

# **CEO's Overview**

Independence Group Managing Director Chris Bonwick said: "The Company is now in the strongest position it has ever been in since its float in 2002. Its cash and debt positions are very sound. We are celebrating the tenth anniversary of acquiring the Long Nickel Mine in WA with above budget production. The Tropicana Gold Mine in WA is now three-quarters of the way to completion, costs are being well managed and the Mine is on target for precommissioning in the September 2013 Quarter and the commencement of production in the December 2013 Quarter".

"The Tropicana Gold Project, in which Independence Group holds a 30% interest, continues to impress and is on track to be a major driver of the Company's growth", said Mr Bonwick. "Planned gold production in the first three years remains in the range of 470,000 - 490,0000 pa (100% project), with the Company's share being 141,000 - 147,0000 pa at a presently forecast cash cost of between A\$590/oz - A\$630/oz. Forecast mine life is more than eleven years".

# **Key Highlights**

- 10<sup>th</sup> Anniversary of acquiring the Long Nickel Mine for \$15 million in October 2002, which to date has generated EBITDA of \$710 million and enabled dividends of \$86.7 million to be paid.
- Robust \$8.8 million profit after tax (unaudited) for the Quarter (December 2012 half year unaudited profit after tax: \$16.3 million).
- \$102.1 million cash as at 31 December 2012 and debt of \$16.2 million (HP lease obligations and a silver loan).
- Tropicana Gold Project JV ("Tropicana") (IGO 30%) construction activities are on schedule for pre-commissioning in the September 2013 Quarter and the commencement of production in the December 2013 Quarter. Key progress during the Quarter included passing the 75% milestone to Project completion. Onsite treatment plant and infrastructure construction achieved 56% completion by the end of 2012.
- Estimated capital expenditure on the Tropicana Gold Mine has increased to between A\$820 A\$845 million (100% Project), an 11% increase on the mid-point of the Capex range at the time of Project approval in November 2010. In the context of an overheated Western Australian resources construction market and very significant cost overruns by other resources project, completion of the Project in this cost range would be a favourable outcome.
- Cash costs of gold production of the Tropicana Gold Mine are presently forecast in the range of A\$590/oz A\$630/oz during the first three years of operation.
- The Tropicana Mineral Resource estimate was increased during the Quarter by 23% with the addition of a further 1.48M gold ounces to a total of **7.89M ounces of contained gold** (100% Project).
- Initial Stockman Project Ore Reserve estimate of 8.4Mt @ 2.3% Cu, 4.3% Zn, 39g/t Ag and 1.1g/t Au. Feasibility Study successfully completed. Enhanced Feasibility Study to follow.
- Above budget production from Long Operation at a higher grade of 4% nickel.
- Jaguar Operation above budget production and falling cash costs (\$0.41/lb Zn). Significantly improved cashflow due to higher head grade and 30% positive Ore Reserve reconciliation from the Bentley Mine. Scope for further cash cost reduction.
- Subsequent to the end of the Quarter 18 metres of massive sulphides containing pyrite, copper and zinc rich sulphides was intersected beneath the BigFoot prospect at the Stockman Project. Results awaited. Drilling intercepted sulphides above the new TEM conductor which is currently being drill tested. The significance is yet to be determined.

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# Mining Operations (IGO 100%)

# Long Operation: Kambalda, WA (Ni)

- Production: Quarter: 65,770t @ 4.0% Ni for 2,645t Ni @ A\$4.84/lb payable Ni cash costs and royalties. (Budget: 63,207t @ 3.6% Ni for 2,289t Ni @ A\$4.78/lb payable Ni cash costs and royalties).
- Exploration: Intersection of 9.7m @ 3.7% Ni 250m south of the June 2012 McLeay Mineral Resource boundary.

# Jaguar Operation: Leonora, WA (Cu, Zn, Ag)

- Production: Quarter Milled: 93,085t @ 11.2% Zn, 1.6% Cu, and 162g/t Ag for 8,962t Zn & 1,207t Cu @ A\$0.41/lb payable Zn cash costs and royalties. (Budget 89,690t @ 12.1% Zn, 1.8% Cu & 136g/t Ag for 8,413t Zn, 1,306t Cu @ A\$0.47/lb payable Zn cash costs).
  - Bentley Mine reconciliation outperforms Ore Reserve estimate by +30% on an ore tonne basis.
  - The Jaguar Mine was put on care and maintenance, as planned. All ore is now solely sourced from the Bentley Mine.
- Exploration
- Large high order base metal anomaly and gold intercept of 12m @ 1.0g/t Au identified from aircore drilling south of Bentley Mine.
  - High grade copper (possible feeder zone) discovered at Bentley, close to existing development, with 11 holes intersecting chalcopyrite mineralisation. Assays are awaited.

# **Project Under Construction: Highlights**

# Tropicana Gold Project: New Gold Province, South Eastern WA (Au)

Joint Venture: IGO 30%, AngloGold Ashanti 70% (Manager)

- Tropicana Gold Mine development continued to meet scheduled milestones, achieving an overall project completion of 75%. Onsite treatment plant and infrastructure construction achieved 56% by the end of 2012.
- Key plant construction activity included completion of primary crusher civil works, installation of crushed ore stockpile reclaim and egress tunnels, erection of secondary and tertiary crushing and grinding structures, CIL tanks and thickeners.
- Equipment installation activity included conveyors, secondary crushers and associated bins, shoots, feeders and screens, reagent storage and mixing facilities together with commencement of the gold elution circuit.
- Project raw water supply system was brought online following Minigwal Trough Borefield pump station commissioning and burial of associated 46km borefield pipeline.
- 24/7 mining operations commenced, achieving material movement of 20-25,000BCM per day.
- Grade control activities in the Havana Pit intersected near surface mineralisation consistent with expectations.

# Project at Feasibility Study Stage: Highlights

## Stockman Project: Omeo, Victoria (Cu-Zn-Ag-Au)

(IGO 100%)

- Work on the Feasibility Study concluded and the Enhanced Feasibility Study commenced to capture new, nearby, high grade gold, VMS discovery. Feasibility Study highlights included:
- Initial Ore Reserve estimate: 8,432,000t @ 2.3% Cu, 4.3% Zn, 39g/t Ag and 1.1g/t Au.
- Mine Life: 8.4 years.
- Life of Mine Cash Costs: C1 Cash costs and royalty = \$1.76/lb Cu net of credits\*#
- Cash Costs at nameplate Plant Capacity: C1 Cash costs and royalty = \$1.55/lb Cu net of credits\*#
- Annual Payable Metal: 15,900t Cu, 25,200t Zn, 454,000oz Ag and 4,900oz Au.#
- LOM Payable Metal: 144,000t Cu, 229,000t Zn, 4.1Moz Ag and 44,000oz Au.#



Independence Group

- Pre-production capital including commissioning: \$53.6 million Mining, \$157.9 million Plant and \$79.2 million Infrastructure (\$290.7 million total).\*
- Financials: \$540.8 million Net Operating Cashflow and 5 years pay back (likely to fall following completion of Enhanced Feasibility Study).\*
- Price and exchange rate assumptions: \$8,069/t Cu, \$2,072/t Zn, \$32.32/oz Ag, \$1,687/oz Au and 1.05 \$US:\$A exchange rate.
- Permitting tasks further progressed with plan to submit permitting documents in mid-2013.
- In recent days drilling intersected18 metres of massive sulphides immediately along strike and beneath the BigFoot
  mineralised horizon adjacent to Currawong. Mineralisation was pyrite rich, although copper and zinc rich sulphides
  were also noted. The intercept was approximately 20m undip of the targeted "DeepFoot" DHEM conductor. Followup drilling to test the conductor and define the extent of mineralisation continues. (See Figure 13) Assay results are
  awaited. The significance is yet to be determined.

\* Financial calculations have been based on Flat Forward (Real) Price Assumptions defined above and real cash costs. # See also footnote # to Table 15.

# **Project at Scoping Study Stage: Highlights**

## Karlawinda Project: Newman, Western Australia (Au)

(IGO 100%)

- Scoping Study is well advanced, examining open pit mining and 2-3Mtpa processing options.
- Cyanidation testwork Au recoveries achieved to date have been 90% to 93% for Oxide and Primary Ore Carbon-In-Leach and an excellent 73% to 75% for Oxide Ore Heap Leach.
- KBD039 10.6m @ 2.0g/t Au from 127m (including 3.6m @ 4.7g/t Au) and 2.3m @ 12.2g/t Au (including 0.35m @ 67.8g/t Au).
- KBRC242 5m @ 8.0g/t Au from 57m (including 1m @ 16.8g/t Au) and 20m @ 1.6g/t Au from 65m.
- KBRC248 9m @ 4.7g/t Au from 57m (including 1m @ 37.1g/t Au) and 10m @ 1.6g/t Au.
- KBRC263 6m @ 6.7g/t Au from 78m.

# **Project Locations**



Figure 1: Independence Group - Mining Operations and Major Project Locations



# Corporate

# **Profit And Loss**

**Unaudited profit after tax for the Quarter was \$8.8 million (YTD \$16.3 million).** Unaudited underlying EBITDA<sup>1</sup> for the Quarter was \$18.1 million (YTD \$34.0 million).

# **Issued Capital**

232,882,535 ordinary shares.

## **Current Cash Balances**

At the end of the Quarter, the Company had \$102.1 million cash (September 2012 Quarter: \$146.9 million).

## **Cash Flows**

Material cash flows during the Quarter included: Inflow

- \$22.0 million net inflow of cash from operating activities.
- \$1.1 million of bank interest revenue.

Outflow

- \$46.6 million contributions to the Tropicana JV for project development and exploration.
- \$7.4 million spent on Long, Jaguar/Bentley, Karlawinda and regional exploration.
- \$0.9 million spent on plant and equipment.
- \$1.5 million spent on the Stockman Feasibility Study, permitting and resource upgrade activities.
- \$6.6 million for capitalised development costs (Long \$2.4 million and Bentley \$4.2 million).
- \$4.9 million net repayment of borrowings.

### Debt

The Company had debt at the end of the Quarter of \$16.2 million (September 2012 Quarter: \$21.4 million) comprising finance lease obligations of \$13.9 million and a silver loan of \$2.3 million.

The Company is close to finalising a corporate facility with an Australian bank with an initial term of three years. The standby facility will provide the Company with funds for Tropicana purposes (including potential expansion and enhancement studies) and for general corporate purposes. Once finalised, facility details will be released to the market in a separate ASX release.

## Hedging

Total hedged nickel metal at the end of the Quarter was 2,200 tonnes (average price of A\$23,226/t) comprising 1,200 tonnes at an average of A\$26,830/t, scheduled to be delivered by June 2013 at 200 tonnes per month and 1,000 tonnes at an average of A\$18,900 per tonne due for delivery between February 2014 and June 2014.

Zinc metal is currently unhedged. At the end of December the Company had 1,100 tonnes of copper hedged at US\$7,985 per tonne, expiring 31 January 2013.

<sup>&</sup>lt;sup>1</sup> Underlying EBITDA is a non-IFRS measure and comprises net profit after tax, adjusted for tax expense, finance costs, interest income, depreciation and amortisation.



# **Project Under Construction**

Tropicana JV (IGO 30%, AngloGold Ashanti Australia Limited 70%, Manager), WA

## **Project Development**

Tropicana Gold Mine construction and pre-operations activity during the December 2012 Quarter consistently met scheduled development milestones towards "first gold" production expected in the December Quarter 2013. Overall project delivery milestone of 75% completion was passed, whilst on-site construction achieved 56% completion (Photos 1, 2 & 3). All project construction design, engineering, contracts, procurement and off-site manufacture were completed by 2012 year end.

Following the completion of earthworks and the concrete cast pours, the focus of plant construction moved to structural steel, mechanical and pipework installation. Major activities for the Quarter included:

- Primary crusher vault and conveyor tunnel installation and backfill to design height.
- Primary crushed ore stockpile reclaim and egress tunnels, secondary crushing and screening circuit structure installation.
- Secondary crushing circuit installation, including conveyors, two 600kW cone crushers and associated bins, screens, chutes and feeders.
- CIL tank completion, with associated pipework and launder installation well advanced.
- Leach feed and tailings thickener installation, including respective bridges, electrical drives, pumps and pipework.
- Grinding and screening structures erected and ball mill shell sections installed for the 14MW grinding facility.
- Installation of reagent storage, mixing and associated process stream delivery system commenced.
- Gold elution circuit installation began, including pipework, carbon quench tank, heat exchangers and gold room facilities.

The high pressure grinding roller (HPGR) tertiary crushing structure was well advanced by 2012 year end. The HPGR crusher unit, together with associated bins, feeders and conveyors, is on site, available for installation.

The electrical and instrumentation contractor was mobilised to site in November 2012, with immediate commencement of pre-fabricated switchroom and high voltage overhead power line installation.

Tropicana Village was completed in November 2012, with over 820 rooms to support peak on site construction activity requirements in coming months.

Tails Storage Facility wall construction commenced in December 2012, following regulatory approval and mobilisation of the construction contractor.

Minigwal Trough Borefield 46km overland trunkline to Tropicana Mine Site was pressure tested and buried during the Quarter. Remote pump station and support infrastructure completion brought raw water supply online by the end of 2012.

Power house building was completed to lock-up stage, awaiting electrical and instrumentation fit-out, with the generation set scheduled for a June 2013 Quarter delivery to site.

Mining of the Havana Starter Pit moved to 24 hours per day, 7 days per week operation in November 2012. Material movement rose as scheduled to a range of 20 – 25 thousand bcm per day by 2012 year end, following commencement of regular drill and blast activities. Permanent mining fleet maintenance and servicing facilities were fully commissioned and handed over to the mining contractor. (Photo 2)

Grade control drilling began during the Quarter. Delivery of "first ore" to run-of-mine stockpile will commence during the March 2013 Quarter.



There was a ramp-up in pre-commission activities during the Quarter. Administration, mining and geology operations personnel were transferred to site, whilst a recruitment campaign for plant operators commenced. Development began on operations management plans and systems, maintenance and supply strategies. This included issue of tender invitation to consumable and reagent suppliers.

#### **Development Costs**

The \$725 - \$775 million November 2010 capital cost estimate range is anticipated by IGO to increase to \$820 million to \$845 million (+11%). To the end of the Quarter, IGO had spent \$152 million on developing the project, with an estimated \$100 million remaining to be spent.

#### **Mineral Resource Update**

The Mineral Resource estimate for the Tropicana Gold Project increased during the Quarter by a further 1.48 million ounces to 7.89 million ounces of contained gold.\* The increase was the result of drilling completed in 2012 and greater confidence in the viability of a larger pit at Havana.

Classification	Tonnes** (Millions)	Gold (g/t)	Contained Au (Millions oz)
Measured	29.8	2.12	2.03
Indicated	74.4	1.95	4.78
Inferred	11.9	2.83	1.08
Total	118.0	2.08	7.89

#### Table 1: Tropicana Mineral Resource (100% Project), as at 3 December 2012

\* Refer to IGO & AGA 4 December 2012 ASX Releases for details and Competent Persons' Consents.

\*\*Rounded to the nearest decimal place.

#### Havana Deeps Feasibility Study

Metallurgical testwork program was completed and mine engineering (pit optimisation) commenced by the end of the Quarter. Ore Reserve estimation has commenced, with the aim of completing the Pre-feasibility study in the second half of calendar 2013. Outcomes from this study are expected to include:

- A new open pit Ore Reserve incorporating additional ore below the November 2011 open pit Ore Reserve.
- Final open pit depths at a specified gold price assumption.
- Underground mining commencement depth.
- Parameters which may include an exploration decline to enable infill reserve drilling of the current 50m x 50m spaced Havana Deeps resource drilling.

The Joint Venture is focused on delivering the project as designed, including power generation via a diesel power station. In the future the JV will assess other options such as gas. The Havana Deeps PFS will be completed in 2013. An update on the mining approach (open pit or underground) will be provided when the study is completed.



Photo 1: Tropicana plant construction, January 2013: ball mill (centre) and tailings thickener (right).





Photo 2: Tropicana Gold Mine: Havana Pit mining.



Photo 3: Tropicana plant construction, January 2013: view from screening tower of conveyor belt from secondary crusher, with ROM pad and primary crusher in background.



## **Tropicana-Havana Near Mine Exploration**

Results were received for the remainder of the drilling from the **Havana Deeps Pre-feasibility study** evaluating the open pit and underground mining potential of the Havana Deeps mineralisation. Results from this program included:

- HDD201W3: 4m @ 6.0g/t Au from 995m
- HDD228: 14m @ 1.6g/t Au from 471m
- HD202A: 2m @ 6.2g/t from 317m in the Hanging Wall.

Significant Havana Deeps intercepts received during the Quarter are listed in Table 2 and shown in Figure 4.

A total of 8 holes (894m of RC and 1,227.5m of diamond drilling) were completed at the Springbok prospect and tested for Boston Shaker ore body depth extensions. Better results included 5m @ 5.2g/t Au from 108m and 7m @ 3.6g/t Au from 413m at Springbok and 9m @ 5.4g/t Au from 439m and 7m @ 3.6g/t Au from 413m at Boston Shaker (Figure 3).

All significant near mine intercepts received during the Quarter are listed in Table 3.

#### 2013 Calendar Year Exploration Budget

The JV is budgeting A\$20 million for near-mine and regional exploration in 2013, including \$13 million to continue testing for new high grade shoots down plunge from Boston Shaker, Tropicana and Havana (Figure 3). Exploration will continue to test for near mine strike extensions including in-filling drilling at Springbok, located 1.6km north of Boston Shaker.

### **Regional Gold Exploration**

A total of 445 aircore holes (28,686m), were completed on a number of regional prospects including Beetle Juice, Black Dragon, Ninja, Monsoon, and Don King. Better results include 23m @ 0.4g/t at Don King, 4m @ 0.8g/t at Beetle Juice and 4m @ 0.7g/t at Monsoon.

RC (5,234m) and diamond drilling (1,085m) was completed at Ninja, Monsoon and Don King (Figure 4) to the southwest of Tropicana, and Voodoo Child and Wild Voodoo to the northeast of Tropicana. RC drilling returned 4m @ 2.2g/t at Don King, 1m @ 5.8g/t at Monsoon and 12m @ 3.3g/t at Voodoo Child.

All significant results are listed in Table 4.

An 8.1km long 2D seismic line, investigating deep mineral structures, was completed adjacent to the Mineral Resource area at the Tropicana Gold Mine. The data will be processed and it is hoped that preliminary results will be available in the March 2013 Quarter.

									Independ	lence Group
	Table 2:	Significant	December	Quarter	2012 Troj	oicana - Ha	avana Deep	s Drilling I	Results	
		CO	LLAR					INTERCEF	PT DETAILS	
Hole No.	Northing (m)	Easting (m)	RL (AHD)	Azi (Degr)	Dip (Degr)	Total Depth	Depth From	Depth To	Width (m)	Au (g/t)
HDD201W3	6760846	650925	359.0	311.1	-60.3	1076.7	995.0	999.0	4.0	6.0
							1003.0	1012.0	9.0	1.6
HDD202A	6760718	650907	360.6	315.2	-61.8	1121.8	317.0	319.0	2.0	6.2
HDD228	6761747	650413	359.4	315.7	-60.0	561.4				
							476.0	482.0	6.0	2.7
							507.0	512.0	5.0	1.8
HDD277A	6761718	650303	360.3	318.4	-62.1	516.7	122.0	126.0	4.0	2.6

RC = Reverse Circulation drill hole D = Diamond drill hole

(Downhole widths approximate true width except where indicated as \* not true width )

#### Table 3: Significant December Quarter 2012 Tropicana Near Mine Drilling Results

		COL	LAR					INTERCEP <sup>-</sup>	T DETAILS	
Hole No.	Northing (m)	Easting (m)	RL (AHD)	Azi (Degr)	Dip (Degr)	Total Depth	Depth From	Depth To	Width (m)	Au (g/t)
Springbok										
SKRC019	6765505	652658	338	270	-60	132	105	112	7	3.6
SKRC020	6765448	652686	338	270	-60	140	119	133	14	1.2
						(including	120	124	4	2.5)
SKRC022	6765302	652681	340	270	-60	120	62	64	2	3.3
SKRC040	6765800	652649	335	270	-60	132	108	113	5	5.2
SKRC043	6765386	652687	339	270	-60	150	108	112	4	2.2
Boston Shaker										
BSD050A	6763710	652445	347	313	-60	435.5	405	420	15	2.6
							413	420	7	3.6
BSD054	6763775	652512	347	315	-60	467.9	439	448	9	5.4

RC = Reverse Circulation drill hole D = Diamond drill hole

(Downhole widths approximate true width)

Independence Group

#### Table 4: Significant December Quarter 2012 Regional Exploration Drilling Results

						INTE	ERCEPT D	ETAILS		
Hole No.	Northing (m)	Easting (m)	RL (AHD)	Azi (Degr)	Dip (Degr)	Total Depth	Depth From	Depth To	Width (m)	Au (g/t)
Don King										
DKD001	6743253	627270	395	270	-60	203.6	194	196	2	1.4
DKRC013	6743249	627090	395	270	-60	150	102	106	4	2.2
Voodoo Child										
VCRC051	6800861	674890	395	270	-60	200	195	197	2	1.2
VCRC055	6800529	674669	395	270	-60	180	100	112	12	3.3
							172	175	3	1.4
Monsoon										
MSRC003	6744391	640137	395	270	-60	186	178	179	1	5.8
*MSA079	6746122	639675	395	360	-90	74	68	72	4	0.6
Ninja										
*NNA136	6756548	638560	395	360	-90	48	40	44	4	0.7
Don King										
*TWA1003	6742589	626300	395	360	-90	65	44	60	16	0.3
*TWA1022	6742202	626200	395	360	-90	56	52	56	4	0.3
*TWA1023	6742197	626309	395	360	-90	59	36	59	23	0.4
*TWA909	6744614	626766	395	360	-90	32	0	4	4	0.5
Beetle Juice										
*BJA020	6743495	647120	395	360	-90	36	32	36	4	0.3
*BJA103	6737800	644310	395	360	-90	81	76	80	4	0.8
		e drill hole		ovorso Cir	culation ho	o D - Dian	ond drill	holo		

A = Aircore drill hole RC = Reverse Circulation hole D = Diamond drill hole (Downhole widths approximate true width except where indicated as \* not true width) (Note aircore result includes a 4m composite sample)

# **Proposed Exploration Activities For March 2013 Quarter**

- Drill testing of Boston Shaker
- Infill aircore drilling at Beetle Juice, Monsoon south of Tropicana, and Medusa north of Tropicana
- Planning and preparation for RC drilling of regional targets including Monsoon and Beetle Juice.



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Figure 2: Tropicana JV:A\$1,500/oz Au December 2012 Mineral Resource Pit Shells and BFS pits Reference – AGA 27/7/11 and 4/12/12 ASX Releases for Resource and Reserve Estimates



Figure 3: Tropicana JV – Proposed BFS Boston Shaker, Tropicana, Havana and Havana South Open Pit Outlines, g/t Au Thickness (m) Contours and significant December 2012 Quarter intercepts





Figure 4: Tropicana JV – Tenure, Tropicana and Havana Reserve Locations, Gold Geochemical Anomalies, Significant Drill Intercepts and Selected Prospect Locations

Reference – AGA 27/7/11 and 4/12/12 ASX Releases for Resource and Reserve Estimates

# **Mining Operations**

Long Nickel Operation (IGO 100%), WA

### **10 Year Anniversary**

IGO purchased the Long Nickel Mine from WMC for \$15 million in October 2002. Since acquiring the mine, IGO's 100% owned subsidiary Lightning Nickel Pty Ltd has produced **2.16 million tonnes** @ **3.9% Ni containing 83,800t Ni**. Over this period the Company has been paid for **50,000 tonnes of Ni** at an average price of **\$9.96/lb Ni** with payable cash costs including royalties of **\$4.41/lb Ni**, generating an EBITDA of approximately \$710 million.

In 2002 the mine had a 3 year mine life, but the Company recognised the significant exploration potential along strike from existing deposits. Systematic and innovative exploration (including in-house geophysical technology) led to the discovery of McLeay, Long North and Moran discoveries. It seems highly likely that new discoveries will continue to be delineated, extending the current 5 year mine life.

The Board would like to thank all previous and present employees and contractors for this critical contribution to the Company's past success and future growth.

### Safety

The Long Nickel Operation incurred zero Lost Time Injuries (LTI) during the Quarter. The LTI Frequency Rate (LTIFR) stands at 7.7 per million man hours worked for the life of the operation.

Staff training in the INX safety systems software was conducted, with the system being used on site from January onwards.

The Kambalda Mutual Aid Mines Rescue team had success in the annual Underground Mines Rescue Competition, winning the coveted 'Search and Rescue' event.





Graph 1: Long Operations Historical Costs and Realised Nickel Price

## **Production**

Production for the Quarter was **65,770t at 4.0% Ni for 2,645** tonnes of contained nickel, mined by the following methods:

Table 5: Production during Quarter. See Figure 5 for ore body location.

Jumbo Stoping	7,052	t @	1.9%	Ni for	132	Ni t
Long-hole	26,887	t @	3.6%	Ni for	969	Ni t
Hand-held	3,515	t @	4.4%	Ni for	156	Ni t
Jumbo Development	28,316	t @	4.9%	Ni for	1,388	Ni t
TOTAL	65,770	t @	4.0%	Ni for	2,645	Ni t
Production c	ame from th	ne follov	ving area	s:		
Long	4,239	t @	3.5%	Ni for	146	Ni t
McLeay	15,461	t @	2.3%	Ni for	355	Ni t
Victor South	4,813	t @	4.0%	Ni for	190	Ni t
Moran	41,258	t @	4.7%	Ni for	1,954	Ni t
TOTAL	65,770	t @	4.0%	Ni for	2,645	Ni t

# Contained nickel metal in ore for the Quarter was 16% or 356t higher than budget by way of 4% ore tonnage increase (+2,563t) at 11% better than budget grade.

Metal during the Quarter was produced at a cash cost including royalties of **\$4.84 per payable pound of nickel**. The proportion of ore mined using longhole stoping techniques increased to 41% during the Quarter. Cash costs this Quarter have been adversely impacted by one-off price adjustment in power and water, relating to the previous 2 years. This was a periodic, retrospective, adjustment provided for in the 2002 long term contractual arrangements with BHP Billiton Nickel West. This one-off adjustment has added \$0.19/payable pound Ni. Without this adjustment payable cash costs would have been below guidance at \$4.65/lb Ni.



#### **Operational highlights for the December Quarter:**

- Moran mining areas continuing to exceed budget (+323 Ni t), aided by excellent development grades.
- Successful recruitment, allowing the mine to fill all outstanding positions, including some long term difficult-to-fill roles.
- Development advance exceeding budget.
- Commissioning of a new (above ground) service bay and vehicle wash bay to improve environmental compliance.
- Completion of raise boring to extend the Moran primary ventilation circuit further south.
- Establishment of diamond drill platform at the southern end of the Moran footwall drive to test the Moran South target.

#### **Development**

#### **Capital Development**

During the Quarter a total of 343.8 capital development metres were advanced, 276.5 metres in Moran and 67.3 metres in the 16/5 exploration drill drive.

#### **Operating Development**

A total of 804.2 metres of operating development was also undertaken during the Quarter, of which 355.4m occurred in McLeay, with 385.9m in Moran and 8.2m in Long. Operating development costs are included in cash costs.

#### Focus For March Quarter 2013

The March Quarter will see the Operation focus on:

- Emergency scenario management training.
- Development of Noise Management and Traffic Management Plans.
- Continued development of drill platforms, including advance of a Moran East hangingwall drill drive.
- Continued focus on exceeding budgeted production forecasts.

### Exploration

# **Drill Drive Development**

#### **Moran East**

Moran 669 drill drive, designed to establish a drill platform to test the Moran East target, has advanced 19 metres with 140 metres remaining to be complete (Figure 6).

#### **Moran South**

The footwall drill drive advanced 73 metres and a 20 metre drill cuddy established. A program of six underground diamond drill holes for 2,000 metres is planned to test for Moran orebody extensions south of the Moran East Fault has commenced (Figures 5 and 6).

#### Long North

The Long North 16/5 drill drive is progressing, with two stockpiles established and 47 metres advanced (Figure 7). Drill holes, planned to commence in the March Quarter, will test down dip of Long North.



#### Exploration Drilling Moran East

LSU-407 intersected **1.85m** @ **4.9% Ni** from 131.4 metres and **1.1m** @ **3.0% Ni** from 143.6 metres. Mineralisation is hosted in sediments and porphyry, separated by a 10.4 metres thick felsic intrusive. The remobilised nickel sulphide is located approximately 8 metres above the basal contact position. This latest intercept is 95 metres south of drill hole LSU-382 (1.6m @ 6.1% Ni) and 100 metres east of the 2012 Moran Resource limits (Figure 6).

Further drilling and downhole TEM surveys (DHTEM) are planned, pending the completion of the Moran 669 drill drive.

#### Table 6: Long Nickel Mine – December Quarter 2012: Moran East Drilling Results

Hole ID	Northing (m)	Easting (m)	RL (mAHD)	EOH (m)	Dip (deg.)	Azimuth (deg.)	From (m)	To (m)	Interval (m)	True Width (m)	Assay Grade % Ni
LSU-407	547,594	375,425	-678	184	-26.7	71.4	131.35	133.2	1.85	1.2	4.9
							143.6	144.7	1.1	0.5	3.0

#### **McLeay South**

MDU-653 was drilled, south of the mineralisation of 4.1m @ 5.3% Ni previously intersected in MDU 622, and intersected two zones of nickel mineralisation:

- 2.75m @ 2.6% Ni from 399.8m and
- 9.70m @ 3.7% Ni from 534.5m.

The 9.7m @ 3.9% Ni intercept is 250m south of the 2012 McLeay Resource boundary (Figure 5) and indicates the McLeay mineralisation remains open. Four DHTEM targets were identified in drill hole LSU-642, with the largest being 50m x 90m in size. A follow up drill hole (MDU-666) commenced in the Quarter.

#### Table 7: Long Nickel Mine – December Quarter 2012: McLeay South Drilling Results

Hole ID	Northing	Easting	RL	EOH	Dip	Azimuth	From	То	Interval	True Width	Assay Grade
	(m)	(m)	(AHD)	(m)	(deg.)	(deg.)	(m)	(m)	(m)	(m)	% Ni
MDU-653	547028.4	375287	-562	552.9	-15.5	157.1	399.75	402.5	2.75	1.5	2.63
							534.5	544.2	9.7	4	3.9

#### Long North

A program of 30 underground diamond drill holes for 3,423 metres was completed. The drill holes were designed to upgrade and extend the 2012 Long Mineral Resource. Drilling identified mineralisation in fifteen drill holes including an intersection of **14.1m @ 5.0% Ni**.

#### Table 8: Long Nickel Mine – December Quarter 2012: Long North Drilling Results

	Northing	Easting	RL	EOH	Dip	Azimuth	From	То	Interval	True Width	Assay Grade
Hole ID	(m)	(m)	(AHD)	(m)	(deg.)	(deg.)	(m)	(m)	(m)	(m)	% Ni
LG137-093	550736	374062	-394	123.2	-43	120	83.6	97.7	14.1	7.3	5.0
LG137-094	550737	374063	-394	110.2	-43	111	73.2	76.3	3.1	1.2	2.6
LG137-098	550737	374063	-394	101.3	-49	97	65.85	68.3	2.45	1.6	3
LG137-099	550738	374062	-394	131.3	-67	65	92.75	97.75	5	2.3	2.2
LG137-101	550739	374061	-391	99	28	33	62.9	66	3.1	2.6	4.6
LG137-102	550739	374061	-394	134.3	-63	34	86.3	87.9	1.6	0.9	4.1
LG137-103	550740	374061	-392	90.9	17	31	50.75	54.5	3.75	3.2	5.7
LG137-104	550739	374061	-394	134.4	-70	32	101	102.5	1.5	0.75	5.4
LG137-106	550740	374061	-394	124.1	-55	14	92.55	94.9	2.35	1.4	2.6
LG137-112	550838	374022	-392	95.4	-19	112	74.7	76.2	1.5	1.3	4.7





Figure 5: Long Nickel Mine -

Longitudinal Projection showing Target Areas, TEM Conductors and Significant December 2012 Quarter Intercepts. Reference – IGO 19/10/12 Annual Report ASX Release for Resource and Reserve Estimates



Figure 6: Moran and McLeay 3D Isometric Model showing Nickel Shoots, Drill holes, Development and Intercepts outside June 2012 Mineral Resources.





Figure 7: Long North 3D Isometric Model, Drill holes, TEM Conductors Development and Intercepts outside June 2012 Mineral Resources



Table 9	: Long Nickel N	Ine Operation Produ	ction Summary	
		DEC '12	2012/13	Previous Corresponding
	Note	Quarter	FY to Date	Quarter (Dec'11)
Mining Reserve (Dry Tonnes)				
Start of Period		1,044,287	1,121,000	1,553,103
- ROM Production	1	(65,770)	(142,483)	(66,740)
End of Period		978,517	978,517	1,486,363
Production Details:				
Ore Mined (Dry Tonnes)	1	65,770	142,483	66,740
Ore Milled (Dry Tonnes)		65,770	142,483	66,740
Nickel Grade (Head %)		4.02	3.93	3.75
Copper Grade (Head %)		0.29	0.29	0.31
Metal in Ore Production (Tonnes)				
Nickel delivered	2	2,645	5,598	2,498
Copper delivered	2	193	415	208
Metal Payable IGO share (Tonnes)				
Nickel		1,599	3,379	1,511
Copper		78	168	85
Hedging		10	100	
Tonnes delivered into Hedge		600	1,200	540
Average Price (AU\$/t)		26,831	26,831	21,898
<b>0</b>			20,031	21,090
Note 1. Production is sourced from both inside and outside Note 2. The Recovery Rate is fixed with BHP depending or		July 2012.	++	
Revenue/Expense Summary		A\$'000's	A\$'000's	A\$'000's
Sales Revenue (incl. hedging)		32,709	68,828	34,135
Cash Mining Costs		(10,259)	(20,163)	(10,235)
Other Cash Costs	3	(7,383)	(13,479)	(5,401)
Exploration		(1,037)	(2,753)	(956)
Mine Development		(2,406)	(5,712)	(1,830)
Plant & Equipment		(654)	(3,215)	(1,110)
Depreciation/Amortisation		(4,402)	(7,945)	(1,479)
Unit Cost Summary		A\$/Ib Total Metal Produced	A\$/Ib Total Metal Produced	A\$/Ib Total Metal Produced
Cash Mining Costs		1.76	1.63	1.86
Other Cash Costs	3	1.27	1.09	0.98
Copper Credit		(0.10)	(0.11)	(0.11)
C1 Ni cash costs & Royalties		2.93	2.61	2.73
Exploration, Development, P&E		0.70	0.95	0.71
Depreciation/Amortisation		0.75	0.64	0.27
		A\$/Ib Payable	A\$/Ib Payable	A\$/Ib Payable
Unit Cost Summary		Metal	Metal	Metal
Sales Revenue (incl. hedging)	4	9.28	9.24	10.25
Cash Mining Costs		2.91	2.71	3.07
Other Cash Costs	3	2.09	1.81	1.62
Copper Credit		<u>(0.16)</u>	<u>(0.18)</u>	<u>(0.19)</u>
C1 Ni cash costs & Royalties	5	4.84	4.34	4.50
Exploration, Development, P&E		1.16	1.57	1.17
Depreciation/Amortisation		1.25	1.07	0.44
Note 3. Other Cash Costs include milling, royalties and site Note 4. Sales Revenue per pound includes nickel price ad Note 5. Payable cash costs include \$0.19/lb one-off power invoices over the last 2 years.	justments for prior period			
Safety and Productivity				
- Lost Time Injuries		0	2	1
- Medically Treated IFR		42.0	31.3	23.7
- Nickel Productivity Rate	6	73.8	79.9	76.9
Note 6. Nickel Productivity Rate = Annualised nickel tonne	s per full-time-equivalent	employee.	+ +	
Production/Exploration Drilling		Metres	Metres	Metres
Production		2,171	4,281	343
Exploration		4,539	7,454	2,056
		6,710	11,735	2,399

# Table 9: Long Nickel Mine Operation Production Summary



JAGUAR COPPER-ZINC OPERATION (IGO 100%)

### Summary

The December Quarter saw the Operation hit targeted production rates, producing 102,783 ore tonnes at 1.5% Cu, 10.4% Zn and 153g/t Ag.

Mill throughput (tonnes per hour) was reduced due to very high zinc feed grades over-supplying the zinc filtration process. Throughput has started to improve, however optimisation studies are ongoing.

Operational numbers were reduced by 15 people due to completion of Jaguar underground mining at current base metal prices.

Development of the Bentley underground continues to progress as planned, with over two years of stoping blocks now available, as required by the mining sequence (Figure 8).

Operational highlights for the Quarter included:

- Reduction in operating costs
- Stoping in Bentley increased
- Increased silver and gold grades and recovery in concentrate (Graph 2)

#### Safety

No LTIs occurred during the Quarter and the site's Frequency Rate (LTIFR) is currently **3.80** per million man hours worked for the life of the Operation.

### **Mine Production**

During the Quarter the Operation mined **102,783 tonnes of ore averaging 1.5% Cu, 10.4% Zn and 153g/t Ag**. This production was sourced from both the Jaguar underground (27,937t) and the Bentley underground (74,846t) mines.

Table 10: Jaguar Operation: production sources December 2012 Quarter

TONNES MINED					
Stoping – Jaguar	27,937t	@	2.2% Cu,	1.0% Zn,	25g/t Ag
Stoping – Bentley	36,744t	@	1.0% Cu,	14.8% Zn,	219g/t Ag
Development – Bentley	38,102t	@	1.4% Cu,	13.2% Zn,	182g/t Ag
TOTAL	102,783t	@	1.5% Cu,	10.4% Zn,	153g/t Ag

Stoping ceased in the Jaguar underground mine during the Quarter as all the high value ore being targeted using the \$200 NSR (Net Smelter Value) planning process had been extracted. Subsequently, the mine has been placed on care and maintenance, with only minor ventilation and dewatering expenses ongoing. The cessation of mining activity in the Jaguar underground has allowed for structural changes which have reduced operational costs. Development rates and costs will halve for some time because the mine stoping ore twin boom jumbo is well ahead of stoping.

Graph 3 illustrates the Quarter's operating costs per tonne versus the NSR value of ore mined. There has been a steady decrease in operational costs and an increase in the value of ore mined.





Graph 2: Jaguar Operation – Mine Production - Contained Metal



Graph 3: Jaguar Operation - Operational Costs and Revenue



The Bentley orebody continues to outperform Ore Reserve estimation, with **31% more tonnes being mined than Ore Reserve estimate and at improved grades.** See Table 11.

Reconciliation Bentley 2012-13	Actual Production	Reserve Est. Production
Ore Tonnes (t)	145,890	111,394
Cu (%)	1.1	0.8
Zn (%)	12.7	10.9
Ag (g/t)	178	124.8
Au (g/t)	0.6	0.6

#### Table 11: Bentley Production Reconciliation: December 2012 Quarter



Photo 4: Bentley 4160 Level: cross-cut, showing massive sulphides and stringer sulphides, waste rock and grades.



# **Mill Production**

Mill production for the Quarter was 93,085t at 1.6% Cu, 11.2% Zn and 162g/t Ag.

Table 12: Jaguar Mill Production: December 2012 Quarter				
TONNES PROCESSED (DMT)	Actual	Budget		
	93,085	89,690		
Cu (%)	1.6%	1.8%		
Zn (%)	11.2%	12.1%		
Ag (g/t)	162g/t	136g/t		
RECOVERY (%)				
Copper	80.9%	82.6%		
Zinc	86.1%	75.3%		
Silver in Copper concentrate	53.6%	54.0%		
CONCENTRATE PRODUCED				
Cu Concentrate (dmt)	5,024	5,680		
Cu (%)	24.0%	23.0%		
Cu (t)	1,207	1,306		
Zn concentrate (dmt)	18,351	17,528		
Zn (%)	48.8%	48.0%		
Zn (t)	8,962	8,413		

Payable zinc metal during the Quarter was produced at average **C1 cash cost of A\$0.34** per payable pound of zinc (September 2012 Quarter: A\$0.61/lb Zn). After considering royalties, **cash costs were A\$0.41/lb Zn** (September 2012 Quarter: A\$0.69/lb Zn). The decrease in C1 cost can be attributed to:

- a mine planning focus on the production value of in situ ore,
- higher value ore being mined,
- additional precious metals credits, particular silver credits,
- a reduction in operation costs from improved reliability of mining equipment and changes in site structure.

It is anticipated that cash costs will continue to fall as the quarterly costs still reflect a high development rate and a high percentage of development ore (as opposed to cheaper long hole stoping in the coming year).

### Concentrate

Nominally 16,500 wet metric tonnes of zinc concentrate and 5,500 wet metric tonnes of copper concentrate were shipped during the Quarter.



Table 13:	Jaguar	<b>Operation:</b>	Production	Summary
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		DEC 2012	2012/13	Previous Corresponding
	Note	Quarter	FY to date	Quarter
Mining Reserve (Dry Tonnes)				(Dec' 2011)
Start of Period	1	2,349,809	2,452,000	3,175,249
- ROM Production	2	(93,085)	(195,276)	(99,628)
End of Period		2,256,724	2,256,724	3,075,621
Production Details				
Ore Mined (Dry Tonnes)		102,783	231,401	99,628
Ore Milled (Dry Tonnes)		93,085	195,276	89,959
Copper Grade (Head %)		1.60	1.61	2.60
Zinc Grade (Head %)		11.18	9.44	4.85
Silver Grade (g/t)		162	135	73.62
Metal in Concentrate Production (Tonnes)				
Copper		1,207	2,567	2,068
Zinc		8,962	15,630	3,134
Metal Payable IGO share (Tonnes)				
Copper		1,157	2,463	1,978
Zinc		7,494	12,985	2,594
Revenue/Expense Summary		A\$'000's	A\$'000's	A\$'000's
Sales Revenue (incl. hedging TC's/ RC's)		26,826	50,734	44,947
Cash Mining & Processing Costs		(13,122)	(28,495)	(13,438)
Site Admin & Trucking Costs		(4,828)	(10,070)	(4,738)
Shipping		(841)	(1,681)	(1,528)
Royalties		(1,190)	(2,010)	(1,768)
Exploration		(2,033)	(4,503)	(2,568)
Mine Development		(4,051)	(8,381)	(3,179)
Plant & Equipment		(424)	(1,125)	(4,777)
Depreciation/Amortisation		(1,335)	(3,064)	(6,677)
Notional Unit Cost Summary		A\$/Ib Total Zn Metal Produced	A\$/Ib Total Zn Metal Produced	A\$/Ib Total Zn Metal Produced
Mining & Processing Costs		0.66	0.83	1.94
Other Cash Costs	3	0.52	0.58	1.10
Copper, Silver and Gold		<u>(0.90)</u>	<u>(1.04)</u>	(2.67)
C1 Costs	4	0.28	0.37	0.37
Royalties		0.06	0.06	0.26
Exploration, Development, P&E		0.33	0.41	1.52
Depreciation/Amortisation		0.07	0.09	0.98
National Unit Cost Summany		A\$/Ib Total Zn Metal Payable	A\$/Ib Total Zn Metal Payable	A\$/lb Total Zn Metal Payable
Notional Unit Cost Summary Mining & Processing Costs	+ +	0.79	1.00	2.35
Other Cash Costs	3	0.79	0.69	1.32
Copper, Silver and Gold	5	<u>(1.07)</u>	<u>(1.25)</u>	(3.23)
C1 Costs	4	0.34	0.44	0.44
Royalties	- <u> </u>	0.07	0.07	0.31
Exploration, Development, P&E		0.39	0.49	1.84
Depreciation/Amortisation		0.08	0.11	1.18
Note 1:         In relation to current year, reserve upon Note 2:           Production sourced from inside and output	utside of reserve	es.	hipping and notional royalties.	
Note 3:         Other Cash Costs include, site admini- C1 Costs include credits for copper, si per ounce for the Quarter respectively	lver and gold no			JS\$1,710
Note 4 C1 Costs include credits for copper, si per ounce for the Quarter respectively	lver and gold no	otionally priced at US\$3.59 per po	bund, ŬS\$31.96 per ounce and	
Note 4 C1 Costs include credits for copper, si	lver and gold no			JS\$1,710 0 17.02





Figure 8: Bentley Longitudinal Projection, with completed and proposed development Reference – IGO 19/10/12 Annual Report ASX Release for Resource and Reserve Estimates



Figure 9: Jaguar Operation – Tenure, Regional Geology, Mines and Significant Prospect Locations



## **Mine Development**

#### **Capital Development**

During the Quarter 434.9 metres of capital development occurred, all within the Bentley underground mine.

#### **Operating Development**

538.8 metres of advance occurred during the Quarter at Bentley.

### Mine Exploration for Possible High Grade Copper Feeder Zone at Bentley

Underground resource drilling below 4160mRL intersected chalcopyrite-rich, semi-massive mineralisation within the footwall rhyolite package that was previously unknown and untested.

A total of 11 holes have intercepted chalcopyrite mineralisation. Holes 12BUDD077 and 12BUDD079 both display intense zones of semi-massive chalcopyrite mineralisation over widths greater than 12 metres, with assays awaited.

The orientation of the copper-rich zone is not associated with the known stringer horizon and appears to be oblique to the main Arnage massive sulphide lode in a north westerly trend. The projected intersection plane is likely to be coincident to the central zone of the Arnage massive sulphide lens that displays elevated copper ratios.

Mineralisation remains **open to the north and above the current drilling** with further testing to be carried out in early February 2013.



Photo 5: Bentley: new high grade copper (possible feeder) zone, displaying chalcopyrite mineralisation over 30 metres down hole length including 12 metres of chalcopyrite rich semi-massive sulphide mineralisation.



## **Reserve and Ore Definition drilling**

In-mine drilling during the Quarter targeted improving definition around the Arnage and Mulsanne lenses with infill holes.

Hole ID	True Thickness	Cu %	Zn %	Ag g/t	Au g/t
12BUDD052	5.8	0.4	17.4	165	0.6
12BUDD051	2.0	3.7	1.2	112	0.6
12BUDD058	0.7	0.2	21.2	150	2.0
12BUDD068	6.1	3.6	21.1	555	5.8
including	2.8	7.1	20.5	993	10.6
12BUDD067	3.1	1.0	30.2	311	1.1
12BUDD069	6.3	1.0	25.1	212	1.8
12BUDD070	5.0	6.0	5.2	128	0.6

Table 14: Bentley Operation: In-mine Drilling: December 2012 Quarter

## **Capex Expenditure**

During the Quarter \$4.5 million was spent on capital. The major items were:

- \$0.9 million on commencement of new Tails Storage Facility (TSF).
- \$0.6 million on vertical development in Bentley.
- \$2.6 million on capital decline development in Bentley.

The new TSF is awaiting regulatory approval and is anticipated to be constructed during the next Quarter.

# Focus For March Quarter 2013

- Continue ramp up of Bentley stope production.
- Focus on capital and operational cost reductions.
- Continue Bentley infill drilling.
- New TSF construction.

# **Regional Exploration**

The Jaguar Regional Exploration Project covers 50km of strike prospective for the discovery of VMS (volcanogenic massive sulphide) deposits (Figure 9). It encompasses three known high grade copper-zinc-lead-silver-gold deposits: Teutonic Bore (inactive), Jaguar (recently completed) and Bentley (in production), located 300km north of Kalgoorlie in Western Australia.

The exploration approach combines systematic aircore geochemical drilling, geophysics (IP, MIMDAS, GTEM and DHEM), spectral analysis and detailed geological mapping and logging to focus on prospective areas along the corridor. This work has resulted in the identification of a number of high priority areas including the Daimler–Triumph–Lagonda trend, Jensen (between Teutonic Bore and Jaguar) and South Bentley areas which exhibit the signatures of possible mineralised hydrothermal centres.



Ore deposits occur in the same broad stratigraphic position, at or near the base of a mafic volcanic succession overlying a felsic succession. Post mineralisation faulting and dolerite intrusion has resulted in the "stacking" of lenses at various levels within the host stratigraphy. Therefore within the 50km strike of prospective stratigraphy there may be three or more prospective stratigraphic and structural horizons resulting in an effective 150km+ of prospective strike.

# Drilling

RC and diamond drilling programs commenced in the September 2012 Quarter and continued through until early November. A total of 6 diamond holes (3491.1m) and 7 RC holes (1998m) tested 4 target areas (Jensen, Triumph, Teutonic Bore North and Bentley South) in the Teutonic Bore to Bentley corridor. Whilst none of these holes intersected ore grade mineralisation, the information obtained provided valuable geological and structural information that has enabled the exploration team to refine drill targets and highlight new areas of prospectivity.

Following demobilisation of the rigs in early November, the remainder of the Quarter was spent integrating results and working up targets in preparation for commencement of an aggressive aircore and diamond drilling campaign in Q1 2013.

Emphasis was placed on refining lithogeochemical indicators to provide proximal discriminators of massive base metal sulphides for more efficient drill targeting. This work, which incorporated the results of orientation AC drilling across the Jaguar ore lenses, has resulted in the formulation of a geochemical index that is able to detect the surface stratigraphic projection of buried massive sulphide mineralisation.

A total of 18 prospects, including some with multiple targets, have been defined. It is planned to drill test 10 of the highest priority prospects in H1 2013. Highest priority targets include:

#### Daimler

Daimler comprises a large Cu stringer system some 800m north of the historic Teutonic Bore open cut mine. The mineralisation style is suggestive of a footwall zone to the massive sulphide mineralisation. The current interpretation is that Daimler comprises a separate hydrothermal system to Teutonic Bore, situated within a discrete graben which has potential to contain associated massive sulphide mineralisation. Aircore drilling has detected an apparent 600m long strata-bound base metal index anomaly in mafic rocks some 200m west and to the north of the Daimler stringer mineralisation. The anomalous zone is open to both the north and south and has not been tested with drilling other than reconnaissance aircore. It is planned to refine the target with infill and extension aircore drilling. This will be followed up by diamond drill testing.

#### Bentley South South (yet to be prospect named)

Aircore drilling at Bentley South South has defined a high order base metal index geochemical anomaly adjacent to a strong footwall style hydrothermal anomaly. The anomaly extends over a strike length of 800m and is coincident with a "transitional basalt" unit at the rhyolite contact, a similar setting to the Teutonic Bore deposit (Figure 9). Further aircore drilling is required to better delineate the anomaly prior to diamond drill testing.

The Bentley South South area also has prospectivity for gold. Aircore geochemical results received this Quarter from drilling completed in the September 2012 Quarter returned anomalous gold intercepts from two adjacent vertical holes drilled 80m apart being 12m @ 1.0g/t Au from 48m (including 4m @ 2.4g/t Au) in 12TRAC362 and 8m @ 0.5g/t Au from 92m in 12TRAC361 (note: 4m composite results). Sparse historic drilling nearby also intersected anomalous gold results. The gold potential of the area will be followed up as part of the base metals testing of this area in H1 2013.

### Focus For March Quarter 2013

Targets to be drill tested in the March Quarter include aircore drilling at Daimler, Bentley South South and Jensen and diamond drilling at Jaguar and Lagonda.



A trial gravity survey is to be completed in the Bentley area to determine the effectiveness of this method in refining stratigraphy and structure.

# **Feasibility Study**

Stockman Base Metals Project (IGO 100%)

### **Project Overview**

The Stockman Project is located in eastern Victoria, 300km north-east of Melbourne (Figure 1). The Project encompasses the Wilga and Currawong copper-zinc-lead-silver-gold Volcanic Massive Sulphide (VMS) deposits. The larger Currawong deposit is fully intact, whilst a core of copper-rich ore from the Wilga deposit was mined and processed onsite from 1992 to 1996. Unmined copper-rich pillars (eg 8.6m @ 20% Cu, true width) are yet to be incorporated into the new Ore Reserve.

Project works underway in the December Quarter included:

- Conclusion of the Feasibility Study, capturing the Mineral Resource upgrade announced in the September 2012 Quarter.
- Estimation of the initial Ore Reserve of: 8,432,000t @ 2.3% Cu, 4.3% Zn, 39 g/t Ag and 1.1 g/t Au (Figures 10 & 11)
- Near-deposit and regional exploration utilising data and targets generated from the Company's proprietary geophysical equipment.
- Progression of Project permitting under the State and Federal processes.

## **Exploration Postscript**

In recent days drilling immediately along strike and beneath the BigFoot mineralised horizon adjacent to Currawong intersected18 metres of massive sulphides. Mineralisation was pyrite rich, although copper and zinc rich sulphides were also noted. The intercept was approximately 20m undip of the targeted "DeepFoot" DHEM conductor. Follow-up drilling to test the conductor and define the extent of mineralisation continues. (See Figure 13) Assay results are awaited. The significance is yet to be determined.

### Ore Reserves

The maiden Stockman Ore Reserve of **8.4Mt @ 2.3% Cu, 4.3% Zn, 39 g/t Ag and 1.1 g/t Au** has been estimated using a Net Smelter Return (NSR) concept. The NSR calculates the revenue of a block of mineralised material, less all costs associated with the management, handling and selling of concentrate from the mine gate forward and provides a means of measuring margin over mine site costs per tonne of ore.

The reserve estimation process undertaken is consistent with the JORC 2004 guidelines. Appropriate modifying factors have been used to account for mining recovery and dilution, processing recoveries, operating costs, and concentrate commercial terms (see Ore Reserve Estimation parameters – **Appendix 1**. Stockman Ore Reserves are summarised in Table 15.

Table 15: Stockman - January 2013 Ore Reserve Estimation						
Deposit	Classification	Tonnes	Cu %	Zn %	Ag g/t	Au g/t
Currawong	Proven	0	0	0	0	0
	Probable	7,333,000	2.2	4.1	40	1.2
	Subtotal	7,333,000	2.2	4.1	40	1.2
Wilga	Proven	0	0	0	0	0
-	Probable	1,099,000	2.5	5.3	30	0.5#
	Subtotal	1,099,000	2.5	5.3	30	0.5
Combined	Total	8,432,000	2.3	4.3	39	1.1
	See An	pondix 1 for noton to	accompany this t	abla		

See Appendix 1 for notes to accompany this table

# Gold (Au) grades are inferred at Wilga due to a paucity of gold assays in historic drilling. Revenue from gold in the Wilga ore was included in the estimation of the Ore Reserve. The contribution to Revenue of this gold was estimated to be \$3.84 per gram of gold insitu. This inclusion did not make any material difference to the value of the mining envelopes considered and did not warrant downgrading of any portion of the Ore Reserve attributable to Wilga. The contribution from Wilga represents 13% of the total Ore Reserve.

# **Feasibility Study**

The Feasibility Study (+/- 15%) has concluded that Stockman is a promising project, but further work is required.

The scope of the Project entails concurrent development of two underground deposits to feed a central 1.0Mtpa differential flotation processing plant that would produce approximately 150,000tpa of copper and zinc concentrates over a project life of approximately 9 years. The concentrate products would be exported to customer smelters in the southern Asia region.

Key project parameters are as follows:

- Mine Life: 9 years.
- Cash Costs:
  - Life of Mine Cash Costs: C1 Cash costs plus royalty = \$1.76/lb Cu net of credits\*#
  - Cash Costs at nameplate Plant Capacity (post ramp-up period):
    - C1 Cash costs plus royalty = \$1.55/lb Cu net of credits\*#
- Production:
  - Annual Payable Metal: 15,900t Cu, 25,200t Zn, 454,000oz Ag and 4,900oz Au.#
  - LOM Payable Metal: 144,000t Cu, 229,000t Zn, 4.1Moz Ag and 44,000oz Au.#
- Cu concentrate: 80.4% Cu, 42% Ag, 17% Au. Average recoveries -

Zn concentrate: 76.4% Cu, 17% Ag.

- Pre-production capital including commissioning\*: A\$157.9 million processing plant, A\$79.2 million infrastructure, A\$10.4 million stage 1 tailings storage facility, A\$13.3 million mine development, A\$14.2 million mining fleet, and A\$15.7 million paste backfill plant (A\$290.7 million total).\*
- Financials: \$540.8 million Net Operating Cashflow and 5 years pay back (likely to fall following completion of Enhanced Feasibility Study).\*#
- Price and exchange rate assumptions: US\$8,069/t Cu, US\$2,072/t Zn, US\$32.32/oz Ag, US\$1,687/oz Au and 1.05 \$US:\$A exchange rate.

\* Based on Flat Forward (Real) Price Assumptions defined above, and real case costs.

# See also footnote # to Table 15.

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# **Enhanced Feasibility Study**

# Numerous value enhancing opportunities were recognised during the Feasibility Study which could deliver significant improvements to the project return as modelled in the Study. These include:

- Incorporation of the new high grade, gold rich BigFoot discovery (Figure 13) into the mining sequence.
- Determining whether the recently recognised Currawong high grade gold-rich domain can be mined separately and earlier to improve payback.
- Determine whether Wilga unmined high grade copper-rich pillars (e.g. 18.6m @ 20% Cu true width) can be incorporated into reserves and mining sequence (Figure 12).
- Investigate dual collector reagent regime in the process flowsheet to improve copper metallurgical recovery by several percentage points.
- Evaluate leasing options and/or third-party provided contract services for large items of pre-production capital expense (e.g. power station, mining fleet, village) which may significantly reduce the payback period.
- Reduce concentrate haulage distance by 170 km via shipping from Port Anthony, as opposed to Geelong.
- Further refine high grade scheduling strategy to improve project efficiency and economics.
- Reduce backfill paste cement content.
- Locate suitable second hand equipment.
- Modular construction and offshore pre-fabrication (successfully utilised at Tropicana) to reduce construction costs.
- Seek government funding for common user (rather than Stockman dedicated) CNG compression station at Bairnsdale.
- Locate a water aquifer closer than the currently proposed bore field.
- Improved concentrate haulage costs.
- Further optimize plant location and configuration.
- Access cheap debt funding from metal traders in return for concentrate off-take.

These opportunities will be evaluated throughout 2013 in parallel with the Victorian and Federal Government Permitting processes.

### Permitting

The Environmental Effects Statement (EES) permitting documentation for the State of Victoria (also accredited with the Federal EPBC Act) is continuing to be developed, as is the other ancillary documentation that is required to satisfy the secondary licensing requirements (such as Work Plans, Closure Plans and various other management plans).

Progress has been made throughout the Quarter working productively with government on the regulatory requirements for tailings storage management, as well as water abstraction and management. Interaction and consultation with the local community and the local government has continued successfully, with strong support for the project being evident.

### **Stockman Exploration**

Exploration has been focused on a number of key positions proximal to both the Currawong and Wilga massive sulphide deposits, as well as on geochemical, geophysical and conceptual targets generated from historical datasets and a comprehensive and detailed airborne VTEM survey covering the entire project area.



#### BigFoot

As reported last Quarter, modelling of Down Hole Transient Electromagentic (DHTEM) data collected during the drill testing of the gold-rich BigFoot mineralisation highlighted a new conductor located immediately north east of BigFoot (Figure 13). The anomaly, referred to as **DeepFoot**, is interpreted to be in the same stratigraphic position as the main "M" lens position at Currawong in an area that has had very limited previous drilling. It is planned to complete a two phase drilling program to test the target. The first phase comprises an extension of an existing hole which will give a pierce point close to the modelled DHTEM plate plus two additional holes, one targeting the mid-point of the plate and a further hole targeting 50m along strike. Dependant on the success of the first phase the second phase will be completed comprising two holes targeting the plate 50m up and down dip. A diamond rig has mobilised to site and drill testing of the DeepFoot target has commenced.



Figure 10: Currawong Ore Reserve and Mineral Resources with 3D isometric view of resource wireframes and proposed development Reference – IGO 19/10/12 Annual Report ASX Release for Resource Estimate



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Figure 11: Wilga Ore Reserve and Mineral Resources with 3D isometric view of resource wireframes and historical and proposed development Reference – IGO 19/10/12 Annual Report ASX Release for Resource Estimate



Figure 12: Wilga Longitudinal projection showing location of drill hole tested unmined pillars and significant copper intercepts (true width).





Figure 13: Currawong 3D isometric view showing BigFoot mineralisation and DeepFoot TEM targets proximal to the proposed Currawong Mine Development.

#### **Stream Sediment Sampling**

Results have been received for a 16 sample orientation BLEG stream sediment sampling program undertaken in the area from NE along strike from Currawong to SW along strike from Wilga. The key focus of this survey was to determine if stream sediment sampling could be effective in targeting gold-rich mineralisation such as that discovered at BigFoot. The results highlighted the potential applicability of the method with the **highest gold result** of 13.2ppb Au (survey average 2.9ppb Au) coming from a stream to the north east of Currawong that drains the BigFoot East and DeepFoot prospects. The second highest result of 6.6ppb Au was returned from the Tambo River downstream from the Wilga massive sulphide deposit.

At Quarter's end a total of 91 sites had been sampled from a planned program of 134 sample points. In addition, a further 52 sites were visited but sampling could not take place due to a lack of suitable sample media.

# **Scoping Study**

Karlawinda Gold Project (IGO 100%)

### **Project Overview**

The Karlawinda Gold Project is located approximately 1,000km NNE of Perth and 65km SE of the regional mining centre of Newman in Western Australia **(Figure 1)**. The Project is close to key infrastructure, such as to the Great Northern Highway and the Goldfields Gas Pipeline and covers a previously unrecognised Archaean greenstone belt. The Bibra Prospect Inferred Resource estimate of 674,300oz Au was released in the September 2012 Quarter. It is now the focus of a Scoping Study.



# Karlawinda Scoping Study

The Karlawinda Scoping study has been examining open pit mining at a production rate of 2-3 Mtpa and both Carbon-in-Leach (CIL) and Heap Leach (HL) onsite processing options. Testwork has confirmed resource amenability to cyanidation, with CIL recoveries of 90 - 93% in both oxide and primary material and HL recovery of 73-75% in oxide material.

Hydrological investigations have identified an abundance of high quality local and regional ground water which could support a potential mine development opportunity. Local run-off from potential summer rain depressions would be simply managed by spoon drains and modest diversion bunds.

Initial Resource geotechnical investigations describe near surface oxide material as weak to moderately weak to a depth of 50m. Transition and fresh rock thereafter is described as moderately strong to strong, which could potentially accommodate relatively steep stable pit wall geometries at depth. The majority of gold mineralisation identified to date that is potentially amenable to open pit extraction lies within transition and fresh rock domains.

## Bibra Deposit

The Bibra deposit comprises a large gold mineralised zone extending over 1km both along strike and down-dip (Figure 14). Bibra currently has an Inferred Mineral Resource estimate of **18.5Mt** @ **1.1g/t Au (674,300oz)**, using a 0.5g/t Au cut-off grade within a conceptual A\$1,600/oz Au optimal pit shell. *Refer to IGO ASX release dated 28 June 2012 for further details of the Mineral Resource Estimate and Competent Person's Consent.* 

A total of 58 RC holes for 8,491m and 27 diamond holes for 3,613.1m were drilled at the Bibra deposit during the Quarter. RC drilling was primarily aimed at testing for Bibra extensions with some infill drilling to 50m x 50m drill spacing. Diamond drilling was focused primarily on infill drilling as well as providing geotechnical and metallurgical samples.

Results have been received for approximately 70% of the program by the end of the Quarter.

Of significance is an intercept of **5m @ 2.3g/t from 40m in KBD35** approximately **200m north** of the conceptual optimised pit shell (Figure 14). This intercept is adjacent to an arcuate ENE trending magnetic feature which extends WSW into the northern most section of the conceptual pit where KBRC263 intersected **3m @ 5.7g/t Au** (incl 1m @ 15.8g/t Au) from 60m and 2m @ 19.4g/t Au from 80m. The majority of the ENE trending magnetic feature, which extends for some 1.3km and may represent a new mineralised zone, is very sparsely drilled. The magnetic feature bifurcates towards its eastern end where a southern limb extends through to the East Bibra prospect where regional aircore drilling during the Quarter returned encouraging results (see regional exploration section below).

Better results from drilling at Bibra during the Quarter include:

- 6m @ 3.2g/t Au from 95m in KBD030
- 9m @ 1.9g/t Au from 9m in KBD033
- 10.6m @ 2.0g/t Au from 127m including 3.6m @ 4.7g/t Au and 2.3m @ 12.2g/t Au including 0.35m @ 67.8g/t Au in KBD039
- 8.6m @ 6.4g/t Au from 153.4m in KBD042
- 5m @ 8.0g/t Au from 57m and 20m @ 1.6g/t Au from 65m in KBRC242
- 9m @ 4.7g/t Au from 57m including 1m @ 37.1g/t Au and 10m @ 1.6g/t Au in KBRC248
- 17m @ 1.7g/t Au from 34m including 4m @ 3.1g/t Au KBRC251
- 6m @ 6.7g/t Au from 78m in KBRC263

All significant diamond hole results are listed in Table 16 and significant RC results are listed in Table 17 below.



# Table 16: Karlawinda Project Diamond Drilling Significant Intercepts.[Note: Down hole widths approximate true widths].

	KARLAWINDA DIAMOND DRILLING INTERCEPT DETAILS								
Hole No.	Northing (m)	Easting (m)	RL (AHD)	Azi (Degr)	Dip (Degr)	Depth From	Depth To	Width (m)	Au (g/t)
KBD029	7368572	203931	590	105	-60	8	23	15	0.8
						47	48	1	3.6
KBD030	7368674	203746	590	105	-60	95	101	6	3.2
						113	120	7	1.2
KBD031	7368778	203934	590	105	-60	139	147	8	1.2
						168	172	4	1.4
KBD032	7368810	204202	590	105	-60	60	70	10	1.6
KBD033	7368581	204089	590	105	-60	9	18	9	1.9
KBD035	7369305	204480	590	105	-60	40	45	5	2.3
KBD036	7368758	204395	590	105	-60	12	28	16	1.4
KBD039	7368925	204009	590	114	-60	127	137.6	10.6	2.03
						142.9	148	5.1	1.1
						156	158.3	2.3	12.2
KBD041	7368772	203762	590	105	-75	100	125	25	0.6
KBD044	7368559	203979	590	105	-60	9	22	13	1.3
KBD045	7368668	203957	590	105	-60	138	144	6	1.6
KBD048	7368675	204321	590	105	-60	57	60.9	3.9	1.8
KBD049	7368868	204372	590	105	-60	41	43	2	3.9
KBD050	7368881	204324	590	105	-60	32	33.9	1.9	1.5



#### KARLAWINDA REVERSE CIRCULATION INTERCEPT DETAILS RL (AHD) Azi Depth Width Dip Depth Hole No. Northing (m) Easting (m) (Degr) (Degr) From (m) Au (g/t) KBRC219 -60 3.0 KBRC223 -60 1.2 KBRC226 -60 1.3 KBRC231 -60 2.3 KBRC233 -60 3.4 2.7 KBRC238 -60 4.6 KBRC241 -60 1.0 1.3 KBRC242 -60 8.0 1.7 KBRC243 -60 2.6 1.5 KBRC248 -60 13.5 4.7 1.0 KBRC249 -60 3.3 7.1 KBRC250 -60 2.3 -60 1.6 KBRC251 KBRC252 -60 3.0 4.2 KBRC256 -60 3.0 KBRC238 -60 4.6 KBRC241 -60 1.0 KBRC242 7369038. -60 8.0 1.6 KBRC243 -60 2.6 KBRC248 -60 13.5 4.7 1.0 KBRC249 -60 3.3 7.1 KBRC250 -60 2.3 KBRC251 -60 1.6 KBRC252 -60 3.0 4.2

#### Table 17: Karlawinda Project RC Drilling Significant Intercepts

[Note: Down hole widths approximate true widths]



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Figure 14: Karlawinda Project Bibra Resource area – gram x metre Contours with A\$1,600/oz Au June 2012 Conceptual Pit Outline, Significant RC and Diamond Drilling intercepts. [An updated Mineral Resource estimate is planned to be completed by the middle of calendar 2013.] Reference – IGO 28/6/12 ASX Release for Resource estimate

### **Regional Exploration**

The regional aircore program commenced last Quarter was completed in November. A total of 210 holes for 9,351m tested 5 targets located in an area extending from 6km NW of Bibra through to approximately 9km east of Bibra. The targets were primarily selected on their aeromagnetic similarity to Bibra. The most significant result was returned from an area of elevated linear aeromagnetic response located at Bibra East approximately 4km E along strike from Bibra where **KBAC852 returned 8m @ 500ppb Au including 4m @ 760ppb** Au (4m composite samples). These results are approximately 1.5 km NW of a previous aircore hole (KBAC164) that returned 12m @ 0.5g/t Au. KBAC861 and KBAC864 from the current program drilled to follow-up the intercept in KBAC164 also returned strongly elevated results (4m @ 125ppb Au and 4m @ 44ppb respectively). **The area between Bibra and Bibra East is very sparsely drilled and these recent results together with earlier surface geochemical results suggest that it has good potential over a 4.5km strike length to host Bibra style mineralisation (Figure 15). Further aircore follow-up is planned for the June Quarter subject to receiving any necessary access approvals.** 





Figure 15: Bibra and Frankopan gold prospects and prospective gold corridors.

# **Exploration – Gold/Tin**

**Birrindudu Gold/Tin Project** (IGO 100%)

The Birrindudu Project is located 290km southeast of Kununurra in the Tanami Region of the Northern Territory. The Project was initially targeted for its tin prospectivity identified via results from diamond exploration database samples including the DeBeers database acquired by IGO.

A revised geological and structural interpretation has highlighted the gold potential of Birrindudu, as well as the known tin prospectivity.

Prospective host rocks and associated gold mineralising structures are interpreted to be under cover within the southern portion of the project area. Small scale gold mineralisation (Happy Jack Gold Prospect) occurs in metasediments associated with a granitoid contact aureole zone. Small narrow high grade quartz veins (up to 20g/t Au, 20cm in width) occur in lithic siliclastic wackes that have been interpreted as roof pendants to the intruding granite suite.

An interpretation of regional aeromagnetic data highlights a major north trending extension fault extending north from the known Tanami gold deposits into the Birrindudu Project. Metasediments and mafic volcanics (1840 to 1820 Ma) that host the Tanami gold mineralisation are interpreted to be a part of an inversion block which lies inside the Birrindudu tenement.

A regional aircore drilling program is planned to test both the known tin target and a number of gold targets that lie under cover.

#### **New Gold Projects**

New Australian gold exploration joint ventures are currently being negotiated.



# **Regional Exploration Base Metals**

### Duketon Nickel Joint Venture (IGO Manager and earning 70% Nickel rights)

### Status

The Duketon Nickel JV with South Boulder Mines Ltd covers ultramafic-rich stratigraphy in the Duketon Greenstone Belt in Western Australia, prospective for massive and disseminated nickel-copper-platinum group element (PGE) sulphide mineralisation. It is located approximately 100km north of the Windarra nickel deposit.

Following completion of an updated Mineral Resource estimate for the Rosie deposit and a grade-tonnage estimate for the C2 deposit (refer to IGO's September 2012 Quarterly Report for details) IGO is currently considering its strategic options for the project.

# Bungalbin Joint Venture With FE Ltd (ASX:FEL) (IGO earning 70% non-iron ore rights)

The Bungalbin Project is located over the Marda-Diemals greenstone belt approx 108kms NE of Southern Cross. The Company considers the Bungalbin Project to have good potential for the discovery of massive nickel sulphide deposits. The project stratigraphy has similarities to the Lake Johnson Greenstone Belt to the south, which is host to the Maggie Hays and Emily Anne deposits. The project contains approximately 20km of strike of ultramafic stratigraphy, largely untested by modern exploration methods and only partly tested for nickel sulphides in the 1970s.

Soil sampling by the Company has enabled prioritisation of the more prospective ultramafic bodies for follow-up. Subsequent Moving Loop Electromagnetic (MLEM) surveying over the highest priority areas has defined a bounded conductor indicative of massive sulphides. TEM modelling suggests two possible plate orientations: (i) a 500m×110m plate, striking approximately north-south, relatively flat dipping and plunging to the south and, (ii) a 200m×300m plate striking approximately north-south, and dipping 54° to the west. Both modelled conductors are within or adjacent to ultramafic rocks prospective for nickel sulphide mineralisation.

The latter plate best corresponds with geological observations; however holes have been designed to test both plates. Drill testing is scheduled to commence in February 2013 subject to access approvals being received.

# **Exploration Project Generation**

**De Beers Database** (IGO 100%)

The Company owns the non-diamond specific exploration database which was built up by De Beers Australia Exploration Limited ("DBAE"). This database represents the culmination of more than 30 years of exploration. The key assets of the database are the 292,000 surface geochemical samples and associated analytical results covering many mineral prospective regions throughout Australia (Figure 1). As DBAE was solely focused on diamond exploration, less than half of the samples were appraised for commodities other than diamonds.

This work continues to generate a significant number of anomalies including 85 gold anomalies, 44 base metals anomalies and 19 strategic metal anomalies.

Systematic prioritisation and field appraisal and ground acquisition of these anomalies is progressing. No further details can be released due to the competitive nature of this work.





Photo 6: Base metal gossan discovered while following up on a De Beers base metal anomaly.



# March 2013 Quarter Exploration Program

#### Nickel/Base Metals

Long:	Diamond drill testing for Moran, McLeay and Long North extensions.			
Jaguar:	Diamond drill testing Jaguar and Lagonda areas. Aircore testing Bentley South South, Daimler and Jensen.			
Stockman:	Diamond drill testing DeepFoot TEM anomaly. Surface TEM and geochemical target generation with a focus on gold.			
Dingo Range:	Continued TEM testing of ultramafic horizons. Auger sampling analysis.			
Bungalbin:	Drill test TEM anomaly.			
Gold Projects				
Tropicana:	Continued drilling and aircore geochemical traversing.			
Karlawinda:	Preparation for aircore testing in the Bibra to Bibra East area.			
Project Generation				

De Beers: Continued analysis of priority geochemical samples and field follow-up of anomalies.

Christopher M. Bonwick Managing Director INDEPENDENCE GROUP NL



# **Competent Persons Statements**

The information in this report that relates to Exploration Results is based on information compiled by Mr Christopher M Bonwick who is a full-time employee of the Company and is a member of the Australasian Institute of Mining and Metallurgy. Mr Bonwick has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bonwick consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources or Ore Reserves is a compilation of previously published data for which Competent Persons consents were obtained. Their consents remain in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. With the exception of the Duketon JV Rosie Mineral Resource, the Stockman Project Ore Reserve and the Tropicana JV Mineral Resource, the Company's 2012 Annual Report released to the ASX on 19 October 2012 contains details of the Competent Persons Consents for these Mineral Resources or Ore Reserves.

**Duketon JV (Rosie Deposit):** Please refer to the Company's ASX announcement on 31 October 2012 (September 2012 Quarterly Report) for the Rosie Mineral Resource Competent Persons Statements.

**Tropicana JV:** Please refer to the Company's ASX announcements on 27 July 2011 and 4 December 2012 for Tropicana Mineral Resource and Ore Reserve Competent Persons Statements.

**Stockman Project:** The information in this report that relates to the Stockman Project Ore Reserves is based on information compiled by Mr Geoff Davidson. Mr Davidson is a Consultant for Mining And Cost Engineering Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Davidson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Davidson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# **Forward Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Independence Group NL's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may," "potential," "should," and similar expressions are forward-looking statements. Although Independence Group NL believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these Forward Looking statements.

Appendix 1 follows on next page.



**APPENDIX 1** 

# STOCKMAN PROJECT: CURRAWONG AND WILGA ORE RESERVE

#### **Ore Reserve Estimate Parameters – January 2012**

(critoria listod in the	Estimation and Reporting of Ore Reserves first group, and where relevant in other preceding groups, apply also to this group)
Mineral Resource estimate for	Mineral Resource estimates were created using Ordinary Kriging. Variography was     completed on Cu. Bb. Zp. Eq. Ag. Au and density
conversion to Ore Reserves.	<ul> <li>completed on Cu, Pb, Zn, Fe, Ag, As, Au and density</li> <li>The Mineral Resources reported are inclusive of the Ore Reserves.</li> </ul>
	The Mineral Resource stimate was completed in June 2012.
Study status.	This Ore Reserve was based on designs and estimates consistent with a detailed
Sludy status.	feasibility study. The costs were derived from Vendor estimates specific to the project and
	are considered to be within +/- 15% order of accuracy.
	A detailed mine plan was developed from which a practical mining schedule was
	determined. Standard modifying factors associated with the selected mining method have
	been applied. The mining method will use the long hole stoping techniques to recover
	detailed economic mineralisation. Amongst others, the study included geotechnical analysis
	of the mine openings and detailed analysis and design of the paste backfill and its
	application in the mining method.
Cut-off parameters.	The Net Smelter Return (NSR) method was used to determine the economic cut-off for
	the mineralisation. The NSR values were calculated on a 'mine gate' sale basis and
	incorporates metal pricing current at time The NSR value was also adjusted for transport
	costs, port handling charges and TC/RC on all payable metals. Payable metals included
	copper, zinc, gold and silver.
	• Gold (Au) grades are classified as Inferred at Wilga due to a paucity of gold assays in
	historic drilling. Revenue from gold in the Wilga ore was included in the estimation of the
	Ore Reserve. The contribution to revenue of this gold was estimated to be \$3.84 per gram
	of gold insitu. This inclusion did not make any material difference to the value of the mining
	envelopes considered and did not warrant downgrading of any portion of the Ore Reserve
	<ul> <li>attributable to Wilga. The contribution from Wilga represents 13% of the total Ore Reserve.</li> <li>The cut off was determined from the site operating costs including mining, processing and</li> </ul>
	site administration and overhead costs. The cut-off was estimated to be between \$92 and
	\$104 per tonne processed. An incremental cut-off of \$60 per tonne was also estimated as a
	subset of these costs and represented the minimum value of material economic to process
	once delivered to the surface stockpile.
Mining factors or assumptions.	The Ore Reserve was determined by digitising practical stope wireframes around
3	contiguous blocks of indicated material above the cut-off. The wireframes were expanded
	by 0.5 m to include unplanned mining dilution from over break. An additional 2% allowance
	was included in the dilution of certain stopes where there would be significant exposures of
	paste backfill during mining. A nominal 5% ore loss was applied to account for losses such
	as under-break, unrecovered bridges and toe, ore lost due to excessive dilution from fall
	dirt, miss classified ore, localised variations in the ore outline which cannot be efficiently
	removed during mining and reduction in the stoping boundaries as a consequence of
	updated resource information. In addition, any development outside of the stope wireframes
	which reported an average grade above an incremental NSR cut-off of \$60 per tonne were
	also included in the reserve.
	• The mining method used to determine the Ore Reserve was long hole open stoping using paste backfill. This method and mining parameters applied to the method were deemed to
	be appropriate for the nature and geometry of the deposits at Currawong and Wilga.
	Stope spans and other ground support requirements were determined from analysis
	conducted by geotechnical consultants Mining One. Grade control methods would entail
	methods used by IGO at their existing operations in WA and will include stope definition
	diamond drilling, face and stockpile sampling.
	The Mineral Resource model was prepared by IGO geologists in accordance with the
	JORC Code 2004. Ordinary Kriging was used to estimate the grade of key elements such
	as Cu, Zn, Au, Ag, Pb, Fe and As.
	Sufficient detailed analysis was carried out to provide confidence in key assumptions such
	as stability of stope spans and mining rate. Test work of the paste backfill has
	demonstrated degradation over time (260 days) which has been compensated for through
	the increased addition of binder. This has helped maintain the values well above minimum
	threshold. Test work is ongoing to examine the long term performance of the paste.
	• The method used to apply dilution estimated the addition of material to be approximately
	10%. The mining method requires total extraction within the stoping envelope; therefore, no
	losses will occur from ore tied up in pillars. A nominal 5% ore loss was applied for reasons
	as described above. A minimum mining width of 2 m (true width) was used in to digitise
	stope wire-frames.
	•The mining method will require conventional decline access and primary ventilation shafts



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	and tunnels. In addition, a backfill paste plant will need to be constructed and paste
	reticulated throughout the stoping areas of the mine. Paste will be trucked to Wilga using
	agitator trucks and discharged into a bore hole from where it will be reticulated throughout the mine.
Metallurgical factors or assumptions.	The metallurgical process will use differential floatation to produce separate concentrates
motanargical lactore of accumptione.	of copper and zinc. The method is commonly used throughout the world for the style of
	mineralisation that exists at Stockman.
	• The metallurgical process is well tested throughout the world and is currently being used
	at IGO's Jaguar operations.
	Numerous composite samples have undergone batch kinetic testing. The samples tested
	were taken from both Currawong and Wilga deposits. Geo-metallurgical algorithms were
	developed for the mineralisation at Stockman. The recoveries therefore vary depending on
	the combination of minerals. The average recoveries across the life of mine were estimated from the project cash flow these being as follows:
	<ul> <li>Life of mine recovery of Copper to copper concentrate = 80%</li> </ul>
	<ul> <li>Life of mine recovery of Gold to copper concentrate = 17%</li> </ul>
	<ul> <li>Life of mine recovery of Silver to copper concentrate= 42%</li> </ul>
	<ul> <li>Life of mine recovery of Zinc to zinc concentrate = 76%</li> </ul>
	<ul> <li>Life of mine recovery of Silver to silver concentrate = 17%</li> </ul>
	• No provision was made in the NSR estimate for penalty elements. Marketable copper
	concentrates can be produced from both deposits. The penalty element assays are
	generally low and, where slightly high, remain in the negotiable range for settlement. Marketable electrolytic grade zinc concentrates are produced from both deposits when
	treating lower lead grade feeds (<1% Pb). Arsenic is low (<0.25%), iron is acceptable (8-
	10%), lead relatively low (<2%) and silica is also acceptable (<1.5%)
	Locked cycle testing was conducted on a range of composited samples considered to be
	representative of the various types of mineralisation. This approach is considered
	appropriate for the level of confidence required. Previous owners observed similar locked
	cycle test results. No bulk samples or pilot scale testing was carried out.
Cost and revenue factors.	Project capital and operating costs were estimated on a bottom-up basis using take-offs
	from detailed design. Project specific budget quotations were sourced from vendors in compiling the estimate. Plant and infrastructure is considered to be estimated to within +/-
	15% or better level of accuracy.
	• The mine head grade was determined from the mining schedule which reported individual
	diluted stope inventories and their specific timing on the project. The metal prices used
	were based on metal prices current at the time.
	Provision was made in the NSR value calculation for 2.75% royalty payable to the
	Victorian government. The Royalty was applied at the 'mine gate' and therefore applied on
	revenue net of all smelter deductions and charges, transport costs and port charges.
	• Gold (Au) grades are classified as Inferred at Wilga due to a paucity of gold assays in historic drilling. Revenue from gold in the Wilga ore was included in the estimation of the
	Ore Reserve. The contribution to Revenue of this gold was estimated to be \$3.84 per gram
	of gold insitu. This inclusion did not make any material difference to the value of the mining
	envelopes considered and did not warrant downgrading of any portion of the Ore Reserve
	attributable to Wilga. The contribution from Wilga represents 13% of the total Ore Reserve.
Market assessment.	In its June 2012 Long Term Outlook, Wood Mackenzie forecast the average growth rate in
	<ul> <li>copper demand to be around 3.5% for the next 15 years.</li> <li>In its June 2012 Long Term Outlook, Wood Mackenzie estimated the global consumption</li> </ul>
	of zinc to be circa 13 Mt and the forecast average growth rate to average 3.7% over the
	next 15 years.
	• Wood Mackenzie conducted an analysis of the copper supply side of the market. This
	included the contribution made by scrap metal from refinery and smelter processes. These
	contributions are forecast to be relatively constant over the next 15 year period, supplying
	around 20% of the global demand.
	Wood Mackenzie conducted an analysis of the zinc supply side of the market. The     senarel suffects for mine production uses for short term growth to 2014. followed by a
	general outlook for mine production was for short-term growth to 2014, followed by a decline in global production due to numerous closures as mining reserves are depleted. By
	2020, global output will be back at current levels following the 2014 peak and continue to
	fall to around 20% below current levels by 2025.
	Metal prices used in the cash flow model were as follows:
	- Copper \$US 8068.84 per tonne of copper metal
	- Zinc \$US 2,072.32 per tonne of zinc metal
	- Gold \$US 1,687.00 per ounce troy of gold
	- Silver \$US 32.32 per ounce troy of silver
	The prices used for the cash flow model were applied as flat forward real pricing and were
	based on spot prices current as at January 21 <sup>st</sup> 2013. The cash flow was modelled in real
	terms and no price or cost escalation was applied.
Other.	The Stockman Project is located within a granted mining lease (MIN5523),
	• The project is located within the Victorian state forest which adjoins the Alpine National
	Park. The project is in essence a brownfields site having been operated in the mid 1990's
	when the Wilga deposit was being mined and the ore was processed at the Waxlipspur



Classification.	<ul> <li>plant site located adjacent to the proposed Currawong plant site.</li> <li>The primary natural risk to the project is through bushfire.</li> <li>The project is dependent on existing infrastructure mainly the main road network connecting the site to Bairnsdale and further to the port of Geelong. Power generation will be dependent on supplies of compressed natural gas (CNG) drawn from a the Eastern Gas Pipeline that passes through Bairnsdale, where a CNG compressor station will be constructed and from which CNG will be trucked to site.</li> <li>IGO is currently drafting the Environmental Effects Statement (EES) in consultation with the Victorian government through the mechanism of the Technical Reference Group (TRG). The official EES submission is intended to be submitted in June 2013 and, subsequent to being deemed adequate for exhibition, will be released for public review and comment. This will be followed by a panel inquiry involving hearings, expert opinion. At the conclusion of the process the Minister for Planning will issue an Assessment Report in conjunction with the assessment report by the panel. All state and federal government licensing, permitting, approvals and conditions for operating are required to give the Ministerial Assessment Report consideration, amongst other information, before making their determinations.</li> <li>The Ore Reserve was classified in accordance with the JORC (2004) code. Standard modifying factors and conversions were applied as described above. No known issues</li> </ul>
	existed at the time which required the levels of confidence of the Ore Reserve to be
	downgraded, hence all indicated resource within the mining envelope was converted to
	probable.
	• Gold (Au) grades are Inferred at Wilga due to a paucity of gold assays in historic drilling. Revenue from gold in the Wilga ore was included in the estimation of the Ore Reserve. The contribution to Revenue of this gold was estimated to be \$3.84 per gram of gold insitu. This includes did to the the set of the unit of the unit of the prime and the set.
	inclusion did not make any material difference to the value of the mining envelopes considered and did not warrant downgrading of any portion of the Ore Reserve attributable
	to Wilga. The contribution from Wilga represents 13% of the total Ore Reserve. • The methods used are considered by the Competent Person to be appropriate for the
	style and nature of the deposit.
	The Mineral Resource does not contain any material classified as Measured hence no
Audits or reviews.	downgrading of Ore Reserve classifications was applied.  • The Ore Reserve estimate has been subject to internal reviews.
Discussion of relative	A detailed cash flow model was created using the design case commodity pricing described
accuracy/confidence.	above. The cash flow analysis demonstrated a positive return for the project. Various sensitivity analyses were carried out on the cash flow model. Key parameters were
	varied by 15% each way. These parameters included metal prices, foreign exchange rate, treatment charges, capital and operating costs. The results were evaluated on the basis of
	pre-tax operating cash flow less capital. With the exception of the foreign exchange rate, all parameters tested returned a positive result. Foreign exchange was considered to be a manageable risk through the implementation of currency hedging.