

30 January 2015

**QUARTERLY ACTIVITIES REPORT  
DECEMBER QUARTER 2014**

**Temrezli Uranium Project, Central Anatolia, Turkey**

**Highlights:**

**Temrezli Site**

- Positive well yields were observed at Site B with estimated flows in the order of up to 150 l/min
- Production flow rates of 48 l/min to be incorporated into the well field design vs. 38 l/min assumed in the Preliminary Economic Model
- Drilling and well yield results exceed expectations, and further demonstrate that Temrezli has the qualities to be developed as a high grade, low cost ISR uranium deposit
- Completion of an extensive radiation monitoring program as part of a larger Environmental and Social Impact Assessment (ESIA), in support of the grant of an Operating Permit
- Anatolia fully funded to development decision

**Sefaati Site**

- 5,664m of drilling completed at Sefaati where high priority prospects in proximity to Temrezli offer the potential for satellite operations to incrementally add to the scale of the Temrezli Project
- Drilling intersected high grade and wider intercepts indicating similarities to producing ISR uranium projects in the Powder River and Great Divide Basins of Wyoming, USA
- At the Deliler prospect:
  - drilling in the vicinity of a cross cutting fault returned high grade uranium values
  - further drilling planned to in-fill and step-out from widespread uranium mineralisation
- At the Tulu Tepe prospect:
  - drilling on the west and east sides discovered new uranium mineralisation
  - further drilling planned to in-fill and step-out from widespread uranium mineralisation

A substantial program of work continued throughout the entirety of the reporting period at the Company's flagship Temrezli Uranium Project. The program included advanced mineral resource, metallurgical and hydrological studies as well as environmental and social impact assessments that will be incorporated into a Pre-Feasibility Study.

## **Exploration Activities for the Quarter**

### **Temrezli Site**

A hydrogeological test program was undertaken at Temrezli with encouraging results. Well construction was overseen by WWC Engineering of Sheridan, Wyoming whilst the hydrogeological testing was managed by HydroSolutions of Denver, Colorado. Both parties have considerable experience in ground water conditions relating to ISR uranium operations. Field operations collected during the programme confirmed:

- Air lifted water flows from Lens 1 (TUR101-DO1) which makes up almost 30% of the deposit were estimated to be in the order of 150 litres per minute. This flow rate was later confirmed during a 24hr test which averaged an extraction rate of 46 litres per minute while only drawing down approximately 25% of the available hydraulic head in the well. Extraction rates used in the updated Preliminary Economic Assessment (PEA) were 38 litres per minute, indicating potential for the extraction rates during production to exceed the PEA assumptions;
- No hydraulic response in the overlying near-surface aquifer during either the 24hr or 72hr pumping of ground water from the uranium bearing aquifers, demonstrating the mineralised lenses to be exploited are confined and provide conditions suitable for ISR, and
- Lateral (horizontal) hydrogeological connectivity of the uranium bearing aquifers during the extraction and injection of ground water from a 5-spot well pattern at a 20m spacing.

These results were influenced by mechanical failures on the injection pumps which resulted in the output data being recorded prior to pressurisation. Further work is recommended to determine the final injection rates to be utilised in a production scenario to ensure optimal well field design (refer Post Quarter Project Activities).

At Temrezli the Company completed an extensive background radiation monitoring program. It was designed to quantify the pre-construction and pre-operational radiological conditions over the entire Project area. The average baseline radionuclide concentrations in environmental media as well as their natural variability will be used to assess the potential radiological impacts of the ISR facility during operation and to guide post-operations reclamation of the area. The program was created by combining the most stringent and developed baseline monitoring regulations with guidance from various entities and organisations within the international radiation protection community. It is intended to characterise the natural radiological conditions at Temrezli and is in support of a larger Environmental and Social Impact Assessment (ESIA) being conducted simultaneously by SRK (Turkey) that will be completed and submitted to the Turkish permitting agency, in support of the grant of the Company's Operation Permit.

Concurrently the Company commenced its baseline Social Impact Assessment as part of the ESIA. To assist these activities the Company is establishing a dedicated office in the nearby town of Sorgun which will facilitate Adur staff to conduct consultation meetings with the local community, and facilitate the distribution of information package(s) to both interested parties and the wider community including local government agencies.

### **Sefaati Site**

Two rigs were mobilised to site in October 2014 to undertake a combination of both in-fill and step-out drilling at the Deliler and Tulu Tepe prospects in the Sefaati region. Drilling in the 1980s discovered the largest extent of uranium mineralisation outside of the Company's flagship Temrezli uranium deposit. Given the proximity of Sefaati to Temrezli, there is strong potential for Sefaati to evolve into a satellite operation that supplements the planned development of the Temrezli Uranium Project (Figures 1 and 2).

Stage I drilling focussed in areas where previous drilling in the 1980s intersected widespread uranium mineralisation open in all directions. Drilling was a combination of diamond core (HQ) and rotary methods, on an approximate 100 x 100m drill spacing (east-west), for 50 holes (SD22 to 71) and a drill advance of 5,664m. All drilling was on private lands with Adur having secured access rights with the landowners.

**Deliler** drilling focussed on the eastern side of the prospect with most drill holes intersecting two or more lenses, and one hole up to 5 stacked lenses. Drilling confirmed a consistently mineralised horizon within sandstone units which lie between 950 – 975m asl (Figure 3). Better intercepts within this horizon from the recent drilling included (from north to south):

1.2m @	740ppm eU <sub>3</sub> O <sub>8</sub>	from 75.7m (SD36)
2.8m @	330ppm eU <sub>3</sub> O <sub>8</sub>	from 77.8m (SD37)
5.1m @	260ppm eU <sub>3</sub> O <sub>8</sub>	from 72.0m (SD47)
2.2m @	300ppm eU <sub>3</sub> O <sub>8</sub>	from 35.9m (SD26)

To the north this mineralisation is affected by an EW cross-cutting fault which plays an important role in the deposition of the uranium mineralisation at the Deliler prospect. Drilling within the fault zone within a sandstone sequence returned better intercepts of:

6.2m @	810ppm eU <sub>3</sub> O <sub>8</sub>	from 59.8m including 1.7m @ 1,490ppm eU <sub>3</sub> O <sub>8</sub> (SD42)
1.8m @	940ppm eU <sub>3</sub> O <sub>8</sub>	from 75.4m including 0.6m @ 1,940ppm eU <sub>3</sub> O <sub>8</sub> (SD62)
1.3m @	580ppm eU <sub>3</sub> O <sub>8</sub>	from 51.9m including 0.5m @ 1,520ppm eU <sub>3</sub> O <sub>8</sub> (SD67)

At **Tulu Tepe** a limited drilling program was completed before the program was suspended due to poor weather. All drill holes intersected two or more lenses and one hole up to 4 stacked lenses, with a distinct zone of uranium enrichment occurring around 80m beneath ground surface (bgs) which returned better intercepts of:

1.4m @	540ppm eU <sub>3</sub> O <sub>8</sub>	from 82.4m including 0.6m @ 1,270ppm eU <sub>3</sub> O <sub>8</sub> (SD56)
2.5m @	2,150ppm eU <sub>3</sub> O <sub>8</sub>	from 81.7m including 1.2m @ 3,980ppm eU <sub>3</sub> O <sub>8</sub> (SD67)
4.3m @	930ppm eU <sub>3</sub> O <sub>8</sub>	from 80.5m including 0.5m @ 2,240ppm eU <sub>3</sub> O <sub>8</sub> (SD69)

Wide spaced drilling was confined to the west and east sides of the prospect (Figure 4). Drilling intersected a thick sequence of sandstones lying between a thin surface limestone and either a granite or volcanic basement at or around 108m bgs. Drilling intersected a number of reduction-oxidation (redox) zones which are essential for the formation of the uranium mineralisation, whilst surface mapping to the immediate south of the prospect clearly identifies the upper redox boundary at or about 20m bgs in a cliff exposure (Figure 4, image). This upper boundary is characterised by strong gamma radioactivity over several vertical metres with scintollometer readings returning some of the best surface values for the Temrezli district.

#### **Exploration Activities Immediate Post Quarter**

Hydrogeological drilling and pumping test work which commenced late in Q4 2014 returned, in January 2015, very encouraging results from one deep and two shallow monitoring wells drilled at Site B. The program was planned by HydroSolutions, who have considerable experience in ground water conditions relating to In Situ Recovery (ISR) uranium operations. The hydrological tests were to further characterise the hydrostratigraphic units and designed to:

- Confirm the high water flows seen previously from Lens 1;

- Assess the hydraulic response of Lens 1 to extraction and injection rates projected for the in-situ (ISR) mining project;
- Refine well conditioning completion techniques to local aquifer conditions; and
- Evaluate the permeability of the overlying and confining clay unit for inclusion in the Environmental Impact Assessment.

Critical field observations collected during the programme were:

- During conditioning of TUR110-DO2 air-lifted water flows were estimated to be similar to the 150 litres per minute observed in the nearby well TUR101-DO1, confirming the lateral extent of the high permeability in Lens 1. Anatolia estimates that Lens 1 makes up almost 30% of the resource;
- The results of the extraction and injection tests from TUR101-DO1 and TUR110-DO2 indicate better hydraulic response than initially estimated in the well field planning model for Lens 1;
- There was sufficient lateral permeability of the uranium ore-bearing aquifer (Lens 1) to allow all the ground water extracted from TUR110-DO2 to be re-injected into TUR101-DO1 under unpressurised conditions ;and
- Slug test work confirmed the low permeability of the overlying and confining clay unit.

Data collected from the hydrologic tests will be used to further the conceptual hydrogeological model of the deposit and to redevelop numerical models being utilised by Tetra Tech for detailed well field planning. The hydrogeological work represents some of the final components to the Temrezli PFS.

In mid-January the Company received very encouraging results from MTA's ISR alkaline leach agitation test work on 14 intervals of core sample material from the Company's Temrezli uranium deposit. The samples were collected from wide spaced drilling in the northeast of the deposit which contains over 65% of the resource. The material was selected from lenses 1 to 5 which are the most laterally continuous.

Half core HQ diameter core material was collected from the drill rig and immediately vacuum sealed to preserve sample integrity. The samples were delivered to the MTA facility and leach studies were conducted for 12 consecutive days using a 2g/L bicarbonate – 0.5g/L peroxide lixiviate to approximate typical USA ISR operations. Approximately 60 PV of lixiviate were introduced to untreated ore samples through bottle roll testing. Using head grades determined from the leach recovery (average of 501ppm  $U_3O_8$ ) plus residual tails, the uranium recovery averaged 80.2%. The sampling included a selection of high, moderate and low grade uranium however, recoveries from samples above the resource cut off grade (200ppm  $U_3O_8$ ) were higher, averaging 84.9%.

Uranium recovery curves indicate rapid leach kinetics with 50% of the uranium recovered after approximately 20 PV exchanges with leaching of uranium still on-going at 60 PV, and peak head grades achieved in less than 5 PV.

### **Next Quarter Exploration Activities**

Throughout the next quarter the Company in association with its selected advisors and specialists will continue to progress the Program of Work to enable the grant of its Operation Permit.

Continuing on from the engineering work completed in support of a Pre-Feasibility Study, the Company will continue to work with TetraTech to finalise the study. It is now expected that the PFS will be finalised in February 2015.

### **Corporate Activity for the Quarter**

At the 8 October 2014 general meeting shareholders approved both the Tranche 2 issue of Shares and 12 cent option and ratification of the prior issue of Tranche 1 Shares under the Placement, and the issue of 1.0 million 12 cent incentive options pursuant to the Company's Non-Executive Incentive Option plan to director Patrick Burke. The Tranche 2 Shares and 12 cent attaching options were issued on the 16 October 2014 and raised \$2.0 million before costs.

On 20 October 2014 the Company despatched the Notice of 2014 Annual General Meeting scheduled to be held at 1.30pm on 19 November at The Celtic Club, 43 Ord Street, West Perth WA 6005.

On 31 October the Company lodged a copy of its annual report and despatched printed copies to those shareholders registered to receive them.

On 7 November 2014 the Company advised with great regret that it had accepted the resignation of its Managing director, Mr Jim Graham, due to serious health issues. Mr Paul Cronin was appointed acting CEO and Managing Director with immediate effect.

The Company's AGM was held on 19 November 2014. All resolutions put to the meeting were passed without dissent including, inter alia, the re-election of Dr Hikmet Akin and Mr Robert Annett as directors, the election of Mr Paul Cronin and Mr Patrick Burke as directors, approval of the 10% placement capacity, and replacement of the Company's constitution.

On 4 December 2014 the Company advised of a change of Company Secretary. Mr Lee Boyd had completed his term as Company Secretary and Mr Scott Mison was contemporaneously appointed as the Company's new Company Secretary.

On 15 December the Company advised the appointment of Mr Scott Mison as Chief Financial Officer.

Cash on hand at the quarter end was \$4,295,000.

### **Corporate Activities Immediate Post Quarter**

On 21 January the Company advised that it had appointed Mr Tom Young as Chief Operating Officer. Tom was formally Vice President of Operations for Cameco resources, Inc., responsible for the Smith Ranch Highland and Crowe Butte ISR uranium mines in the United States. Tom has extensive experience in the development and operations of ISR uranium well-fields and plants, and will oversee the development of the Company's flagship Temrezli uranium project in central Turkey.

### **ENDS**

For further information please contact:

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Information in this report that relates to Mineral Resources, Exploration Targets, and Exploration, Hydrogeological or Metallurgical Results are extracted from ASX announcements “Project Development and Exploration Update” released on 7 October 2014, “Drilling Commences at Sefaati Uranium Project” released on 14 October 2014, “Strong Drill Results at Sefaati” released 11 November 2014, “Further High Grade drill Results at Sefaati” released 1 December 2014, “Hydrogeological Flow Test Results” released 15 January 2015 and “Metallurgical Test Work Results” released on 19 January 2015 and are available on [www.anatoliaenergy.com.au](http://www.anatoliaenergy.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and content in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

Figure 1. Temrezli and Sefaati Satellite Prospects Deliler and Tulu Tepe

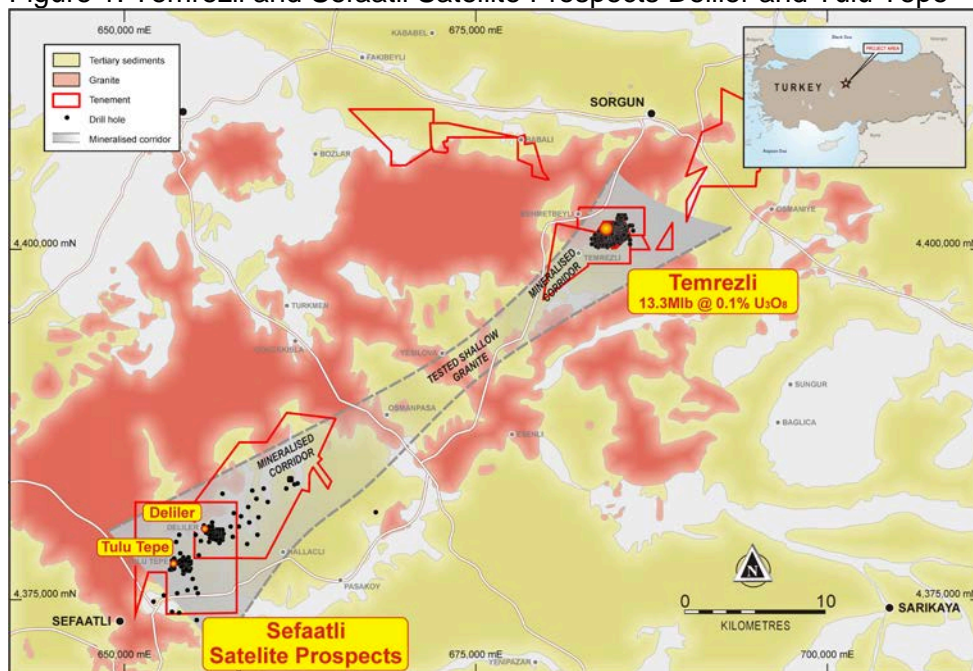


Figure 2 Location of Drilling at Deliler and Tulu Tepe Prospects

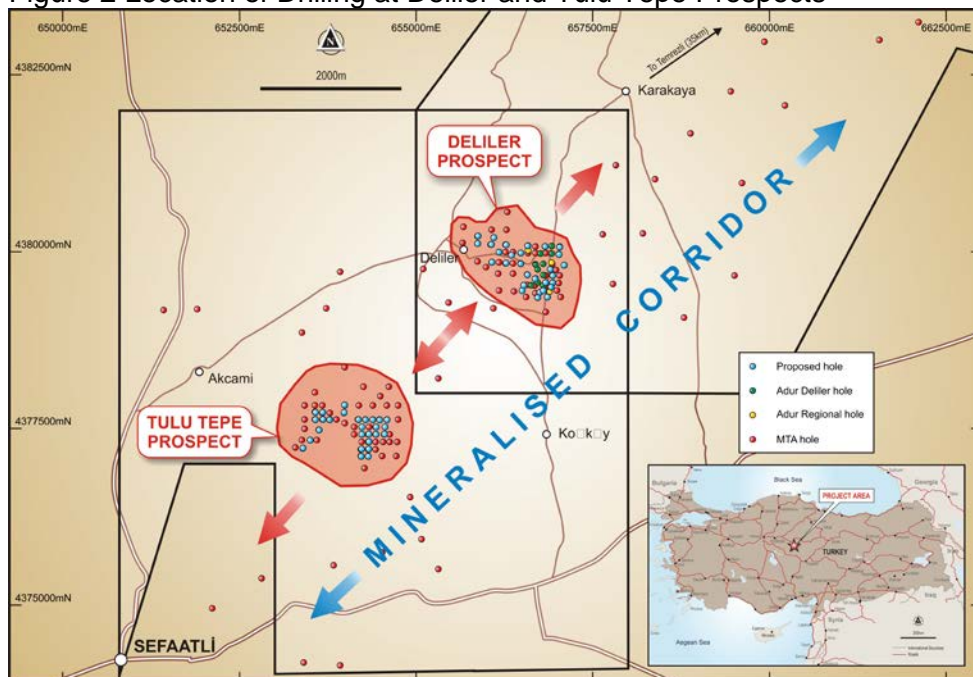




Figure 3. Deliler; Interpretation of fault zone, and location of recent drilling

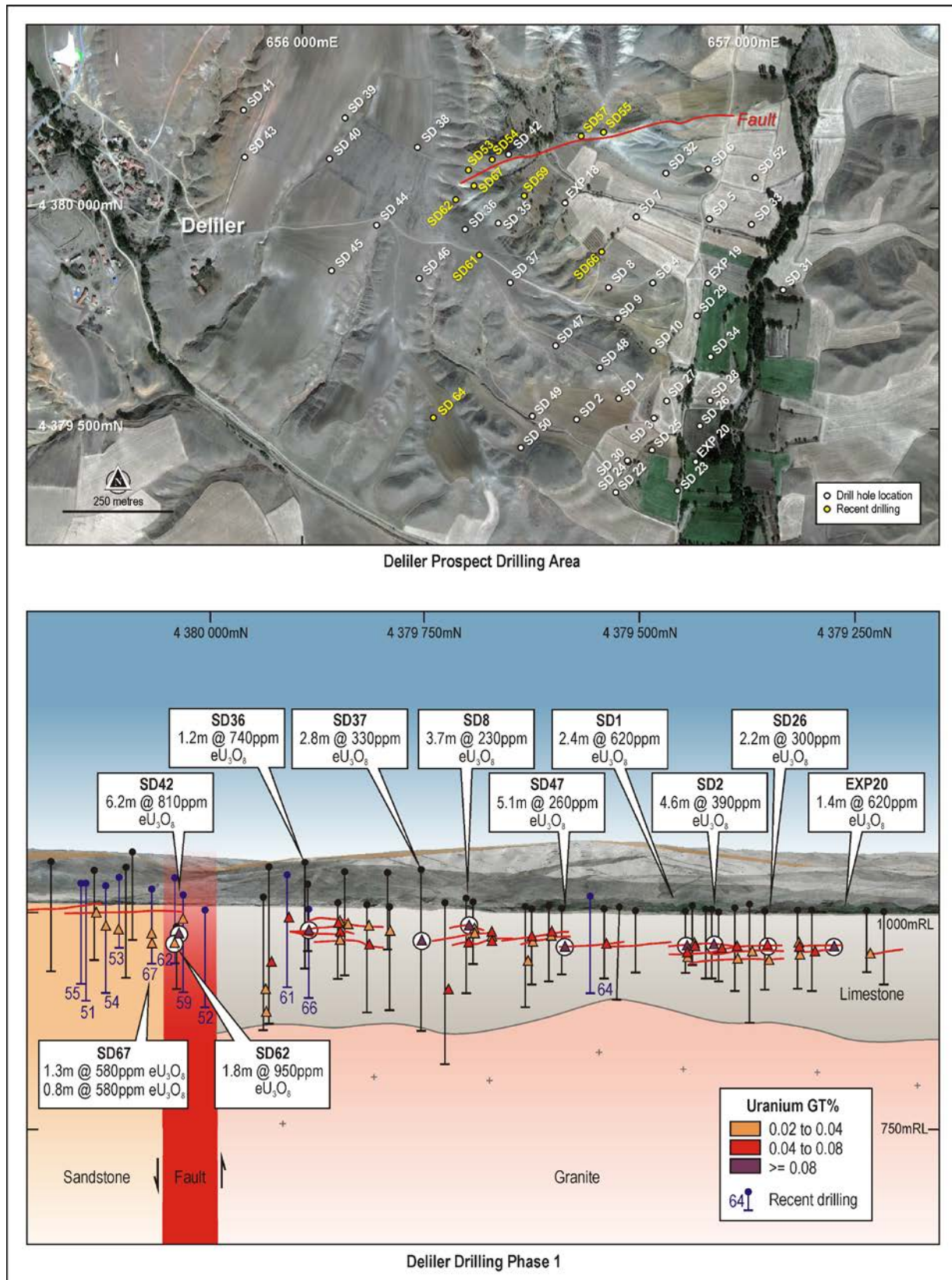
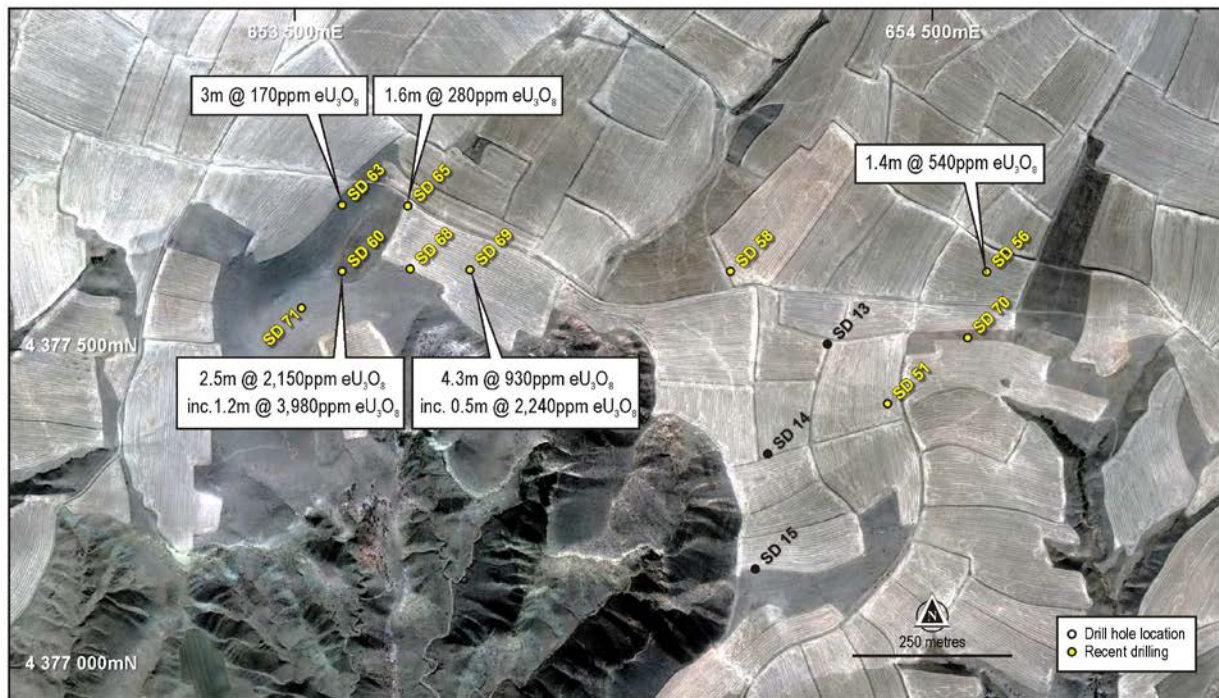




Figure 4. Tulu Tepe: Drill Hole Location and Surface Scintillometer Traverses



Tulu Tepe Collar Results



Tulu Tepe South Prospect Drilling Area with Scintillometer Reading (CPS)