporting period.

Culturally and spiritually significant sites are located in the vicinity of the Discovery Metals project area. During induction, all employees and contractors are made aware of sensitive sites and specific controls in place to protect them. For example, Discovery Metals project activity is banned in the Kgwebe Hills (south east of the mine site) and it is mandatory that the local community's access routes to the Hills remain open at all times. Lake Ngami, listed as an important birding site and awaiting declaration as a Nature Reserve, was avoided in the planning of the Boseto project area and associated infrastructure. The Tawana Land Board has allocated Surface Rights for the project area to Discovery Metals. The Board was created under Botswana's Tribal Act of 1968, establishing Land Boards as trustees and administrators of tribal land.



## **FMPI OYMENT**

The communities of the Boseto Project area and nearby village of Toteng are characterised by high unemployment and a high prevalence of subsistence activities. Animal husbandry is the major source of income and food.

Through the Boseto Project, Discovery Metals provides an important opportunity for employment, including apprenticeships and traineeships, in a region where few other opportunities exist. Discovery Metals is committed to local recruitment where the skills, or capacity for development, are available. Our site employment policy is to favour local, then Botswanan, then expatriate employees provided they have the appropriate qualifications, skills and experience for the role. In 2013, 54.3% of senior site management were citizens of Botswana. Senior site management is defined as employees of Superintendent level and above.

Table 5 details the employment statistics for the Boseto Project as at June 2013. Employee turnover is low due to the short period since mining operations commenced in December 2011 and processing operations commenced in late May 2012. Recruitment continued through the reporting period and employee numbers peaked at about 535 in 2013.

The Company is supporting the request by the Botswana Mine Workers Union to establish representation on site. The Company will provide union officials with training in Company policies and procedures and will meet regularly to discuss Company plans and employee issues to ensure a sustainable future. The Company is also committed to transparent and direct communication and consultation with all employees and encourages issues to be raised at daily pre-start safety meetings and toolbox talks. A Union Recognition Agreement has been drafted and is under discussion with the Union. Around 35% of Boseto employees are Union members but all employees are effectively covered; employees of Discovery Metals are not discriminated on the basis of union membership and have the same basic employment agreements. There were no strikes or lockouts during the reporting period.

Planning has commenced to upgrade onsite accommodation at Boseto to accommodate all mine workers, rather than housing some workers at nearby villages. The move will replace onsite temporary camp houses with donga buildings, plus basic leisure and social facilities. Discovery Metals aims to improve the accommodation and living standards of Boseto mine workers and reduce potential impacts on surrounding villages. Nearby Toteng village is anticipated to benefit from a reduction in traffic travelling to and from the mine site and a reduction in mine workers, particularly single males, staying within close proximity to the village (reducing the risk of sexually transmitted diseases such as HIV/AIDS). A new onsite sewage treatment plant and solar hot water systems are planned to support the accommodation upgrade.

## **TRAINING**

Local skills availability is low due to a lack of previous industrial and services activities in the region.

To facilitate capacity building, the Company has an intensive training programme for all employees. This programme includes computer skills, administrative processes, safety, risk management, archaeological finds, environment, equipment operation, process operational procedures, driving, technical aspects, and on the job training. The Company employs several trainers and supports the programme by use of consultants. Table 5 details the number of training hours per year completed to 30 June 2013 by employee category, irrespective of gender.

Table 5: Boseto Operations Employment, turnover and training hours as at 30 June 2013

Role Type	Male	Female	Source	Percentage of Total Employees	Turnover % from Jan-June	Training Hours Per Year Per Employee (both male and female)
Apprentices	10	4	Local community	2.55%	0	600
Operator	37	11	Local community	8.74%	0	
Casuals	8	0	Local community	1.46%	1.64%	
Operator	379	16	Botswana resident	71.95%	5.46%	160
Technical	10	1	Botswana resident	2.00%	4.01%	60
Administration	16	16	Botswana resident	5.83%	0.91%	60
Management	6	1	Botswana resident	1.28%	0	40
Management	14	0	Expatriate (10 Aus/NZ/UK)	2.55%	3.10%	
Technical	19	0	Expatriate (8 Aus/NZ/UK)	3.46%	2.00%	
Casuals	0	1	Expatriate (NZ)	0.18%	Not applicable	40
Totals	499	50		100%		153

## PERFORMANCE ASSESSMENTS

While the performance of all employees is monitored, formal performance assessments are only provided for employees that are of Supervisor level and above. Employees that are at Superintendent level or below are incentivised by the payment of a production bonus that depends on the operational and safety performance of the Superintendent teams.

In 2013, regular training, feedback and counselling was provided to employees about development opportunities in the Company. Formal performance assessments are planned to commence in 2014 and will be conducted annually.

## LABOUR PRACTICES

Discovery Metals' shared values of Respect, Honesty, Accountability, Fairness and Trust are embedded in the Company's approach to labour practices. Through positive labour practices, Discovery Metals aims to become an Employer of Choice in the mining industry. In 2013 we introduced our Diversity and Equal Opportunity Policy. View the Policy at www.discoverymetals.com/corporate-governance.

The Company is committed to recruiting and retaining the most suitably qualified person for each available position. Discovery Metals' recruitment process is based on a balanced recruitment methodology based on merit.

Discovery Metals' security personnel are contractors. No firearms are issued to security personnel and no firearms are held on site. These personnel are given training in the Company's security policies and practices and the Code of Conduct.

Employee grievances are dealt with under the Company's Grievance Policy.

We do not employ or condone child, forced or compulsory labour at our operations or in our supply chain.

No incidents of discrimination, child, forced or compulsory labour, or violations of the human rights of indigenous employees or community were identified or reported in 2013.

The Company did not receive any fines or sanctions for non-compliance with laws and regulations in 2013.

## HIV/AIDS AWARENESS

Prevalence of HIV/AIDS is at pandemic levels in Botswana, with an estimated 24.8% adult prevalence rate amongst 15-49 year olds<sup>5</sup>.

Boseto site doctors conducted HIV/AIDS awareness sessions for employees in 2013 in co-operation with an external training provider. Counselling is also accessible from the doctors on request. Awareness training was rolled out to employees' families and the local community in 2013 and voluntary testing for HIV/AIDS was introduced in co-operation with the Botswana Ministry of Health. Condoms are readily available across the Boseto site.

<sup>&</sup>lt;sup>5</sup> Source: 2009, Avert.org

## **ECONOMIC CONTRIBUTIONS**

Discovery Metals is committed to supporting local employment and suppliers of goods and services. In 2013, 75% of supplier spend was directed to locally based suppliers. Locally based supply is defined as from within Botswana. In addition to geographic location, supplier selection is also influenced by other factors including cost and environmental and social performance. These considerations are reflected in our Botswana Supplier Application Form, and are also assessed as part of on-going supplier monitoring and at contract renewal.

Table 6 details Boseto expenditure that provided socio-economic benefit to the local and regional community in the year to 30 June 2013.

Table 6: Economic contributions to 30 June 2013

Item	US\$
Direct economic value generated	
Sales Revenue (nett of transport and treatment costs)	101,982,000
Hedging Revenue	59,594,000
Economic value distributed	
Royalties to Botswana Government	3,361,062
Taxes paid to Botswana Government	4,941,618
Employee salaries and wages	17,674,940
Botswana supplies and services purchased	112,818,905
Non-Botswana supplies and services purchased	37,110,392
Community investment – quarterly inspections for the RO Plant	14,000
Economic value retained <sup>6</sup>	(14,344,917)

<sup>&</sup>lt;sup>6</sup> Economic value retained is calculated in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, Performance Indicator EC1.

## **GRI CONTENT INDEX**

Please see the separate GRI Content Index for full disclosure details.

