

#### MEDUSA MINING LIMITED

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#### ANNOUNCEMENT

28 July 2015

### INVESTOR PRESENTATION

(ASX: MML)

Please find attached a PowerPoint Presentation which the Company will present in

Sydney on 29, 30 & 31 July 2015;

Outlined below are Competent Persons' Consents in relation to resource and reserve information which appears in the Investor Presentation.

#### JORC CODE 2012 COMPLIANCE - CONSENT OF COMPETENT PERSONS

#### **Medusa Mining Limited**

Information in this report relating to **Exploration Results** has been reviewed and is based on information compiled by Mr Gary Powell who is a member of The Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy. Mr Powell is a full time employee of Medusa Mining Limited and has sufficient experience, which is relevant to the style of mineralisation and type of deposits under consideration, and to the activity which they are undertaking, to qualify as a "Competent Person" as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Powell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Cube Consulting Pty Ltd**

The information in this report that relates to **Mineral Resources** is based on, and fairly represents information and supporting documentation compiled by Mr Mark Zammit, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Zammit is employed by Cube Consulting Pty Ltd and 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Zammit consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Carras Mining Pty Ltd**

The Information in this report relating to **Ore Reserves** is based on information compiled by Dr Spero Carras of Carras Mining Pty Ltd. Dr Carras is a Fellow of the Australasian Institute of Mining & Metallurgy and has 30 years of 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Carras consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Gold producer focused on organic growth in the Philippines

# **INVESTOR PRESENTATION**

**JULY 2015** 

# **CAPITAL STRUCTURE**



## SHARE CAPITAL

Ordinary Shares: 207,794,301

Unlisted Options: 4,200,000

■ Market Capitalisation (as at 21 July 2015) ~ A\$148M

## SUBSTANTIAL SHAREHOLDERS (as at 30 June 2015)

Van Eck Associates Corporation 6.47%

Paradice Investment Management Pty Ltd 5.40%

Dimensional Fund Advisors LP
5.00%

CASH ON HAND (at 30 June 2015) US\$14.2M

# **PRODUCTION STATISTICS**



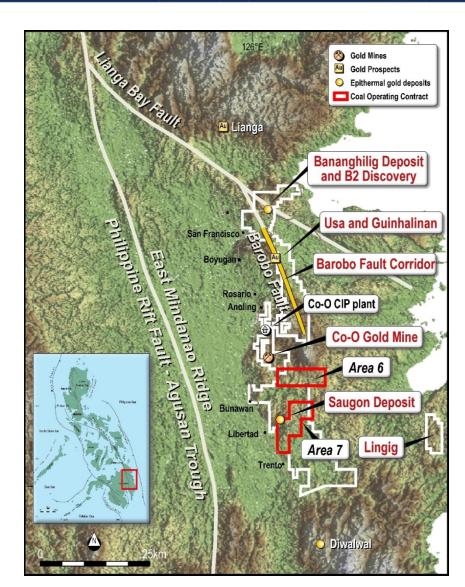
Description	Unit	Qtr ended 30 Sep 2014	Qtr ended 31 Dec 2014	Qtr ended 31 Mar 2015	Qtr ended 30 Jun 2015	FY ended 30 Jun 2015
Tonnes mined	WMT	160,851	174,658	157,489	166,497	659,495
Ore milled	DMT	140,234	160,251	135,725	146,095	582,311
Head grade	g/t	5.02	5.56	5.84	6.01	5.61
Recovery	%	92%	93%	94%	94%	93%
Gold produced	ozs	21,018	26,859	23,940	26,542	98,359
Cash costs (1)	US\$/oz	\$382	\$380	\$391	\$390	\$385
Gold sold	ozs	22,491	28,190	17,169	29,350	97,200
Average gold price received	US\$	\$1,272	\$1,204	\$1,197	\$1,217	\$1,220

<sup>(1)</sup> Net of development costs and includes royalties and local business taxes but no by-product credits

# **Philippines Focused**

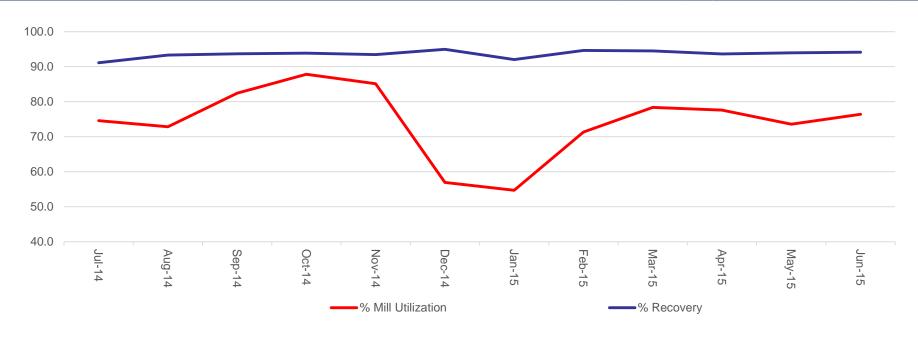


- □ Strategic land holding along wellmineralised Diwata Range
- ☐ Growing production at Co-O Mine by:
  - Increasing tonnage
  - Improving head grades
  - Improving efficiencies
  - Reducing costs
- ☐ Organic growth by;
  - Developing Bananghilig to production
  - Advancing Guinhalinan to Feasibility Study



# Co-O MILL RECOVERIES AND UTILISATION





- □ Design Capacity 2,500 tpd (2015 average 2,160 tpd, per day operated)
- □ Recovery FYQ2-2015 at 94% (Metallurgical test work optimum 95%)
- □ New tailings storage facility construction in progress (completion Q2-2015)
- □ Grid power at mine and mill (100% standby diesel power at mine and mill)

# **Co-O MINE**



- 25 year Mining License 2008 (renewable by another 25 years)
- Service Shaft under construction
- Level 9 horizontal development commenced
- Internal shaft to Level 10 installed.

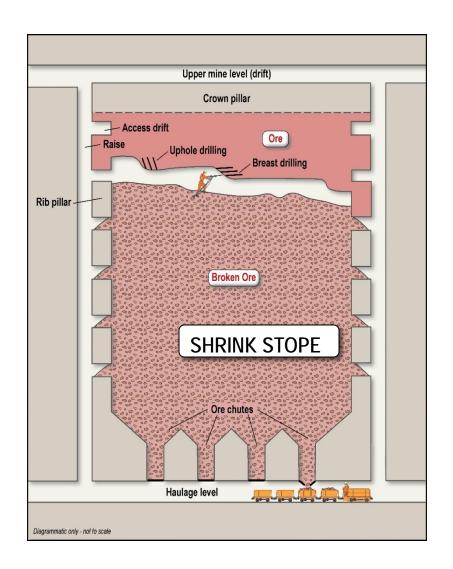


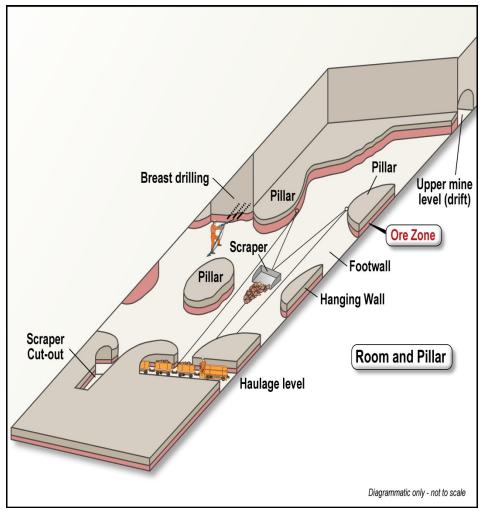


- □ 10 levels at 50 metre spacing
  - ~ 60 priority headings
  - ~ 100 stopes
  - ≥ 1,500 metres development per month (21,150 metres for full year)

# **STOPING METHODS**







# **LEVEL 8 SHAFT**





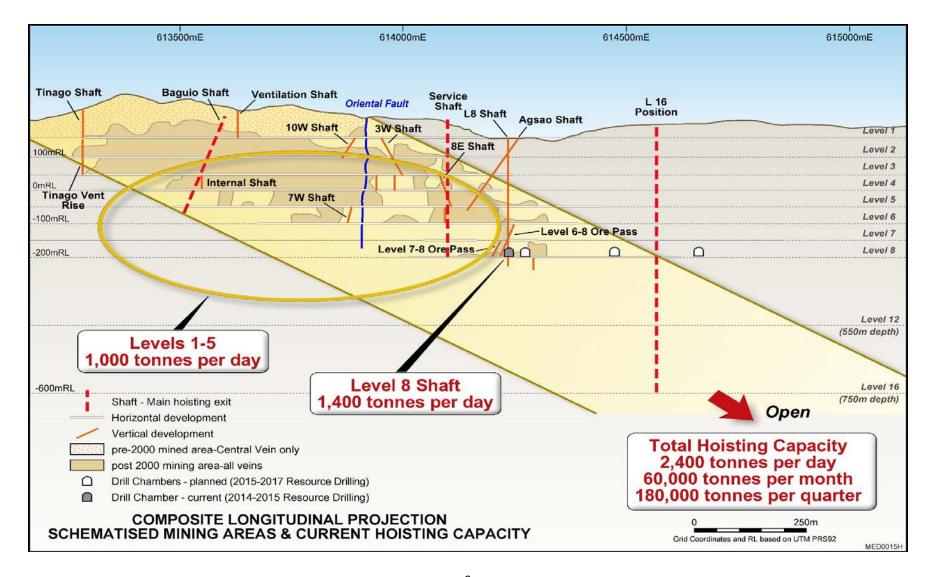
 Combined mine haulage capacity approximately 60,000 tonnes per month

- Skip size: 4.8 tonnes
- Double deck man-cage: 24 men



# **CURRENT HOISTING CAPACITY**





## **CONTINUOUS IMPROVEMENTS**



### **Tramming**

- Installation of tramming loops at L8 Shaft loading hoppers allowing continuous one way traffic
- Underground fleet increased to 98 battery locomotives and 290 mine cars which will be increased to 400 over medium term to allow empty return cars to be left at work places
- Non-stick lining to mine cars being trialed to reduce carry-back and speed up dumping at ore bins

### Ventilation

- Second 85kW axial fan being installed parallel to existing 85kW axial fan
- New ventilation district Levels 6-10 established with vent raises 60% complete. New 225kw centrifugal fan ordered which will be operational December quarter 2015

### **Stope Protocols**

 New payment system based on breakage 66% adopted Stope grades increased 50% thus far

### **Dewatering**

Dirty water (up to 20% solids) pumping system being installed

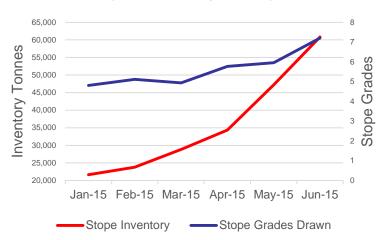
### Internal Shafts

 Internal shafts being developed on ore to access Levels 9 and 10 with minimal waste development

### Advanced Mine Planning Software

All mine planning undertaken in 3D wire-framing

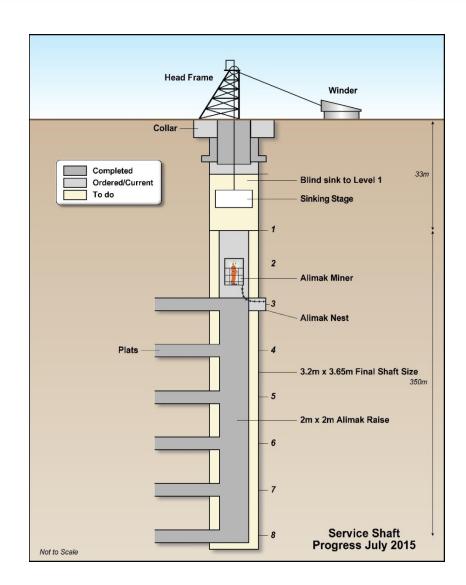
# Stope Inventory and Grades Drawn (excludes development ore)





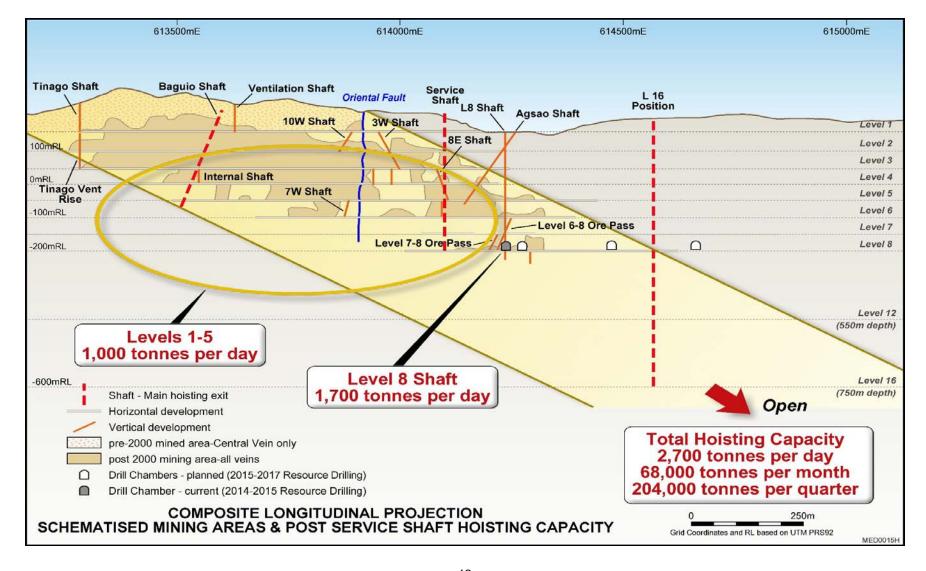
# **SERVICE SHAFT BENEFITS**

- □ All personnel will access Levels 3 to 8 via Service Shaft. Levels 1 & 2 will continue to use portals (currently personnel use ladderways from surface excepting Levels 7 and 8 that use L8 Shaft.)
- □ All materials for Levels 3 to 8 will use Service Shaft (currently materials lowered via L8 Shaft or internal shafts)
- The elimination of personnel and materials from L8 Shaft and internal shafts will leave these to exclusively hoist ore.
- Continuous and easy access to all levels for Supervision and Maintenance personnel will result in greater efficiencies and operating cost reduction.



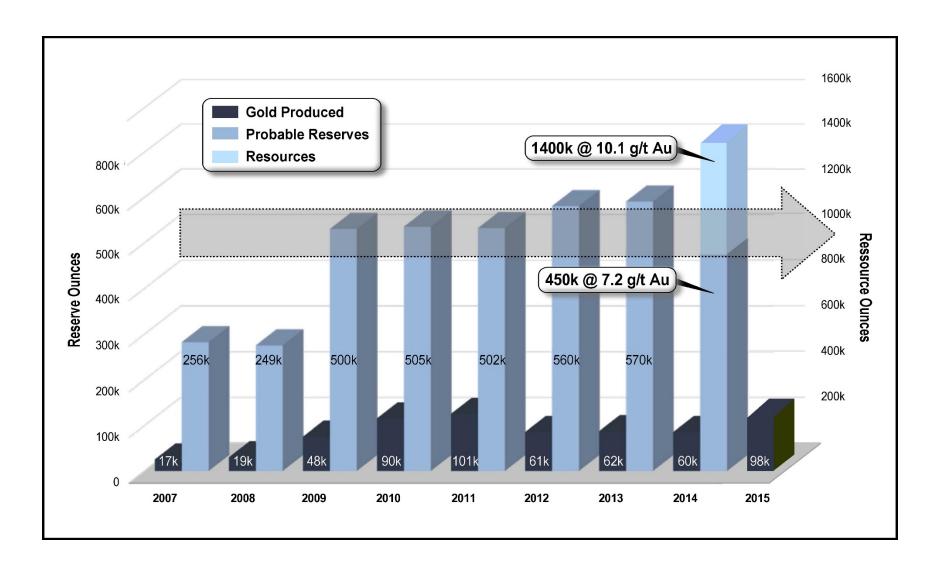
# POST SERVICE SHAFT HOISTING CAPACITY





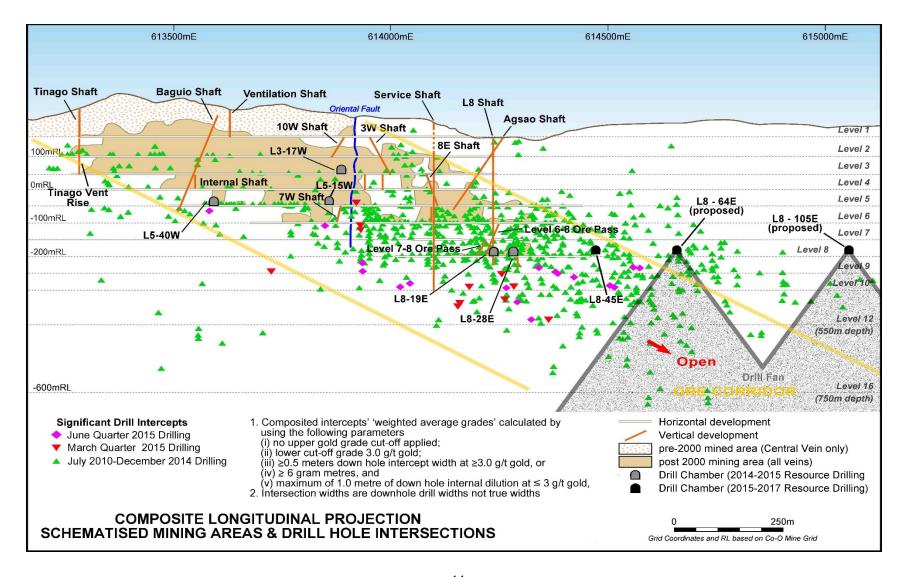
# **Co-O MINE RESERVES and RESOURCES**





# Co-O MINE LONGITUDINAL PROJECTION





## **FISCAL YEAR 2015-16 GUIDANCE**



Description	Unit	2015-2016
Production guidance	ounces	120,000 to 130,000
Cash Costs	US\$ /ounce	US\$380 to US\$430
Development expenditure	US\$	US\$40M
Capital expenditure (sustaining)	US\$	US\$10M
Capital expenditure (Service Shaft)	US\$	US\$10M
Exploration expenditure	US\$	US\$11M
AISC (1)	US/ounce	US\$960 to US\$1,060

Note (1): included in AISC is capital expenditure for Service Shaft approximately US\$80 per ounce

- □ AISC will be elevated in medium term whilst key infrastructure projects are underway but will reduce once completed and cost efficiencies are achieved.
- ☐ Improved grade (from stope protocols) and tonnage (after Service Shaft operating) will contribute to AISC reduction.

# TAMBIS DISTRICT

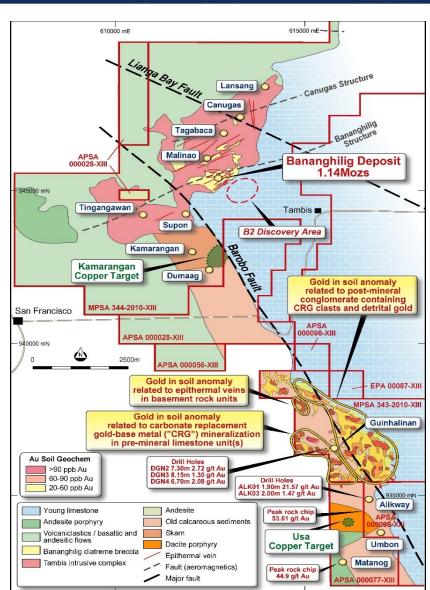


## **Bananghilig Deposit**

- □ 1.14 million ounces at 1.4 g/t gold in diatreme breccia
- □ B2 Discovery Area extension
- New resource estimate by December 2015

## **Guinhalinan Prospect**

- Regional scale 5km long high value gold in soil anomaly
- Silica replacement of multiple calcareous sediment horizons
- Scout drilling commencing shortly



# **COMMUNITY, ENVIRONMENT AND SAFETY**



### Education

- Scholarships and assistance
- Adopt-a-school programs in 23 schools
- Over 9,840 students benefitting
- Co-O Mine 16 bed hospital with doctors
- Community Development
  - Micro loans to rice farmers
  - Day care & community health centres
  - Road maintenance and bridge building
  - Construction of community buildings
  - Water projects

### Environmental Protection Enhancement

- Environmental monitoring
- Re-afforestation using rubber plantations
- Rehabilitation of tailings dams

### □ Safety

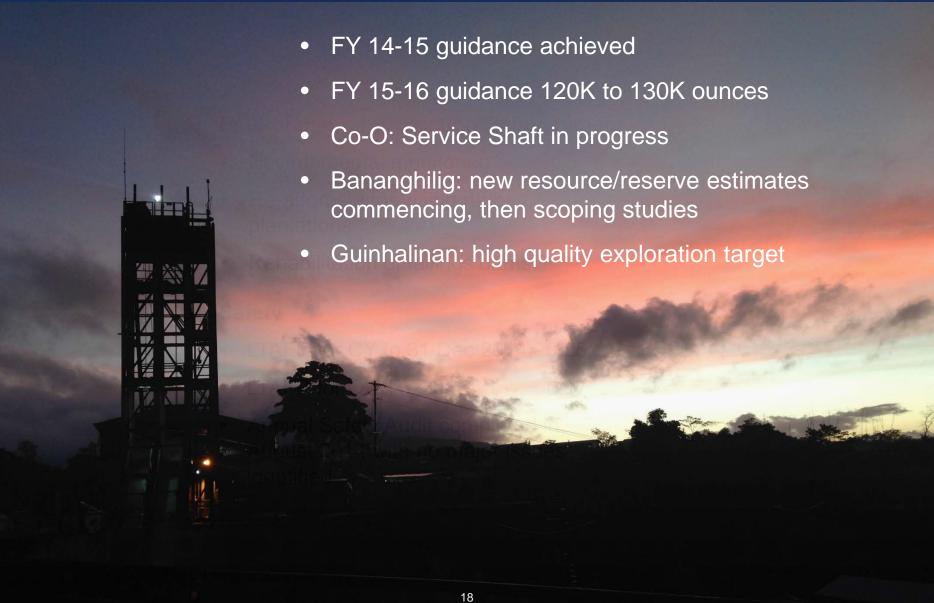
- LTAFR for CY to 30 June 2015: 0.25
- LTAFR for Q4, FY 2015: 0.39
- Annual Safety Audit planned before December 2015

### ☐ ISO 14001 Certification

In progress, completion late 2016

# **SUMMARY**





## **APPENDIX 1.**



## MINERAL RESOURCE AND RESERVE QUALIFICATIONS

(Refer to ASX announcement dated 25 September 2014)

#### **Notes**

- 1. Co-O mineral resources and ore reserves estimated under guideline of JORC Code 2012.
- 2. Bananghilig and Saugon Mineral Resources were previously prepared and first disclosed under the JORC Code 2004, and have not been updated to comply with JORC Code 2012 on the basis that the information has not materially changed since it was last reported (08 August 2013).

#### **Mineral Resources:**

#### Co-O:

- a lower cut-off of 3.0 g/t gold, minimum mining widths of 1.2 metres, minimum diluted grade of 2.7 g/t gold, minimum grade x width of 3.2 g.m/t have been applied.
- various upper cuts (up to 300 g/t gold) have been applied to different veins.
- a gold price of US\$1,500 has been applied

#### Bananghilig:

- a lower cut-off of 0.8 g/t gold was applied, and various upper cuts

#### Saugon:

- a lower cut-off of 2.0 g/t gold was applied

Rounding to the nearest 10,000 may result in some slight discrepancies in totals

#### Ore Reserves:

Ore Reserves are a subset of Indicated Mineral Resources

#### Co-O:

- minimum mining widths of 1.25 metres (stopes ≥60°) and 1.5 metres (stopes <60°) have been applied, and where the vein width was equal to the minimum mining width, and extra 0.25 metres dilution was added to the hanging wall.
- a further 10% dilution have been allowed for slabbing in mining of low angle stopes under draw,
- shape dilution of 8% of extra tonnage at 2 g/t gold, for extra development and to reflect pinch and swell of veins,
- 85% mining recovery for stopes < 10 g/t gold,
- 90% mining recovery for stopes ≥10 g/t gold,
- 50% of pillars for empty stopes in major veins are included in reserve and diluted to 200%,
- a cut-off grade of 2.0 g/t gold has been applied for development ore
- a cut-off grade averaging 3.0 g/t gold has been applied to broken ore (dependent on closeness to hoisting point)
- a cut-off grade of 3.8 g/t gold has been applied to developed stopes
- a cut-off grade of 4.3 g/t gold has been applied to un-developed stopes
- a gold price of US\$1,250 has been applied

# MINERAL RESOURCES AND RESERVES



Deposit	Category	Tonnes	Grade (g/t gold)	Ounces Gold
MINERAL RESOURCES 3				
Co-O Resources 1 (JORC Code 2012)	Indicated	1,560,000	11.8	590,000
	Inferred	2,780,000	9.2	820,000
Total Co-O Resources	Indicated & Inferred	4,340,000	10.1	1,410,000
Bananghilig Resources <sup>2</sup> (JORC Code 2004)	Indicated	16,060,000	1.5	770,000
	Inferred	8,460,000	1.4	370,000
Total Bananghilig Resources	Indicated & Inferred	24,520,000	1.4	1,140,000
Saugon Resources <sup>2</sup> (JORC Code 2004)	Indicated	50,000	7.0	10,000
	Inferred	30,000	4.6	10,000
Total Saugon Resources	Indicated & Inferred	80,000	6.0	20,000
Total Resources	Indicated	17,670,000	2.4	1,370,000
Total Resources	Inferred	11,270,000	3.3	1,200,000
TOTAL RESOURCES	Indicated & Inferred	28,940,000	2.8	2,570,000
ORE RESERVES 3				
Co-O Reserves 1 (JORC Code 2012)	Probable	1,920,000	7.2	450,000
TOTAL RESERVES	Probable	1,920,000	7.2	450,000

#### Notes:

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- 3 See Appendix 1. for Resource and Reserve Qualifications.

# **IMPORTANT NOTICE**



This presentation contains only a brief overview of Medusa Mining Limited and its associated entities ("Medusa") and their respective activities and operations. The contents of this presentation (including matters relating to the geology of Medusa's projects), may rely on various assumptions and subjective interpretations which is not possible to detail in this presentation and which have not been subject to any independent verification.

This presentation contains a number of forward-looking statements. Known and unknown risks and uncertainties, as well as factors outside of Medusa's control, may cause the actual results, performance and achievements of Medusa to differ materially from those expressed or implied in this presentation. Medusa does not warrant the accuracy, currency or completeness of the information with respect to forward-looking statements contained in this presentation, nor the future performance of Medusa.

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The information contained in this presentation is not a substitute for detailed investigation or analysis of any particular issue and has been prepared without consideration of your objectives and needs and financial position. Current and potential investors and shareholders should seek independent advice before making any investment decision in regard to Medusa or its activities.

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### **Board of Directors:**

Andrew Teo (Non-executive Chairman)

Raul Villanueva (Executive Director)

Robert Weinberg (Non-executive Director)

Ciceron Angeles (Non-executive Director)

### **Management:**

Geoffrey Davis (Chief Executive Officer)

Robert Gregory (Chief Operating Officer)

Peter Alphonso (Chief Financial Officer)

Gary Powell (Manager Geology and Resources)

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