

Wednesday, 30 August 2006

**MARATHON**

COMPANY ANNOUNCEMENTS OFFICE  
AUSTRALIAN STOCK EXCHANGE

ASX CODE MTN

***PARALANA MINERAL SYSTEM***

**MT GEE DEPOSIT: REVISED ESTIMATES DEMONSTRATE  
HIGHER GRADE RESOURCE**

***HIGHLIGHTS***

- 1. NEW ASSESSMENT CONFIRMS SUBSTANTIAL INFERRED RESOURCE AND HIGHER GRADE OF THE MT GEE DEPOSIT (KRIGING METHOD WITH RIGOUROUS YAMAMOTO CORRECTION \*)**
  - (a) CUT OFF GRADE 1,000ppm YIELDS 10.1Mt @ 0.133% U<sub>3</sub>O<sub>8</sub> FOR AROUND 13,500t U<sub>3</sub>O<sub>8</sub>**
  - (b) CUT OFF GRADE 500ppm YIELDS 25.4Mt @ 0.081% U<sub>3</sub>O<sub>8</sub> FOR AROUND 20,600t U<sub>3</sub>O<sub>8</sub>**
  - (c) CUT OFF GRADE 300ppm YIELDS 45.6Mt @ 0.068% U<sub>3</sub>O<sub>8</sub> FOR AROUND 31,250t U<sub>3</sub>O<sub>8</sub>  
(COMPARES WITH 59.0Mt @ 0.062% U<sub>3</sub>O<sub>8</sub> FOR AROUND 36,650t U<sub>3</sub>O<sub>8</sub> USING ORDINARY KRIGING METHOD)**
- 2. FULLY FUNDED DRILLING PROGRAM AIMING TO UPGRADE TO INDICATED/MEASURED RESOURCE SCHEDULED TO START LATER THIS YEAR**
- 3. MINING SCOPING STUDY PLANNED TO COMMENCE EARLY 2007**
- 4. ORE GENESIS STUDIES: URANINITE (UO<sub>2</sub>) DOMINATES MT GEE MINERALISATION INDICATING SIMPLER EXTRACTION PROCESS**

\*Yamamoto, J.K. (2005) *Correcting the smoothing effect of ordinary kriging estimates*, Mathematical Geology, V37, 1, 69-94

## Mt Gee deposit - Resource Estimates

Marathon is pleased to announce revised resource estimates for, and the results of, geological and petrogenetic studies on mineralisation from its Mt Gee uranium deposit in the Paralana Mineral System of EL 3258 in the Northern Flinders Ranges of South Australia (Figure 1).

Assay and drilling data recently obtained by Marathon provided additional information allowing the Mt Gee deposit resource re-estimate, compared to that announced on 2 August 2005 (shown in Table 4). The updated resource estimates are provided by Marathon's consultants at the Economic Geology Centre (EGC) in Krakow, Poland.

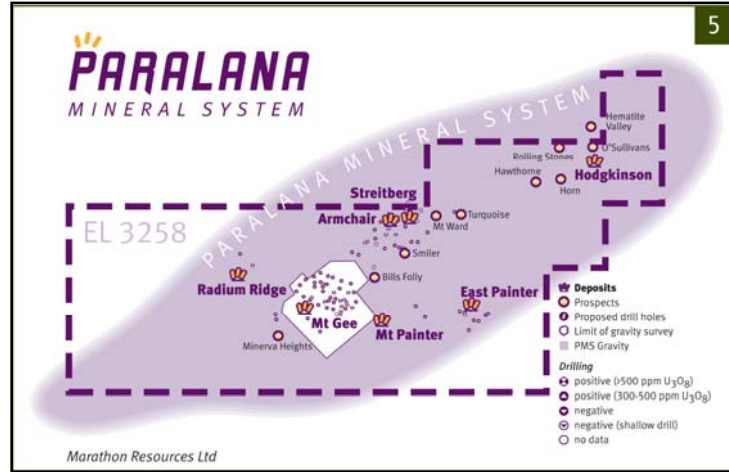


Figure 1: Paralana Mineral System, EL 3258, Flinders Ranges

Additional 39 drill holes were taken into account in the new assessment, including the results from Marathon's drilling campaign earlier this year (6 drill holes MN8-13), as well as results of drill holes not included at the time of the previous resource estimates (5 drill holes by Goldstream in 1999, 2 PIRSA holes drilled in 1976 (unassayed until this year), 1 CRAE drill hole in 1992 and additional 26 historical drill holes by Exoil.

In total, 89 drill holes for the Mt Gee deposit were included in the assessment. Their locations are predominantly concentrated along the southern and eastern areas of the deposit, and with limited drilling in the NW part of the resource area, as shown in Figure 2.

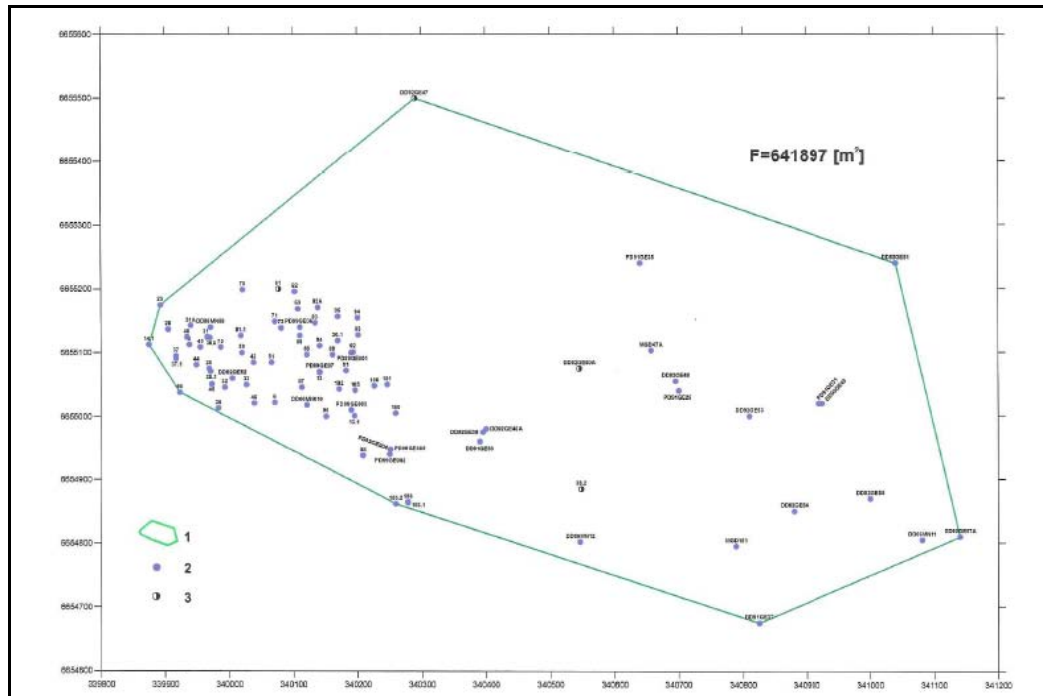


Figure 2: Drill hole location for resource estimates, Mt Gee deposit

Uranium resource estimates were carried out using the kriging method with the more demanding Yamamoto correction (Y), which were compared with estimates made by the ordinary kriging method alone (KM). The Yamamoto correction adjusts for the effects of data smoothing in ordinary kriging, implying a higher degree of rigour in the estimates thus providing more precise resource assessment.

### **Resource 1,000ppm cut off grade**

In order to investigate the presence and distribution of a higher grade mineralisation with a view to future mining within the Mt Gee deposit, a resource estimation applying a higher cut off grade of 1,000ppm (0.1% U<sub>3</sub>O<sub>8</sub>) was carried out to determine the tonnage, grade, thickness, and other mean parameters of the deposit. Out of 88 holes investigated, 67 met the 1,000ppm cut off criteria. The results, with Yamamoto correction, indicate an inferred resource within about a 10.0m thick zone of mineralisation of order 10.1 M tonnes at 0.133% U<sub>3</sub>O<sub>8</sub> for 13,496t average uranium oxide contents, as shown in Table 1.

### **Resource 500ppm cut off grade**

The new resource estimate indicates that the deposit's average grade increases in the 500ppm U<sub>3</sub>O<sub>8</sub> cut off category to 0.081%: 25.4 M tonnes at 0.081% for 20,573t U<sub>3</sub>O<sub>8</sub> when applying Yamamoto correction. Updated results in this category are shown in Table 2.

In addition to the above, an estimate in this category was carried out for the resource circumference expanded radially outward by 50 metres (extended area), well within the 200m distance of continuity of resource assessment between estimate points allowed by the mineralisation distribution and kriging method applied. The inferred resource estimates in the increased deposit area indicate 24,286t (Y) and 29,228t (KM) U<sub>3</sub>O<sub>8</sub>, respectively, and are shown in Table 3.

### **Comments on resource of the Mt Gee deposit**

Although concentrating on higher grade, the resource estimates for 300 - 500ppm U<sub>3</sub>O<sub>8</sub> contents were also investigated. In summary, the 300 – 500ppm category mineralisation together with the inferred resource tonnage 500ppm cut off grade indicates 59.1 M tonnes of mineralization at 0.062% for 36,639t U<sub>3</sub>O<sub>8</sub> applying ordinary kriging method, or 45.6 M tonnes of mineralisation at 0.068% for 31,255t U<sub>3</sub>O<sub>8</sub> employing the Yamamoto correction in the resource estimation (Table 4).

### **Mt Gee deposit - Inferred Resource Estimates**

**Table 1: 1,000 ppm U<sub>3</sub>O<sub>8</sub> cut off**

| U <sub>3</sub> O <sub>8</sub> Cut off | Method | N       | Content [ppm] | Mineralisation [M tonnes] | Resources [tonnes U <sub>3</sub> O <sub>8</sub> ] | Resources [M lb U <sub>3</sub> O <sub>8</sub> ] |
|---------------------------------------|--------|---------|---------------|---------------------------|---|---|
| 1,000ppm (estimate August 2006)       | Y      | 88 (67) | 1330          | 10.1                      | <b>13,496</b>                                     | <b>29.7</b>                                     |

**Table 2: 500 ppm U<sub>3</sub>O<sub>8</sub> cut off**

|  |    |         |     |      |               |             |
|--|----|---------|-----|------|---------------|-------------|
| 500ppm (updated estimate - August 2006)  | KM | 88 (84) | 748 | 32.6 | <b>24,416</b> | <b>53.7</b> |
|  | Y  | 88 (84) | 810 | 25.4 | <b>20,573</b> | <b>45.3</b> |
| 500ppm (previous estimate - August 2005) | KM | 48      | 730 | 34.0 | <b>24,808</b> | <b>54.6</b> |

**Table 3: 500 ppm U<sub>3</sub>O<sub>8</sub> cut off (extended area)**

|   |    |         |     |      |               |             |
|---|----|---------|-----|------|---------------|-------------|
| 500ppm (updated estimate - August 2006) | KM | 88 (84) | 750 | 39.0 | <b>29,228</b> | <b>64.3</b> |
|   | Y  | 88 (84) | 813 | 29.9 | <b>24,286</b> | <b>53.4</b> |

**Table 4: 300ppm U<sub>3</sub>O<sub>8</sub> cut off**

|  |    |         |     |      |               |             |
|--|----|---------|-----|------|---------------|-------------|
| 300ppm (updated estimate - August 2006)  | KM | 89 (59) | 621 | 59.0 | <b>36,639</b> | <b>80.6</b> |
|  | Y  | 89 (59) | 685 | 45.6 | <b>31,255</b> | <b>68.8</b> |
| 300ppm (previous estimate - August 2005) | KM | 48      | 582 | 57.0 | <b>33,200</b> | <b>73.0</b> |

N – number of drill holes, ( ) – number of drill holes meeting the estimation criteria, KM - uranium resource and average deposit parameters estimated by ordinary kriging Method, Y - uranium resource and average deposit parameters estimated by kriging method employing Yamamoto correction

## ***Forthcoming drilling and development program***

As a result of this resource analysis and ongoing drill core review, including re-logging and re-assay by the Company, Marathon is confident that the Mt Gee deposit contains substantial tonnage of higher grade inferred resource. The resource is contained within a continuous 10 – 20m thick deposit depending on cut off grade of 500 – 1,000ppm. Also, the deposit contains substantial lower grade 300ppm cut off grade resource and remains open in all directions. Particularly high exploration potential is defined to the south and east of the resource area. Marathon's immediate future exploration strategy is to focus on these portions and nearby extensions of the deposit. A program of 93 drill holes is planned for about 20,000m of RC drilling to upgrade inferred into indicated/measured resource categories. Location of drill holes of this program is illustrated in Figure 3. In addition, the planned drilling at Armchair/Streitberg will take place following the drilling at Mt Gee. A drilling company has been contracted for this fully funded drilling programme, which is scheduled to start in early November this year. A mining scoping study on the Mt Gee deposit is planned to commence early in 2007.

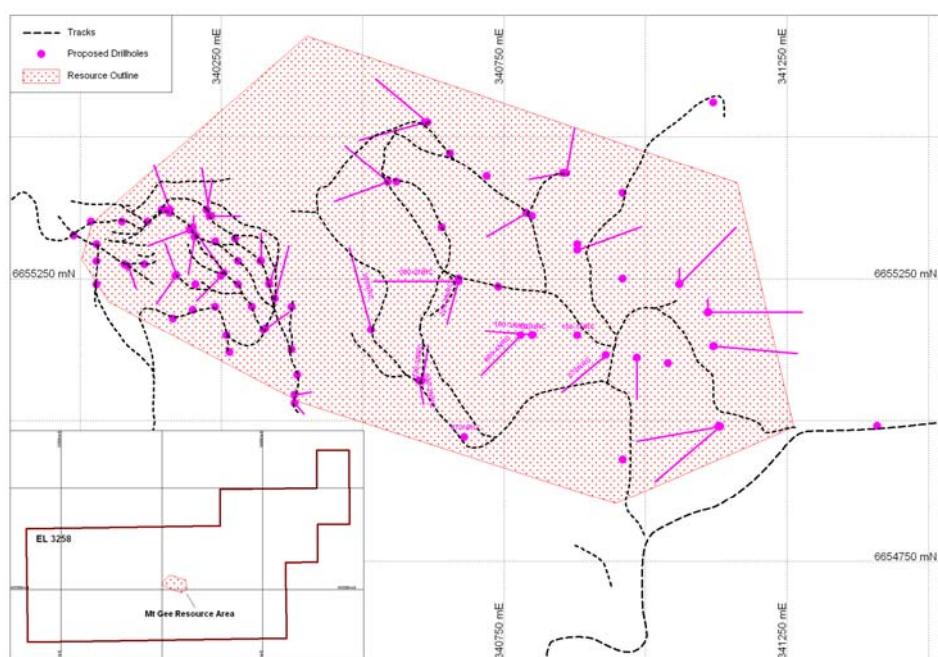


Figure 3 Proposed drill holes location towards indicated/measured resource of the Mt Gee deposit

## ***Nature of the Mt Gee deposit and the Paralana Mineral System***

Marathon has carried out research on tectonics, geology, petrology and ore genesis of the Paralana Mineral System (PMS), in particular Mt Gee and Hodgkinson deposits, which were recently drilled by the Company.

Geological logging of the core from Marathon's drill holes and logging/re-logging of the existing drill core, particularly from Exoil drilling, was carried out. About 200 samples were collected from the drill core, providing Marathon with research material for petrogenetic studies to identify ore genesis, alteration processes and timing of the U mineralisation.

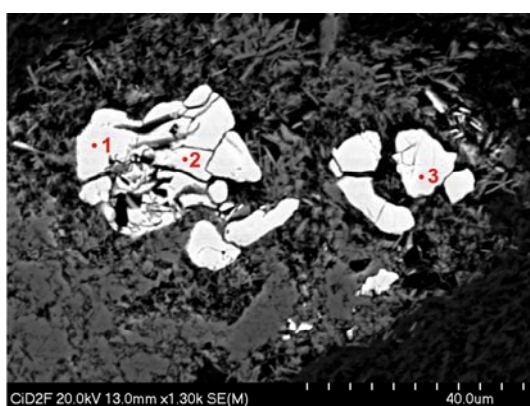
Results of the studies and re-assessment of the historical petrographic database have led to the conclusion that the host rocks of the Mt Gee deposit and the PMS are mostly granites, syeno-granites and syenites, containing magnetite, monazite, hematite and other minerals.

These studies have confirmed that uranium mineralisation at Mt Gee and the PMS is structurally controlled. The PMS forms a uniform structurally controlled U-rich mineral system, which extends over an 11-12 km distance along NE trending, deep rooted basement fracture of regional significance. Along this fracture a major tectonic deformation system, the Paralana Fault System (PFS) developed. Uranium mineralisation was propagated in tectonic-breccia-fracture zones corresponding to the activity of the PFS during the mineralising processes. The matrix of tectonic-breccia-fracture zones contains, predominantly, hematite and chlorite and, less frequently, sericite, quartz, chalcedony and carbonate.

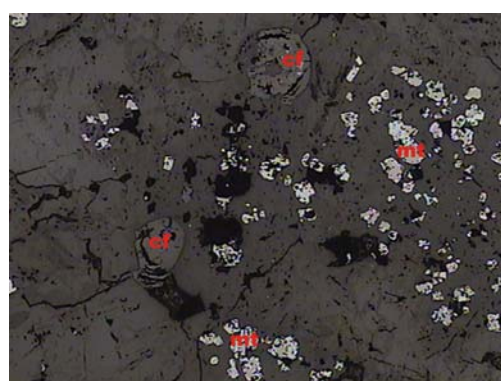
Microprobe and scanning electron microscope methods were applied to selected drill core samples from the uranium mineralised material, and Raman spectroscopic analysis was used to confirm identification of some minerals. These studies revealed that the dominant U carrying minerals of main mineralised zones at Mt Gee (and PMS) are uranium oxide: uraninite (Figure 4) and less frequently its modification pitchblende. Some uraninite crystals observed are up to 5mm of size. This suggests that increased space was created during structurally controlled extensional environment accompanied by the U mineralising processes allowing growth of this size of crystals. Based on these very large crystals the timing of the U mineralisation is capable of determination. Such a study is in progress and the results will be reported as soon as available.

Additionally to uranium oxide minerals, Mt Gee deposit is enriched in uranium silicate (coffinite) in certain zones (Figure 5). Less frequently other U carrying minerals such as brannerite, U-sorosilicate and allanite are observed. Monazite appears to be U-free and uranium mineralisation belongs to a different stage, confirming that the Mt Gee deposit (and PMS) is predominantly epigenetic, hydrothermal of origin. Uranium carrying torbernite is seen as resulting from a later epigenetic stage processes.

The dominance of uraninite in particular has major positive implications for the metallurgical recovery of uranium from the system.



*Figure 4: Scanning Electron Microscope image, fractured uraninite cemented by the fibrous matrix of hematite III (specularite) and lepidocrotite. Arabic numerals denote microprobe analysis of uraninite. Sample CiD, Mt Gee area, drill hole DD06MN08, depth 72.2m.*



*Figure 5: Videomicrograph of spherical grains of coffinite (cf) accompanied by magnetite (mt) replacement alongside edges of hematite I (process goes through martite). The matrix is quartz and K-flespar. Sample 681937/1-3, reflected light. Coffinite grains 100um across. Mt Gee area, drill hole MTG01.*

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves has been compiled by Dr W Bogacz, a full time Executive Director of Marathon Resources Ltd and a Member of the Australian Institute of Geoscientists. Dr Bogacz has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person for the purposes of the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Bogacz consents to the inclusion in the report of these matters based on their information in the form and context in which it appears.*

**Contact**

**Company**

Dr John Santich  
Chief Executive Officer  
Telephone (08) 8366 2500

**Investor Relations**

Mr Rod North  
Bourse Communications  
Telephone (03) 9510 8309  
Mobile 0408 670 706