Dear Dr. Cook,
Thanks for providing a revised version of your paper "Blooms of cyanobacteria in a temperate Australian lagoon system post and prior to European settlement", as well as your thorough responses to reviewers.

Before definitive acceptance in Biogeosciences, there are a few aspects that need to be taken care of:

1. The article definitively needs a better map of the study site (Fig. 1). Most readers are not familiar with the area, and in any case, sampling sites need to be related to geography and places mentioned in text. Please use insets and arrows if necessary (and color if you like), and name places like rivers Latrobe, etc. This is important to readers.

A new, clearer map has now been provided with the rivers more clearly marked.

2. Line 30, page 4. Please explain or rephrase "with a view to attaining a chronology to aid the identification of recent changes". What do you mean with "with a view"?

This is colloquial English and has now been reworded

'This core was sectioned in the field at 0.5 cm intervals (contiguous), to attain a chronology to aid the identification of recent changes in the sediment.'

3. Page 5, lines 29-30. Which analysis were conducted using "Samples were dried at 60°C for 30-50 hours and placed in 1.7 ml Eppendorf tubes along with Qiagen Tungsten Carbide Beads (3 mm)"?

And in page 5, line 31. "Samples were shaken…" Are those same samples in 1.7 ml Eppendorf tubes?

Please explain

Reworded as follows

'These samples were dried at 60°C for 30-50 hours and placed in 1.7 ml Eppendorf tubes along with Qiagen Tungsten Carbide Beads (3 mm) then shaken for 6-10 minutes at 25 Hz using a Retsch Mixer Mill MM 200 until a fine, homogeneous powder was produced.'

4. Page 8, line 3. Charcoal concentration. To be accurate, concentration is mass or mol/volume, and these are # of particles/mL, Isn´t? Content or abundance is more appropriate

The term abundance is now used througout

5. Please show matching between LKN1 and LKN2 somewhere in Fig. 2, or 3, or 4. That will also answer Reviewer 2 ("Then I see that you only used LKN2 for pigment analysis. How did you get pigment data for the earlier years? ")

Matching is now shown in a revised figure 2, shown below

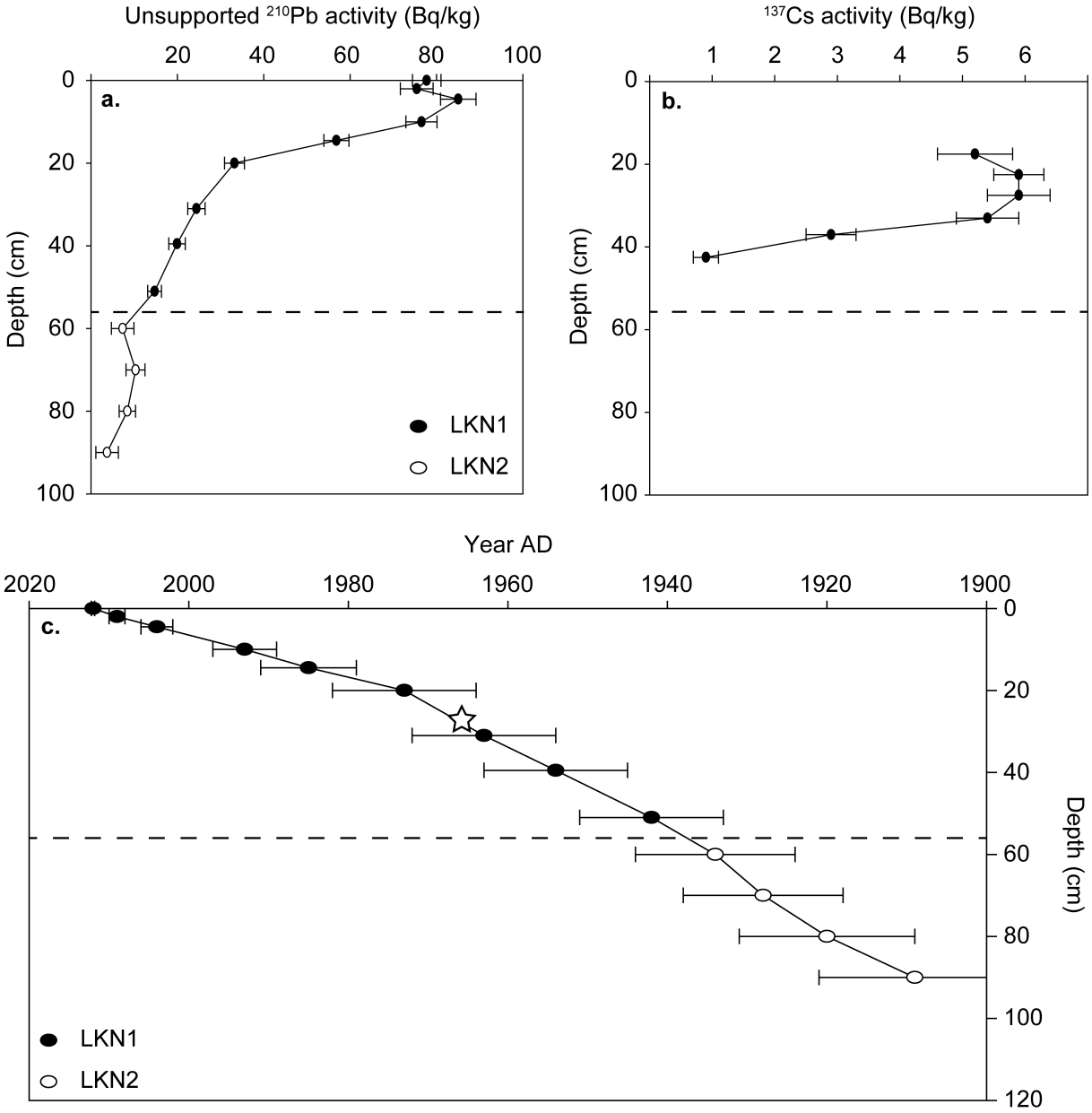

Fig 2. Unsupported ^{210}Pb activities (Bq/Kg sed) versus depth (a), ^{137}Cs activities (Bq/Kg sed) versus depth (b) and the age depth model based on unsupported ^{210}Pb values using the CIC (constant initial concentration) model (c). The star in (c) refers to the depth of the ^{137}Cs peak activity. LKN1 and LKN2 refer to the two different cores sampled (see methods) and the horizontal dashed line demarcates the transition from core LKN1 to LKN 2.