

# Arnhem Exploration & Rural Services

## ARNHEM EXPLORATION & RURAL SERVICES

ABN 58 460 598 610

08 Februar 2006

### **Report on soil sampling program at Elkedra (November 2005)**

In November 2005, AERS was commissioned by Arafura Resources to carry out a regional soil sampling program in the Elkedra area on EL9709.

Access was by Fitz Bore and then by a fence line running to the south. The fence line heads east at about 541000E 7625350N and continues through the sample area. At about 545000E 7625350N it is necessary to follow a northbound fence for about 500m prior to crossing that fence and travelling east through clear country back on to the eastbound fence. At times the tracks along the fence lines are in poor condition. Travel time from Fitz Bore to the eastern edge of the sample area is about 1½ hours.

The track heading SSE from Fitz Bore to Tosca mine shown on the topographic map is overgrown and is not of any use for access to the sample area.

Generally, the sample area is open sandy country in the west, hilly in the central area with granite appearing in the central-eastern section.

At the start of the program, the sample teams were briefed on exclusion zones and other issues as required by the CLC work program clearance dated 21 November 2005.

Sample spacing was 500m with line spacing at 1000m. The sample medium was the B/C horizon, recognised by either colour or texture change. Depth of hole was also recorded at each sample site. In some instances no change could be detected and this was noted in the sample sheets. No change in colour or texture was sometimes noted on hills: in these cases rocks were generally found in the hole and on the surface and were assumed to be in situ B/C horizon material.

At each location two samples were taken: an "A" sample of 100g, -80 mesh and a "B" sample of 500g, -2mm. Duplicates were taken at about one in twenty. Sample sites are marked with pin markers showing co-ordinates and sample numbers. Sample numbers run from 550001 to 550148 in an "A" and "B" series. In total, 141 sites were sampled to give 148 "A" and 148 "B" samples (including duplicates). All sample holes were backfilled.

The sampling method was mattock and shovel: a hole was dug to reach the colour or texture change, loose material removed, hole depth measured and a sample then taken from the bottom of the hole. Where no change was visible, the hole was excavated to about 50cm prior to sampling. Sieves were cleaned prior to sampling. Sample bag numbers and peg co-ordinates were checked against log sheets. Navigation was by GPS (WGS84 datum).

Samples were dispatched to NAL in Pine Creek on 29/11/05.

The spreadsheet file "Elksoil" shows locations and site numbers. Log sheets will be sent to Darwin.

(PhilipMerry, AERS manager)