

# Quarterly Activities Report

- for the Period ending 31 March 2009

ASX Announcement  
28 April 2009

MKY Resources Limited  
ACN 099 247 408

## 1. Exploration and Development Activity

The last quarter has been an extremely exciting one for MKY with a major transformation of our project portfolio and the acquisition of our first project in the Northern Territory signalling the start of our diversification from Queensland into other states of Australia.

Despite the fact that on ground exploration was not possible due to the extended wet season in Far North Queensland MKY has reviewed the results of our exploration on granted projects and looking for additional project opportunities in new areas of Australia. These new projects opportunities have been generated through generative research to date although several others involving corporate transactions are under consideration.

To date the most exciting developments have been the acquisition through competitive application processes of four very exciting projects for MKY. It is extremely encouraging that in the application process against companies with greater financial resources than MKY we are able to succeed on the basis of the technical merit of our proposed exploration programs.

The close review of MKY's previous exploration results from the Gilbert River Project in Queensland has identified highly anomalous rock chip samples with elevated Rare Earth Elements and Uranium. This and other opportunities identified through the review will be tested in the current field season. Additionally the review identified several exploration permits for divestment and relinquishment.

### **Northern Territory**

#### **Denison Project - Arunta Region, Northern Territory**

**(100% MKY)**

On the 1<sup>st</sup> April 2009 we announced that MKY was successful in a competitive application process for highly prospective Uranium and Rare Earth Element (REE) ground in the Mount Denison area (ELA 27181). The Denison project covers 422 square kilometres in the Arunta Block some 250km north west of Alice Springs. There are four known uranium and two known apatite occurrences within the lease application and the abandoned Mount Adam Tin-Niobium mine is located less than one kilometre to the south.

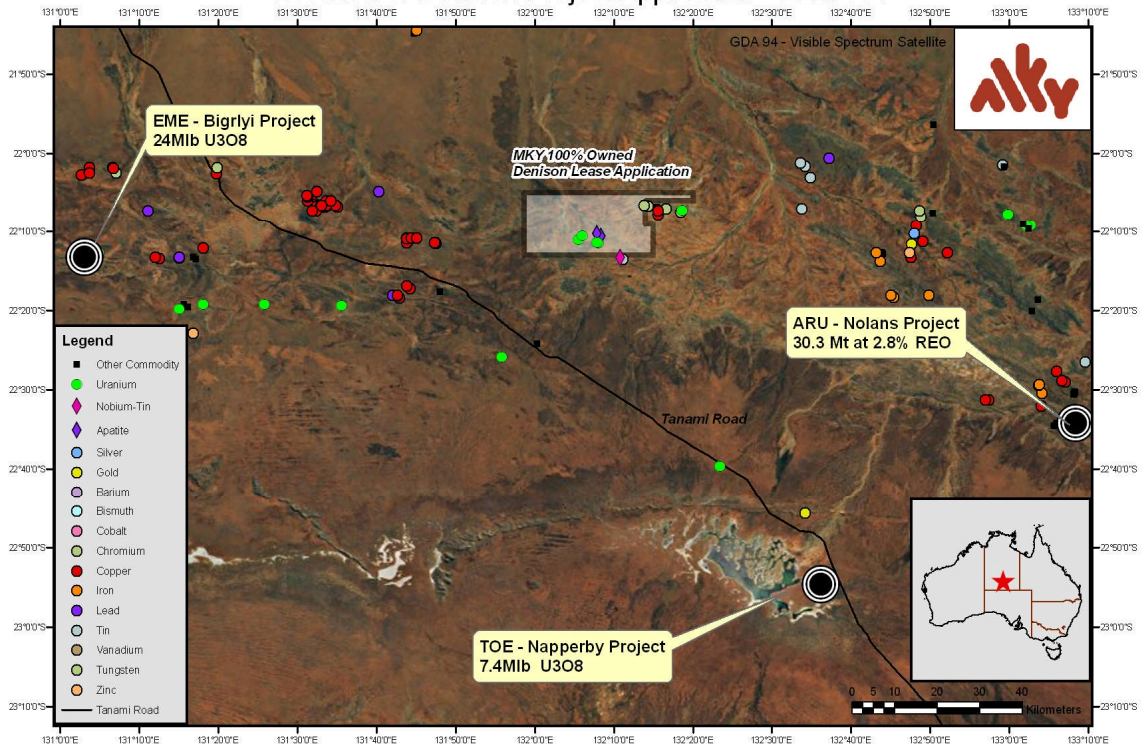
The region is highly prospective for uranium mineralisation with numerous deposits occurring in a range of geological settings within the region, including:

- ▶ Nolan's Rare Earth Element (REE) Project (Arafura Resources),
- ▶ Bigryli Uranium deposit (Energy Metal's managed JV) and the
- ▶ Napperby Uranium deposit (Toro Energy).

The lease is surrounded by numerous active exploration projects belonging to Toro Energy, Deep Yellow and Scimitar.

The surface geology of the Denison lease is dominated by a thin veneer of Quaternary aged sediments overlying the porphyritic Wangala granite gneiss which intrudes Palaeoproterozoic aged Quartzofeldspathic gneiss and calc-silicate rocks and schists. These granites and gneisses are known to be radiogenic (uranium bearing), and are believed to be the source of the uranium which has been remobilised into the overlying Proterozoic, Palaeozoic and Tertiary sedimentary cover units, including the Ngalia, Amadeus and Tertiary basins. The uranium deposits at Bigryli, Napperby (New Well) and Angela are examples of this.

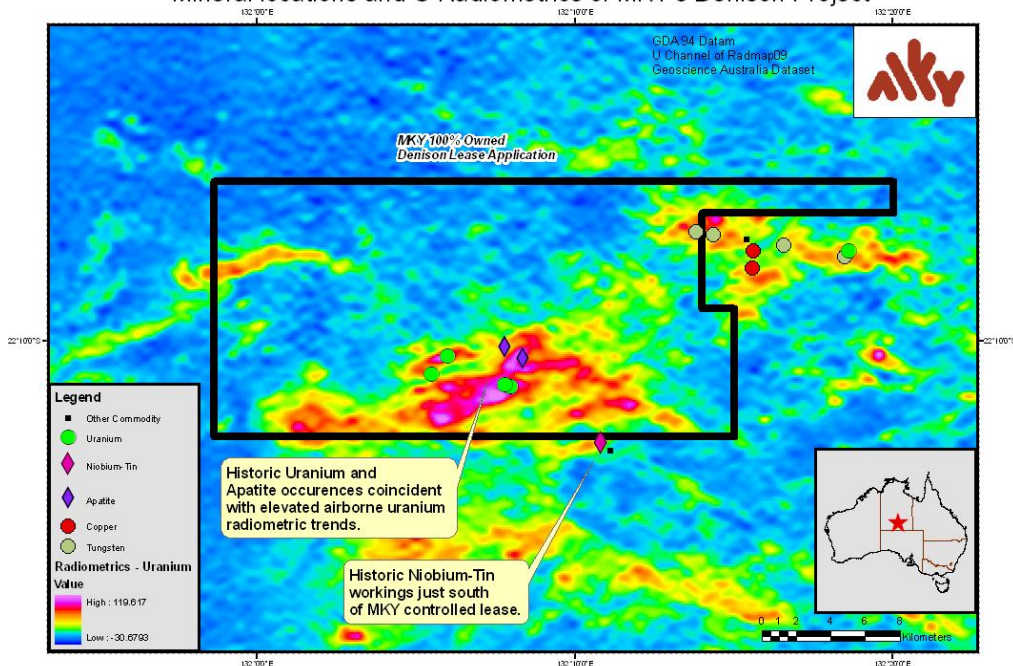
## Location of Denison Project Application - EL27181



Within the Denison project area there are numerous large NE trending structural zones which appear to control the known uranium mineralisation and some large apatite veins. The area has strong geological affinities to the Nolan's Bore area where rare earths and uranium mineralisation is also associated with large apatite veins. Additionally the area is prospective for structurally controlled uranium mineralisation sourced from basement and deposited within reducing sediments (calc-silicate rocks and biotite schists) adjacent to these major structures. Radiogenic basement rocks, large structures and reducing "trap" rocks are the essential ingredients in most of the world's large high grade uranium deposits.

Additionally the project area has several quaternary aged fluvial channelized sediments associated drainage systems sourced from the hot granites of the Wangala Granite. These areas are prospective for Napperby style calcrete and other channel style uranium deposits.

## Mineral locations and U Radiometrics of MKY's Denison Project



In the next quarter MKY will look to finalise an agreement with the Central Land Council for access and exploration within the lease area. A desktop review of all open file data will be completed. In particular a more detailed review of all available geophysical data will be conducted to detail those areas which are believed to be enriched with remobilised uranium as opposed to primary magmatic uranium. These areas and once the lease is granted the known uranium occurrences will be followed up in the field and areas deemed prospective will have detailed ground radiometrics surveys conducted over them. Particular focus will be given to areas of reduced sediments adjacent to major fault zones and proximal to known uranium occurrences.

## Queensland

MKY has applied for five new exploration permits within the Georgetown Inlier of north Queensland. Two of the applications remain in competition. The remaining three applications were successful and include some highly prospective terrain adjacent to known uranium deposits and sharing the same geological characteristics as the areas hosting these deposits (Maureen and Trident).

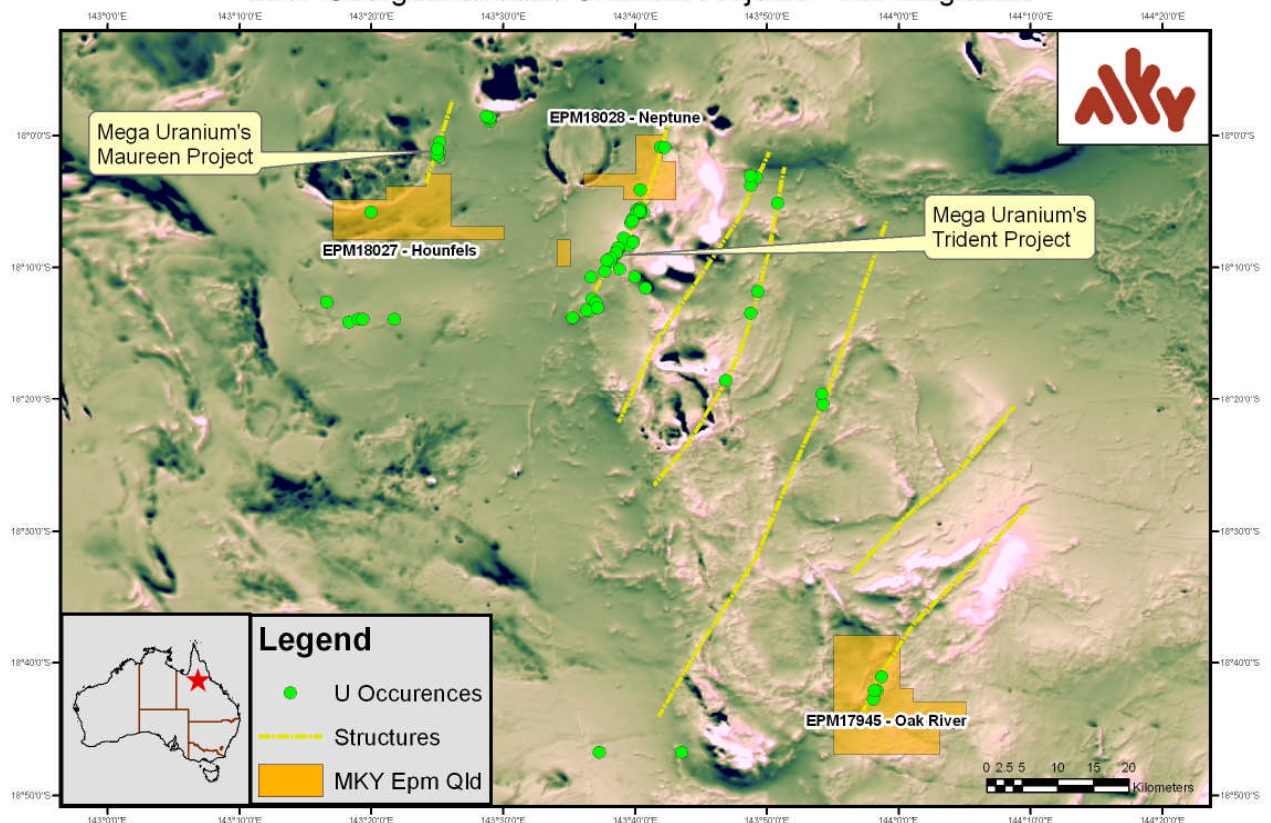
The Georgetown region contains numerous well known very high grade uranium deposits including the Maureen uranium deposit, the Ben Lomond deposit and the Trident and Lineament groups of deposits (all owned by Mega Uranium). In July, 2008 Mega announced a NI43-101 compliant resource for the Maureen deposit totalling some 6.33Mlbs  $U_3O_8$  comprising:

- an Indicated Resource<sup>i</sup> of 5.95Mlbs  $U_3O_8$  at an average grade of 0.09%  $U_3O_8$  and
- an Inferred Resource<sup>i</sup> of 0.38Mlbs  $U_3O_8$  at a grade of 0.11%  $U_3O_8$ .

Mega's website also quotes potential high grade resources at their Trident Project (including Four Geo, Two Geo and Quartz Blow Deposits) and the Lineament Fault Zone. (see figure below). Deposits within these two projects have a very significant historical resources attributed to them at an average grade of 0.1%  $U_3O_8$ . Trident is situated immediately south of MKY's Neptune Project on the same major structural zone which extends through our newly acquired Neptune Project lease area.

At Maureen Uranium-molybdenum mineralisation is hosted by Devonian-Carboniferous sandstone of the Gilberton Formation on the margin of a circular magnetic feature interpreted as cauldron collapse associated with Carboniferous volcanism. Numerous other similar circular features are evident in the aeromagnetics data in the Georgetown region and many have known uranium occurrences associated with them. MKY's Huonfels and Oak River leases cover areas with similar geological features.

### MKY Georgetown Inlier Uranium Projects - TMI Magnetics



The Oak River tenement lies approximately 15km southwest of Einasleigh within the highly prospective Georgetown Inlier of northern Queensland.

The Oak River lease area covers Silurian aged Oak River Granodiorite abutted by the middle-late carboniferous volcanics (Bousey Rhyolite), minor outcrops of the Devonian sediments (Gilberton Formation) and Proterozoic metasediments of the Einasleigh Metamorphics.

A major north-east trending structure crosscuts sedimentary strata, positioning them against younger granites; this structure is coincident with several known uranium occurrences within EPM 17945. Similar structural trends are observed elsewhere in the Georgetown Inlier and appear to be a major control of uranium mineralisation in the Trident and Maureen deposits.

The known uranium occurrences within the project area (EPM 17945) are hosted within carbonaceous sediment units of the Gilberton Formation. The highest potential for high grade mineralisation is where these reduced sedimentary rocks or “redox traps” intersect the major structural zones.

MKY Resources considers the geological setting of this tenement to be analogous to that of Mega Uranium’s “Maureen” deposit located 85km to the northwest which contains an estimated 6.33 Mlbs  $U_3O_8$ .

The target in MKY’s Oak River Project is a large uranium-molybdenum (U-Mo) deposit similar to the high grade Maureen deposit, in which uranium mineralisation occurs as fault-hosted and stratabound zones associated with major regional faults (fluid pathways) and reducing sedimentary and volcanic rocks (“traps”). This mineralisation is thought to be synchronous with the circular felsic intrusive evident in the magnetics.

Additionally the intrusives and volcanics of the Georgetown Inlier are particularly well endowed with gold and base metal mineralisation whose potential will also be assessed within the Oak River lease.

### ***Previous Exploration<sup>ii</sup>***

The entire Georgetown – Einasleigh area was the subject of substantial focus for uranium explorers in the early 1970’s. The region was covered by broad spaced regional radiometric surveys and the resultant anomalies generated by this survey were followed up with ground reconnaissance and surface sampling (rockchips and soil).

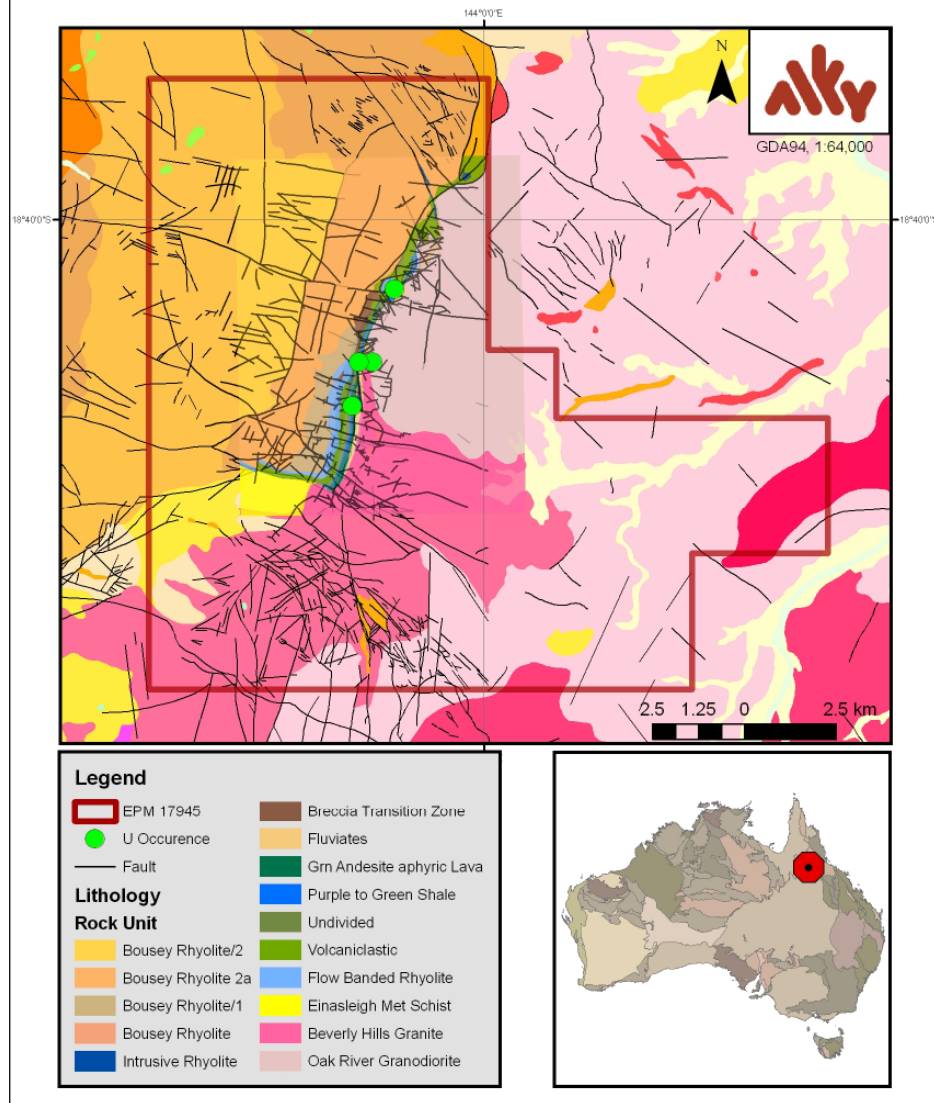
The four known uranium occurrences within the Oak River project area were anomalies generated from one of these surveys and followed up in the field with rock chip sampling and soil sampling. Soil samples and rockchip assays from the entire structural zone were highly anomalous with rockchip results up to 4.36%  $U_3O_8$ .

Subsequent drilling focussed on the southernmost area of anomalism where a total of 23 holes were drilled with several interesting results including 0.23m at 0.283%  $U_3O_8$ .

Some 2.5kms further north along the structural zone 6 rock chip samples were taken and returned extremely anomalous results (between 0.03% and 0.5%  $U_3O_8$ ), however two shallow drillholes failed to adequately test this area and there remains 2.5km of potential strike between the 2 zones of drilling, that has not been tested. This 2.5km zone between these 2 areas is poorly outcropping but has returned highly anomalous soil geochemistry. Additionally there is some 6 kilometres of this fault zone further north which remains untested.



## Geology of the Oak River Tenement - EPM17945



**FIGURE 2: Detailed Geology of Oak River Project**

### Huonfels Project – Georgetown Region, Queensland

**(100% MKY)**

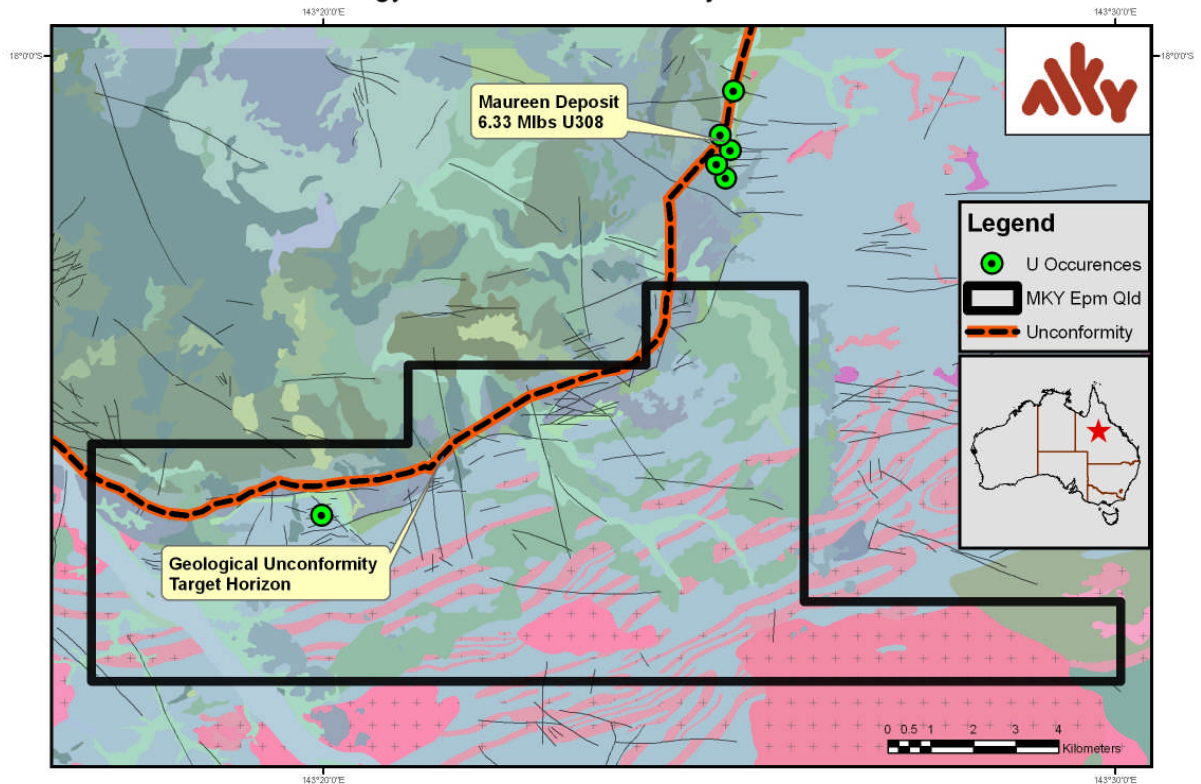
The Huonfels tenement lies 2.5 kilometres south of the 6.33Mlbs  $U_3O_8$ <sup>1</sup> Maureen Uranium Deposit described earlier. At Maureen Uranium-molybdenum mineralisation is hosted by Carboniferous volcanic sitting above an unconformity and adjacent to major structures on the margin of a circular magnetic feature interpreted (a granitic intrusive). Numerous other similar circular features are evident in the aeromagnetics data in the Georgetown region and many have known uranium occurrences associated with them.

The Huonfels Project area covers 18 linear kilometres of the same unconformity which is a major control of the mineralisation at Maureen and contains the same Carboniferous volcanics on the west side of the unconformity and the same Proterozoic meta-sediments on the east side of the unconformity. The geological setting is exactly the same as at the Maureen Uranium Deposit some 2.5 kilometres further north (Mega Uranium controlled).

Further to the north a large circular feature is evident in the magnetic data and is thought to be an intrusive event of Carboniferous age.

<sup>1</sup> Refer Mega announcement July 2008 detailing results of independent Technical Report completed by Mining Associates in Brisbane.

## Geology of MKY's Huonfels Project - EPM18027



The Huonfels Project is clearly highly prospective for discovery of a southerly extension to the Maureen Deposit along the same unconformity with the same geology. The target therefore at Huonfels is a large uranium-molybdenum deposit similar to the Maureen deposit, in which uranium mineralisation occurs as fault-hosted and strata-bound zones immediately above the mapped unconformity between Proterozoic meta-sediments and overlying Carboniferous sediments and volcanics.

### Neptune Project, Georgetown Inlier, Queensland

(100% MKY)

The Neptune tenement lies approximately 26km north of Georgetown within the highly prospective Georgetown Inlier of northern Queensland. The Georgetown region contains numerous well known very high grade uranium deposits including the Maureen uranium deposit, the Ben Lomond deposit and the Trident and Lineament groups of deposits (all owned by Mega Uranium).

The Maureen Deposit is located some 23 kilometres west of Neptune and in July 2008 Mega announced a NI43-101 compliant resource for the Maureen deposit totalling some 6.33Mlbs U<sub>3</sub>O<sub>8</sub><sup>iii</sup>.

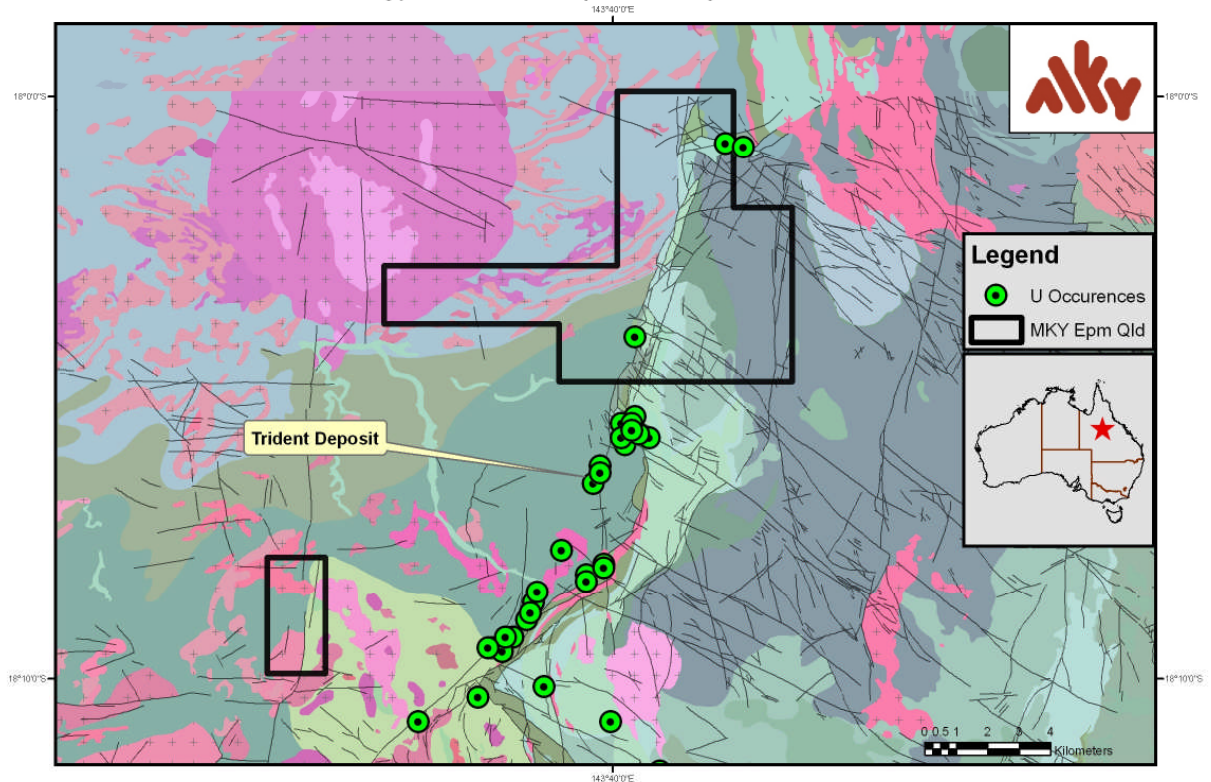
Mega's website also quotes potential high grade resources at their nearby Trident Project (including Four Geo, Two Geo and Quartz Blow Deposits) and the Lineament Fault Zone. Deposits within these two projects have a very significant historical resource attributed to them at an average grade of 0.1% U<sub>3</sub>O<sub>8</sub><sup>iv</sup>. Trident is situated immediately south of MKY's Neptune Project on the same major structural zone which extends through the Neptune Project lease area.

The Neptune Project area covers the northerly extension of the Dagworth Fault Zone which hosts the uranium mineralisation at Mega Uranium's Trident Project some 2.9kms to the south.

Several deposits from the Trident Project have historical resource figures which along with other deposits at Lineament form part of an overall aggregate resource averaging a very attractive 0.1% U<sub>3</sub>O<sub>8</sub>.



## Geology of MKY's Neptune Project - EPM18028



At Trident these deposits (Four Geo, Two Gee and Quartz Blow), occur in the NE-trending Dagworth-Quartz Blow Zone, as steeply dipping bodies straddling the unconformity between Lower Carboniferous sediments/volcanics and underlying Palaeo-proterozoic metasediments.

MKY's Neptune Project covers the northerly extension of the same fault zone with the same geology as in the Trident area. MKY's lease area contains several known uranium prospects (Dagworth and Fiery Sector) associated with the Dagworth-Quartz-Blow Fault zone and the Paleozoic/Proterozoic unconformity which is thought to be a control on mineralisation regionally (including at Maureen) is prevalent within the Neptune lease area.

MKY Resources considers the geological setting of this tenement to be analogous to that of the Trident area with potential for:

- Trident style structurally controlled breccia hosted uranium mineralisation
- And "Maureen style strata bound uranium mineralisation in hosted in reduced Carboniferous volcanics and sediments immediately above the unconformity with older Proterozoic meta-sediments.

Additionally the intrusives and volcanics of the Georgetown region are particularly well endowed with gold and base metal mineralisation and the Neptune Projects area will also be assessed for this type of mineralisation.

### Next Steps for Georgetown Inlier Projects

A more detailed review of all available geophysical and open file data will be conducted whilst the granting of these permits is pending.

Target zones such as selected parts of the Dagworth Fault Zone, unconformities or target horizons will be covered with detailed ground radiometrics which will be gridded and processed to provide a much more detailed picture of the surficial distribution of uranium.

The prospective reduced sediments and volcanic units, which form the "trap rocks" for the mineralising fluids, will be mapped in detail using a combination of geological mapping and geophysics (electromagnetics). This data will then be used to generate drill targets.

## **Gilbert River Project (EPM 16256) – Queensland**

**(100% MKY)**

A project review conducted during the quarter identified numerous additional opportunities within these projects. On the Gilbert River Project rock chip samples taken by MKY returned assay results with highly elevated rare earth elements (REE's) and uranium (up to 311ppm  $U_3O_8$ ). Exploration planned for this field season will evaluate the mineralogy and extent of the identified mineralisation with ground based mapping, sampling and gamma spectral surveying.

## **2. Corporate Activity**

Initial discussions were held with various companies regarding potential interest in advanced exploration projects. As yet there is nothing to report from any of these discussions.

The information in this report that relates to Exploration Results, Mineral Resources, or Ore Reserves is based on information compiled by Stephen McCaughey. Mr McCaughey 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. This qualifies Mr McCaughey 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 Stephen McCaughey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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<sup>i</sup> Refer Mega Uranium website where these projects are aggregated as "Georgetown Other" in the table of resources: <http://www.megauranium.com/main/?uraniumResources>

<sup>ii</sup> Source: Queensland Department of Minerals and Energy open file reporting

<sup>iii</sup> Refer Mega announcement July 2008 detailing the results of independent Technical Report completed by Mining Associates.





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<sup>iv</sup> Refer Mega Uranium website where these projects are aggregated as “Georgetown Other” in the table of resources: <http://www.megauranium.com/main/?uraniumResources>

