Lab #5 Hints

1. For question 4, DO NOT try to plot your percent removal chart using EXCEL. This will cause nothing but headaches. Rather, just draw everything by hand (graph paper and a ruler might help). Also, when drawing your contour lines (or iso-removal lines), don't worry if they pass directly through a particular fraction removal point. Because of errors in collecting samples, recording volumes, filtering, weighing, etc., it is likely that you'll have to remove suspect data points in order to draw your contours. Having said that, the contour lines should be smooth curves, not zigzagging all over the place (see the following example). Also, if you're getting negative concentrations, then just leave these points out and try to make due with the rest of the data.

In the following example, the fraction removal value of 0.82 for t = 40 min and depth = 1m doesn't seem to fit with the rest of the data, resulting in a skewed line for 70% removal (figure 1). However, if we remove that point, then we can plot a smooth curve for 70% removal (figure 2).

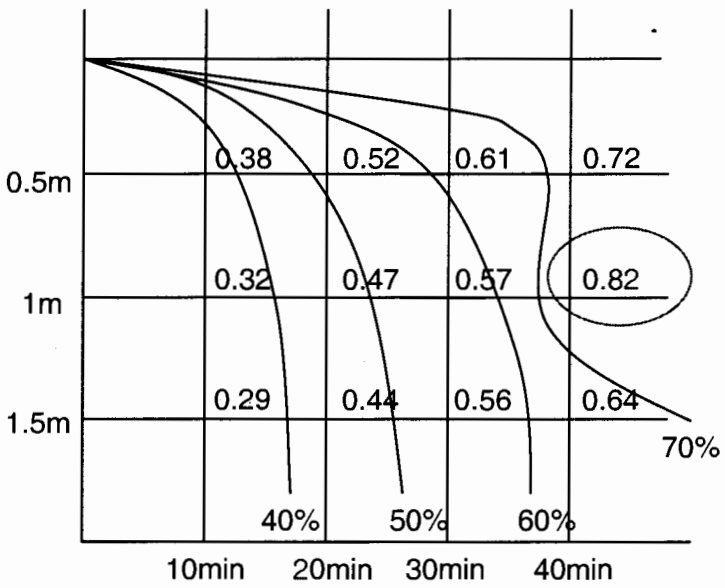

Figure 1. The wrong way

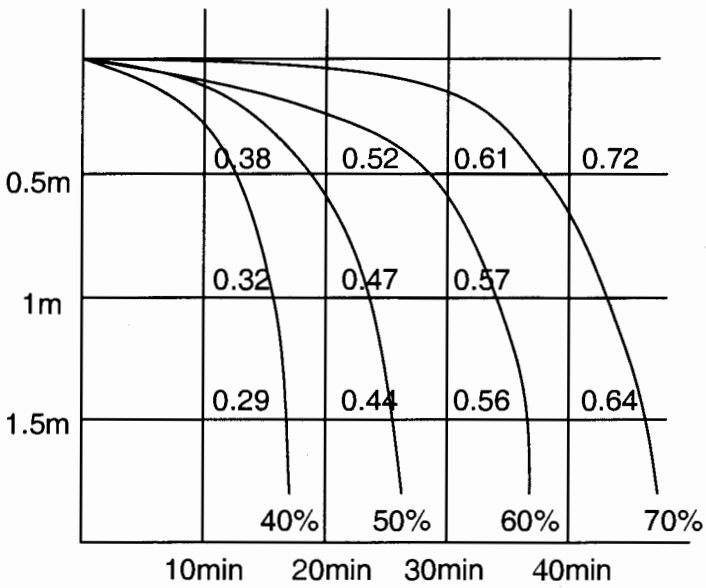

Figure 2. The right way