





# Mining 2012 Resources Convention

**Brisbane, 1 November 2012** 

**Greg Cochran – Managing Director** 

ASX: DYL www.deepyellow.com.au





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#### **Presentation Overview**



- Corporate Profile
- Market Overview
- **Weight** Uranium in Namibia
- Deep Yellow's Portfolio
- Omahola Project
- Tubas Sand Project
- Conclusion





### Corporate Profile



#### The Board

Mervyn Greene – Chairman

Greg Cochran – Managing Director

Martin Kavanagh – Executive Director

Gillian Swaby – N.E.D

Rudolf Brunovs – N.E.D (independent)

Christophe Urtel – N.E.D

Mark Pitts – Company Secretary

#### Executives & Management

**Greg Cochran** – Managing Director

Martin Kavanagh – Executive Director

Leon Pretorius - MD: Namibia

**Ursula Pretorius –** Financial Controller

Klaus Frielingsdorf – GM: Technical

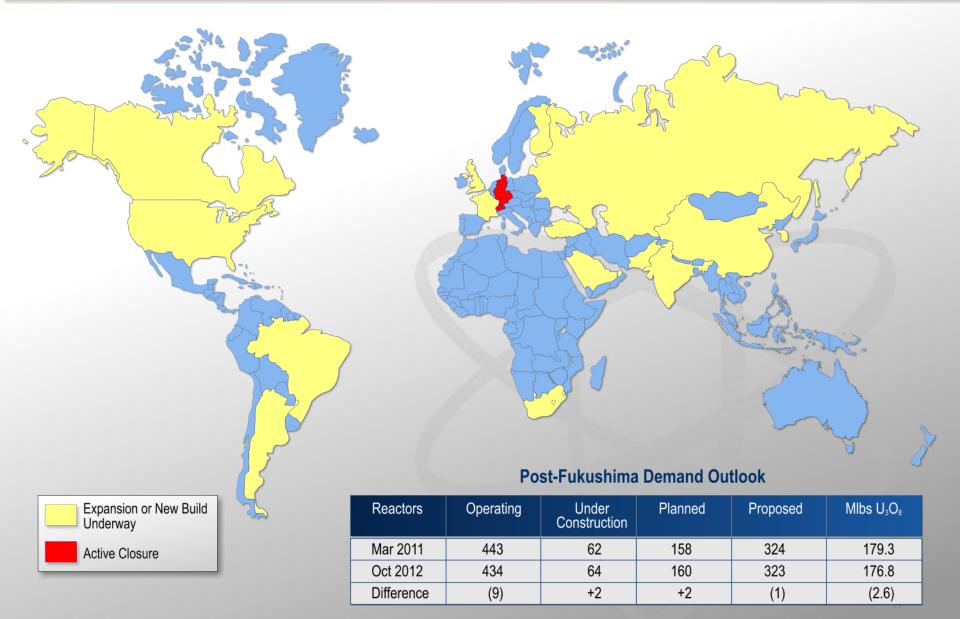
#### Capital Structure – as at 24 Oct 2012

Shares on Issue	1,424.174 M						
Unlisted Performance Rights	12.258 M						
Market Cap (@ 8c)	~ 114 M						
Net Cash	~9.8 M						
Major shareholders:							
Major shareholders:							
Major shareholders: Paladin Energy	20.87%						
•	20.87% 10.87%						



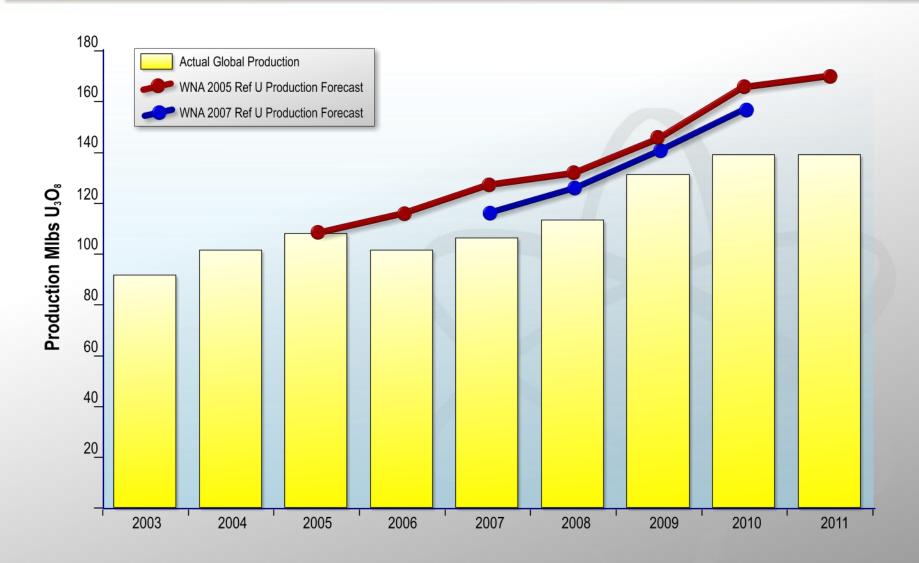
# **Demand Projections**





# **Supply Projections**





Consistently optimistic forecasting leads to industry complacency

## Demand & Supply Issues



#### Demand remains strong, underpinned by:

- Growth in China, Russia, India and Korea
- New entrants, primary in the Middle East
- Sustained demand from existing players (USA, UK)

#### Supply constrained by:

- Inadequate incentive price for new projects
- Operational issues for existing products
- New projects face other challenges
- Secondary supply evaporating (End of HEU 2013)

#### Balance - What Balance?\*

2020 Mine production required 220Mlb

2011 Mine Production 140Mlb

2011 - 2020 Mine Closures

2013 HEU ends

-36Mlb

2484

Shortfall **140Mlb** 

7271

### Industry Valuations & Incentive Prices



Date	Target	Acquirer	EV US\$/lb
Aug – 12	Yeelirrie Uranium Project	Cameco	3.48
Mar – 12	Millenium Project (AREVA 27.9% Stake)	Cameco	8.00
Feb <b>–</b> 12	Extract	CGNPC	7.10
Dec – 11	Kalahari	CGNPC	7.10
Nov – 11	Hathor Exploration	Rio Tinto	10.10
Aug – 11	Gas Hills Project (Strathmore)	KEPCO	9.40
Mar – 11	Mantra Resources	ARMZ	9.40
Average			7.80

Enterprise Value (EV) equal to 100% of the equity value based on the offer price plus net debt and minority interests Source: RBC, Mergermarket, Capital IQ, SDC, Paladin Energy



### Namibian Uranium Mines and Projects



#### Trekkopje – Areva

(100 ppm cut-off) 335 Mt @ 149 ppm: 110 Mlbs

#### Valenica – Forsys Metals

(67 ppm cut-off)

176 Mt @ 156 ppm: 61 Mlbs

#### Marenica – Marenica Energy Limited

(100 ppm cut-off)

196 Mt @ 169 ppm: 73 Mlbs

#### Etango – Bannerman Resources Limited

(100 ppm cut-off)

336 Mt @ 201 ppm: 149 Mlbs

#### Rossing – Rossing Uranium Limited

(100 ppm cut-off)

246 Mt @ 252 ppm: 137 Mlbs

#### **Husab – Extract Resources Limited**

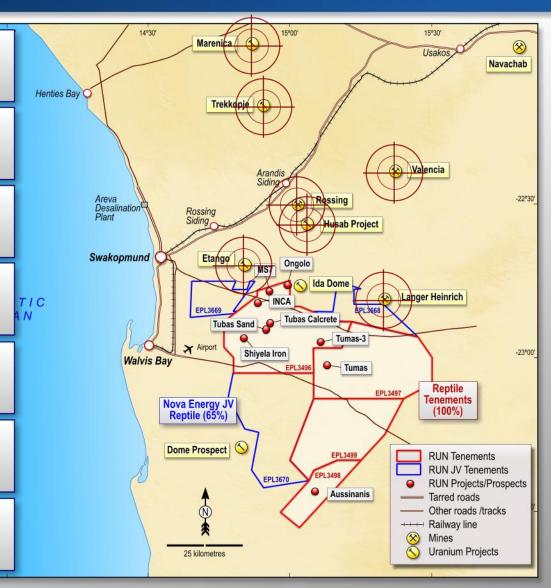
(100 ppm cut-off)

241 Mt @ 480 ppm: 257 Mlbs

#### Langer Heinrich – Paladin Energy Limited

(250 ppm cut-off)

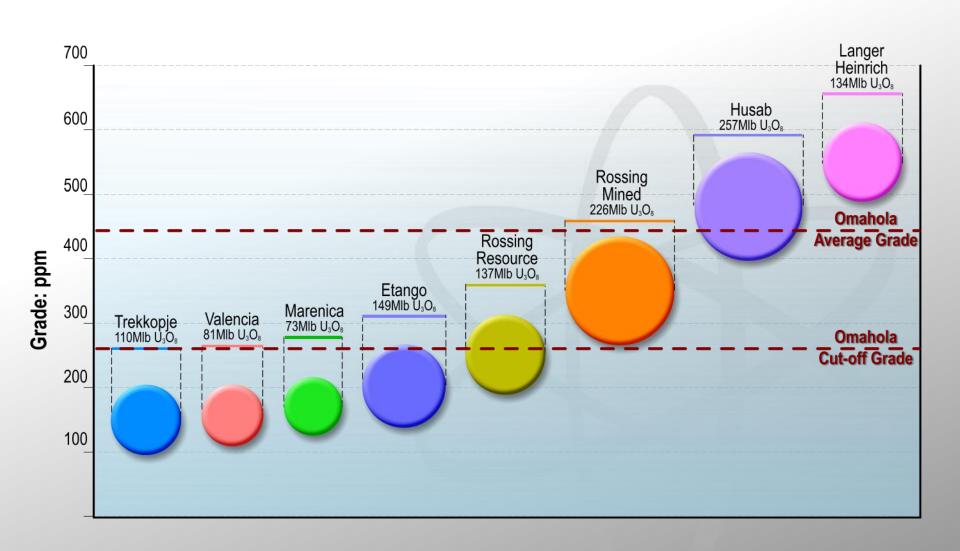
110 Mt @ 550 ppm: 134 Mlbs



Grade counts, not just size...

### Namibian Uranium Mines and Projects



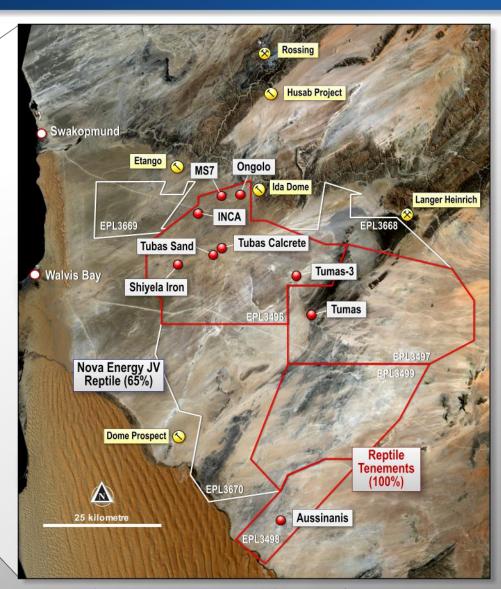


#### DYL's Namibian Portfolio





4,195 km<sup>2</sup> exploration area: 101.4 Mlbs in resources

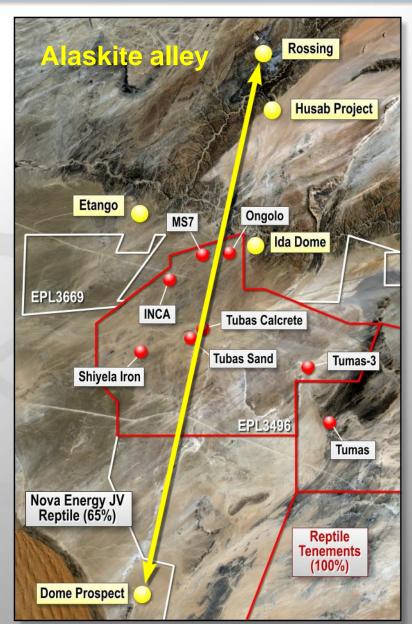


Note: Exploration in Namibia is conducted by DYL's wholly-owned subsidiary Reptile Uranium Namibia (RUN)

# Omahola: Flagship Project

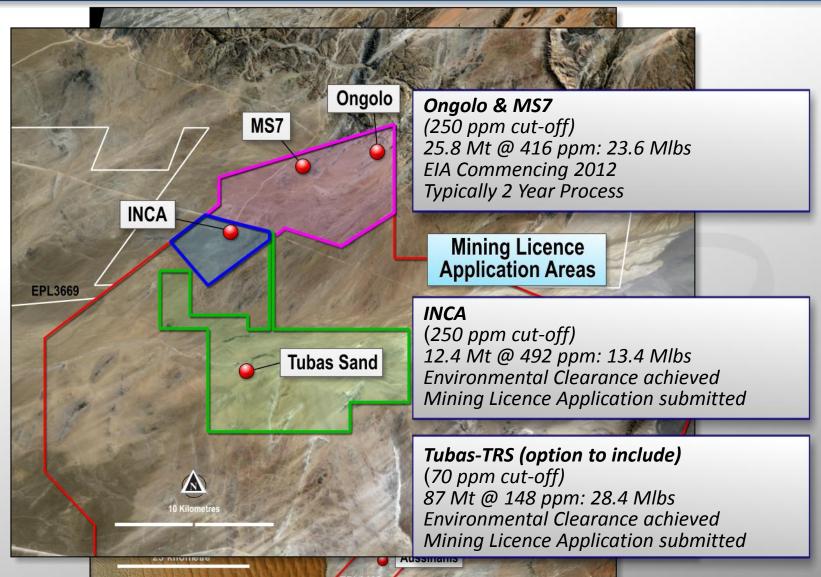


- Located in Namibia's "Alaskite Alley"
- Trend includes Rossing Uranium
  Mine (Rio Tinto) and the Husab
  Project (Formerly Extract Resources)
- Three Deposits to feed one plant:
  - Ongolo high grade alaskite hosted uranium mineralisation
  - MS7- Ongolo satellite, high grade alaskite hosted uranium mineralisation
  - INCA unique high grade uranium, magnetite and pyrite mineralisation
- ♦ Objective: Achieve predominantly alaskite Resource of 50 Mlbs U₃O8 for "critical mass"



### Omahola Project: Resource Base





Omahola JORC Resource: 38.2 Wit at 441 ppm for 37 Mlbs U3O8

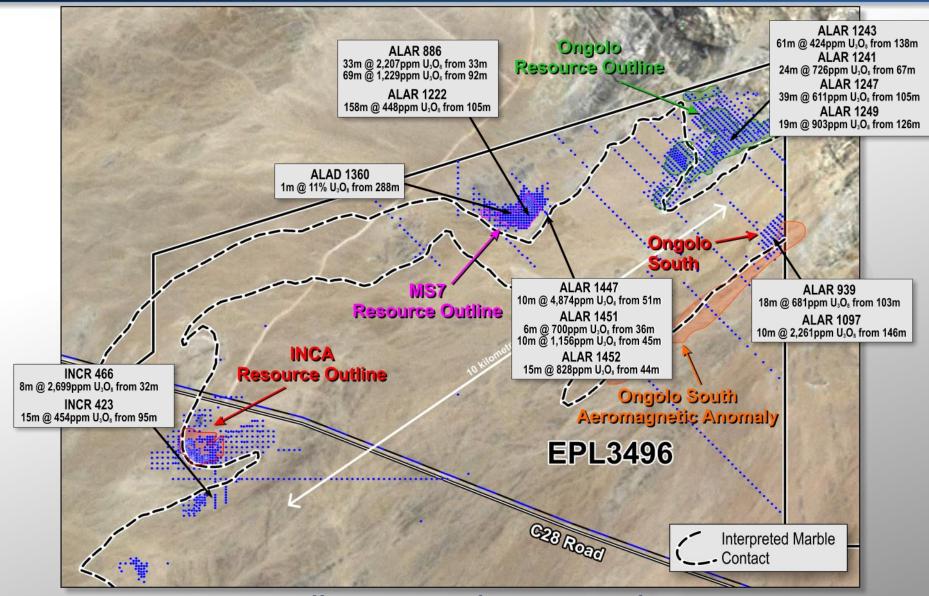
# Omahola Project: Status



- - 2.2 Mlbs pa design capacity, assumed 12 year mine life
  - Open pit mining, conventional acid leach processing plant
  - Capex: ~US\$330m and Opex: ~US\$30/lb
- **Objective: finalise Pre-Feasibility Study in 2013**
- Drill programme designed to achieve critical mass by:
  - Increasing size and confidence of Ongolo and MS7
  - Systematically drilling the Ongolo-MS7 trend to identify additional high-grade satellite deposits
  - Recent Ongolo South and MS7 footwall discoveries reinforce ongoing success and blue sky potential
- ≫ Next steps for Ongolo and MS7 scheduled H2 2012 and 2013:
  - Drilling results feeding into resource upgrades
  - Pit Optimisation and mining cost studies
  - Metallurgical testwork

### Omahola Project: Exploration Success...

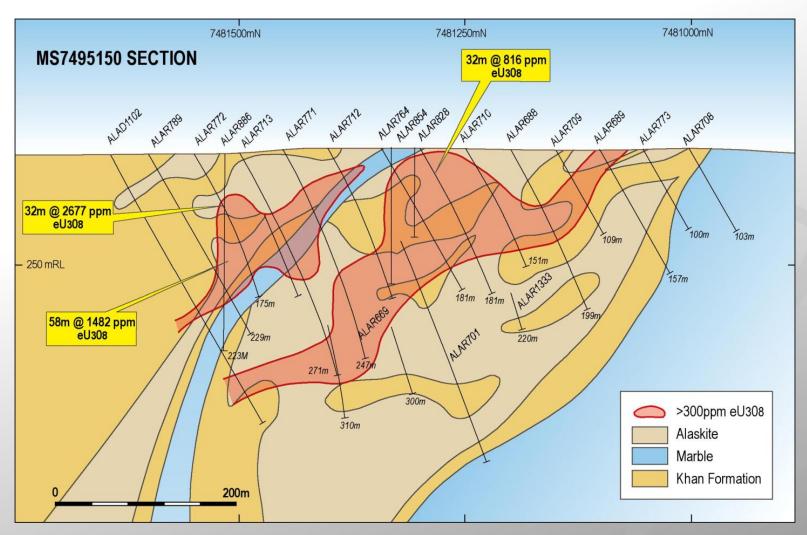




...is rapidly growing the resource base...

# Omahola Project: MS7 Section





Typical section showing shallow high grade mineralisation in lower grade alaskite envelope

### **Tubas Sand Project: Location**





# Tubas Sand Project: Overview



#### Strategy:

Develop a small low capex standalone operation initially supplying loaded resin to an existing producer

#### **Deposit Characteristics:**

- Large area of well-sorted windblown sands
- Free flowing/weakly consolidated
- Low grade by DYL standards (economic?)
- Bulk of uranium (carnotite) mostly in sub 20 μ fraction

#### **Objective:**

Concentrate maximum uranium in minimum volume through physical beneficiation to enhance economics

# Tubas Sand Project: Schauenburg

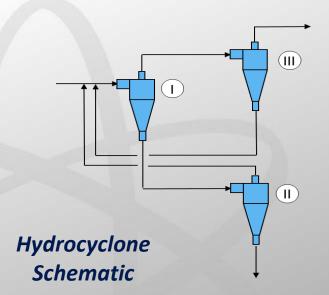


#### **Process:**

Hydrosort®- II → Scrubbing → Hydrosort®- I → 3 X Hydrocyclones

#### Successful Pilot Plant Test:

- Simple process
- Uranium Recovery >80%
- Carbonate reduction >80%
- Mass pull between 10% ~ 20%
- Uranium upgrade factor 7.9 (at 10% mass pull)
- Process guarantee offered
- Product is easily leached (pH 2.5) and loaded onto resin
- Environmental clearance in place



## **Tubas Sand Project: Potential**



- Develop sand mining operation with Schauenburg Plant
- Construct Resin-In-Leach Circuit on the INCA MLA
- Produce loaded resin for sale to existing producers
- Schauenburg plants are modular, ~ 250 tpa U₃O₃ per module
- Allows gradual up scaling
- Indicative Capital Cost from Scoping:
  - ~ U\$35 M for one module
- Longer term, supplemental feed to the Omahola Project

# Tubas Sand Project: Next Steps



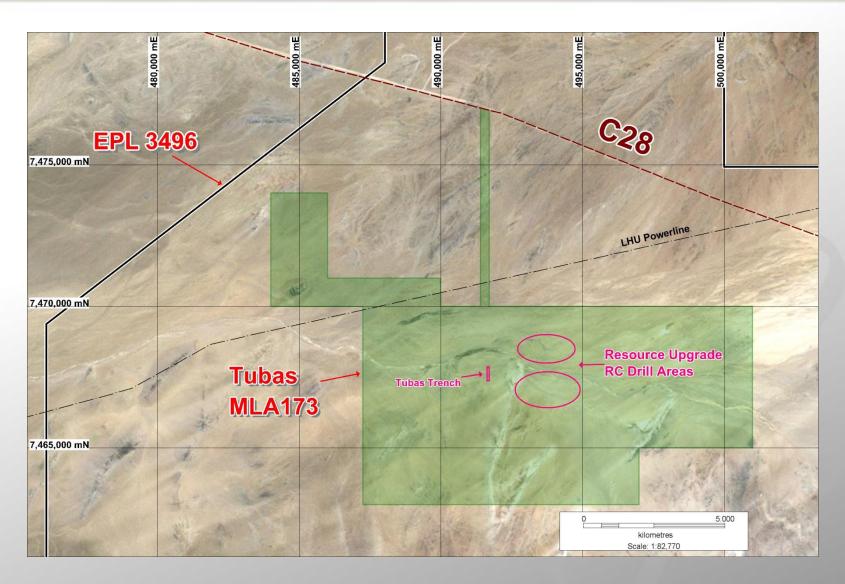
#### Accelerate project progress:

- Additional bulk sample testwork (underway)
- Drill programme to increase resource confidence
- Mining studies
- Integrated pre-feasibility and feasibility studies
- Negotiate offtake agreement and project funding

Offtake arrangement with an existing producer will reduce technical and financial risk and reduce development schedule

# Tubas Sand Project: 2012 Drilling

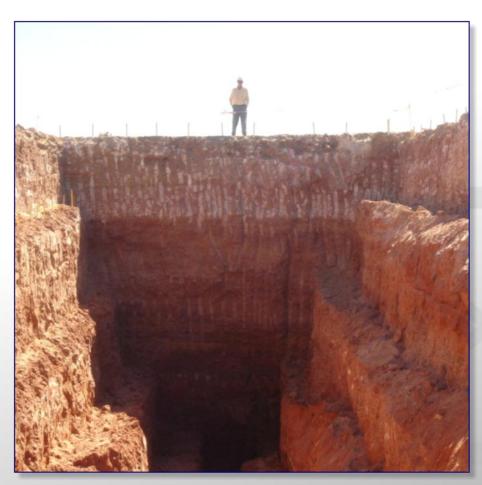




RC Programme to infill and upgrade existing inferred resource

# Tubas Sand Project: Bulk Sample







Trench for Bulk Sample

Spoil Pile

# Tubas Sand Project: Separation Testwork





**Pilot Plant** 

**Mineral Liberation** 

# Tubas Sand Project: Leach Testwork





Successfully Loaded IX Resin @ pH 2.5

# Summary – clearly defined strategy



- Two advanced stage uranium projects in one of the world's most prominent uranium mining districts in Namibia
  - Omahola is the only independent high grade Namibian uranium project and it has a rapidly growing resource base
  - Tubas Sand Project, low capex early start up standalone project with potential to ultimately provide supplemental feed to the Omahola plant
- Divestment or joint venture of non-core uranium projects ensures focus
- Namibian Shiyela Iron Project divestment will allow
  - Accelerated project development
  - Possible source of non-dilutionary funding
- Experienced management team
- Strong medium-long term uranium market fundamentals

Leading location, High grade, Growing scale,
Proven delivery record

#### **Contact Details**



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**Appendices** 

# JORC Resource Summary – June 2012



Deposit	Category	Cut-off (ppm U3O8)	Tonnes (M)	U3O8 (ppm)	U3O8 (t)	U3O8 (MIb)			
(ppm 0308) (M) (ppm) (t) (MID)  NAMIBIA									
Omahola Project									
INCA ◆	Indicated	250	7.0	470	3,300	7.2			
INCA ◆	Inferred	250	5.4	520	2,800	6.2			
Ongolo #	Indicated	250	14.7	410	6,027	13.2			
Ongolo #	Inferred	250	5.8	380	2,204	4.8			
MS7 #	Indicated	250	3.3	430	1,400	3.2			
MS7 #	Inferred	250	2.0	540	1,100	2.4			
Omahola Project Total			38.2	441	16,831	37.0			
Tubas-TRS Proje	ct								
Tubas-TRS	Inferred	70	87.0	148	12,876	28.4			
Tubas-TRS Proje			87.0	148	12,876	28.4			
Tubas-Tumas Pa									
Tumas ◆	Indicated	200	14.4	366	5,270	11.6			
Tumas ◆	Inferred	200	0.4	360	144	0.3			
Tubas-Calcrete	Inferred	100	7.4	374	2,767	6.1			
Tubas-Tumas Pa	Tubas-Tumas Palaeochannel Total		22.2	369	8,181	18.0			
Aussinanis Proje	Aussinanis Project								
Aussinanis ♦	Indicated	150	5.6	222	1,243	2.7			
Aussinanis ♦	Inferred	150	29.0	240	6,960	15.3			
Aussinanis Proje	Aussinanis Project Total		34.6	237	8,203	18.0			
TOTAL - NAMIBIA	Α		182.0	253	46,091	101.4			
AUSTRALIA									
Napperby Project	t (NT)								
Napperby	Inferred	200	9.3	359	3,351	7.4			
Napperby Total			9.3	359	3,351	7.4			
Mount Isa Project (QLD)									
Mount Isa	Indicated	300	2.2	470	1,050	2.3			
Mount Isa	Inferred	300	2.5	450	1,120	2.5			
Mount Isa Total		4.7	460	2,170	4.8				
TOTAL - AUSTRALIA		14.0	394	5,521	12.2				
TOTAL INDICATED RESOURCES			47.2 148.8	387	18,290	40.2			
	TOTAL INFERRED RESOURCES			224	33,322	73.4			
TOTAL RESOUR	CES	196.0	263	51,612	113.6				

Notes:

Figures have been rounded and totals may reflect small rounding errors

XRF chemical analysis unless annotated otherwise

<sup>•</sup> eU3O8 - equivalent uranium grade as determined by downhole gamma logging

<sup>#</sup> Combined XRF Fusion Chemical Assays and eU3O8 values

### **JORC Compliance Statements**



#### Namibia

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Leon Pretorius, a Fellow of the Australasian Institute of Mining and Metallurgy. Dr Pretorius, Managing Director of Reptile Uranium Namibia (Pty) Ltd 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'. Dr Pretorius 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 the **Ongolo, MS7 and INCA** Mineral Resources is based on work completed by Mr Neil Inwood and Mr Doug Corley. Mr Inwood is a Fellow of the Australasian Institute of Mining and Metallurgy and Mr Corley is a member of the Australian Institute of Geoscientists. Messrs Inwood and Corley have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Messrs Inwood and Corley consent to the inclusion in the report of the matters based on his information in the form and context in which it appears. Messrs Inwood and Corley are full-time employees of Coffey Mining.

The information in this report that relates to the **TRS** and **Tubas** Mineral Resource is based on information compiled by Mr Willem H. Kotzé Pr.Sci.Nat MSAIMM. Mr Kotzé is a Member and Professional Geoscientist Consultant of Geomine Consulting Namibia CC. Mr Kotzé 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 Kotzé consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the **Aussinanis and Tumas** Mineral Resources is based on work completed by Mr Jonathon Abbott who is a full time employee of Hellman and Schofield Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy. Mr Abbott 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' and as a Qualified Person as defined in the AIM Rules. Mr Abbott consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### Queensland

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Martin Kavanagh, a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Kavanagh is an Executive Director of Deep Yellow Limited 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Kavanagh 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 the Queensland Mineral Resource is based on information compiled by Mr Neil Inwood. Mr Inwood is a Member of The Australasian Institute of Mining and Metallurgy. Mr Inwood is employed by Coffey Mining 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Inwood consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Northern Territory**

The information in this report that relates to the **Napperby Project** Mineral Resource is based on information compiled by Mr Daniel Guibal who is a Fellow (CP) of the Australasian Institute of Mining and Metallurgy. Mr Guibal is a full time employee of SRK Consulting 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Guibal consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Where eU3O8 values are reported it relates to values attained from radiometrically logging boreholes with Auslog equipment using an A675 slimline gamma ray tool. All probes are calibrated either at the Pelindaba Calibration facility in South Africa or at the Adelaide Calibration facility in South Australia.