



#### Independence Group NL

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### **ABOUT THIS REPORT**

This is Independence Group NL (IGO)'s fourth Sustainability Report. It addresses IGO's sustainability performance for the financial year ending 30 June 2018. It covers all the activities for IGO and its related entities, including the Nova nickel-copper-cobalt mine (known as the Nova Operation), the Tropicana Joint Venture (known as the Tropicana Operation), the Long nickel mine (known as the Long Operation), the recently divested Jaguar zinc-copper mine (known as the Jaguar Operation) and the Stockman Project, as well as our various exploration activities including joint ventures.

IGO is a 30% owner of the Tropicana Operation. AngloGold Ashanti Australia Ltd (AngloGold Ashanti) is the majority owner in this joint venture and manages all aspects of the mine. This report addresses only those aspects that are deemed material to IGO and our stakeholders. For additional information refer to AngloGold Ashanti's assessment of the sustainability of its broader activities (refer to www.anglogoldashanti.com/en/sus).

While our Sustainability Report evolves with our stakeholders expectations, it is also our explicit intention that the structure and nature of the content is materially similar from one year to the next to better enable readers to analyse changes in IGO's performance, and therefore make relative comparisons to other organisations.

Our 2018 Sustainability Report has been prepared in general accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards. These have been applied where they are appropriate to the size of our organisation and the nature and location of our activities. This report addresses only those limited aspects that are deemed material to IGO and our stakeholders. Our methodology in determining what is included in this report is addressed in Stakeholders and Materiality (see page 20).

To aid the cross-referencing of this report's discussions on IGO's material aspects to elements of the GRI Sustainability Reporting Standards, a separate GRI Content Index has been prepared (see Appendices, page 98).

Additionally, where IGO's activities support the UN Sustainable Development Goals (SDGs), these activities are highlighted as described on page 14.

## INFORMATION INTEGRITY AND REPORT AUDIT

IGO seeks to gather, record, compile, analyse and disclose information and processes used to prepare its sustainability reports in a way that is readily available for examination and that establishes the quality and relevance of the information.

IGO completes assurance reporting on its National Pollutant Inventory (NPI) and greenhouse gas (GHG) emissions as part of our submission to NGERS. We also use the services of various technical experts to complete a range of internal audit processes.

Once again, IGO is pleased to advise that key data in this Sustainability Report has been subject to an independent third-party review by BDO Audit (WA) Pty Ltd (ACN 133 657 833).

Statistics related to hours worked as presented in this report include both permanent full-time and part-time Independence Group NL (IGO) employees and contractors. AngloGold Ashanti Australia Ltd (AngloGold Ashanti) report on a calendar year, and consequently some of the reported figures for the Tropicana Operation, as noted in the text, are for the 2017 calendar year. All monetary amounts are in Australian dollars. Dollar amounts presented in this report are approximate and the reader is directed to IGO's 2018 Annual Report for further information. Quantitative parameters referred to in this report are summarised in the appendices.

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Ladies and gentlemen, it is our joint pleasure to summarise the progress of our Company during the 2018 financial year and to outline our vision for its future.

## An evolving business strategy based on a renewed purpose

At Independence Group, or IGO, as we like to call ourselves, we understand the importance of having a clear purpose. While a comprehensive business strategy directs our path, it is our purpose that defines our fundamental reason for being and doing the work we do – it is what links IGO's people to each other, to our customers and to the communities in which we work and live. With this in mind, in late 2017, we began the journey to renew our purpose.

### Our purpose: Making a Difference

We believe in a world where people power makes amazing things happen. Where technology opens up new horizons and clean energy makes the planet a better place for every generation to come. We are bold, passionate, fearless and fun - a smarter. kinder, more innovative company. Our work is making fundamental changes to the way communities all over the world grow, prosper and stay sustainable. Our teams are finding and producing the specialist metals that will make energy storage mobile, efficient and effective enough to make long-term improvements to the lifestyle of hundreds of millions of people across the globe.

How? New battery storage technology is finally unleashing the full potential of renewable energy by allowing power produced from sun, wind and other sources to be stored and used when and where it's needed. This technology will impact future generations in ways we cannot yet imagine, improving people's quality of life and changing the way we live. We believe in a green energy future and by delivering the metals needed for new age batteries, we're making it happen.

This is the IGO Difference.

### The results of our strategy to date

Up to this point, and with the deliberate intention of positioning ourselves to take advantage of our rapidly changing world, we have pursued a strategy to reshape IGO. Over the last few years we have focused on high-quality projects with longer life and of larger scale. We have managed this within an ever-improving environmental, social and governance (ESG) framework.

In the last year, this focus has been realised by the ongoing success of both the Nova and Tropicana Operations, our divestment of the Jaquar Operation and Stockman Project, the Long Operation's transition into care and maintenance, and the substantial increase in the scale of our exploration interests. These collective changes have culminated in a record year across multiple production, exploration, financial and ESG metrics. IGO's transformation, and the results we have achieved, are a tribute to our people who come to work every day to make a difference.

### The impacts of change

Associated with the divestment of our Jaguar and Stockman assets and the Long Operation's transition to care and maintenance, were a range of unavoidable impacts on our people and our host communities. Significant planning went into these transitional activities and. while those affected will be the definitive judges, we believe our approach was best-practice in terms of both employee and community engagement. It is our expectation that our people can and will take pride in our approach to all aspects of the mining cycle.

We extend our thanks again to the many women and men at Jaguar, Long and Stockman who made outstanding contributions to those projects and to IGO over many years. We wish you well in your future careers. We also thank our host communities, our suppliers and contractors, our industry associates and our regulators for their support and assistance.

Associated with the significant growth in our exploration activity, we have completed a commensurate increase in the amount of land clearing to enable access for our exploration equipment. This work has been informed by our understanding of our actual and potential impacts, our statutory obligations, consultation with Traditional Owners and pastoral lease holders, and the expectation we rehabilitate the affected country.



### Our strategy for the future

Our strategy is to become a globally relevant, premium producer of energy storage and distribution minerals. We will achieve this by continuing to focus on high-quality assets of increasing scale and mine life. We will continue to seek opportunities to add greater value to the commodities that we produce, including the opportunity for downstream processing of our nickel concentrate to produce nickel and cobalt sulphates for delivery to electric vehicle battery manufacturers. We will also continue to investigate new exploration opportunities for nickel, copper and cobalt, and for other metals and minerals important to the energy storage and electric vehicle industry.

### Creating a strong culture: the IGO Difference

At IGO we recognise that a strong corporate culture underpins the success of our Company. We work with our employees to create both a positive culture and seek their advice on the programs we need to actively shape our culture. In 2018, 97% of IGO employees participated in our engagement survey. The engagement score of 55% is the upper end of the benchmark for metals and mining companies. In 2019, we will set our sights even higher.

#### **Shared Value**

The duties of "big business" are changing. There is a clear societal expectation that to sustain business and create reliable returns for shareholders, we must act in a manner that is both ethical and creates shared value for host communities.

IGO is proud of its approach to corporate giving (currently at 0.06% of gross revenue) and, starting in FY18, our payment of a land access royalty to the Traditional Owners of the land on which the Nova Operation is located, the Ngadju people.

### Doing what is right - because we care

IGO has a set of publicly stated values that genuinely inform the decisions we make. It is our intention that consideration is always given to how things get done and the subsequent impacts of our actions. As a precondition to all of our endeavours, we at IGO seek to minimise harm to our people, our communities and the environment. To this end, we actively manage and measure our performance in relation to defined standards and industry benchmarks. It is with some satisfaction that, for the reporting year, we note that IGO experienced no material incidents nor caused any unmitigated socio-environmental impacts.

In FY18, five of our people sustained injuries that resulted in them having days off work to recuperate. This is five too many. Beyond those incidents, we continued to experience too many potentially serious incidents; the type of near misses where someone could have been seriously injured or worse. At IGO, we put safety first. Because priorities change, safety is more than a priority - safety is a value. To this end, we continue to pursue an ongoing body of work to improve the safety of our workplace, and our systems and culture, to ensure the safety of our people and the broader community.

### This report

This report provides a complete overview of the significant nonfinancial aspects of our business to enable our stakeholders to more broadly assess IGO's performance during FY18 relative to prior years. We describe how IGO's business affects our people, our host communities, and the environment in which we operate; both the positives and the negatives. This report addresses the environmental, social and governance matters that we believe to be of most concern to our stakeholders.

We have sought to place our activities in the context of the wider industry, the environmental settings in which we operate, and the communities of which we are a part. We encourage and welcome your feedback.

Thank you for your ongoing support.

## **FY18 SNAPSHOT**



## KEY ACHIEVEMENTS

FY18 was an eventful year for environment, community and governance improvement initiatives at IGO. We are proud of these achievements and those whose efforts have made a difference

- First and foremost, we redefined our business purpose to provide clarity to all of our stakeholders.
- We implemented a renewed community engagement strategy and approach to corporate giving which has had immediate and tangible benefits.
- We developed a suite of environmental standards that define IGO's minimum requirements for impact assessment, water management, mineral waste management, mine closure and land management.
- We have continued to invest in our people with the intention of creating a culture of empowerment, ownership and caring; a culture driven by leaders and positive behaviour. We have made significant progress in achieving our goal of filling 75% of vacancies through internal promotion. Similarly, we made progress towards achieving our target to invest an equivalent of 5% of total salaries on our people's learning and development.
- We have expanded flexible working arrangements and introduced a new paid paternity leave scheme.
- We have commenced royalty payments to the Ngadju people in accordance with the land access agreement that enabled the development of the Nova Operation. It is our hope that this money will have a positive and enduring impact on this community.
- We have become a signatory to the Tax Transparency Code and improved remuneration reporting.
- We have sold significant assets while minimising the impacts on our employees and host communities.
- We have increased the number of environment, community and governance matters that are subject to performance management and improvement targets.

While it is a pleasure to note these successes, we also pride ourselves on understanding our collective weaknesses and failings. This insight is an enabler to achieving great things. We invite you to read on to learn more about IGO.

## FINANCIAL, OPERATIONS & GROWTH

\$781<sub>M</sub>

\$4<sub>M</sub>

22,258t

Nickel in concentrate

140<sub>k</sub> Gold ounces

\$45<sub>M</sub>
Exploration expenditure

\$415<sub>M</sub>
Total contractor & supplier spend



### **PEOPLE**

**Direct employees** 



**Females in workforce** 

**Aboriginal employees** 

**Graduates in FY18** 

## SAFETY & WELLBEING

**Implemented an IGO-wide** 



(Down from FY17)



COMMUNITY & ENVIRONMENT

**Tax & State royalties** 

**Corporate giving** investment

> 2000 **FY19**

**Nova solar farm** construction approved



**Concentrate loading trial** at Esperance Port successfully completed

> on Aboriginal owned businesses





## **ABOUT IGO**

Established as an Australian gold exploration and mining company in 2000, IGO has grown to be a significant mid-cap mining, development and exploration company producing gold, nickel, copper and cobalt.

In this section:

Who We Are	Our Code of Conduct
Our Purpose	Governance
Our Values	IGO Board and ExCo
The IGO Way	Tax Transparency Code

### **WORKING TOGETHER**

"Great teamwork exists at Nova because we continuously foster an environment where; our people feel safe to put their honest thoughts on the table, people trust and respect each other enough that thoughtful disagreements are encouraged, and we keep an open mind so that the best ideas win out. This makes us a winning team."

Graham Arvidson
Maintenance Manager, Nova Operation





## WHO WE ARE

Independence Group NL ('IGO' or 'the Company') is a leading ASX-listed mining and exploration company. Our strategic focus is on high-quality assets of scale and longevity and an evolving strategy to align the business to the structural shift to energy storage. The Company's focus is on its 100% owned, world-class Nova nickel-copper-cobalt operation, its 30% interest in the Tropicana Operation, a joint venture with AngloGold Ashanti Australia Ltd, and its portfolio of belt-scale exploration projects in Western Australia and the Northern Territory.

## OUR PURPOSE

#### THE IGO PURPOSE: MAKING A DIFFERENCE

In late 2017, IGO began the journey to reset our purpose. To this end IGO held a number of workshops involving the IGO Board, our senior management and a cross-section of the business. In total, around 10% of the people who work at IGO were actively involved in the purpose development workshops across nine areas of the business. The feedback from all the working groups had a high degree of commonality. In short, IGO people want to "make a difference" and to be part of a business that is more than a mining company - to be part of something that is making a positive contribution to the world. Our new purpose, as defined below, reflects these aspirations.

We believe in a world where people power makes amazing things happen. Where technology opens up new horizons and clean energy makes the planet a better place for every generation to come. We are bold, passionate, fearless and fun – a smarter, kinder, more innovative company. Our work is making fundamental changes to the way communities all over the world grow, prosper and stay sustainable. Our teams are finding and producing the specialist metals that will make energy storage mobile, efficient and effective enough to make long-term improvements to the lifestyle of hundreds of millions of people across the globe.

How? New battery storage technology is finally unleashing the full potential of renewable energy by allowing power produced from sun, wind and other sources to be stored and used when and where it's needed. This technology will impact future generations in ways we cannot yet imagine, improving people's quality of life and changing the way we live. We believe in a green energy future and by delivering the metals needed for new age batteries, we're making it happen.

This is the IGO Difference.



## **OUR VALUES**

Our people are expected to model the IGO values:



### **SUSTAINABILITY**

Putting health and safety first, being environmentally responsible, and supporting our communities.



### **TEAMWORK**

Working together to achieve shared goals.



### **DILIGENCE**

Careful and persistent effort.



### **INTEGRITY**

Doing what is right and doing what we say we will do.



### **ACCOUNTABILITY**

Taking ownership for what we do and responsibility for others.



### **RESPECT**

Valuing the views of others and accepting people for who they are.

## THE **IGO WAY**

IGO strives to be a partner and employer of choice to all stakeholders including shareholders, traditional landowners, government, local communities and our employees.

IGO has a great team of people focused on optimising and maximising the value generated by the business. The way we do business is behaviour and values driven, "The IGO Way".

## OUR CODE OF CONDUCT

The IGO Code of Conduct applies to everyone who works for, or on behalf of, IGO. Our Code of Conduct is more than a statement of our expectations; it reflects the values that have served the business well from its inception. It is communicated to all our people and to those we do business with. Our people, contractors and directors are all expected to behave in accordance with our Code of Conduct.

IGO's Code of Conduct provides guidance on how our values are to be put into practice. The key elements are summarised below:

- We are committed to providing a safe, fair and dynamic work environment.
- We are committed to providing a workplace free of harassment, hostility and offensive behaviour.
- We strive for diversity and inclusion in the workplace in terms of gender, age, cultural and ethnic background, religion, sexual orientation and physical ability.
- We work to provide our people with access to the information and knowledge they need to perform well.

- We encourage open and honest expression and facilitate participation.
- We are committed to providing learning and developmental opportunities consistent with the needs of the business and the individual.
- We are committed to providing a work environment that protects whistleblowers who, in good faith, report unacceptable conduct.
- We celebrate the success of our business and our people.
- We respect the law and act accordingly.
- We are fair and honest in our dealings.
- We use IGO's property responsibly.

Our people have reciprocal duties to our business and to each other and we expect them to be accountable for both their actions and consequences. We treat each other and our stakeholders with respect and dignity.

IGO's Code of Conduct is publicly available on our website: www.igo.com.au

#### **GOVERNANCE**

#### **The Board**

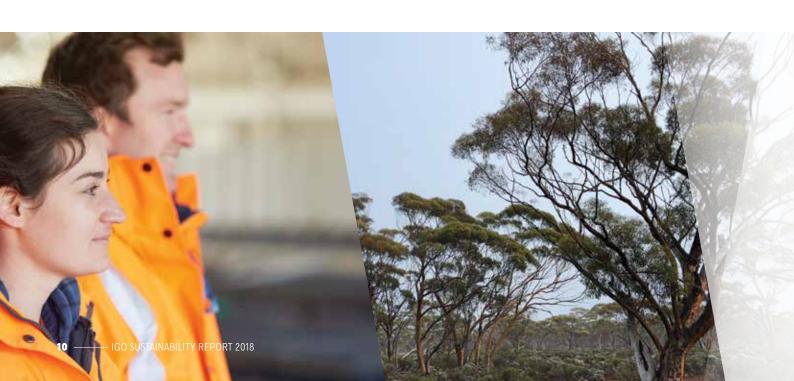
Responsibility for our strategic approach, risk appetite and governance lies with IGO's Board and Executive Committee (ExCo).

IGO's Board defines, approves and monitors a documented governance framework.
This framework establishes accountabilities, regulating activities, risk management, monitoring and processes for optimising the Company's performance. The Board recognises the need to regularly review the framework as best practice evolves over time.

Four committees assist the Board in these activities:

- Sustainability and Risk Committee
- People and Performance Committee
- Audit Committee
- Nomination and Governance Committee

The Board and each committee has a defined charter, which can be found on our website: www.igo.com.au.



The Board's Sustainability and Risk Committee has oversight responsibilities for safety, health, environment, community, risk management and internal audit. Sustainability related initiatives, performance measures against key performance indicators (KPIs), operational matters and issues relating to stakeholders are brought to the attention of the Sustainability and Risk Committee through quarterly meetings held with the Executive Team.

IGO completes an annual review of governance documents to ensure they are kept up to date and in line with best practice. These documents include:

- Code of Conduct
- Dealing in Securities Standard
- Continuous Disclosure and Information Standard
- Whistleblower Standard
- Anti-Bribery and Corruption Standard
- Diversity and Equal Opportunity Standard
- Privacy Standard

IGO's Group Governance Standards can be found on our website: www.igo.com.au

Annually, IGO issues a Corporate Governance Statement to the ASX outlining the Company's current corporate governance framework. The statement provides comparative reference to the Corporate Governance, Principles and Recommendations of the ASX Corporate Governance Council (ASX Recommendations). This Statement can be found on our website at: http://www.igo.com.au/irm/content/governance.aspx?RID=295

During the FY18 reporting period, the Company's corporate governance practices have complied with the ASX Recommendations in their entirety and the Board has made appropriate statements reporting on the adoption of each of the recommendations.

### **Executive**

Responsibility for IGO's business processes and sustainability performance lies with the Managing Director and Chief Executive Officer, Mr Peter Bradford, and IGO's Executive Committee. The Board and Executive Committee structure is shown in Figure 1.

The Managing Director and Chief Executive Officer's performance is measured against metrics relating to financial and operational performance, the execution of our growth strategy, and the sustainability of our performance. Comparable and related remuneration arrangements including incentive payments are variously applied to all IGO employees. There has been no material changes to IGO's remuneration and performance standards in the reporting period.

All IGO employees are accountable for contributing to the creation of value and enhancing our sustainability within their particular area of responsibility.

#### Listing

Independence Group NL is a company listed on the Australian Securities Exchange (ASX: IGO). The Company has been listed since 17 January 2002, having traded as Independence Gold NL from 17 January 2002 to 19 December 2003.

### FIGURE 1 IGO BOARD AND EXCO

- Debra Bakker
- Peter Bilbe (Chairman)
- Peter Bradford (CEO)
- Peter Buck
- Geoffrey Clifford
- Keith Spence
- Neil Warburton
- Keith Ashby
- Rob Dennis (finished on 30th April 2018)
- Matt Dusci
- Andrew Eddowes
- Sam Retallack
- Ian Sandl
- Scott Steinkrug
- Board
- Executive Committee (ExCo)

### TAX TRANSPARENCY CODE

The Australian Government's Voluntary Tax Transparency Code (TTC) is a set of principles and minimum standards to guide disclosure of tax information by businesses. The TTC was developed by the Board of Taxation to encourage large and medium-sized businesses to publicly disclose their tax affairs. The intention of the reporting requirements is to highlight those that are paying their fair share of tax and to encourage all businesses not to engage in aggressive tax avoidance. The TTC places a specific onus on large businesses to take the lead, to become more transparent, and help educate the public about their compliance with Australia's tax laws.

The minimum disclosure standard required by the TTC depends on the size of the business. As defined by the TTC, as of FY18, IGO is now categorised as a large-sized business (i.e. a business with an aggregated turnover of greater than A\$500 million). Prior to this date IGO was categorized as a medium sized business. Turnover is defined in section 5.1 of the TTC. (http://taxboard.gov.au/files/2016/05/BoT\_TransparencyCode\_Final-report.pdf)

For large businesses, the code requires the disclosure of:

- a reconciliation of accounting profit to tax expense and to income tax paid or income tax payable
- identification of material temporary and non-temporary differences
- accounting effective company tax rates for Australian and global operations (pursuant to AASB guidance)
- approach to tax strategy and governance
- tax contribution summary for corporate taxes paid
- information about international related party dealings

In relation to FY18, IGO will provide our disclosure statement on our website this year following notification of the Australian Tax Office.





## OUR APPROACH TO SUSTAINABILITY

To fulfil our purpose at IGO we focus on both the sustainability of our business and the manner in which we conduct our business. By being true to our purpose, and consistently applying our values, we are continually persuing business improvement to create an organisation that generates superior returns for our investors and improves the socioeconomic conditions of the areas in which we operate, while eliminating or mitigating any negative impacts.

In this section:

Sustainable Development

**Business Strategy** 

**Integrating Sustainability** 

**Our Strategic Imperatives** 

**Continual Improvement** 

Stakeholder Engagement

### **CAREFUL AND PERSISTENT EFFORT**

"Engaging with individual stakeholders is not a one-time requirement or fix. Relationships take time to build and they require regular nurturing and persistent effort to maintain and grow. The true test of stakeholder relations is when something goes wrong and there is enough good will, earnt over time, to continue to get good outcomes."

#### Ian Sandl

General Manager, Exploration



## SUSTAINABLE DEVELOPMENT

Our starting point is a commitment to adhere to the International Council on Mining and Metals (ICMM) Sustainable Development Principles as set out below (www.icmm.com). In operating our business in accordance with these principles, we also seek to contribute to the fulfilment of the 17 Sustainable Development Goals (SDGs) as agreed to by Australia and 192 other countries at the United Nations Sustainable Development Summit in September 2015.

Figure 2 serves to illustrate the connection between the ICMM 10 principles and the SDGs. Further, in the body of the text, we highlight where our activities serve to contribute (albeit in a humble way) to the universal aspiration of driving social and economic progress that supports an end to poverty, protects the planet and ensures prosperity for all.



Apply ethical business practices and sound systems of corporate governance and transparency in support of sustainable development.



Pursue continuous improvement in our environmental performance, on issues such as water stewardship and energy and climate change.



Integrate sustainable development considerations within corporate strategy and decision–making processes.



Contribute to the conservation of biodiversity and integrated approaches to land use planning.



Respect human rights and the interests, cultures, customs and values of employees and others affected by our activities.



Facilitate and support the knowledge-base and systems for responsible design, use, re-use, recycling and disposal of products containing metals and minerals.



Implement effective risk management strategies and systems which are based on sound science and account for stakeholder perceptions of risks.



Pursue continuous improvement in social performance and contribute to the social, economic and institutional development of host countries and communities.





Pursue continuous improvement in health and safety performance with the ultimate goal of zero harm.



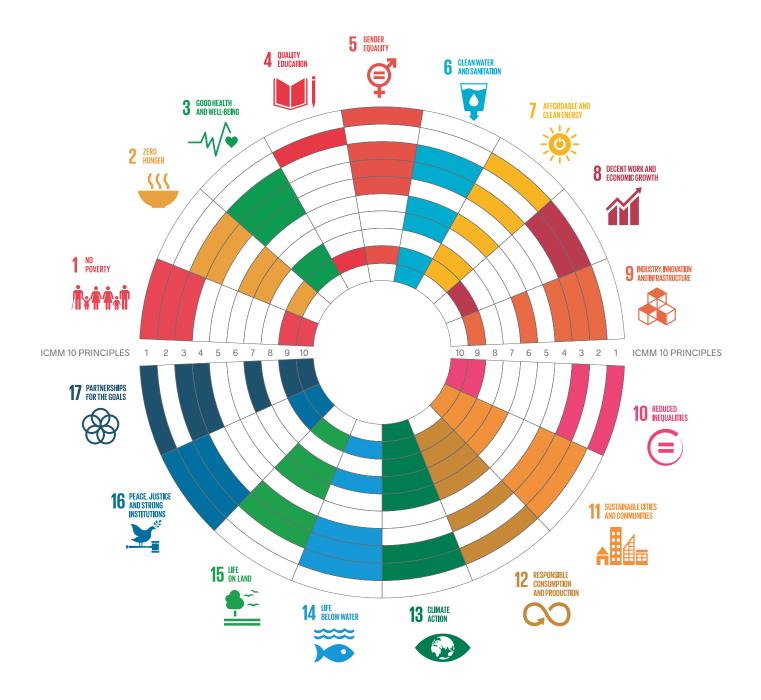
8



Pro-actively engage with stakeholders on sustainable development challenges and opportunities in an open and transparent manner. Effectively report and independently verify progress and performance.

### FIGURE 2

### **UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS**



This figure has been sourced from ICMM (www.icmm.com/en-gb/metals-and mineral/making-a-positive-contribution/sdgs)



## BUSINESS STRATEGY

The sustainability of our business, and the fulfilment of our purpose, is dependent on having a clear business strategy. Strategic planning is not a periodic exercise for IGO's Executive Committee. that ensures alignment of our creation of a common focus We recognise that delivery on competitive advantage and true value creation for all of our

In essence, our strategy is to align IGO to the ongoing electrification of the world's economy and the associated demand for energy

supplying metals in one form or another from a set of high-quality assets of scale and longevity. Our primary focus will be on nickel, copper and cobalt but we will remain open to opportunity.

Our strategy is further defined as a set of interrelated elements that (see Figure 3). These Strategic Imperatives address the matters that are material both internally to the operation of our business and externally to our stakeholders.

We made significant progress in delivering on our business strategy during FY18.

## INTEGRATING SUSTAINABILITY

adaptive, resilient, and has a resilience and capacity to adapt are determined by many factors; some are external, but most remain within our control. We do not settle for the status quo. We continually seek to improve how we do things and how we might prepare ourselves for change.

So how do we measure our successes? For incremental and continuous work improvements, we look to our performance metrics, many of which are our Annual Report. However, the greater measure of our

success is the test of time. IGO has been operating for nearly strength to strength and have every confidence that we will continue to do so. In our previous conceptual pathway to achieve sustainable development and we continue to follow this path. pathway can be found on our sustainabilityreport/2017/).

#### FIGURE 3

## **OUR STRATEGIC IMPERATIVES**



### We are successful when...

### 1 People

Our diverse team is motivated to come to work, and we all know what to do and strive to be our best because we recognise that great people make great companies.

### 2 Safety & Wellbeing

We pro-actively prevent harm and improve the wellbeing of our people because we care.

### 3 Business Support

We have robust "fit-for-purpose" processes and systems embedded in our business with a culture of continuous review.

### 4 Community & Environment

Our communities value their relationships with us as a result of our demonstrated care and responsibility for both the community and the environment for the benefit of all.

Our financial strength and capital management is a competitive advantage enabling consistent investment in growth and payment of dividends.

### 6 Operations

We have optimised and maximised the value of our operations and our products.

### 7 Growth

We have delivered transformational growth through discovery and accretive M&A and our company is in a position of strength for the future.

### 8 Innovation & Technology

We have an innovative culture that applies new technologies to leverage our business potential in an ever increasingly volatile, uncertain, complex and ambiguous world.

### 9 Customer

Our customers value our business as we have a demonstrated knowledge of their current and future requirements along with a track record of delivery.

## CONTINUAL **IMPROVEMENT**



M Decent work and economic growth



### **KEY FY18 IMPROVEMENTS**

This year we have again made significant progress on many fronts. Our most notable improvements have been to:

- redefine IGO's purpose
- strengthen our team through the targeted recruitment of great people
- demonstrate Nova Operation's potential
- significantly expand our exploration landholding across three significant belt-scale projects
- rationalise our portfolio with the sale of the Jaguar Operation and the Stockman Project, and transition the Long Operation into care and maintenance
- establish a defined set of environmental standards, key among which is a standard pertaining to socio-environmental impact assessment
- improve the ways in which we engage with stakeholders to better understand the matters they regard as being material
- · increase our corporate giving to deliver shared value and make a positive impact in our host communities (and in particular the commencement of royalty payments to the Ngadju people)

• continue ongoing system improvements - our business is increasingly efficient while adopting a more rigorous governance process based on risk management.

### **MEASURING THE SUSTAINABILITY OF OUR BUSINESS**

Measuring the sustainability of our business, as with any enterprise, is unavoidably subjective. Internally, we assess performance based on a range of metrics including internal and external stakeholder opinion. Third-party assessments are also offered by more than 20 sustainability ratings agencies. Few provide their results freely. Rather, participation in many assessment processes and access to the resultant comparative data is provided on a fee-for-service basis. Many larger companies provide data to a suite of these agencies. After consideration by ExCo, IGO only provides data to one: the Carbon Disclosure Project (CDP) (refer to www.cdp. net). IGO will continue to monitor developments and may consider modifying our approach in the

The CDP methodology ranks IGO at disclosure level, benchmarked against our peer companies in the mining sector. The ranking indicates CDP's assessment of IGO's position on integrating climate change into its business

practices - currently in the early stages of development. IGO reports all Scope 1 and Scope 2 emissions under requirements of the National Greenhouse and Energy Reporting Act 2007 (NGER Act 2007). In FY18, IGO independently verified its greenhouse gas emissions and will include climate change impacts in future group risk management assessments and associated disclosures; see page 94.

The quality of corporate sustainability reporting is also completed by various non-government organisations and investment bodies. Some publish these assessments in the public domain. For example, the Australian Council of Superannuation Investors (ACSI) produces an annual report entitled Corporate Sustainability Reporting in Australia: An analysis of ASX200 disclosure (https://acsi.org.au/ images/stories/ACSIDocuments/ generalresearchpublic/2018-Sustainability-Report-FINAL-June-2018.pdf).

This year, for the third consecutive year, ACSI rated IGO's sustainability reporting as sector "Leading". On this basis, ACSI advises investors that IGO is "assessing, monitoring and seeking to improve performance regarding material sustainability risks in a measurable way over a specific period". ACSI note that

"this level of reporting gives long-term investors valuable information to inform their investment decisions". While we are pleased with this acknowledgement, we aim to continue to improve the quality and range of disclosures made in response to increasing stakeholder demands for transparency (see Figure 4). To enable this, IGO has committed to develop and report on an increased range of quantitative and qualitative targets related to our material sustainability.

### ANALYSIS OF SUSTAINABILITY FRAMEWORKS

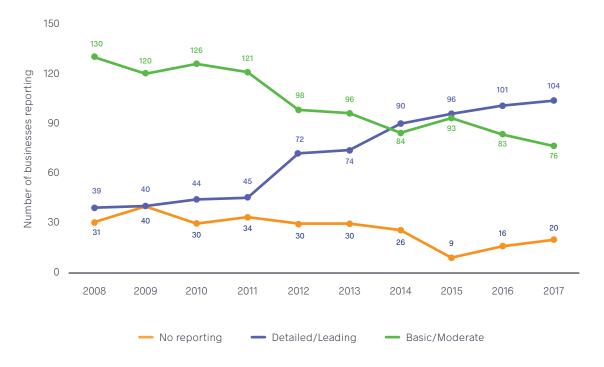
IGO is pleased to have supported research into sustainability frameworks in the resource sector in Western Australia as completed by Curtin University's MSc Student, Sarah Williamson. This research will serve to inform IGO's approach to sustainability reporting. Further, following its publication, it is our hope that Ms Williamson's work will catalyse further debate and contribute to the subsequent evolution of these frameworks.

### **THE FUTURE**

IGO's ExCo is committed to

continuous improvement and to making key business decisions in full consideration of their social, environmental and intergenerational consequences. It remains IGO's aspiration that our ongoing effort will culminate in our organisation embracing full and open accountability for these aspects of our business activities while operating in accordance with our Code of Conduct. FY19 will see IGO commence a process of ongoing socio-economic impact assessment. In the coming years we expect this information will better inform the management of our business. We look forward to sharing the results. It is our explicit goal to be regarded as "leaders" in sustainability disclosure.

FIGURE 4
TRENDS IN ASX200 REPORTING LEVELS



Trends in ASX200 sustainability reporting as assessed by ACSI 2018

## **STAKEHOLDER ENGAGEMENT**

### **STAKEHOLDER PERCEPTION SURVEY**

Communication, both outwardand internal-facing, has been a focus in FY18. It is our belief that meaningful and consistent communication is key to delivering our purpose and shaping our culture. An internal communications workshop, with a representative group of IGO's

management team, was held in April 2018 where we developed 5 key communication objectives indicated below.

We also partnered with Deloitte to conduct a perception survey. It was designed to provide a baseline of our external stakeholders' views and thoughts on our communication and

reputation among our peers. Over 70% of respondents indicated they were either "satisfied" or "very satisfied" with IGO's communications to date. Ultimately, the results of the survey enabled us to further refine our communication strategy and determine which channels were most effective in reaching our stakeholders.



### **STAKEHOLDERS AND MATERIALITY**

Material issues are those that reflect IGO's economic, environmental or social impacts and can substantially influence stakeholder decisions. In this report, IGO addresses the material matters that enable ongoing assessment of our sustainability performance. In the past, we have conducted limited internal and external

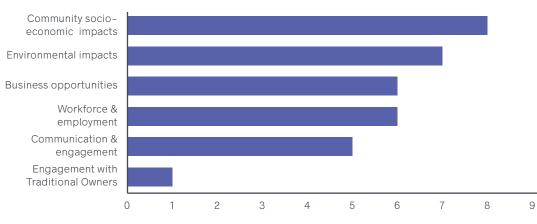
surveys to identify issues of most importance to our stakeholders. These issues have included both socio-economic and environmental risks and opportunities, with the potential to have a significant negative or positive impact on our business and our stakeholders.

In FY18. IGO was keen to enhance its stakeholder relationships further and ensure that the views of our stakeholders were better captured in our strategy and

reflected in this Sustainability Report. Partnering again with Deloitte, we developed and completed a new materiality survey, which aimed to:

- identify the most relevant issues to our stakeholders
- assess the effectiveness of current communications
- drive best-practice sustainability reporting.





Total no. of mentions (n) = 33

The materiality assessment process identified 25 material issues across six major themes (refer to Figure 5 and see Figure 6).

In alignment with the Global Reporting Initiative (GRI) Standards, the responses from stakeholders enabled an initial ranking of material issues based on those that were of most importance to our stakeholders. IGO's ExCo and Board then reviewed the ranking of the material issues to ensure that our purpose and strategic imperatives were also considered. This process and the listing of material issues has informed our strategic thinking

on business improvement priorities and influenced the structure and content of this report (Figure 6).

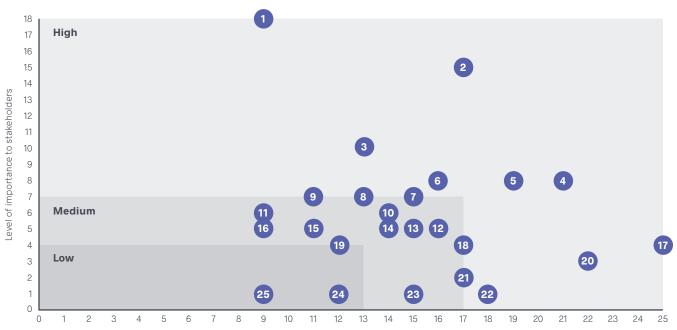
In addition to the expanded materiality survey, IGO also engages our stakeholders through:

- receiving community feedback from individual groups and 'town hall' meetings
- holding significant events each year that relate to both IGO specifically and the industry in general
- confirming current public IGO commitments and obligations

- undertaking supplier and customer stakeholder research
- initiating analyst and media calls as part of the financial reporting cycle
- responding to approaches from industry watch groups
- providing peer company reports, daily media monitoring and workforce feedback
- adherence to international sustainability reporting initiatives.

The table on pages 22 and 23 depicts IGO's key stakeholders and the methods we employ to engage and communicate effectively with them.

### FIGURE 6 MATERIAL ISSUES



Level of importance to IGO

- 1 Local hiring
- 2 Improve IGO reporting
- 3 Regional economic development
- 4 Ethical framework
- 5 Compliance and standards
- 6 Indigenous employment
- 7 Community development and support
- 8 Value chain oversight
- 9 Transparency

- 10 Indigenous engagement
- 11 Professional development
- 12 Diversity
- 13 Long term community vibrancy and engagement
- 14 Water availability and management
- 15 Protect cultural heritage
- 16 Supplier relationships
- 17 Maintain strong growth
- 18 Staff engagement, recruitment and turnover

- 19 Internal and external engagement
- 20 Safety
- 21 Response to climate change
- 22 Land management practices
- 23 Public perception
- 24 Innovation and technology
- 25 Waste management

## STAKEHOLDER ENGAGEMENT CONT'D

Stakeholder type	Specific stakeholders	Area of interest	Nature of interactions
Shareholders	Retail and institutional shareholders.	Share price, dividends, financial returns, governance, risk management, operating performance and business strategy, and business purpose.	Annual General Meeting, Annual and Sustainability reports, ASX announcements, quarterly reports and webcasts, website (where all releases and other information on IGO is maintained and regularly updated), one-on-one meetings, conference presentations and broker presentations.
IGO customers	IGO's key customers are listed on page 89.	Quality of product and reliability of supply and financial management of business.	Regular meetings and interactions.
Employees	Both IGO staff and contractor's employees working on site.	Job security, employee remuneration, industrial relations in general, fly-in fly-out (FIFO), rosters and work life balance.	Continuous direct interaction.
Traditional Owners	IGO's operations affect the lands of many Traditional Owners. To name a few, these include: Ngadju, Kiwirrikurra and Wongatha.	Land use, access and management. Socio-economic impacts and environmental impacts generally. Cultural heritage and biodiversity management.	Engagement with representative bodies, community meetings, and direct response to public enquiries.  Day to day management of land access agreements.
Local communities	Individuals and groups local to our operations, including pastoralists, development groups, local businesses and not-for-profit organisations and other exploration and mining companies.	Employment, business development, infrastructure, land access, cultural heritage, sponsorship and donations, environmental performance and transparency. Transport impacts. Mine closure planning.	Engagement with location-specific community relations' personnel, community meetings, formal and informal communication.  One-on-one dealings with individual members of the public.
Government and government agencies	Federal and state governments, local government, state government agencies including the Government of Western Australia Department of Mines, Industry Regulation and Safety (DMIRS), Department of Water and Environmental Regulation (DWER), and the Environmental Protection Authority (EPA).	Socio-economic impacts (including taxes and royalties) and environmental impacts generally, and specifically FIFO employment and mine site safety.	Meeting with agency representatives during site inspections and ad hoc meetings.

Stakeholder type	Specific stakeholders	Area of interest	Nature of interactions	
Non-government social responsibility and sustainability organisations	A range of organisations have a general interest in IGO's operations. Specific enquiries have come from CDP (formerly the Carbon Disclosure Project).	Monitoring of socio- economic and environmental impacts for the purpose of information sharing, encouraging transparency and in some instances, shareholder advocacy or lobbying. Specific environmental impacts include: waste, water, energy consumption and greenhouse gas emissions. Workforce diversity and inclusion.	Response to enquiries. Regular meetings with organisations. IGO executive team members and Board members engage in key stakeholder and community events.	
IGO suppliers	IGO's key suppliers are listed on page 92.	Ongoing purchases, or credit worthiness, buying local, contractor management.	Regular meetings and interactions.	
Financiers	Various banks and financial institutions.	Share price, financial returns, governance, asset management, risk management, operating and financial performance and business strategy.	Regular meetings and interactions.	
Media	Print, radio, TV and social media.	Financial and operational related queries, ASX announcements, periodical reports and publicly stated business strategy.	Engagement with dedicated media relations' function. Regular engagement with business and regional media through six teleconferences per year, regular ad hoc one-on-one discussions, interviews, ASX releases, media releases and site visits.	
Institutions	Universities, TAFEs and local schools.	Financial and in-kind support. Placement opportunities and support of research.	Interactions with institutional representatives, apprentices, and students, scholarship sponsorship, vacation work and research and collaboration.	
Industry associations	AMEC, AMPLA, AUSIMM.	Represents industry interests. Industry and promotion.	Participation in meetings and forums.	





# ORGANISATIONAL PROFILE

IGO is a diversified mining, development and exploration company, with high-quality gold and base metal mining operations in Western Australia and a portfolio of belt-scale greenfield exploration projects.

In this section:

Overview

**IGO Operations and Projects** 

**IGO Business Structure** 

**IGO Inputs and Outputs** 

The Mining and Exploration Process

Management Systems and Performance Standards

Risk Management at IGO

**Beyond Compliance** 

**Modern Slavery** 

### TAKING OWNERSHIP FOR WHAT WE DO

"Taking ownership of our actions is a core value of accountability and has been ingrained in our daily decision making processes. At IGO we consider all those who will be impacted by our actions. This includes the people we work with and are responsible for, their families that expect them home safely after a day's work, the communities in which we carry on our business and our shareholders who invest in our organisation."

Claudius Labuschagne Financial Controller, Corporate Finance





## **OVERVIEW**

IGO is a leading ASX-listed mining and exploration company. Our strategic focus is on high-quality assets of scale and longevity aligned to the structural shift to energy storage.

Figure 7 shows the locations of IGO's operations and projects.

The fundamental elements of the mining and exploration process are described on page 30.

IGO produces nickel, copper and cobalt from our 100%-owned Nova Operation located approximately 140km north-east of Norseman in Western Australia. IGO's gold production comes from its 30% interest in the Tropicana Operation, a joint venture with AngloGold Ashanti, which is 70% owner and manager, in Western Australia.

During FY18, we transformed our exploration project portfolio with the consolidation of an extensive brownfields ground position in the highly prospective Fraser Range to take advantage of our major infrastructure investment and advancing geological understanding at Nova. Our discovery portfolio also includes belt-scale greenfield opportunities in the Northern Territory at the expanded Lake Mackay Project, the new 100%-owned Raptor Project and at the Frontier Project in Eastern Greenland.

In FY18, IGO completed its divestment of the Stockman Project in Victoria and the Jaguar Operation, located 60km north of Leonora in Western Australia. Both were bought by Round Oak Minerals Pty Limited (formerly CopperChem Pty Limited), a wholly owned subsidiary of Washington H. Soul Pattinson and Company Limited.

In FY18, IGO placed the Long Operation into care and maintenance.

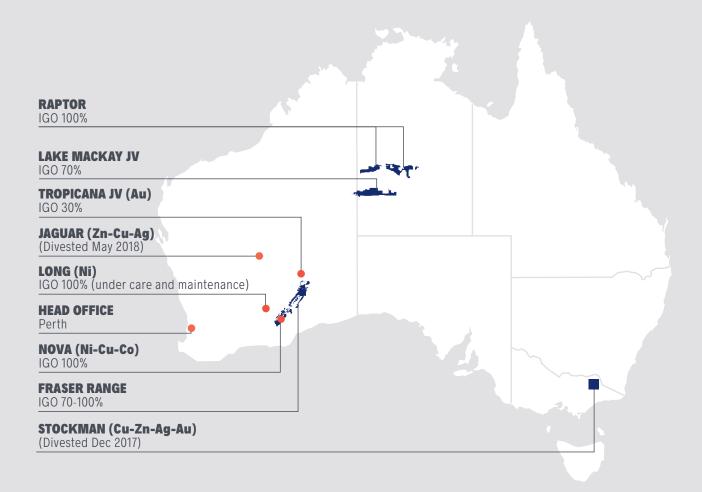
The current profile of our business structure is presented in Figure 8.

The physical inputs and outputs of our business are presented on page 29.

FIGURE 7

## IGO OPERATIONS AND PROJECTS

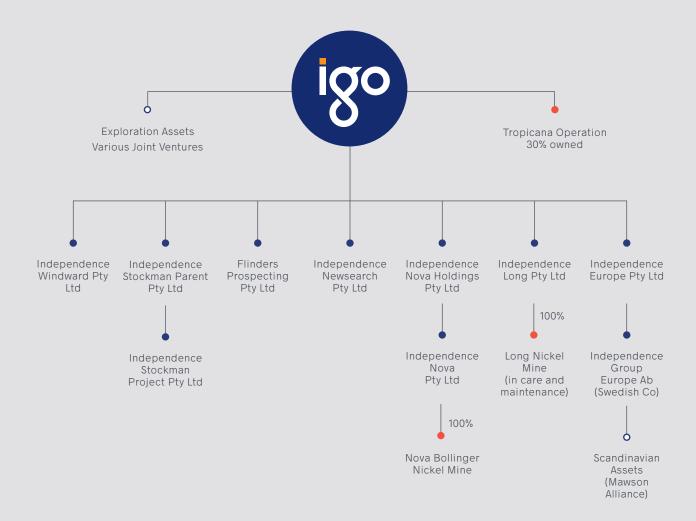
- OPERATIONS
- EXPLORATION ACTIVITIES AND PROJECTS



### FIGURE 8

## IGO BUSINESS STRUCTURE

- COMPANY
- OPERATIONS
- **EXPLORATION**ASSETS



## IGO INPUTS AND OUTPUTS

Inputs	2017	2018	Units	Change from F	Y17
Labour	1,781,234	2,039,925	hours	258,691	7
Ore mined	3,220,000	5,244,000	t	2,024,000	7
Electricity	105,158	140,392	MWh	35,234	7
Gas	521,795	493,400	GJ	28,395	7
Diesel	17,692,448	28,799,250	L	11,106,802	7
Ground support (steel)	2,443	3,222	t	779	7
Explosives	1,446	2,328	t	882	7
Cement	5,775	9,792	t	4,017	7
Grinding media (steel)	1,286	1,449	t	163	7
Water	2,719,686	3,259,480	kL	539,794	7
Reagents - copper sulphate	410	283	t	127	71
Lubricants and oils	337,000	220,350	L	116,650	7

Forteston.					
Emission	2017	2018	Units	Change from F	Y17
IGO carbon dioxide (Scope 1 and Scope 2)	90,233	117,686	CO2-e tonnes	27,453	7
IGO Scope 1 emissions	76,490	103,644	CO2-e tonnes	27,154	7
IGO Scope 2 emissions	13,743	14,042	CO2-e tonnes	299	7
Carbon monoxide	245,616	397,743	kg	152,127	7
Oxides of nitrogen	547,603	856,820	kg	309,217	7
Sulphur dioxide	401	570	kg	169	7
Volatile organic compounds	27,018	40,452	kg	13,434	7
Particulate matter (<10um)	766,606	868,973	kg	102,367	7
Particulate matter (<2um)	28,906	44,902	kg	15,996	7

Waste	2017	2018	Units	Change from F	Y17
Tailings (wet tonnes)	882,487	1,667,449	t	784,962	7
Waste rock	459,991	934,789	t	474,798	7
Materials to landfill	2,019	2,738	t	719	7

Products	2017	2018	Units	Change from F	Y17
Ni in ore delivered	8,433	5,855	t	2,578	71
Ni in concentrate	3,502	22,258	t	18,756	7
Cu in ore delivered	592	394	t	198	71
Cu in concentrate	6,671	11,240	t	4,569	7
Co in concentrate	122	740	t	618	7
Zn in concentrate	32,638	26,159	t	6,479	71
Ag in concentrate	1,376,521	1,067,400	OZ	309,121	7
Au in concentrate	2,532	1,226	OZ	1,306	7
Au in bullion	129,487	140,142	OZ	10,655	7

Au in concentrate

2,532

1,226

oz

1,306

Au in bullion

129,487

140,142

oz

10,655

Note: These figures do not include inputs and outputs from Tropicana Operation, with the exception of IGO's 30% share of gold output and ore mined, which is included. Additional information on IGO's emissions can be found on the National Pollutant Inventory website http://www.npi.gov.au/.



## THE MINING AND EXPLORATION PROCESS



- **1** EXPLORATION
- IGO is passionate about discovery. We explore using innovative practices both in near-mine areas and across regional belt-scale landholdings.
- PROJECT DEVELOPMENT

Project development involves the definition of economically mineable resources, either as the product of our exploration efforts or through the purchase of prospective ground from other parties. It also involves a number of key steps including undertaking feasibility studies, obtaining environmental approvals and establishing land access agreements. At present we are completing a prefeasibility study into the potential for IGO to produce two new products; a nickel sulphate and a cobalt sulphate.

OPERATIONS

Operations involve the extraction of ore from the mine and its beneficiation to produce saleable products: at IGO's operations these include gold dore bars and concentrates that contain nickel, copper and cobalt. Our operations also involve ongoing exploration and resource definition, ongoing mine development, processing optimisation and waste management.

**ACTIVE CLOSURE** 

Where practical, rehabilitation works commence during operations and occur progressively until the end of a mine's economic life. Mine closure planning is completed in consultation with our stakeholders and results in the development of a 'basis of design' and 'mine closure criteria'. Earthworks are completed to reshape the landforms created by our mining activity to ensure they are both safe, stable and suitable for the intended post-closure land use.

**PASSIVE CLOSURE** 

Following the completion of closure earthworks, demolition work and revegetation, mine sites are subject to ongoing environmental monitoring to assess their progress against the agreed closure criteria. Typically, this includes monitoring of water quality, revegetation, successional processes and rates of erosion.

## MANAGEMENT SYSTEMS AND PERFORMANCE STANDARDS

We are pleased to note that, in FY18, IGO finalised the development and release of six IGO Group Environmental Standards. These address:

- social and environmental impact assessment
- land use and biodiversity management
- · water management
- · mineral waste management
- hydrocarbon and chemical management
- rehabilitation and mine closure.

Among these, IGO's standard on social and environmental impact assessment is most significant. While most mining development is subject to both social and environmental impact assessments as part of the approvals phase of a new mine development, few (if any) continue assessments to determine if the original predictions proved true or otherwise. Similarly, there is little consideration given to the efficacy of measures put in place to control the anticipated impacts.

At IGO, we are proud to take a leadership role in this area. Specifically, we are committed to understanding the impacts that our activities have on our host communities and the environments in which we operate. We are committed to ensuring this knowledge informs decision-making processes so we minimise or mitigate against any negative impacts. As a matter of normal operations, IGO will complete ongoing impact monitoring at our operational mines, at mines in care and maintenance, and at closed mines for a designated period prescribed in the mine closure plan.

At a minimum, monitoring will continue until IGO understands:

- the total area of land disturbed or otherwise impacted upon by activities
- changes to ecosystem function, and the composition of flora and fauna present within the area potentially impacted by IGO's activities
- changes to the socioeconomic circumstances of our host communities
- the adequacy of our impact controls or mitigation activities.

In the event of adverse changes, IGO is committed to taking reasonable steps to engage relevant expertise to advise how best to minimise, mitigate, or offset any adverse impacts, and then complete mitigation activities.

We invite people to review and comment on any of our Group Environmental Standards. We look forward to sharing the findings that will arise from the work we believe is at the forefront of social and environmental impact assessment.

### **PROFILE - CHRIS TIEMANN**





I joined IGO in July 2016 as the Environment and Community Manager, based in Perth. Having worked FIFO for the previous five years, I saw the role with IGO as an excellent way to balance a desire to continue my professional development and have more time for family and friends.

Eighteen months ago, I decided to return to university and applied for a post-graduate scholarship at Curtin. The university had recently opened the Centre for Mine Site Restoration (CMSR), focusing on developing better outcomes for mine rehabilitation and closure. I was successful and joined a number of Australian and international students at the CMSR, supported by IGO. I studied part-time and continued my job with IGO in a full-time capacity.

My PhD will investigate legislation and policy relating to mine closure, with particular focus on relinquishment. Relinquishment describes the transition of mined land that has been successfully rehabilitated, to an agreed standard, accepted by government and other stakeholders.

Currently, there is no defined process for relinquishment and inadequate legislation to allow it to occur. As a result there are very few examples of mines closing and being relinquished, both within Australia and around the world. I believe that a defined process to achieve relinquishment, supported by policy, will drive improved closure outcomes for the mining industry.

It's been tough, but I have managed to progress my studies, while doing my job at IGO. However, ir October 2017 my first son was born, and suddenly managing work, studying part-time and now helping with a new baby, I wasn't left with much time for anything else.

To make time for my family and continue to advance my research, I approached IGO to go part-time (four days a week). My request was granted within weeks and I've been grateful for the flexibility that's allowed me to reduce my hours. I'm now proud to be the first bloke at IGO to go part-time.

### Chris Tiemann

Environment & Community Manager, Corporate

# RISK MANAGEMENT AT IGO

At IGO, risk management is overseen by the Board through the Sustainability and Risk Committee. The Committee operates in accordance with a Charter approved by the Board. The primary role of the Committee is to assist the Board with overseeing and monitoring the Company's Risk Management System. It should be noted that specific elements of financial risk management are separately monitored and reviewed by IGO's Board Audit Committee. The charters of both committee's are available at http://www.igo.com.au/irm/content/governance. aspx?RID=295.

IGO's defined position on risk management is stated in our Risk Policy, which can be viewed at http://www.igo.com.au/IRM/Company/ShowPage. aspx?CategoryId=190&CPID=4266&EID=31719529 &masterpage=3. A description of our risk management system (inclusive of IGO's Risk Appetite Statement) is provided in IGO's Common Management System Standard 3 - Risk Management.

The system is intended to address risks that may:

- impede the Company from achieving its purpose
- impact on the Company's performance
- · affect the health, safety or welfare of employees, visitors, communities and others in relation to the Company's operations
- · impact on the community and the environment in which the Company operates
- impact on insurance arrangements
- threaten compliance with the Company's statutory obligations
- impact on the Company's reputation, or that of its people
- result in personal liability for Company officers arising from the Company's operations.

IGO's Risk Management System is a hierarchy of three risk management processes:

- Business Critical Risk Management
- Operational and Project Risk Management
- Personal Risk Management (primarily safety risks)

Business Critical Risk Management is the process used by IGO's senior leadership team and Board to identify and manage those risks that pose the greatest threat to our business.

For clarity of communication, each process uses the same central methodology to categorise risk. As an outcome, any given risk will fall into one of five categories (very low risk, minor risk, moderate risk, major risk and catastrophic risk) based on consequential impacts related to health, safety, environment, community and reputation, financial loss or exposure and statutory compliance.

As per our IGO Risk Appetite Statement, we will not take action, nor are any of our employees or agents authorised to take action or, through omission, permit circumstances in which IGO assumes or takes a risk that is assessed to fall within the IGO risk category of "catastrophic". IGO may, subject to proper review and the implementation of appropriate controls, and subject to the appropriate level of authorisation, take risks categorised at a risk level lower than "catastrophic". It should be noted that IGO imposes a higher standard (i.e. we are less risk tolerant) with regard to managing HSEC risk. Specifically, IGO will not permit or accept circumstances in which the potential HSEC risk is assessed to fall within the IGO risk categories of "major" or "catastrophic". Any risk that exceeds approved thresholds is deemed a "material risk" and is subject to review by ExCo and the Board.

## BEYOND COMPLIANCE



### STATUTORY COMPLIANCE

IGO has a governance process for identifying statutory non-compliance as well as non-conformance with IGO policies and procedures. This process includes systematic audits to objectively verify conformance with our sustainability standards and legal obligations. Our operations have continued to update legal compliance registers in FY18 to improve this process.

In FY18, IGO received no fines or non-monetary sanctions. As at the time of publication, IGO is not involved in any material litigation.

In FY18, IGO received four notices from the Western Australian Department of Mines, Industry Regulation and Safety. These required various modifications to our systems to further improve workforce safety. All corrective actions associated with these improvement notices are either complete or on target for completion by the due date.

In FY18, IGO received no improvement notices in respect of environmental performance at any of our operations.

In FY18, IGO's internal processes identified a range of minor non-compliances with our policies and procedures. While these are important to the effective management of our business at an operational level (and corrective actions are pursued to completion), none were regarded as material from the perspective of IGO as a whole, nor were any material to our external stakeholders.

### STAKEHOLDER FEEDBACK

In FY18, IGO received no material or re-occurring complaints from any of our stakeholders in respect of nuisance or harm that we were seen to have caused.

The public stakeholders with which we continue to be most actively involved, and those that provide IGO with most feedback, are the Traditional Owners of the land on which we operate and our host pastoralists. IGO endeavors to be responsive to concerns raised, and we are confident that we have established positive and effective working relationships.

### **MODERN SLAVERY**

Modern Slavery refers to institutional slavery that continues to exist in present day society. It is estimated that over 20 million people are victims of modern day slavery.

In June 2018, the Modern Slavery Bill 2018 was introduced to the Australian Parliament. The Bill seeks to establish a requirement that certain large businesses and other entities in Australia make annual public reports (Modern Slavery Statements) on their actions to address modern slavery risks in their operations and supply chains.

In line with the UN Guiding Principles on Business and Human Rights (UN Guiding Principles), IGO supports the general proposition that large businesses have a key role in combating modern slavery. No business should tolerate modern slavery or other serious abuses of human rights in their operations or supply chains.

Subject to there being constraints on the administrative and cost burden of compliance, IGO would welcome the introduction of legislation that has the effect of requiring the publication of a Modern Slavery Statement that includes:

- 1. The entity's structure, its operations and its supply chains.
- 2. The modern slavery risks present in the entity's operations and supply
- 3. The entity's policies and process to address modern slavery in its operations and supply chains and their effectiveness (such as codes of conduct, supplier contract terms and training for staff).
- The entity's due diligence processes relating to modern slavery in its operations and supply chains and their effectiveness.

In anticipation that a variant of the existing Bill will receive bipartisan support and become law, IGO is currently reviewing its circumstances to map out how we might rapidly achieve compliance.



### **OPERATIONS**

The Company 100% owns and operates the world-class Nova nickel-copper-cobalt Operation. IGO also produces gold from its 30% interest in the Tropicana Operation, a joint venture operation with AngloGold Ashanti. The Jaguar zinc-coppersilver Operation was divested in May 2018 and the Long nickel Operation was placed into care and maintenance in June 2018.

In this section:

**Nova Operation** 

**Tropicana Operation** 

**Long Operation** 

**Jaguar Operation** 

#### **WORKING TOGETHER**

"It's crucial to remember safety lies with each and every one of us, and ultimately we are all responsible for creating a safe workplace."

Occupational Health, Safety and Training Officer,



### **NOVA OPERATION**

### **MINING METHOD**

**Underground - stoping** 

### **FY18 PRODUCTION**

Ni in concentrate - 22,258t Cu in concentrate - 9,545t Co in concentrate - 740t

### **AREA DISTURBED**

456ha

### **AREA REHABILITATED**

109ha

### **WORKFORCE**

97.5% FIFO 2.5% DIDO

### **NATIVE TITLE**

Ngadju

### **REMAINING MINE LIFE**

8+ years





The Nova Operation is a greenfield

Great Western Woodlands

Operation is characterised by low watercourses. Groundwater is typically in aquifers close to the do exist, the water is frequently

parts, the mining lease extends Range and Southern Hills stations.

The underground mine consists

Ngadju Conservative Aboriginal

#### **BACKGROUND**

Sirius Resources NL (Sirius), an ASX-listed minerals exploration and development company, first announced the discovery of the Nova nickel- copper-cobalt deposit in July 2012. Following IGO's acquisition of Sirius in September 2015, development of the Bollinger deposit was accelerated.

Construction of the processing plant and associated infrastructure was completed on time and on budget resulting in the first delivery of concentrate by December 2016. It took five years from discovery to first concentrate production.

The Nova processing plant reached design capacity in the second half of FY18. Trials were extended to identify opportunities to achieve higher throughput rates on a permanent basis. Additional studies and plant upgrades will occur in FY19.

Concentrate is stored in an enclosed shed on-site before being placed in sealed containers for transportation off site along a private access road to the Eyre Highway. The concentrate is transported south to the Port of Esperance, with some nickel concentrate also going north to the Kambalda Nickel Smelter. The Nova Operation successfully completed all shipment trials under the Works Approval at the end of FY18. A licence amendment was approved prior to the publication of this report.

### **CONSUMABLES**

The main consumables used at Nova in FY18 were diesel, grinding media, lime and explosives.

Electricity for the Nova Operation is produced by a 20MW diesel power station, operated by Zenith Pacific, under a build, own and operate contract.

As part of our power supply strategy, IGO has entered into a contract with Zenith Pacific to construct and operate a 5.7MW photo voltaic solar power system that will form part of a fully integrated power supply solution. We anticipate construction to be completed in FY20. Once complete, the solar power system will provide renewable power insertion of up to 50% of the sites electricity demand.

Raw water is supplied from mine dewatering and several purpose-built water supply bores surround the Operation. Water sourced from mine dewatering and production bores is pumped to a lined pond for distribution around the site Water for domestic use is treated at the reverse osmosis plant. Another reverse osmosis plant provides quality water for concentrate washing. Surplus water is transferred to the lined tailings storage facility where it is recycled for use in the process circuit.

#### WASTE

The Nova Operation's main waste streams are tailings and waste rock. Waste rock is used for the reinforcement of the tailings storage facility embankments and back filling in the underground mine. Approval for the construction of a small waste rock dump was received in FY18 to accommodate surplus material.

The Tailings Storage Facility, a paddock style impoundment, has been constructed for longterm disposal of tailings. The design incorporates a single main embankment surrounding the facility, with a multi-spigot discharge and a composite liner system. Underdrainage has also been installed to aid in consolidating tailings and maximising water recovery and reuse.

An on-site landfill facility is used to dispose of both putrescible and inert waste.

### CASE STUDY / SAFETY

### CONTRACTOR SAFETY



 $-\sqrt{\psi}$  Good health and wellbeing

engaged the company HiSeis to complete a large-scale seismic survey of the area surrounding the Nova Operation, to identify exploration

of 28 people on site to complete a short duration, high intensity work program involving heavy equipment in relatively isolated locations.

While elements of HiSeis' work are all but unique, the planning, logistics and safety management challenges are common to many activities in the

pleased to note that our partnership with HiSeis exemplified how good results in great safety performance outcomes. At its heart, the project employed an effective safety system, based on risk management principles, to inform the management of the demonstrated strong Visual Safety Leadership; a behaviour that we aspire to in all areas of our business.

including poor weather conditions and constraints associated with physical site achieved without material incident. In total, some 20,000 hours of work to anyone involved. IGO would like to acknowledge and congratulate both the HiSeis team and the IGO staff involved.



### **TROPICANA OPERATION**

### **MINING METHOD**

Open pit

### **FY18 PRODUCTION**

Au in bullion: 140,142oz (IGO's share)

### **AREA DISTURBED**

3,266ha

### **AREA REHABILITATED**

224ha

### **WORKFORCE**

100% FIFO

### **NATIVE TITLE**

No current claim

### **REMAINING MINE LIFE**

10 years







The Tropicana Operation, located on the western edge of the Great Victoria Desert, is one of the most isolated mining operations in Western Australia. It is situated in an area of high biological significance, and is subject to an integrated conservation management strategy developed to ensure that flora and fauna are protected. It is also a culturally significant region for the Traditional Owners of the land, including the Wongatha and Spinifex peoples.

The Tropicana Operation is a joint venture managed by AngloGold Ashanti, with IGO having a 30% interest. While IGO has no direct management of the mine, we have included material elements of their sustainability performance in this report. IGO's Executive Committee receive quarterly briefings that, along with production updates, address any occupational health and safety issues, environmental management performance and community engagement issues associated with the mine.

Tropicana encompasses over 100,000 ha of tenements that stretch over more than 180km in strike length along the Yilgarn Craton and Fraser Range Mobile Belt Collision Zone. The closest town is Laverton, 230km west of the Tropicana Operation. The mine sits within an area overseen by the Goldfields Land and Sea Council, the Central Desert Native Title Services, and the Wongatha claimant's North East Independent Body representatives.

#### **BACKGROUND**

The current operation was targeted and pegged by IGO in 2001. Shortly after, AngloGold Ashanti and IGO entered into the joint venture that led to the discovery of the Tropicana, Havana and Boston Shaker ore bodies in 2005, 2006 and 2010, respectively. Development of the Tropicana Operation was announced in November 2010, with mining of the Havana deposit commencing in 2012. The first gold was produced in September 2013, with the operation achieving the two million ounce milestones in FY18

The mining process at Tropicana uses cyanide to liberate the gold from mineral-bearing ore. The mine operates in compliance to the International Cyanide Management Code.

### **CONSUMABLES**

Gas, diesel, lime, cyanide and carbon are the main consumables at the mine.

Electricity is generated by a gas
–fired power station, supplied
by a buried gas pipeline. The
power station consists of 17 gas
generators that have the capability
to run on diesel if required.

The Tropicana Operation operates a fleet of open pit mining equipment - the primary consumer of diesel on site.

#### WASTE

At Tropicana, waste rock and tailings are the main waste streams generated. In addition to the gold-bearing ore, waste rock is extracted from the various pits during the mining process. Some of this material is classified as potentially acid-forming due to its high sulphur content which, if left unmanaged and exposed to the elements, could potentially generate acid and/or metalliferous drainage (AMD). A waste rock management strategy is employed to mitigate possible downstream impacts to biota and groundwater. The encapsulation of potentially acid-forming waste with benign material is the principal method to prevent AMD generation.

Tailings produced from the processing plant are pumped into the purpose built tailings storage facility (TSF). The main environmental consideration in managing water in the tailings storage facility is to minimise the presence of weak acid dissociable (WAD) cyanide in the tailings liquor.

WAD cyanide is toxic to fauna. Given water bodies are very attractive to avifauna in arid environments, the presence of WAD cyanide in the water contained in a tailings dam presents both a lure and a threat to the bird life. As a consequence, careful management is required. With this context, it should be noted that there have been no material numbers of fauna fatalities on the Tropicana TSF.

The development of Tropicana will require the clearance of 3,267 ha of vegetation across the life of the operation. This includes both mining, open pit and exploration disturbance.

Putrescible and inert waste are both disposed of in the on-site landfill.

### LONG OPERATION



### **MINING METHOD**

**Underground - stoping** 

### **FY18 PRODUCTION**

Ni in ore - 5,855t Cu in ore - 394t

### **AREA DISTURBED**

101ha

### **AREA REHABILITATED**

4ha

### WORKFORCE

50% FIFO 50% DIDO

### **NATIVE TITLE**

Ngadju

### **REMAINING MINE LIFE**

Care and Maintenance

The Long Operation, approximately 3km east of Kambalda and 50km south-east of Kalgoorlie, is situated on the shores of Lake Lefroy. The Long Operation is comprised of both freehold land and mining leases. The area has long been disturbed by mining and mineral processing activities with BHP Nickel West's Operation to the north, west and south, Mincor Resources to the north, and Gold Fields' St Ives Gold Mine further south.

Mining ceased at the Long Operation in June 2018, after 16 years of operation by IGO, and the site has been placed into care and maintenance while we consider its future. A comprehensive plan to prepare the site was implemented before operations ceased, including a site inspection and risk assessment to prioritise activities and minimise environmental impacts.

Along with engaging and supporting employees who faced redundancy (see case study on page 55), IGO also initiated a site-wide clean-up program and mobilised a contractor to undertake rehabilitation of historical mining landforms. These included the run of mine (ROM) pads, two historic tailings storage facilities and portions of the waste rock dump. These works are still ongoing at the time of publication.

A local contractor has been appointed to manage the site during the care and maintenance. They will undertake ongoing dewatering of the underground mine and regular maintenance of key infrastructure to ensure it remains in operating condition.

### **CONSUMABLES**

The main consumables (in order of dollar value) at Long Operation in FY18 were electricity, water, backfill (tailings), shotcrete and explosives.

The Long Operation sources electricity from BHP, which generates electricity from Trans Alta gas turbines located at BHP's adjacent concentrator facility.

Recovered groundwater was used in the backfill manufacturing process and the remainder was, and will continue to be, discharged (subject to licence conditions) onto the saltpan of Lake Lefroy.

During care and maintenance, electricity will remain the largest consumable with power still being used to operate the dewatering pumps and ventilation fans.

### WASTE

The relatively small mass of extracted waste rock was placed in a single waste rock dump. The majority of this material is classified as non-acid forming.

During FY18, the Long Operation undertook a detailed material balance to quantify the amount of rock needed to complete closure activities. The site has a surplus of rock that will be made available to BHP Nickel West to assist them with their future closure activities.

During FY18, the Long Operation successfully applied for approval to construct an on-site landfill for mine closure purposes. This will significantly reduce the cost of waste disposal during closure.

## JAGUAR OPERATION



#### MINING METHOD

**Underground - stoping** 

### **FY18 PRODUCTION**

Cu in concentrate – 1,695t Zn in concentrate – 26,159t Ag in concentrate – 1,067,400oz

### **AREA DISTURBED**

308ha

### **AREA REHABILITATED**

19ha

### **WORKFORCE**

95% FIFO 5% DIDO

#### **NATIVE TITLE**

No current claim

### **REMAINING MINE LIFE**

To be determined by new owner

The Jaguar Operation is located approximately 60km north of Leonora, in the north-eastern Goldfields. It comprises mining and exploration leases and sits in a region that has been, and continues to be, subject to extensive exploration, mining and ore processing activities.

In May 2018, IGO announced the divestment of its Jaguar Operation to Round Oak Minerals Pty Limited (Round Oak), formerly CopperChem Pty Limited. This transaction was completed on 31 May 2018. Data relating to Jaguar's environmental and socioeconomic performance for the period of ownership (July 2017 to May 2018) has been included in this report.

The sale of the Jaguar Operation was driven by IGO's strategic focus on high-margin assets of scale and longevity, which were also aligned to the emerging super-cycle for energy storage minerals. IGO was acutely aware of the impacts associated with the announcement and consequently completed workforce and community briefings in collaboration with Round Oak. As Round Oak intends to continue operating the mine in its current state, it is anticipated that there will be few organisational changes in the near term.

### **CONSUMABLES**

The main consumables used at Jaguar in FY18 were natural gas, diesel, grinding media (steel balls) and explosives.

The Jaguar power station, fuelled natural gas (CNG), produces the majority of the Operations' power demand. However, some areas (e.g. the Jaguar accommodation village) are powered by local dieselfuelled generators where power lines have not been installed.

Groundwater is recovered from the Bentley underground mine, and used in the processing plant, reused underground, and for exploration activities. Water is also recovered from the tailings dam and reused in the processing plant as required. Any surplus water is discharged into the historic Teutonic Bore open pit mine.

#### WASTE

The key waste streams from the mine are waste rock and tailings. Waste rock is extracted from underground and placed in above-ground waste rock dumps. Some of this material is classified as potentially acid-forming (PAF).

The Jaguar Operation preferentially selects PAF waste rock for use in the production of cement aggregate fill to enable its return underground.

Tailings are generated by the mining process and are pumped to the tailings storage facility for disposal. The tailings are then radially deposited within the facility to allow them to settle, forming a 'beach' that drains to a central pond.

A small volume of both putrescible and inert waste is disposed of in the on-site landfill.



### **GROWTH**

Exploration and discovery is part of the IGO DNA and a key foundation of our strategy. IGO is committed to achieving a step-change in growth through targeted belt-scale exploration projects. Along with an increased focus on discoveries, IGO has also expanded its internal capacity to assess opportunities to grow through mergers and acquisitions.

In this section:

Overview

**Exploration** 

Fraser Range Project

Lake Mackay and **Raptor Projects** 

Salt Creek Project

**European Projects** 

Stockman Project

**Downstream Processing** 

### **INTEGRITY - DOING WHAT IS RIGHT AND DOING WHAT WE SAY WE WILL DO**

"Integrity is an essential value in both a personal sense and in my professional work environment. Acting with integrity means we weigh our options carefully, we make ethical decisions which consider the impact of our actions on others, and we choose to do the right thing - even if it seems the more difficult path to take."

Jo Scullin Contracts Administrator, Corporate



### **OVERVIEW**

The discovery of new resources creates the greatest value for IGO and, in turn, our stakeholders. As a result, IGO's primary focus for growth is on exploration. This includes both near-mine exploration for new resources surrounding our existing mines, and greenfield exploration in other mineral belts that we regard as highly prospective for quality, new mineral discoveries. However, the period between exploration, discovery, and finally, mine production is rarely quick. Nova was exceptional with only approximately five years between discovery and production. As a consequence, IGO also continually looks for potentially accretive mergers and acquisitions that provide relatively quick access to cashflow. IGO has and will continue to explore both options to grow value and enhance the quality of its business.

In FY18, our acquisition activities were also focused on consolidating and growing key exploration landholdings in the Fraser Range and Lake Mackay regions. Both regions are relatively under-explored and highly prospective. In FY18, IGO entered into a number of acquisition and joint venture arrangements with exploration companies holding key tenements in the Fraser Range region, including very large and strategic holdings owned by Arrow Minerals and Creasy Group.

At Lake Mackay, IGO expanded its joint venture holdings with Prodigy Gold (formerly ABM Resources) and also acquired first rights to key early-stage exploration tenements in the Areachap region of South Africa owned by Orion Minerals.

In addition to our significant exploration programs, IGO is also exploring opportunities for downstream processing of our nickel concentrate from Nova. Processing our concentrate to produce a nickel sulphate, targeted specifically for the battery market, has the potential to reduce capital expenditure and operating costs at Nova. It also reduces the amount of waste material transported to our customers - reducing both shipping costs and our carbon footprint.

### FIGURE 13 **IGO TOTAL LANDHOLDINGS**



### **EXPLORATION**



Industry, innovation and infrastructure

During FY18, we continued to build our exploration team and realigned our exploration strategy with the Company's new strategic focus on energy storage and transmission metals. Our primary commodities of interest are nickel, copper and cobalt; however, we also remain interested and open to other commodity opportunities, including other battery metals and minerals, and gold.

During FY18, we further transformed our exploration project portfolio by consolidating our extensive brownfields ground position in the highly prospective Fraser Range. This took advantage of our major infrastructure investment and our advanced geological understanding of Nova.

Our discovery portfolio also includes belt-scale greenfield exploration opportunities in the Northern Territory, at the expanded Lake Mackay Project and at the new 100%-owned Raptor Project. More recently we added the Frontier Project in Eastern Greenland.

#### MINERAL TITLES

In FY18, IGO continued to increase its landholdings, particularly in the Fraser Range and Northern Territory. Our tenement holdings have grown 11% to over 2 million hectares. As mentioned, the significant increase in land tenure was primarily through the staking of exploration licences in the Northern Territory, at the Lake Mackay and Raptor projects, and the acquisition and joint venture agreement with Arrow Minerals within the reporting period. This was offset by substantial tenement reductions elsewhere through whole-project divestments, in addition to selective tenure relinquishments along the Fraser Range.

At the end of FY18, exploration licences again represented the majority of mineral tenements held by IGO, followed by miscellaneous licences (including general purpose leases). A breakdown of total landholdings for FY17 and FY18 is presented below. Figure 13 shows IGO's increase in total landholdings over the last three financial years.

### FIGURE 14 **BREAKDOWN OF TOTAL LANDHOLDINGS**

IGO Mineral Tenements	Units	2017	2018
Prospecting licences	ha	2,480	1,780
Exploration licences	ha	1,596,600	1,356,880
Mining leases	ha	49,254	36,295
Miscellaneous and other licences	ha	286,969	752,883
Freehold	ha	1,329	721
Total*	ha	1,936,632	2,148,559

<sup>\*</sup> Including joint venture landholdings.

### **EXPLORATION INCENTIVE SCHEME**

In 2009, the Western Australian Government announced an Exploration Incentive Scheme (EIS), an initiative that aims to encourage exploration in under–explored greenfield regions of the State. From July 2018, the EIS will be funded on an ongoing basis to the sum of \$10 million using funds raised through mining tenement rents.

IGO received \$72,500 through the EIS in FY18 for a co-funded drilling program in the Fraser Range. The Government support resulted in the discovery of Andromeda, a copper–zinc–gold and silver target.

### **HERITAGE SURVEYS**

Aboriginal heritage surveys are one of the first activities completed as part of IGO's greenfields exploration processes. These surveys are completed prior to any ground disturbance. The arrangements for the surveys are generally subject to an agreement between IGO and the Traditional Owners. Such agreements define both the survey methodology and participants. IGO always employs local Aboriginal people to assist with the surveys, thereby harnessing local knowledge and contributing to the region's economy.

#### **CONSERVATION MANAGEMENT PLANS**

Northern parts of the Fraser Range project area fall within the proposed Lake Harris Nature Reserve and the Plumridge Lakes Nature Reserve, and several tenements in the southern part of the project are located within the Dundas Nature Reserve. IGO is required to operate under an approved Conservation Management Plan (CMP) when working in these Class A and B nature reserves. In FY18, IGO significantly revised its CMP to provide a better framework for its environmental management of exploration activities in accordance with State and Commonwealth legislation.

### **IMPROVING SAFETY AND HEALTH SYSTEMS**

Operating in remote parts of Australia presents a number of challenges, particularly for our people's safety and well-being. During FY18, IGO's exploration team has improved its safety management system to ensure that everyone in the field goes home safe and well.

The system addresses, among its many elements, fitness for work (and specifically heat stress management), drug and alcohol testing and journey management. Vehicles have been fitted with continuous real-time monitoring systems and alarms, enabling staff to make immediate contact with key IGO personnel in the event of an emergency and allowing emergency response teams, if required, to quickly locate vehicles.

All exploration teams have now been provided with iPads running Reflex, a software platform that enables safety and other operational requirements to be recorded and reported more easily.

Finally, IGO has been investing in its people through leadership and technical training courses to upskill employees and shape a "can do" and "do-it-right" culture that will drive the next discovery.



# FRASER RANGE PROJECT



The Fraser Range Project comprises 100%-owned exploration licences, and several joint ventures, including those with Buxton Resources, Creasy Group, Orion Gold, Carrawine Resources, Rumble Resources, Arrow Minerals and TasEx Geological. In most of the joint ventures, IGO owns or is earning a minimum 70% interest in the tenements. The Fraser Range Project is located approximately 110km east of Norseman and covers over 430km strike length along the Albany-Fraser Belt.

This emerging belt is considered highly prospective for both Nova-style magmatic nickel-copper deposits and Andromeda-style volcanic-hosted copper-zinc mineralisation. While many exploration companies have taken up exploration licences in the Fraser Range, IGO has a competitive advantage derived from our knowledge gained during the exploration, discovery and development of the Nova-Bollinger deposit.

Exploration activities over the past year have included ground-based gravity and moving loop electromagnetic surveys, an airborne electromagnetic survey and aircore, reverse circulation (RC) and diamond drilling to generate and test targets.

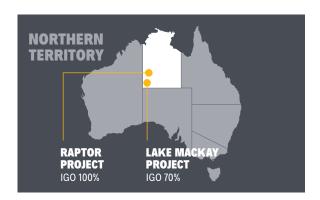
Parts of IGO's Fraser Range Project area cover the Boonderoo, Fraser Range, Kanandah, and Southern Hills pastoral leases, which are actively being farmed.

Northern parts of the project area fall within the proposed Lake Harris Nature Reserve and the Plumridge Lakes Nature Reserve and several tenements in the southern part of the project are located within the Dundas Nature Reserve.



### LAKE MACKAY AND RAPTOR PROJECTS

# SALT CREEK PROJECT



The Lake Mackay joint venture with Prodigy Gold (formerly ABM Resources) covers approximately 7,600 square kilometres of granted exploration licences and a further, approximately, 5,200 square kilometres of licence applications.

The Lake Mackay Project area is 400km west-north-west of Alice Springs. The project is within the Great Sandy Desert Bioregion, which is comprised predominantly of semi-arid sand plains and sand dunes. It is named after Lake Mackay, a vast saline lake that straddles the border of Western Australia and Northern Territory, and is the fourth-largest lake in Australia, providing an important habitat for birds following flooding. While IGO's exploration activities are not close to the lake, our practices are targeted at minimising impacts across our entire tenure.

Exploration at Lake Mackay is at an early stage and, until recently, has been limited to a single tenement. Work programs during FY18 included diamond drilling at the Grapple Prospect, where reverse circulation drilling in FY17 led to the discovery of copper–gold (cobalt–zinc–lead–silver) mineralisation. The diamond drilling in FY18 intersected the best mineralisation discovered to–date.

Elsewhere, ongoing regional soil sampling is delivering encouraging polymetallic geochemical anomalies that require follow-up in FY19. In addition, ongoing regional Spectrem airborne electromagnetic (EM) surveys are delivering anomalies for ground EM follow-up and drilling.

The Raptor Project is a new belt-scale exploration initiative targeting nickel and copper along the Willowra Gravity Ridge in the Northern Territory. Tenement applications were lodged in FY18 and regional aeromagnetic and radiometric surveys are planned for FY19.

Both projects fall on land that is primarily within areas covered by the *Aboriginal Land Rights (NT) Act 2006* and access by explorers is covered under a Deed for Exploration with the Central Land Council. All work programs must be submitted to the Central Land Council for approval and meetings are held with Traditional Owners to discuss the proposed activities. Sacred site clearance surveys are also completed by the Central Land Council prior to any on–ground exploration being undertaken.

IGO has been negotiating with the Central Land Council to enable access to the Lake Mackay tenements, reaching agreement in September 2017. Discussions will begin in FY19 regarding the recently acquired Raptor Project and we hope to sign an agreement permitting on–ground exploration in FY20.



IGO's Salt Creek Project is a joint venture with AngloGold Ashanti and comprises a reverse joint venture on tenements that were previously part of IGO's Tropicana Operation joint venture with AngloGold Ashanti. IGO has earned a 70% interest in the project through exploration expenditure and will increase that interest through further expenditure.

The exploration area is approximately 220km north-east of Kalgoorlie in the Great Victoria Desert. IGO is principally exploring the Salt Creek Project for magmatic nickel-copper sulphide deposits similar in style to the Nova-Bollinger deposits. IGO's activities over the past year have comprised of a combination of RC and diamond drilling and electromagnetic surveys to systematically test the large tenement package and define the areas of greatest prospectivity. Several areas that were tested during the past 12 months were found to be of low prospectivity, and as a result, approximately 60% of the Salt Creek Project has been relinquished. The retained tenements are still considered prospective for nickel, copper and gold, and selected targets will be followed up in the coming 12-month period.

The south-western portion of the Salt Creek Project's tenure is subject to the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* as a 'referral area'. Exploration activities within the area are classified as a 'controlled action' and require adherence to a conservation management plan. The plan has been developed by AngloGold Ashanti on behalf of the Salt Creek Project in consultation with the (former) Department of Parks and Wildlife to mitigate the potential impacts from exploration activities within the referral area.

# EUROPEAN PROJECTS

### STOCKMAN PROJECT



IGO has been undertaking exploration activities in Scandinavia since 2007, under a number of nickel-copper focused joint ventures with the Toronto Stock Exchange (TSX)-listed company Mawson Resources Ltd (MAW). Project exploration activities to date have included regional prospecting, geochemical and geophysical surveys and drilling. In FY18, IGO conducted limited on-ground geochemical follow-up sampling and geophysical surveys, as well as airborne geophysical surveying. This concluded IGO's exploration in Scandinavia and the projects have been relinquished.

Prior to relinquishment, we continued to regularly engage various stakeholders including individual landowners, the Inspectorate of Mines, and the Sami Traditional Owners.

IGO very recently signed a JV agreement with Greenfields Exploration to initiate the Frontier Project in Greenland. The current tenement holdings cover 12,975 square kilometres and are highly prospective for copper and other base metals. IGO will provide further updates of initial exploration activities in the next sustainability report.



The Stockman Project became part of IGO through the acquisition of Jabiru Metals Ltd in 2011. It is located in the East Gippsland region of north-eastern Victoria, approximately 460km by road from Melbourne.

The Stockman Project consists of two defined copper-zinc-silver-gold deposits, Wilga and Currawong, and various prospects and exploration targets. The larger Currawong deposit is fully intact. A core of copper rich ore from the Wilga deposit was previously mined between 1992 and 1996.

In June 2017, IGO announced the divestment of the Stockman Project to Round Oak Minerals Pty Limited (formerly CopperChem Pty Limited). Round Oak is a wholly-owned subsidiary of Washington H. Soul Pattinson and Company Limited, which, like IGO, is a publicly-listed Australian company.

The sale of Stockman was consistent with IGO's strategy of focusing on assets of scale aligned to the battery metals sector. As part of this strategic direction we sought an owner better suited to its size and scale and therefore best equipped to realise the project's value.

IGO worked with Round Oak to complete community consultation regarding the sale transaction.



# DOWNSTREAM PROCESSING



As a business, IGO is challenging itself to explore ways to grow beyond conventional means, such as exploration and acquisition. We believe there are significant opportunities to grow the company by harnessing the value potential at the next stages of material refinement.

During FY18, IGO commenced a project to understand the downstream processing potential to directly produce nickel and cobalt sulphate using a hydrometallurgical process rather than producing nickel metal via conventional smelting and refining.

A scoping study demonstrated that the project was potentially financially feasible, subject to metallurgical testwork. Metallurgical testwork followed, using Wood Mining and Minerals Australia and SGS Australia. This testwork successfully produced nickel sulphate hexahydrate crystals and demonstrated that the process was technically feasible.

A pre-feasibility study has commenced and further updates will be made public in FY19.

### **PROFILE - JESS MORRISON**





My journey into the mining industry began at the University of Western Australia, where I had spent a couple of years not entirely sure what I wanted to pursue – until I found geology. Nothing has been as fascinating and so rapidly evolving as geology, I felt I had finally found a subject I could really sink my teeth into. With my love for research and my desire to contribute to the resource industry, mining exploration was introduced as a possible avenue and I couldn't think of a more exciting field to be a part of.

In August 2017, I was awarded the Western Australian Mining Club Scholarship for Geology. The scholarship, sponsored by IGO, has given me life-changing opportunities and allowed me greater focus on my studies. After receiving the scholarship I was selected for the 2017-2018 IGO Student Vacation Program, where I completed my own project, gained invaluable exposure working in the field, and met the knowledgeable exploration team.

The vacation placement led to an additional offer of part-time employment with IGO's exploration team for the remainder of my undergraduate studies. With this, I have been able to assist in all areas of exploration, attend workshops and lectures, be a part of the evolving research and conversation of the Albany Fraser, and return to the field over university holidays to assist with drilling programs. It has been an unforgettable experience and I am so grateful for the encouragement and support I have received.

There are strong academic values at IGO, with a focus on constant learning, development and conversation. The prospect of future involvement here is exciting, and I am very much looking forward to undertaking an Honours project with IGO in 2019. On completion of my Honours year, I have been offered a graduate placement for the year 2020.

### Jess Morrison

IGO Vacation Student and WA Mining Club Scholarship participant



### **SOCIAL IMPACT**

IGO's activities affect our employees, contractors, suppliers, Traditional Owners and the community. In order to better understand and respond to these impacts we have sought to build and maintain strong relationships. As part of this process, we have surveyed our stakeholders to understand which of these impacts they regard as being material.

In this section:

**Our People** 

Safety

**Occupational Health** 

**IGO Corporate Giving** 

**Traditional Owners** 

**Native Title** 

### **VALUEING THE VIEWS OF OTHERS AND ACCEPTING PEOPLE** FOR WHO THEY ARE

### **Toran Filippi**

Project Manager, Long Operation





### **OUR PEOPLE**



### **OUR SHARED PURPOSE**

While strategy directs our path, our shared purpose guides our fundamental reason for being and doing the work we do. Our shared purpose is what links all of us to each other, to our customers and to the communities in which we work and live. Connected, purposedriven people build value through engagement in a common reason for being.

In late 2017, we began the journey to reset IGO's purpose; to align our business with the emerging battery metals and clean energy storage market of the future. To develop our purpose, we held a number of workshops collaborating with the Board, senior management and a cross section of the business. In total, around 10% of the people who work at IGO were actively involved in the purpose development workshops across nine areas of the business.

Our collective output takes the IGO Way to a new place for all of us. We know that our people want to "make a difference" and to be part of a business that is more than a mining company - to be part of something that is making a positive contribution to the world. In FY19 we will continue programs of work to

ensure that our purpose is at the heart of the decisions we make, the actions we take, and that our internal and external communications programs communicate this with clarity.

### WORKFORCE COMPOSITION AND TURNOVER

At the end of FY18, IGO had a workforce of 246 direct employees and 366 contractors (these numbers exclude the Tropicana Operation). These employees are based at either the Nova Operation, which operates predominantly as fly-in fly-out (FIFO), or at our Perth head office, with a growing number of our team working on our regional exploration projects in Western Australia and the Northern Territory.

Our numbers reflect a 45% decrease in the number of employees at the end of FY17 due to the divestment of the Jaguar Operation and the transition of the Long Operation into care and maintenance. It is also noteworthy that IGO's annual employee turnover rate was 22%, which was likely the product of increased demand for skilled workers, associated with improving market conditions in the mining sector.

### DIVERSITY MAKES A DIFFERENCE

IGO is committed to equality across our business and promoting an inclusive and diverse workforce. We strive to apply fair and equitable employment practices and provide a working environment that encourages all employees to reach their full potential. We recognise the value of diversity and the difference that it makes to our business culture and performance. Diversity ensures that we have the capability to grow and continue to deliver sustainable shareholder value.

IGO actively supports the various initiatives to improve the industry's gender ratio. We pursue innovative ways to attract and retain females in the mining industry and within our business. By the end of FY18, 31% of IGO's workforce was female, up from 20% in FY17 (see Figure 15). This result is well above the industry average.

IGO conducted its fifth Workplace Gender Equality Report in FY18 once again receiving a compliant rating. This report is available on our website www.igo. com.au.

For more detail on IGO's gender diversity metrics and targets, refer to our 2018 Corporate Governance Statement.



Measurable Criteria	Target
Percentage of women employed within the entire Company.	Year-on-year improvement at 30 June each year.
Percentage of women employed in senior positions	Year-on-year improvement at 30 June each year.
ercentage of the workforce who are Aboriginal people nployed within the entire Company.	Year-on-year improvement at 30 June each year.
Percentage of the workforce who are from linguistically or culturally diverse backgrounds employed within the entire Company.	Year-on-year improvement at 30 June each year.

### **MORE THAN GENDER**

Driving greater diversity in our business is not only about achieving improvements in gender ratios. In FY18, we continued to actively support the employment of Aboriginal people and made progress with the creation of additional employment, education and business opportunities for the people who are Traditional Owners on the lands on which IGO operates. We are proud to note that, in the last 12 months IGO has:

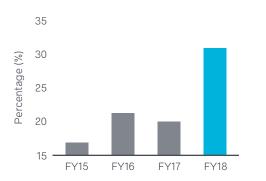
- sponsored a Ngadju student to complete a bridging course to enable them to study geology
- supported three Ngadju apprenticeships
- employed our first female, Aboriginal apprentice at Nova

 introduced Ngadju crosscultural awareness workshops at Nova.

To build on our existing Aboriginal workforce (about 3% of our direct employee population) in FY19, we will introduce a number of traineeships at the Nova Operation to support Aboriginal entry into the mining industry across a variety of disciplines. The program will provide structured support and training for Aboriginal people in roles with both IGO and our major contractors.

Contributing to our positive results has been the continuation of a range of existing programs and the introduction of a number of new programs specifically designed to continue the evolution of a truly diverse workforce. In FY18 this included the following initiatives:

### FIGURE 15 FEMALE PARTICIPATION RATE



#### 1. Paid Parental Leave

IGO is committed to supporting parents of both genders when they give birth to, or adopt, a child. We believe that parents should not have to choose between career and family. Our Paid Parental Leave plan is an important initiative to encourage parents to balance their work and family life at a very important time. Key features of IGO's Paid Parental Leave plan include:

- 16 weeks of fully paid parental leave (or 32 weeks at halfpay) for primary carers and two weeks' paid leave (or four weeks at half-pay) for the secondary carer
- a return to work assistance payment consisting of four additional weeks' salary paid six months after the employee returns to work (to provide additional support for the family)
- superannuation payment on paid and unpaid periods of parental leave to ensure that no parent is disadvantaged at retirement due to their decision to have a family.

### 2. Working Flexibly

In FY18 we increased our focus on working flexibly. IGO employees can request flexible working arrangements such as working part-time, working remotely and job sharing. We believe this is an important initiative to enable our people to blend their work, family and lifestyle to suit their individual circumstances. We believe that with energy and imagination, all roles can be flexible, and we want more people to understand that the mining sector values their contribution and that they do not have to choose between a career and a family to participate in site and head office roles.

### 3. Fitness for Life

We believe that wellness is more than just being "fit-for-work". In FY18, our wellness program was expanded across the business to include proactive health monitoring to identify early indicators and interventions for chronic illness, skin cancer, fatigue, inadequacies in task and workplace ergonomics and injury prevention. We also provided motivational fitness challenges, a quit-smoking program and daily

pre-start warm-ups. IGO provide free annual flu vaccinations to all employees. Feedback has been extremely positive and our preventative focus has become a valued component of our extended employee value proposition, allowing a greater diversity of people to balance their work and life goals.

We know, from the results that we have seen in the last two years, that continued improvement in diversity is possible through deliberate efforts to proactively include all employees in robust, transparent communications; leadership development and modelling; participatory work processes; cross-functional work experiences; and a focus on employee engagement on matters of diversity (see case study on page 61).

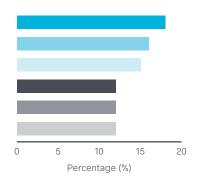
#### **ENGAGEMENT**

Sustaining and building the engagement and connection of employees, contractors and consultants in a digital world is a challenge for many organisations. We acknowledge this challenge and have organised programs of work to achieve year-onvear improvements to employee engagement and the culture it drives. We want to foster a workplace, either face to face or virtual, where people feel connected to each other and comfortable to express their ideas, opinions and concerns.

To measure our progress we conducted our second company-wide annual employee engagement survey in April 2018, generating positive results that indicate we are making a difference with our programs of work. Notably the Company recorded an employee response rate of 97% for this year's survey, an outstanding result and one that demonstrates we have established a culture where the workforce wants to be actively involved in shaping the business as we continue to evolve.

This year IGO's overall engagement score was 55%, which was a significant improvement from 2016 and one that puts IGO at the upper end of scores achieved by other metals and mining companies surveyed by Aon Hewitt. These results, along with the specific feedback received from employees, demonstrate a significant

improvement across our business, reflecting the concerted effort across the business over the past year, culminating in the following improvements:



- Future vision18% improvement
- People focus16% improvement
- Learning and development 15% improvement
- Business excellence 12% improvement
- Career opportunities12% improvement
- Communication12% improvement

There is, however, always room for improvement and we believe that there is much more we can do, to build on our progress over the last year, and to continue our journey to shape IGO to be an employer of choice. To that end, we will commence additional programs of work on employee reward and recognition, talent and staffing, performance management processes and the continued promotion of internal career opportunities to be completed in FY19.

### CASE STUDY / CARE AND MAINTENANCE







### **A LONG GOODBYE**



Sustainable cities and communities

IGO acquired the Long Operation from BHP Billiton Nickel West Pty Ltd (formerly WMC Resources Ltd) in September 2002. The mine was successfully re-commissioned in October 2002 and has operated safely and successfully since that time. In June 2018, the Long Operation was placed into Care and Maintenance, a process that had a significant impact on all the Long employees, as many prepared to say "goodbye" to IGO when their roles at Long were made redundant.

The transition of an operation to care and maintenance and the subsequent redundancies is always a challenging time. In the case of the Long Operation, one of the key elements of the transition was to provide support to those leaving our business or changing roles within the business. To this end, dedicated resources were provided to the site from early in the planning phase to assist employees with managing the

In late 2017 an employee transition and change management plan was developed to assist Long employees navigate the redundancy process. The final plan was the result of a collaborative process, considering the views of the Long Leadership

Team and the employees themselves, which resulted in the identification of the types of assistance that they required to find new employment. Key features of the plan included:

- development of an Operation specific redundancy package, in excess of statutory requirements, which included a retention component to ensure that employees required for care and maintenance preparation were retained
- development of an Operation specific re-deployment process to encourage employees to consider employment at IGO's other sites
- early engagement in a partnership with Worklink WA, who helped to deliver a series of workshops to employees
- assistance with job readiness (resume writing and job applications, interviews skills and assistance with preparation for life after Long)
- collaboration with local employers to promote their vacancies to Long employees, a program that also assisted local employers with their resourcing requirements

- Perth based outplacement services for FIFO employees
- development of an "exit pack" for each employee which included detailed instructions on pre and post termination requirements, support contacts and a comprehensive portfolio of all training certificates and accreditations acquired with IGO
- access to IGO's Employee Assistance Program for an additional 3 months after their exit from Long.

In the end, 54 of Long's 56 employees were made redundant and two were reassigned to other roles in IGO.

Feedback from Long employees throughout the course of the year was extremely positive with most employees who wanted to continue ongoing work having sourced alternative employment prior to leaving Long.

IGO is proud of this program and the difference that we made to the transition of our employees to other roles and the support we provided to the community of Kambalda through this period.



### SUCCESS THROUGH SUCCESSION

IGO has been proudly supporting the careers of future generations of employees for many years. We know that this support makes good commercial sense and we believe it can also fundamentally change the lives of people in the communities in which we work. We continue to recognise the value of encouraging people to achieve their potential and are confident that investing in the education, training and development of our people helps us to shape an innovative and cohesive culture with a competitive advantage.

### **Building Leadership Succession**

Robust succession planning is important to achieving our strategic objectives and building our future. Our Leadership Development Program has built on the structured succession planning and performance development that is carried out across the business. Over the past year, we have extended our successful in-house program with the addition of an Unconscious Bias course to raise awareness of both conscious and unconscious bias in the recruitment process and our daily interactions. We also provided community liaison skills training, a mini-MBA course for mid-level managers run by the Australian Institute of Management and continued our program for frontline leaders with the Certificate IV in Leadership and Management. Whether they are run on site or in our Perth office, these programs are a fantastic catalyst for face to face strengthening of culture and feedback from the courses continues to be positive.

### **PROFILE - JOYCE CHUNG**



Quality Education



My journey with IGO started in January 2018, in the graduate program, where I was accepted as a Mining Engineer. open-pit iron ore mining operation before joining IGO. I was keen to gain some invaluable underground mining experience as it closely related to my PhD research project. This was a major driver for me joining the IGO underground mining using integer programming, and it should be completed by the end of 2018.

I began my graduate experience with IGO in the drill and blast department previous underground experience it has been both challenging and the learning opportunities, and feel I have grown a lot since the beginning of the year. The amount of training and support provided through the graduate program has been amazing, from opportunities to complete and Management to sessions for developing my personal brand. I have also met a lot of great people, who have supported me on this program, provided mentoring and guidance for my career development, and continue to help me learn and grow.

### **Joyce Chung**

Graduate Mining Engineer -Nova Operation

#### **Graduate and Vacation Programs**

IGO's Graduate Program offers university graduates a two- or three-year program commencing in January each year, with the aim of supporting them in their transition from study to career. Our program is designed to support. challenge and reward graduates in a work environment that will foster and develop them into future leaders and technical experts.

The IGO Vacation Program offers both undergraduate and post graduate students the opportunity to participate in a 12-week paid program held over the Australian summer break commencing in November each year and concluding in February the following year. Our program is specifically designed to optimise students' exposure and practical experience in their chosen discipline.

In FY18, we employed people into both programs who studied Geology, Mining Engineering and Metallurgy. Of that group, 63% of our graduates and 83% of our vacation students were female.

Our Graduate and Vacation programs are aimed at supporting and building the future of the industry in which we work. We are concerned with the low number of students graduating in mining related disciplines and, more broadly, with the community's misconceptions about the employment opportunities and other benefits provided by the industry. While there continues to be a shortfall of students choosing to study science, technology, engineering and mathematics (STEM) we also acknowledge the importance of considering a broader student group to drive innovation. We continue to be committed to identifying opportunities to encourage participation and develop excellence in students

of all ages, gender and ethnicity. To this end, our support for a number of industry programs to promote career opportunities in the industry strengthened in FY18 and we continue to support a collective approach.

### **WA Mining Club Scholarships**

In FY18, IGO once again cosponsored two WA Mining Club scholarships for Geology and Indigenous students with a record number of applicants. Our 2018 recipients were both female and we are proud of the fact that several of the past recipients and finalists are now working within our business, including our first Aboriginal apprentice at our Nova Operation.

### **Curtin University Bursary**

In FY17, IGO established an Independence Group Scholarship program, in conjunction with Curtin University, which is awarded annually to a secondyear student who demonstrates academic achievement and financial need. The selection process for this scholarship was ongoing at the time of writing.

### WORKPLACE **RELATIONS**

In all that we do, IGO believes that our relationship with our people is stronger when they feel free to express their ideas, opinions and concerns in an authentic way. We recognise our people's fundamental right to negotiate conditions of employment either individually or collectively. Reflecting our continued efforts to establish a culture of inclusion and positive relationships with our workforce, no time was lost due to industrial issues involving an IGO employee in FY18.

### **SAFETY**



In FY18, IGO's people (collectively IGO's direct employees and our contractor's on-site) only suffered one serious injury (defined as losing more than two weeks work). The individual injured his shoulder when lifting equipment into a vehicle. Following surgical treatment, he required 29 days off work and a further 41 days on restricted duties. A further four people suffered less serious lost time injuries (i.e. injuries requiring time off work). A further 35 people suffered injuries requiring medical treatment or temporary reassignment to alternate duties.

In FY18, IGO employees and contractors worked 2,039,926 hours resulting in a total of 226 of our people sustaining injuries requiring some type of treatment, including minor first aid. This is 34% higher than the 178 injuries that occurred in FY17. In FY18, AngloGold Ashanti's employees and contractors at Tropicana worked 2,094,511 hours resulting in a total of 174 people sustaining injuries requiring some type of

treatment. This is 6.1% higher than the 164 injuries that were recorded during FY17.

IGO's Lost Time Injury Frequency Rate (LTIFR) for FY18 was 2.39 injuries per million hours and the Total Recordable Injury Frequency Rate (TRIFR) of 19.14. Tropicana Operation's LTIFR, which is not included in IGO's statistics, for FY18 was 0.47. IGO's LTI results for FY18 compare favorably to the most recently published averages for the Western Australian nickel mining sector and metalliferous underground mining sector of 3.9 and 2.9 respectively.

IGO acknowledges that the significant injuries were painful and caused distress to the injured people, their workmates and their families. We are not satisfied with our overall safety performance. Our clear objective is to improve, and significant organisational effort is being applied to this end. Our goal is to have no significant injuries (defined as any injury requiring medical treatment or time off work). In FY18, IGO had 24 new

workers' compensation claims, compared to 28 in FY17. Nine were unresolved as of 1 July 2018.

In addition to injury outcomes, IGO is focused on the potential outcomes: the "near misses". In FY18, there were 13 incidents where there was the credible potential for a fatality. Whilst each of these events resulted in either no injury or a minor injury, the potential outcomes were acknowledged, and adjustments made to our business practices to mitigate risks and minimise exposure to the hazards involved in the future. Reducing these potential incidents will continue to be a key focus in FY19. Often injuries and "near-miss" incidents can have a wider impact, causing distress not only to the affected individual, but also to their families and workmates. In response to this, IGO will continue its ongoing program to improve safety behaviours, our systems of work and our workplaces with the goal of minimising the risk of harm to our employees in FY19.

Site	New Workers' Compensation Claims	LTIs	RWIs	MTIs	First Aid Treatment Injuries	Totals (excluding Workers' Compensation Claims)
Long	5	0	3	0	9	12
Jaguar	15	2	11	2	68	83
Nova	3	2	12	1	99	114
All other / Exploration	1	1	2	4	10	17
Total for IGO	24	5	28	7	186	226
Tropicana Operation*	10	2	9	8	155	174
Total	34	7	37	15	341	400

LTI - Lost-Time Injury

Injuries that result in individuals not being able to work for a time.

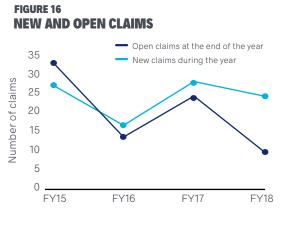
#### RWI - Restricted Work Injuries

Injuries that require an individual to do something other than their normal job.

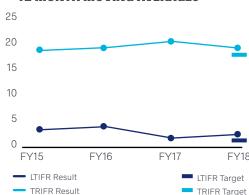
#### MTI - Medically Treated Injuries

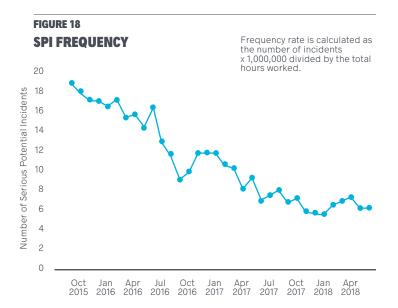
An injury requiring medical treatment.

<sup>\*</sup> Tropicana's Total Results (not apportioned by ownership).



### FIGURE 17 INJURY FREQUENCY RATES 12 MONTH MOVING AVERAGES





### In FY18 IGO experienced:

 13 Serious Potential Incidents. Of note, we had two ground failure events, two Underground dump truck engine bay fires, two light vehicles vs bogger incidents.

### • 42 High Potential Incidents.

Of note, the most common root cause was a failure to isolate, followed by vehicle interactions, dropped loads and fall of ground.

#### **DEFINITIONS**

#### Serious potential incident

Serious Potential Incidents (SPIs) are incidents where the potential outcome is a fatality, permanent disabling injury, or has an irreversible or widespread health impact. Usually there are no critical controls remaining to prevent impacts to people, and the actual outcome is dependent on chance.

#### High potential incident

High Potential Incidents (HPI) include:

- all incidents for which the worst credible potential consequence is assessed as being a Serious Injury (with an LTI of greater than two weeks), or a permanent partial disabling injury, and
- those incidents automatically defined as HPIs as per IGO's reporting standard. These include incidents involving mobile plant and equipment, fires and explosions, falls and falling objects near people, geotechnical failures and inrush, electric shocks, and pressure vessel failures.

### THE NEED FOR INTELLECTUAL HONESTY WHEN IT COMES TO SAFETY

We all take risks. Business is based on taking informed risks. At IGO, it is our intention that we, as a business, and as individuals, only take risks in an informed way (refer to Risk Management at IGO on page 32). At IGO we will not accept any risk where there is an elevated potential for serious harm or fatality. However, we cannot offer a completely hazard-free work environment; no organisation can. We maintain an expectation of continuous improvement and expect to be held accountable for our performance. Consequently we can, and always will, pursue efforts to make our workplace safer and promote a culture in which the welfare of our people is a central value.

### A MIXED STORY OF EXCELLENCE AND STRUGGLE

#### At IGO we have:

- some teams with a strong, well-developed safety culture
- some teams where the leader has the vision and motivation to improve safety outcomes
- some teams that still remain reactive.

#### The good news is:

- 89% of our people believe that they are empowered to stop a job if they feel it is unsafe
- 85% of our people have confidence that their manager will act on a safety issue
- 81% of our people believe that safety is genuinely important to the business.



<sup>&</sup>quot;I follow rules because I have to! There are too many rules. The rules are dumb... I could have written them better! The safety rules add no or little value!"

"I was party to the development of the rules. I follow rules because I want to! I have confidence that others do the same. Safety rules will not keep me safe, but they help."

### **OCCUPATIONAL** HEALTH



-√ Good health and wellbeing

Occupational health management has many facets. Our intention is to manage our work environment in a way that effectively minimises the exposure of our people to hazards that may cause long-term or chronic health impacts.

Some hazards are readily managed while some are intrinsically difficult to manage. Specifically, IGO is

- determine what our people are actually and potentially exposed to, and assess the risk that these exposures create
- determine how best to protect our people from these exposures (known as "controls")
- confirm whether or not the controls have been implemented and are effective, and if they are not, take remedial action
- document the above activities in a Hygiene Management Plan, execute the plan, review the results achieved, and update the plan accordingly.

During FY18, IGO completed various tasks defined in its Occupational Exposure Monitoring Program (known as CONTAM in Western Australia). No material excess exposures of any type were identified. In FY18, IGO had no claims for industrial disease.



### CASE STUDY / SAFETY



### **VISUAL SAFETY LEADERSHIP**



-₩ Good health and wellbeing

In order to support the ongoing situational awareness of our personnel and collaborative approach to keeping our people safe, IGO has introduced the Visible Safety Leadership Interactions program. This program involves people leaders getting out into the field to engage with personnel at the job front. They discuss the good safety practices they observe, reinforce the relevant procedures or standards and correct any practices that do not provide the best protection to our people, plant or environment.

A comprehensive training program has been developed and rolled out throughout the organisation in order to equip our people leaders with the relevant knowledge and skills required to get the most out of these important opportunities.

Safety leadership must be visual. It must be seen. It must be felt. If we do this well, it is our firm conviction that we will create a better workplace. Over the past 12 months, we have begun tracking the number of visual safety leadership interactions completed by all of our leaders. More than a simple count, we are also completing work to monitor the quality of these interactions. IGO will continue to pursue improvements in this area during FY19, including increased internal communications among our employees, suppliers and contractors to continue to build awareness and influence behaviour.

### CASE STUDY / HEALTH



### **HEALTH AND** WELLBEING



-W Good health and wellbeing

number of wellness initiatives across the business. A key initiative has been the introduction of a worksite fitness and rehabilitation (WFR) program that saw a number of exercise physiologists support the IGO team.

The WFR program provided an array of health and wellness activities including gym classes, monthly

IGO also implemented an Injury Prevention Program, introduction of daily morning stretching sessions available to all employees during the reporting period.
The morning stretch sessions are run by employees who volunteer their time to both motivate participation and stand in front of the group to lead the exercises. The IGO is pleased to note that our mining contractor at Nova, Barminco Ltd, has been a proactive supporter and

their families health and wellbeing and we will continue to introduce additional initiatives in FY19 and beyond.



# IGO CORPORATE GIVING



Sustainable cities and communities

Corporate Giving is important to both our host communities and our employees. It is about more than donations, it is about engagement. IGO has formally documented its approach to corporate giving in our Group Community Standard 1 -Corporate Giving. A copy of this document, along with our other ESG standards, is available on our website www.igo.com.au. In essence, IGO's Corporate Giving has three elements; cash, "in-kind" donations and support of employee's charitable activities.

Figure 19 depicts annual corporate giving investment for the last four years. The budget for the program is based on 0.06% of the previous year's total revenue. Based on projected revenue growth we look forward to increasing our contribution to our host communities.

In FY18, IGO supported a diverse range of organisations and programs, investing a total of \$252,385. Over 48 organisations or projects benefited from IGO's Corporate Giving program, including:

- Teach Learn Grow
- · Norseman District High School
- Esperance District High School
- · Goldfields Girls
- · Girls Academy
- Ronald McDonald House, Perth

A number of IGO employees volunteered their own time in FY18 to support various organisations and causes. In support of any employee wishing to donate their time to one of IGO's Targeted Beneficiaries, IGO provides up to two days paid leave per annum. In addition, IGO also matches, dollar-for-dollar, all funds raised by IGO employees for the benefit of beneficiaries approved by the IGO Corporate Giving Committee, up to a value of \$150.

At the end of FY18, IGO introduced a workplace giving program through the online platform Good2Give that enables employees to make pretax donations from their pay direct to a charity of their choice. IGO will match employee donations, capped at \$10,000 per annum in total and pays all the administrative costs so that 100% of employee donations go directly to the charity.

### FIGURE 19 **CORPORATE GIVING**





### TEACH, LEARN, GROW

is a not-for-profit charity the educational outcomes and aspirations of rural and Indigenous students in socioeconomically disadvantaged areas so that they can reach their full potential. TLG is a youth-led organisation in which university students give up their vacation time to spend one or two weeks, schools throughout WA. The charity provides free one-onone tuition and mentoring, delivering over 50,000 teaching TLG focuses on mathematics, with 69% of students improving their attitude towards school after taking part in the program.

IGO has been a proud supporter of TLG since 2012, and over that time the partnership has grown to include more of the regional

### KAMBALDA **CULTURAL AND ARTS GROUP**

IGO has supported the Kambalda number of years. The group's objectives are to build and community groups in order to create cultural activities and promote the town as an integral part of the Goldfields-Esperance

### **RONALD MCDONALD HOUSE**

**Ronald McDonald House** provides a home away from home for regional families in WA who have a sick child receiving hospital treatment in Perth. The charity provides free accommodation to families that have to travel far from home to obtain specialist medical care for a sick child. Based in Nedlands, the house creates a safe and comfortable environment where the whole family can stay together for the duration of their child's treatment.

IGO has been a corporate years, with board members, the management team and employees volunteering their

### THE NORSEMAN **DISTRICT HIGH SCHOOL**

In FY18, IGO continued its support of the youth leadership skills program at Norseman District High School.

The program promotes school attendance and achievement, explore their vocational options. nature playground at the school to provide a fun and interactive learning experience for students outside the classroom. IGO also contributed to Country Week programs at the school.

### **GIRLS ACADEMY**

The Girls Academy program, and champion basketballer Ricky Grace, has helped thousands of at-risk Aboriginal girls attending school, including poverty, teen pregnancy, drugs, alcoholism, violence, abuse and a disconnectedness from their

The Girls Academy work within the school system to drive community-led solutions aimed prevent Indigenous girls from completing their education and reaching their full potential.

### **MILLENNIUM KIDS**

Since 2008 Millennium Kids (MK) has been working with young Western Woodlands using a 'skills for life' program model. Driven by the concerns of Indigenous Country, the program was codesigned by Elders, young people and the Millennium Kids team.

The Kids on Country program is unique in that is was developed, from the very first trip, through conversations with Aboriginal children and young people. The child-led program continues to work on establishing a framework and consistent funding to enable a selfsustaining model into the future.

IGO proudly supports MK, as it truly embodies the best of a positive community led program that seeks to create shared value.

### **TRADITIONAL OWNERS**



Life on Land

IGO's activities are predominantly located in Australia and specifically within Western Australia. While our exploration activities do extend overseas, the scale and impact is relatively small. Irrespective of where we work, we are mindful of our responsibilities in respect of the Traditional Owners on whose land we seek to operate.

In Western Australia, our existing Operations are located on lands with either claimed or determined native title by various Aboriginal groups including the Koara, Ngalia, Wutha, Wongatha and Ngadju peoples.

In the Northern Territory, IGO's exploration activities occur in the lands of the Walpiri, Luritja and Pintupi people, as represented by the Central Land Council.

Figure 20 illustrates the locations of our activities relative to traditionally owned lands.

As noted previously, our joint venture exploration activities in Scandinavia were situated on lands owned by the Sami people.

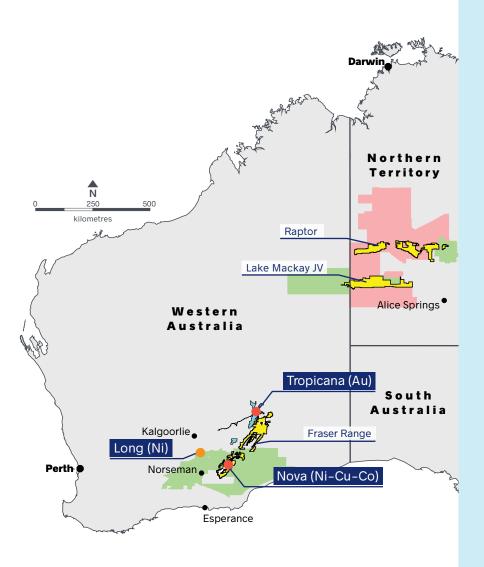
IGO seeks to operate with due regard and respect for Traditional Owners. In circumstances where our activities progress to the point where a mine is established, IGO seeks to ensure the socio-economic benefits of the mine are shared by the Traditional Owners and negative impacts are minimised.

Irrespective of where we work, we are mindful of our responsibilities in respect of the Traditional Owners on whose land we seek to operate.



### NATIVE TITLE AREAS

- OPERATION
- OPERATION (Under care & maintenance)
- IGO MANAGED TENURE
- TROPICANA JV TENURE
- NATIVE TITLE AREAS
- ABORIGINAL LAND TRUSTS



### NGADJU INDIGENOUS PROTECTED AREA

An Indigenous Protected Area (IPA) is an area of land or sea that is voluntarily declared to be a protected area by the Traditional Owners. IPAs are managed in accordance with international guidelines developed by the International Union for the Conservation of Nature. The Australian program was set up in 1997 by the Federal Government. A key feature of IPAs is both the degree of autonomy exercised by Traditional Owners in managing these areas and the potential for IPAs to coexist with other land uses such as pastoralism and mining. Currently, Australia has 75 IPAs across some 67 million hectares that employ many Indigenous Rangers.

In FY18, the Ngadju Conservation Aboriginal Corporation gained Commonwealth Government support and funding for the establishment of the Ngadju IPA (see Figure 21). The IPA covers an area of 4.4 million hectares within the Ngadju Native Title Determination Area. Management of the IPA is undertaken through the Ngadju Ranger program based in Norseman.

IGO is proud to support the establishment of the Ngadju IPA and would like to acknowledge the work of those involved in this achievement.

### FIGURE 21 NGADJU IPA



**NOVA OPERATION** 

### **NATIVE TITLE**



In accordance with the *Native Title Act 1993*, various lands are subject to native title claims and determinations. IGO operates in accordance with the law and in close collaboration with our stakeholders, some of whom are Traditional Owners. The following outlines the status of claims as they affect IGO Operations.

### **NOVA OPERATION**

The Nova Operation lies within an area that is subject to the native title of the Ngadju people. IGO has secured access rights through a mining agreement with their prescribed body corporate, the Ngadju Native Title Aboriginal Corporation (NNTAC). Similarly, access to surrounding exploration leases are subject to various heritage agreements with the NNTAC.

### **LONG OPERATION**

The Long Operation lies within an area that, in part, is also subject to the native title of the Ngadju people. However, as determined by the High Court of Australia, Ngadju rights and interests have no effect to the extent that there is any inconsistency with the approved land uses associated with the Long Operation.

### TROPICANA OPERATION

The Tropicana Operation is wholly within the area of the former Wongatha Native Title Claim (WC99/001). This claim was dismissed by the Federal Court in 2007 Notwithstanding this, Tropicana continues to work constructively with the Traditional Owners.

### **HERITAGE PROTECTION**

Sites of historical or heritage significance have been identified at each of our operating mines, projects and our various exploration sites. Over time, other new sites may be identified.

IGO has clear protocols around land disturbance and acts in accordance with the law. As required, IGO seeks to engage Traditional Owners to ensure the effective and culturally sensitive management of significant sites. In FY18, no significant sites were disturbed accidentally or otherwise.

### **LAND ACCESS AGREEMENT**

In FY18, IGO entered into a new land access agreement with the Central Land Council in the Northern Territory to enable access for IGO's exploration activities in the Lake Mackay JV. Discussions subsequently commenced on land access arrangements for the Raptor exploration area.



### CASE STUDY / COMMUNITY

### **NGADJU ENGAGEMENT AT NOVA**



Reduced inequalities

In line with commitments made to the Ngadju Traditional Owners in the Nova Mining Agreement, signed on 4 August 2014, IGO continues to implement cultural and community initiatives to strengthen our relationships with the Ngadju people.

In FY18, in collaboration with Ngadju elders, IGO initiated the Nova Cross-Cultural Awareness Program, aimed at providing employees with knowledge and awareness of Ngadju history and culture.

The program is independently facilitated and co-presented by Ngadju community representatives. Its development was a result of much hard work from the Ngadju community. IGO appreciates the volume of historical and cultural information shared by Ngadju participants.

In FY18, and in line with our Community Engagement Plan, IGO supported the development of the Phyllis Wicker memorial garden in Norseman. Phyllis Wicker was a Ngadju Elder who had a long association with the school and community of Norseman, and we had the opportunity to provide materials to help establish this garden.

IGO continues to make meaningful and sustainable contributions to the Ngadju community through employment opportunities, including the engagement of Ngadju Traditional Owners in heritage and malleefowl surveys.







# ENVIRONMENTAL IMPACT

be of material significance to IGO's sustainability performance. IGO identifies these material aspects on an ongoing basis by means of environmental monitoring, risk assessments, environmental reporting (both internal and external), and annual

In this section:

**Environmental Compliance** 

Land and Biodiversity Management

Flora and Fauna

Waste Management

Water Management

**Energy Production and** Consumption

**Greenhouse Gas Emissions** 

Mine Closure Planning

Materials Stewardship

### **BEING ENVIRONMENTALLY RESPONSIBLE**

"Being environmentally responsible is about trying to

### **Rhona Wardman**

Senior Environmental Advisor, Nova Operation





## ENVIRONMENTAL COMPLIANCE

Key to maintaining our licence and mining tenure.

with the terms of any relevant environmental approvals issued under relevant Federal, State or

its own internal requirements, standards that go over and used to systematically capture associated with both our from environmental approvals and other public commitments.

compliance audit against all of at our Nova Operation, with results presented in the next

### **LAND AND BIODIVERSITY MANAGEMENT**



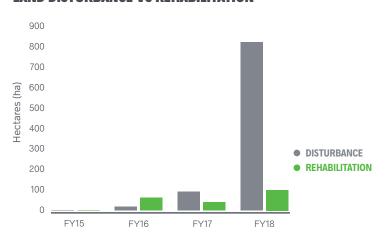
♣~ Life on Land

IGO's operations are spread out across the Goldfields-Esperance region, occupying land of varying biological significance. Our Nova Operation and exploration activities are situated in particularly rich and diverse habitats.

IGO is committed to contributing to the conservation of biodiversity within all its operating areas.

In FY18 IGO's land and biodiversity management standard was established to provide our operations and exploration teams clarity on the required land management practices, aligned to accepted best practice industry guidelines.

### FIGURE 22 LAND DISTURBANCE VS REHABILITATION





#### **EXPLORATION**

In FY18, land disturbance was considered the activity that presented the greatest potential for environmental impact in these areas. Figure 22 shows the last four years of disturbance and rehabilitation across our business. The increase in FY18 is driven predominantly by the expanding exploration programs in the Fraser Range.

To ensure we understand and mitigate our impacts, IGO has updated its disturbance (and rehabilitation) tracking system. Attention has also been placed on educating our workforce on its obligation to protect the environment and to ensure there are sufficient resources to enable effective impact monitoring and progressive rehabilitation. This work is ongoing.

#### **NOVA OPERATION**

The majority of land disturbance at the Nova Operation occurred in FY15 for the construction of the processing plant, tailings dam, boxcut and other associated infrastructure. In FY18, 16ha of land was disturbed and 2ha rehabilitated. A total of 109ha of land has been rehabilitated since construction began.

#### **TROPICANA OPERATION**

During FY18, 119ha of land was cleared at the Tropicana Operation, primarily for the expansion of the waste rock dump and open pits. During the same period, 10ha of rehabilitation was completed. A total of 224ha of land has been rehabilitated at the mine since construction began.

#### **LONG OPERATION**

During FY18, there was no land disturbance and no rehabilitation. At the end of FY18, coinciding with the Operation being placed in care and maintenance, IGO identified a number of historical landforms to be rehabilitated. At the time of publication, these earthworks were still underway, with the ROM pad and legacy TSF being completed.

#### **JAGUAR OPERATION**

At the Jaguar Operation, 152ha of land disturbance was reported for FY18. In reality, significantly less than this amount was cleared. The increase was driven by an updated disturbance mapping exercise that identified clearing that had not previously been captured. Further to this, rehabilitation of 1ha was completed in FY18.

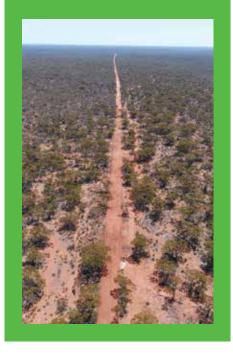
Exploration efforts surrounding the Jaguar Operation, including diamond drilling, resulted in clearing of 72ha. Similarly, improved reporting increased our known land disturbance area. Approximately 1ha was rehabilitated in FY18.

#### **EXPLORATION**

IGO's regional exploration projects around Australia created a disturbance footprint of 648ha. In contrast only 88ha of land was rehabilitated.

The majority of clearance related to the seismic survey carried out surrounding our Nova Operation.

IGO has developed a progressive rehabilitation plan for all of its exploration disturbance, supported in the FY19 budget to ensure completion.



# **FLORA** AND **FAUNA**



In accordance with its Environmental Policy, IGO is committed to understanding and protecting the flora and fauna communities at each of its operations. Periodic surveys are employed to measure impacts to fauna, triggered by the different stages of a project or a proposed modification to an existing operation. Impact monitoring, a focus in FY19, is undertaken near our mining operations to understand the ongoing impact of mining activity.

#### **NOVA OPERATION**

The Nova Operation is within the Great Western Woodlands, an area of high biological richness that comprises almost 16 million hectares, extending from the edge of the wheatbelt and Kalgoorlie-Boulder in the north, to the inland deserts and the Nullarbor Plain to the east. The project is situated approximately 80km from the eastern edge of the Great Western Woodlands and the Nova Operation area represents 0.03% of its total area.

A number of field surveys were conducted during the feasibility phase of the project to inform the approval process and assist with protecting the flora and fauna within the operation footprint. A total of 45 vegetation communities were mapped in the study area, comprising 28 eucalypt woodland communities, 13 mixed shrublands and scrub communities and four hummock grasslands communities. A total of 142 vertebrate fauna species, including 40 reptile, 82 bird

and 20 mammal species, were recorded during the field surveys in the feasibility phase of the Nova Operation.

#### **TROPICANA OPERATION**

The Tropicana Operation, situated on the western edge of the Great Victoria Desert, consists of an active sand-ridge, with surrounding land dominated by sand plains, sand hills and sand dunes covered with Marble Gum (Eucalyptus gongylocarpa), Mallee (Eucalyptus youngiana) and Spinifex (Triodia basedowii).

The Great Victoria Desert contains a number of protected reserves, including Plumridge Lakes Nature Reserve and Queen Victoria Spring Nature Reserve. Tropicana has implemented a Threatened Species Management Strategy to identify potential risks and mitigate any impacts on threatened species.

The sand plain communities surrounding the Tropicana Operation have an extremely high diversity of small-vertebrates, with more species of terrestrial reptiles and mammals per hectare than anywhere else in Western Australia.

Monitoring vegetation condition and abundance is required on an annual basis at Tropicana in accordance with the mine's approval conditions. Tropicana Operation also completes an extensive fauna monitoring program and supports regional fauna research. The results are reported in the Tropicana Operation Annual

**IGO** has developed a progressive rehabilitation plan for all of its exploration disturbance



Environmental Report and in the Department of Water and Environmental Regulation (DWER) Index of Biodiversity Surveys for Assessments.

The centre piece of Tropicana's offset strategy is the establishment of the Biodiversity Trust, administered by the Federal Government. The Trust has been set up to facilitate landscape level research, fund on-ground activities and provide direct offset to restore and rehabilitate degraded land outside the Tropicana Operation footprint.

#### **LONG OPERATION**

The Long Operation is located on the shore of Lake Lefroy, and the surrounding land is dominated by Eucalyptus woodlands and halophytic low shrublands. The Long Operation sits within the Goldfields region of Western Australia and is subject to extreme temperatures and periodic rainfall, predominantly in the winter months.

The surrounding area of Long has had mining activities taking place for over 35 years. This has resulted in clearing for the construction of infrastructure, waste rock dumps, tailings storage facilities, processing plants, open pits and underground mines. The local environment has been degraded over time, as a result of mining town development and the historic use of public land of the surrounding area.

In FY18, IGO completed two flora surveys, with particular focus on previously rehabilitated land. The surveys also inspected established reference sites and identified new, more representative vegetation communities for the purposes of refining closure completion criteria.

#### **JAGUAR OPERATION**

The Jaguar Operation has a long history of mining activities which has impacted the vegetation within the mining leases. Further impacts by both cattle grazing and a range of feral animals and introduced weeds can also be seen on surrounding pastoral properties. Large populations of introduced goats, dogs, cats and rabbits are periodically controlled to variable effect. Mulga woodlands and flora typical of the region's ephemeral creek lines dominate the land surrounding the Jaguar Operation.

The Jaguar Operation has conducted a number of fauna field surveys, with 57 bird species, eight native and four introduced mammals, 23 reptiles and four amphibians recorded. A desktop analysis of potential fauna distributions identified three mammal, one reptile and one bird species of conservation significance that could be present in the area due to the presence of suitable habitat. It should be noted that none of these species have been sighted since the early 1980s and it is now considered that they are locally extinct. Conversely, anecdotal evidence (increased sightings of breeding pairs) suggests there has been an increase in the population of birds of prey around Jaguar.



# CASE STUDY / ENVIRONMENT

## PROGRESSIVE REHABILITATION

IGO is committed to the progressive rehabilitation of our mine sites and exploration areas.

Progressive rehabilitation speaks to the values of IGO. Good planning and a conscious awareness of the value of the Western Woodland environment in which Nova Operation is situated has kept the cleared footprint of the mine smaller than anticipated.

Some of the clearing undertaken during construction was also repurposed for operational uses, thus reducing the overall disturbance footprint for essential infrastructure. The construction camp is now used for the core yard and the borrow pit, which was used for the airstrip construction, has been levelled in anticipation of the solar farm installation in FY19.

As the main access road and airstrip were completed early in the construction process, additional clearing for borrow pits and other infrastructure was not required during operations. This enabled borrow pits to be rehabilitated before the mine was fully operational using earthmoving machinery and experienced personnel during construction

Undertaking progressive rehabilitation at this early stage in the mine's life has produced excellent results. The surface materials are showing great stability with complex native vegetation communities, and some evidence of fauna establishment. There is an abundance in the volume of growth and also diversity and strata in the regeneration of the vegetation over a number of soil types and landforms.

Detailed flora surveys will be undertaken in FY19 to confirm these observations. These early results provide reassurance to the ongoing rehabilitation results. The successes and learnings that are captured in vegetation plots will be applied to future rehabilitation activities for greater certainty in timing, cost and expected vegetation and landscape stability results.

#### **ENVIRONMENTAL STANDARDS**

In FY18, IGO introduced a set of Environmental Standards. These standards define a performance expectation that is more than simple compliance with the law. Over time, and with ongoing effort, these standards will provide a framework for cultural change within our business. The standards address:

- social and environmental impact assessment
- · land use and biodiversity management
- · water management
- · mineral waste management
- hydrocarbon and chemical management
- · rehabilitation and mine closure.

IGO's Environmental Standards were developed based on relevant Australian and International standards, including the Leading Practice Sustainable Development Program (LPSDP) for the Mining Industry (Department of Industry, Innovation & Resources), and publications produced by the Minerals Council of Australia, and the International Council on Mining & Metals (ICMM).

The standards were benchmarked against our peers and feedback from both our workforce and our host communities was also considered.

In FY19, IGO will begin implementing the standards using our environmental risk register to determine priorities. The implementation program will be targeted at both our workforce and host communities to provide insight into the standards and ensure that they are reflected in our operational management plans and our actions on site and in the community.

#### **TRANSPORT**

Both the consumables used at our mines and our products are transported by truck. Truck traffic within regional areas is a recurring matter of concern for the public. To this end, IGO seeks to minimise truck traffic, particularly through regional towns. Feedback received from our stakeholders is taken seriously and all complaints are investigated. During FY18, we received no complaints and we are pleased to note that we even received some positive feedback from a Norseman resident.

The largest volume of trucks was recorded at our Nova Operation, averaging 50 per week. Truck transport reduced at Nova, compared with FY17, due to the operation transitioning from construction to steady state operations.

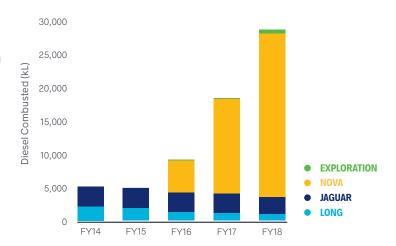
Truck traffic at Tropicana was comparable to the previous year, averaging 40 trucks per week. The reduction seen in FY17, resulting from the power station switching from diesel to gas (supplied via pipeline), was maintained in FY18.

The Jaguar Operation received 40 to 50 trucks per week, mostly travelling 900km from Perth to site, passing through several towns including Northam, Southern Cross, Kalgoorlie, Menzies and Leonora. Our contribution to the impacts created by vehicle movements through these towns is minimal.

Lower production at our Long Operation further reduced truck deliveries to approximately 200 a year, the majority from Kalgoorlie, located 57km north. The trucks pass close to Kambalda east and west, however do not transit through the town's residential areas. The area has been mined for more than 50 years, with no homes in the vicinity of our operation. As such the impact of dust and fuel emissions is minor.

IGO tracks diesel usage at all our operations, with transport accounting for a significant portion of consumption at Long and Jaguar (see Figure 23 below). Nova's power station is fuelled by diesel, with the bulk of its consumption accounted for in energy production rather than transport.

#### FIGURE 23 **DIESEL USAGE**



#### CASE STUDY / ENVIRONMENT

## **ESPERANCE PORT SHIPPING**



Industry, innovation and infrastructure

Historically, dust emissions associated with the transport and ship loading of heavy metal concentrates at Esperance Port were not well managed. The emissions resulted in a range of environmental impacts and the creation of a public health hazard. In selecting Esperance Port to export our nickel and copper concentrates, IGO did so while mindful of this history and with the clear imperative that both we and the Port had to operate to an exemplary standard to win community confidence and maintain a licence to operate. To this end, the Port and IGO employ best-practice methods for the transportation of concentrates, ship loading and associated impact monitoring.

Prior to the commencement of shipping, and in consultation with the State Government, IGO conducted baseline soil metal assessments along our transportation route and implemented noise, dust, odour and weather monitoring at Esperance Port to establish the pre-existing baseline conditions. With this information in hand, IGO has continued monitoring concurrent to the commencement of our operations. We are pleased to note that there has been no detectable dust emissions associated with our activities.

To achieve this result, IGO and Esperance Port have partnered with Qube Ltd. Qube load IGO's concentrates at the mine into half-height purpose-built sea containers. The containers are

then sealed with a lid, prior to being washed down, and then trucked to the Port of Esperance. In Esperance, the product remains sealed in the containers until a ship is ready to be loaded. During loading, Qube use their Rotabox<sup>n</sup> device to lift the containers into the ships hold. Once in position, the Rotabox device removes the lift, rotates the container to empty it, replaces the lid and returns the container to the wharf. The empty containers are then returned to the mine for refilling.

The combination of tipping our product from a limited height within the ship's hold, and the concurrent use of dust suppression water sprays, results in the minimisation of fugitive dust emissions.

The ongoing use of the Port of Esperance for the shipping of IGO's Nova concentrates was subject to the completion of a successful trial period. The trial was successfully completed by the end of FY18 with the Port and IGO satisfying the regulators that the ship loading methodology worked as intended. IGO is pleased to note that, at the time of publication, Esperance Port had received an amended licence to permit the ongoing exportation of nickel and copper concentrate, using the successfully trialled loading technology.

In its first full year of production, over half of the Nova Operation's concentrate was exported through Esperance Port.

In its first full year of production, over half of Nova Operation's concentrate was exported through Esperance Port.



# WASTE TANAGEME

Responsible consumption and production

Waste rock and tailings are the two largest waste streams produced at IGO's operations. The Nova and Jaguar Operations produced both, whereas the Long Operation produces only waste rock. The waste rock is stored and managed in accordance with statutory guidelines and internal standards to minimise its potential to cause environmental impact and ensure the effective rehabilitation of our mine sites both progressively and at closure.

The responsible management of landfill waste is also an important aspect of IGO's waste management strategy. Across the Group, waste disposed to landfill has been increasing, however this is consistent with the growth of our business (see Figure 24 to 26). IGO undertakes recycling programs at all our sites, with a focus on steel, hydrocarbons and cardboard. In FY18, IGO generated 2,738 tonnes of waste to landfill.

#### FIGURE 24 **WASTE ROCK**



FIGURE 25 **TAILINGS (DRY)** 

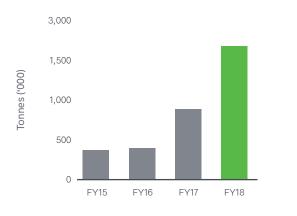


FIGURE 26 **MATERIALS TO LANDFILL** 



Note: All waste numbers exclude Tropicana.

#### **WASTE ROCK**

In FY18, the Nova Operation with the majority of this material the underground portal. The tailings dam consistent with final closure design.

Bollinger deposit concurrent additional waste rock and to optimise waste generation and placement in its underground underground as backfill and facility to ensure it is available for

During FY18, the Tropicana Operation produced 76.54Mt of waste rock.

At the Long Operation, waste reduced mining activity, with 22,712t brought to the surface in period to identify waste rock our surplus rock for their own

A total of 163,269t of waste rock Operation's Bentley Mine in FY18. Waste rock is brought to the surface, with potentially acid forming (PAF) material preferentially selected for aggregate production that is used underground to stabilise disused mining voids. As the acid-forming this creates a neutralising environment for health surrounding the waste

#### **TAILINGS**

TSFs is a top priority and the mine's operating strategy, mining tenement conditions. risk review, involving an Crippen Berger (KCB). This was

uncontrolled releases from any with these facilities.

Tailings generation increased at the Nova Operation, with the mine operating at design deposited was 1,235,478t.

The Tropicana Operation has facility where all tailings from the Tropicana processing plant are deposited. In FY18, Tropicana deposited 7.63Mt of dry tailings into its storage facility.

The Long Operation uses tailings produce a paste backfill material that is used to re-fill mined underground voids. In FY18, Long Operation used 40,097t of dry tailings to produce 60,229t 69,859t of tailings used in FY17.

The Jaguar processing plant FY18. As required by tenement conditions, both the disused recommendations for both tailing storage facilities relating to preventative maintenance measures were undertaken.

IGO undertakes recycling programs at all our sites, with a focus on steel, hydrocarbons and cardboard.

# WATER MANAGEMENT



Clean water and sanitation



Water is an important resource for IGO's mining activities.

IGO uses water in all parts of its business, including exploration drilling, the mining process, ore processing, dust suppression, and for drinking and domestic use in our camps.

Water is typically extracted from our underground mines and dedicated water supply borefields.

In FY18, across all IGO managed operations, we consumed a total of 3,259,480kL of water. Consumption has increased over the last three years, commensurate with our growing operational footprint (see Figure 27). Therefore, the ongoing responsible management of water is key to the sustainability of our operations.

In Western Australia, water extraction is always subject to a licence issued by the Department of Water and Environmental Regulation (DWER). Licences set out our annual water entitlement and conditions to ensure we appropriately manage abstraction over

the life of our mining activities. To meet these requirements, abstraction volumes and groundwater levels are monitored.

We note that it is standard practice at IGO operations to maximise the volume of water recycled.

Unintended safety and environmental impacts can result from both poorly managed groundwater abstraction and the uncontrolled release of contaminated water, particularly where salinity or contaminant levels are elevated. Water releases from mining operations can take various forms including stormwater discharge, process and mine dewatering discharges, water delivery line breakages, and seepage from storage facilities such as dams and tailings storage facilities. IGO has established processes for water management and we can confirm that we operated in accordance with our licence conditions. Further, in FY18, IGO has had no material spills or unapproved discharges.

#### **NOVA OPERATION**

Groundwater, sourced from production bores, dewatering bores and the underground mine, accounts for all water supply at the Nova Operation. In FY18 a total of 1.8GL was abstracted from groundwater sources.

At Nova we complete annual vegetation impact assessments to determine if our abstraction is causing tree stress or deaths. Similarly, we monitor groundwater levels around the TSF to check for changes in groundwater levels and chemistry. Unlike unlined TSFs, which typically have associated groundwater mounds beneath and around them, the fully lined TSF at Nova has no associated groundwater mound. To date, vegetation monitoring indicates that neither groundwater drawdown nor mounding has had an impact on the overlying forest. Further, as the groundwater is hypersaline, it is likely that few higher organisms, if any, are dependent on groundwater as a water source.

Wastewater is managed under a recycled water scheme with the approval of the Department of Health and Local Government. A waste water treatment plant has been installed to recycle all grey and black water produced by the village, power plant, paste plant and other non-process infrastructure on site. The treatment process enables this water to be reused on site for industrial processing, dust suppression and effluent irrigation. Since commissioning, a majority of the recycled water has been directed to the licensed effluent irrigation area or stored in the TSF for further use.

Nova has an ongoing challenge to achieve the efficient disposal of the bio-solids produced by our sewage treatment plant. At present, these solids are trucked to Esperance for landfill disposal. A permanent and local disposal solution will be sought in FY19.

## FIGURE 27 WATER USAGE (EXCLUDING TROPICANA)





#### **TROPICANA OPERATION**

In FY18, a total of 5.5GL of water was abstracted from groundwater bores at Tropicana.

Groundwater monitoring is completed to measure the effect (if any) that abstraction is having on the surrounding water table, including water levels and water chemistry. The standing water levels in FY18 were generally stable, although there were some exceptions which saw significant decreases in standing water level likely due to increased abstraction rates. No significant change in water quality was observed.

Tropicana's TSF is unlined and has an associated groundwater mound. Consequently, Tropicana completes vegetation impact assessments to determine if either abstraction or mounding is causing tree stress or deaths. To date, vegetation monitoring indicates that neither has had an impact on the overlying bush.

Surface water monitoring, undertaken after significant rain events, is also undertaken at Tropicana to determine the effectiveness of the site's surface water management infrastructure. Results indicated that surface water management on site was effective.

#### **LONG OPERATION**

A total of 272ML was abstracted from groundwater sources and mine dewatering in FY18. Long generates a surplus of hyper-saline water which, following time in settling dams to remove sediment, is then discharged onto the salt pan of Lake Lefroy. Flow meters are used to accurately measure water use and discharge volumes to ensure compliance with licence conditions.

A small percentage of the groundwater is extracted as water vapour and mist from underground by the mines ventilation fans. This aerosolised water is hypersaline and is toxic to plants, posing a threat to surrounding vegetation. To minimise the impact on local vegetation, vent fans have been redesigned to minimise the emission of the hypersaline mist. In FY19, a variable speed drive will be installed to further reduce the generation of mist.

#### **JAGUAR OPERATION**

Groundwater, sourced from production bores and the underground mine, accounts for all water consumption at the Jaguar Operation. In FY18, a total of 1.1GL was abstracted. Excess water is discharged into the historic Teutonic Bore pit.

Of particular focus is the Operation's effect on the water table and water quality within the surrounding pastoral leases. Water monitoring includes chemical analysis. No material changes to water chemistry nor water levels have been recorded at any of the pastoral bores to date with one exception. In previous years, a reduction in water levels was measured at the Wendy's Borefield. Studies conducted in FY17 and FY18 indicate that there was no impact to surface vegetation nor the pastoralist's ability to access good quality water for stock.

# ENERGY PRODUCTION ND CONSUMPTION



- Affordable and clean energy

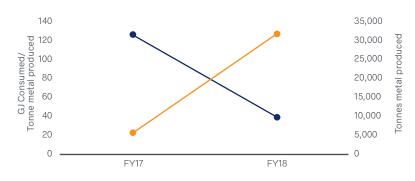
Across all IGO managed operations, energy consumption totalled 2,119,437GJ in FY18, including exploration and corporate. Despite reducing energy consumption at both our Long Operation (3%) and at Jaguar (6%), the shift to full production rates at the Nova Operation has increased our total energy consumption.

IGO's energy needs are primarily met through the burning of diesel, most of which goes into the production of electricity (in dedicated diesel fuelled power stations) and, to a lesser extent, in diesel combustion engines intrinsic to much of a mine's mobile plant (e.g. trucks and earthmoving machinery). Beyond diesel consumption, the next most notable source of energy is the chemical energy associated with explosives.

Figures 28 to 30 illustrate the relative energy efficiencies of IGO's mines. While these metrics provide insight into our processes and provide a tool for gauging change in our individual operations, they are not particularly useful as a means to compare one mine to another, or even the same mine over time. This is because the energy consumed in a mine is a function of a great number of factors that both vary over time and are mine-specific. For example, the hardness of the rock being mined and beneficiated varies both within a mine and between mines; the harder the rock, the more energy consumed. Another example is the depth of the mine; the deeper you mine the more energy required to haul ore and waste to the surface. Given the limitations in seeking meaningful efficiency metrics (and hence improvement targets) associated with mine energy consumption, it is likely IGO will focus on the source of energy; where energy from renewable sources are clearly better than energy derived from non-renewables on a comparable unit cost basis. Further, given that we see the anticipated improvement in battery technologies both in terms of energy densities and costs, we will strive to use suitable electric mining plant to replace diesel plant as the technology becomes available and cost effective.

#### **FIGURE 28**

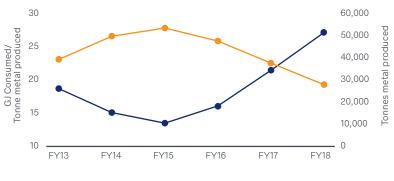
#### **ENERGY CONSUMPTION PER TONNE METAL (NI, CU & CO) PRODUCED - NOVA**



#### FIGURE 29 **ENERGY CONSUMPTION PER TONNE NICKEL PRODUCED - LONG**



#### FIGURE 30 **ENERGY CONSUMPTION PER TONNE METAL (CU & ZN) PRODUCED - JAGUAR**



**ENERGY CONSUMPTION METRIC** 

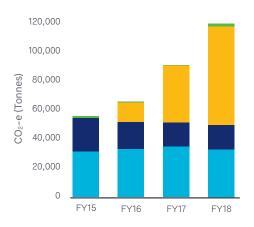
TOTAL METAL TONNES

## **GREENHOUSE GAS EMISSIONS**

The generation of greenhouse gas (GHG) emissions and the impact on global climate change is considered a significant issue in Australia and the rest of the world. While relatively minor in comparison to other mining and industrial emitters, IGO understands that collectively the mining industry has a part to play. In FY18, IGO's total Scope 1 and Scope 2 GHG emissions for all IGO facilities was 117,686t (CO<sub>2</sub>-e), produced mainly through the consumption of compressed natual gas (CNG) and diesel at our Jaguar and Nova Operations.

Going forward, IGO's emissions will be offset with the installation of the solar plant at Nova.

#### FIGURE 31 **IGO SCOPE 1 AND 2 EMISSIONS**



- **EXPLORATION/CORPORATE**
- IAGUAR
- LONG

#### CASE STUDY / ENERGY

# **SOLAR**



Affordable and clean energy

The Nova Operation is in a remote area and far from grid-supplied electricity. This necessitated the construction of our own power supply solution. During the planning process, we sought economically viable ways to include renewable energy sources as a demonstration of our commitment to a green and clean energy future. Following a review of our options and a competitive tender process in FY15, Zenith Pacific was awarded the contract to install and operate a 20MW diesel power station and a 5.7MW photovoltaic power generation system.

The inclusion of the solar system, as a substitute for further diesel generators, will effectively reduce diesel consumption by approximately 3,000,000Lpa and reduce emissions by approximately 5,219 tonnes of CO, equivalent per annum.

At the time of awarding the contract, the economics of a combined diesel and solar power supply option was clearly favourable, primarily because diesel was approximately \$1.24 a litre. However, by the time we came to make a construction commencement decision in 2016, the diesel price had dropped to \$0.88 a litre. However, since this time we have continued to evaluate the merits of the project.

We have concluded that, over Nova's remaining mine life, diesel prices will likely increase on average and the solar plant will serve as a hedge on such price changes. Furthermore, we have reaffirmed our commitment to demonstrate leadership through the construction of a fully integrated solar-diesel power solution - the first application of this particular technology in Australia.

It is within this context that IGO is proud to have recently taken the decision to proceed with the project. We do so without any Government subsidy. We anticipate construction of the solar power generation system will be completed in FY20.

# OTHER SIGNIFICANT EMISSIONS

Carbon Monoxide	kg	
Nova - Air total	340,617	
Long - Air total	8,171	
Jaguar - Air total	48,955	
IGO total	397,743	
Oxides of Nitrogen		
Nova - Air total	716,447	
Long - Air total	17,322	
Jaguar - Air total	123,051	
IGO total	856,820	
Sulphur Dioxide		
Nova - Air total	409	
Long - Air total	16.5	
Jaguar - Air total	145	
IGO total	570	
Volatile Organic Compound		
Nova - Air total	34,564	
Long - Air total	1,361	
Jaguar - Air total	4,527	
IGO total	40,452	

# **MINE CLOSURE PLANNING**

Closure planning is an essential process that should occur at all stages of the mining lifecycle. Planning for mine closure must consider social. economic, physical and biological parameters that can change over time, particularly when the planning horizon extends past a decade.

Poor planning for closure at the initial mining stage can significantly add to the complexity and cost of closure. Stakeholder engagement is a critical part of the closure planning process and should include both internal and external stakeholders. The potential impacts of closure are an ongoing consideration in IGO's engagement with governments and local communities. Potential impacts of closure are also considered in regard to our support of community development initiatives and local business. In recognition of the potential impacts of mine closure to the environment, community and the economy, IGO has applied increased effort over the last two years to its closure planning process. The Nova, Tropicana, Long and Jaguar Operations, in conformance with Western Australian law, all have approved Mine Closure Plans (MCPs). MCPs are "live" documents that are continually updated throughout the life of our operations.

IGO, in accordance with our Group Environment Standard - Rehabilitation and Mine Closure, and the IGO Group Finance Standard - Provisions for Mine Closure, continued to investigate and refine closure strategies at all our operations. Consequently, the revision of MCPs is now a structured approach, incorporating both external regulatory requirements as well as meeting internal standards to ensure adequate stakeholder engagement throughout the mine closure planning process. This is depicted in Figure 32 below.

Finally, the revised MCPs enabled provisions for the estimated cost of rehabilitation, decommissioning and restoration relating to areas disturbed by our operations in FY18. These are reviewed, and if required, updated annually.

#### FIGURE 32

#### REGULAR ENGAGEMENT



#### **NOVA OPERATION**

The Nova Operation updated its reserves in FY18, amending its mine life to 2026. Approval was also received for the construction of a permanent waste rock dump at the site. In recognition of these changes and following engagement with the Department of Mines, Industry Regulation and Safety (DMIRS), IGO will submit an updated MCP in December 2018.

The focus for closure planning activities at Nova is the refinement of final landform designs for the TSF and waste rock dump. Closure objectives and completion criteria will also be investigated, based on additional vegetation assessment and the selection of suitable reference sites. A summary of key closure planning activities will be provided in next year's sustainability report.

#### **LONG OPERATION**

In June 2018, IGO placed our Long Operation into care and maintenance. Consideration was given to rehabilitation opportunities that still preserved the asset for further exploitation in the future. A number of historical mining landforms were identified as no longer essential to operational requirements and rehabilitation was commenced. This included earthworks at two TSFs, both ROM pads, and portions of the waste rock dump. Work commenced at the end of FY18 and will continue into FY19, with an update provided in next year's report.

The Long Operation MCP was updated and submitted to DMIRS at the end of September 2018. IGO engaged a number of closure and other relevant subject matter experts to assist with this project, involving both field and office-based surveys and research. The major focus of the MCP was the analysis of post-mining land use options and the refinement of completion criteria. performance standards that closure activities can be measured against. IGO considers the Long MCP to be suitable for closure implementation, with approval still being sought from DMIRS at the time of publication.

IGO is currently working with BHP Nickel West regarding its closure planning for the Kambalda concentrator tailings dam located on IGO's mining lease.

#### **JAGUAR OPERATION**

The Jaguar Operation MCP, submitted to the DMIRS in June 2017, is with the department for comment. The updated MCP included outcomes from a geochemistry analysis, landform and cover modelling, and a revision of the closure cost estimate. Remediation of the Teutonic Bore site continued in FY18 and IGO held a number of meetings with the DMIRS to progress a collaborative rehabilitation program.

#### **ESTIMATED COST OF CLOSURE**

Nova Operation	\$35,424,016
Tropicana Operation	\$20,209,887*
Long Operation	\$5,632,563
Total	\$61,266,466

\* This figure represents IGO's 30% share.

Note: Jaguar Operation's closure costs at date of divestment were \$12,745,551. However, they were not accounted for in IGO liabilities at the end of FY18 due to its divestment.

In FY18, IGO's closure cost estimates were independently audited as part of the annual financial audit conducted by BDO Audit (WA) Pty Ltd. IGO also undertook an internal review of Tropicana's mine closure cost estimate. IGO anticipates its MCPs will be made publically available through the DMIRS's website following approval.

#### **MINE REHABILITATION FUND**

IGO, like many other mining companies, pays a Mining Rehabilitation Fund Levy to the Government of Western Australia for the purpose of funding the closure of abandoned mine sites; these being sites where liability rests with the state because of business failure or other historic reasons (refer to www.dmp. wa.gov. au/19344. aspx). In FY18, IGO's levy payments totalled \$217,183.

# CASE STUDY / ENVIRONMENT

## TEUTONIC BORE (JAGUAR)

IGO assumed liability for various parts of the Teutonic Bore rehabilitation works following the purchase of the Jaguar Operation in 2011. Across FY17 and 18, over 400t of scrap steel was removed for recycling. Additionally, over 100t of old conveyor belt was transported to Perth for repurposing as liner for piggeries, stables and trailers.

Following these clean-up works, botanists have been contracted to conduct an assessment on weed species occurring at the Jaguar mine site.

Pastoral, exploration, mining and other anthropogenic activities in the region over previous decades have facilitated weed introductions and proliferation. The scope of these works was to enhance the level of knowledge regarding weeds at a local scale, geospatially record the distribution of weeds detected across the site, and highlight high-risk areas for weed occurrence. This survey was very successful in identifying some focus areas for ongoing weed control, and establishing prioritisation to 1) eradicate weed species from tenure, and 2) prevent proliferation of weed populations from isolated source populations. It also assisted in identifying a weed species of national significance - the prickly pear - with a management program now underway.

In FY18, Jaguar Operation initiated an Intermediate Bulk Container (IBC) reuse, re-purpose program, aimed at ensuring IBC's that are in good condition are being reused by suppliers and avoiding landfill. Similarly, over \$100,000 has been spent at the Jaguar Operation to improve bunding and concrete areas to contain potential spills.



# MATERIALS STEWARDSHIP

Responsible consumption and production

IGO's approach to materials stewardship has three elements: resource stewardship, process stewardship and product stewardship.

Resource stewardship is the process of maximising the benefits derived from the resource over its entire lifetime while minimising or mitigating the resultant negative impacts. The obvious focus of resource stewardship in the mining context is ore recovery and the avoidance of activities that will likely result in the 'sterilisation' of ore (i.e. doing something that is likely to permanently render an ore source as sub-economic to mine). However, resource stewardship extends over a wide range of materials including the natural resources on the lands surrounding and controlled by mining companies, the topsoil and biomass cleared from a site prior to the commencement of

mining, the management of the waste rock extracted during mining, and the management of other wastes including tailings. Resource stewardship is central to IGO's day-to-day environmental management (see Figure 33).

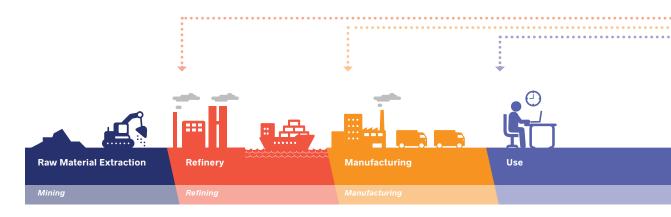
Process stewardship is the set of activities required to ensure that we maintain effective control over our mining-related activities to maximise socio-economic benefits while minimising or mitigating the negative impacts. It specifically includes the way in which we manage process inputs such as water, power and other process consumables.

Product stewardship is the process by which the producer controls or seeks to influence how their product is used and ultimately disposed of. For mining companies like IGO, resource stewardship and process

stewardship are directly within our control. In the case of product stewardship (as is true for most producers of gold, nickel, copper, cobalt, zinc and silver), while we have some control in determining who the initial buyers of our products are, we effectively have no control over the materials once they enter the myriad of global manufacturing supply chains. Notwithstanding this, in general, we understand how our products are used and we know that most of their resultant forms are recyclable. Although we cannot track the individual units of metal we produce, we can speak to global recycling statistics.

Approximately 80% of the primary (not recycled) nickel consumed in the world was used in alloys such as stainless steel and approximately 6% goes into batteries (with the projected exponential growth in electric

#### FIGURE 33 **LIFE CYCLE OF METALS**



#### **ENVIRONMENTAL IMPACTS RELATED TO METAL FLOWS**

#### Air pollution

e.g. Greenhouse gas emissions are generated during production of nickel, copper and gold.

#### **Land degradation**

e.g. Land clearing and erosion lead to degradation; potential for soil contamination; impacts on post-closure land use due to open pits and mine waste.

#### **Biodiversity loss**

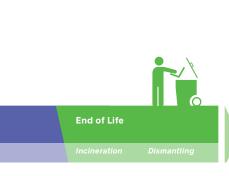
e.g. Loss of species; degradation of landscape and ecosystems.

#### Water pollution

e.g. Large consumption in mining and production can impact groundwater and surface water resources; direct discharge of contaminated water; seepage from ponds, tailings dams, or mine wastes.

vehicles, this ratio will change, as will total demand). Around 90% of end-of-life stainless steel is recycled into new stainless steel without loss of quality (see this website for more information www.worldstainless.org). The end-of-life recycling rate for all nickel is estimated between 57% and 63%, cobalt is estimated at 68% and copper between 43% and 53% (http://www.resourcepanel.org/reports/recycling-rates-metals).

Based on the latest data published by the World Gold Council (www.gold.org/research/gold-demand-trends/gold-demand-trends-full-year-2017/supply), approximately 26% of all gold supplied to the market comes from recycling. Approximately 90% of recycled gold comes from jewellery and 10% from electronic goods and industrial sources. Only about 5% of all gold ever mined is unaccounted for.



Disposal

#### Impact on human health

e.g. Metals enter the food web via plant uptake; bioaccumulation may lead to a high intake in animals and humans at the top of the food chain.



# ECONOMIC IMPACT

IGO's direct economic impact is largely centred on Western Australia. In accordance with the GRI Sustainability Reporting Standards, which requires the contextualisation of our contribution, we note the following summary statistics published by the Western Australian Government for FY17 (the most current available) and relevant financial data taken from our FY18 Annual Report.

In this section:

**WA Mining Industry** 

**FY18 Financial Performance** 

**Operating Performance** 

Customers

Socio-Economic Contributions

Spend on Goods and Services

**Contracts and Procurement** 

Taskforce on Climate-related **Financial Disclosures** 

#### **SUPPORTING OUR COMMUNITIES**

"Implementing cultural and community initiatives across IGO has only enhanced and strengthened our working relationship with our community neighbours."

#### **Carmel Jones**

Aboriginal Relations Officer, Nova Operation





# WA MINING INDUSTRY

To place IGO's production and product value into a broader context, we note the following:

Western Australia's gross state product (GSP) was \$247.7 billion in FY17; 14% of Australia's gross domestic product (GDP). Mining accounted for 29% of GSP in FY17, followed by business and property services (10%) and construction (8%). Mining Gross Value Added (GVA) rose 2% in FY17, and with its large share of GSP, contributed 0.5 percentage points to real GSP growth. Mining accounted for 71% of Western Australia's private new capital expenditure in FY18, however, new capital expenditure fell 14% to \$19.1 billion in FY18. Western Australia accounted for 63% of Australia's minerals exploration expenditure in 2017 and minerals exploration expenditure rose 20% to \$1.1 billion in 2017, mainly due to increases in gold, nickel and cobalt exploration (www.dsd.wa.gov. au/docs/default-source/default- document-library/ wa-economic-profile-0818. pdf?sfvrsn=e539721c\_4).

The value of IGO's products sold in FY18 are shown in Figure 34.

The destination and value of Western Australia's copper, lead and zinc exports (collectively denoted as base metals) and nickel exports are listed in Figure 35 and 36. Western Australia produced approximately 6% of the world's gold production and 8% of the world's nickel production in FY17. In total, Western Australia produced approximately 165,000t of nickel and 210t of gold.

#### FIGURE 34

## **IGO'S PRODUCT REVENUE FY18**

#### \$'000

Nickel	316,905
Gold	241,817
Copper	88,853
Zinc	78,913
Silver	16,043
Cobalt	23,156
Total	765,687

#### FIGURE 35

## WA'S BASE METALS EXPORTS FY17

#### \$M (%)

Total	3,509 (100)
Other	950 (27)
South Korea	746 (21)
Philippines	901 (26)
China	912 (26)

#### FIGURE 36

## WA'S NICKEL EXPORTS FY17

#### **SM** (%)

China	585 (29)
Taiwan	459 (23)
Malaysia	221 (11)
Other	720 (36)
Total	1,985 (100)



## **FY18 FINANCIAL PERFORMANCE**



Decent work and economic growth

- · Revenue and other income from Operations of \$781 million.
- Underlying earnings before interest, taxes, depreciation, and amortisation (EBITDA\*) of \$339 million.
- Net profit after tax for FY18 was \$53 million, compared to \$17 million in the previous financial year.
- Underlying free cashflow from operating activities for IGO was \$138 million.
- At the end of the financial year, the Company had cash totaling \$139 million and marketable securities of \$24 million (FY17: \$36 million and \$15 million, respectively).
- Total fully franked dividends paid during FY18 were \$11.7 million. The total amount the Company has returned to shareholders since incorporation in 2002 is in excess of \$176 million by way of a combination of \$166.2 million fully franked dividends and a \$9.7 million share buyback in 2009.
- The Company repaid \$57 million of debt, and net debt was reduced from \$164 million at the start of FY18 to \$4 million. As at 30 June 2018, IGO has cancelled it's \$200 million revolving credit facility, and renegotiated more favourable terms on our debt facilities.
- \* Underlying EBITDA is a non-IFRS measure and comprises net profit or loss after tax, adjusted to exclude tax expense, finance cost, interest income, asset impairments, gain on sale of subsidiary, depreciation and amortisation.

## **OPERATING** PERFORMANCE

FY18 was the first full year of commercial production at our Nova Operation, producing 22,258t of nickel, 9,545t of copper and 740t of cobalt, slightly below guidance. Tropicana Operation made guidance, producing a total of 467,139oz of gold (140,142oz being IGO's share), milling 7,781Mt of ore at an average gold grade of 2.11g/t. The Long Operation achieved guidance, generating 5,855t of nickel in ore, prior to being placed in care and maintenance. The Jaguar Operation produced 1,695t of copper in concentrate and 26,159t of zinc in concentrate, up to its divestment on 31 May 2018.

### **CUSTOMERS**

In FY18, IGO's key customers were:

- Perth Mint and financial institutions comprising ANZ, CBA and NAB. These collectively bought gold produced from the Tropicana Operation.
- BHP Billiton Nickel West Pty Ltd (BHP) bought nickel ore produced from the Long Operation.
- Trafigura Pte Ltd (Trafigura) bought both zinc and copper concentrate produced from the Jaquar Operation.
- Trafigura also bought copper concentrate produced from the Nova Operation.
- Both BHP and Glencore International AG bought nickel concentrate produced from the Nova Operation.

# SOCIO-ECONOMIC ONTRIBUTIONS



M Decent work and economic growth

IGO's socio-economic contributions can be measured by the dividends we pay, the salaries and other employment benefits we provide to our staff, the money we spend on contractors and consultants, the money we pay in taxes and royalties and payments made through our Corporate Giving activities.

In FY18, IGO spent a total of \$252,385 on community development and related projects and activities (Corporate Giving), which equates to 0.06% of our FY17 revenue.

IGO has a land access agreement with the Ngadju people; the native title holders of the land on which the Nova Operation is located. In compliance with this agreement, a total of \$3.04 million has now been paid to Ngadju (Figure 37).

Tropicana's current budget for community donations/support programs in 2017 was \$10.000 excluding the \$60,000 cost of cross-cultural awareness programs.

In general, mining tenement holders must pay royalties in respect of the minerals and metals they extract. Royalties are payable in arrears as they are calculated on the basis of the quantity of minerals recovered in a given year.

Royalties payable over the life of a tenement will vary depending on the rate of production. Royalty rates are set by state and territory regulatory bodies for each mineral or metal type.

IGO's royalty payments form a part of the Western Australian Government's general revenue to fund services such as law enforcement, education, health, roads and community development programs.

The Western Australian Government received royalty revenue from it's mineral and petroleum producers totaling \$6.06 billion in 2017, an increase of 28% on 2016. Although iron ore was the largest contributor, the gold sector was the second largest contributor, with royalty receipts totaling \$267 million for FY17, an increase of over 5% for the period. Other major contributors included base metals (\$67 million, 32% higher than FY16) and nickel (\$51 million, 8% higher than FY16) (www.dmp.wa.gov.au/About-Us-Careers/Latest-Statistics-Release-4081.aspx).

In FY18, IGO paid a total of \$31.5 million in tax and state royalties (see Figure 38).

#### **SOCIO-ECONOMIC CONTRIBUTIONS FY18**

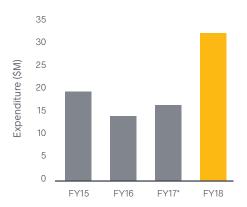
Dividends* Paid FY18 \$11.7 milli	
Salaries (excluding Tropicana Operation)	\$75.3 million
Tax and State Royalties \$31.5 mil	
Corporate Giving	\$252,385
Payments to Ngadju	\$3.04 million

<sup>\*</sup> Refer to IGO 2018 Annual Report.

#### FIGURE 37 **PAYMENTS TO NGADJU**



FIGURE 38 **TAX AND STATE ROYALTIES PAID** 



<sup>\*</sup> FY17 total excludes the \$58.2M stamp duty tax paid for Nova Operation.

## **SPEND ON GOODS AND SERVICES**



IGO supports economic development in the communities in which we operate by seeking to invest first locally, then regionally within Western Australia, then nationally and finally internationally.

At the Nova Operation, the highest value contracts are for underground mining services, fuel, drilling services, haulage, binding agents for backfill and catering services. Similarly, these services and materials are sourced from large, reputable organisations with operations in Australia.

At the Long Operation, our highest value contracts were our off-take agreements with BHP, which processes IGO concentrate, diamond drilling and fuel.

At the Jaguar Operation our highest value procurement contracts were our transport contracts, underground mining and drilling services, fuel, gas and catering services. These services and materials are sourced from large, reputable organisations with operations in Australia.

FIGURE 39 **SPEND ON GOODS AND SERVICES** 



#### CASE STUDY / CONTRACTORS

## IT'S NOT ALL **GOOD NEWS**

In accordance with IGO's Aboriginal Employment and Business Development Standard (www.igo.com.au), IGO is committed to supporting both a pathway to employment and the creation of real employment opportunities for Aboriginal people, and in particular, the Traditional Owners on whose land IGO operates. Specifically, IGO endeavours to:

- support education, vocational and job readiness
- promote employment opportunities
- implement a supportive pre-employment process
- apply a preferential selection process
- promote a culturally sensitive workplace.

To date we have had some notable successes of which all involved can be very proud. However, we, like others with similar good will, have faced significant challenges.

With regard to direct employment by either IGO or our contractors at our Nova Operation, it has remained an ongoing challenge to find Ngadju candidates who are fit and work-ready, or post-employment, are willing or able to meet the demands of life on the mine. This in no way is intended to call into question the character of those involved. Rather, this situation is often the cumulative product of Ngadju's shared history since colonial times. Whilst we cannot speak to quantitative metrics, it is self-evident to even the casual observer that the Ngadju people have and continue to suffer disproportionately from privations associated ill health, poor education, poverty, cultural disaffection and all too often, a reduced life expectancy. This knowledge informs our approach to those individuals who seek employment, and to the support we offer to the 19 Traditional Owners whom are our work mates

With regard to our support of small businesses run by or co-owned by Traditional Owners, again we can also point to success stories (as reported in our previous sustainability reports). But to suggest there is only good news would be disingenuous. Starting in FY16, IGO aided a small start-up business which provided services to the Nova Operation as a subcontractor. IGO provided the enterprise with ongoing support, an interest free loan, and the gift of minor capital items. However, like many small businesses, the company in question struggled with staff retention and hence quality and reliability of service. In FY18, after careful consideration, their contract was discontinued. The affected employees were offered jobs with the primary contractor and the loan was forgiven. In noting this matter, our intention is only to acknowledge the challenges IGO faces in supporting such start-up businesses, and in no way is intended to besmirch the good name of those involved.

To conclude, the good news outweighs the bad. We continue to think it is important to honestly address the challenges. As noted at the outset, IGO remains committed to meeting this challenge.





Sustainable cities and communities

#### **IN FY18 OUR TOP TEN SUPPLIERS OR SERVICE PROVIDERS BY EXPENDITURE WERE:**

#### **NOVA OPERATION**

1	Barminco Ltd
2	BP Australia Pty Ltd
3	Swick Mining Services Ltd
4	Qube Bulk Pty Ltd
5	Cockburn Cement Ltd
6	Cater Care Services Pty Ltd
7	Hudson Shipping Lines Inc
8	HiSeis Pty Ltd
9	Zenith Pacific Pty Ltd
10	CV Lomag JV

#### **LONG OPERATION**

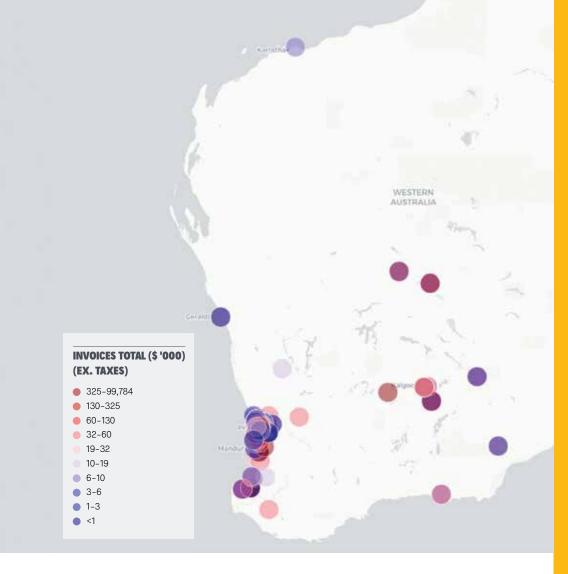
1	BHP Nickel West Pty Ltd
2	Little Industries Pty Ltd
3	BP Australia Pty Ltd
4	Blue Tiger Mining Pty Ltd
5	BGC (Australia) Pty Ltd
6	LHS Rocktools Aust Pty Ltd
7	Orica Australia Pty Ltd
8	WesTrac Pty Ltd
9	Adroit Mining Services Pty Ltd
10	Fero Strata Systems Pty Ltd

#### **TROPICANA OPERATION**

1	Macmahon Contractors Pty Ltd	
2	Caltex Australia Ltd	
3	APA Operations Pty Ltd	
4	Civmec Construction & Eng Pty Ltd	
5	Blue Spec Drilling Pty Ltd	
6	Compass Group (Aust) Pty Ltd	
7	Pacific Energy (KPS) Pty Ltd	
8	CSBP Ltd	
9	Moly-Cop Australia Pty Ltd	
10	FLSmidth Pty Ltd	

#### **JAGUAR OPERATION**

1	Qube Bulk Pty Ltd	
2	Westrac Equipment Pty Ltd	
3	BP Australia Pty Ltd	
4	Action Industrial Catering Pty Ltd	
5	Sandvik Mining Pty Ltd	
6	Swick Mining Services Ltd	
7	Bundarra Contracting Pty Ltd	
8	Goldfields Gas Transmission Pty Ltd	
9	Orica Australia Pty Ltd	
10	Redpath Contract Services Pty	



#### **NOVA CONTRACTOR LOCATION NOVA CONTRACTOR LOCATION** (COUNT) (PERCENTAGE SPEND) 2% 4% 15% 21% **62**% 6% 88% LONG CONTRACTOR LOCATION **LONG CONTRACTOR LOCATION** (PERCENTAGE SPEND) (COUNT) 1% 0% 38% 28% 14% 6% 47% 66% **JAGUAR CONTRACTOR LOCATION JAGUAR CONTRACTOR LOCATION** (COUNT) (PERCENTAGE SPEND) 14% 16% 10% 14% 14% **56**% 10% **65**% LOCAL WA **AUSTRALIA** INTERNATIONAL

# CONTRACTOR MANAGEMENT

From time-to-time, IGO engages contractors (as both businesses and individuals) to provide various services at our operations, exploration projects, warehouses and offices. When contractors are at an IGO site, their safety and welfare is IGO's responsibility.

Subject to contractual arrangements, IGO may require a contractor to also operate in accordance with its own safety management system. Irrespective of the arrangement, IGO expects that its contractors provide their workforce with a safe system of work and a safe place of work. We expect our contractors to monitor and report on their performance, and we expect to see improved trends in measured outcomes. Put simply, we expect to see the same high standards we require of our direct employees, with no serious workplace injuries and a declining trend in minor injuries.

Our major contractors have requirements in their contracts consistent with the IGO Code of Conduct and Sustainability Standards. Our contractors are required to undertake a comprehensive program of IGO and work site inductions in order to develop a clear understanding of the requirements for working at our sites.

All contractors working at IGO sites are provided with an IGO representative to manage their contract. This provides IGO with a direct opportunity to maintain ongoing sustainability management.

# TASKFORCE ON IMATE-RELATED NANCIAL DISCLOSURES



IGO accepts the position expressed by the Intergovernmental Panel on Climate Change, in its Fifth Assessment Report (Cambridge University Press 2014) that continued emission of greenhouse gases will cause further global warming and that warming above 2°C, relative to the preindustrial period, could lead to catastrophic economic and social consequences. The largescale and long-term nature of the risk makes it uniquely challenging, especially in the context of economic decision-making. Moreover, the current understanding of the potential financial risks posed by climate change - to companies, investors and the financial system as a whole - is still poorly understood.

In response to this challenge, the Task Force on Climate-related Financial Disclosure (TCFD) was established to develop voluntary, consistent climate-related financial risk disclosures to enable companies to provide information to investors, lenders, insurers and other stakeholders. In June 2017, the task force released a report on the recommendations pertaining to climate-related financial disclosures (refer to https://www.fsb-tcfd. org/wp-content/uploads/2017/06/FINAL-TCFD-Report-062817.pdf). Like numerous other large businesses, IGO explicitly supports the task force's recommendations. Given this, IGO has committed to the completion of a work program, as summarised in Figure 40, that will result in IGO quantifying climate related financial risk for use in public reporting.

Further, in FY18, IGO's Sustainability and Risk Committee (SusCom) and IGO's Executive Committee (ExCo), specifically considered climate change risk as part of IGO's quarterly review of business-critical risk. Three general categories of risk were considered:

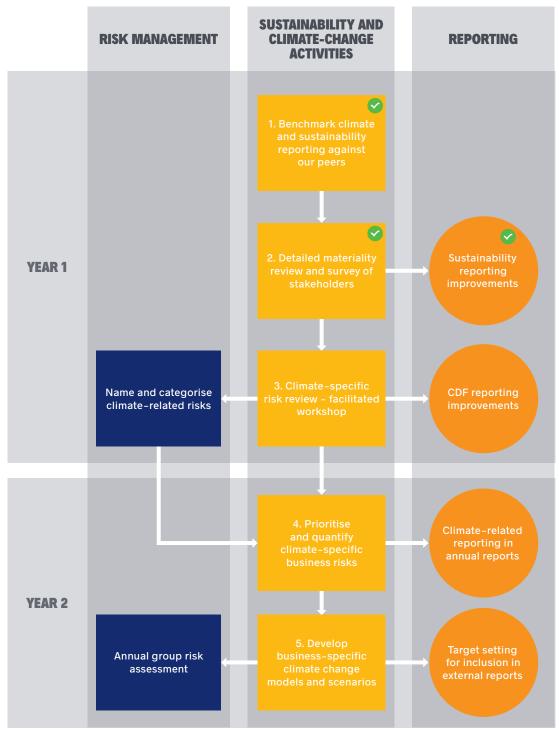
- Physical risks (arising from the increased frequency and severity of climate and weatherrelated events that damage property and disrupt trade).
- Liability risks (stemming from parties who have suffered loss from the effects of climate change seeking compensation from those they hold responsible).
- Transition risks (risks arising from the sudden and or disorderly adjustment to a low carbon economy).

SusCom and ExCo jointly concluded that the first two categories of risk are unlikely to pose a material threat to IGO's business in the short to medium term (one to ten years). However, IGO is currently exposed to transitional risks, as are all Australian businesses and the broader community. This is particularly relevant given the ongoing uncertainty regarding the Government's policy to give effect to its stated Paris Agreement commitments on greenhouse gas emission reduction targets. Importantly, although it is IGO's assessment that the transition risks are real, they are unlikely to be material. (For information on how IGO's assesses the materiality of risk, refer to Information Box: Risk Management at IGO on page 32).

#### FIGURE 40

### **CLIMATE CHANGE RISK MANAGEMENT AT IGO**





Indicates activity has been completed



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#### ASSURANCE PRACTIONER REPORT ON LIMITED ASSURANCE ENGAGEMENT RELATING TO SUSTAINABILITY REPORTING

To the Directors of Independence Group NL

#### Conclusion

We have undertaken a limited assurance engagement on the subject matter, as detailed below and presented in the Independence Group NL's Sustainability Report (the report) for the period 1 July 2017 to 30 June 2018.

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the subject matter, as detailed below and presented in the report for the year 1 July 2017 to 30 June 2018 is not presented fairly in accordance with the criteria as presented below.

#### Subject matter and criteria

The subject matter and criteria for our limited assurance engagement included the following for the period 1 July 2017 to 30 June 2018:

Subject matter	Criteria
Socio economic contributions -     Corporate Giving, Expenditure to     Ngadju and Scholarships	<ul> <li>Independence Group NL's assessment of general accordance with the Global Reporting Initiatives ('GRI') G4</li> <li>Sustainability Reporting Guidelines, as a benchmark for the</li> </ul>
Lost time injury frequency rates     (LTIFR)	FY18 Sustainability Report.     Independence Group NL's own criteria for the non-financial
Estimated closure costs -     Rehabilitation costs	performance metrics detailed within the report
Greenhouse gas emissions - Scope     1 & Scope 2 Emissions	

#### Management's responsibilities

The management of Independence Group NL is responsible for the preparation of the Sustainability report in accordance with criteria as set out by Independence Group NL and for the selection of the sustainability information to be assessed.

The responsibility of the company's management includes the selection and application of appropriate methods to prepare the Sustainability report as well as the use of assumptions and estimates for individual sustainability disclosures which are reasonable under the circumstances. Furthermore, the responsibility of management includes the maintenance of the system of internal controls for the preparation of the Sustainability report, which is free of material, intended or unintended, misstatements.

#### Our independence and quality control

We have complied with the independence and other relevant ethical requirements relating to assurance engagements, and apply Auditing Standard ASQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagements in undertaking this assurance engagement.

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#### Assurance practitioner's responsibilities

Our responsibility is to express a limited assurance conclusion based on our work performed on the Sustainability report of Independence Group NL.

We conducted our limited assurance engagement in accordance with the Standard on Assurance Engagements ASAE 3000: Assurance Engagements Other than Audits or Reviews of Historical Financial Information. That standard requires that we comply with ethical requirements, including professional independence requirements, apply Auditing Standard ASQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagements and plan and perform our procedures to obtain limited assurance about whether any matters come to our attention that causes us to believe that the disclosures relating to the subject matter in the report of the company for the year 1 July 2017 to 30 June 2018 has not been prepared with reference to the Global Reporting Initiative ('GRI') G4. This does not mean that separate conclusions are expressed for each subject matter.

In a limited assurance engagement, the evidence gathering procedures are more limited than for a reasonable assurance engagement, and therefore significantly less assurance is obtained than in a reasonable assurance engagement. The procedures selected depend on our judgement.

In forming our conclusion on the subject matter, we performed, amongst others, the following procedures:

- Obtaining an understanding of the structure of the sustainability organisation and of the stakeholder engagement;
- Make enquiries of personnel involved in the preparation of the sustainability report regarding the
  preparation process, the underlying internal control system and selected sustainability
  information;
- Analytical procedures on selected sustainability information of the Sustainability report;
- Agreeing Socio-Economic contributions to supporting documentation;
- Performing analytical procedures on Scope 1 and Scope 2 emissions, and agree to work performed by external consultant;
- Assessing reasonableness of Lost Time Injury Frequency rate, including the underlying inputs;
- Comparison of selected sustainability information with corresponding data in the Consolidated Financial statements and in the group management report; and
- Assessing the presentation of selected sustainability information regarding the sustainability performance.

BDO Audit (WA) Pty Ltd

BDO

Phillip Murdoch

Director

Perth, 24 October 2018

## **APPENDICES GRI CONTENT INDEX**

The table below cross-references the general standard disclosure requirements of the GRI reporting standards with the contents of this report.

#### General standard disclosures

General Standard Disclosures	Page Number (or Link)
STRATEGY AND ANALYSIS	
GRI 102-14	2-3
ORGANISATIONAL PROFILE	
GRI 102-1	Inside cover, 8
GRI 102-2	8, 26-29
GRI 102-3	Inside cover
GRI 102-4	27, 36, 38, 40-41
GRI 102-5	28
GRI 102-6	27, 90-95
GRI 102-7	36-41, 46-48, 99-100
GRI 102-8	52-57, 99-100
GRI 102-9	27-29, 89-93
GRI 102-10	27-29, 89-93
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The following table has been developed to aid the crossreferencing of IGO's material issues (as determined in this report) to GRI reporting standards.

#### Specific standard disclosures

Material Topics	Page Number (or Link)
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GRI 303-1	78-79, 99
GRI 303-3	78-79
Material Aspect: Biodiversity	
GRI 304-1	65, 70-73
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CATEGORY: SOCIAL	
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GRI 409-1	33
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GRI 413-1	62-67, 90
GRI 413-2	27

## **IGO PARAMETERS**

Parameter	Value	Unit
INDEPENDENCE GROUP (COI	MBINED)	
Size of IGO Workforce (including contractors)	612	count
INPUTS		
Labour	2,039,925	h
Ore Mined	5,244,000	t
Electricity	140,392	MVVh
Gas	493,400	GJ
Diesel	28,799,250	L
Ground Support	3,222	t
Explosives	2,328	t
Cement	9,792	t
Grinding Media	1,449	t
Water	3,259,480	kL
Reagents - Copper Sulphate	283	t
Lubricants and Oils	220,350	L
EMISSIONS		
IGO Carbon Dioxide (Scope 1 and Scope 2)	117,686	CO2-et
IGO Scope 1 Emissions	103,644	CO2-et
IGO Scope 2 Emissions	14,042	CO2-et
Carbon Monoxide	397,743	kg
Oxides of Nitrogen	856,820	kg
Sulphur Dioxide	570	kg
Volatile Organic Compounds	40,452	kg
Particulate Matter (<10um)	868,973	kg
Particulate Matter (<2um)	44,902	kg
PRODUCTS		
Ni in Ore Delivered	5,855	t
Cu in Ore Delivered	394	t
Ni in Concentrate	22,258	t
Cu in Concentrate	11,240	t
Zn in Concentrate	26,159	t
Ag in Concentrate	1,067,400	OZ
Au in Concentrate	1,226	OZ
Au in Bullion	140,142	OZ
REHABILITATION		
New rehabilitation	100.74	ha
WASTE		
Tailings (dry)	1,667,449	t
Waste Rock	934,789	t
	,	

Note: These figures do not include inputs and outputs from Tropicana Operation, with the exception of IGO's 30% share of gold output and ore mined, which is included.

Parameter	Value	Unit
NOVA OPERATION		
Remaining Mine Life	8+	years
Total Disturbed Area	456	ha
Tenement Area	8,737	ha
Percentage of FIFO Workforce	97.5	%
Ore Mined	1,511,920	t
Waste Mined	748,808	t
CONSUMABLES		
Underground Dewatering	1,848,000	kL
TROPICANA OPERATION		
Remaining Mine Life	10	years
Total Disturbed Area	3,266	ha
Ore Mined	10.45	Mt
Waste Mined	76.54	Mt
IGO's Gold Share Produced	140,142	OZ
Tailings Produced	7.63	Mt
CONSUMABLES		
Underground Water Abstraction	5,533,000	kL
LONG OPERATION		
Remaining Mine Life	Care and Maintenance	
Total Disturbed Area	102	ha
Percentage of FIFO Workforce	50	%
Ore Mined	181,822	t
Waste Mined	22,712	t
CONSUMABLES		
Underground Dewatering	272,449	kL
Water Discharged to Lake Lefroy	204,790	kL
JAGUAR OPERATION		
Total Disturbed Area	309	ha
Ore Mined	411,219	t
Waste Mined	163,269	t
CONSUMABLES		
Underground Dewatering	1,139,000	kL
Water Discharged to Teutonic Bore Pit	302,000	kL

## IGO PARAMETERS CONT'D

Parameter	Value	Unit	Parameter
ECONOMIC IMPACT			DMIRS Improvem
Value of IGO's Products - Revenue	765.7 million	AUD	Notices Received  DMIRS Prohibitio
IGO Gold Sales (FY18)	241.8 million	AUD	Notices Received
IGO Nickel Sales (FY18)	316.9 million	AUD	SOCIAL IMPACT
IGO Exploration Expenditure	45.4 million	AUD	<ul><li>Number of IGO D</li><li>Employees</li></ul>
FINANCIAL PERFORMANCE			Number of IGO C
Underlying Earnings (EBITDA)*	338.6 million	AUD	Percentage of Fe
Net Profit After Tax	52.7 million	AUD	Employees
Net Cash and Cash Equivalents	138.7 million	AUD	Percentage of Ma Employees
Total Fully-Franked Dividends Paid in FY18	2.0 cents/share	AUD	Aboriginal Direct
Final Dividend Paid FY18	11.8 million	AUD	LAND AND BIOD
SAFETY			Nova Land Distur
IGO Employee Hours Worked	2,039,926	h	NOVA LANG DISTUR
LTIFR	2.39	rate	– Nova Rehabilitati
No. of Injuries at IGO	226	count	
No. of Injuries at Tropicana	174	count	Long Land Distur
Restricted Work Injury (RWI)	28	count	Long Land Distur
Lost Time Injury (LTI)	5	count	<ul> <li>Long Rehabilitation</li> </ul>
Medically Treated Injury (MTI)	7	count	
IGO Workers Compensation Claims	24	count	- Jaguar Land Distu
TRANSPORT			
Nova Operation - No. of trucks received per year	2,774	count	- Jaguar Rehabilita 
Long Operation - No. of trucks received per year	200	count	Tropicana Land D
Jaguar Operation - No. of trucks received per year	230	count	Tropicana Rehab
Tropicana Operation - No. of trucks received per year	1,785	count	Exploration Land
SOCIO-ECONOMIC CONTRIB	UTIONS		Exploration Reha
Salaries (excluding Tropicana)	75.3 million	AUD	ENERGY CONSU
Tax and State Royalties			Nova Operation
ncluding IGO's part of 31.5 million	AUD	Long Operation	
	picana)		Jaguar Operation
Corporate Giving	252,385	AUD	Tropicana Operat
Expenditure to Ngadju Spend on Goods	3.04 million 414.9 million	AUD	
and Services	414.9 million	AUD	

Parameter		Value	Unit	
DMIRS Improvement Notices Received		count		
DMIRS Prohibition Notices Received		1	count	
SOCIAL IMPACT				
Number of IGO Direct Employees		246	count	
Number of IGO Contractors		366		
Percentage of Female Employees		31		
Percentage of Male Employees		69	%	
Aboriginal Direct Employment		20	count	
LAND AND BIODIVERSITY M	IANAGEMI	ENT		
Nicolar d Biol	Total	457	ha	
Nova Land Disturbance	FY18	16	ha	
	Total	109	ha	
Nova Rehabilitation	FY18	2	ha	
Long Land Disturbance	Total	101	ha	
	FY18	0	ha	
Lance Balante 1991 at 12	Total	4	ha	
Long Rehabilitation	FY18	0	ha	
laguar Land Disturbance	Total	309	ha	
Jaguar Land Disturbance	FY18	152	ha	
laguar Dahahilitatian	Total	20	ha	
Jaguar Rehabilitation	FY18	1	ha	
Tropicana Land Disturbance	Total	3,267	ha	
	FY18	119	ha	
Tropicana Pohabilitation	Total	224	ha	
Tropicana Rehabilitation	FY18	10	ha	
Exploration Land Disturbance	FY18	648	ha	
Exploration Rehabilitation	FY18	87	ha	
ENERGY CONSUMPTION				
Nova Operation		1,235,770	GJ	
Long Operation		113,304	GJ	
Jaguar Operation		746,413	GJ	
Tropicana Operation		4,757,259	GJ	

**STATUTORY COMPLIANCE** 

Underlying EBITDA is a non-IFRS measure and comprises net profit or loss after tax, adjusted to exclude tax expense, finance costs, interest income, asset impairments, gain on sale of subsidiary, depreciation and amortisation.

