

## ASX ANNOUNCEMENT

16 February 2015

# Pre-Feasibility Study Demonstrates Robust Economics of the Temrezli Uranium Project

## World Class ISR-Uranium Project Confirmed

### HIGHLIGHTS

- ❑ Independent, PFS-level (N.I.43-101 compliant) engineering study by Tetra Tech Inc. confirms outstanding financial returns offered by the Temrezli ISR Uranium Project<sup>1</sup>
  - ❑ Development case NPV<sub>8%</sub> of US\$ 191.1 million (A\$ 247.4 million)<sup>2</sup> pre-tax <sup>1</sup>
  - ❑ Cash operating costs of US\$ 16.89/lb of U<sub>3</sub>O<sub>8</sub> <sup>1</sup>
  - ❑ Projected life of mine gross revenue of US\$644.0 million (A\$ 833.7 million) and operating cash flow of US\$ 345.5 million (A\$ 447.3 million) based on US\$65/lb uranium price<sup>1</sup>
  - ❑ Initial capital cost of US\$ 41.0 million<sup>1</sup> incl. US\$ 4.3 million in contingencies.
  - ❑ Total uranium recovery (Development Case) of 9.9 million lbs. U<sub>3</sub>O<sub>8</sub> <sup>1</sup>
  - ❑ Project payback occurs within the first 11 months
- ❑ Temrezli confirmed to be technically low risk, and highly profitable driven by its high grade, low capex and low operating costs which will position Anatolia as one of the lowest cost uranium producers in the world
- ❑ Significant leverage to the uranium price. Sensitivity analysis indicates that every \$5/lb increment in the uranium price increases pre-tax NPV by US\$ 27.8 million
- ❑ Potential to further bolster project economics and project life through future integration of satellite mining opportunities such as Anatolia's 100% owned Sefaatli Project
- ❑ Detailed plant engineering to commence potentially allowing for savings in plant capital, via the substitution of US suppliers with Turkish suppliers, and reduction of contingencies applied.

### Pre-Feasibility Briefing - Conference Call with Q&A

Anatolia Energy will be hosting a conference call on **Tuesday 17 February at 8:30am (AWST)/11:30am (AEDT)**, for analysts, shareholders and potential investors.

Managing Director and CEO, Paul Cronin, will discuss the results of the Pre-Feasibility Study, which will be followed by a Q & A session.

#### Conference Call Instructions:

- Please connect approximately 10 minutes prior to the beginning of the call.
- Interested parties may join the conference call by using the following dial-in details

<b>Direct DDI(s) for Participant Connection</b>	Australia: 1800 041 303	New Zealand: 0800 264 316
	Hong Kong: 800 901 436	Japan: 0066 3381 2710
<b>Participant Pin Code</b>	Singapore: 800 120 5965	United Kingdom: 0800 051 8260
	United States: 1855 5624 857	International: +61 2 9001 2114
	842611#	

<sup>1</sup> Based on the Development Case which includes a the recovery of some Inferred Resources

<sup>2</sup> An AUD:USD exchange rate of 1.2946 has been applied to all A\$ values in this release.

## TEMREZLI URANIUM PROJECT OVERVIEW & PRE-FEASIBILITY STUDY

Anatolia Energy Limited (ASX:AEK) (the Company or Anatolia) is pleased to report that all technical studies and financial modelling for the Pre-Feasibility Study (PFS) into the development of the high grade Temrezli ISR Uranium Project in central Turkey have now been completed, confirming the technical viability of the project, and the robust financial returns capable of being achieved.

The Temrezli uranium deposit is the largest and highest grade uranium deposit known in Turkey, located in one of the richest uranium districts in the country, approximately 200 kilometers (km) east of Turkey's capital, Ankara.

The development plan for the Temrezli Project and the basis for the PFS, is premised on the construction of a central processing plant (CPP) at the Temrezli site, which is planned to have a production capacity of 1.2 Mlbs per annum of  $U_3O_8$ , and will process uranium bearing solutions from the Temrezli well field, with potential to process uranium-loaded resin transported from any satellite uranium deposits developed in the future from the Company's other projects in the region. The PFS modelling is based on a current Resource of 5.2Mt grading 1,157ppm e $U_3O_8$  for 13.3 Mlbs  $U_3O_8$ , from which 9.9 Mlbs of  $U_3O_8$  are recovered over an initial mine life of 12 years.

The PFS was managed by Tetra Tech, a global engineering firm with vast experience with uranium ISR operations, and relied on technical work undertaken by several other independent consultants including SRK, Hydro Solutions, MTA, R&D Inc. and CSA Global. The Pre-Feasibility Study has been prepared to an assumed accuracy of  $\pm 25\%$ , in accordance with N.I 43-101 standards.

The Company's CEO & MD, Mr Paul Cronin said:

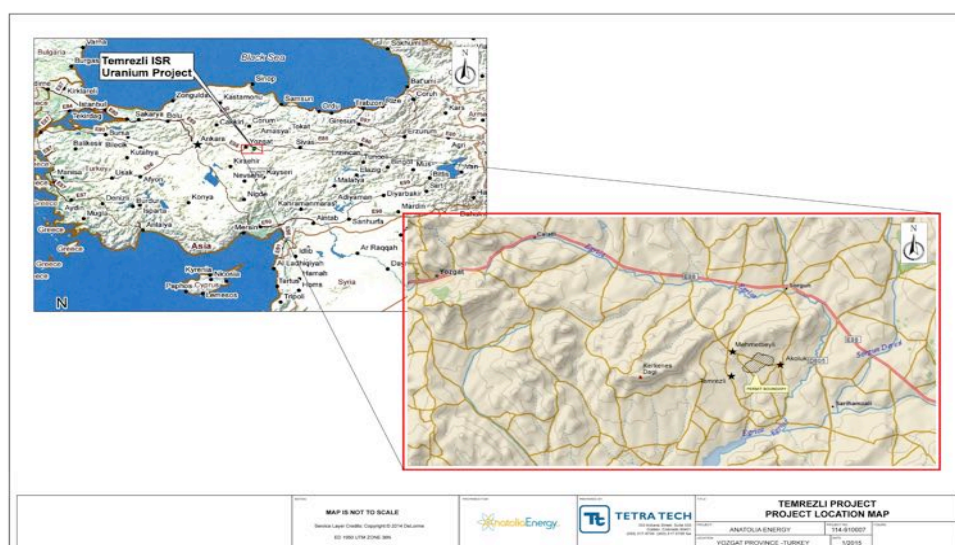
*"Completion of the PFS is a significant milestone for Anatolia and takes the Company a great deal closer towards achieving our objective of becoming a high margin producer of uranium in the near-term."*

*The test work completed by Anatolia and its independent consultants during the PFS upgraded the project in many respects since the PEA completed last year, leading to superior financial returns than have previously been reported.*

*The strong economics of the project, even at today's term uranium price provides a robust foundation for project financing and uranium sales discussions.*

*Our focus over the coming months will be to complete detailed plant designs, and seek to assess the project capital based on local Turkish plant costs, which we believe may substantially reduce upfront capital requirements."*

Figure 1 – Location Map of Temrezli Project



## PROJECT ECONOMICS

The PFS confirms that the Temrezli Project is capable of generating very significant value for shareholders, driven by a long life, high-grade deposit with lowest quartile mining costs and a low capital requirement for project start-up.

Highlights of the Temrezli Project economics are tabulated below, with two scenarios presented being:

**PFS Development Case:** Based on development of the Measured and Indicated Resources, plus 80% of the Inferred Resources.

**PFS Base Case:** Based on development of the Measured and Indicated Resources only.

The Board considers the Development Case to be the most accurate representation of the project economics given the nature of ISR development, i.e. the resources are recovered through extraction of uranium bearing solutions from the well field, and hence a large volume of Inferred Resources are likely to be recovered in the extraction process.

The Company advises that the Measured and Indicated Resources provide 88% of the total recovered uranium underpinning the forecast production target and financial projections, and that the additional life of mine plan material included in the Development Case comprises less than 12% of the total recovered uranium. For further information in relation to assumptions underpinning the production target and financial projections, please refer to Appendix A.

Table 1 – Development v Base Case Comparison

	Development Case	Base Case
<b>Total U<sub>3</sub>O<sub>8</sub> Production over LoM*</b>	9,907,630 lbs	8,711,488 lbs
<b>Mine life</b>	12 years	11 years
<b>Avg. U<sub>3</sub>O<sub>8</sub> production per annum</b>	825,636 lbs pa	791,953 lbs pa
<b>Peak U<sub>3</sub>O<sub>8</sub> production per annum</b>	1,154,563 lbs pa	1,167,757 lbs pa
<b>Revenue over life of mine</b>	US\$ 644.0 million	US\$ 566.2 million
<b>Free Cash Flow over LoM*</b>	US\$ 345.5 million	US\$ 295.0 million

<b>Avg. Cash operating cost</b>	US\$ 16.89/lb	US\$ 17.84/lb
<b>Initial capital cost incl. contingency</b>	US\$ 41.0 million	US\$ 41.0 million
<b>Capital Cost Contingency (LoM)</b>	US\$8.7 million	US\$ 8.0 million
<b>Pre-Tax NPV<sub>8%</sub></b>	US\$ 191.1 million	US\$ 1468.8 million
<b>Post-Tax NPV<sub>[8]</sub></b>	US\$ 145.6 million	US\$ 125.6 million
<b>Internal Rate of Return (Pre-Tax)</b>	65%	64%
<b>Payback period</b>	11 months	12 months

\*Life of Mine

The uranium sales price assumed for the financial model is held constant at US\$65/lb U<sub>3</sub>O<sub>8</sub>, which is based on an independent report on long term contract price, a wide range of industry sources, and a review of the fundamental supply and demand projections of the industry.

### SENSITIVITY ANALYSIS

The table below demonstrates the impact on free cash flow and NPV for a range of uranium sales prices. This demonstrates that even at current term uranium prices or lower, the Temrezli Project is capable of generating strong financial returns.

The analysis below is prepared on the basis of the Development Case, in which Inferred Resources are recovered over the life of the project.

Table 2 – Sensitivity to Uranium Price

U <sub>3</sub> O <sub>8</sub> Price	US\$40	US\$50	US\$60	US\$70	US\$80
<b>Free Cash Flow over LoM</b>	US\$110.2m	US\$204.3m	US\$298.5m	US\$392.6m	US\$486.7m
<b>Pre-Tax NPV<sub>8%</sub></b>	US\$52.0m	US\$107.6m	US\$163.3m	US\$218.9m	US\$274.5m

The majority of cost estimates for the central processing plant have been derived from US estimates, and do not reflect the potential to reduce upfront capital costs expected from the use of local suppliers. Sensitivities to CAPEX in the Development Case are presented in the following table.

Table 3 – Sensitivity to CAPEX

CAPEX Sensitivity	-30%	-20%	-10%	0	+10%
<b>Upfront Capital</b>	US\$28.7	\$32.8	\$36.9	US\$41.0m	US\$45.1
<b>Free Cash Flow over LoM</b>	US\$384.9m	US\$371.8m	US\$358.6m	US\$345.5m	US\$332.4m
<b>Pre-Tax NPV<sub>[8]</sub></b>	US\$219.7m	US\$210.2m	US\$200.6m	US\$191.1m	US\$181.5m
<b>Internal Rate of Return</b>	95%	82%	73%	65%	58%

Anatolia will immediately commence the final plant design seeking cost estimates from local Turkish suppliers, which has the potential to substantially reduce capital and partially reduce operating costs.

## MINERAL RESOURCES

The updated Mineral Resource estimate was prepared by CSA Global in accordance with the definition standards on mineral resources and mineral reserves of both the JORC (2012 Edition) and the Canadian Institute of Mining, Metallurgy and Petroleum referred to as National Instrument 43-101.

Table 4 – Mineral Resources

Category	Tonnes (kt)	Average Grade (ppm eU <sub>3</sub> O <sub>8</sub> )	Resource (M lbs eU <sub>3</sub> O <sub>8</sub> )
Measured	2,008	1,378	6.1
Indicated	2,178	1,080	5.2
Inferred	1,020	888	2.0
<b>Total</b>	<b>5,206</b>	<b>1,157</b>	<b>13.3</b>

Cut-off grade of 200 ppm U<sub>3</sub>O<sub>8</sub>

There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

## ISR MINING METHOD AND CENTRAL PROCESSING PLANT

Anatolia intends to use ISR methods to extract uranium from the Temrezli uranium deposit. The method is widely used, particularly in the USA and central Asia, and consists of installing a pattern of injection and recovery wells and circulating a mining solution (lixiviant) through the mineralized portion of the formation. The lixiviant is then pumped from the formation and the dissolved uranium is recovered through ion exchange. ISR operations entail minimal surface disturbance and no significant excavations or rework of the surface contours.

Figure 2 – Site Plan & Mine Units

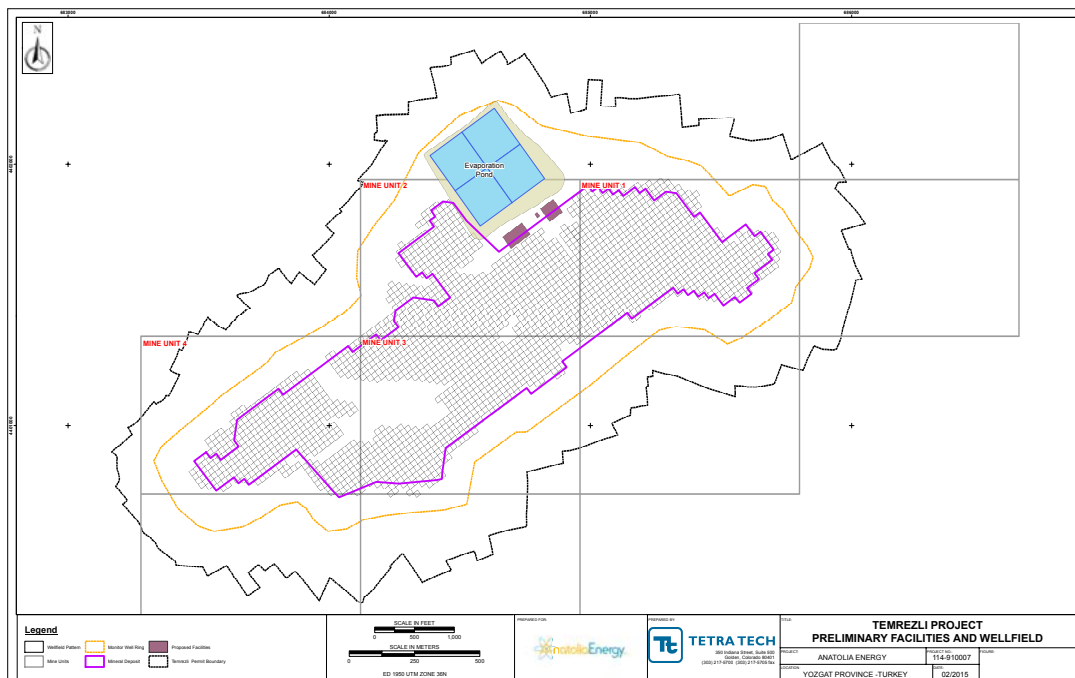
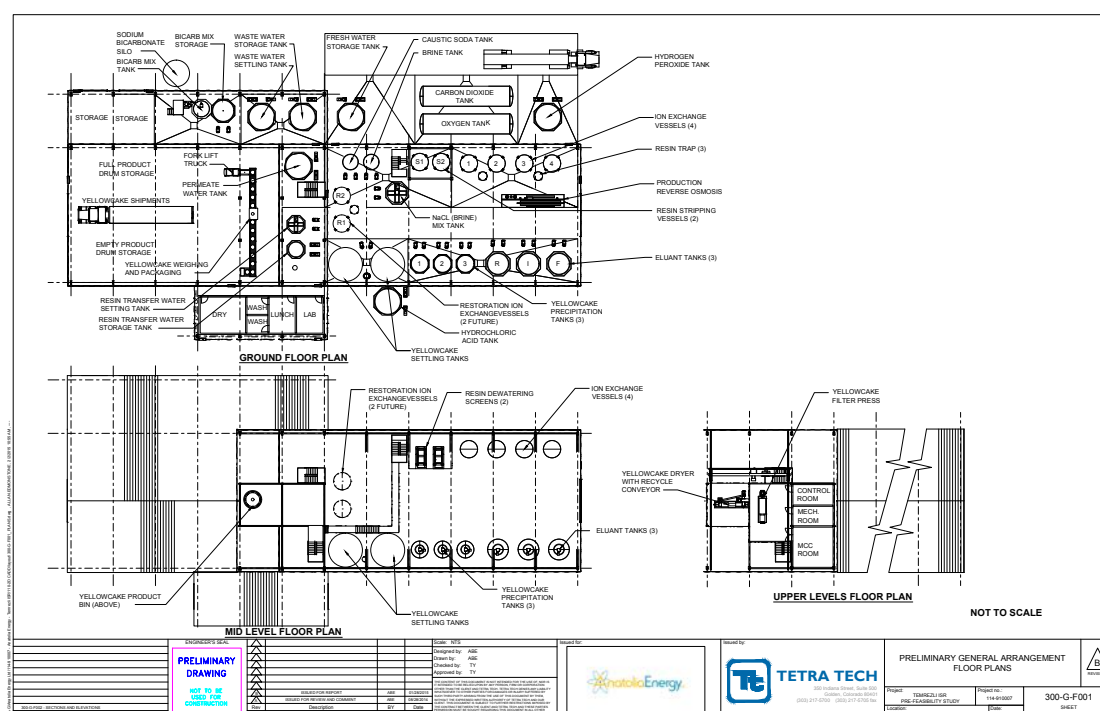


Figure 3 – Plant Design (Floor)



The central processing plant has been designed to a flow capacity of 3,000 gallons per minute fed by 66 header houses over the life of mine. Each header house will be supplied by 20 five spot well patterns, consisting of 20 production wells and 40 injection wells. The final detailed plant design will also provide for additional capacity to receive pregnant resin from potential satellite projects.

To complement the scalability in the plant, a 570,540 m<sup>3</sup> evaporation pond will be constructed to contain an expected system bleed of 20.2 m<sup>3</sup> per day. The pond will be constructed with a 3 foot clay liner on top of a combination of a 2 mm textured HDPE liner and a geo-synthetic clay liner to ensure containment, whilst retaining capacity for potential output expansions.

## OPERATING COSTS

Anatolia's cash operating cost is estimated to be US\$16.89/lb and is inclusive of owners costs, plant and well field reclamation, restoration, and royalties.

Achievement of the operating costs estimated by the PFS would make Anatolia one of the lowest cost producers of uranium globally, and ensure the project provides strong cash flow, even in times of depressed uranium prices such as those experienced in recent years. The sensitivity analysis undertaken as part of the PFS demonstrates that even at the current term contract price of US\$50/lb, the low operating costs ensure that the Temrezli Project is capable of generating a strong profit.

All-in sustaining costs after inclusion of initial and sustaining capital are estimated at US\$30.12/lb U<sub>3</sub>O<sub>8</sub>.

Table 5 – Operating Costs

Operating Costs	US\$/lb.
Well field Reclamation	\$1.00
Site decommissioning	\$0.25
Employee Costs	\$2.06
Production Materials & Supplies	\$4.30
Maintenance Materials & Supplies	\$1.07
Non-Operating Materials & Supplies	\$0.23
Outside Services	\$0.98
Utilities	\$2.13
General Expenses	\$1.07
Post-Production Costs	\$0.50
Royalties	\$2.64
Operating Contingency	\$0.66
<b>Total</b>	<b>\$16.89</b>

## CAPITAL EXPENDITURE

Initial capital expenditure required to progress to first uranium production is estimated to be US\$41.0 million (including contingencies), and total capital requirement to reach positive cash flow from operations is estimated at US\$48.5 million.

The initial capital expenditure includes the CPP facility and the development of the first well field production unit.

Table 6 – Capital Expenditure

	Pre Startup US\$ million	Post Startup US\$ million	LoM Cost US\$ million
EPCM & Owners Costs	5.0	-	5.0
Infrastructure	3.4	3.6	7.0
Central Processing Plant	14.3	1.5	15.8
Evaporation Ponds	4.0	-	4.0
Well Fields & Header Houses	10.0	80.6	90.6
Capital Cost Contingency	4.3	4.4	8.7
<b>Total</b>	<b>41.0</b>	<b>90.1</b>	<b>131.1</b>

NOTE: The totals in the table above may not equal the sum of the preceding rows due to rounding.

The low capital cost of Temrezli Project is a function of the *off-the-shelf* and widely used ISR processing equipment which can be utilised by Anatolia, the benefits of operating in the low-cost operating environment of Turkey and of the excellent infrastructure present on the project site.

A great advantage and capital cost saving for the Temrezli Project relative to many other ISR uranium projects is that there is no requirement for deep disposal wells at the project for disposal of waste water. The geologic and climatic conditions allow Temrezli to use evaporation ponds for the waste water disposal, providing a significant capital cost saving.



Anatolia's Temrezli Project remains off-take free, providing maximum flexibility to the Company in respect of the development funding options available to it. Anatolia has already received significant interest from a range of potential financiers of the project including equity partners, off-take parties and debt providers. Anatolia will assess all financing options available to it to ensure the funding mix maximises value for existing shareholders, and whilst the Company is confident that it will be able to secure the requisite development funding, there are no guarantees that such funding will be raised.

## **INFRASTRUCTURE**

Life of Mine Infrastructure has been estimated at US\$ 7.3 million, with US\$ 3.6 million required to be spent pre-production. Whilst this amount is small relative to other Uranium ISR projects, the project benefits from existing local infrastructure including sealed roads and power lines across the production boundary.

Electricity capacity requirements have been estimated at 1,300KW and access to this capacity has been confirmed by the local power distribution operator, TEDAS.

## **SIGNIFICANT UPSIDE IDENTIFIED**

Parallel to the preparation of the PFS focusing on developing the high grade mineralisation at the Temrezli Project, the Company has been progressing its exploration programme at the Sefaatli Project, which is located only 40kms from the Temrezli site, with highly encouraging results received to date.

Sefaatli continues to evolve into a potential satellite operation that may expand the production profile of the Temrezli Project, and early studies into the integration of the projects for a larger project are underway.

Anatolia's centralised development plan offers potential for greatly enhancing the project economics through lifting the production profile, whilst minimising additional capital expenditures involved with development of satellite deposits. The financial benefits of integrating additional satellite resources into the project can't be quantified at this time, but this analysis is intended to be undertaken if and when the Company has defined additional satellite Mineral Resources. The Company strongly believes that potential exists to find additional resources in the vicinity of Temrezli and Sefaatli in a relatively short time period, further extending the Life of mine and/or to increase the production capacity.

## **PERMITTING**

The Company's existing Operation Licence will enable Anatolia Energy to construct the ISR well field and processing plant upon issue of an Operation Permit, which are typically granted within 14 days of application. The application for an Operation Permit will occur shortly after the approval of the Environmental and Social Impact Assessment (ESIA), and will follow the granting of the relevant property and business permits.

With the Pre-Feasibility Study now finalised, Anatolia expects to submit the first stage of its ESIA by end of February 2015. The ESIA is presently being prepared by SRK Turkey, who have significant experience in both Uranium ISR and Turkish environmental regulations.

## **PATH FORWARD**

With these exceptional PFS results in hand, Anatolia's attention is now on finalising its ESIA which is required for Anatolia to convert its Operating Licence into an Operating Permit, and to progress discussions with a number of potential providers of development funding.

Whilst permitting and project approvals are progressed, Anatolia will commence some pre-development activities to ensure full scale development can commence as soon as possible, which is



expected to be in 2015 subject to development finance being in place. These pre-development activities will include concluding land acquisitions from a number of local private land holders required for development of the Temrezli Project.

ENDS

**For further Company information please contact:**

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*The information in this release which relates to Exploration Results and Mineral Resources is based on information compiled by Mr Dmitry Pertel and Mr Robert Annett, who are Members of the Australian Institute of Geosciences ("AIG"). Mr Pertel is employed by CSA Global Pty Ltd and Mr Annett is a non-Executive Director of Anatolia Energy Ltd. Mr Pertel and Mr Annett have over 20 years of exploration and mining experience in a variety of mineral deposit styles, and have 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 Pertel and Mr Annett consent to inclusion in this release of the matters based on their information in the form and context in which it appears.*

*The information in this release which relates to Hydrogeological Results includes information compiled by Mr Errol Lawrence who is a director of HydroSolutions- of Denver Colorado, USA. Mr Lawrence is a Professional Hydrologist in the State of Colorado and is a licensed geologist in the States of Wyoming and Texas. Mr Lawrence has over 30 years experience as a geologist and hydrogeologist and has extensive direct experience with similar types of deposits and in the preparation of hydrogeological analyses, and sufficient experience 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 Lawrence consents to inclusion in this release of the matters based on their information in the form and context in which it appears.*

*The information in this release which relates Plant and Well field Engineering is based on information compiled by Mr Thomas Young who at the effective date of the Pre-feasibility Study was employed by Tetra Tech Inc.. Mr Young is a Professional Engineer in the State of Colorado and is a member of a Recognised Overseas Professional Organisation (ROPO) as listed by the ASX. Mr Young has over 30 years 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 Young consents to inclusion in this release of the matters based on their information in the form and context in which it appears.*

*The information in this release which well field geology is based on information compiled by Mr Stephen Lumford who at the effective date of the Pre-feasibility Study is a consultant to Tetra Tech Inc.. Mr Lumford is a Professional Geologist in the State of Wyoming and is a member of a Recognised Overseas Professional Organisation (ROPO) as listed by the ASX. Mr Lumford has over 40 years 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 Lumford consents to inclusion in this release of the matters based on their information in the form and context in which it appears.*

## **Appendix A: Forward Looking Statements and Cautionary Statement**

### **Forward looking statements**

This announcement contains certain forward looking statements. The words "expect", "forecast", "should", "projected", "could", "may", "predict", "plan" and other similar expressions are intended to identify forward looking statements. Indications of, and guidance on, future earnings, cash flow costs and financial position and performance are also forward looking statements. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility of the development of the Temrezli Uranium Project.

The Company notes that an Inferred Resource has a lower level of confidence than an Indicated Resource and that the JORC Code (2012 Edition) advises that to be an Inferred Resource it is reasonable to expect that the majority of the Inferred Resources would be upgraded to an Indicated Resources with continued exploration. Based on advice from relevant Competent Persons the Company has a high degree of confidence that the Inferred Resources for the Temrezli deposit will upgrade to Indicated Resources with further exploration work.

The Company believes it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to any production targets, based on the information contained in this announcement and in particular the JORC 2012 Mineral Resource for the Temrezli deposit, independently compiled by CSA Global together with independent determination of mining inventory, well field design and scheduling, metallurgical and hydrogeological test work, external uranium price and exchange rate forecasts and worldwide operating cost data.

### **Cautionary Statement**

The Pre Feasibility Study (PFS) referred to in this announcement is based on Measured and Indicated Mineral Resources, plus a small proportion of mining inventory, which comprises material that is currently classified as Inferred Mineral Resource. There is a lower level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or Probable Ore Reserves or that the production target contingent on this material will be realised.

The Company advises that the Measured and Indicated Resources provides 88% of the total recovered uranium underpinning the forecast production target and financial projections, and that the additional life of mine plan material included in the Development Case comprises less than 12% of the total recovered uranium. As such, the dependence of the outcomes of the PFS and the guidance provided in this announcement on the lower confidence Inferred Mineral Resource material contained in the life of mine plan is minimal.

Unless otherwise stated, all cash flows are in United States dollars, are undiscounted and are not subject to inflation/escalation factors, and all years are calendar years.

The Company has concluded that it has a reasonable basis for providing the forward looking statements included in this announcement.