

Synoptic CB: Porewater DIC

August 2022 Samples

2025-10-22

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```
##Setup - Change things here & write any notes
```

```
#identify section  
cat("Setup Information")
```

```
## Setup Information
```

```
##### Run information - PLEASE CHANGE  
Date_Run = "09/08/22" #Date that instrument was run  
Run_by = "Stephanie J. Wilson" #Instrument user  
Script_run_by = "Stephanie J. Wilson" #Code user  
run_notes = " " #any notes from the run  
samples <- c("GCW", "GWI", "MSM", "SWH", "GCrew") #whatever identifies your samples within the same n  
samples_pattern <- paste(samples, collapse = "|")  
  #samples_pattern <- "GCW" #use this instead of the line above if you have only one site code  
chks_name = "Chk_" #what did you name your check standards?  
crm_name = "CRM|crm" #what did you name your CRMS?  
  
##### File Names - PLEASE CHANGE  
#file path and name for raw summary data file  
raw_file_name = "Raw Data/TOCTN_COMPASS_Synoptic_DIC_202208.txt"  
  
#file path and name for raw all peaks file  
  # raw_allpeaks_name = "Raw Data/TOCTN_COMPASS_Synoptic_DIC_202208_allpeaks.txt"  
  
#file path and name of processed data file  
processed_file_name = "Processed Data/COMPASS_SynopticCB_PW_Processed_DIC_202208.csv"  
  
##### Log Files - PLEASE CHECK  
#downloaded metadata csv - downloaded from Google drive as csv for this year  
Raw_Metadata = "Raw Data/COMPASS_SynopticCB_PW_SampleLog_2022.csv"  
  
#qaqc log file path for this year  
Log_path = "Raw Data/COMPASS_Synoptic_DIC_QAQClog_2025.csv"
```

```
##Set Up Code
```

```
##Read in metadata and create similar sample IDs for matching to samples
```

0.1 Import Data Functions

0.2 Import Sample Data

```
## Import Sample Data
```

```
## New names:
```

```
## * ' ' -> '...14'
```

```
## # A tibble: 6 x 3
```

```
##   sample_name          ic_raw run_datetime  
##   <chr>              <dbl> <chr>
```

```
## 1 GCW_202208_UP_LysB_20cm 4.96 9/8/2022 1:37:11 PM
## 2 GCW_202208_TR_LysA_20cm 42.1 9/8/2022 1:52:30 PM
## 3 GCW_202208_TR_LysC_20cm 92.4 9/8/2022 2:09:52 PM
## 4 GCW_202208_WC_SipA_10cm 113. 9/8/2022 2:31:47 PM
## 5 GCW_202208_WC_SipA_20cm 124. 9/8/2022 2:49:55 PM
## 6 GCW_202208_WC_SipA_45cm 201. 9/8/2022 3:08:07 PM
```

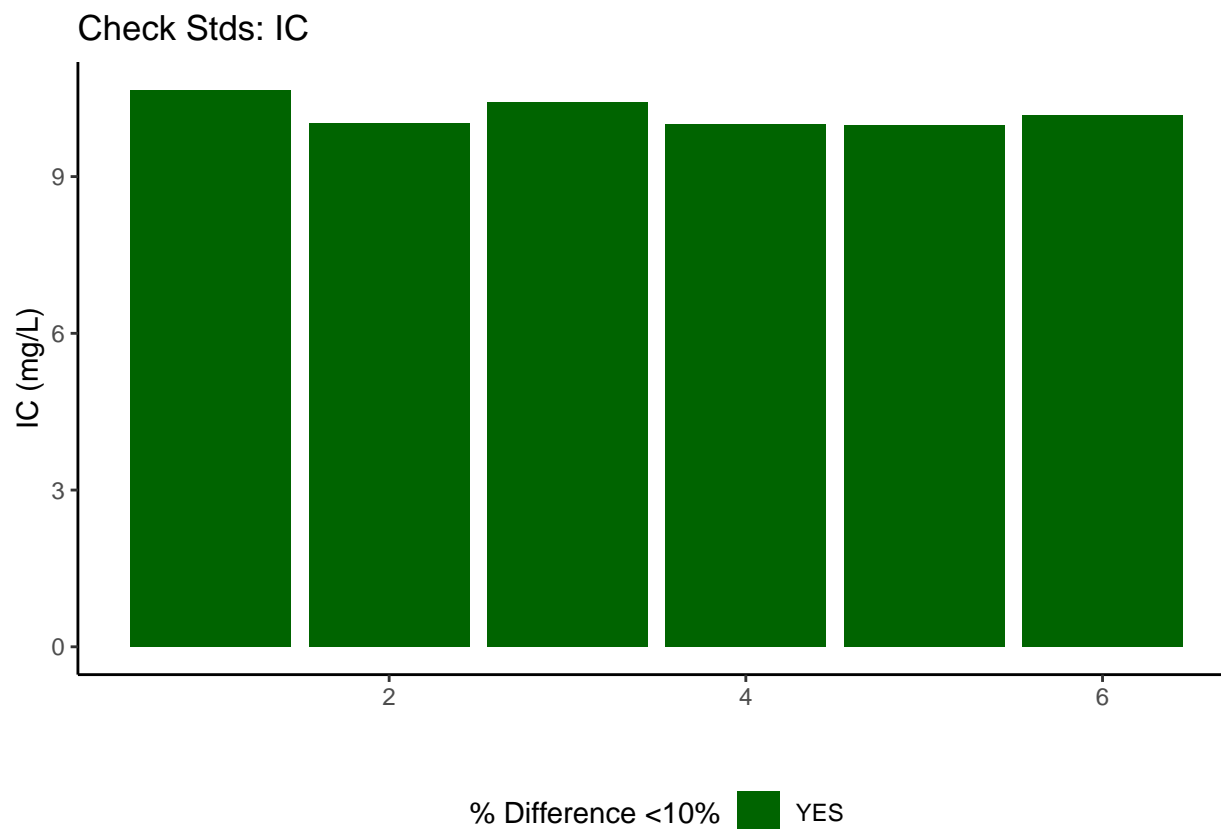
0.3 Assessing Standard Curves - done manually on the instrument

0.4 CRM Check - No CRMS included on this run

0.5 Assess Check Standards

```
## Assess the Check Standards
```

```
## New names:
## * ' ' -> '...14'
```



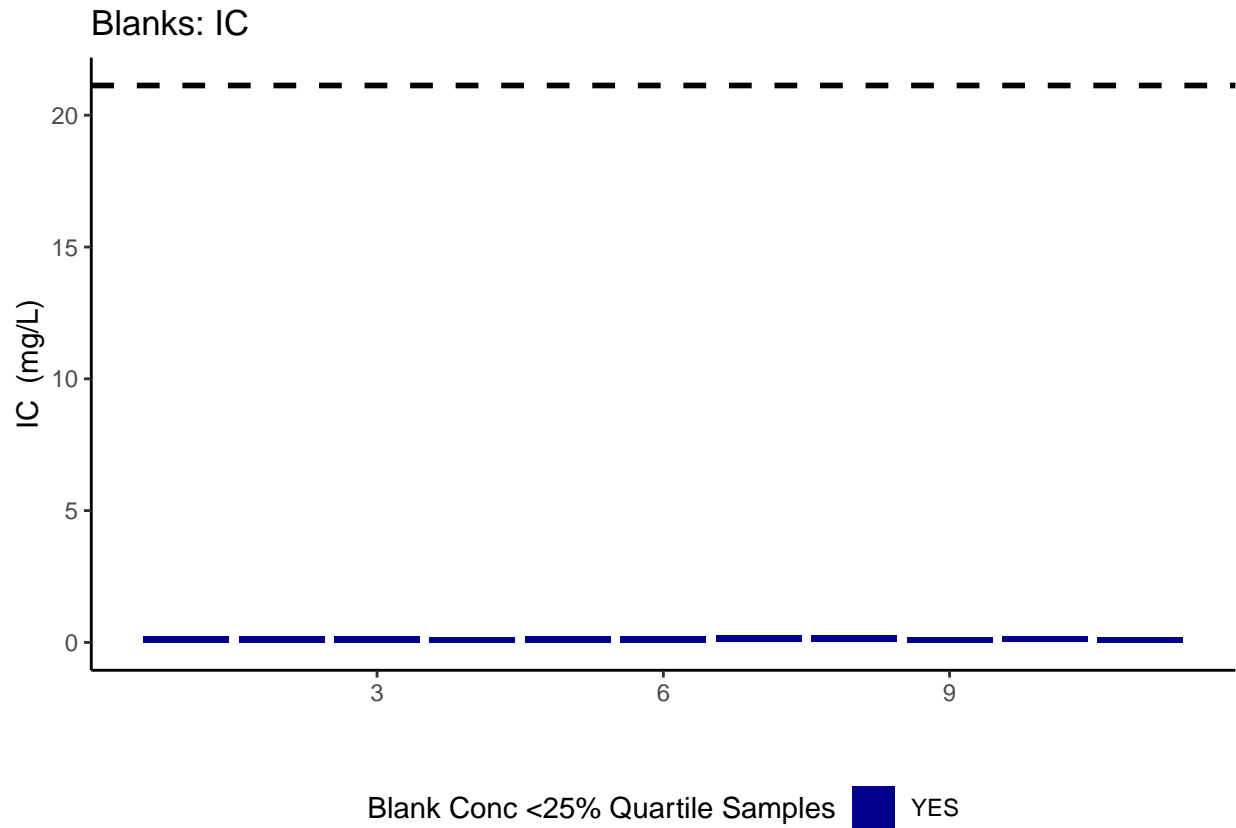
```
## [1] ">60% of IC Check Standards are within range of expected concentration"
```

0.6 Assess Blanks

```
## Assess Blanks
```

```
## New names:
## * ' ' -> '...14'
```

```
## [1] ">60% of Carbon Blank concentrations are lower 25% quartile of samples"
```



```
## carbon blanks:
```

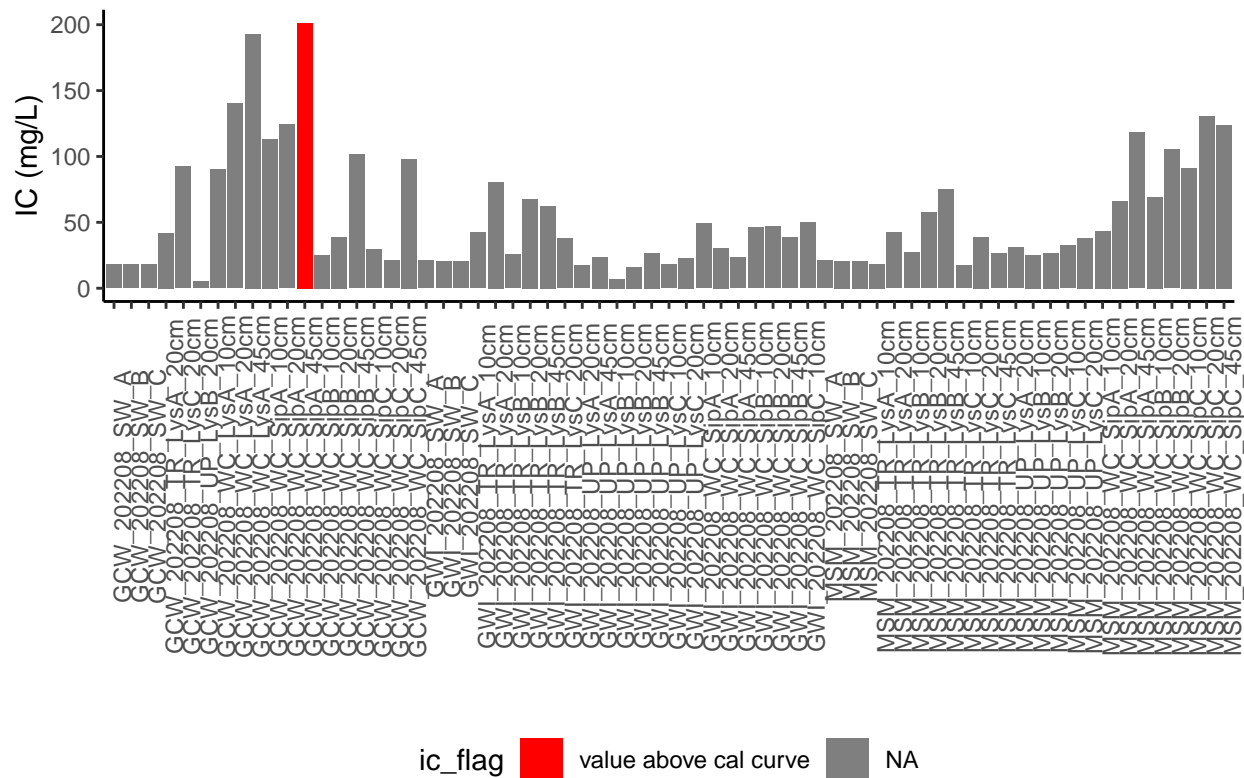
```
## [1] 0.2358818
```

0.7 Assess Duplicates - no duplicates included on this run

0.8 Sample Flagging - Are samples Within the range of the curve?

```
## Sample Flagging
```

C: Grey = Within Range of Curve



0.9 Visualize Data by Plot

Visualize Data

```
## Warning in rbind(c("GCW", "202208", "UP", "LysB", "20cm"), c("GCW", "202208", :
## number of columns of result is not a multiple of vector length (arg 16)
```



```
## # A tibble: 6 x 18
##   Project      Region Site Zone Replicate Depth_cm Sample_ID Year Month Day
##   <chr>      <chr> <chr> <fct> <chr>      <int> <chr>      <int> <int> <int>
## 1 COMPASS: Sy~ CB    GCW  UP    B           20 GCW_2022~  2022     8   15
## 2 COMPASS: Sy~ CB    GWI  UP    A           20 GWI_2022~  2022     8   18
## 3 COMPASS: Sy~ CB    GWI  UP    A           45 GWI_2022~  2022     8   18
## 4 COMPASS: Sy~ CB    GWI  UP    B           10 GWI_2022~  2022     8   18
## 5 COMPASS: Sy~ CB    GWI  UP    B           20 GWI_2022~  2022     8   18
## 6 COMPASS: Sy~ CB    GWI  UP    B           45 GWI_2022~  2022     8   18
## # i 8 more variables: Time <lgl>, Time_Zone <lgl>, ic_mgL <dbl>, ic_uM <dbl>,
## #   ic_flag <chr>, Analysis_runtime <chr>, Run_notes <chr>, Field_notes <chr>

#end
```