TEMPEST Aquifer: Porewater Sulfide

September 2025 Samples Plate 6

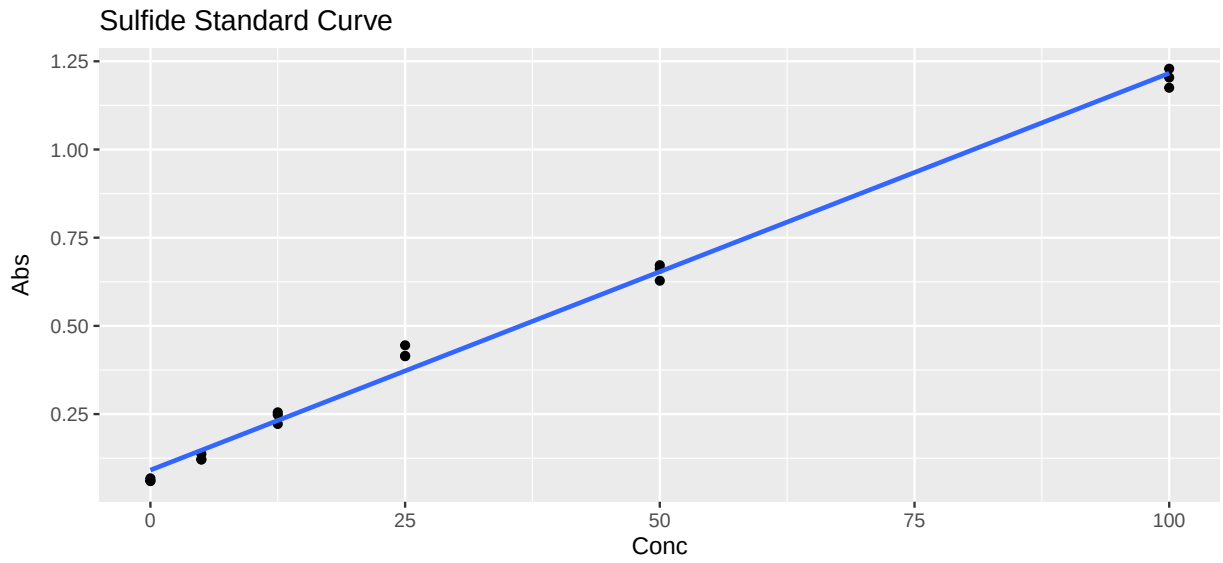
2025-11-07

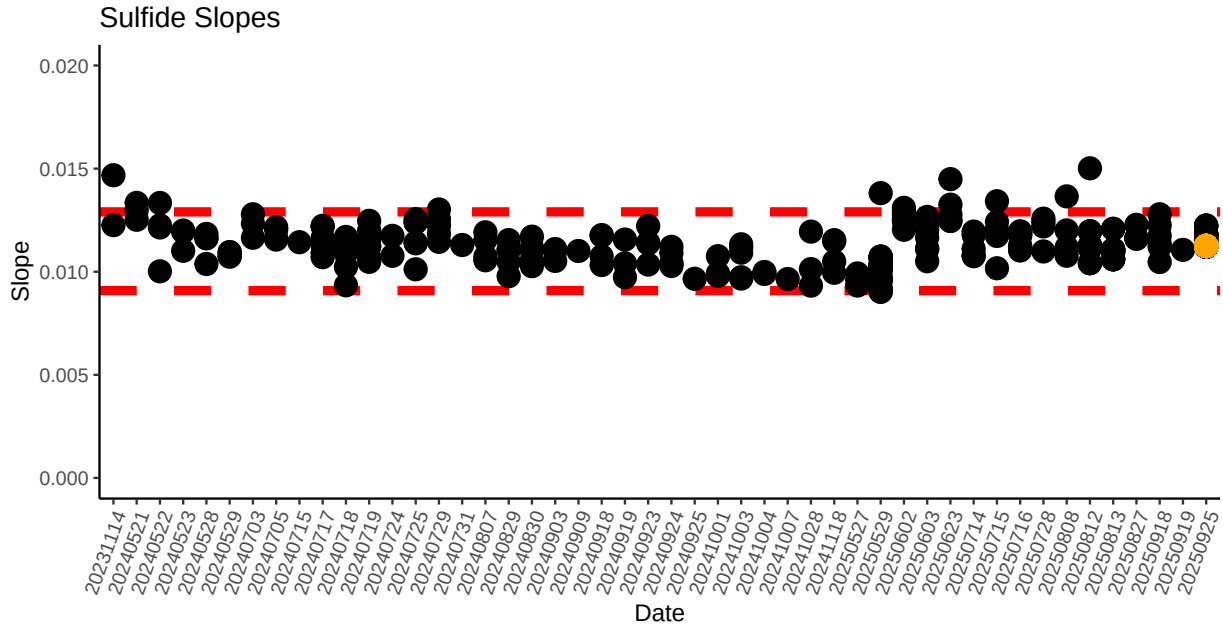
Run Information

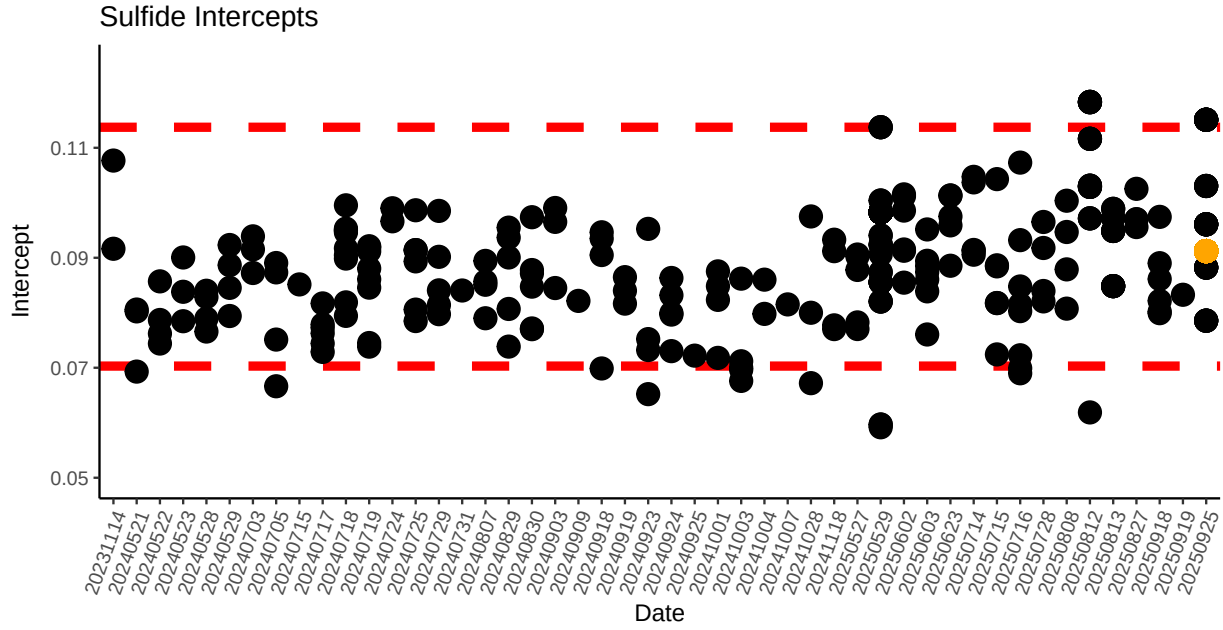
```
###### Run information - PLEASE CHANGE
  Date_Run = "20250925"  #Date that instrument was run
  Plate = "6"
  Month = "Sept"
  Year = "2025"
  Run_by = "Steph Wilson and Zoe Read"  #Instrument user
  Script_run_by = "Zoe Read" #Code user
  Project = "COMPASS"
  run_notes = "Matrix Check 10 is significantly different from Std 5.
  Samples 91, 19, 36, and 98 still have high CVs after one replicate removed.
  Sample July_42 needs dilution.
  Dup 38 had high percent difference.
  10 uL of spike added." #any notes from the run

###### STDs to remove manually - NA unless standards have high CVs
  stds_to_remove <- c(NA) #Ex. c("A02", "B02")

  Chkstds_to_remove <- c(NA)

  MCs_to_remove <- c(NA)

##Sample data that was entered incorrectly
  # The Old ID is the original, incorrecly-entered ID and the New ID is the correct ID to change it to.
# Old_ID_1 = "17 Dup"
# New_ID_1 = "16 Dup"
cat(run_notes)
```

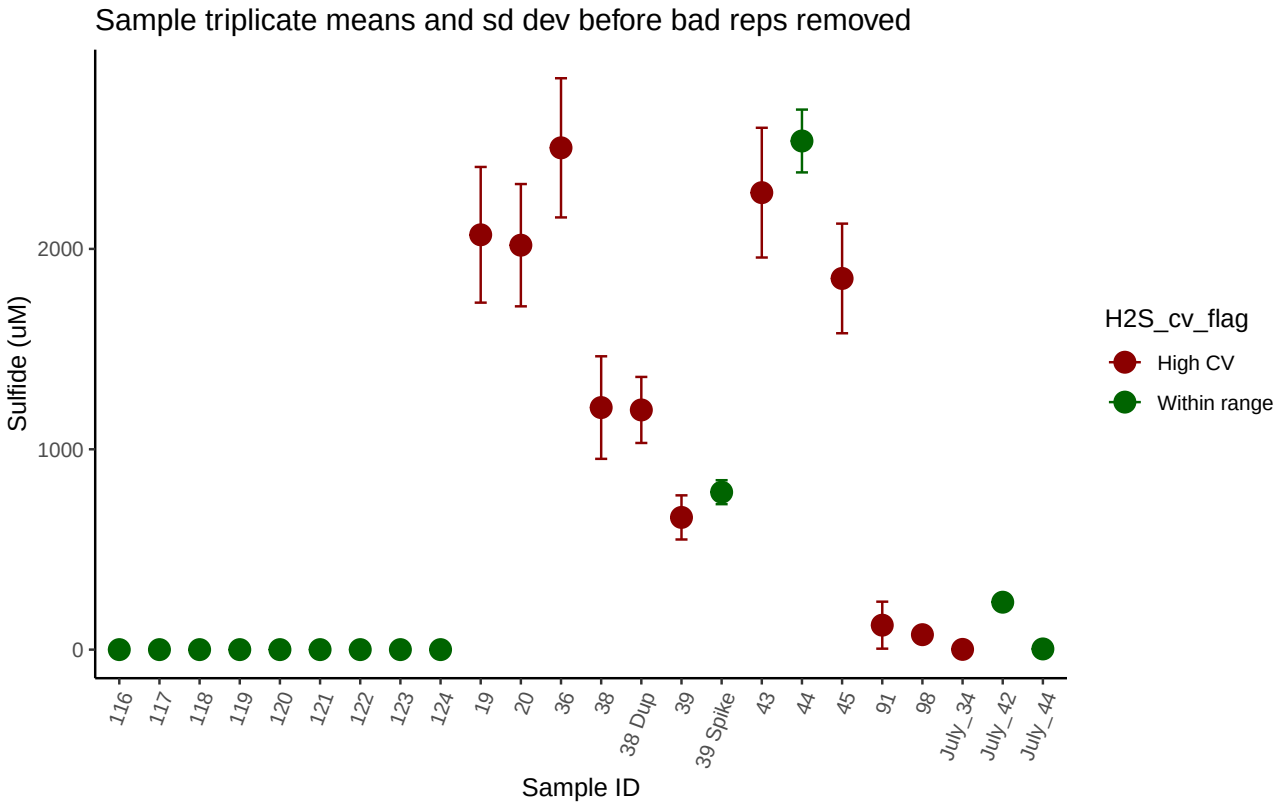
```
## Matrix Check 10 is significantly different from Std 5.
##   Samples 91, 19, 36, and 98 still have high CVs after one replicate removed.
##   Sample July_42 needs dilution.
##   Dup 38 had high percent difference.
##   10 uL of spike added.
```

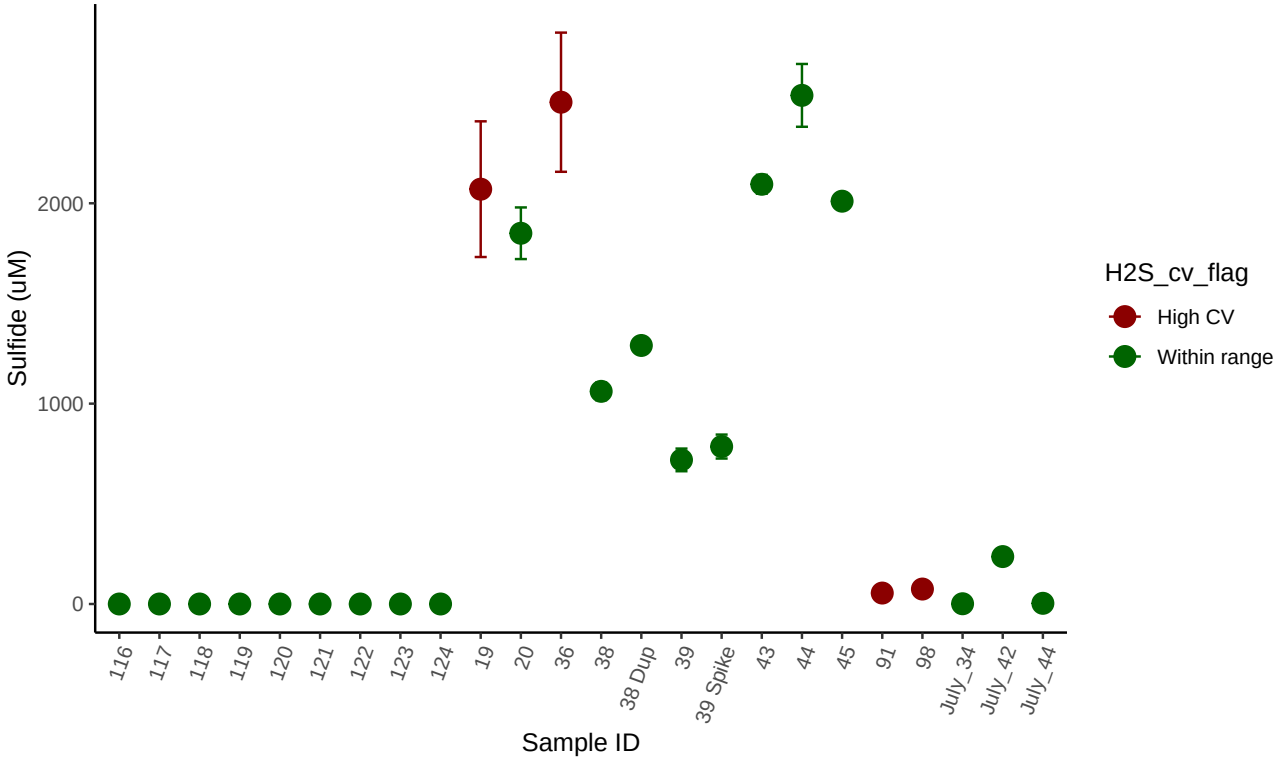
```
## [1] "Std Curve R squared: 0.9935"
```

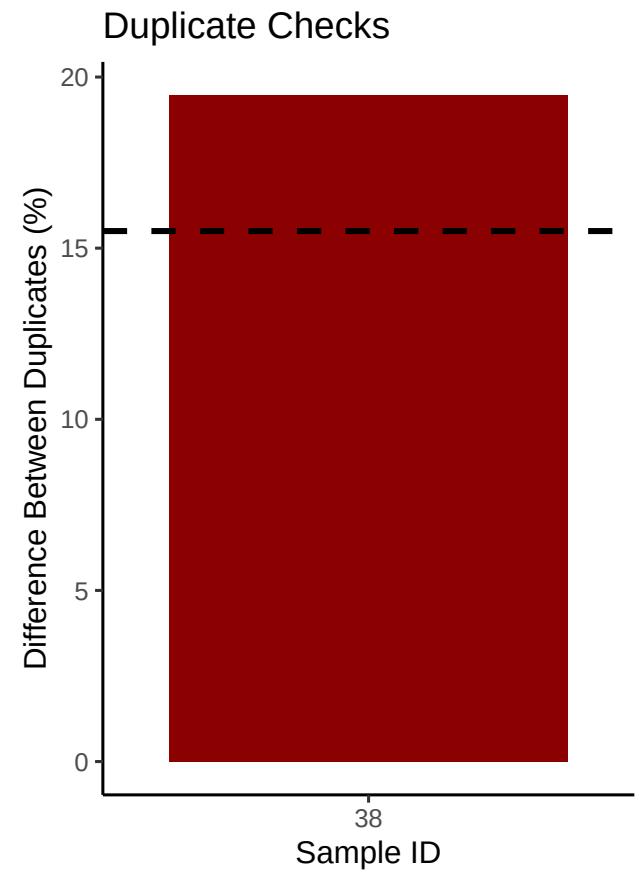

Sulfide Standard Curve
Abs
1.25
1.00
0.75
0.50
0.25
0
25
50
75
100
Conc

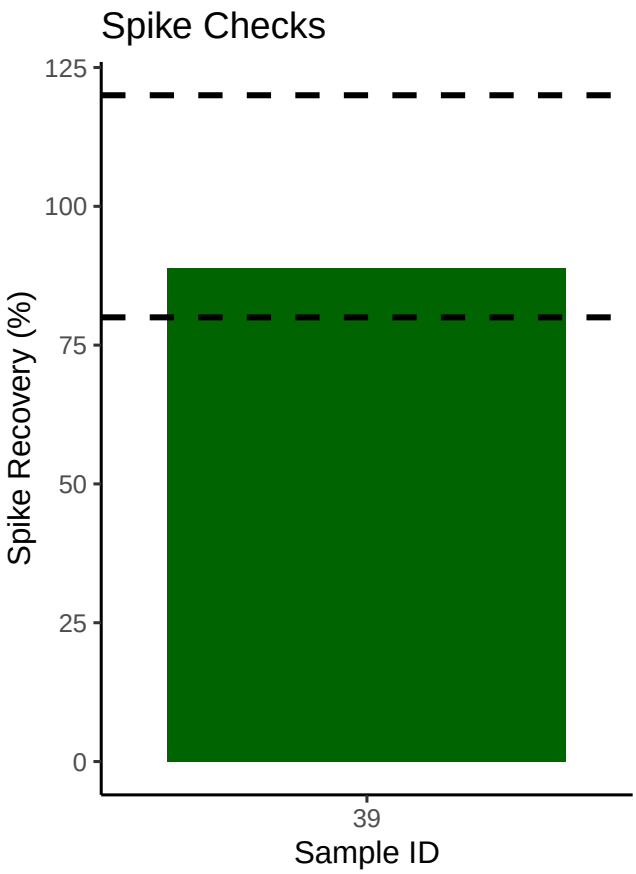

Sulfide Slopes
Slope
0.020
0.015
0.010
0.005
0.000
Date

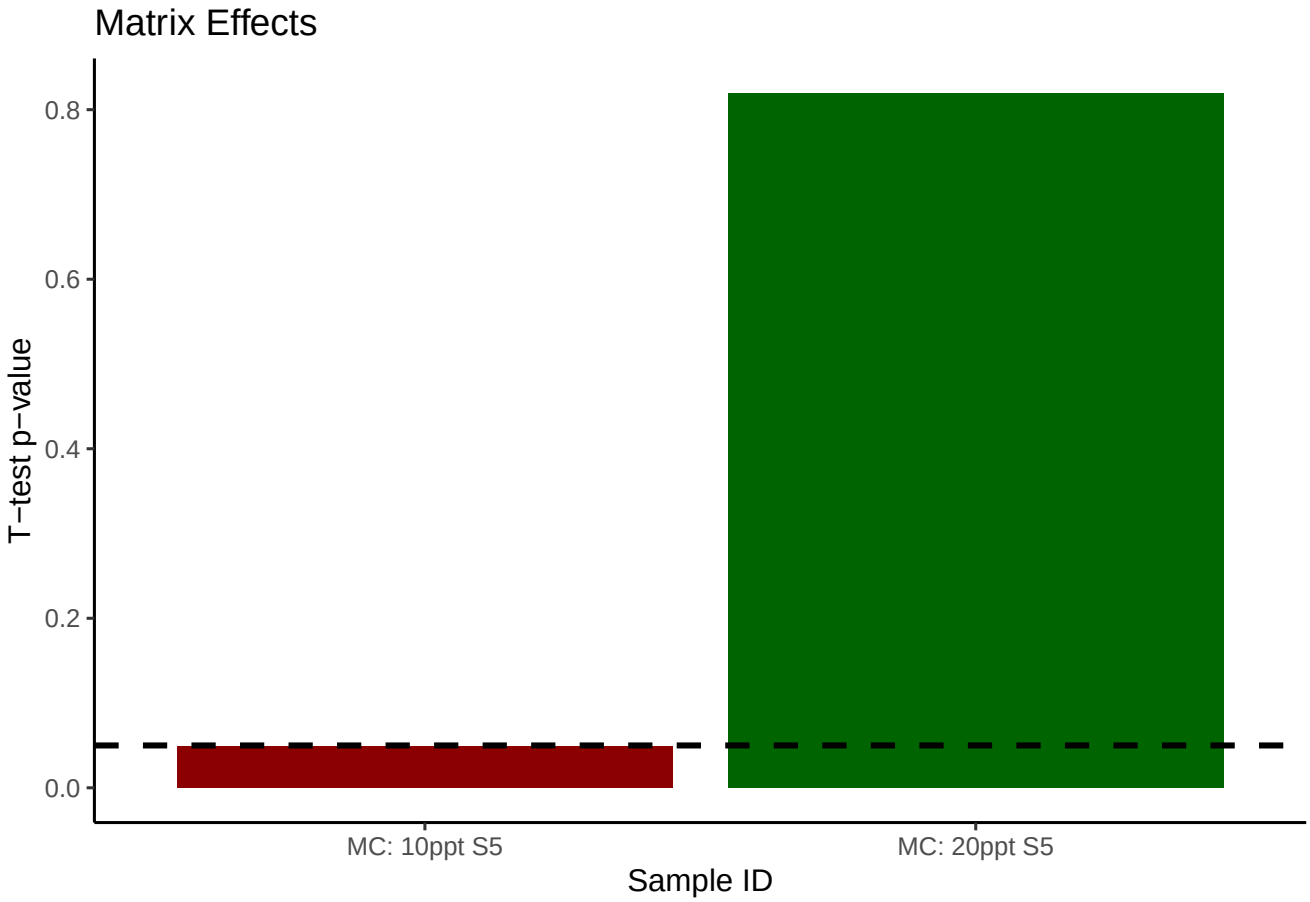

Sulfide Intercepts
Intercept
0.11
0.09
0.07
0.05
Date


Sample triplicate means and sd dev before bad reps removed
Sulfide (uM)
2000
1000
0
116
117
118
119
120
121
122
123
124
19
20
36
38
38 Dup
39
39 Spike
43
44
45
91
98
July_34
July_42
July_44
Sample ID
H2S_cv_flag
High CV
Within range


Sample triplicate means and sd dev after bad reps removed
Sulfide (uM)
2000
1000
0
116
117
118
119
120
121
122
123
124
19
20
36
38
38 Dup
39
39 Spike
43
44
45
91
98
July_34
July_42
July_44
Sample ID
H2S_cv_flag
High CV
Within range


Duplicate Checks
Difference Between Duplicates (%)
20
15
10
5
0
38
Sample ID


Spike Checks
Spike Recovery (%)
125
100
75
50
25
0
39
Sample ID


Matrix Effects
T−test p−value
0.8
0.6
0.4
0.2
0.0
MC: 10ppt S5
MC: 20ppt S5
Sample ID