EMP WQ Chapter Notes

[Parameter ranges 2](#_Toc153184961)

[Graph formatting 2](#_Toc153184962)

[In Excel 2](#_Toc153184963)

[In Word 2](#_Toc153184964)

[Excel analysis tricks 3](#_Toc153184965)

[How to fill in missing numbers in a series (fill in missing Julian Days) 3](#_Toc153184966)

[Lock a cell reference inside a formula with $ 3](#_Toc153184967)

[Graphing tricks 3](#_Toc153184968)

[Combine or separate data within columns 3](#_Toc153184969)

# Parameter ranges

|  |  |
| --- | --- |
| **Parameter** | **Typical Graph Range** |
| Temperature | 0-35 C |
| Salinity | 8-38 ppt |
| pH | 7-8.6 |
| DO | 0-14 mg/L |
| Turbidity | 0-140 NTU |
| Chlorophyll a | 0-80 ug/L |
| BGA-PE | 0-140 ug/L |

# Graph formatting

## In Excel

* Times New Roman 12
* Axis lines black
* Axis titles bold
* No external border

## In Word

* Paste graphs as a photo (PNG) from excel to word, otherwise the file size becomes too large
* Wrap text: Top/Bottom
* Format photo size to: 2.3’’x5.69’’

# Excel analysis tricks

## How to fill in missing numbers in a series (fill in missing Julian Days)

Copy Julian Day + Corresponding data

UNDERNEATH of the Julian day column, insert 1-365

With both columns selected

Go to the "Data" tab

Sort by your Julian Day column

Go to the "Data" tab again

Click "remove duplicates"

Remove duplicates by your Julian Day column only

NOTES: This does not work if you put 1-365 BEFORE the correct data

## Lock a cell reference inside a formula with $

Example B5 to $B$5

Command + T

## Graphing tricks

* You can make a dummy graph formatted with the correct colors/markers to create a custom legend (use for advanced combo graphs or “trick” graphs)
* You can “change chart type” on individual series, not just on the entire chart

## Combine or separate data within columns

* **To combine data from 2 cells into 1**: Use =A1+B1 or =A1&B1 depending on how you want the cells to merge. You can add an &”xxxx” to the second formula to add words, spaces, characters in between or in addition to what you want to merge (ex. A1&”\_“&B1 adds a \_ in between the two cells)
	+ To merge cells to create a date use: =Date(A1,B1,C1)
* **To separate data from 1 cell into 2 separate cells** (typically useful for separating date and time): Select the Data Tab>Text to columns
	+ Delimited – uses 1 specific character to automatically separate fields (ie. a space or specific character)
	+ Fixed width – allows you to adjust the columns manually

Match data with different dates/times in excel

Have not tried this method – saving for future use.

May use to compare hatchery archive and noaa data?

<https://www.youtube.com/watch?v=nTmpuNUSMCc>