



ASX ANNOUNCEMENT

8th December, 2008

High Grade Uranium enriched Phosphate Rock Surface Samples Confirm Potential of Plain Creek EPM 14834

Results from a recently completed reconnaissance and surface sampling program have confirmed high grade uranium (up to 2,288ppm U₃O₈) and phosphate (up to 22.9%) mineralization within EPM 14834. A total of 48 samples were collected during a reconnaissance survey conducted during October, 2008. Some of the more significant assay results include:

- **22.9% P₂O₅, 1,450ppm U₃O₈**
- 16.3% P₂O₅, **2,288ppm U₃O₈**
- 15.9% P₂O₅, 1,828ppm U₃O₈
- 14.4% P₂O₅, 1,108ppm U₃O₈
- 12.7% P₂O₅, 1,014ppm U₃O₈
- 11.2% P₂O₅, 2,170ppm U₃O₈

EPM 14834 (Plain Creek) is located approximately 190km south of Charters Towers within the Devonian to Carboniferous Drummond Basin. It is connected by sealed road to the port of Townsville approximately 300kms to the north.

Exploration by previous explorers investigating the uranium potential within EPM 14834 has delineated at least ten prospects with phosphate and uranium potential. Previous exploration reported P₂O₅ results up to 27% and U₃O₈ up to 4,200ppm within relatively flat lying siltstones. The reconnaissance survey undertaken by PepinNini identified siltstone units up to 3m thick within creek sections that extend for long distances below a relatively shallow cover of recent alluvium.

PepinNini has two other recently granted tenements and one application for a tenement located in the vicinity to the northwest of EPM 14834 which contain the same prospective siltstone units sampled on EPM 14834.

The results from the recently completed field reconnaissance and sampling survey are very encouraging and the Company intends to commence more detailed field investigation early in 2009 including costeaning and drilling.

The information in this report that relates to Exploration Results is based on information compiled by Norman Kennedy BSc MAusIMM. Norman Kennedy is the Chairman and Managing Director of PepinNini Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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". Norman Kennedy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information please contact:

Mr Norman Kennedy
 Chairman and Managing Director, PepinNini Minerals Limited
 Phone: +61 (0)2 9417 6212

Note: Additional information on PepinNini Minerals Limited can be found on the website:
www.pepinnini.com.au

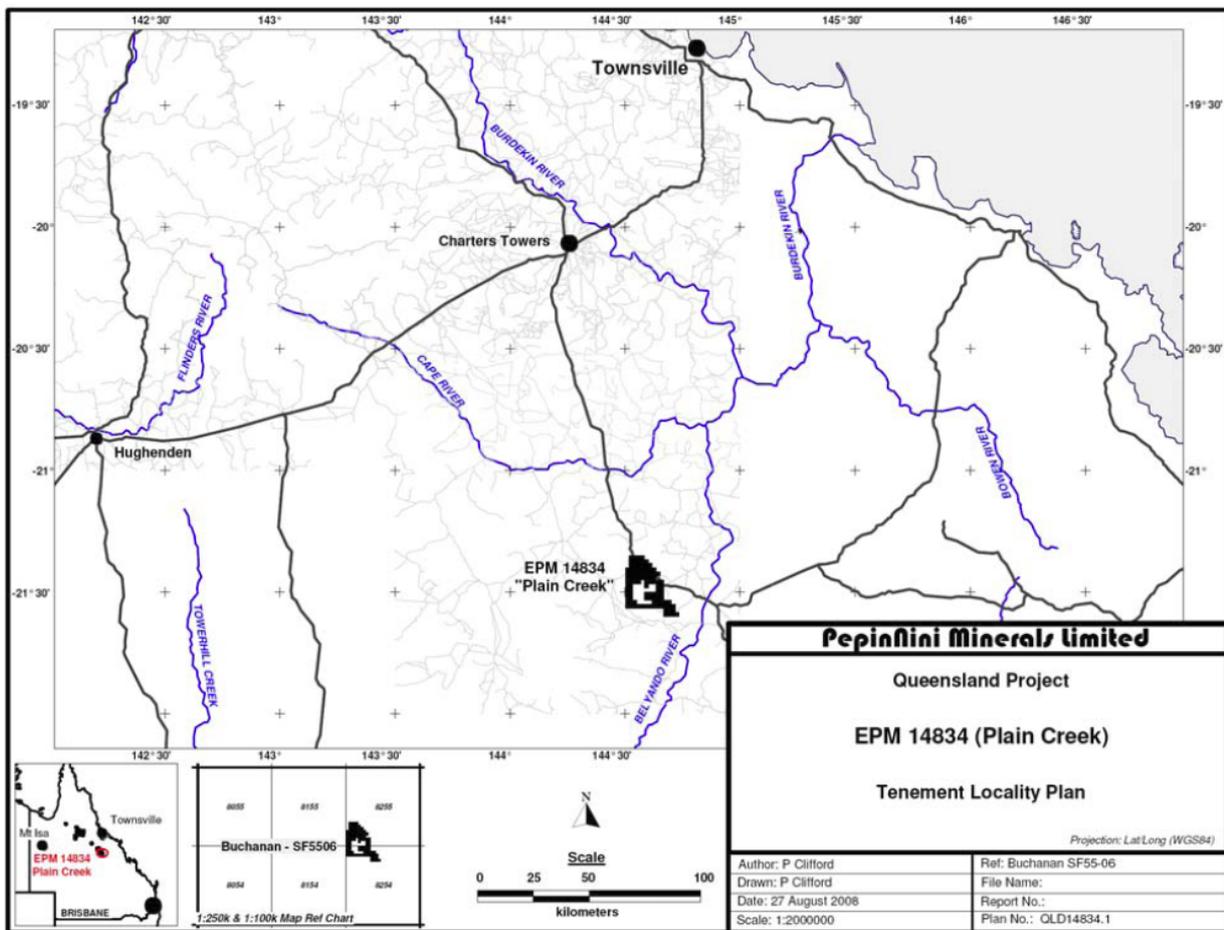
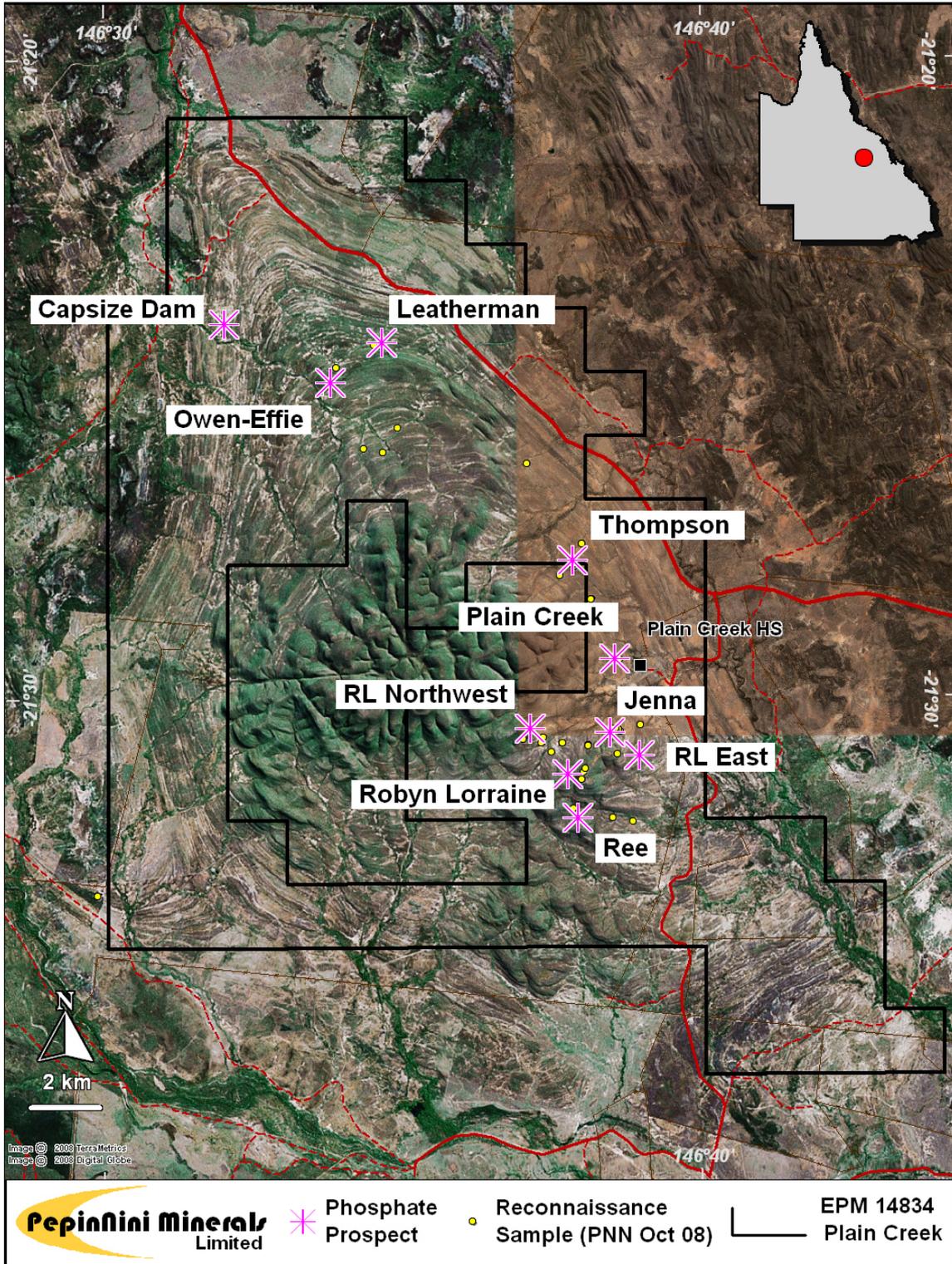


Figure 1: Location of Plain Creek (EPM 14834)

Plain Creek - Rock Phosphate Prospects



Plain Creek Rock Phosphate - Robyn Lorraine Project Area

