Calculation for PON/POC

Area was calculated for both the parent filter and the filter punchouts.

$$A_f = \pi(0.5 * D_f)^2$$

$$A_p = 2 * \pi(0.5 * D_p)^2$$

, where D_f and D_p correspond to the diameters of the parent and punchout filters, respectively, and A_f and A_p correspond to the areas of the parent and punchouts, respectively. The area of the punchouts were multiplied by 2 since there are two punchouts per parent filter.

Analytical data for both mass PON (m_{PON})and mass POC (m_{POC}) were obtained from the "EA Summary" tab in the Excel workbook provided by Tim Wahl (columns G and I, respectively) and divided by the filter volume in mL ($V_{filterd}$):

$$C_{PON} = \frac{m_{PON}}{V_{filterd}} * \frac{1000\ mL}{L} * \frac{A_f}{A_p}$$

$$C_{POC} = \frac{m_{POC}}{V_{filterd}} * \frac{1000\ mL}{L} * \frac{A_f}{A_p}$$

, where C_{PON} is the concentration of particulate organic nitrogen in mg/L and C_{POC} is the concentration of particulate organic carbon in mg/L.