

## Karin Lake REE-U Property

### Location

The 167 km<sup>2</sup> Karin Lake Property is located 40 kilometres SE of Key Lake Saskatchewan, with preferred access to the property by float plane out La Ronge, Sk. Flight time from LaRonge is approximately 55 minutes. The Canadian Shield physiography of the area comprises typical low lying polished outcrops, boreal forest and muskeg, and vast NE-trending lakes. There are at least 3 fishing lodges on the nearby Foster Lakes system that were utilized as field bases during the 2007 and 2008 exploration programs.

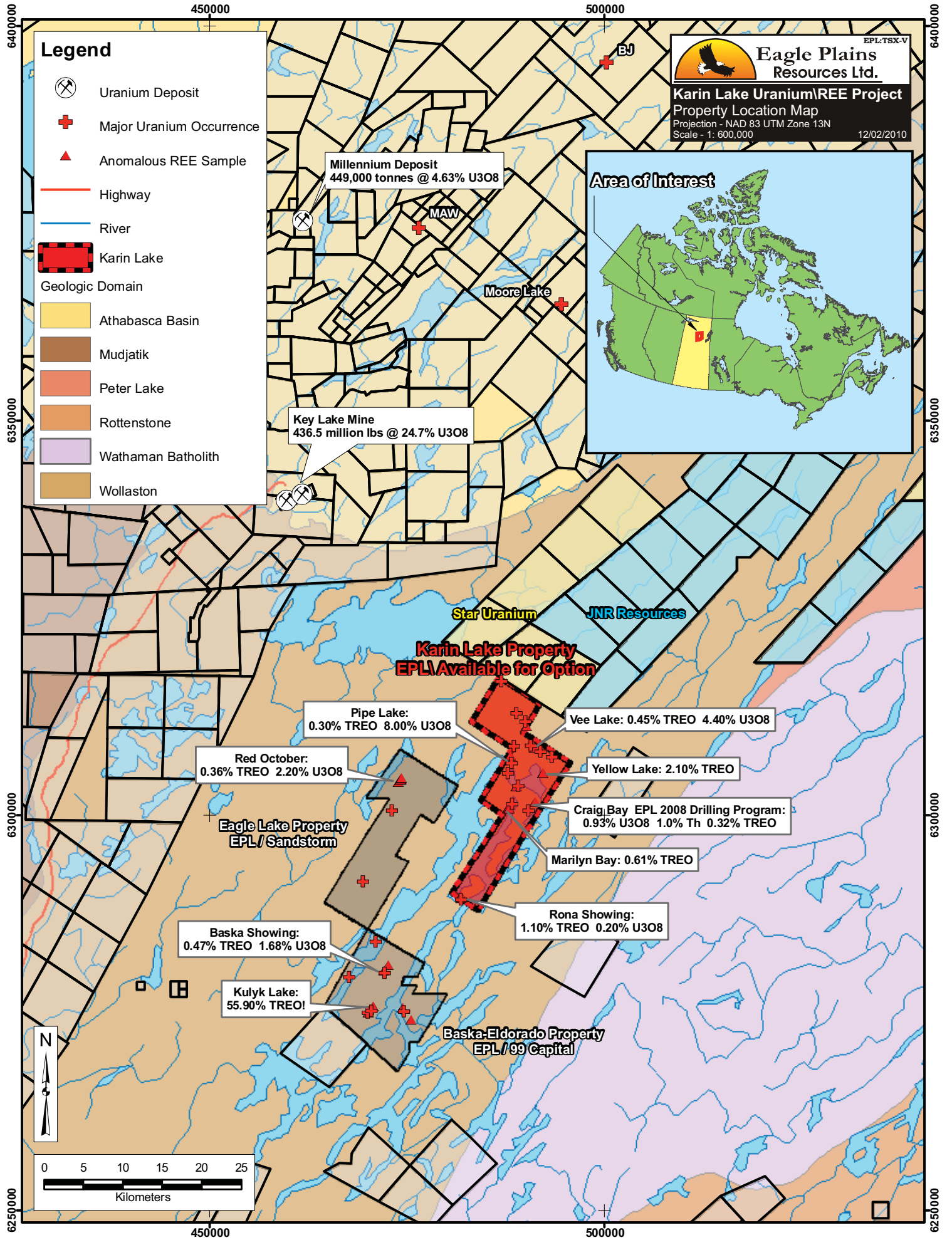
### History

Eagle Plains Resources has been exploring the area since 2006, following a staking program recommended by one of our company founders, Bob Termuende. Mr. Termuende's interest stems from his exploration activities in the area from 1969-1972, while acting as Mineral Exploration Manager for Great Plains Exploration Ltd. of Canada. Uranium was the focus of the early and subsequent exploration activities on the property and resulted in the discovery of at least 15 showings. Historical grab samples returned up to 8.00% U<sub>3</sub>O<sub>8</sub>, with several of the showings also elevated in molybdenum, copper, and notably, *thorium*. The radioactive element thorium (Th) is of particular interest as a pathfinder element for rare earth elements (REE). Prior to exploration activities by Eagle Plains in 2006, there had been no systematic assessment of the REE potential of the property region, but several very anomalous historical Th results indicate numerous under-evaluated REE targets.

### Results

Work on the property by Eagle Plains (EPL) from 2006 to 2008 included a 1361 line-kilometre airborne magnetic and EM geophysical survey, four – 1 to 2 week field mapping/prospecting assessments by geological staff, culminating in a 750 meter drill program at the Craig Bay uranium showing in 2008. Expenditures on the property group from 2006-2007 were \$355,499.85. In 2008, total exploration expenditures were \$588,702.59. Based on the known mineralization and expenditures to date, the Karin Lake Property is considered a *property of merit*.

While emphasis has been on uranium mineralization, EPL geologists have been actively tracking REE mineralization on the property. As shown on the attached map, numerous showings have returned significant REE values from at least six of the known showings. The best showing on the property (Yellow Lake), returned **2.10%** total rare earth oxides (TREO) from the margin of a hematite stained pegmatite in contact with Wollaston Group metasedimentary rocks. Similar rocks sampled by the author from the nearby Baska-Eldorado Property (EPL/99 Capital), returned up to **55.9%** TREO (see EPL NR, Jan. 18, 2010). Petrographic work on rocks from both the Yellow Lake and Eldorado showings indicates that the mineral monazite is the main REE carrier at both showings. Furthermore, regional analysis of existing geological and geophysical data sets suggests



**Legend**

- Uranium Deposit
- Major Uranium Occurrence
- Anomalous REE Sample
- Highway
- River
- Karin Lake
- Geologic Domain
  - Athabasca Basin
  - Mudjatik
  - Peter Lake
  - Rottenstone
  - Wathaman Batholith
  - Wollaston

EPL-TSX-V

**Eagle Plains Resources Ltd.**

**Karin Lake Uranium/REE Project**  
 Property Location Map  
 Projection - NAD 83 UTM Zone 13N  
 Scale - 1: 600,000  
 12/02/2010



**Millennium Deposit**  
449,000 tonnes @ 4.63% U3O8

**Key Lake Mine**  
436.5 million lbs @ 24.7% U3O8

**Karin Lake Property**  
EPL Available for Option

**Pipe Lake:**  
0.30% TREO 8.00% U3O8

**Vee Lake:** 0.45% TREO 4.40% U3O8

**Red October:**  
0.36% TREO 2.20% U3O8

**Yellow Lake:** 2.10% TREO

**Eagle Lake Property**  
EPL / Sandstorm

**Craig Bay EPL 2008 Drilling Program:**  
0.93% U3O8 1.0% Th 0.32% TREO

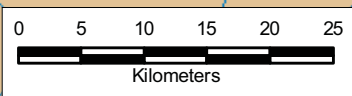
**Marilyn Bay:** 0.61% TREO

**Baska Showing:**  
0.47% TREO 1.68% U3O8

**Rona Showing:**  
1.10% TREO 0.20% U3O8

**Kulyk Lake:**  
55.90% TREO!

**Baska-Eldorado Property**  
EPL / 99 Capital



that some REE anomalies of the Karin Lake Property are contained within the same package of prospective rocks as at the Eldorado showing.

### **Conclusions and Recommendations**

The Karin Lake Property is underlain by the same prospective lithologies as the historically productive Key Lake and Rabbit Lake uranium mines. As such, work on the property in the 1970's successfully identified more than 15 uranium showings and returned up to 8.00% U<sub>3</sub>O<sub>8</sub>. Lack of an REE market and limitations in analytical technologies in the 1970s guaranteed that the property area was under-evaluated with respect to the REEs.

With the recent definition of REE resources north of the Athabasca Basin at the Hoidas Lake project, interest in the REE potential of the circum-Athabasca Basin region has greatly escalated. The 2.10% TREO value returned from Yellow Lake exceeds the 1.5% cut-off grade used for resource calculations at Hoidas Lake. Interpretation of the regional geology supports a structural and lithological linkage to the phenomenal 55.9% TREO value returned from the adjacent Baska-Eldorado property. With 6 known REE anomalous showings and more than 20 kilometres of under-explored along-strike prospective rock sequences, the Karin Lake Property has excellent potential for both REE and U.