



29 April 2011

## **QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 31 MARCH 2011**

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### **HIGHLIGHTS**

#### **NAMIBIA**

##### **OMAHOLA PROJECT**

###### **Successful pilot plant testwork:**

- Demonstrates that Tubas Red Sand (TRS) uranium deposit can be economically upgraded.
- Supports significant potential for resource upgrade from similar, extensive mineralised system.
- Outlines a simple and guaranteed chemical free process with high recovery.
- Offers potential for wider application across other Deep Yellow deposits in the region.

###### **Ongolo Alaskite deposit enhanced:**

- 50% of initial target mineralised zone drilled out.
- Width of mineralised zone significantly increased and continuity demonstrated.
- Multiple mineralised high grade zones confirmed by chemical assay.

###### **Positive interim results from pre-feasibility study:**

- Potential for 12 year 2.2 Mlbs U<sub>3</sub>O<sub>8</sub> per annum operation with ore from INCA and TRS deposits.
- Conventional processing route with sulphuric acid leach and solvent extraction.
- Competitive capital (less than US\$340 million) and operating cost estimates (below US\$26/lb).
- Ongolo metallurgically compatible with planned plant which will increase project resource base.

##### **SHIYELA IRON PROJECT**

- Resource drillout on M62 and M63 deposits completed, both drilled to vertical depth of 300 metres.
- M62 open in all directions, 1 kilometre along strike and maximum width of 500 metres.
- M63 open at depth, 800 metres strike length and maximum width of 500 metres.
- Composite samples submitted for Davis Tube Recovery Testwork.
- Discussions with Port, Power and Water authorities underway.
- ProMet tests and review indicate potential for coarse grained high quality products.

### **CORPORATE**

- Quarter completed in a strong financial position, with cash and liquid assets of A\$17 Million.
  - Greg Cochran commenced as new Managing Director.
  - Japanese earthquake, tsunami and resulting damage to Fukushima Nuclear Power Station weighs heavily on short-term investor sentiment.
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## BUSINESS REVIEW

### NAMIBIA

#### OMAHOLA PROJECT

##### Successful Pilot Plant Testwork on Tubas Red Sand (TRS) Deposit

The TRS deposit is an important ore source for the Company's flagship Omahola Uranium Project. During the quarter pilot plant testwork was successfully completed that demonstrated that the relatively low grade deposit could be economically beneficiated to produce a low carbonate, uranium rich concentrate. The high grade concentrate will be suitable feedstock for the proposed Omahola Metallurgical Plant.

The results of the testwork, which outlined a simple and guaranteed chemical free process, means that:

- There is significant potential to upgrade the TRS Resource from a similar, extensive mineralised system adjacent to TRS which is some 30 kilometres in extent.
- There is potential for wider application for the technology across other Deep Yellow deposits in the region.
- A full scale hydrocyclone plant designed and fabricated by Schauenburg MAB GmbH from Germany will be supplied with a process guarantee.

Actual beneficiation performance of the pilot plant which effectively recovered over 80% of the uranium in less than 20% of the feed mass, was:

- 12% mass pull (e.g. 100 tonnes feed produced 12 tonnes of product),
- a carbonate reduction of approximately 86%,
- 84% uranium recovery, and
- uranium upgrade factor of 6.9 (e.g. 322 ppm in feed resulted in 2,218 ppm in product).

##### Ongolo Alaskite Deposit Enhanced

A decision was made late last year to include the Ongolo Alaskite Project in the total resource base for the Omahola Project PFS after widely spaced reconnaissance grid-line drilling outlined an apparent continuous mineralised zone along a 2 kilometre strike length. Infill drilling to JORC Code standards commenced in December 2010, with assay results received to mid-March 2011 being included in the initial JORC Code Resource Estimate due in the second quarter 2011. Resource drilling has continued past the mid-March cut-off which will enable further enhancements to the initial resource.

Four RC rigs and one diamond rig are continuing to drill at Ongolo on an 85 x 53 metre grid and approximately 50% of the initial target mineralised zone has been drilled out to date. Infill drilling on 40 metre sections will also be undertaken. The width of the mineralised zone has already been drilled out and has been significantly increased to 600 metres. The continuity of the deposit has also been demonstrated along strike, section and at depth.

Consistently throughout the drilling programme multiple intersections of mineralised zones with grades in excess of 400 ppm  $U_3O_8$  within wider areas of lower grade (200 ppm) alaskite mineralisation have been made. Samples for chemical assay are selected based on downhole gamma logging results that indicate grades of around 400 ppm. To date almost 1,000 samples have been dispatched and chemically assayed with the results consistently underpinning the high grade nature of these zones.

Coffey Mining (Perth) are undertaking the JORC Code Mineral Resource estimate for Ongolo based on drilling data and assay results received up to 11 March 2011. The estimate will be completed during the second quarter.



## Positive Interim Results for Pre-Feasibility Study

At the beginning of the quarter the Company released interim results for the Pre-Feasibility Study being conducted by SNC-Lavalin. The completion of the study, which commenced in March 2010, has been extended to include potential ore supply from the Ongolo Alaskite deposit which was discovered in April 2010.

The interim results demonstrated the potential for the development of an operation with:

- A 12 year mine life at a production rate of 2.2 Mlbs U<sub>3</sub>O<sub>8</sub> per annum sourced 80% from the INCA and 20% from the TRS deposits.
- Competitive capital costs of less than US\$340 million including a 10% contingency.
- Operating costs below US\$26/lb U<sub>3</sub>O<sub>8</sub>.
- Conventional processing with sulphuric acid leach and solvent extraction, followed by precipitation, drying and yellowcake packaging.
- Magnetite iron produced as a saleable by-product and on-site partial generation of sulphuric acid.

The Ongolo Alaskite deposit will be an additional source of ore for the project, thereby offering the potential to extend the life of the project and/or increase the production rate. Ongolo has a similar grade to INCA and is metallurgically compatible enabling processing by the same plant.

## SHIYELA IRON PROJECT

### Project Progress

The Shiyela Iron Project currently comprises the M62 and M63 magnetite deposits which occur within Exclusive Prospecting Licence 3496. The first phase of the Shiyela exploration programme, which commenced in June 2010, had the objective of identifying an initial resource at M62 of 120 to 150 million tonnes containing 20 to 25% magnetite to 200 metres vertical depth.

The resource drill out is now complete with a total of 141 RC holes for 25,692 metres and 5 diamond holes for 1,446 metres having been drilled at M62 and the nearby M63 deposit. Five metre composite samples have been submitted for Davis Tube Recovery testwork, total iron analysis and ICP/MS multi-element analysis at ALS Laboratories in Perth. The Company is also completing total iron analysis on one metre samples from the programme.

The M62 deposit, which is open in all directions, has been drilled down to a maximum vertical depth of over 300 metres; it has been drilled along strike for a kilometre and over a maximum width of 500 metres. This deposit alone may result in the targeted resource tonnage range.

The M63 deposit, which is open at depth, has a strike length of over 800 metres with a maximum width of 500 metres. It has also been drilled down to a maximum vertical depth of approximately 300 metres. It is believed that the mineralisation at M63 will add significantly to the initial resource target.

ProMet, a Perth based company with specialist expertise in the processing of all types of iron ore was engaged to conduct tests on samples from Shiyela. A review of the preliminary results demonstrated that three products could be produced from Shiyela, with the following characteristics:

- Excellent metallurgical characteristics with extremely low silica and low deleterious elements.
- Considered to be coarse grained with the potential to produce high quality products.
- Would not require fine grinding and could be relatively easily upgraded.



Shiyela's natural competitive advantage is its location close to the deep water port of Walvis Bay, only 35 kilometres from the deposit. In addition, the Langer Heinrich Uranium Mine power line runs adjacent to the area and a main road leading to Walvis Bay is less than 10 kilometres from Shiyela. Discussions with Namports (the port authority in Namibia), NamPower (the country's power utility) and Namwater (the water authority) have been initiated.

Golder Associates Pty Ltd (Perth) have been appointed to complete a JORC Code Mineral Resource estimate for the M62 and M63 deposits together with conceptual pit designs. It is anticipated that M63 will be completed in the second quarter and M62 in the third.

Once the resource estimates and remaining testwork have been completed (such as magnetite recovery and product grade estimates) ProMet will commence a scoping study which should be completed in the fourth quarter.

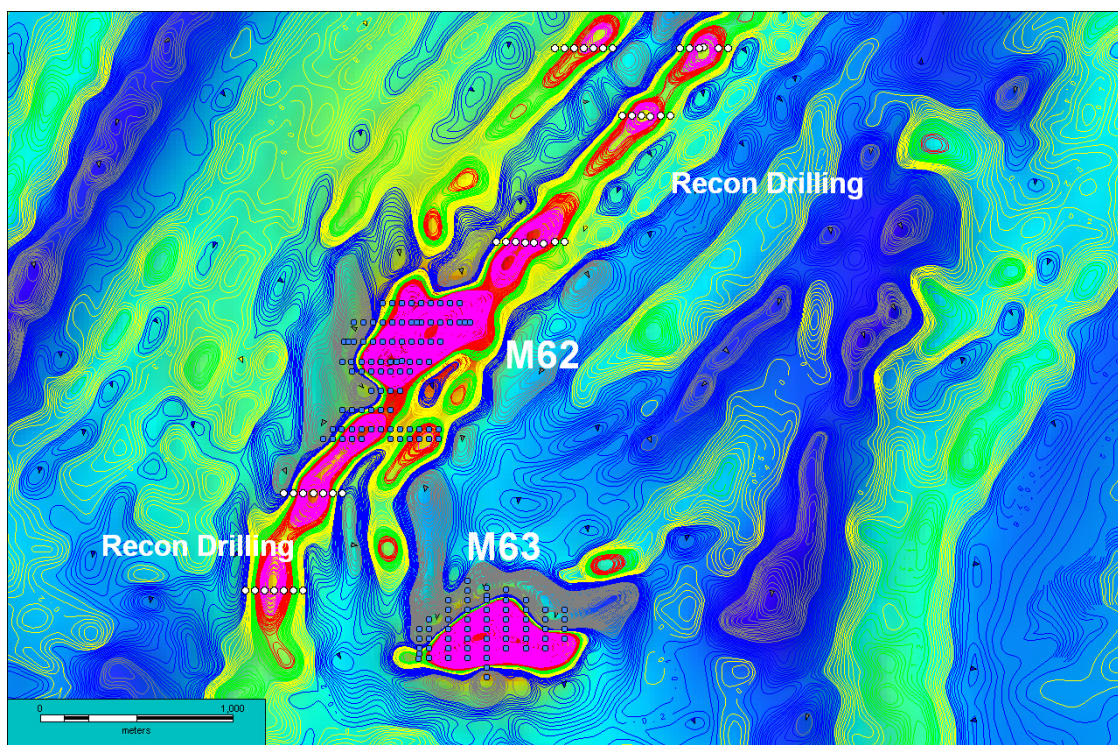
Environmental assessment studies and linear works for project access and preparation of the mining licence application are also underway.

### Reconnaissance Drill Programme

The geophysical signature of the main zone of magnetic anomalism that hosts the M62 deposit is some 20 kilometres long and had not been drill tested for additional resource potential.

To address this, an initial reconnaissance RC drill programme of five additional aeromagnetic anomalies has been undertaken. Three anomalies to the NW of M62 and two to the SW of M62 deposit will test the extent of the M62 mineralisation (Figure 1). These anomalies were identified by studying all the available data including geological logging, airborne geophysical surveys and chemical analysis. The additional drilling has the potential to ultimately increase the resource base at Shiyela.

Logging of the reconnaissance RC holes has indicated continuity of mineralisation to the northeast over an interpreted NW-SE fault with mineralisation shallow dipping to the NW compared to the steeper dipping main M62 body. To the south of M62 the drilling has returned mineralisation over a 680 metre strike as two zones contiguous with the main body.



**Figure 1: M62 and M63 Resource Drilling – Reconnaissance Drilling**



## AUSTRALIA

### Mount Isa District Exploration

The extended 'wet season' in North-West Queensland restricted access to DYL's tenements to light vehicles only. As a consequence no field activities were undertaken for the Quarter.

### Northern Territory Exploration

The extended wet season in the central Tanami-Arunta meant that the only access to the area was closed to all traffic for most of March. This limited DYL's activities to an Environmental Radiation Audit of the Napperby compound with access via the sealed highway to Tilmouth Well.

The main Napperby tenement EL 24246 was renewed for a further two years to October 2012.

## CORPORATE

### FINANCIAL

DYL completed the Quarter in a strong financial position, with cash and liquid assets of \$17 million at 31 March 2011.

### CHANGE IN MANAGING DIRECTOR

In January 2011 Mr Patrick Mutz resigned as Managing Director for personal and family reasons and was replaced by Mr Greg Cochran. A mining engineer, Mr Cochran is a Fellow of the Australian Institute of Mining and metallurgy and a graduate member of the Australian Institute of Company Directors. Prior to joining Deep Yellow Mr Cochran was CEO of Terramin Australia Ltd and before that, Executive Vice President: Australia and Asia for Uranium One.

### JAPAN AND THE URANIUM MARKET

The ongoing situation at Fukushima continues to weigh on the global capital markets for uranium industry participants. Despite the concerns there is little doubt that the long term fundamentals of the nuclear industry, driven by economics, the quest for energy security and climate change concerns, remain sound. However there is evidence that there has been a divergence between the spot price and uranium equities and many uranium companies are now trading below their net asset values. It is envisaged that in the coming months there will be a greater scarcity of funding for uranium projects. We will closely monitor the situation and its potential impact on our own funding requirements.

There is also a strong possibility that we may see an increase in corporate activity as larger players take advantage of depressed equity valuations to increase their resource base.

For further information regarding this announcement, contact:

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Managing Director

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Further information relating to the Company and its various exploration projects can be found on the Company's website at [www.deepyellow.com.au](http://www.deepyellow.com.au).

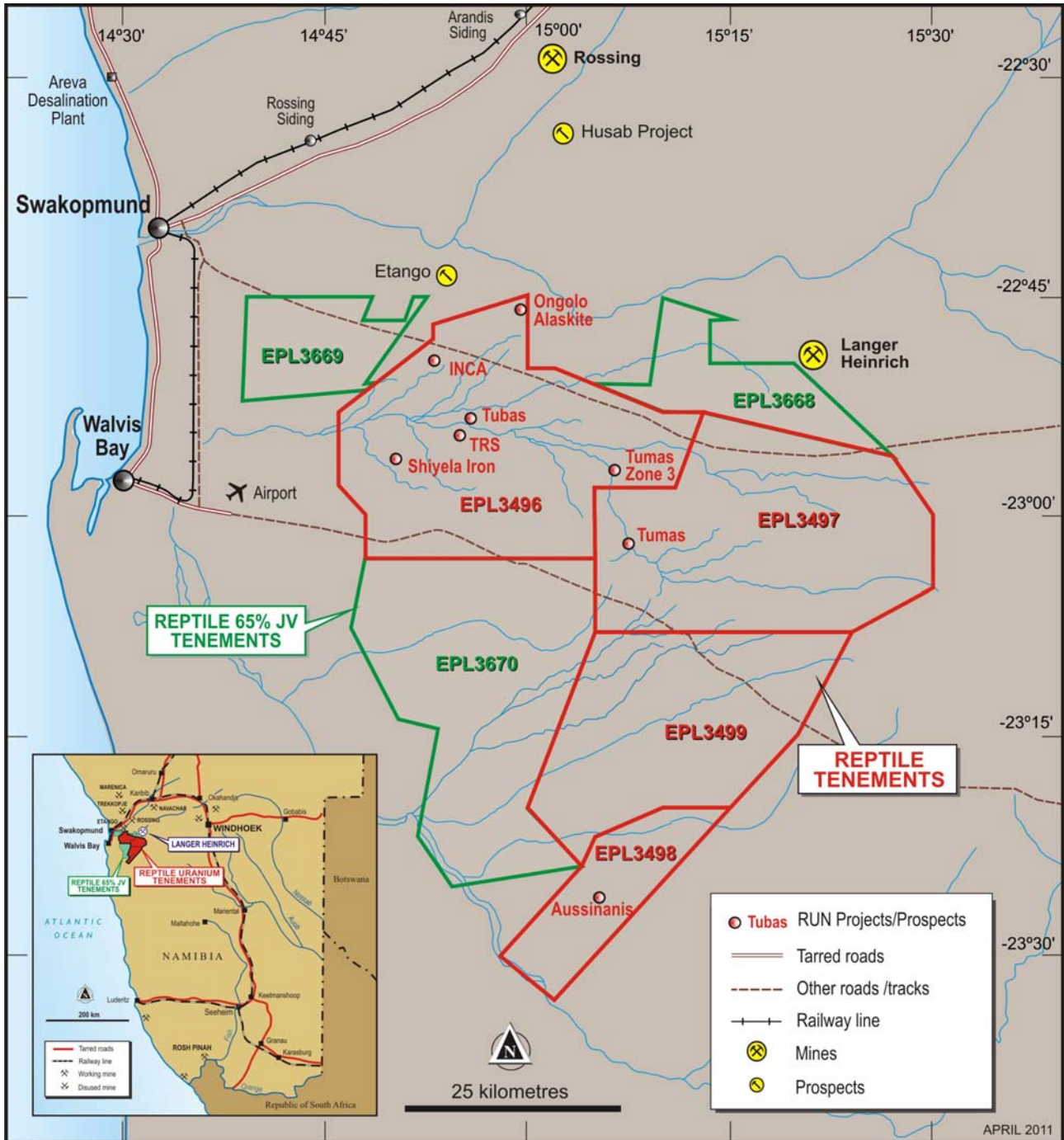


**About Deep Yellow Limited**

Deep Yellow Limited (DYL) is an ASX-listed, advanced stage uranium exploration Company with extensive operations in the southern African nation of Namibia and in Australia. It also has a listing on the NSX.

DYL's primary focus is in Namibia where its operations are conducted by its 100% owned subsidiary Reptile Uranium Namibia (Pty) Ltd (RUN). Its flagship is the Omahola Project currently under Pre-Feasibility Study with concurrent resource drill-outs on the high grade Ongolo Alaskite project and on secondary uranium mineralisation in the Tumas-Tubas palaeochannel/fluvatile sheetwash systems.

In Australia the Company is focused on resource delineation of mid to high grade discoveries in the Mount Isa district in Queensland, including the Queens Gift, Conquest, Slance, Eldorado, Thanksgiving, Bambino and Turpentine Prospects. The Company also owns the Napperby Uranium Project and numerous exploration tenements in the Northern Territory.



**Figure 2: Namibian Tenement Map**



## Appendix 1:

## JORC MINERAL RESOURCE ESTIMATES SUMMARY – DECEMBER 2010

Deposit	Category	Cut-off (ppm U <sub>3</sub> O <sub>8</sub> )	Tonnes (M)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (t)	U <sub>3</sub> O <sub>8</sub> (Mlb)
<b>REPTILE URANIUM NAMIBIA (NAMIBIA)</b>						
<b>Omahola Project</b>						
INCA ♦	Inferred	250	5.5	445	2,449	5.4
INCA ♦	Indicated	250	9.4	385	3,628	8.0
Tubas Red Sand ♦	Inferred	100	10.7	158	1,685	3.7
Tubas Red Sand ♦	Measured/Indicated	100	3.2	168	532	1.2
<b>Omahola Project Total</b>			<b>28.8</b>	<b>288</b>	<b>8,294</b>	<b>18.3</b>
<b>Tubas-Tumas Palaeochannel Project</b>						
Tumas ♦	Inferred	200	0.4	360	144	0.3
Tumas ♦	Indicated	200	14.4	366	5,270	11.6
Tumas	Inferred	100	77.3	228	17,620	38.9
<b>Tubas-Tumas Project Total</b>			<b>92.1</b>	<b>250</b>	<b>23,034</b>	<b>50.8</b>
<b>Aussinanis Project</b>						
Aussinanis ♦	Inferred	150	29.0	240	6,960	15.3
Aussinanis ♦	Indicated	150	5.6	222	1,243	2.7
<b>Aussinanis Project Total</b>			<b>34.6</b>	<b>237</b>	<b>8,203</b>	<b>18.0</b>
<b>RUN TOTAL</b>			<b>155.5</b>	<b>254</b>	<b>39,531</b>	<b>87.2</b>
<b>NAPPERBY PROJECT (NT, AUSTRALIA)</b>						
Napperby	Inferred	200	9.3	359	3,351	7.4
<b>NAPPERBY TOTAL</b>			<b>9.3</b>	<b>359</b>	<b>3,351</b>	<b>7.4</b>
<b>MOUNT ISA PROJECT (QLD, AUSTRALIA)</b>						
Mount Isa	Inferred	300	2.0	440	890	2.0
Mount Isa	Indicated	300	1.6	400	650	1.4
<b>MOUNT ISA TOTAL</b>			<b>3.6</b>	<b>428</b>	<b>1,540</b>	<b>3.4</b>
<b>TOTAL INFERRED RESOURCES</b>			<b>134.2</b>	<b>247</b>	<b>33,099</b>	<b>73.0</b>
<b>TOTAL INDICATED RESOURCES</b>			<b>34.2</b>	<b>331</b>	<b>11,323</b>	<b>25.0</b>
<b>TOTAL RESOURCES</b>			<b>168.4</b>	<b>264</b>	<b>44,422</b>	<b>98.0</b>

Notes: Figures have been rounded and totals may reflect small rounding errors.

♦ eU<sub>3</sub>O<sub>8</sub> - equivalent uranium grade as determined by downhole gamma logging.



## Compliance Statements:

*The information in this report that relates mineral resource estimation for Tumas and Aussinanis 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.*

*The information in this report that relates to the Mineral Resource estimation for the INCA deposit is based on work completed by Mr Neil Inwood who is a full-time employee of Coffey Mining and a Member of the Australasian Institute of Mining and Metallurgy. Mr Inwood 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.*

*The information in this report that relates to the Mineral Resource estimation for the INCA deposit is based on information compiled by Mr Steve Le Brun, who is a full-time employee of Coffey Mining and a Member of The Australasian Institute of Mining and Metallurgy. Mr Le Brun 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 Mineral Resources and Reserves'. Mr Le Brun 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 Mineral Resource for the Tubas Red Sand deposits is based on information compiled by Mr Mike Hall, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hall is Consulting Geologist Resources with The MSA Group 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 Mineral Resources and Reserves'. Mr Hall consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Information in this report has also been verified by Mr Mike Venter, who is a member of the South African Council for Natural and Scientific Professions (SACNASP), a "Recognised Overseas Professional Organization" ('ROPO'). Mr Venter is Regional Consulting Geologist, with The MSA Group 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 Mineral Resources and Reserves'. Mr Venter has visited the project sites to review drilling, sampling and other aspects of the work relevant to this report and 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 Mineral Resource estimation for the Tubas deposit is based on work completed by Mr Willem H. Kotzé Pr. Sci. Nat MSAIMM. Mr Kotzé who is a full time employee of Hellman and Schofield Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy. 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' and as a Qualified Person as defined in the AIM Rules. Mr Kotzé 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 Exploration Results and to Mineral Resources or Ore Reserves for the Tubas, Tumas, Aussinanis, Tubas Red Sand and INCA deposits is based on information compiled by Dr Leon Pretorius a Fellow of The Australasian Institute of Mining and Metallurgy. Dr Pretorius is a full-time employee 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'. 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 Mineral Resource estimation for the Mount Isa Projects is based on work compiled by Mr Neil Inwood, 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.*





*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves for the Mount Isa Projects is based on information compiled by Mr Martin Kavanagh a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Kavanagh is a full-time employee 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 Mineral Resource estimation for the Napperby Project 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.*

*The information in this report that relates to Exploration Results for the Napperby Project is based on information compiled by Dr David Rawlings who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Rawlings is a full-time employee of Toro Energy 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'. Dr Rawlings 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 Disequilibrium Results for the Napperby Project is based on information compiled by Mr David Wilson BSc MSc who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Wilson is a full-time employee of 3D Exploration Limited, a consultant to Toro 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 Wilson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*Where  $eU_3O_8$  is 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.*